

# TCFD WORKSHOP

## Session 5 – Metrics and Targets

February 2022

# TCFD Series of Workshops

## Session

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# Introduction

# Introduction to the Metrics and Targets Recommendation

In this session, we will drill down on the Metrics and Targets recommendation

## Core Elements of the TCFD Recommendations



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.

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

# Introduction to the Metrics and Targets Recommendation *(cont.)*

The Task Force's Metrics and Targets recommendation is supported by three recommended disclosures

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.

# Introduction to the Metrics and Targets Recommendation (cont.)

Various TCFD publications offer guidance on the Metrics and Targets recommendation

## Final Recommendations and Recommended Disclosures



Provides details on the following:

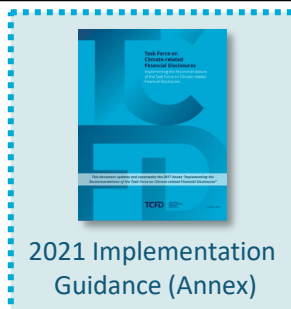
- Context and background on the need for climate-related financial disclosures
- The Task Force's remit from the Financial Stability Board
- TCFD general framework, including recommendations and recommended disclosures

### Legend:



Publication expanding on the Metrics and Targets recommendation

## Implementation Guidance



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



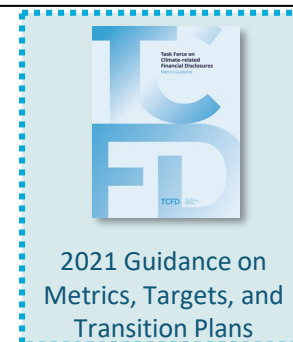
2017 Scenario Analysis Technical Supplement



2020 Guidance on Risk Management Integration and Disclosure



2020 Guidance on Scenario Analysis for Non-Financial Companies



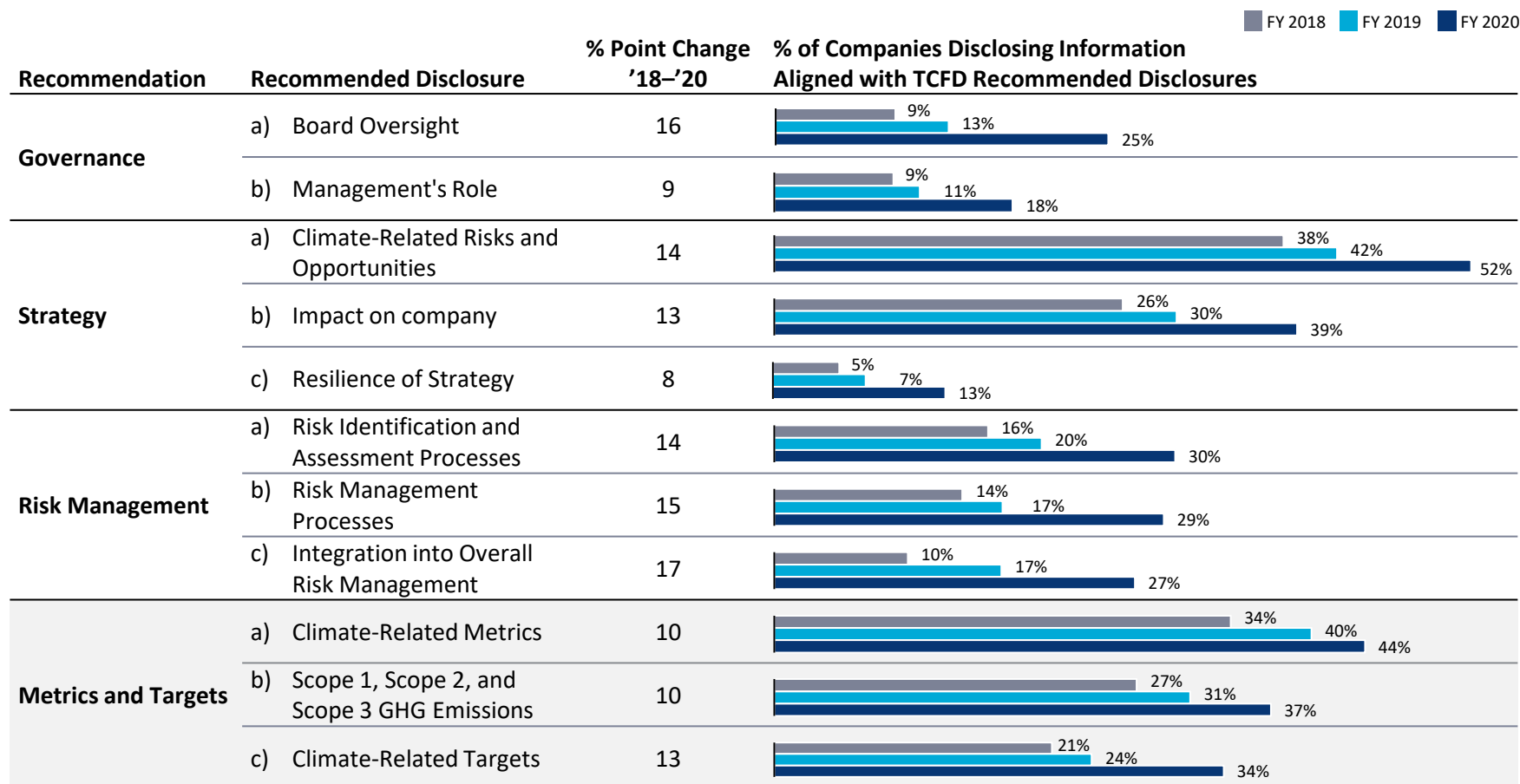
2021 Guidance on Metrics, Targets, and Transition Plans

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

# Disclosure Varies Across Recommendations

More than 30% of companies assessed in 2020 disclosed on each of the Metrics and Targets recommended disclosures, with climate-related targets having the lowest rate of disclosure at 34%

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



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 Metrics and Targets Recommendation

Disclosing information in line with the Metrics and Targets recommendation allows investors and other stakeholders to better assess the organization's potential risk-adjusted returns, general exposure to climate-related issues, and progress in managing or adapting to those issues.

## Providing Decision Useful Information to Investors and Other Users

Six of the top ten most “decision useful” types of information companies can disclose fall under the Metrics and Targets recommendation.<sup>1</sup>

Recommended Disclosure	Disclosure Element*	Rank
<i>Strategy b)</i>	How climate-related issues have affected business and strategy	1
<i>Metrics and Targets a)</i>	<b>Key metrics</b> on climate-related issues for <b>most recent period and historical periods</b>	2
<i>Strategy a)</i>	The material climate-related issues identified for each sector and geography	3
<i>Metrics and Targets b)</i>	<b>Scope 1 GHG emissions</b> for the most recent period and historical periods	4
<i>Metrics and Targets c)</i>	Climate-related <b>targets related to GHG emissions</b>	5
<i>Strategy a)</i>	The material climate-related issues identified	6
<i>Metrics and Targets b)</i>	<b>Scope 2 GHG emissions</b> for the most recent period and historical periods	7
<i>Metrics and Targets c)</i>	The <b>timeframes</b> over which climate-related <b>targets</b> apply	8
<i>Metrics and Targets c)</i>	<b>Key performance indicators</b> used to assess progress against <b>climate-related targets</b>	9
<i>Governance a)</i>	Board consideration of climate-related issues for major capital expenditures, acquisitions, and divestitures	10

\* These disclosure elements are segments of the guidance under each recommended disclosure. They do not encompass all of the information conveyed in each recommended disclosure.

1. These findings are based on a survey in which users were asked to rate the usefulness of specific disclosure elements associated with the 11 recommended disclosures when making financial decisions.  
Source: TCFD, [2020 Status Report](#), 2020

# Overview of the Metrics and Targets recommendation





# Structure of the Metrics and Targets Recommendation Overview Section

The overview of each of the three recommended disclosures under the Metrics and Targets recommendation will follow the structure provided below

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

Metrics and Targets	
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	
<b>Recommended disclosure a)</b> Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process	<b>Guidance for all sectors:</b>  Companies should provide the key metrics used to measure and manage climate-related risks and opportunities, as described in Tables A1.1 and A1.2 (pp. 67-68), as well as metrics consistent with the cross-industry, climate-related metric categories described in Table A2-1 (p. 71). Companies should consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable.  Where climate-related issues are material, companies should consider describing whether and how relevant performance metrics are incorporated into remuneration policies.  Where relevant, companies should provide their internal carbon prices as well as climate-related opportunity metrics such as revenue from products and services designed for a lower-carbon economy.  Metrics should be provided for historical periods to allow for trend analysis. Where appropriate, companies should consider providing forward-looking metrics consistent with the cross-industry, climate-related metric categories described in Table A2-1 (p. 71), consistent with their business or strategic planning time horizons. In addition, where not apparent, companies should provide a description of the methodologies used to calculate or estimate climate-related metrics.

## ii. Drilling down into specific elements of the recommended disclosure

Companies Should Consider Disclosing the Following, Where Relevant:	
	• <b>Types of measurements used</b> , including whether information comes from direct measurements, estimates, proxy indicators, or financial and management accounting processes.
	• <b>Methodologies and definitions used</b> , including the scope of application, data sources, critical factors or parameters, assumptions, and limitations of the methodology. For metrics informed by scenario analysis, organizations should include information on which climate scenarios were used and their assumptions and limitations. Organizations should also provide context if they adjust the methodology or definition of particular metrics.
	• <b>Trend data</b> to allow for consideration of how metrics have changed in absolute and relative amounts over time, including whether acquisitions, divestments, or policies have affected results.
	• <b>How results are connected</b> with business units, company strategy, and financial performance and position. Where it aids understanding, organizations should consider disaggregating information by categories such as geographic area, business unit, asset, type, upstream and downstream activities, source, and vulnerability of area.

