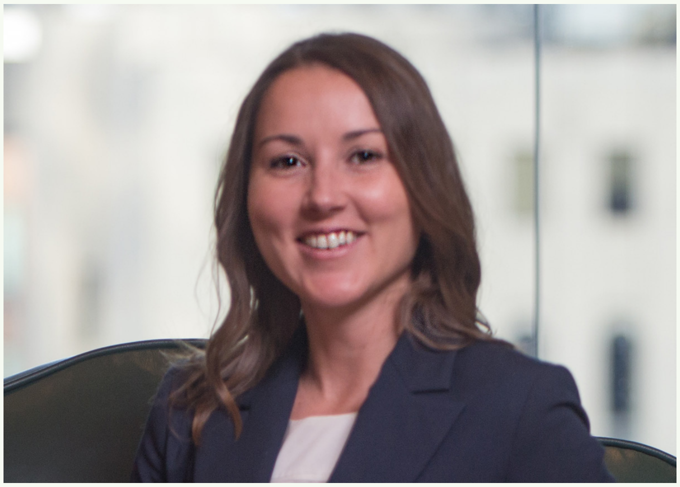
2018

Managing Climate-Related Risks and Opportunities

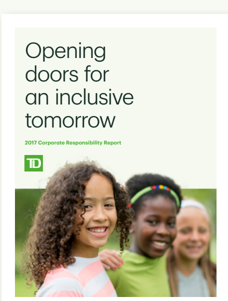
TD's TCFD Report



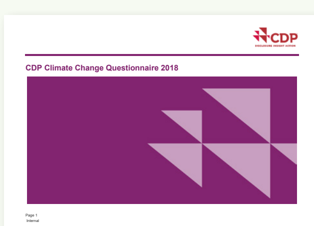
"Understanding the risks and opportunities posed by climate change is important for our customers, colleagues and communities, and to the sustainability of our business. As part of TD's enterprise approach to manage climate-related risk, TD has embedded assessment of climate-related risks and opportunities into key processes and is participating in the UNEP-FI pilot studies to help develop industry-relevant approaches for climate scenario analysis. We believe this work is an important step on the journey to a sustainable, low-carbon economy."

Nicole Vadori, Head of Environment, TD Bank Group

OTHER PUBLICATIONS



2017 Corporate Responsibility Report



2018 CDP Submission

Introduction

This report is TD's first stand-alone summary on business and operational climate performance and efforts towards implementing the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations. After the TCFD recommendations were released in 2017, TD took action by joining the United Nations Environment Programme – Finance Initiative (UNEP-FI) Banking Sector Pilot Project alongside 15 other financial institutions in an effort to develop methodologies for assessing financial impacts from climate related risks. The most significant recommendation calls for assessing our resilience to different climate scenarios. We believe that climate scenario analysis may provide valuable insight into our overall strategy. We also understand the importance of getting it right. TD is in the early stages of conducting climate scenario analysis, as are most companies. We understand that this is a multi-year journey, and with refinements in scenario analysis methods, data, and tools over time, we will continue to build our expertise for managing climate risks and opportunities.

TD is the only bank to be engaged in all three UNEP-FI TCFD pilot groups.

UNEP
FINANCE
INITIATIVE

Introduction (continued)

"At TD, we believe we have a role to play in supporting the transition to a low-carbon economy so that people and economies can thrive. The Financial Stability Board's recommendations on climate-related financial disclosures provide a consistent framework to help companies better understand the impacts of climate change on their business. As part of the UNEP-FI pilot studies of the recommendations, we are committed to building on our understanding of the risks and opportunities to better serve our clients."

Norie Campbell, Group Head, Customer and Colleague Experience and Senior Executive Environmental Champion, TD Bank Group

In 2015, the Financial Stability Board (FSB) established the Task Force on Climate-related Financial Disclosures (TCFD) in response to investor demand for information related to climate change risks and opportunities. Following a period of public consultation, the TCFD released its final recommendations in June 2017.

