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BUILDING A **SAFE** AND **RESILIENT CANADA**

Public Safety Canada and Geological Survey of Canada:

Strengthening the science-policy interface for risk assessment

Date: February 6, 2023

Dr. Matthew Godsoe

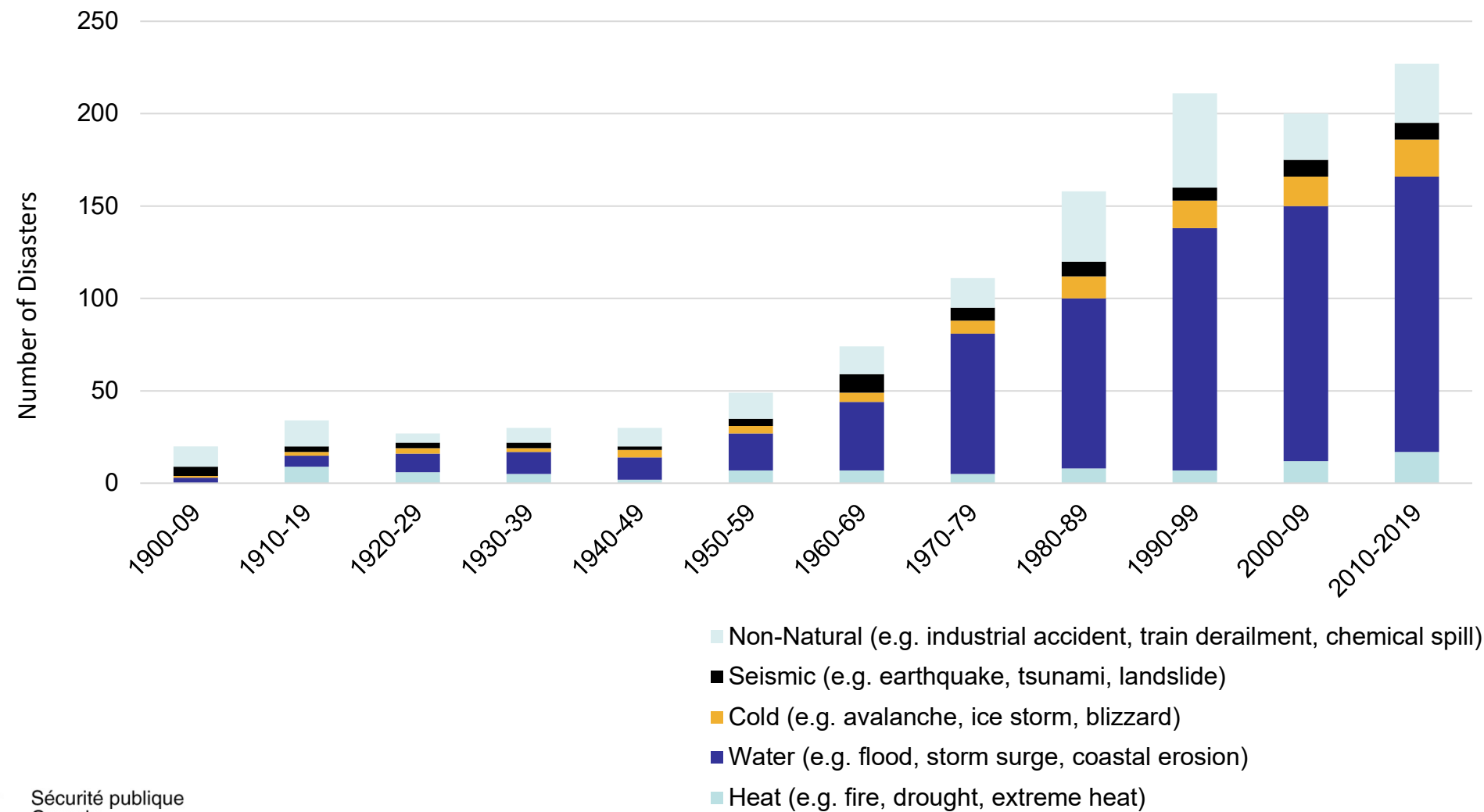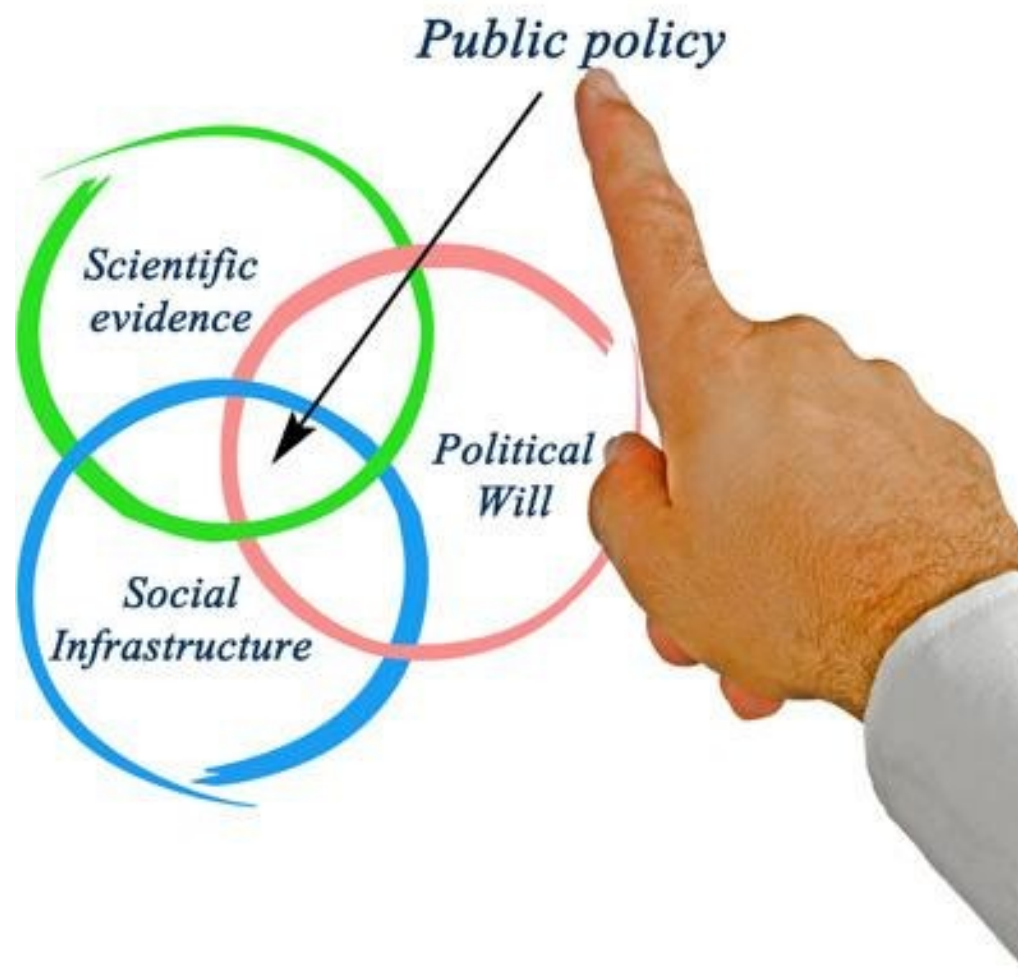Director, Resilience and Economics Integration Division