## iii. Providing examples of reporting that align with the recommended disclosure

PORTFOLIO SEGMENTS WITH ELEVATED CLIMATE-RELATED RISK				
ZARM As at 31 December 2020	On Balance Sheet Loans and Advances at Amortised Cost <sup>a</sup>	Off Balance Sheet Loan Commitments <sup>b</sup>	Balance Sheet Exposure extended as % Loan & Advances plus Loan Commitments <sup>c</sup>	
Sectors with elevated transition risk				
Coal fired power generation <sup>a</sup>	1 830	901	2 731	0.17%
Coal mining (extractors) <sup>b</sup>	5 069	2 632	7 700	0.47%
Oil & Gas (Exploration and Production)	8 593	1 718	10 312	0.62%
Oil & Gas (Integrated)	3 211	9 075	12 286	0.74%
Oil & Gas (Midstream, Services)	2 722	5 843	8 566	0.52%
Oil & Gas (Trading & Retail)	13 977	7 961	21 938	1.33%
Sectors with elevated physical risk				
Agriculture <sup>a</sup>	77 625	36 527	114 151	6.91%

# Recommended Disclosure *Metrics and Targets a)*

The first recommended disclosure under the Metrics and Targets recommendation — *Metrics and Targets a)* — asks companies to disclose the metrics used by the company to assess climate-related risks and opportunities

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### All Sectors

#### Recommended disclosure a)

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

Companies should provide the **key metrics used to measure and manage climate-related risks and opportunities**, as described in Tables A1.1 and A1.2 of the [2021 Annex](#) (see Appendix), as well as **metrics consistent with the cross-industry, climate-related metric categories** described in Table A2.1 of the [2021 Annex](#) (see Appendix). Companies should consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable.

Where climate-related issues are **material**, companies should consider describing **whether and how related performance metrics are incorporated into remuneration policies**.

Where relevant, companies should provide their **internal carbon prices** as well as **climate-related opportunity metrics** such as revenue from products and services designed for a low-carbon economy.

Metrics should be provided for historical periods to allow for trend analysis. Where appropriate, companies should consider providing **forward-looking metrics for the cross-industry, climate-related metric categories** described in Table A2.1 of the [2021 Annex](#) (see Appendix), consistent with their business or strategic planning time horizons. In addition, where not apparent, companies should provide a **description of the methodologies used to calculate or estimate climate-related metrics**.

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

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

# Metrics and Targets a): Effective Disclosure

In its 2021 guidance, the Task Force highlighted several considerations for disclosing climate-related metrics

## Companies Should Consider Disclosing the Following, where Relevant:



- **Types of measurements used**, including whether information comes from direct measurements, estimates, proxy indicators, or financial and management accounting processes.



- **Methodologies and definitions used**, including the scope of application, data sources, critical factors or parameters, assumptions, and limitations of the methodology.



- **Trend data** to allow for consideration of how metrics have changed in absolute and relative amounts over time, including whether acquisitions, divestments, or policies have affected results.



- **How results are connected** with business units, company strategy, and financial performance and position. When relevant, companies should consider disaggregating information by categories such as geographic area, business unit, asset type, and upstream and downstream activities.



- **How value chains will be affected over time by climate-related transition and physical risks**, including life cycle GHG emissions reporting.



- **Reconciliation with financial accounting standards**, if needed. If climate-related metrics are presented in financial terms, disclosures should clarify how such metrics reconcile with financial accounting standards and explain any differences.

# Example of Disclosure for *Metrics and Targets a)*

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

## Example Disclosure: Standard Bank Group (Banks)

**TCFD alignment:** This example shows a metric Standard Bank Group reported to reflect the impact of climate-related risks in its credit portfolio. The bank's report notes the data represent an aggregation of sector exposures based on current data classification structures and expects that as the methodology for calculating climate-related indicators and metrics evolves, the bank's capacity to report more granular concentrations will improve.

### PORTFOLIO SEGMENTS WITH ELEVATED CLIMATE-RELATED RISK

ZARm As at 31 December 2020	On Balance Sheet Loans and Advances at Amortised Cost <sup>8</sup>	Off Balance Sheet Loan Commitments <sup>9</sup>	Total	Balance Sheet Exposure extended as % Loan & Advances plus Loan Commitments <sup>10</sup>
Sectors with elevated transition risk				
Coal fired power generation <sup>a</sup>	1 830	901	2 731	0.17%
Coal mining (extractors) <sup>b</sup>	5 069	2 632	7 700	0.47%
Oil & Gas (Exploration and Production)	8 593	1 718	10 312	0.62%
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Oil & Gas (Trading & Retail)	13 977	7 961	21 938	1.33%
Sectors with elevated physical risk				
Agriculture <sup>c</sup>	77 625	36 527	114 151	6.91%

[...]

<sup>a</sup> –power utilities that own and operate coal-fired power plants

<sup>b</sup> –counterparties that own and operate coal extractive assets only, excluding bulk commodity and diversified mining counterparties that may have coal extractive assets and excluding suppliers, contractors that operate in the coal extractive sector.

<sup>c</sup> –agriculture, forestry, commodity traders, food & beverages and related consumer sectors

[...]

<sup>8</sup> Includes all loans and advances, bonds and investment securities in the banking book, but excludes all trading book exposures, reverse repurchase agreements and equity investments in the banking book

<sup>9</sup> Includes all contractual unutilised limits of facilities and other commitments to extend credit pursuant to a customer agreement

<sup>10</sup> Total loans and advances and loan commitments at 31 December 2020 were R1 651 906 million.

Source: Standard Bank Group, *ESG Report 2020*, p. 72

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.

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# Metrics and Targets b)

Metrics and Targets b) asks companies to disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### All Sectors

#### Recommended disclosure b)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Companies should provide their **Scope 1 and Scope 2 GHG emissions independent of a materiality assessment**, and, if appropriate, Scope 3 GHG emissions and the related risks. All companies should **consider disclosing Scope 3 GHG emissions**.

GHG emissions should be **calculated in line with the GHG Protocol methodology** to allow for aggregation and comparability across companies and jurisdictions. As appropriate, companies should consider providing **related, generally accepted industry-specific GHG efficiency ratios**.

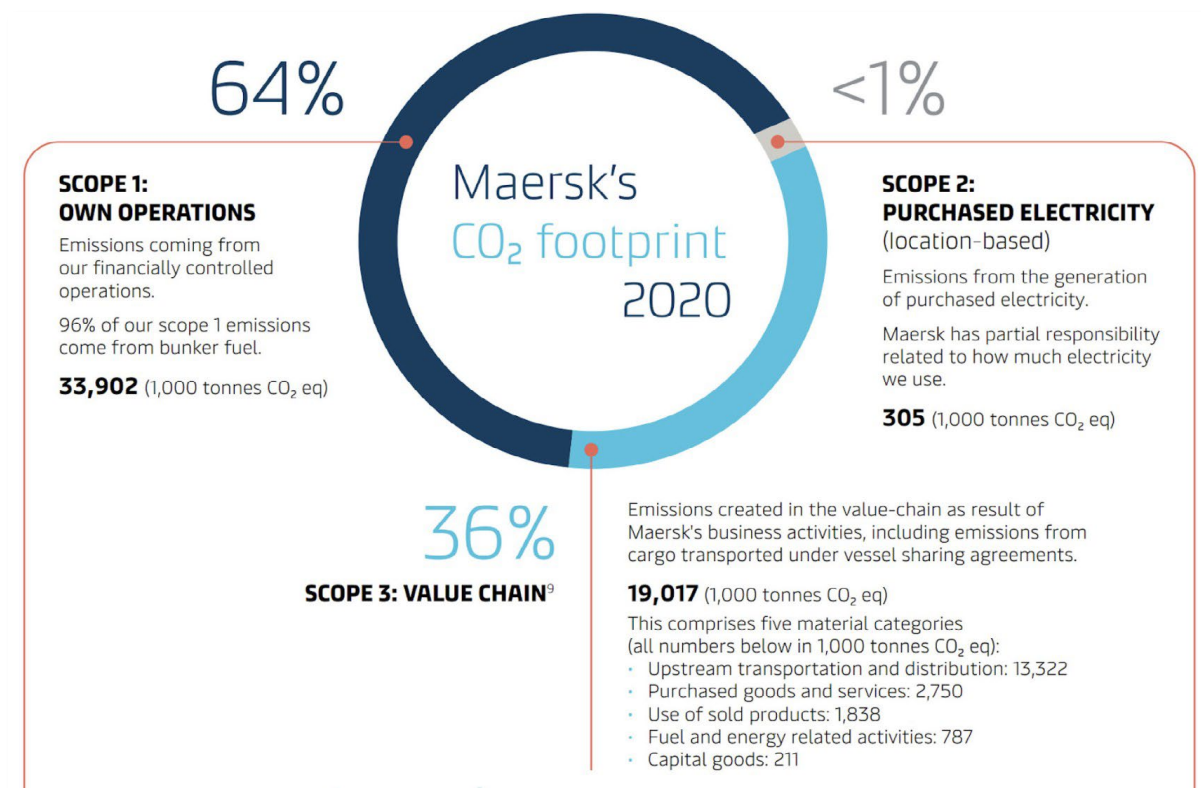
GHG emissions and associated metrics should be **provided for historical periods** to allow for trend analysis. In addition, where not apparent, companies should provide **a description of the methodologies used to calculate or estimate the metrics**.

# Example of Disclosure for *Metrics and Targets b)*

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

## Example Disclosure: Maersk (Transportation)

**TCFD alignment:** the following example describes Maersk's Scope 1, Scope 2, and Scope 3 greenhouse gas emissions, represented as carbon dioxide equivalents, as well as sources of primary emissions and estimates of material Scope 3 emissions categories.



