Managing Climate-related Risks and Opportunities

Task-Force on Climate-related Financial Disclosures Report
“To protect the financial security and peace of mind of Canadians and their communities, we must understand the risks and opportunities posed by climate change.

We strive to be a champion and a catalyst of a sustainable, climate-resilient society, and are committed to integrating climate-related risk into our governance models and business practices.

As a long-time advocate for increased focus and action on climate change, we welcome the Financial Stability Board’s mandate to increase investor and consumer awareness over what we believe is the most pressing issue of our time.”

Karen Higgins
Executive Vice-President, Finance
and Chief Financial Officer, The Co-operators Group Limited
Introduction

This report is The Co-operators inaugural stand-alone summary of efforts to implement the Task Force on Climate-related Financial Disclosures (TCFD) recommendations as issued by the Financial Stability Board. These disclosures cover a reporting period from January 1, 2019 to December 31, 2019 and provide an overview of our approach to identifying and managing climate-related risks and opportunities. Improving our TCFD practices is a multi-year progression, and we are currently in the second year of a three-year roadmap.

Assessing the impact of climate change has long been part of our business activities. Our Sustainability Policy, created in 2008, formalized our consideration of environmental, social and economic sustainability to ensure we are building resiliency in all three areas over the long term. Our approach to sustainability is holistic and integrated into our products and services, business practices, and how we engage with our stakeholders. For example:

> We've reduced our carbon footprint by 80% from 2010 baseline\(^1\) levels.
> In 2016, we became the first Canadian insurer to offer residential overland flood coverage for all Canadians, regardless of their risk level, and expanded this coverage to include storm surge in 2018.
> We were the first Canadian insurer to track and disclose the carbon footprint of our investments through the United Nations Principles for Responsible Investment (UN-PRI) Montreal Carbon Pledge.
> Our investment arm, Addenda Capital Inc. (Addenda), was the first Canadian asset manager to disclose the carbon footprint of all its equity funds.

We are committed to expanding our efforts to enhance our climate-risk practices and disclosures, and leading the industry among similar-sized cohorts. In 2019, we formalized our commitment to a net zero emission future by signing the Accountanting for Sustainability (A4S) statement of support, in conjunction with our global peers. In addition, we participate in industry-wide working groups to develop tools to improve our ability to align with the recommendations of the TCFD. These recommendations are designed to lead to more effective corporate climate risk management, and better-informed evaluations of such risks and exposures by lenders, insurers and investors.

Guided by our co-operative principles

The seven global co-operative principles outlined by the International Co-operative Alliance guide our decision-making and approach to business. Among these principles, ‘concern for community’ highlights our commitment to invest in communities and advocate for social, financial and environmental sustainability. We strongly believe this includes proactively addressing the challenges related to climate change. See more details: integratedreport.cooperators.ca.

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1. The year used as a reference point to calculate carbon emission reductions.
We have a long history as a catalyst for sustainability and a strong advocate on climate change. Enhancing our climate-risk practices and disclosures is a core feature of our Climate Commitment which we formally launched in 2018. Through better disclosure, we hope to improve our oversight, identification and management of climate-related risks and opportunities as well as strengthen the resiliency of our corporate strategy. This can better enable our stakeholders to understand and mitigate the impacts of climate change.

### Three-year TCFD roadmap

<table>
<thead>
<tr>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td><strong>Governance</strong></td>
<td><strong>Strategy</strong></td>
<td><strong>Risk Management</strong></td>
</tr>
<tr>
<td>&gt; Develop three year TCFD roadmap</td>
<td>&gt; Integrate climate-risk into 2019–2022 strategic planning process</td>
<td>&gt; Understanding the Property and Casualty (P&amp;C) and Life impacts of climate change</td>
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<td>&gt; Identify role of the Board committees</td>
<td>&gt; Align climate-risk with 2030 UN SDGs (page 7)</td>
<td>&gt; Further quantify climate-related events and pricing</td>
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<td>&gt; Publish a Climate Commitment</td>
<td>&gt; Advocate to raise external climate awareness and promote smart policy</td>
<td>&gt; Performance and quantification of +2°C scenario analysis</td>
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#### Metrics and Targets