Climate-related impacts are already occurring and will continue for many decades, with the potential to cause large scale economic disruption. As part of the global commitment to mitigate climate change impacts, Canada is transitioning toward a low-carbon economy – a process that began almost a decade ago and will continue for another two to three decades. We recognize that, with this transition, the world is working to limit the increase in the global average temperature to well below two degrees Celsius by 2030. While Canada is transitioning to cleaner energy sources, TD believes that responsible development of our natural resources must balance environmental, social and economic considerations. We believe financial institutions can play a role in meeting the 2030 targets set out in the 2015 Paris Climate Agreement by addressing climate-related impacts to their business and supporting the transition to a low-carbon economy.

Building on close to a decade of environmental and climate change leadership, TD has embedded assessment and disclosure of climate-related risks and opportunities into our processes and reporting. We are aligned to many of the TCFD recommended disclosures in our public reporting and are actively working to better understand our practices on the remaining disclosures through our participation in industry-leading working groups to evaluate emerging methodologies. This document summarizes our TCFD recommended disclosures and highlights our many initiatives to support the responsible transition to a low-carbon economy.

Introduction (continued)

Figure: TCFD Recommended Disclosures[1]

Governance

- Board oversight
- Management role

Strategy

- Identified climate-related risks and opportunities
- Impact on business, strategy and financial planning
- Resilience to different climate-related scenarios

Risk Management

- Processes for identifying and assessing climate-related risks
- Processes for managing climate-related risks
- Integration of processes in overall risk management

Metrics & Targets

- Metrics used to assess climate-related risks and opportunities
- Scope 1, Scope 2 and Scope 3 greenhouse gas (GHG) emissions, and related risks
- Targets used to manage climate-related risks and opportunities, and performance

1 https://www.fsb-tcfd.org/publications/final-recommendations-report/

1.0 Governance

A. BOARD OVERSIGHT

TD's Board of Directors oversees the implementation of an effective risk culture and internal control framework across the enterprise. As part of its mandate, the Board oversees controls and risks related to climate change issues affecting TD and its stakeholders, and it accomplishes its mandate through its committees, including the Risk Committee and the Corporate Governance Committee. The Risk Committee oversees risk management, including climate-related transition and physical risks, while the Corporate Governance Committee provides oversight and direction on the Bank's climate-related commitments, targets and performance. The Board and its committees also consider climate-related issues in reviews of major action plans and policies, including our strategy for supporting the transition to a low-carbon economy.

B. MANAGEMENT ROLE

The Senior Executive Environmental Champion is responsible for promoting the considerations of climate change matters and issues at TD and is supported by the Corporate Citizenship team. Within the Corporate Citizenship team, the Head of Environment leads the Corporate Environmental Affairs team, which is responsible for developing TD's environmental strategy, setting environmental performance standards and targets, and reporting on performance.

TD also has an enterprise-wide Corporate Citizenship Council (CCC) composed of senior executives from TD's business segments and corporate functions. The CCC is responsible for meeting performance standards and communicating results throughout the business. TD's business segments are responsible for implementing the environmental strategy and managing associated risks within their units.

2.0 Strategy

A. CLIMATE-RELATED RISKS AND OPPORTUNITIES IDENTIFIED

Since first identifying climate change as a risk in 2009, TD has integrated short, medium and long-term climate change considerations into our business, including direct impacts to our operations as well as indirect impacts associated with our customers. A comprehensive account of our climate-related risks and opportunities is disclosed annually in our CDP Climate Change response. A summary from our 2018 submission is presented on the next page.

As a financial institution, we are exposed to potential climate-related credit, market and insurance risks. Potential risks could arise from current and emerging regulations and carbon-related litigation involving our clients, as well as more extreme weather events causing property and asset damage, impacting our clients.

B. IMPACT ON BUSINESS, STRATEGY AND FINANCIAL PLANNING

Assessing our climate change risks and opportunities provides a unique lens through which to evaluate how our business can adapt to changing regulations and consumer preferences, and enhance our reputation in the industry. Integrating relevant climate considerations into our business decisions continues to support our long-term growth strategy. In 2017, we launched a set of environmental initiatives which includes a target of $100 billion, in total, in low-carbon lending, financing, asset management and other programs by 2030, and we are well on our way to meeting this target.

