



SAGE ON EARTH CONSULTING  
UNDERSTANDING RISK AND RESILIENT SOLUTIONS



# The Current Practice in Understanding & Managing Disaster and Climate Risk

The 12th Annual SABCS Conference on Contaminated Sites

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# 2015-2030 Global Frameworks for Resilience

Sendai Framework for Disaster Risk Reduction

2015 - 2030



COP21-CMP11  
**PARIS 2015**  
UN CLIMATE CHANGE CONFERENCE

THE SENDAI FRAMEWORK OUTLINES SEVEN GLOBAL TARGETS TO BE ACHIEVED BY 2030:

**SUBSTANTIAL REDUCTIONS**

A. Reduce global disaster mortality



B. Reduce the number of affected people globally



C. Reduce direct economic loss in relation to GDP



D. Reduce disaster damage to critical infrastructure and disruption of basic services



E. Increase the number of countries with national and local disaster risk reduction strategies



F. Substantially enhance international cooperation to developing countries



G. Increase the availability of and access to multi-hazard early warning systems



**SUBSTANTIAL INCREASES**

Sendai Framework for Disaster Risk Reduction



2015 - 2030

# Implementing the Sendai Framework for DRR

## Sendai Priorities of Action

### Investing in Risk Reduction

Allocating necessary financial and logistics resources for DRR and promote risk transfer and insurance

### Risk Governance

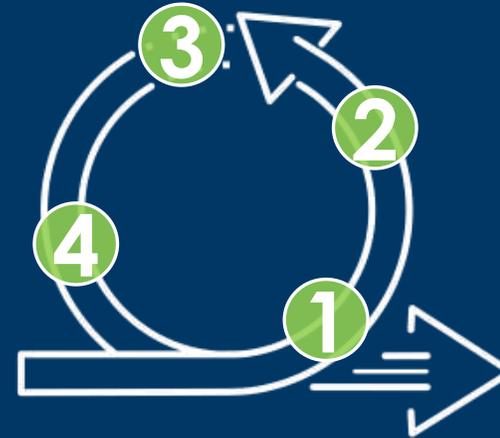
Establishing regulatory and accountability frameworks, increasing collaborations, and enhance capacities and incentives for effective and efficient management of risk in all sectors

### Manage Residual Risk

Further strengthening emergency preparedness, recovery and build back better planning

### Understand the Risk

Understanding disaster risk with all its dimensions should be the basis of all policies and practice in managing disaster risk.



## Sendai Framework for Disaster Risk Reduction

2015 - 2030



Preventing  
creation of new  
disaster risk



Reducing existing  
disaster risk



Managing residual  
risk

Risk informed measures that build resilience and that are  
integrated and inclusive of whole-of-society