Source: Maersk, 2020 Sustainability Report, 2020

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Metrics and Targets c)

Metrics and Targets c) asks companies to disclose the targets used by the company to manage climate-related risks and opportunities

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### All Sectors

#### Recommended disclosure c)

Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets

Companies should describe their **key climate-related targets** such as those related to GHG emissions, water usage, energy usage, etc., in line with **the cross-industry, climate-related metric categories** in Table A2.1 of the [2021 Annex](#) (see Appendix), where relevant, and in line with **anticipated regulatory requirements or market constraints or other goals**. Other goals may include efficiency or financial goals, financial loss tolerances, avoided GHG emissions through the entire product life cycle, or net revenue goals for products and services designed for a low-carbon economy.

In describing their targets, companies should consider including the following:

- whether the target is **absolute or intensity based**;
- **time frames** over which the target applies;
- **base year** from which progress is measured; and
- **key performance indicators** used to assess progress against targets.

Companies disclosing medium-term or long-term targets should also disclose **associated interim targets in aggregate or by business line**, where available.

Where not apparent, companies should provide a **description of the methodologies used to calculate targets and measures**.

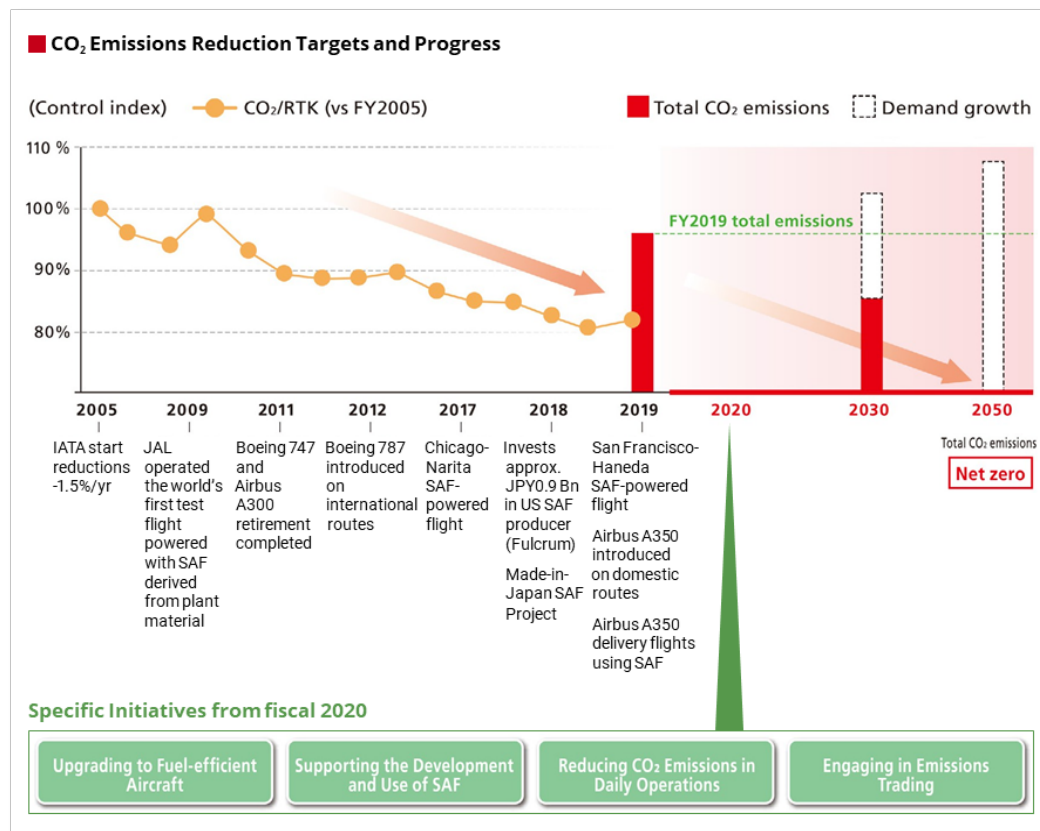
# Example of Disclosure for *Metrics and Targets c)*

Describe the targets used by the company to manage climate-related risks and opportunities and performance against targets

## Example Disclosure: Japan Airlines (JAL) Group (Transportation)

**TCFD alignment:** the following example describes Japan Airlines' CO<sub>2</sub> historical emissions and forward-looking reduction targets. The company's report noted these targets are planned to be achieved through the use of climate-related opportunities, such as upgrading to fuel-efficient aircraft, supporting the development and use of sustainable aviation fuel (SAF), reducing fuel consumption, as well as engaging in emission trading.

Japan Airlines' report also included interim targets and specific initiatives supporting these targets, as well as quantified expenditure deployed toward climate-related opportunities (investment in SAF).



Source: Japan Airlines (JAL) Group, 2020 Sustainability Report, p. 45

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Discussion questions

- **Does your company disclose climate-related metrics or targets?**
- **Which metric(s) does your company find the most useful to manage your risks?**

# Cross-industry, climate-related metric categories

# Characteristics of Effective Climate-Related Metrics

In its guidance issued in 2021, the Task Force identified a set of characteristics for climate-related metrics to meet the Task Force's fundamental principles for effective disclosure.

**Decision-Useful.** Relevant to the organization's risks and opportunities and show how the organization manages such risks and opportunities as part of its governance, strategy, and risk management processes.

**Clear and Understandable.** Presented in a manner that aids understanding. Provide context around such points as management's thinking in terms of goal setting, internal process management, and communication objectives. Supported by contextual and supporting narrative information on items such as organizational boundaries, governance, methodologies, and basis of preparation.

**Reliable, Verifiable, and Objective.** Free from bias and value judgment so that they yield an objective disclosure of performance that users can leverage regardless of their worldview or outlook

## Consistent Over Time.

- **Current** — Current period data, outlining most recent reporting period and covering the same period as the current period in the organization's financial filings
- **Historical Data** — for the period(s) prior to the current period, covering at a minimum the same period as in the organization's financial filings
- **Forward-Looking** — Future period data, covering short-, medium-, and long-term time horizons

# Cross-Industry, Climate-Related Metric Categories

The Task Force also identified climate-related metric categories that all companies should disclose, where data and methodologies allow

## Cross-Industry, Climate-Related Metric Categories and Examples

The Task Force defined metric *categories* rather than specific metrics, recognizing companies may define relevant metrics for their respective industries differently for a given category.

Metric Category	Description	Examples
<b>GHG Emissions<sup>1</sup></b>	Absolute Scope 1, Scope 2, and Scope 3; emissions intensity	<ul style="list-style-type: none"><li>• Absolute Scope 1, Scope 2, and Scope 3 GHG emissions</li><li>• Financed emissions by asset class</li><li>• Weighted average carbon intensity</li><li>• GHG emissions per MWh of electricity produced</li><li>• Gross global Scope 1 GHG emissions covered under emissions-limiting regulations</li></ul>
<b>Transition Risks</b>	Amount and extent of assets or business activities vulnerable to transition risks	<ul style="list-style-type: none"><li>• Volume of real estate collaterals highly exposed to transition risk</li><li>• Concentration of credit exposure to carbon-related assets</li><li>• Percent of revenue from coal mining</li><li>• Percent of revenue passenger kilometers not covered by Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)</li></ul>
<b>Physical Risks</b>	Amount and extent of assets or business activities vulnerable to physical risks	<ul style="list-style-type: none"><li>• Number and value of mortgage loans in 100-year flood zones</li><li>• Wastewater treatment capacity located in 100-year flood zones</li><li>• Revenue associated with water withdrawn and consumed in regions of high or extremely high baseline water stress</li><li>• Proportion of property, infrastructure, or other alternative asset portfolios in an area subject to flooding, heat stress, or water stress</li><li>• Proportion of real assets exposed to 1:100 or 1:200 climate-related hazards</li></ul>

1. The Task Force believes all companies 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 a materiality assessment; however, the Task Force encourages companies to disclose such emissions.  
Source: TCFD, [Guidance on Metrics, Targets, and Transition Plans](#), 2021

# Cross-Industry, Climate-Related Metric Categories *(continued)*

The Task Force also identified climate-related metric categories that all companies should disclose, where data and methodologies allow

## Cross-Industry, Climate-Related Metric Categories and Examples

Metric Category	Description	Examples
<b>Climate-Related Opportunities</b>	Proportion of revenue, assets, or other business activities aligned with climate-related opportunities	<ul style="list-style-type: none"> <li>• Net premiums written related to energy efficiency and low-carbon technology</li> <li>• Number of (1) zero-emissions vehicles (ZEV), (2) hybrid vehicles, and (3) plug-in hybrid vehicles sold</li> <li>• Revenues from products or services that support the transition to a low-carbon economy</li> <li>• Proportion of homes delivered certified to a third-party, multiattribute green building standard</li> </ul>
<b>Capital Deployment</b>	Amount of capital expenditure, financing, or investment deployed toward climate-related risks and opportunities	<ul style="list-style-type: none"> <li>• Percentage of annual revenue invested in R&amp;D of low-carbon products/services</li> <li>• Investment in climate adaptation measures (e.g., soil health, irrigation, technology)</li> </ul>
<b>Internal Carbon Prices</b>	Price on each ton of GHG emissions used internally by a company	<ul style="list-style-type: none"> <li>• Internal carbon price</li> <li>• Shadow carbon price, by geography</li> </ul>
<b>Remuneration</b>	Proportion of executive management remuneration linked to climate considerations	<ul style="list-style-type: none"> <li>• Portion of employee's annual discretionary bonus linked to investments in climate-related products</li> <li>• Weighting of climate goals on long-term incentive</li> <li>• Scorecards for Executive Directors</li> <li>• Weighting of performance against operational emissions' targets for remuneration scorecard</li> </ul>

Note: More disclosure examples can be found in the Appendix.  
Source: TCFD, [Guidance on Metrics, Targets, and Transition Plans](#), 2021

# Climate-related targets



# Climate-Related Targets

The 2021 guidance provides an overview of the types of information the Task Force believes are useful to include when disclosing climate-related targets

## Disclosing Climate-Related Targets

A climate-related target refers to a **specific level, threshold, quantity, or qualitative goal** that the organization wishes to meet **over a defined time horizon** in order to address its climate-related risks and opportunities.

