



CLIMATE TRANSPARENCY REPORT 2020

Manulife Investment Management

About the Climate-related Disclosure Indicators

Climate has been identified as a top priority for PRI signatories, with over 70% of asset owners reporting this as the most important long-term trend they are acting on.

The FSB Task Force's guidance on climate-related financial disclosure aim to create a single framework for disclosure on assessment and management of climate-related risk. The recommendations, supported by investors representing US\$22 trillion, identify four main disclosures, Governance, Strategy, Risk Management, Metrics and Targets, and include specific guidance for asset owners and managers.

As a result, the PRI introduced climate-related disclosure indicators that can be used to align with the TCFD recommendations in the 2020 PRI Reporting Framework.

About this report

This report is an export of only the climate-related indicators from the 2020 Reporting Framework response. The full Public Transparency Report is available here (<https://reporting.unpri.org/surveys/PRI-reporting-framework-2020/-4A5562E5-91D2-44A6-B2D4-083F449FDD88/79894dbc337a40828d895f9402aa63de/html/2/?lang=en&a=1>). It shows the responses to all the completed climate indicators, even those you chose to keep private. It is designed for your internal review or – if you wish - to share with your stakeholders.

The PRI will not publish this report on its website if you have designated your 2020 climate reporting as “private”. Otherwise, you will be able to access the Climate Transparency Report of your organisation and that of other signatories on the [PRI website](#) and on the [Data Portal](#).

To easily locate information, there is a **Recommendation index** which summarises the indicators that signatories complete and disclose. The report presents information exactly as it was reported as per signatory preference. Where an indicator offers a response option that is multiple-choice, all options that were available to the signatory are presented in this report.

TCFD Recommendations Index

Strategy and Governance - CC			TCFD Recommendation			
Indicator	Reported	Disclosure	Governance	Strategy	Risk Management	Metrics & Targets
SG 01.6 CC	✓	Public				
SG 01.7 CC	✓	Public				
SG 01.8 CC	✓	Public				
SG 01.9 CC	✓	Public				
SG 01.10 CC	✓	Public				
SG 07.5 CC	✓	Public				
SG 07.6 CC	-	Public				
SG 07.7 CC	-	Public				
SG 07.8 CC	-	Public				
SG 13.1	✓	Public				
SG 13.2	✓	Public				
SG 13.4 CC	✓	Public				
SG 13.5 CC	✓	Public				
SG 13.6 CC	✓	Public				
SG 13.7 CC	✓	Public				
SG 13.8 CC	✓	Public				
SG 14.1	✓	Public				
SG 14.2	✓	Public				
SG 14.3	✓	Public				
SG 14.6 CC	✓	Public				
SG 14.7 CC	✓	Public				
SG 14.8 CC	✓	Public				
SG 14.9 CC	✓	Public				
SG 15.1	✓	Public				
SG 15.2	✓	Public				
SG 15.3	✓	Public				

Symbol	Status
✓	The signatory has completed this sub-indicator
-	The signatory did not complete this sub-indicator.
	This indicator is relevant to the named TCFD recommendation
Within the first column "Indicator", indicators marked in blue are mandatory to complete. Indicators marked in grey are voluntary to complete.	

ORGANISATIONAL OVERVIEW

This section provides an overview of your organisation. These characteristics are used to define your peer groups.

MAIN CHARACTERISTICS	
Name	Manulife Investment Management
Signatory Category	Fund Management - Majority
Signatory Type	Investment Manager
Size	US\$ > 50 billion AUM
Main Asset Class	Multi-Asset
Signed PRI Initiative	2015
Region	North America
Country	Canada
Disclosure of Voluntary Indicators	64% from 38 Voluntary indicators

Manulife Investment Management

Reported Information

Public version

Strategy and Governance

PRI disclaimer

This document presents information reported directly by signatories. This information has not been audited by the PRI Secretariat or any other party acting on their behalf. While this information is believed to be reliable, no representations or warranties are made as to the accuracy of the information presented, and no responsibility or liability can be accepted for any error or omission.