TD was the first carbon neutral bank in Canada, and was also the first Canadian bank to issue a green bond (C$500 million issued in 2014; US$1 billion issued in 2017). We have an active green bond underwriting practice and green investment strategy and are signatories to United Nations (UN) Principles for Responsible Investment, UN Principles for Sustainable Insurance, Equator Principles, and Renewable Energy 100 (RE100). We have also supported climate adaptation research for our insurance clients, participated in the carbon credit market, and developed new products such as the TD Auto Finance loans for electric and hybrid vehicles, and climate change-related TD Insurance products. We continue to demonstrate thought leadership and innovation, for example, by collaborating with Bloomberg to map physical climate risks in our lending portfolios.

Table: Selected Key Climate Risks and Opportunities Identified and Managed by TD

RISKS	Type	Where in Value Chain	Time Horizon	Likelihood	Magnitude of Impact
Increased energy costs	Transition	Direct operations	Short (1-3 years)	More likely than not	Low
Increased extreme weather events	Physical	Direct operations	Medium (3-5 years)	Likely	Medium
Changing consumer awareness and attitudes about fossil fuels	Transition	Customers	Current	More likely than not	Low to medium

OPPORTUNITIES	Type	Where in Value Chain	Time Horizon	Likelihood	Magnitude of Impact
More energy-efficient buildings	Resource efficiency	Direct operations	Short (1-3 years)	Virtual certainty	Low
Changing customer preferences for low-carbon products and services	Products and services	Customers	Current	Likely	Medium
Access to new and emerging markets	Markets	Customers	Current	Very likely	Low

C. RESILIENCE TO DIFFERENT CLIMATE-RELATED SCENARIOS

TD is participating in UNEP-FI pilot studies to better understand the resilience of our credit, investment and insurance portfolios to climate-related impacts. Results of the studies will help inform methodologies for assessing both transition and physical climate risks and opportunities under various climate scenarios that are relevant to our industry.

Leadership: Piloting the TCFD Recommendations & Scenario Analysis

One of the more complex TCFD recommendations relates to using scenario analysis to understand the resilience of business strategy to possible climate impacts. UNEP-FI has convened three pilot groups, focusing on climate-related risk to lenders, investors and insurers, made up of sector participants from around the world. The objective is to develop the first-ever methodologies for climate-related scenario analysis for the financial sector

TD is the only bank to be engaged in all three pilot groups. We see value in actively participating during this critical time when the methodologies that guide how to assess climate risk in our industry are beginning to be established. In support of the UNEP-FI initiative, we convened an internal, cross-functional team to test the methodologies being developed to assess climate risk at the enterprise level and to provide feedback on the methodology to assist in its refinement.

3.0 **Risk Management**

A. PROCESSES FOR IDENTIFYING AND ASSESSING CLIMATE-RELATED RISKS &

B. PROCESSES FOR MANAGING CLIMATE-RELATED RISKS

TD's comprehensive and proactive approach to risk management, including climate-related risk, is comprised of four principal processes: risk identification and assessment, measurement, control, and monitoring and reporting. These processes are applied to climate-related physical and transition risks by TD's environmental subject matter experts. Once identified, climate-related risks are raised to the relevant business segments to determine whether to accept, transfer or mitigate risks; develop mitigation plans as needed, and carry out regular monitoring and reporting.

We follow a similar approach for identifying climate-related opportunities. Opportunities are evaluated by the relevant business segments and managed through TD's internal business processes; for example, we follow our internal process for new products and services when launching a new climate-related product.

TD uses several additional approaches to understand and measure climate-related risks. These include: review of lending and investing exposure to industries that are vulnerable to the impacts of climate change as well as industries that will thrive in the transition to a low-carbon economy, natural capital valuation, GHG emissions and energy use avoided, clean energy generated, etc. These approaches are used in combination with qualitative approaches such as industry and peer comparison.

TD manages climate-related transition risks in our own operations such as rising energy costs by monitoring and managing our energy use across our North American facilities using Energy Star PortfolioManager®, completing LED lighting retrofits, and installing on-site solar photovoltaic generation at select locations. We constantly strive to improve the energy efficiency of our facilities through our Green Building Standard, which guides our construction, retrofit and leasing practices.