Three Components of Disaster Risk Management According to the Sendai Framework

# Components of a Climate Risk Assessment Process



Project Overview and Scoping

Infrastructure Assets Analysis

Climate and Hazards Analysis

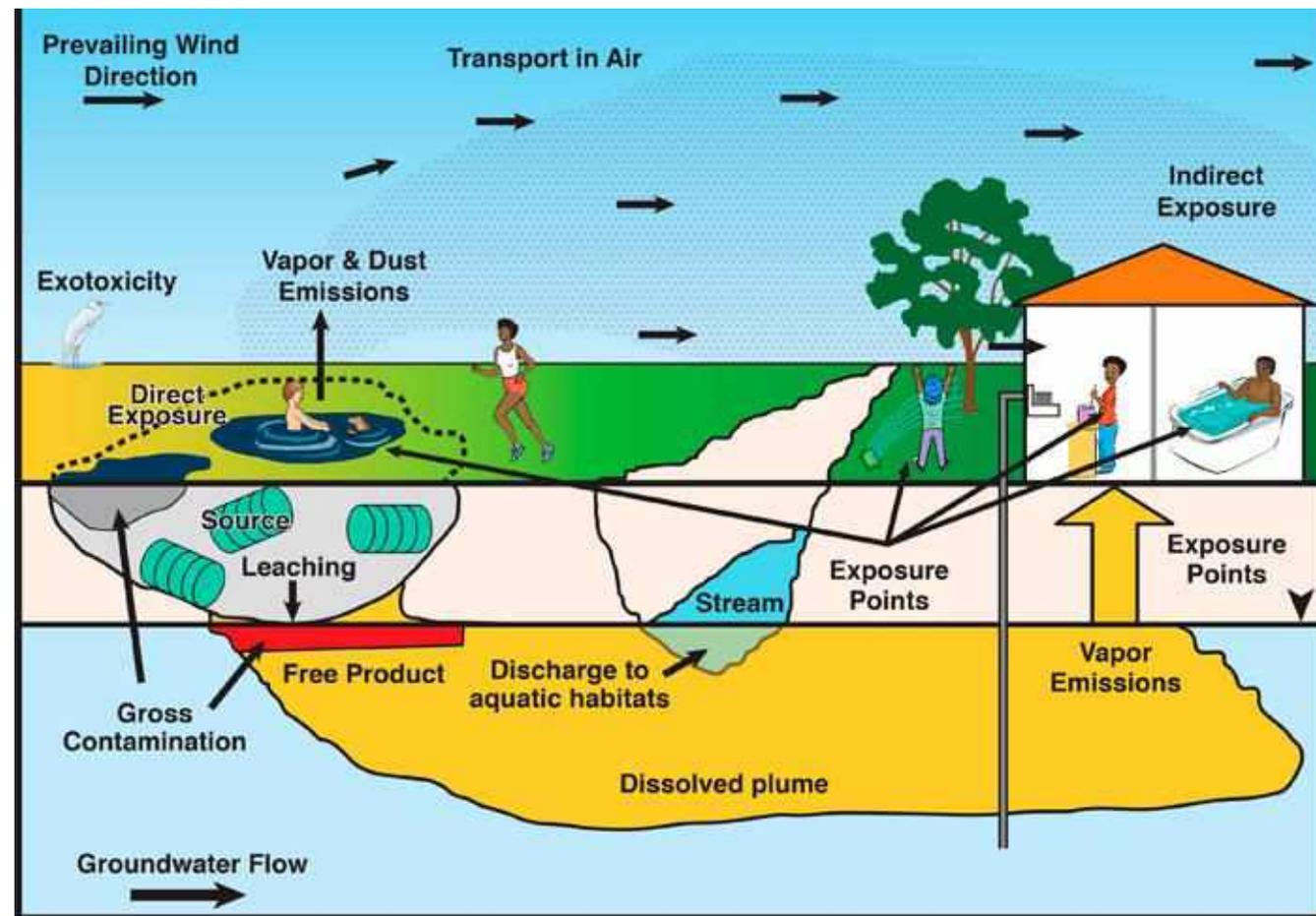
Vulnerability and Risk Analysis

Climate Resilience Actions

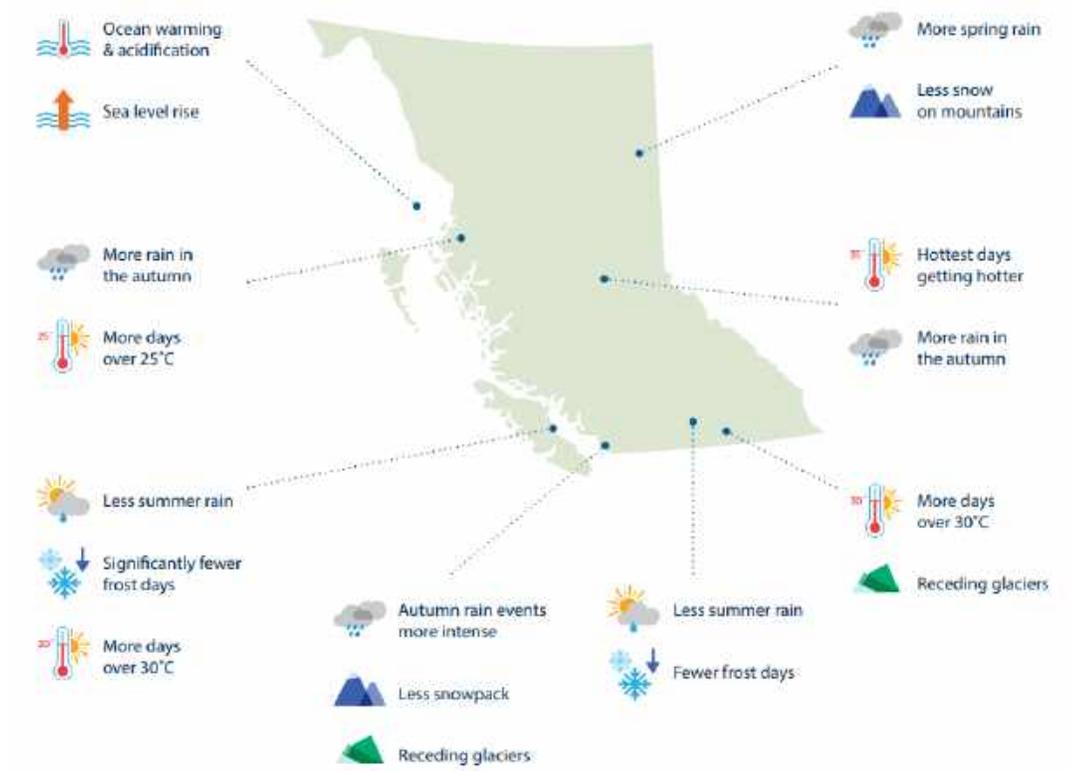
For the full diagram and more information please contact:  
[Safaies@ae.ca](mailto:Safaies@ae.ca) or [houlbrookm@ae.ca](mailto:houlbrookm@ae.ca)