Investment policy

SG 01	Mandatory	Public	Core Assessed	General
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New selection options have been added to this indicator. Please review your prefilled responses carefully.

SG 01.1	Indicate if you have an investment policy that covers your responsible investment approach.
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SG 01.6	Additional information [Optional].
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For further detail on our investment principles and overall sustainable investing strategy, interpretation of fiduciary duties, and how we consider ESG factors and real economy impact, please view our full Sustainable Investing Statement available on our website.

SG 01 CC	Mandatory to Report Voluntary to Disclose	Public	Descriptive	General
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SG 01.6 CC	Indicate whether your organisation has identified transition and physical climate-related risks and opportunities and factored this into the investment strategies and products, within the organisation's investment time horizon.
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Yes

	Describe the identified transition and physical climate-related risks and opportunities and how they have been factored into the investment strategies/products.
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According to the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations, investment relevant climate-related risks can be classified as physical (i.e. changes in weather patterns) and transitional (i.e. impacts from the transition to a low carbon economy). Some examples of manifestations of physical and transition risks include:

- Direct regulatory costs for companies with Scope 1 carbon-intensive business activities.
- Operational disruptions from more unpredictable or impactful extreme weather events.
- Disruptions to upstream and downstream supply chain.
- Shift in market access or end-user demand for industries that sell carbon-intensive products as customers or regulators shift to "greener" substitutes.
- Stranding of company assets, either due to GHG regulations, rapid technology switching or physical risks (chronic and acute).

The TCFD framework emphasizes that climate change mitigation and adaptation efforts also produce investment opportunities. The following is a non-exhaustive list of growth themes that will emerge:

- Sustainable Agriculture - services, products, seed technology, irrigation, crop protection
- Infrastructure Investment - green buildings, sanitation, electrification of remote areas, smart grids, alternative clean energy, energy storage, digitalization, transportation, financing
- Preservation of Natural Capital - water technologies, biodiversity, sustainable mining technologies
- Sustainable Forestry - forest offsets, voluntary carbon markets, improved forest management, reforestation, high carbon stocks
- Circular Economy - reduction of plastics, biodegradable packaging, mineral recycling from batteries and devices
- Clean Air - reduction of GHG emissions, carbon extraction, methane recapture, carbon capture sequestration

To understand the impact of climate change on investment decisions, asset managers should assess the

transition risk, physical risk, and opportunities posed by climate change to the companies in which they are invested. We recognize that climate change could have an economic impact, which will vary from company to company. The varying degree will depend on the exposure level of each sector, industry and geography. We believe that understanding of climate change across the capital markets remains uneven, leading to potential mispricing of assets, and that many companies may be inadequately prepared to respond to the risks and opportunities of this transition.

We may take a variety of actions towards managing climate-related risks and opportunities across our businesses and investments to appropriately price climate risk. Broadly summarized, our available actions relate to asset allocation and selection, investment analysis and research, proxy voting, mitigating direct GHG emissions, deploying best in class sustainability management practices for operated assets, and participating in collaborative industry climate initiatives. While we reserve the right to divest of any investment, our preferred position is company engagement to encourage climate risk mitigation and adaptation strategies.

At Manulife IM, certain asset classes use a model to evaluate climate change risk which includes an assessment of the physical risks, transition risks and associated opportunities. The model creates a numerical output which measures the risk of loss for investments. At a portfolio level this helps identify the underlying companies with the greatest climate change exposure risk and whether the portfolio is more exposed to transition or physical risks. The model also helps identify companies which may be well positioned to benefit from the low carbon transition.

No

**SG 01.7
CC**

Indicate whether the organisation has assessed the likelihood and impact of these climate risks?

Yes

Describe the associated timescales linked to these risks and opportunities.

The climate risk tool estimates the financial impact of climate change by examining both transition and physical risk and opportunities. Transition is measured over a long time period, approximately 50 years, while physical risk is estimated over the next 15 years, per the climate science of modelling weather hazards.

No

**SG 01.8
CC**

Indicate whether the organisation publicly supports the TCFD?