A company's climate-related targets should inform, and be informed by, its strategy and risk management and be linked to its climate-related metrics.

Effective disclosure of climate-related targets includes grounding disclosures in narrative or qualitative information to help users understand their context.

- Companies should describe the **qualitative information** that encompasses climate-related targets and reflects longer-term changes to an organization's business or expected strategic direction.
- Companies should also consider disclosing in formats that would lead to better **standardization and comparability**.

## Characteristics of Effective Climate-Related Targets

**Aligned with Strategy and Risk Management Goals**

**Linked to Relevant Metrics**

**Quantified and Measurable**

**Clearly Specified over Time**

- Baseline
- Time horizon
- Interim targets

**Understandable and Contextualized**

**Periodically Reviewed and Updated**

**Reported Annually**

# Examples of Quantified Climate-Related Targets

The guidance also provides examples of quantified targets that align with the cross-industry, climate-related metric categories

Cross-Industry Metric Category	Climate-Related Target Examples
<b>GHG Emissions</b> <a href="#">See next page</a>	<ul style="list-style-type: none"> <li>Reduce net Scope 1, Scope 2, and Scope 3 GHG emissions to zero by 2050, with an interim target to cut emissions by 70% relative to a 2015 baseline by 2035</li> </ul>
<b>Transition Risks</b>	<ul style="list-style-type: none"> <li>Reduce percentage of asset value exposed to transition risks by 30% by 2030, relative to a 2019 baseline</li> </ul>
<b>Physical Risks</b>	<ul style="list-style-type: none"> <li>Reduce percentage of asset value exposed to acute and chronic physical climate-related risks by 50% by 2050</li> <li>Ensure at least 60% of flood-exposed assets have risk mitigation in place in line with the 2060 projected 100-year floodplain</li> </ul>
<b>Climate-Related Opportunities</b>	<ul style="list-style-type: none"> <li>Increase net installed renewable capacity so that it comprises 85% of total capacity by 2035</li> </ul>
<b>Capital Deployment</b>	<ul style="list-style-type: none"> <li>Invest at least 25% of annual capital expenditure into electric vehicle manufacturing</li> <li>Lend at least 10% of portfolio to projects focused primarily on physical climate-related risk mitigation</li> </ul>
<b>Internal Carbon Pricing</b>	<ul style="list-style-type: none"> <li>Increase internal carbon price to \$150 by 2030 to reflect potential changes in policy</li> </ul>
<b>Remuneration</b>	<ul style="list-style-type: none"> <li>Increase amount of executive management remuneration impacted by climate considerations to 10% by 2025</li> </ul>

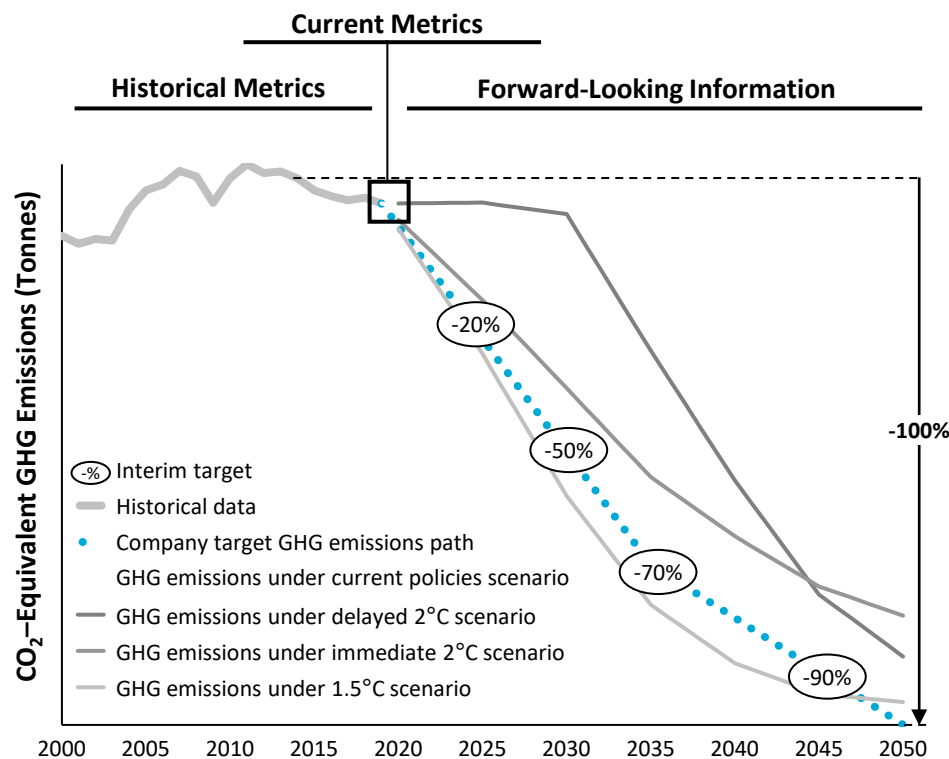
# Illustrative Disclosure Example: GHG Emissions Reduction Targets

## Example Disclosure

Climate-related targets should be linked to defined metrics in order to measure and track progress against targets and assist with periodic reviews to determine whether updates to the targets may be necessary.

The figure on the right shows the relationship between GHG emissions and targets for a hypothetical firm. The illustrative GHG emissions pathways were adapted from Network for Greening the Financial System (NGFS) scenario data.

Our firm commits to reducing net Scope 1 and 2 GHG emissions—as defined by the GHG Protocol—to zero by 2050, with an interim target to cut Scope 1 and 2 GHG emissions by 2030 by 50%, relative to a 2015 baseline.



Source: TCFD, Guidance on Metrics, Targets, and Transition Plans, 2021

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# Illustrative Disclosure Example: GHG Emissions Reduction Targets *(continued)*

## Example Disclosure

The template on the right provides a possible approach for disclosing corporate GHG emissions reduction targets along with the associated methodology used. It also provides flexibility in terms of the type of target and the Scope(s) covered.

The example included here is for a fictional company. It shows how one of the company's targets as indicated by the entry for Target number—1 (of 4), could be reported and provides additional comments in the last column.

GHG emissions reduction target disclosure template				
<b>Target ID</b>				
Overall number of active GHG emissions targets:	4			Include interim targets in the count.
Target number:	1 (of 4)			
Target type:	Absolute (interim target)			Indicate whether this is an interim target (e.g. a short-term milestone between the organisation's mid- or long-term target and current period).
Date the target was set:	08/02/2019	Date that the target was last revised:		14/01/2021
<b>Target Information</b>				
Scope(s) covered	Scope 1 & 2 (market-based) + 3 (cat 11: use of sold product)			For scope 2 emissions, indicate if calculations are location- or market-based. For scope 3 emissions, indicate the GHG protocol categories that are covered.
Percentage of in-scope emissions covered by the target:	99%			
Base year:	2015	Base year emissions:	75 000 tCO <sub>2</sub> e	For intensity targets, provide activity measure (e.g. tCO <sub>2</sub> e/Mwh or tCO <sub>2</sub> e/tonne of cementitious product).
Target year:	2030	Target year projected emissions:	30 000 tCO <sub>2</sub> e	
Targeted reduction from base year (%)	60%			
Targeted reduction from current year (%)	50%	Current emissions:	60 000 tCO <sub>2</sub> e (2020)	Please indicate the most current year for which emissions data is available.
<b>Target Methodology</b>				
Verified by an independent third party.	Yes. SBTi			Please indicate the name of the independent third party that verified the target.
Source that describes how the percentage of in-scope emissions covered by the target has been calculated.	Sustainability Report 2020 (p.8, p.12)			Please indicate the title(s) of publicly available documents and relevant page numbers where information can be found.
Source that describes transition plan outlining how this target will be met.	Roadmap to Net-zero 2050 (p.1 -10)			Please indicate the title(s) of publicly available documents and relevant page numbers where information can be found.
For Scope 3 targets, source that describes the methodology used to calculate the Scope 3 emissions covered by the target.	GHG Emissions Methodology (p.15-16)			
Indicate the % of the target to be achieved through offsets and provide a source that specifies their type and the offset provider.	20% will be achieved through CCS. Roadmap to Net-zero 2050 (p. 8)			
For intensity targets, source that describes the methodology used to calculate the carbon intensity.	Sustainability Report 2020 (p.89)			

Source: Kooroshy, et al., *Towards investor-oriented carbon targets data*, October 2021, p. 10. Developed by FTSE Russell, part of LSEG.

