



BRIDGING THE TRANSPARENCY GAP IN SUSTAINABLE FINANCE

Advancing the Business Case for the Canadian Centre
for Climate Information and Analytics (C3IA)

REPORT
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**Smart Prosperity
Institute**

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About Smart Prosperity Institute

Smart Prosperity Institute (formerly Sustainable Prosperity) is a national research network and policy think tank based at the University of Ottawa. We deliver world-class research and work with public and private partners – all to advance practical policies and market solutions for a stronger, cleaner economy.

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EXECUTIVE SUMMARY

Canada's private sector needs access to reliable and complete data in order to play its critical role in addressing climate issues and harnessing clean and resilient growth opportunities.

How Canada's companies and financial institutions approach climate-based issues and opportunities will ultimately shape long-term environmental, economic, and social development. Financial institutions, in particular, will play a central role in mitigating climate-related threats to businesses and assets while driving capital flows toward cleaner, more resilient energy, products, systems, markets, and solutions. To effectively meet this role, our financial system needs the tools to recognize, analyze, and right-price climate-related factors.

Access to reliable data – and the ability to translate that data into intuitive economic outcomes – is key to effective risk analysis and financial decision-making.

While a range of voluntary climate disclosure standards are available and ample climate and energy data exist, the financial sector faces persistent challenges around information integrity, accessibility, completeness, and comparability. The resulting knowledge and information gaps are distorting market assessment and pricing of climate-related risk and opportunity, slowing progress on the low-carbon transition, and leaving Canada's financial system (and the people and businesses it influences) vulnerable to impacts.

Box 01

We are still at an early stage of understanding the full scope of potential financial implications from climate-related physical and transition risks, and the scale of available opportunity.

At a high level, *Physical Risk* encompasses the financial consequences of physical disruption and damage to infrastructure, worker health, and supply chains from an acceleration in climate-related severe weather events.

Transition Risk speaks to the broad impacts to asset valuations, risk profiles, legal risks, technological innovation, and competitiveness stemming from evolving climate and energy policies.

At the same time, we expect all low-carbon pathways to bring some degree of new or accelerated opportunities and competitiveness factors related to resource efficiency, clean energy, low emissions products/services, and climate resiliency. Canada's roadmap to a climate-resilient, low-emissions economy will require significant capital reallocation toward, and investment in, these future technologies and other solutions.

Experts Recommend Efforts Toward Best-in-Class Data and Information.

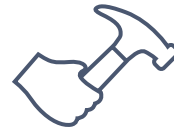
The Task Force on Climate-related Financial Disclosure (TCFD) and the Canadian Expert Panel on Sustainable Finance* alike are calling for heightened transparency as a first step toward a climate-resilient, low-emissions financial system. In its final report, the Expert Panel recommended forming a *Canadian Centre for Climate Information and Analytics* (C3IA) as a trusted single-stop source for authoritative climate data and information relevant to sustainable finance, and a platform for enhanced climate-related financial disclosures, analytics, and datasets.

In July 2020, the economic and fiscal snapshot reported \$6M in funding to establish the Expert Panel's recommended Sustainable Finance Action Council (SFAC). The intent behind the SFAC is to create an axis for strategic focus, partnership, and knowledge exchange between public and private leaders in mobilizing sustainable finance activity and crystalizing Canada's future competitiveness plans. In its report, the Expert Panel flagged efforts to scope the C3IA – in structure and content – as one of the Council's top priorities.

The private sector is the best source of industry and market insight in scoping the C3IA. One of the foundational tasks in forming the C3IA is determining how to facilitate the development, dissemination, and verification of climate-related data coming largely from the private sector. That exercise requires an explicit understanding of the pervasive data challenges, and how a central hub might help address the issues. The Expert Panel spoke to data and analysis issues from its consultations but did not have the scope to dig deeper into specific pain points that could be addressed by the C3IA, nor build a business case for its development. This report from the Smart Prosperity Institute, made possible by support from Insurance Bureau of Canada, provides the necessary private sector analysis to develop that business case, summarizing key market challenges relating to climate data, and proposing solutions for the C3IA to consider.

Box 02

Benefits of Climate-Based Transparency through the C3IA



Resilience to physical and transitional risks from climate change (what isn't measured isn't managed)



Clarity on capital flows towards low-carbon and climate-resilient technologies, infrastructure, projects, and market products



Clarity on capital flows towards activities that misalign with Canada's mid-century goal of net-zero GHG emissions



Heightened opportunities for proprietary business analytics and products for sustainable investment

New Research in this Report Shows where and how we Need to Bridge the Data Gap in Sustainable Finance.