Yes

No

**SG 01.9
CC**

Indicate whether there is an organisation-wide strategy in place to identify and manage material climate-related risks and opportunities.

Yes

Describe

Manulife IM has a climate position statement which will be publicly disclosed in 2020.

No

**SG 1.10
CC**

Indicate the documents and/or communications the organisation uses to publish TCFD disclosures.

- Public PRI Climate Transparency Report
- Annual financial filings
- Regular client reporting
- Member communications
- Other

specify

We will incorporate TCFD-aligned disclosures into our annual sustainable investing report.

- We currently do not publish TCFD disclosures

Governance and human resources

SG 07 CC

Mandatory to Report Voluntary to Disclose

Public

Descriptive

General

**SG 07.5
CC**

Indicate the roles in the organisation that have oversight, accountability and/or management responsibilities for climate-related issues.

Chief Executive Officer (CEO), Chief Investment Officer (CIO), Chief Risk Officer (CRO), Investment Committee

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Other Chief-level staff or heads of departments

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Portfolio managers

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Investment analysts

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Dedicated responsible investment staff

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

ESG issues in asset allocation

SG 13	Mandatory	Public	Descriptive	PRI 1
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SG 13.1 Indicate whether the organisation carries out scenario analysis and/or modelling, and if it does, provide a description of the scenario analysis (by asset class, sector, strategic asset allocation, etc.).

- Yes, in order to assess future ESG factors
- Yes, in order to assess future climate-related risks and opportunities

Describe

Manulife IM's public markets and real estate teams participated in the pilot working group on climate scenario analysis organized through the UNEP FI. Following this pilot, we have rolled out scenario analysis tools to our investment teams in public markets.

- No, our organisation does not currently carry out scenario analysis and/or modelling

SG 13.2 Indicate if your organisation considers ESG issues in strategic asset allocation and/or allocation of assets between sectors or geographic markets.

We do the following

- Allocation between asset classes
- Determining fixed income duration
- Allocation of assets between geographic markets
- Sector weightings
- Other, specify

We are in the early states of integrating scenario analysis into asset allocation decisions.

- We do not consider ESG issues in strategic asset allocation

SG 13.3 Additional information. [OPTIONAL]

The models available for climate scenario analysis are still being developed and, as such, the output and analysis will take time to vet and attain a satisfactory level of confidence. In the meantime, we are pursuing several discussions with internal stakeholders to create feedback loops to improve and hone the scenario analysis, and explore ways to meaningfully integrate ESG factors into asset allocation work.

SG 13 CC	Mandatory to Report Voluntary to Disclose	Public	Descriptive	General
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Initial assessment

Describe

Our real estate group participated with eleven other institutional investors from eight countries, convened by UNEP FI and supported by Carbon Delta, have worked throughout 2018-2019 to analyze, evaluate, and test, state-of-the-art methodologies to enable 1.5°C, 2°C, and 3°C scenario-based analysis of their direct property investment portfolios in line with the recommendations of the FSB's Task Force on Climate-related Financial Disclosures (TCFD). The outputs and conclusions of this Pilot are captured in the "Changing Course" report and aim to enhance the understanding and ease adoption of the TCFD recommendations by real estate investors across the wider investment industry. Further, two of our private real estate funds have completed a Climate Value-at-Risk Real Estate Portfolio Analysis.

<https://www.unepfi.org/publications/changing-course-real-estate-tcf-d-pilot-project-report-and-investor-guide-to-scenario-based-climate-risk-assessment-in-real-estate-portfolios/>

Further to this example, our public markets division participated in a year-long pilot program convened by the United Nations Environment Programme Finance Initiative (UNEP FI). The pilot involved 20 investment institutions from around the world and focused on developing guidance for implementing the Financial Stability Board's Task Force on Climate-Related Financial Disclosures recommendations. The group's objective was to operationalize a methodology of climate risk assessment developed in collaboration with Carbon Delta, a data analytics firm that quantifies investment risks for more than 30,000 companies under numerous climate change scenarios by modelling vast amounts of data, including weather projections and operational locations, among others. The output is used to identify, and rank companies based on exposure to climate-related risks or adaptive capacity to mitigate that risk. The pilot demonstrated, for the first time ever in a coordinated manner, how a group of institutional asset managers can effectively collaborate to create a new bottom-up method of fundamental analysis on an ESG theme of critical importance.