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<tr>
<th>2018</th>
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<tr>
<td>&gt; Disclose high level TCFD engagement in Integrated Annual Report and MD&amp;A</td>
<td>&gt; Review climate-related metrics and targets</td>
<td>&gt; Disclosure of TCFD recommendations in line with UNEP-FI and industry developments with a goal to be a leader amongst similar-sized insurers</td>
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<tr>
<td></td>
<td>&gt; Tracking and evaluation annually against established key metrics</td>
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> Complete  Ongoing

### Scenario Analysis

One of the TCFD recommendations involves describing the resilience of a company's strategy under different climate-related scenarios, including one of a +2°C increase or more. We are currently taking action to address this, and are committed to continuing efforts to achieve disclosures in line with industry developments. Our goal is to lead the industry among similar-sized insurers and financial services organizations. Through our active participation and thought leadership in the UNEP-FI pilot groups for insurers and asset managers, we aim to contribute to the development of consistent practices and disclosures to better quantify the collective impact of this scenario.
Canadians, our communities, and our businesses are bearing the impacts of a changing climate. In 2018, the Intergovernmental Panel on Climate Change (IPCC) released a special report on the impacts of climate change, which found that if greenhouse gas (GHG) emissions continue at their current rate, the Earth’s atmosphere will increase by 1.5°C above pre-industrial levels by 2030. This rapidly-approaching reality exceeds the goal supported by 184 countries in the 2015 Paris Agreement, which aims to hold the increase in global average temperature to “well below” 2°C above pre-industrial levels. A 1.5°C scenario is expected to involve potentially catastrophic impacts on agriculture, coastlines, and critical ecosystems, in addition to human poverty. It is estimated to come at a global cost of between US $54 trillion and US $69 trillion.

Environment and Climate Change Canada’s recent study, “Canada’s Changing Climate Report”, found that Canada, on average, is experiencing warming at twice the rate of the rest of the world, with Northern Canada heating up at almost three times the global average. These warming effects are causing greater volatility in weather patterns and affecting the livability of many regions across the country. There has been a stark increase in catastrophic losses in recent decades, fuelled by increasing risk of extreme weather and natural disasters. Our collective failure to address and prepare for climate change poses pressing socio-economic risks to our society in Canada and globally, for the current generation and generations to come.

We define sustainability as a future state where individuals, communities and the economy thrive within the cycles of nature and a healthy society. As climate change poses significant challenges along the way, we are committed to facilitating a smooth transition to a sustainable future.

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2. Intergovernmental Panel on Climate Change (IPCC), Global Warming of 1.5°C – An IPCC Special Report (October 8, 2018).
4. According to the IPCC SR1.5 report (Chapter 3, Box 3.6) at page 3-153.
5. Canada’s Changing Climate Report (CCCR) (Section 2.2.1) at page 34.
6. According to the CCCR (Section 4 Summary).
Building on the established mandates of our Board and its standing committees, we updated the terms of reference, with guidance from a third-party consultant, for both the Sustainability and Citizenship Committee (S&CC) and the Risk and Compensation Committee (R&CC) to better reflect the responsibility of climate-related risk management and strategy. The Co-operators Climate Commitment outlines our pledge to address climate-related risks and issues in our governance, products and services, operations and investments.

**Board of Directors**
The Board oversees our management of climate-related risks and strategy. This is done through committees, involving the S&CC and the R&CC. Annually, the S&CC and R&CC hold a joint meeting to review our status on climate-related risk and progress on the TCFD recommendations. On occasion, the R&CC Chair will provide updates on climate-related topics to the Board while the President and CEO reports to the Board at each meeting and often touches on climate-related topics when applicable to the strategy and performance of the organization.