Why climate change should be considered in risk assessment and risk management of contaminated sites?

Is it an issue for every type of contaminated site?

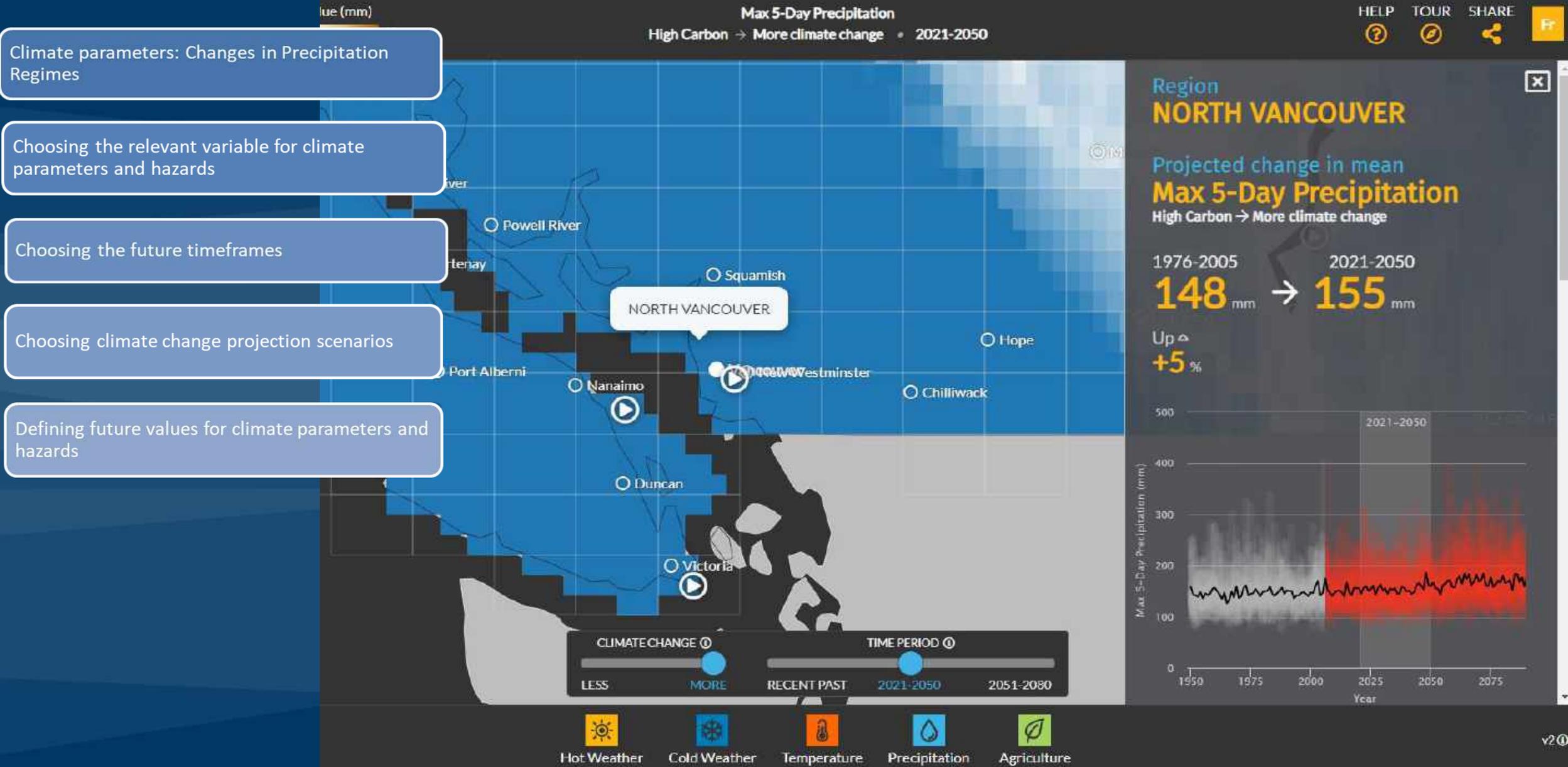


# Integrating Climate Change in a risk assessment



From BC Climate Preparedness and Adaptation Strategy, Actions for 2022-2025