Incorporation into investment analysis

Describe

After participating in the UNEP FI pilot on scenario analysis, we have rolled out the use of scenario analysis to our public markets investment teams globally over the course of 2019. Using Carbon Delta's Climate Value-at-Risk (CVaR) model, our aim for Manulife IM was to understand how climate risks can be assessed at the level of individual securities and at the aggregate portfolio level to inform portfolio construction and how distinct geographical exposures can be identified and managed through asset allocation.

We believe that the scenario analysis will continue to improve over time and become more meaningful in terms of the output provided. Our current analysis is limited to Scope 1 carbon emissions of the underlying companies, which measures direct carbon emissions from operations. Scope 2, which includes indirect emissions from the consumption of energy-e.g., electricity-is not included in the analysis. Future analyses may be developed to incorporate Scope 2 and Scope 3 carbon emissions.

Inform active ownership

Describe

We seek to identify opportunities for growth among companies that are positioning themselves for industry disruption and the promotion of smoother transition to lower-carbon-emission models. We also support engagement activities through company dialogue and collaborative engagement initiatives, and seek to support proxy items that are intended to mitigate climate risks or support company adaptation to climate change, whether through management proposals or shareholder resolutions.

Manulife IM serves on the Steering Committee of the Climate Action 100+, a five-year initiative led by investors to engage systemically important greenhouse gas emitters and other companies across the global economy that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. Investors are calling on companies to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. Refer to:

<http://www.climateaction100.org/>.

Our involvement in company engagement groups via the Climate Action 100+ is being recorded and insights shared internally to inform our investment processes for the impact investment teams.

Other

**SG 13.5
CC**

Indicate who uses this analysis.

- Board members, trustees, C-level roles, Investment Committee
- Portfolio managers
- Dedicated responsible investment staff
- External managers
- Investment consultants/actuaries
- Other

**SG 13.6
CC**

Indicate whether your organisation has evaluated the potential impact of climate-related risks, beyond the investment time horizon, on its investment strategy.

Yes

Describe

This is under way for Manulife IM, and has been supported by our participation in the UNEP FI TCFD pilot program for investors and real estate. The Scenario Analysis tool we use has a time horizon which goes out 15 years.

No

**SG 13.7
CC**

Indicate whether a range of climate scenarios is used.

- Analysis based on a 2°C or lower scenario
- Analysis based on an abrupt transition, consistent with the Inevitable Policy Response
- Analysis based on a 4°C or higher scenario
- No, a range is not used

**SG 13.8
CC**

Indicate the climate scenarios your organisation uses.

Provider	Scenario used	
IEA	<input type="checkbox"/> Beyond 2 Degrees Scenario (B2DS)	
IEA	<input type="checkbox"/> Energy Technology Perspectives (ETP) 2 Degrees scenario	
IEA	<input checked="" type="checkbox"/> Sustainable Development Scenario (SDS)	
IEA	<input checked="" type="checkbox"/> New Policy Scenario (NPS)	
IEA	<input checked="" type="checkbox"/> Current Policy Scenario (CPS)	
IRENA	<input type="checkbox"/> RE Map	
Greenpeace	<input type="checkbox"/> Advanced Energy [R]evolution	
Institute for Sustainable Development	<input type="checkbox"/> Deep Decarbonisation Pathway Project (DDPP)	
Bloomberg	<input type="checkbox"/> BNEF reference scenario	
IPCC	<input type="checkbox"/> Representative Concentration Pathway (RCP) 8.5	
IPCC	<input type="checkbox"/> RPC 6	
IPCC	<input checked="" type="checkbox"/> RPC 4.5	
IPCC	<input checked="" type="checkbox"/> RPC 2.6	
Other	<input checked="" type="checkbox"/> Other (1)	<div style="background-color: #0070C0; color: white; padding: 2px;">Other (1) please specify:</div> MSCI's Climate Value-at-Risk
Other	<input type="checkbox"/> Other (2)	
Other	<input type="checkbox"/> Other (3)	

SG 14	Mandatory to Report Voluntary to Disclose	Public	Additional Assessed	PRI 1
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SG 14.1

Some investment risks and opportunities arise as a result of long term trends. Indicate which of the following are considered.

