

# **A Shared Responsibility:**

## Community Perspectives on Integrating Climate Change Considerations into Municipal Planning and Decision-making in Newfoundland and Labrador

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Photo credit: C-Core



Photo credit: Norm Catto

Who is affected?

Who is responsible?

For anticipating and planning ahead? For responding?

# A Shared Responsibility



- *National Climate Change Adaptation Program/ Regional Adaptation Collaborative Project (RAC)*
- *Atlantic Climate Adaptation Solutions Assoc. (ACASA)*



# Living with Uncertainty in Rural Canada

## Community Adaptation to Climate Change

### PHASE 1 (2005 – 07)

Assess current and future vulnerabilities of rural communities

### PHASE 2 (2007 - 09)

Evaluate capacity of rural communities to adapt to uncertain futures



Brklacich et al 2010



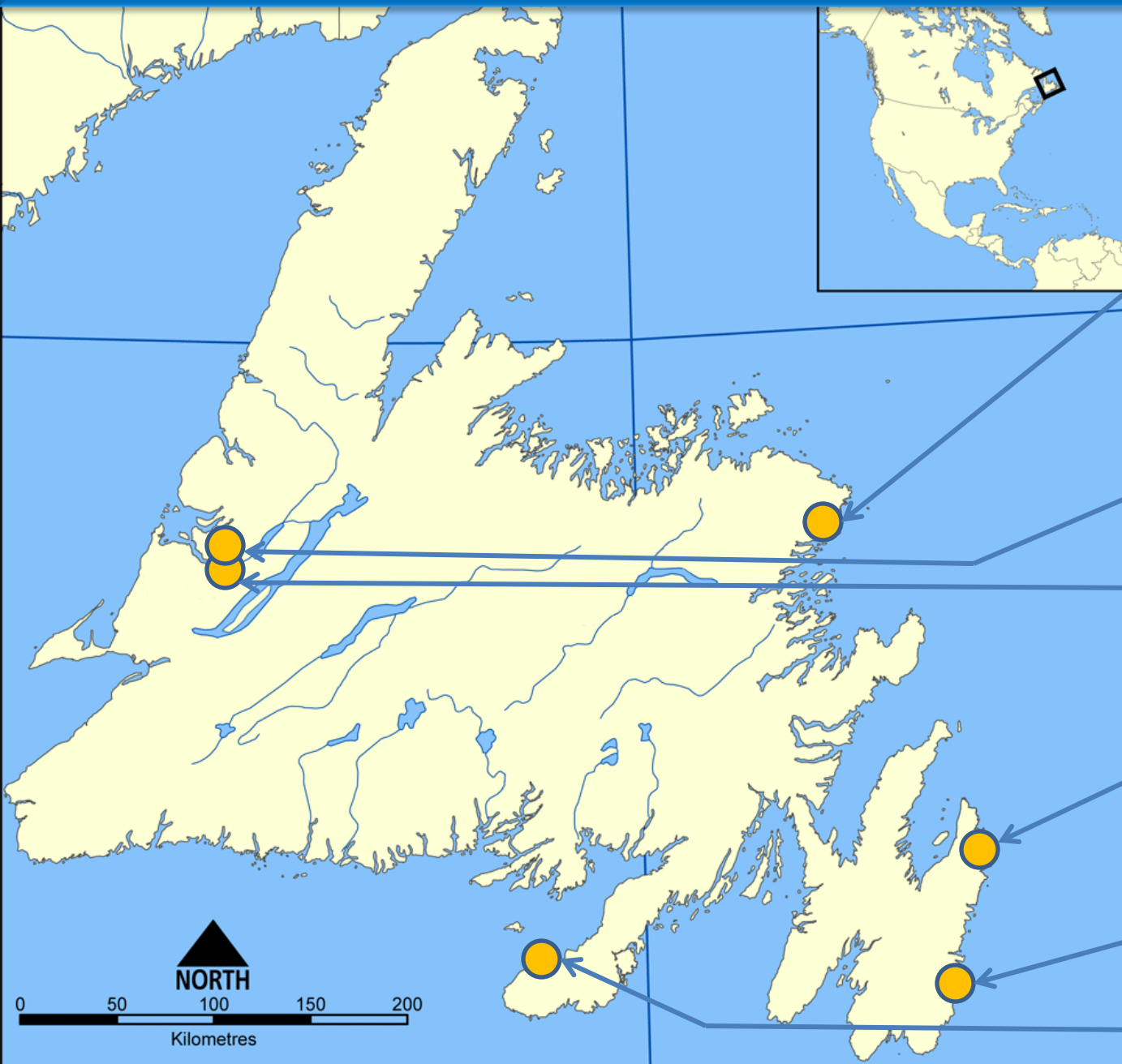
# Community Vulnerability Assessment and Adaptation Planning Workbook Pilot Project