The research for this report provides targeted market context to those shaping the C3IA's public policy rationale, to help narrow focus to the issues of the highest benefit from a tightly governed and publicly supported data hub. The report synthesizes insights from a broad series of interviews with the financial community, including institutional investors, asset managers, and insurers, as well as specialty data providers, global standards organizations, and other experts.

* <https://www.canada.ca/en/environment-climate-change/services/climate-change/expert-panel-sustainable-finance.html>

INTERVIEWS AND CONSULTATIONS





RESEARCH APPROACH

The focus for our interviews was two-fold:

1) Defining the critical transparency gaps specific to sustainable finance in Canada. In our discussions with over 50 financial organizations, three key transparency-related pillars came forward as priority areas of focus for the C3IA:



Pillar 1 – Supporting TCFD Disclosures: Data and analytics to facilitate and speed up climate-related disclosures in line with the TCFD recommendations



Pillar 2 – Fostering Low-Carbon, Climate-Resilient Investments and Markets: Data and information to mobilize capital flows toward areas that will accelerate Canada’s transition to a climate-resilient, low-carbon economy



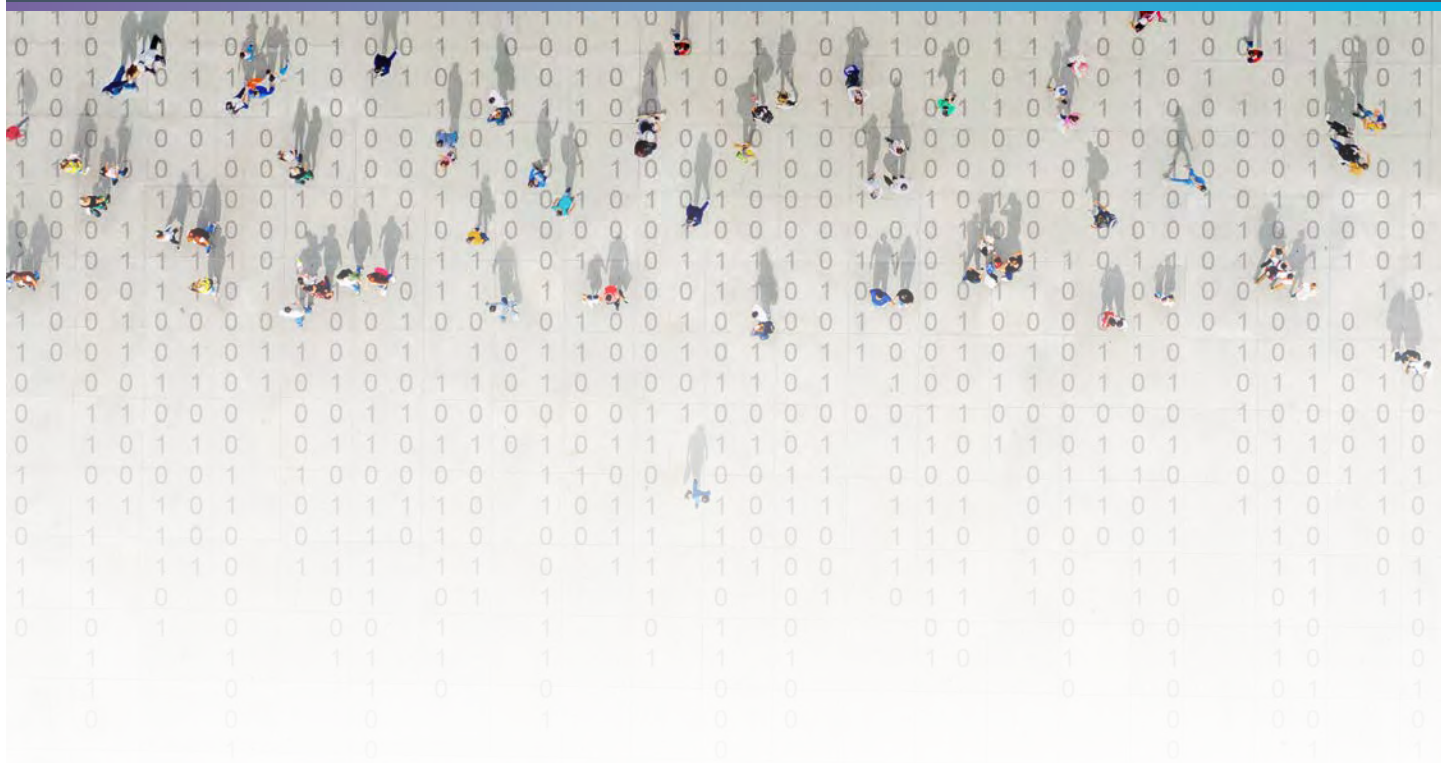
Pillar 3 – Recognizing Physical Risk: Better tools to judge current and future exposure to physical climate-related risk