- Changing demographics
- Climate change
- Resource scarcity
- Technological developments
- Other, specify(1)

other description (1)

Cybersecurity

- Other, specify(2)
- None of the above

SG 14.2

Indicate which of the following activities you have undertaken to respond to climate change risk and opportunity

- Established a climate change sensitive or climate change integrated asset allocation strategy
- Targeted low carbon or climate resilient investments
- Phase out your investments in your fossil fuel holdings
- Reduced portfolio exposure to emissions intensive or fossil fuel holdings
- Used emissions data or analysis to inform investment decision making
- Sought climate change integration by companies
- Sought climate supportive policy from governments
- Other, specify

other description

Climate Action 100+ Steering Committee/Lead. Co-launched Investor Agenda on Climate Change at GCAS. MIT Joint Program Global Change sponsor. Hosted scenario analysis forum.

- None of the above

SG 14.3

Indicate which of the following tools the organisation uses to manage climate-related risks and opportunities.

- Scenario analysis
- Disclosures on emissions risks to clients/trustees/management/beneficiaries
- Climate-related targets
- Encouraging internal and/or external portfolio managers to monitor emissions risks
- Emissions-risk monitoring and reporting are formalised into contracts when appointing managers
- Weighted average carbon intensity
- Carbon footprint (scope 1 and 2)
- Portfolio carbon footprint
- Total carbon emissions
- Carbon intensity
- Exposure to carbon-related assets
- Other emissions metrics
- Other, specify
- None of the above

SG 14 CC	Voluntary	Public		General
SG 14.6 CC	Provide further details on the key metric(s) used to assess climate-related risks and opportunities.			

Metric Type	Coverage	Purpose	Metric Unit	Metric Methodology
Climate-related targets	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	<p>Our primary strategy to reduce greenhouse gas emissions is to increase energy and water efficiencies. We invest in clean technology, including energy storage systems and photovoltaic solar energy.</p> <p>The below metrics are used to monitor building efficiency and are used to assess environmental footprint of the real estate portfolio:</p> <ol style="list-style-type: none"> 1. Normalized energy use intensity 2. Normalized water use intensity 3. Waste diversion rate 	<ol style="list-style-type: none"> 1. Equivalent megawatt hours per square foot per year 2. Litres per square foot per year 3. The percentage of total waste that is diverted away from landfill disposal through recycling or composting. 	<p>These metrics are all available publicly in our Real Estate Sustainability Report. Normalized energy use decreased by 0.5% to 24.0 in 2018. Normalized water intensity decreased by 5.9% to 68.6. Our average waste diversion rate was steady year over year at 53%.</p>
Carbon footprint (scope 1 and 2)	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	<p>To measure the carbon footprint of our real estate portfolio and monitor changes year over year.</p>	<p>Metric tonnes of carbon dioxide equivalent</p>	<p>This metric is available publicly in our Real Estate Sustainability Report. In 2018, our scope 1 emissions were 140,400 and our scope 2 emissions were 27,500.</p>
Portfolio carbon footprint	<input type="checkbox"/> All assets <input checked="" type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets	<p>For our public market portfolio's ESG quarterly risk reviews, we use MSCI's ESG rating methodology which includes a key issue analysis on product carbon footprint. This issue evaluates the extent to which companies may face higher input or production costs for carbon-intensive products due to volatile energy costs in a carbon-constrained world. Scores are based on companies' reliance on carbon-intensive products; and efforts to measure and reduce the carbon footprint of their supply chains.</p>	<p>Exposure Metrics Management Metrics</p>	<p>Exposure Metrics:</p> <ul style="list-style-type: none"> • Extent to which companies' product portfolio consists of carbon-intensive products, based on life-cycle assessment model estimating total GHG emissions in the supply chain. <p>Management Metrics:</p> <ul style="list-style-type: none"> • Efforts to reduce exposure through measurement and reduction of carbon emissions associated with raw materials production, product manufacturing, distribution and retail.