## Aims:

- Raise awareness
- Identify important climate and weather-related issues
- Support municipal decision-making
  - Create workbook and information resources to help inform decision making
  - Assessment of implications and adaptation options



# Pilot Communities



**Indian Bay/  
CWT**

**Irishtown-  
Summerside**

**Corner Brook**

**Logy Bay-  
Middle Cove-  
Outer Cove**

**Ferryland**

**Fortune**

# Key climate-related issues in NL

1. Flooding
2. Slope movement
3. Coastal vulnerability
4. Drinking water
5. Winter issues
6. Wildfire

Erosion



Winter Storm



Flood



Ice storm



Bonavista North fire (1961)

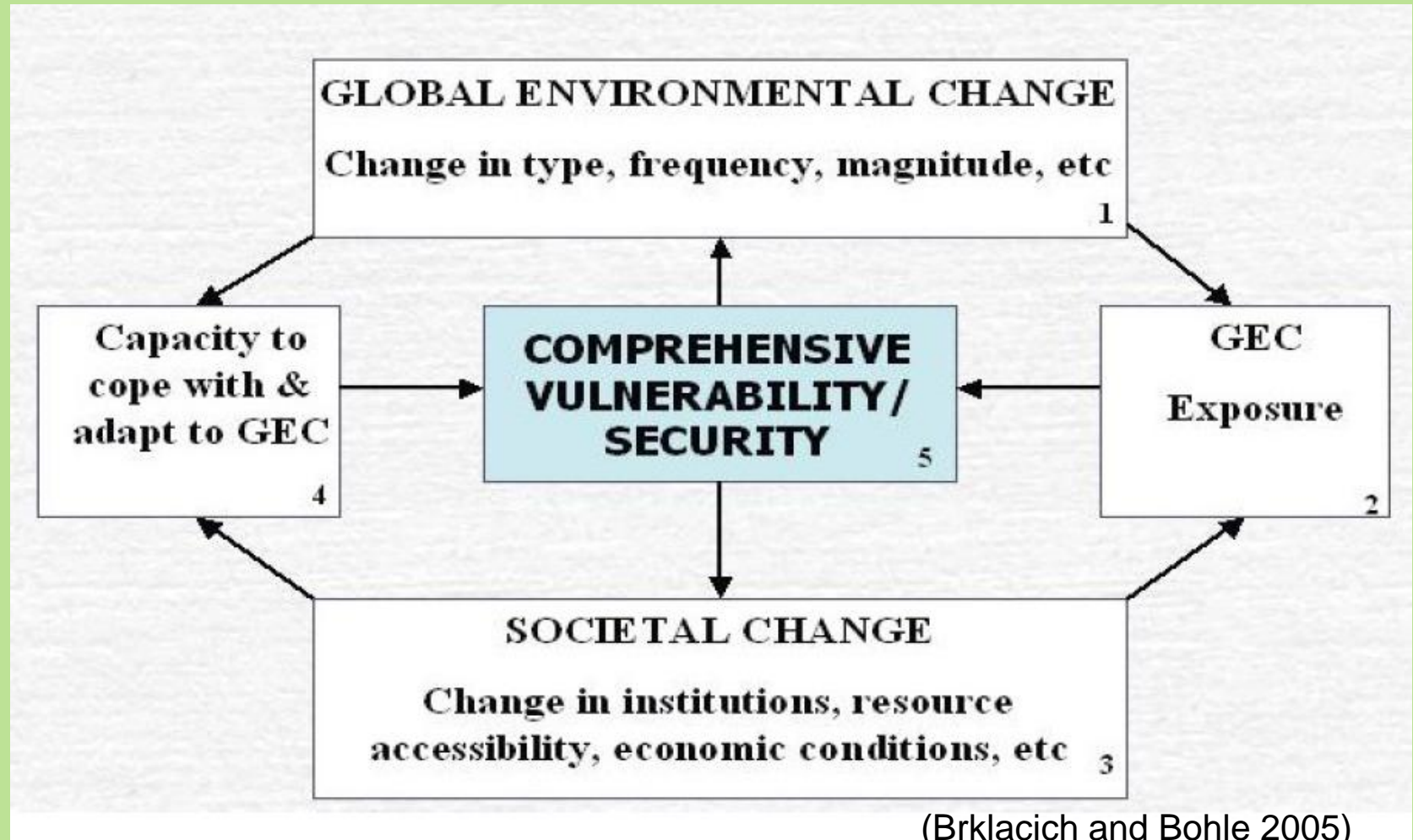
# Municipal Impacts

- Damage to infrastructure
- Required changes to infrastructure and equipment design and operation
- Water supply (quantity, quality, infrastructure)
- Emergency response capabilities
- Impacts on local industry, citizens and ecosystems - *threats + opportunities*



# Key Challenges and Implications

# 1) Climate as one of multiple drivers of change



Impacts + Adaptations

# Implications

- Need for holistic and integrated assessment
- Recognize adaptive capacities that do exist – strengths and opportunities along with multiple intersecting challenges