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Discussion question

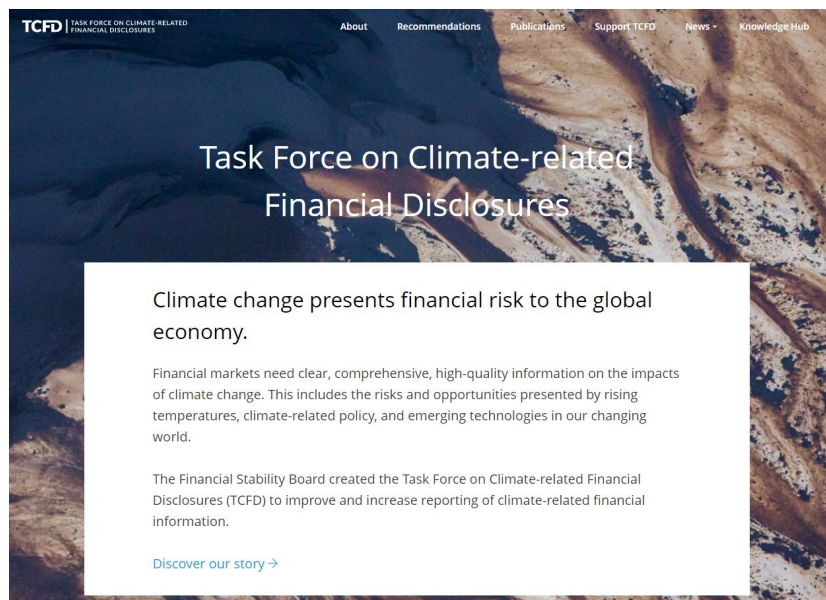
- **Does your company currently set or plan to set climate-related targets? If so, which ones?**

# Additional Resources

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

## TCFD Website

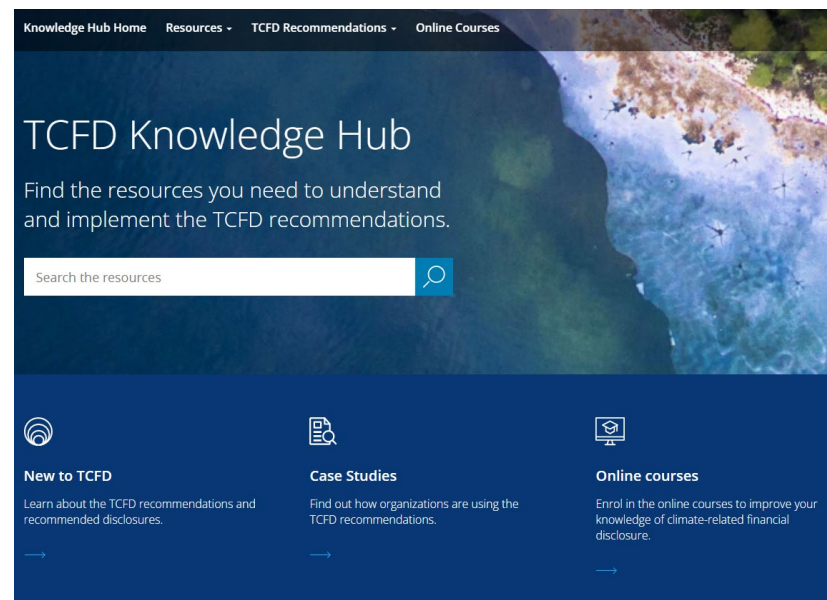
- Find all the information you need about the TCFD on its official website, including the recommendations and all other publications.



<https://www.fsb-tcfd.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.tcfdhub.org/>

# Q&A

# Appendix



# Examples of climate-related risks and opportunities, and potential financial impacts

# Examples of Climate-Related Risks and Potential Financial Impacts

Table A1.1

Type	Climate-Related Risks	Potential Financial Impacts
Transition Risks	Policy and Legal	
	<ul style="list-style-type: none"> <li>Increased pricing of GHG emissions</li> <li>Enhanced emissions-reporting obligations</li> <li>Mandates on and regulation of existing products and services</li> <li>Exposure to litigation</li> </ul>	<ul style="list-style-type: none"> <li>Increased operating costs (e.g., higher compliance costs, increased insurance premiums)</li> <li>Write-offs, asset impairment, and early retirement of existing assets due to policy changes</li> <li>Increased costs and/or reduced demand for products and services resulting from fines and judgments</li> </ul>
	Technology	
	<ul style="list-style-type: none"> <li>Substitution of existing products and services with lower emissions options</li> <li>Unsuccessful investment in new technologies</li> <li>Costs to transition to lower emissions technology</li> </ul>	<ul style="list-style-type: none"> <li>Write-offs and early retirement of existing assets</li> <li>Reduced demand for products and services</li> <li>Research and development (R&amp;D) expenditures in new and alternative technologies</li> <li>Capital investments in technology development</li> <li>Costs to adopt/deploy new practices and processes</li> </ul>
	Market	
	<ul style="list-style-type: none"> <li>Changing customer behavior</li> <li>Uncertainty in market signals</li> <li>Increased cost of raw materials</li> </ul>	<ul style="list-style-type: none"> <li>Reduced demand for goods and services due to shift in consumer preferences</li> <li>Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment)</li> <li>Abrupt and unexpected shifts in energy costs</li> <li>Change in revenue mix and sources, resulting in decreased revenues</li> <li>Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations)</li> </ul>
	Reputation	
	<ul style="list-style-type: none"> <li>Shifts in consumer preferences</li> <li>Stigmatization of sector</li> <li>Increased stakeholder concern or negative stakeholder feedback</li> </ul>	<ul style="list-style-type: none"> <li>Reduced revenue from decreased demand for goods/services</li> <li>Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)</li> <li>Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention)</li> <li>Reduction in capital availability</li> </ul>

Type	Climate-Related Risks <sup>1</sup>	Potential Financial Impacts
Physical Risks	Acute	<ul style="list-style-type: none"> <li>Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)</li> <li>Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism)</li> <li>Write-offs and early retirement of existing assets (e.g., damage to property and assets in "high-risk" locations)</li> </ul>
	Chronic	<ul style="list-style-type: none"> <li>Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)</li> <li>Increased capital costs (e.g., damage to facilities)</li> <li>Reduced revenues from lower sales/output</li> <li>Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations</li> </ul>
Physical Risks	<ul style="list-style-type: none"> <li>Increased severity of extreme weather events such as cyclones and floods</li> </ul>	
	<ul style="list-style-type: none"> <li>Changes in precipitation patterns and extreme variability in weather patterns</li> <li>Rising mean temperatures</li> <li>Rising sea levels</li> </ul>	

Source: TCFD, Annex: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, 2021

# Examples of Climate-Related Opportunities and Potential Financial Impacts

Table A1.2

Type	Climate-Related Opportunities	Potential Financial Impacts
Resource Efficiency	<ul style="list-style-type: none"> <li>– Use of more efficient modes of transport</li> <li>– Use of more efficient production and distribution processes</li> <li>– Use of recycling</li> <li>– Move to more efficient buildings</li> <li>– Reduced water usage and consumption</li> </ul>	<ul style="list-style-type: none"> <li>– Reduced operating costs (e.g., through efficiency gains and cost reductions)</li> <li>– Increased production capacity, resulting in increased revenues</li> <li>– Increased value of fixed assets (e.g., highly rated energy-efficient buildings)</li> <li>– Benefits to workforce management and planning (e.g., improved health and safety, employee satisfaction) resulting in lower costs</li> </ul>
Energy Source	<ul style="list-style-type: none"> <li>– Use of lower-emission sources of energy</li> <li>– Use of supportive policy incentives</li> <li>– Use of new technologies</li> <li>– Participation in carbon market</li> <li>– Shift toward decentralized energy generation</li> </ul>	<ul style="list-style-type: none"> <li>– Reduced operational costs (e.g., through use of lowest cost abatement)</li> <li>– Reduced exposure to future fossil fuel price increases</li> <li>– Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon</li> <li>– Returns on investment in low-emission technology</li> <li>– Increased capital availability (e.g., as more investors favor lower-emissions producers)</li> <li>– Reputational benefits resulting in increased demand for goods/services</li> </ul>
Products and Services	<ul style="list-style-type: none"> <li>– Development and/or expansion of low emission goods and services</li> <li>– Development of climate adaptation and insurance risk solutions</li> <li>– Development of new products or services through R&amp;D and innovation</li> <li>– Ability to diversify business activities</li> <li>– Shift in consumer preferences</li> </ul>	<ul style="list-style-type: none"> <li>– Increased revenue through demand for lower emissions products and services</li> <li>– Increased revenue through new solutions to adaptation needs (e.g., insurance risk transfer products and services)</li> <li>– Better competitive position to reflect shifting consumer preferences, resulting in increased revenues</li> </ul>

Type	Climate-Related Opportunities	Potential Financial Impacts
Markets	<ul style="list-style-type: none"> <li>– Access to new markets</li> <li>– Use of public-sector incentives</li> <li>– Access to new assets and locations needing insurance coverage</li> </ul>	<ul style="list-style-type: none"> <li>– Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)</li> <li>– Increased diversification of financial assets (e.g., green bonds and infrastructure)</li> </ul>
Resilience	<ul style="list-style-type: none"> <li>– Participation in renewable energy programs and adoption of energy-efficiency measures</li> <li>– Resource substitutes/diversification</li> </ul>	<ul style="list-style-type: none"> <li>– Increased market valuation through resilience planning (e.g., infrastructure, land, buildings)</li> <li>– Increased reliability of supply chain and ability to operate under various conditions</li> <li>– Increased revenue through new products and services related to ensuring resiliency</li> </ul>

# Drill-down on cross industry, climate-related metric categories

# Cross-Industry Climate-Related Metric Categories

Table A2.1

Metric Category	Example Unit of Measure <sup>1</sup>	Rationale for Inclusion
<b>GHG Emissions</b> Absolute Scope 1, Scope 2, and Scope 3; emissions intensity	MT of CO <sub>2</sub> e	Disclosure of GHG emissions is crucial for users to understand a company's exposure to climate-related risks and opportunities. Disclosure of both absolute emissions across a company's value chain and relevant emissions intensity provides insight into how a given company may be affected by policy, regulatory, market, and technology responses to limit climate change.
<b>Transition Risks</b> Amount and extent of assets or business activities vulnerable to transition risks*	Amount or percentage	Disclosure of the amount and extent of a company's assets or business activities vulnerable to climate-related transition risks allows users to better understand potential financial exposure regarding such issues as possible impairment or stranding of assets, effects on the value of assets and liabilities, and changes in demand for products or services.
<b>Physical Risks</b> Amount and extent of assets or business activities vulnerable to physical risks*	Amount or percentage	Disclosure of the amount or extent of a company's assets or business activities vulnerable to material climate-related physical risks allows users to better understand potential financial exposure regarding such issues as impairment or stranding of assets, effects on the value of assets and liabilities, and cost of business interruptions.
<b>Climate-Related Opportunities</b> Proportion of revenue, assets, or other business activities aligned with climate-related opportunities	Amount or percentage	Disclosure of the proportion of revenue, assets, or business activities aligned with climate-related opportunities provides insight into the position of company's relative to their peers and allows users to understand likely transition pathways and potential changes in revenue and profitability over time.
<b>Capital Deployment</b> Amount of capital expenditure, financing, or investment deployed toward climate-related risks and opportunities	Reporting currency	Capital investment disclosure by non-financial companies and financing by financial companies gives an indication of the extent to which long-term enterprise value might be affected.