2) Scoping opportunities and roles for the C3IA to address the identified transparency gaps and build a robust data ecosystem to enable sustainable finance flows. Conceptually, the C3IA would promote, coordinate, synthesize, and disseminate data to meet the needs of its stakeholders, including those identified in this report. While the Hub’s design is still an open question, five key characteristics stood out across interviews:

1. Accessibility should be easy, broad, and electronic.
2. Data – stemming from new and existing verified sources – should be accurate, reliable, consistent, and comparable.
3. Content should be user-driven (both in format and focus), interoperable, and aligned to international standards and best practices.
4. The Hub should harmonize with and complement other robust information portals such as the Canadian Centre for Climate Services; the Canadian Energy Information Portal; the Institute for Sustainable Finance at Smith School of Business, Queen’s University; and the Intact Centre at the University of Waterloo (among others).
5. The intent should not be to displace the market for data and research providers, but rather to amplify and organize the information available to those resources as a means toward enhanced analytics and business tools.

What makes good data?

Data quality is generally assessed in the context of its purpose, but there are common attributes of high-quality data. These are: accuracy, completeness, conformance (in format and storage), consistency, relevance, comparability (across time and variables), validity, and granularity. Where possible, data should align with established global standards and include metadata about the information provided.



The Hub should also serve as a convener, forming working groups across government, academia, and the private sector to drive transparency and shared understanding.

Scoping C3IA-Driven Solutions

Across our interviews, we heard a call for the C3IA to help clarify, deliver and streamline data requirements and models for business, investment, and insurance-related decisions and disclosures. At the same time, the C3IA can strengthen information quality, relevance, and comparability. Below, we summarize specific opportunities under our **three defined transparency pillars**:

- **Supporting TCFD disclosures**
- **Fostering low-carbon, climate-resilient investments and markets**
- **Recognizing physical risk**

Box 04

Aside from supporting C3IA development, interviews pointed to an increased role for governments (at all levels) and industry regulatory bodies (such as the Ontario Securities Commission) in setting standards and requirements for private sector sustainable finance activity. Cited examples include accessible methodologies for climate-related financial disclosures; energy performance labeling for buildings; and green and transition-linked product definition, tracking, and verification.



SUMMARY OF SOLUTIONS TERMS OF REFERENCE FOR THE C3IA

Pillar 1: Supporting TCFD Disclosures

a) **Harmonizing and driving standardization around the most useful and widely used disclosure frameworks for scope 1 and 2 emissions.**

While calculating emissions from fuel and energy consumption is straightforward, guidance on reporting scope and boundaries - coupled with standardized accounting metrics - would help align understanding and approach in a way that improves comparability and simplifies the reporting process for issuers and other actors of all sizes.

b) **Establishing a central repository of past and present greenhouse gas emissions (GHG), where emissions are reported in line with the standard methodologies discussed in Item a.**

The repository would offer a cost-effective, uniform source for comparative analysis and datasets across variables and time horizons, while building an open historical dataset.

c) **Appointing working groups to drive progress on scope 3 emissions measurement, sector by sector.**

Sector-based working groups, joining industry and experts, could hone key metric and data needs for scope 3 emissions measurement as a first step toward standardized guidance.

d) **Centrally showcasing and tracking published climate commitments and carbon pledges from Canada's private actors.**

This resource would give a clearer overall and relative sense of ambition, impact, and progress on climate-related pledges across companies, industries, and the Canadian economy.

Box 05

Defining Scope 1, 2 and 3 Emissions

Scope 1: Direct emissions from a company's or organization's owned or controlled sources. The most obvious examples are emissions from on-site fuel combustion (e.g., gas boilers) or vehicle fleets.

Scope 2: Indirect emissions related to purchased electricity that the company or organization has some level of discretion over, including purchased electricity from on- and off-grid sources.

Scope 3: All other indirect emissions related to the company's or organization's activities, including those for which they do not have direct control. These are often the largest share of a carbon footprint, covering emissions related to supply chain aspects such as procured goods and services, transportation, or waste disposal.

e) Issuing guidance for interpreting the central financial themes of leading global and country-level climate ambition scenarios, set in the Canadian context. The shared visibility would help demystify the complexity behind policy-based scenarios and get everyone speaking the 'same language' regarding transitional risks.

f) Helping sectoral working groups adapt the above guidance at the industry and regional levels. Tailored industry- and regional-level scenarios would support more granular forward-looking financial analysis across Canada's key economic sectors.