Total carbon emissions	<input type="checkbox"/> All assets <input checked="" type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets	For our public market portfolio's ESG quarterly risk reviews, we use MSCI's ESG rating methodology which includes a key issue analysis on carbon emissions. This issue evaluates the extent to which companies may face increased costs linked to carbon pricing or regulatory caps. Scores are based on exposure to GHG-intensive businesses and emerging regulations; carbon reduction targets and mitigation programs; and carbon intensity over time and vs. peers. We also look at carbon emissions for our real estate, and Timber and Agriculture portfolios.	Exposure Metrics Management Metrics	Exposure Metrics: <ul style="list-style-type: none"> • Extent to which companies operate in jurisdictions where regulations on carbon emissions are stringent or becoming more stringent; • Extent to which companies' main business activities are carbon-intensive based on economic input-output model estimating total GHG emissions relative to sales Management Metrics: <ul style="list-style-type: none"> • Efforts to reduce exposure through comprehensive carbon policies and implementation mechanisms, including carbon reduction targets, production process improvements, and installation of depollution or emissions capture equipment, and/or switch to cleaner energy sources.
Carbon intensity	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	To measure the carbon intensity of our real estate portfolio and monitor changes year over year.	kgCO2e per square foot per year	In 2018, the metric increased from 5.1 to 5.2 due to an increase in natural gas and steam consumption, and the electricity grid in select regions having greater carbon intensity. These metrics are shared publicly in our Real Estate Sustainability Report.
Exposure to carbon-related assets	<input type="checkbox"/> All assets <input checked="" type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets	To model potential future cost of GHG emissions regulation.	Carbon Price Estimate	MSCI ESG Research's climate policy risk modelling quantifies each country's greenhouse gas (GHG) emission reduction targets embedded within national pledges, called Nationally Determined Contributions (NDCs), which are part of the Paris Agreement. Country emission reduction targets are further broken down into sector level targets which are linked up with MSCI ESG Research's production facilities database by assigning sector emission reduction targets to companies' production facilities. This provides insights into the emission reduction requirements for facilities owned and operated by companies globally. Using estimates of future carbon prices under specific policy scenarios, MSCI ESG Research then calculates the costs associated with such emissions reductions targets and computes "Policy Climate Value-at-Risk" metrics for over 22,000 companies.

**SG 14.7
CC**

Describe in further detail the key targets.

Targettype	Baseline year	Target year	Description	Attachments
<input type="checkbox"/> Absolute target <input checked="" type="checkbox"/> Intensity target	2018	2019	Our real estate portfolio has an annualized energy intensity target of 2%.	
<input type="checkbox"/> Absolute target <input checked="" type="checkbox"/> Intensity target	2017	2022	Our real estate portfolio has an annualized water use intensity reduction target of 1.5% and 5-year of 7.5%.	
<input type="checkbox"/> Absolute target <input checked="" type="checkbox"/> Intensity target	2017	2022	Our real estate portfolio's goal for average diversion of waste is 65% by 2022.	
<input type="checkbox"/> Absolute target <input type="checkbox"/> Intensity target				
<input type="checkbox"/> Absolute target <input type="checkbox"/> Intensity target				

**SG 14.8
CC**

Indicate whether climate-related risks are integrated into overall risk management and explain the risk management processes used for identifying, assessing and managing climate-related risks.

- Processes for climate-related risks are integrated into overall risk management

Please describe

We consider regulatory developments as part of our approach to integrating climate-related risks into our overall risk management process. For example, we held an extensive internal consultation in order to respond to Canada's Expert Panel on Sustainable Finance, noting among other points, that clear policy signals are needed for investors.