1. The Task Force has noted the most common unit of measure. There are multiple ways to measure and disclose metrics, and different jurisdictions or industries may follow different practices. Allowing for differences in units of measure can help provide companies with flexibility without significantly impacting comparability as long as units are clearly stated.

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

# Cross-Industry Climate-Related Metric Categories *(continued)*

Table A2.1

Metric Category	Example Unit of Measure <sup>1</sup>	Rationale for Inclusion
<b>Internal Carbon Prices</b> Price on each ton of GHG emissions used internally by an company	Price in reporting currency, per MT of CO <sub>2</sub> e	Internal carbon prices provide users with an understanding of the reasonableness of a company's risk and opportunity assessment and strategy resilience. The disclosure of internal carbon prices can help users identify which companies have business models that are vulnerable to future policy responses to climate change and which are adapting their business models to ensure resilience to transition risks.
<b>Remuneration</b> Proportion of executive Management remuneration linked to climate considerations**	Percentage, weighting, description, or amount in reporting currency	Remuneration policies are important incentives for achieving an company's goals and objectives and may provide insight on an company's governance, oversight, and accountability for managing climate-related issues.

Note: While some companies already disclose metrics consistent with these categories, the Task Force recognizes others—especially those in the early stages of disclosing climate-related financial information—may need time to adjust internal processes before disclosing such information. In addition, some of the metric categories may be less applicable to certain companies. For example, data and methodologies for certain metrics for asset owners (e.g., impact of climate change on investment income) are in early stages of development. In such cases, the Task Force recognizes companies will need time before such metrics are disclosed to their stakeholders.

On the application of materiality, the Task Force believes all companies 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 companies to disclose such emissions. The other cross-industry, climate-related metric categories remain subject to materiality. Companies should determine materiality for climate-related metrics consistent with how they determine the materiality of other information included in their financial filings.

**\*Transition and Physical Risks:** Due to challenges related to portfolio aggregation and sourcing data from companies or third-party fund managers, financial companies may find it more difficult to quantify exposure to climate-related risks. The Task Force suggests that financial companies provide qualitative and quantitative information, when available.

**\*\*Remuneration:** While the Task Force encourages quantitative disclosure, Companies may include descriptive language on remuneration policies and practices, such as how climate change issues are included in balanced scorecards for executive remuneration.

1. The Task Force has noted the most common unit of measure. There are multiple ways to measure and disclose metrics, and different jurisdictions or industries may follow different practices. Allowing for differences in units of measure can help provide companies with flexibility without significantly impacting comparability as long as units are clearly stated.

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

# Example of Disclosure for GHG Emissions

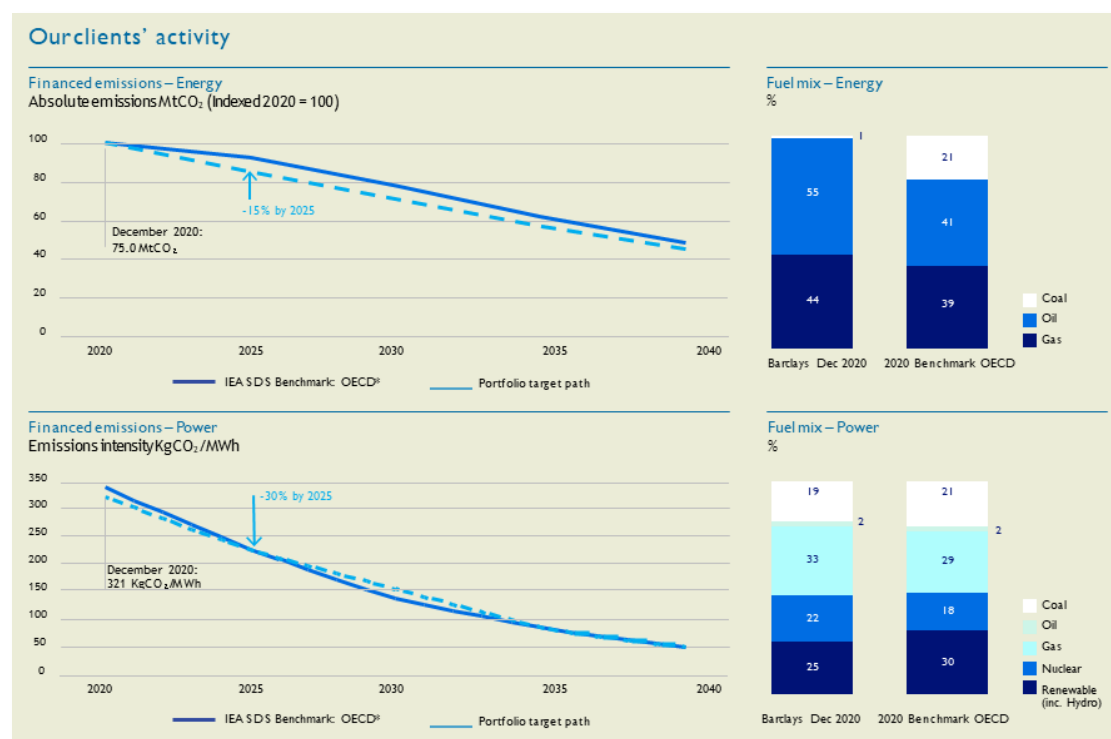
Absolute Scope 1, Scope 2, and Scope 3; emissions intensity

## Key Takeaways from Guidance

- Disclosure of GHG emissions is useful for understanding a company's exposure to climate-related risks **as absolute emissions across a company's value chain and relevant emissions intensity** may provide insight into how a company may be affected by policy, regulatory, market, and technology responses to limit climate change.
- Companies may find it useful to further disclose GHG emissions by:
  - Relevant business line
  - GHG emissions split out by the seven gases covered by the Kyoto Protocol
  - Emissions intensity
- Disclosing **cumulative GHG emissions over time relative to the baseline year** used for a company's GHG emissions reduction target can also help users better understand a company's exposure to climate-related issues

## Example Disclosure: Barclays

Bank's disclosure of forward-looking estimates for absolute and intensity-based financed GHG emissions



Source: Barclays PLC, ESG Report 2020, p. 16

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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**TCFD**

TASK FORCE ON  
CLIMATE-RELATED  
FINANCIAL  
DISCLOSURES

# Example of Disclosure for Transition Risks

Amount and extent of assets or business activities vulnerable to transition risks

## Key Takeaways from Guidance

- Disclosure of the amount and extent of a company's assets or business activities vulnerable to climate-related transition risks allows users to better understand potential financial exposure regarding such issues as possible impairment or stranding of assets, effects on the value of assets and liabilities, and changes in demand for products or services.
- The way in which companies disclose this metric category will depend on their industry and company-specific climate-related risks, e.g.,:
  - Banks** may look at the proportion of their lending activities or portfolios materially exposed to carbon-related assets
  - Non-financial companies** may choose to report amount or percentage of operating earnings, revenues, or production output coming from high-carbon business lines

## Example Disclosure: Citi

Bank's disclosure of transition risk exposure for various business sectors and sub-sectors (e.g., Energy, Power, Transportation, Industrials, Real Estate, etc.).

### CLIMATE RISK HEAT MAP AND CREDIT EXPOSURE

	2018	2019	2020				Climate Risk	
			as of September 30, 2020					
\$ in Millions	Total \$ Amount	Total \$ Amount	Total \$ Amount	% of Total Exposure	Funded	% of Funded Exposure	Transition Risk	Physical Risk
Energy & Commodities¹	49,698	53,317	51,035	6.6%	16,244	4.7%		
Integrated Oil & Gas	13,513	12,883	13,886	1.8%	3,797	1.1%	High	Moderate
Oil & Gas Exploration & Production	12,803	15,682	14,228	1.8%	4,950	1.4%	High	Moderate
Oil & Gas Storage & Transportation	7,005	6,967	7,273	0.9%	1,856	0.5%	High	Moderate
Oil & Gas Refining & Marketing	9,255	9,611	7,409	1.0%	2,988	0.9%	High	Moderate
Oil & Gas Equipment, Services, and Drilling	4,361	5,562	5,285	0.7%	1,156	0.3%	High	Low
Other	2,762	2,611	2,954	0.4%	1,498	0.4%	High	Moderate
Power	27,200	34,349	28,408	3.7%	6,665	1.9%		
Alternative Energy	1,595	2,052	2,621	0.3%	1,065	0.3%	Low	Moderate
Electric Utilities	7,655	13,056	6,744	0.9%	2,521	0.7%	High	Moderate
Gas Utilities	1,745	1,667	1,554	0.2%	704	0.2%	High	Moderate
Independent Power Producers & Service Operators	2,872	2,679	3,446	0.4%	609	0.2%	High	Moderate
Multi-Utilities	11,265	12,942	11,767	1.5%	1,352	0.4%	High	Moderate
Other	2,068	1,952	2,275	0.3%	414	0.1%	Low	Moderate

Source: Citi, Finance for a Climate-Resilient Future II, 2020, p. 49.