**Executive Management**
The Co-operators Management Group, consisting of our executive leadership team is accountable for maintaining our overall risk policy framework, which includes specific climate change considerations. The TCFD Advisory Group is responsible for execution of climate-related strategies, including risk analysis and mitigation, at the business unit level. Our President and CEO participates in an annual joint sustainability meeting with the chairperson of the Board of Directors, the S&CC, and the senior Sustainability Management Committee, which provides an opportunity for shared learning, cross-organizational collaboration, strategic planning and monitoring of our sustainability practice.

**Governance**

The Co-operators and Addenda’s participation in industry-wide, climate-related working groups, including UNEP-FI pilot studies, exemplifies the leadership role we have taken in climate change advocacy and discourse within the Canadian insurance industry. Our involvement will help the insurance industry achieve consistency and comparability on possible climate change scenarios, including a 2°C or more scenario. Internally, we have convened a cross-functional team of experts across the areas of actuarial, enterprise risk management, sustainability, investment, governance, strategy and finance, to better measure the resiliency of our business strategy to possible climate impacts.

**Did you know?**
The Co-operators and Addenda’s participation in industry-wide, climate-related working groups, including UNEP-FI pilot studies, exemplifies the leadership role we have taken in climate change advocacy and discourse within the Canadian insurance industry. Our involvement will help the insurance industry achieve consistency and comparability on possible climate change scenarios, including a 2°C or more scenario. Internally, we have convened a cross-functional team of experts across the areas of actuarial, enterprise risk management, sustainability, investment, governance, strategy and finance, to better measure the resiliency of our business strategy to possible climate impacts.
Our 2030 Enterprise Long-term Goals were developed through a sustainability lens – reflecting our commitment to integrate sustainability into our business decisions, processes and actions. They express the outcomes that we aim to realize by 2030 as a purpose-driven co-operative, and support the United Nations Sustainable Development Goals (SDGs). Dedicated resources towards the Climate Action SDG will allow us to achieve the objectives outlined below.

**Develop and set clear company-wide climate objectives addressing key parts of our organization that reflect our future goals**

Our 2019–2022 corporate strategy includes climate considerations, with the Board and management currently working to identify and define key performance indicators and associated targets/metrics to measure our progress.

**Continue to develop innovative products and services to address gaps in climate-related coverage**

As part of our Climate Change Adaptation Project, (see page 7) we will position The Co-operators as an early mover and innovator developing tangible, insurance-specific expertise on climate-related risks and perils.

**Strengthen our investment policies by explicitly including the consideration of climate-related risks and opportunities**

In our capacity as an asset manager through Addenda Capital, we employ an impact investing strategy which is regularly reviewed and use company disclosures and third-party research to assess our investments’ exposure to climate-related risks and opportunities.

**Help our clients understand and manage their climate-related risks**

We will continue to expand our efforts to inform and equip Canadians with the tools they need to adapt to the environmental, social and financial impacts of a changing climate, through public reporting, social media, community partnerships and investments that build resiliency. We also partner with not-for-profit organizations and contribute funding to communities across the country.

**To be strong and effective leaders in climate advocacy and environmental stewardship**

We have advocated for carbon pricing since 2015, played an instrumental role in supporting the creation of a national flood advisory council, and joined the UNEP-FI TCFD pilot group for investors to build relevant and reliable scenario testing tools.

**We endorse all 17 SDGs, with an active focus on 9 SDGs**

7. The SDGs are a set of 17 goals (with 169 specific targets) developed by the United Nations in consultation with its member states and global civil society. They aim to meet the urgent environmental, political and economic challenges facing our world. For further information on the SDGs including definitions and targets, see: http://www.un.org/sustainabledevelopment/sustainable-development-goals/
# Key climate-related risks