Pillar 2: Fostering Low-Carbon, Climate-Resilient Investments and Markets

- g) Developing a sustainable finance ‘taxonomy mapper’ to compare project and product opportunities against domestic and international standards.** The mapper would offer a one-stop, streamlined view of existing country standards and conditions for green and transition-linked projects and products.
- h) Coordinating working groups to support the CSA’s Taxonomy Technical Committee in developing a reporting framework to underpin Canada’s transition taxonomy.** The C3IA could provide data-based support in fostering framework adoption and understanding, and in ensuring relevant information is captured and disseminated in a comparable and robust manner.
- i) Utilizing the C3IA as a tracking database for the environmental impact of Canadian-issued green, resilient, and transition-linked financial products.** This transparency would help promote the integrity of green financial products (e.g., green bonds and mortgages) – and their issuers – by providing the means to validate that capital is going toward activities with the intended environmental impact.
- j) Centrally itemizing all green, resilience, and transition-linked financial incentives offered by federal, provincial, and municipal governments.** Easier visibility into available issuance-based fiscal incentives for green, resilience, and transition-linked products may help kickstart supply and demand.
- k) Creating a central, one-stop repository and tracking platform for energy/GHG/resiliency metrics related to Canada’s largest commercial, institutional, and multi-residential buildings.** The platform would allow financial actors to navigate rating methodologies and assess relative savings, demand, and resiliency between building types and locations, providing a baseline for investment and lending decisions on building improvements or purchases.
- l) Creating a centralized database of environment, energy, and resiliency standards, labels, and performance data from government-sponsored retrofit programs and utility-run energy efficiency programs.** Objective data on the results and benefits of government retrofit funding would help inform the business case for private retrofit investment and identify reliable investor-ready projects.

Pillar 3: Recognizing Physical Risk

- m) Gathering, aligning, and disseminating up-to-date information on climate hazards.** As a first step, the C3IA should identify and highlight the results of government, expert, or academic research initiatives, to fill data gaps on the physical risks from climate change. Next, it would convene a working group to explore how to align and synthesize public and private sector information on climate hazards into financially useful information needed to facilitate strategic analysis and climate scenario modelling.
- n) Collecting and disseminating data on climate resiliency investments by municipalities and establishing a framework to price the value of climate risk mitigation in infrastructure decisions.** The C3IA should be the central repository for data detailing climate risk mitigation projects, as a foundation for exposure analysis needed to inform investment planning and underwriting decisions.
- o) Establishing a working group - involving leading insurers, asset owners, academics, think tanks, civil society, and governments – with the mandate to develop sector-specific stress testing methodologies and value-at-risk measures for forward-looking climate risk.** This would help lay the foundation for more granular and tailored scenario analysis and stress testing by individual financial actors.