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Example of Disclosure for Physical Risks

Amount and extent of assets or business activities vulnerable to physical risks

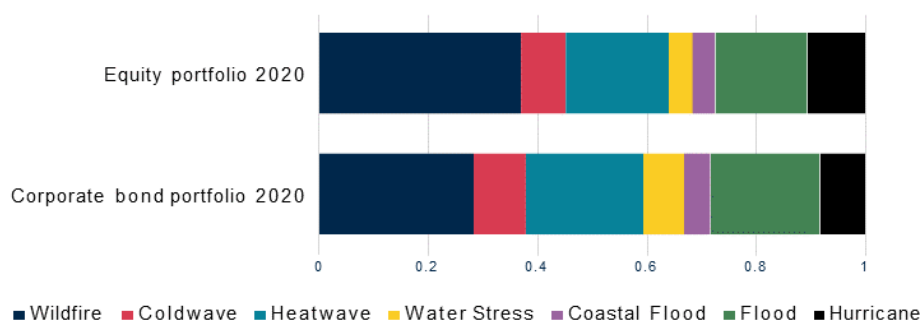
## Key Takeaways from Guidance

- Disclosure of the amount or extent of a company's assets or business activities vulnerable to material climate-related physical risks allows users to better understand potential financial exposure regarding such issues as impairment or stranding of assets, effects on the value of assets and liabilities, and cost of business interruptions.
- Physical risks will be specific to the geography where the assets or activities are located and their likely exposure or vulnerability to the risk:
  - Certain assets may be most vulnerable to **acute risks** from hurricanes or wildfires
  - Others may be more at **risk from chronic changes** in average temperature, sea-level rise, or drought
- Companies that are not yet able to disclose physical risk vulnerability could begin by describing the types of tools they are using to assess such risks

## Example Disclosure: Ilmarinen

Insurance company's disclosure of the proportional exposure to physical risk by business activity/asset category

Proportional shares of physical risk



Source: Ilmarinen, Annual and Sustainability Report 2020, p. 50

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Example of Disclosure for Physical Risks *(continued)*

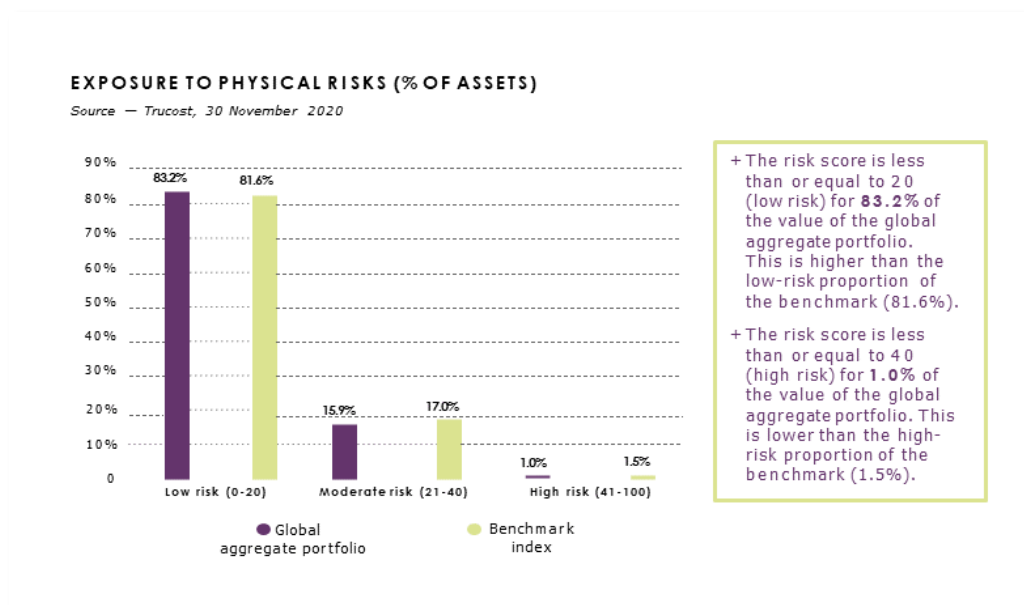
Amount and extent of assets or business activities vulnerable to physical risks

## Key Takeaways from Guidance

- Disclosure of the amount or extent of a company's assets or business activities vulnerable to material climate-related physical risks allows users to better understand potential financial exposure regarding such issues as impairment or stranding of assets, effects on the value of assets and liabilities, and cost of business interruptions.
- Physical risks will be specific to the geography where the assets or activities are located and their likely exposure or vulnerability to the risk:
  - Certain assets may be most vulnerable to **acute risks** from hurricanes or wildfires
  - Others may be more at **risk from chronic changes** in average temperature, sea-level rise, or drought
- Companies that are not yet able to disclose physical risk vulnerability could begin by describing the types of tools they are using to assess such risks

## Example Disclosure: ERAFP

Asset owner's disclosure of exposure to physical risk for aggregate assets based on a severity characterization



Source: ERAFP, Public Report 2020, p. 89

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Example of Disclosure for Climate-Related Opportunities

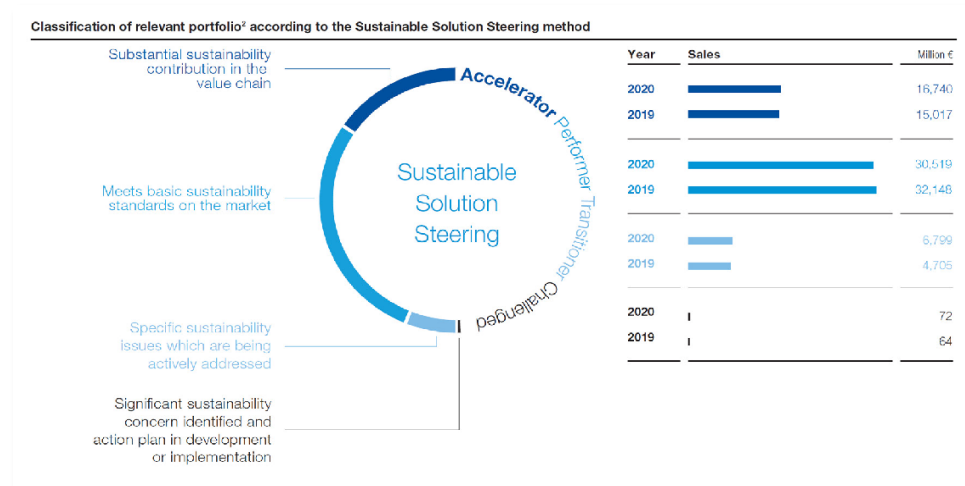
Proportion of revenue, assets, or other business activities aligned with climate-related opportunities

## Key Takeaways from Guidance

- Disclosure of the proportion of revenue, assets, or business activities aligned with climate-related opportunities provides insight into the position of companies relative to their peers and allows users to understand likely transition pathways and potential changes in revenue and profitability over time.
- The operationalization of this metric category will be **specific to each industry or company's climate-related opportunities**, as well as to the opportunities within specific business lines or asset classes, e.g.:
  - Auto manufacturers might report sales of electric vehicles relative to total vehicle sales
  - Utilities companies could report renewable generation as a fraction of their total electricity generation
  - Agricultural companies might report revenues received from the sale of drought-resilient seeds
  - Asset managers could disclose the percent of resilient infrastructure in their portfolio

## Example Disclosure: BASF

Chemicals company characterizes sales by sustainability indicator to identify alignment with climate-related opportunities



Source: BASF, BASF 2020 Report, p. 45

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Example of Disclosure for Capital Deployment

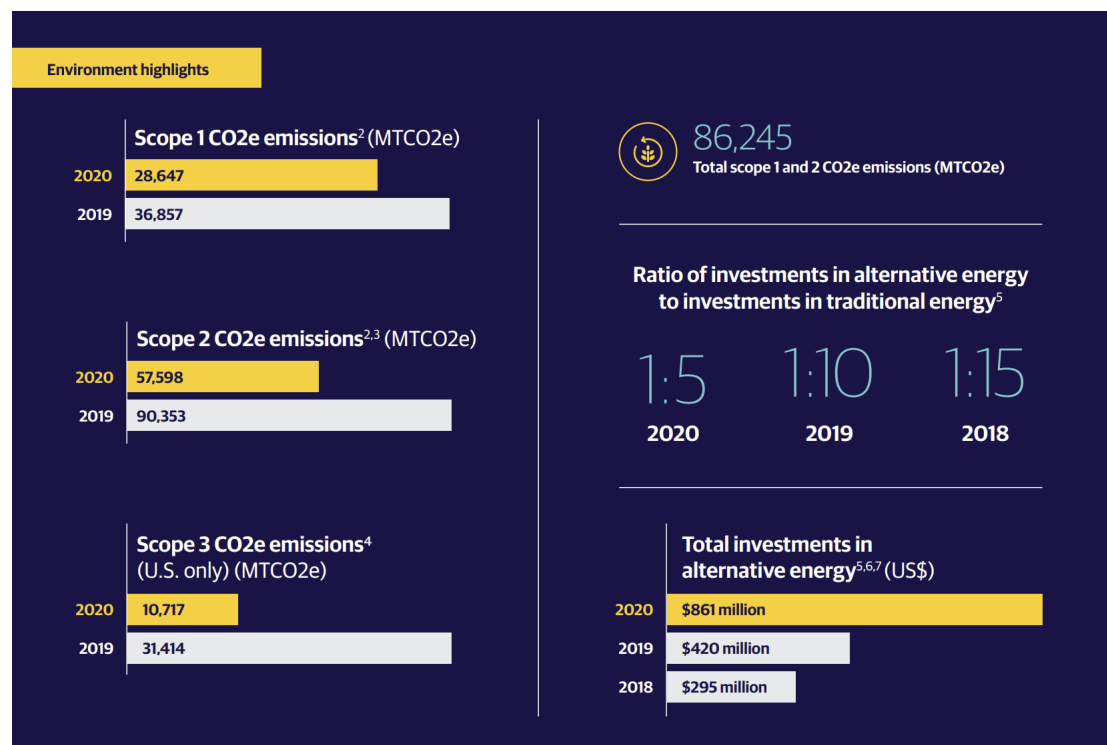
Amount of capital expenditure, financing, or investment deployed toward climate-related risks and opportunities

## Key Takeaways from Guidance

- Capital investment disclosure by non-financial companies and financing by financial organizations gives an **indication of the extent to which long-term enterprise value might be affected**, for example by demonstrating how a company is investing to take advantage of climate-related opportunities
- Capital expenditures, capital investments, or the amount of financing for new technologies, infrastructure, or products can be **reported in line with financial reporting standards** and commonly used taxonomies for delineating climate-related risks and opportunities.