<table>
<thead>
<tr>
<th>Risks</th>
<th>Type</th>
<th>Response</th>
<th>Time Horizon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in frequency and severity of extreme weather events</td>
<td>Physical</td>
<td>Climate change is leading to rising claims and uncertainty in our property and casualty insurance portfolio. These trends will inevitably lead to an increasing gap between insured and total economic losses. Closing this protection gap by passing these additional costs on to policyholders is not a sustainable business model. Therefore, our ability to generate positive returns is highly dependent on our ability to accurately estimate and price for these weather-related events but also our ability to advocate for effective mitigation.</td>
<td>Short-term (1-3 years) and ongoing</td>
</tr>
<tr>
<td>Increase in mortality and morbidity</td>
<td>Physical</td>
<td>The mortality and morbidity risks related to climate change may impact our Life insurance portfolio. For example, increases in extreme weather events such as flooding and heatwaves may impact the spread of infectious diseases and viruses. Accordingly, we regularly test the health risk from an epidemic in our company’s scenario and stress testing programs.</td>
<td>Long-term (5+ years)</td>
</tr>
<tr>
<td>Asset depreciation and lower investment returns</td>
<td>Transition</td>
<td>Climate change may impact the value of our investment portfolio, as investee companies are further impacted by climate-related changes in technology, consumer preferences or regulation. This may directly lead to adverse financial performance for those companies and by extension, ourselves.</td>
<td>Long-term (5+ years)</td>
</tr>
<tr>
<td>Regulatory</td>
<td>Transition</td>
<td>Despite the slow development of carbon policy in Canada and globally, the adequate pricing of carbon will eventually lead to higher direct and indirect costs. Over time, these costs will increase pressure on our ability to generate positive returns.</td>
<td>Long-term (5+ years)</td>
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## Key climate-related opportunities

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Type</th>
<th>Response</th>
<th>Time Horizon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovative product solutions</strong></td>
<td>Product offerings</td>
<td>Designing innovative product solutions to enable and empower community resilience is mandated through The Co-operators Climate Commitment. We developed Canada’s first and only comprehensive water product that covers all Canadians, despite their level of flood risk. This product includes storm surge coverage, and is available to all risk types and property types (including cottages and seasonal dwellings, apartments and condos).</td>
<td>Current</td>
</tr>
<tr>
<td><strong>Operational efficiency</strong></td>
<td>Resource usage levels</td>
<td>We have reduced our carbon emissions by 80% from 2010 levels through energy retrofits, space consolidation, and other measures. We also support our Financial Advisor offices in becoming carbon neutral. We are on track to be carbon neutral equivalent by the end of 2020, which will allow us to manage our future operating costs as well as contribute to our ongoing sustainability goals.</td>
<td>Short-term (1-3 years)</td>
</tr>
<tr>
<td><strong>Develop new tools to mitigate climate-related risks for clients</strong></td>
<td>Client resiliency</td>
<td>In 2018, we launched the Climate Change Adaptation Project to assess and mitigate climate-related risks over the lifetime of our P&amp;C products to clients. This initiative encompasses several programs, including accurately tracking wildfire progression to enable more timely underwriting actions; expanding and targeting our efforts to notify users of impending extreme weather events; and building tools to more precisely monitor risk accumulation to identify clients at a high-risk of being impacted by climate change.</td>
<td>Medium-term (3-5 years)</td>
</tr>
<tr>
<td><strong>Advance advocacy to enhance involvement by government stakeholders</strong></td>
<td>Client resiliency</td>
<td>As part of an ongoing effort to build resilient communities, we have partnered across sectors to create a community-based Disaster Risk Reduction Program. This program will empower people to prepare and act ahead of climate-related events like floods and wildfires. We also play a key role in convening industry peers and advocating for improvement of flood resiliency as part of Public Safety Canada’s Advisory Council on Flood.</td>
<td>Current</td>
</tr>
</tbody>
</table>
Climate-related issues have large-scale and broad implications across the financial services industry and permeate the insurance, investment, strategic, reputation and operational risks that influence our risk profile. We view climate change as a complex risk issue but one that is also an opportunity to achieve our mission of providing financial security for Canadians and their communities, today and in the future.