From: ClimateAtlas.ca

Other option: ClimateData.ca

# Defining Risk Management Options & Decision Making



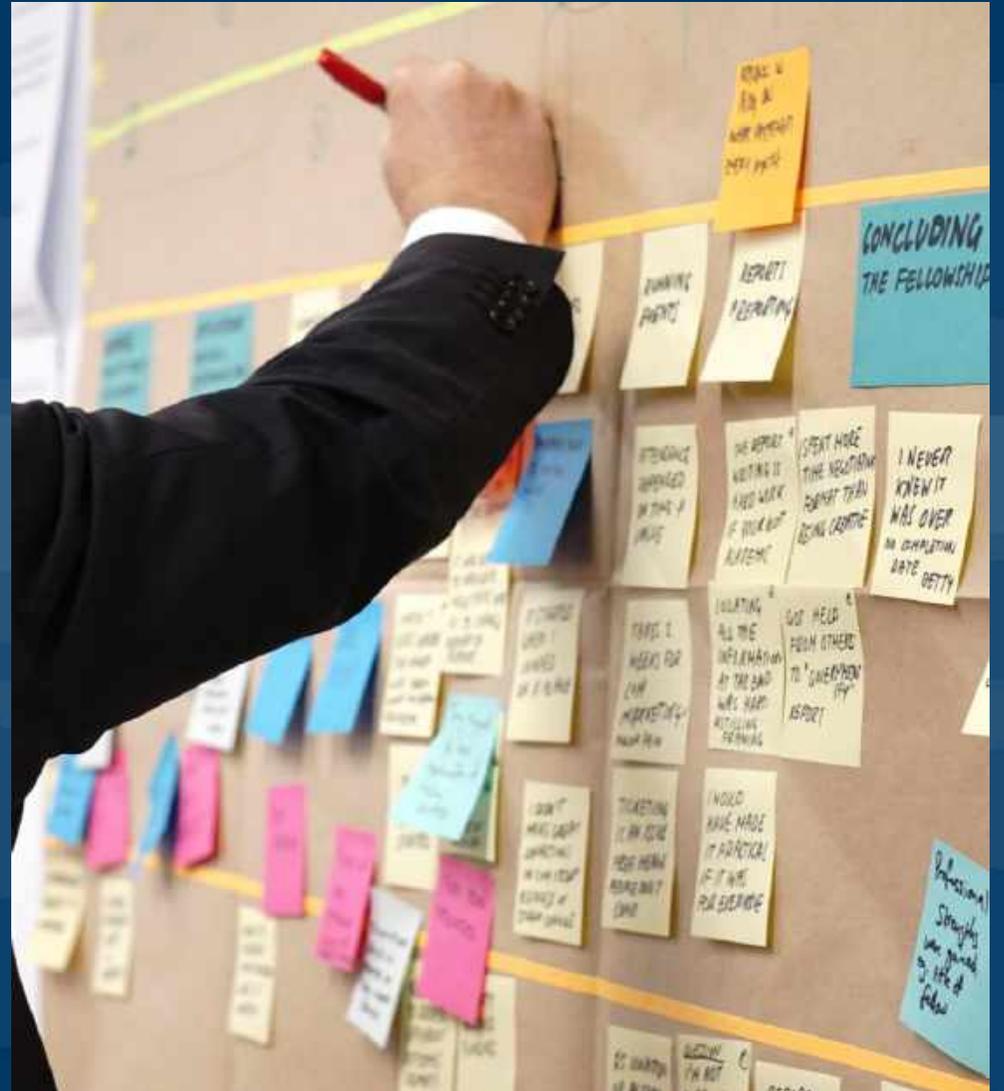
Defining a wide range of actions to avoid creation of new risk, reduce the existing risk, and manage the residual risk

