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What is the Resilience Pathways Report?

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Geological Survey of Canada

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“The Pathways Project serves as an exemplar for the type of interdisciplinary and whole-of-society approach required across Canada to effectively understand and build disaster resilience in our complex modern world.”

Dr. Matthew Godsoe,
Director of the Resilience
and Economic Integration
Division,
Public Safety Canada

WHAT IS THE RESILIENCE PATHWAYS REPORT?

British Columbia is exposed to a range of natural hazards, such as devastating wildfires, floods, avalanches, landslides, earthquakes, and volcanic threats. With higher intensities and frequencies of events due to the changing climate, communities are required to mitigate risks, adapt, and prepare for the next event.

Resilience Pathways Report: Co-creating New Knowledge for Understanding Risk and Resilience in BC (2022) is a compilation of 18 articles and one strategic summary addressing disaster risk management with the changing climate in British Columbia.

This first edition of the Resilience Pathways Report convened and connected more than 120 experts from a range of institutions and disciplines for authorship and input. The intent was to share knowledge, insights, recommendations, and challenges to reveal a path forward in addressing disaster and climate risk reduction by the whole of society. The insights, analysis, and recommendations presented in the Report are not necessarily unique to BC and are relevant—and invaluable—for disaster and climate risk management practitioners across Canada and the globe.

DRRPathways.ca



CO-CREATING NEW KNOWLEDGE
FOR UNDERSTANDING RISK AND
RESILIENCE IN BC

Key findings and recommendations of the Report encourage a rethink of disaster and climate risk management approaches in alignment with the Sendai Framework for Disaster Risk Reduction.

RECOMMENDATION THEMES:

- Develop strategies that outline the imagined future and are accompanied by action plans with measurable targets, timelines, and accountability.
- Shift from reactive to proactive governance and financing to

reduce risks in advance of the next event, instead of investing to manage consequences after an event happens.

- Embrace Indigenous Knowledge and practices because they contain the principles of sustainability and resilience for everyone and recognize the connections between people, natural systems, and the built environment.
- Redesign governance mechanisms to merge disaster risk reduction and climate change adaptation, recognizing commonalities particularly

between risk mitigation and climate adaptation.

- Design disaster and climate risk management measures that deal with systemic inequalities.

WHO CAN USE THE REPORT?

The Report is intended for a wide range of practitioners, researchers, policy makers, and decision makers in public and private sectors working in disaster risk reduction and climate adaptation.

You will benefit from reading all or part of the Report if one of the following describes you:

- You need to understand the concepts, nuances, challenges, and opportunities to manage disaster risk in a changing climate.
- You are part of a team responsible for developing a multi-hazard risk assessment with a holistic and whole-of-society approach.
- You are part of a team for a public or private entity that manages risks at a local, regional, or provincial level in Canada.
- You are part of a federal entity tasked with designing new or enhancing existing programs to support disaster and climate risk management at a sub-national level.
- You are part of a government team responsible for revamping approaches and funding programs for managing disaster and climate risk in any Canadian jurisdiction.
- You are an academic or technical researcher interested in understanding the gaps and needs of practitioners in order to direct your research and teachings to prepare the next generation of decision makers.

WHAT INFORMATION IS IN THE REPORT?

STRATEGIC SUMMARY FOR POLICY MAKERS

- 19 strategic recommendations are categorized under the Sendai Framework's four priorities for action: 1) Understanding Disaster Risk; 2) Disaster Risk Governance; 3) Public and Private Investments in Disaster Risk Reduction; and 4) Enhancing Preparedness for Effective Response, Recovery, and Build Back Better.



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Lizz Koebel-Davidson

“This Report has helped me quickly and confidently survey the hazard landscape, find specific information on exposure and risk, and get a sense of existing activities and gaps. It is easy to navigate, and I feel confident using its findings in my own scientific work.”

Craig Brown, PhD,
Senior Scientist,
Climate Change and Health,
Vancouver Coastal Health

CHAPTER 1. HAZARD THREAT

- An overview of some of the natural hazard threats and the growth of risk in the past 40 years across BC
- Characteristics of hazards and risks from snow avalanches, landslides, volcanoes, wildfires, coastal floods, earthquakes, and riverine floods
- Damage and loss values from past events
- Gaps in the availability of data and information on hazards, vulnerabilities, capacities, and risks
- The governance structure of managing various risks (who does what)
- Current mechanisms for managing risk and drivers of risk

CHAPTER 2. PRACTICE

- The *National Strategy for Critical Infrastructure* and its upcoming renewal
- Social infrastructure and its critical role in strengthening the social fabric and community resilience
- Risk assessment and resilience planning in electrical infrastructure and utilities
- Building code updates to design not only for life safety but also for function after major earthquakes



Johanna Wagstaffe, CBC

“The Resilience Pathways Report is a commendable contribution in the space of disaster and climate risk management. The content from the Report provides for a deepened understanding of risk and the considerations from experts and associated recommendations for how we can collectively reduce disaster and climate risk are valuable, not only to BC, but to other jurisdictions.”

Kathryn Forge,
Assistant Deputy Minister,
Disaster Risk Management,
Ministry of Emergency Management and
Climate Readiness,
British Columbia

CHAPTER 3. ENABLING ACTION

- The essential role of having accessible and knowledgeable media to provide the public with accurate information and informed analysis of risks and risk management investments
- The far-reaching influence and role of the professional associations in serving and protecting the public interest, including public safety, with respect to professional and regulated practices in the social, natural, and built environment
- Lessons learned from the National Disaster Mitigation Program outcomes in BC from 2015 to 2020

- An online platform and tools to share hazard and risk data that allow users to investigate, assess, and mitigate earthquake disaster risk

CHAPTER 4. RESEARCH

- Modelling future disaster risk to show how it may transform due to population growth, land-use change, new construction, building code improvements, and changing social vulnerabilities
- Modelling social vulnerability from earthquakes in Vancouver neighbourhoods, considering that socially vulnerable populations are often disproportionately impacted during disasters

WHERE CAN I LEARN MORE?

All articles, along with summary videos by authors, are available online at DRRPathways.ca.

Resilience Pathways was initiated through the Canadian Safety and Security Program (CSSP)-funded Disaster Risk Reduction Pathways Project, led by Natural Resources Canada. Sage on Earth Consulting designed the initiative and managed the process. Uncover Editorial and Design undertook editing and design of the Report. Over one hundred experts contributed content to the Report.

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