We employ a “three lines of defence” model, which provides a comprehensive approach to risk management. This approach comprises of risk identification, assessment and quantification, control and monitoring, and reporting. This approach is applied by The Co-operators Enterprise Risk Management (ERM) team and key business areas to manage climate-related physical and transition risks, among other risk types.

In support of our Climate Commitment, we have an integrated climate change strategy that focuses activity across three key areas: mitigation; adaptation; and portfolio evaluation.

**Mitigation** – Reducing the risks presented by climate change impacts

The insurance industry will be impacted by climate change in ways that are complex and difficult to predict. We continue to dedicate resources to anticipate and prepare for the many impacts of climate change.

We preserve our capital while managing costs through reinsurance risk transfer mechanisms. We minimize our credit risk exposure by spreading our program across many trusted partners and setting robust financial standards for eligibility.

We have designed a robust and resilient capital management framework which allows us to maintain the strength of our balance sheet by ensuring climate-related impacts are accounted for.

We utilize company disclosures and third-party research to assess portfolio companies’ exposure to climate-related risks and risk management ability. If disclosures are lacking detail to make an adequate assessment, we engage to encourage further disclosure.

Material climate-related risks and opportunities are incorporated into investment decisions, considering companies’ exposure to climate-related risks and how those risks are being managed.

**Adaptation** – Building the resilience of our operations, communities and ecosystems to climate change impacts

In the medium to long-term time horizon, climate change is likely to have an impact on both our insurance and investment portfolios. We are developing methods to identify how our business and our clients can deploy adaptative measures to combat the growing physical and transition threats of climate change.

Our extensive innovation work with subject matter experts has provided valuable insight into climate change risk management knowledge and practices. Our data scientists and expert catastrophe modelers have developed a risk accumulation geospatial tool to help management understand and effectively manage our geographical risk accumulations.

As a co-operative, we are committed to community engagement, and advocate for societal and behavioural change and adaption. We proudly participate in various community awareness days and social media campaigns to inform and empower Canadians and their communities.

**Portfolio evaluation** – Testing the resilience of our insurance and investment portfolios and strategy

We continually monitor and analyze the potential impacts of climate-related risks in our portfolios. We stress test the resilience of our products for plausible future economic, political and environmental states. We proactively evaluate the financial impacts and our strategic response if the climate change scenario were to materialize. For example, we monitor our geographical risk accumulations to better understand and manage our property risk concentration across the country.

For our investment portfolio and assets under management through Addenda, we engage investees in how they are identifying, assessing and managing climate-related risks and encourage them to improve their practices where appropriate. We assess and manage the exposure of our assets to a potential increase in carbon intensity. All invested assets, as applicable, are guided by our Sustainable Investment Policy.
Metrics and Targets

There are several metrics that we have implemented and targets we have set to help us manage our climate-related risks and opportunities relating to our business operations, our investing activities and our community activities.

### Metrics and targets used to assess climate-related risk and opportunities

<table>
<thead>
<tr>
<th>Metric</th>
<th>2018</th>
<th>2017</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon intensity (tCO2e per employee)</td>
<td>2.2 tCO2e</td>
<td>2.7 tCO2e</td>
<td>3.3 tCO2e</td>
</tr>
<tr>
<td>Net carbon emissions reduced from 2010 levels (percentage)</td>
<td>80%</td>
<td>81%</td>
<td>81%</td>
</tr>
<tr>
<td>Percentage of The Co-operators invested assets in impact investments</td>
<td>19.4%</td>
<td>13.1%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Major event loss claims (includes extreme weather and other significant natural disasters)</td>
<td>$111.5M</td>
<td>$179.5M</td>
<td>$137.1M</td>
</tr>
<tr>
<td>Major event loss claims due to extreme weather</td>
<td>99.6%</td>
<td>99.9%</td>
<td>99.7%</td>
</tr>
<tr>
<td>Number of Comprehensive Water endorsements</td>
<td>483,879</td>
<td>295,733</td>
<td>250,297</td>
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</table>

In 2019, our total carbon emissions before offsets were 13,947 (tonnes of CO2 equivalent)

Restatements of previously reported historical emissions data result primarily from updates to provincial emission factors. For more on how we calculate our carbon footprint, see our Supplementary Disclosures at cooperators.ca/reports.