In addition, our public markets' ESG Team partners closely with our investment risk management function and is responsible for the roll out of scenario analysis across our public markets' investment teams. The ESG team incorporates the review and discussion of scenario analysis results into the ongoing ESG risk monitoring program, which occurs at least quarterly with each investment team.

- Processes for climate-related risks are not integrated into overall risk management

**SG 14.9
CC**

Indicate whether your organisation, and/or external investment manager or service providers acting on your behalf, undertake active ownership activities to encourage TCFD adoption.

- Yes

Please describe

We seek to identify opportunities for growth among companies that are positioning themselves for industry disruption and the promotion of smoother transition to lower-carbon-emission models. We also support engagement activities through company dialogue and collaborative engagement initiatives, and seek to support proxy items that are intended to mitigate climate risks or support company adaptation to climate change, whether through management proposals or shareholder resolutions.

Manulife IM serves on the Steering Committee of the Climate Action 100+, a five-year initiative led by investors to engage systemically important greenhouse gas emitters and other companies across the global economy that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. Investors are calling on companies to improve governance on climate change, curb emissions and strengthen climate-related financial disclosures. Refer to: <http://www.climateaction100.org/>.

- No, we do not undertake active ownership activities.
- No, we do not undertake active ownership activities to encourage TCFD adoption.

SG 15	Mandatory to Report Voluntary to Disclose	Public	Descriptive	PRI 1
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SG 15.1 Indicate if your organisation allocates assets to, or manages, funds based on specific environmental and social themed areas.

- Yes

SG 15.2 Indicate the percentage of your total AUM invested in environmental and social themed areas.

%

8.3

SG 15.3 Specify which thematic area(s) you invest in, indicate the percentage of your AUM in the particular asset class and provide a brief description.

Area

- Energy efficiency / Clean technology
- Renewable energy

Asset class invested

- Listed equity
- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property
- Infrastructure

Percentage of AUM (+/-5%) per asset class invested in the area

1

- Forestry
- Farmland
- Other (1)

Brief description and measures of investment

We are a leading arranger and provider of financing for the renewable power sector in Canada and the United States. Our investments span the spectrum of renewable energy technologies, including wind, photovoltaic solar, hydroelectric, geothermal, landfill gas and biomass waste-to-energy projects, as well as energy efficiency projects.

- Green buildings

Asset class invested

- Listed equity
- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property

Percentage of AUM (+/-5%) per asset class invested in the area

80

- Infrastructure
- Forestry
- Farmland
- Other (1)

Brief description and measures of investment

We manage climate change through mitigation and adaptation efforts that starts with reducing our GHG emissions, followed by investing in clean technology, including energy storage systems, photovoltaic solar energy and implementing practices that foster adaptation and resilience. Third-party green building certification is a critical component of our sustainability program; depending on the market, we certify to different standards, such as LEED®, BOMA BEST® and ENERGY STAR™ or regional standards best suited to the local market, including CASBEE in Japan, Green Star and NABERS in Australia.

- Sustainable forestry

Asset class invested

- Listed equity
- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property
- Infrastructure
- Forestry

Percentage of AUM (+/-5%) per asset class invested in the area

100

- Farmland
- Other (1)

Brief description and measures of investment

We offer fully integrated, global, sustainable timber investment solutions that capitalize on our size and strong regional relationships to build a risk-efficient portfolio across tree species, age classes, and products.

- Sustainable agriculture

Asset class invested

- Listed equity
- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property
- Infrastructure
- Forestry
- Farmland

Percentage of AUM (+/-5%) per asset class invested in the area

100

- Other (1)

We offer vertically integrated, sustainable agricultural investment solutions leveraging our strong regional relationships to gain access to a variety of crop types, commodity types, geographies, and operating structures.

- Microfinance
 - SME financing
 - Social enterprise / community investing
 - Affordable housing
 - Education
 - Global health
 - Water
 - Other area, specify
- No