## Example Disclosure: Liberty Mutual

Insurance company's inclusion of traditional disclosures alongside climate-related disclosures to allow users to understand the scale of investment deployed towards climate-related risks and opportunities



Source: Liberty Mutual, 2020 ESG Review, p. 8

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# Example of Disclosure for Internal Carbon Prices

Price on each ton of GHG emissions used internally by a company

## Key Takeaways from Guidance

- Internal carbon prices provide users with an understanding of the reasonableness of a company's risk and opportunity assessment and strategy resilience. The disclosure of internal carbon prices can help users identify which companies have business models that are vulnerable to future policy responses to climate change and which are adapting their business models to ensure resilience to transition risks.
- An increasing number of companies are setting an internal notional or actual price on the amount of CO<sub>2</sub> emitted from assets and investment projects. This will allow users to see how, where, and when their GHG emissions could affect their strategy, profit-and-loss (P&L) statements, and investment choices
- The Task Force acknowledges that internal carbon prices **may not be relevant to all companies**, such as those without material physical or transition risks or those already subject to external carbon prices

## Example Disclosure: Aker BP

Energy company provides internal planning assumptions along with internal carbon prices from two IEA scenarios



Source: Aker BP, Sustainability Report 2020, p. 25

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 Remuneration

Proportion of executive management remuneration linked to climate considerations

## Key Takeaways from Guidance

- Remuneration policies are important incentives for achieving a company's goals and objectives and may provide insight on a company's governance, oversight, and accountability for managing climate-related issues.
- The ways in which companies link executive compensation to performance on issues related to climate change **will be specific to their company and governance structure:**
  - Some companies choose to report the percentage of the executive's pay linked to climate considerations
  - Others discuss weighting factors or total amount of compensation that could be impacted
- **While the Task Force encourages quantitative disclosure, companies may include descriptive language** on remuneration policies and practices, such as how climate change issues are included in balanced scorecards for executive remuneration

## Example Disclosure: HSBC

Bank's disclosure notes the percentage weighting linked to climate consideration within the scorecards of executive and managing directors

### Metrics and targets

Disclose the metrics used by the organisation to assess climate-related risk and opportunities in line with its strategy and risk management process

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets

Disclose scope 1, scope 2 and, if appropriate, scope 3 greenhouse gas emissions and the related risks

– We use several metrics to measure and track our progress against key targets, and we will be refining our approach to financed emissions (scope 3), including carbon intensity, for specific portfolios.

– We set a new sustainable finance and investment target of \$750bn to \$1tn by 2030, after reaching \$93.0bn of our \$100bn by 2025 target. The \$40.6bn achieved in 2020 counts towards both the existing 2025 target and the new target.

– We continue to disclose our wholesale loan exposure to the six high transition risk sectors, and use our corporate customer transition risk questionnaire to help inform our risk management.

– We include an environment measure in the scorecards of our executive Directors and Group Managing Directors. The long-term incentive scorecards of our executive Directors (three-year performance period to the end of December 2023) have a 25% weighting for targets aligned to our climate ambitions.

– We continue to disclose business travel, energy-related emissions and renewable energy use, and aim to disclose further details on our own scope 3 emissions in future reporting.

Read more on our climate metrics and targets on pages 25 to 26, and our ESG review pages 45 to 50 within our *Annual Report and Accounts 2020*.

Source: HSBC, Annual Report 2020, p. 20

Note: Some content was reformatted in order to fit the page; and some content has been removed, denoted by [...].

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# Supplemental guidance for the financial sector and non-financial groups

# Overview of the Supplemental Guidance

The Task Force identified certain areas where supplemental guidance was warranted, for both the financial sectors and non-financial groups

## 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

Industries	Governance		Strategy			Risk Management			Metrics and Targets		
	a)	b)	a)	b)	c)	a)	b)	c)	a)	b)	c)
Banks											
Insurance Companies											
Asset Owners											
Asset Managers											

## Non-Financial Groups

Similarly, supplemental guidance is included for companies within four non-financial groups. These groups comprise industries in the following four areas:

- Energy
- Transportation
- Materials and Buildings
- Agriculture, Food, and Forest Products

Groups	Governance		Strategy			Risk Management			Metrics and Targets		
	a)	b)	a)	b)	c)	a)	b)	c)	a)	b)	c)
Energy											
Transportation											
Materials and Buildings											
Ag, Food, and Forest Products											



# Supplemental Metrics and Targets Guidance for the Financial Sector

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Banks

#### Recommended disclosure a)

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

Banks should provide the metrics used to assess the **impact of (transition and physical) climate-related risks on their lending and other financial intermediary business activities in the short, medium, and long term.**

Metrics provided may relate to credit exposure, equity and debt holdings, or trading positions, broken down by:

- Industry
- Geography
- Credit quality (e.g., investment grade or non-investment grade, internal rating system)
- Average tenor

Banks should also provide the **amount and percentage of carbon-related assets relative to total assets** as well as the **amount of lending and other financing** connected with climate-related opportunities.

Banks should describe the extent to which their lending and other financial intermediary business activities, where relevant, are **aligned with a well below 2°C scenario**, using whichever approach or metrics best suit their organizational context or capabilities. Banks should also indicate which **financial intermediary business activities** (e.g., loans to specific sectors or industries) are included.

#### Recommended disclosure b)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Banks should disclose **GHG emissions for their lending and other financial intermediary business activities** where data and methodologies allow. These emissions should be calculated in line with the *Global GHG Accounting and Reporting Standard for the Financial Industry* developed by the Partnership for Carbon Accounting Financials (PCAF Standard) or a comparable methodology (see Table 2 of the [2021 Annex](#)).

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

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

# Supplemental Metrics and Targets Guidance for the Financial Sector *(continued)*

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Insurance Companies

#### Recommended disclosure a)

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

Insurance companies should provide **aggregated risk exposure to weather-related catastrophes of their property business** (i.e., annual aggregated expected losses from weather-related catastrophes) by relevant jurisdiction.

Insurance companies should describe the **extent to which their insurance underwriting activities**, where relevant, are **aligned with a well below 2°C scenario**, using whichever approach or metrics best suit their organizational context or capabilities. Insurance companies should also indicate **which insurance underwriting activities** (e.g., lines of business) are included.

#### Recommended disclosure b)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Insurance companies should disclose **weighted average carbon intensity or GHG emissions** associated with **commercial property and specialty lines of business** where data and methodologies allow.

# Supplemental Metrics and Targets Guidance for the Financial Sector *(continued)*

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Asset Owners

#### Recommended disclosure a)

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

Asset owners should **describe metrics** used to assess climate-related risks and opportunities **in each fund or investment strategy**. Where relevant, asset owners should also describe **how these metrics have changed over time**.

Where appropriate, asset owners should provide **metrics considered in investment decisions and monitoring**.

Asset owners should describe the **extent to which assets they own and their funds and investment strategies**, where relevant, are **aligned with a well below 2°C scenario**, using whichever approach or metrics best suit their organizational context or capabilities. Asset owners should also indicate **which asset classes** are included.

#### Recommended disclosure b)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Asset owners should disclose **GHG emissions for assets they own** and the **weighted average carbon intensity (WACI) for each fund or investment strategy**, where data and methodologies allow. These emissions should be calculated in line with the *Global GHG Accounting and Reporting Standard for the Financial Industry* developed by the Partnership for Carbon Accounting Financials (PCAF Standard) or a comparable methodology (see Table 2, of the [2021 Annex](#)).

In addition to WACI, asset owners should consider providing **other carbon footprinting metrics they believe are useful for decision-making**. See Table 3 of the [2021 Annex](#) for additional common carbon footprinting and exposure metrics.

# Supplemental Metrics and Targets Guidance for the Financial Sector *(continued)*

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Asset Managers

#### Recommended disclosure a)

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

Asset managers should describe **metrics used** to assess climate-related risks and opportunities **in each product or investment strategy**. Where relevant, asset managers should also describe **how these metrics have changed over time**.

Where appropriate, asset managers should provide **metrics considered in investment decisions and monitoring**.

Asset managers should describe the **extent to which their assets under management and products and investment strategies**, where relevant, are **aligned with a well below 2°C scenario**, using whichever approach or metrics best suit their organizational context or capabilities. Asset managers should also indicate **which asset classes** are included.

#### Recommended disclosure b)

Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Asset managers should **disclose GHG emissions for their assets under management** and the **weighted average carbon intensity (WACI) for each product or investment strategy**, where data and methodologies allow. These emissions should be calculated in line with the Global GHG Accounting and Reporting Standard for the Financial Industry developed by the Partnership for Carbon Accounting Financials (PCAF Standard) or a comparable methodology (see Table 2 of the [2021 Annex](#)).

In addition to WACI, asset managers should consider **providing other carbon footprinting metrics they believe are useful for decision-making**. See Table 3 of the [2021 Annex](#) for additional carbon footprinting and exposure metrics.

# Supplemental Metrics and Targets Guidance for the Non-Financial Groups

## Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

### Energy, Transportation, Materials & Buildings, and Agriculture, Food, and Forest Products

#### **Recommended disclosure a)**

Disclose the metrics used by the company to assess climate-related risks and opportunities in line with its strategy and risk management process

For all relevant metrics, companies should consider providing **historical trends and forward-looking projections** (by relevant country and/or jurisdiction, business line, or asset type). Companies should also consider disclosing metrics that **support their scenario analysis and strategic planning process** and that are **used to monitor the company's business environment** from a strategic and risk management perspective.

Companies should consider providing **key metrics related to GHG emissions, energy, water and other physical risk exposures, land use**, and, if relevant, **investments in climate adaptation and mitigation** that address potential financial aspects of shifting demand, expenditures, asset valuation, and cost of financing.