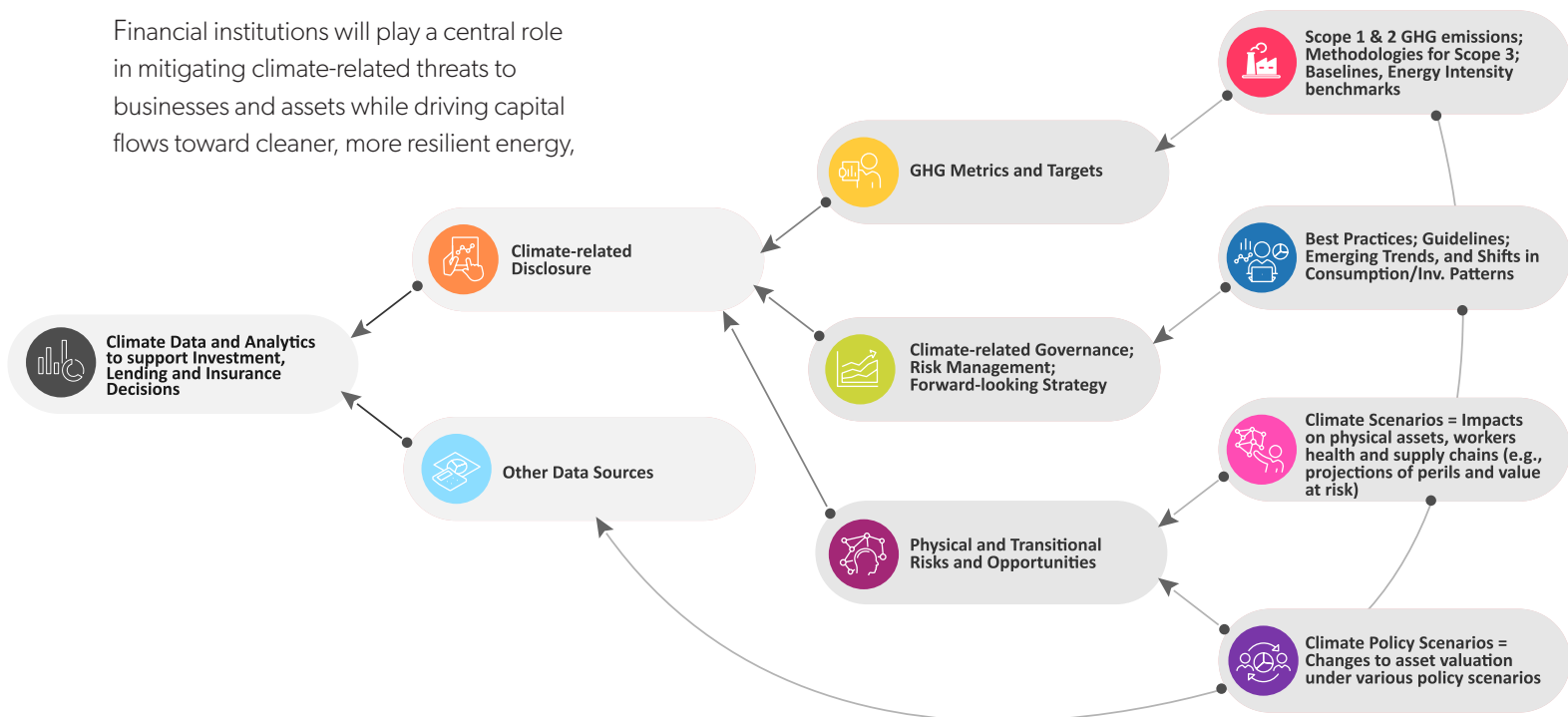
Box 06

While the report focuses on data and disclosure, challenges in translating scientific information into practical financial analysis and decision tools were an equally prevalent discussion theme and an important early focus in building the C3IA’s data foundation and exploring its use cases.

Pillar 1	Pillar 2	Pillar 3
Supporting TCFD Disclosure	Fostering Low-Carbon Investments and Markets	Recognizing Physical Risk
Common metrics and methodologies for GHG emissions	Simplified categorizations for green and transition-linked activities and investments	Collating financially-relevant information on climate perils
Transparency around climate targets and pledges	Tracking environmental impacts from green or transition-linked financial products (e.g., green bonds)	Transparency around climate-resiliency investments
Simplified analytics for forward-looking climate-scenario exercises	Transparency around the financial benefits from energy savings in the Building sector	Evaluating future financial risks from climate impacts

Figure 01

Financial institutions will play a central role in mitigating climate-related threats to businesses and assets while driving capital flows toward cleaner, more resilient energy,



CONCLUSION

Financial institutions will play a central role in mitigating climate-related threats to businesses and assets while driving capital flows toward cleaner, more resilient energy, products, systems, markets, and solutions. To do so, our financial system needs a way to understand and assess the financial impact of climate change, now and in the future.

Across dozens of interviews, experts echo that a lack of transparency is distorting economic activity away from the best available solutions for climate change. Access to necessary climate-related data and decision tools is a critical foundation for better disclosure-based transparency, informed lending and investment decisions, and financial resilience to the physical impacts of climate change. With a more cohesive view of risk and opportunity, and common language and tools for assessment, Canada's financial sector can begin charting the path towards a thriving low-emissions, climate-resilient economy.

The impetus for this research is to shed light on the financial sector's specific pain points and data needs in this respect, and to draw out targeted opportunities for solutions through the Expert Panel's proposed C3IA. As the Sustainable Finance Action Council looks to establish the scope and build the terms of reference for the C3IA, we hope it will consider the frameworks and solutions identified in this paper. We offer this as a place to start, informed directly by the C3IA's most likely end users, understanding that further outreach will be needed to determine how best to serve these needs; including an engagement process that explores governance, roles, data partnerships, and action plans to advance each pillar. Through this process the public and private sectors can bridge the transparency gap together and advance Canada's climate ambitions.

Read the full report: *Bridging the Transparency Gap in Sustainable Finance: Examining the Business Case for the Canadian Centre for Climate Information and Analytics (C3IA)*
The full version of this report is available to download from <https://institute.smartprosperity.ca/library>.

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