Canada

Context: Disaster Frequency in Canada
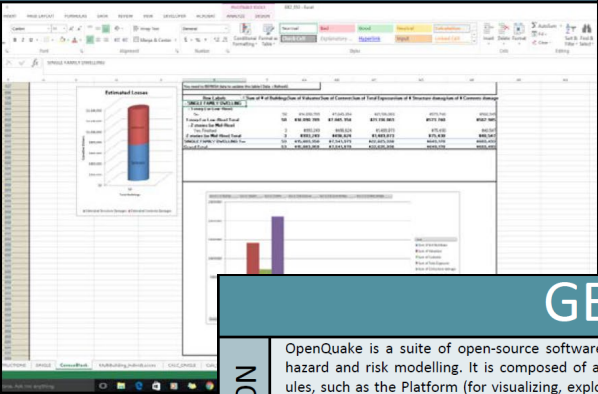
Research and Development

Hazus Canada

DESCRIPTION

Hazus Canada is a standardized methodology for the calculation of potential losses from natural hazards. It has been adapted from the US version of the tool originally developed by FEMA. It was initially designed for local governments and agencies to develop emergency management and mitigation plans.

SOURCE

Developed by: Natural Resources Canada

Link: www.hazuscanada.ca

ER2 - Flood

DESCRIPTION

This flood-focused and Excel-based tool takes Hazus damage curves and methodology and integrates them into accessible format. Focus is on flood damage to buildings.

SOURCE

Developed by: University of New Bruns-wick (Heather McGrath), Natural Resources Canada

Link: http://www2.unb.ca/_hmcgrat1/

GEM/OpenQuake

DESCRIPTION

OpenQuake is a suite of open-source software for earthquake hazard and risk modelling. It is composed of a variety of modules, such as the Platform (for visualizing, exploring and sharing datasets, tools and models), and the Engine (software for calculation of seismic hazard and risk assessment, used on the desktop or in the cloud). Furthermore, a range of desktop tools exist to support the risk assessment, for instance Inventory Capture Tools and the Integrated Risk Assessment Tool. The OpenQuake Engine consists of a range of different calculators (Python pro-gramming language based, no graphical user interface) for computing human or economic losses for a collection of assets.

SOURCE

Developed by: International, scientists, experts, modelers from across the world-
Link: http://www.globalquakemodel.org/

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Lyle, T.S. and S.V. Hund, 2017. Way forward for risk assessment tools in Canada; Geological Survey of Canada, Open File 8255, 103 p. https://doi.org/10.4095/302773

Policy Implementation

From: https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/dptng-rsng-fld-rsk-2022/index-en.aspx

Observations

- The science to policy process takes time; over 10 years of sustained engagement in this case

- Not all R&D initiatives will be successful, so perseverance is required

- Cross-over personalities are required on both side of the divide

- Personal relationships also matter

- When collaborative efforts payoff, they payoff big

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