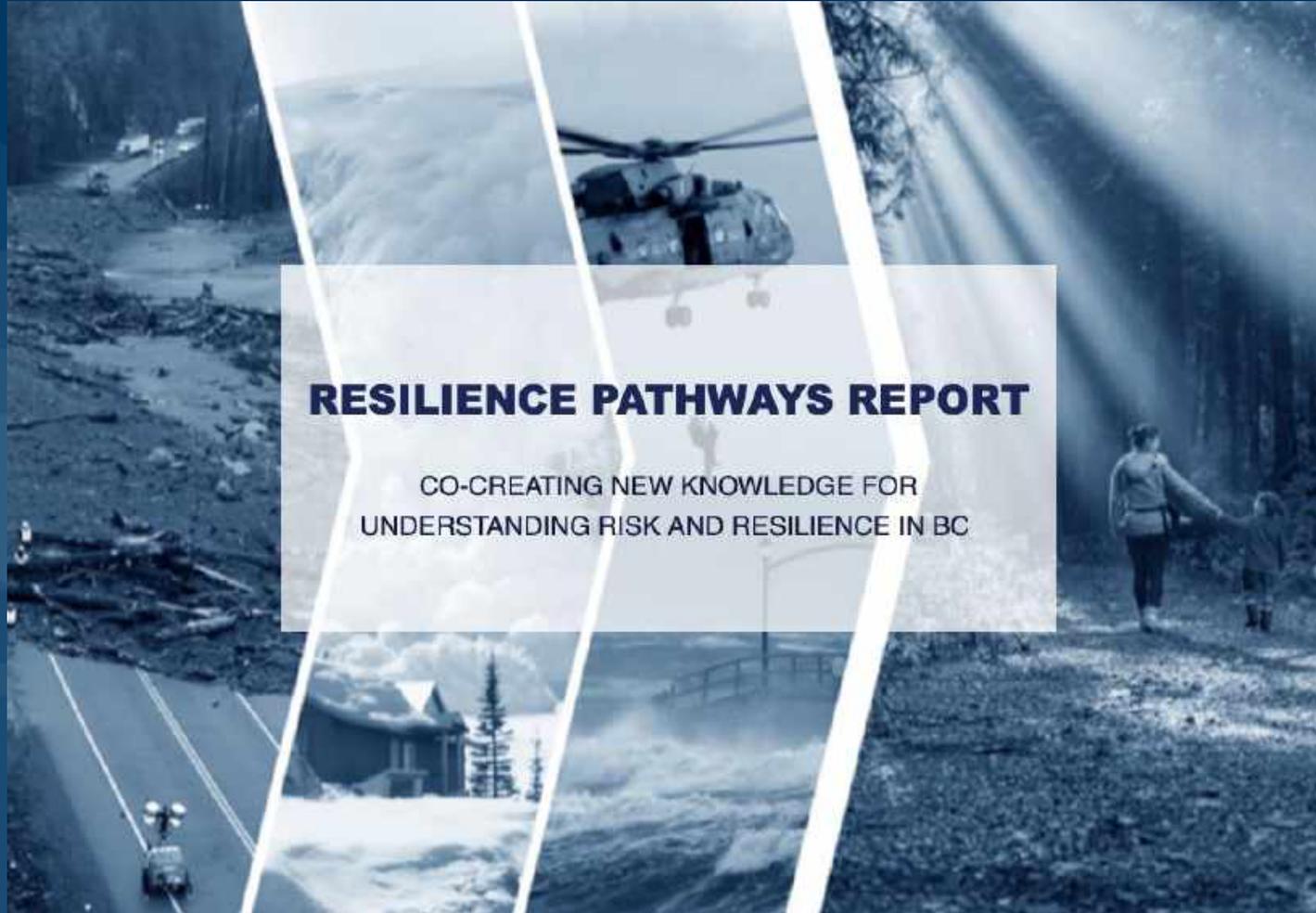


Understanding impacts on communities and defining resilience measures with social equity lens



Defining climate actions' co-benefits and effective time-frame





# RESILIENCE PATHWAYS REPORT

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

[DRRPathways.ca](http://DRRPathways.ca)



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada



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# Interactive Discussion

## Objective:

To integrate climate change impacts in contaminated sites' risk assessment and risk management

### Gaps

- What resources are out there for climate data

### Enablers/solutions

- ...

Questions?