Our approach to identifying, managing and mitigating our climate-related business risks includes using written policies and procedures, ongoing analysis and client engagement.

C. INTEGRATION OF PROCESSES IN OVERALL RISK MANAGEMENT

TD's climate change risk and opportunity identification process is integrated in our risk management and governance framework. Climate-related risks are identified as part of TD's credit and investment risk management processes which integrate environmental, social and governance (ESG) factors. TD identifies and mitigates credit risk through policies and procedures that value and manage financial and non-financial security. TD's environmental due diligence tools for non-retail lending consider the disclosed GHG emissions footprints and readiness to respond to emerging regulations of clients in carbon-intensive industries.

Figure: Environmentally Sensitive Lending as a Portion of TD's Total Lending by Sector

TD'S TOTAL LENDING BY SECTOR[1]

$667 billion
Total

69% of our overall lending is personal and residential

Sector	
Personal and Residential	69%
Commercial, Environmentally Sensitive	12%
Commercial, Other	19%

ENVIRONMENTALLY SENSITIVE LENDING
(approximately 12% of total lending)

5.4% Non-residential real estate

1.9% Automotive

1.2% Agriculture

1.0% Pipelines, Oil and Gas

0.9% Food and Beverage

0.9% Power and Utilies

0.5% Mining

0.2% Forestry

1 See Table 24 in TD's 2018 Annual Report, pg 44 (Canada and U.S. only).

4.0 **Metrics & Targets**

A. METRICS USED TO ASSESS CLIMATE-RELATED RISKS AND OPPORTUNITIES

Several metrics help us manage our climate-related risks and opportunities related to our finance and investing activities, our business operations, and our employee and community activities.

Example Metrics Used by TD to Assess Climate-Related Risks and Opportunities

- Investment in low-carbon financing ($)
- Annual GHG emissions (tCO2e of scope 1, scope 2 and select scope 3 emissions)
- Annual energy used and avoided (GJ and % reduction)
- Renewable electricity purchased for our operations (%)
- Internal price on carbon ($/tCO2e)
- Number of corporate green teams and employee environmental campaigns

B. SCOPE 1, SCOPE 2 AND SCOPE 3 GHG EMISSIONS, AND RELATED RISKS

TD discloses its GHG emissions annually in our Corporate Responsibility Report and ESG Performance Data Appendix, in our CDP Climate Change response and in our reporting to the Dow Jones Sustainability Index (DJSI), including both scope 1 and 2 emissions, as well as select categories of scope 3 emissions. We complete our GHG Inventory and achieve independent assurance of our results in accordance with the *GHG Protocol Corporate Standard* and *ISO 14064-1: Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.*

TD has been carbon neutral since 2010 through our efforts to manage our GHG emissions and by purchasing voluntary offsets. We also encourage our suppliers to track and report on their GHG emissions through our participation in the CDP Supply Chain program.

C. TARGETS USED TO MANAGE CLIMATE-RELATED RISKS AND OPPORTUNITIES, AND PERFORMANCE

TD has set targets for its GHG emissions and energy use from our business operations, and has met or exceeded our target for zero increase in absolute energy consumption and GHG emissions relative to a 2015 baseline. We joined the RE100 in 2015 and have since procured renewable electricity certificates (RECs) equivalent to 100% of our annual electricity consumption.

In 2017, we set an ambitious target of $100 billion towards lending, financing, asset management and other programs that will support the transition to the low-carbon economy by 2030. For a comprehensive set of our climate-related and other targets and current performance, consult the TD Environmental Scorecard.

5.0 **Outlook and Next Steps**

Since joining the TCFD UNEP-FI Lending Pilot in October 2017, TD has been evaluating our existing Governance, Strategy, Risk Management and Metrics & Targets processes to further integrate climate change risk into them. We are mindful of the TCFD's recommendations and aware of increasing investor interest in climate-related disclosure practices. We will work closely with our sustainability professionals to continue refining and embedding these disclosures in our reporting where appropriate. We will also explore opportunities to further embed climate competencies in our most senior leadership functions, anticipating that our CEO and Board will increasingly consider the climate change risks and impacts on long-term strategic planning and future financial growth propositions.