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Building a Resilient Canada

From coast-to-coast-to-coast, people in Canada experience a wide range of severe weather events, and the associated risks are increasing as climate change intensifies. Disasters are becoming more frequent and severe, sometimes overlapping or amplifying one another. ***Building a Resilient Canada*** explores the options available to households, communities, businesses, and governments to reduce the impact of extreme weather in a changing climate.

THE RISK AND COST OF CLIMATE DISASTERS IS ON THE RISE

The economic cost of climate-related disasters is on the rise. Insured losses as a percentage of GDP is climbing, topping **$2.4 billion** in 2020 alone.

The number of climate-related disasters in Canada every decade: **1902–1959** **< 30** **1980–2019** **> 100**

UNNATURAL DISASTERS

Disasters are **not** natural; they are the result of decisions that put people and structures in harm's way.

A TALE OF TWO DISCIPLINES

Disaster risk reduction and climate change adaptation professionals often work in silos, using different terminology and data, and operating at different timescales. Integrating these disciplines is key to building resilience in Canada.

RISK

Risk happens at the intersection of hazard, exposure and vulnerability.

THE DATA GAP

Decision makers at all levels — from the federal government to individual households — need prompt access to information about current and future risks that includes the impact of a continually changing climate.

Comprehensive.
Information considers the full risk landscape, including high-resolution community data.

Available.
Publicly available climate, disaster, and risk data (e.g., AHRA).

Timely.
Regularly updated data (e.g., the Canadian Disaster Database).

Accessible.
Applicable to the various contexts in which it may be used (e.g., industry, research, government).

ALL-HAZARDS RISK ASSESSMENT (AHRA)

Information in Canada's AHRA is not publicly available. Furthermore, it covers a five year time horizon and so ignores expected future climate conditions. Expanding access and integrating climate change could promote resilient decision-making among governments, businesses, communities, and individuals.

A PROACTIVE APPROACH

The cost of preventing and preparing for disasters is several times less than responding to and recovering from them.

$1 SPENT = $11 SAVINGS
to reduce basement flood risks

$1 SPENT = $9 SAVINGS
to improve highway bridge design

However, most governments persistently underinvest in risk reduction and later pay the price in terms of disaster response and recovery.

COGNITIVE BARRIERS TO INVESTING IN RESILIENCE:

CHOOSING RESILIENCE

Bridging disaster risk reduction and climate change adaptation practices is crucial to reducing exposure and vulnerability to disasters and bolstering public safety in a changing climate. The report identifies various levers that can build disaster resilience.

Disaster data
Ensure timely, comparable, and comprehensive disaster data to monitor and evaluate risk over time.

Indigenous & Local Knowledge (ILK)
Respectfully engage with ILK to better understand risks and prepare actions at a local level while providing co-benefits such as community empowerment and sustainable development.

Public infrastructure investments
Proactively invest in improving infrastructure (e.g., improving storm drainage using nature-based solutions).

Corporate disclosures
Mandate reporting of disaster-related risks.

Build forward better
Make the most of recovery efforts by building more resilient structures.

All-hazards risk assessments
Incorporate climate projections into risk assessments for better policy and practice decisions.

Home insurance
Reform insurance policies to incentivize or mandate risk reduction and support rebuilding in more resilient ways and places.

Building a Resilient Canada. The Expert Panel on Disaster Resilience in a Changing Climate (2022)
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