8. Tonnes of CO2 equivalent emitted per employee.
9. Tonnes of CO2 equivalent we have reduced from 2010 levels.
10. The percentage of our invested assets in securities that have both compelling investment returns and a measurable, positive environmental and/or social impact. This demonstrates our commitment to embedding co-operative and sustainability principles into our investment decisions, and helps build resilient, sustainable communities for future generations.
11. The proportion of major events loss claims paid to clients due to extreme weather, including heavy and/or frequent rainfall, ice, hail, wind, flooding and wildfires.
12. Our Comprehensive Water product is Canada’s only flood product to cover overland flooding, storm surge, and storm and sewer backup, even for those at the highest risk of flooding.
Scope 1, Scope 2 and Scope 3 GHG Emissions and Related Risks

Greenhouse gas (GHG) emissions are a prime driver of rising global temperatures and, as such, are a key focal point of policy, regulatory, market and technology responses to limit climate change. As a result, organizations with significant emissions are likely to be more strongly impacted by transition risk than other organizations.

At The Co-operators, we track, monitor and report on the carbon footprint of our investments to better understand the investment implications of climate change. Our $10.6 billion in invested assets impact and influence global carbon emissions and climate-related risk. In 2014, we were the first Canadian insurance company to sign onto the Montreal Carbon Pledge, and Addenda became the first Canadian asset manager to sign the pledge and disclose the carbon impact of all its equity pooled funds in 2015.

The carbon footprint of our investments represents the GHG emissions of our owned equity, preferred share and corporate bond portfolios, which is calculated in tonnes of CO2 equivalent. We include both scope 1 emissions (direct GHG emissions) and scope 2 emissions (GHG emissions from electricity, steam, heat and cooling). All other indirect emissions occurring from sources that the Co-operators do not own or control are not included.

A breakdown of the carbon intensity of these portfolios can be found in our supplementary disclosures online.

2019 Scope 1 and Scope 2 GHG Emissions from the entities we invest in

188,990 tCO2e
2018: 145,282 tCO2e
2017: 173,283 tCO2e
**Key Contacts**

**Finance**
Lesley Christodoulou  
Vice-President, Corporate Finance Services  
lesley_christodoulou@cooperators.ca

**Sustainability & Citizenship**
Barbara Turley-McIntyre  
Vice-President, Sustainability & Citizenship  
barbara_turley-mcintyre@cooperators.ca

**Climate Partners**
>
Canada Red Cross  
CDP (Carbon Disclosure Project)  
- Climate change program (Addenda Capital Inc. and The Co-operators Group Limited)  
- Water program (Addenda Capital Inc.)  
- Forests program (Addenda Capital Inc.)  
- Carbon action initiative (Addenda Capital Inc.)  
>Corporate Knights’ Council for Clean Capitalism  
>Green Bond Principles (Addenda Capital Inc.)  
>Institute for Catastrophic Loss Reduction  
>Institute for Sustainable Finance  
>Investor Network on Climate Risk (Addenda Capital Inc.)  
>Montreal Carbon Pledge (Addenda Capital Inc. and The Co-operators Group Limited)  
>Partners for Action Network  
>Partners in Protection Association  
>Responsible Investment Association (Addenda Capital Inc.)  
>Smart Prosperity Leaders’ Initiative  
>Task Force on Climate-Related Financial Disclosures – Supporters (Addenda Capital Inc. and The Co-operators Group Limited)  
>The Accounting for Sustainability CFO Leadership Network  
>United Nations Environment Programme – Finance Initiative  
- Global Steering Committee  
- Pilot asset management group – implementing the TCFD recommendations (Addenda Capital Inc.)  
- Pilot insurer group – implementing the TCFD recommendations  
- Principles for Sustainable Insurance  
>United Nations-supported Principles for Responsible Investment (Addenda Capital Inc.)