*‘ When considering how climate change can affect the future of the community the main concern is for the sustainability of the community rather than a concern for the impacts of climate change itself.’*

Change Islands community leader

## 2) Municipal Capacity Constraints

- 744 settlements: 276 municipalities and ICGs - 50%+ under 500 residents, 40% of small towns without full-time staff

### *Planning:*

- Less than ten with in-house planning staff;
- 14% have sustainability plans, 15% economic, 30% recent land use plan, 45% capital works plans, 42% EPPs

(2007 Municipal Census)



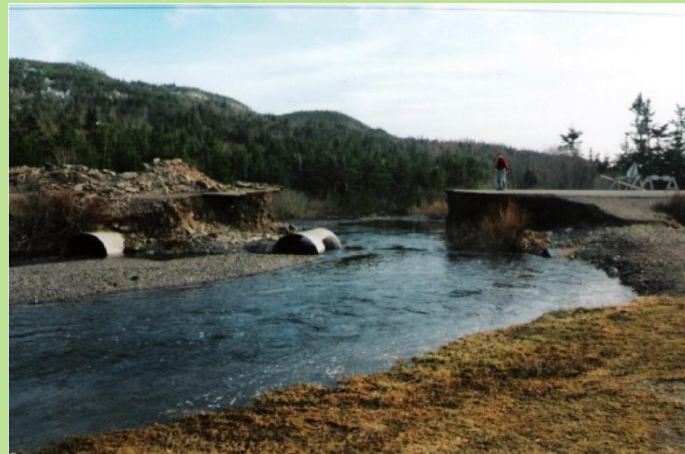
# Municipal Capacity Constraints

## Infrastructure deficit:

- 19% with water system less than 20 years old
- 24% have operations and preventative maintenance plans



Credit: Norm Catto



(2007 Municipal Census)

# Federation of Canadian Municipalities

- Climate change considered low priority
- Formal risk management unfamiliar:
  - financial constraints,
  - attitudes/low awareness, and
  - nature of municipal politics

(FCM 2002)

Concern: weak local government planning  
and response capabilities

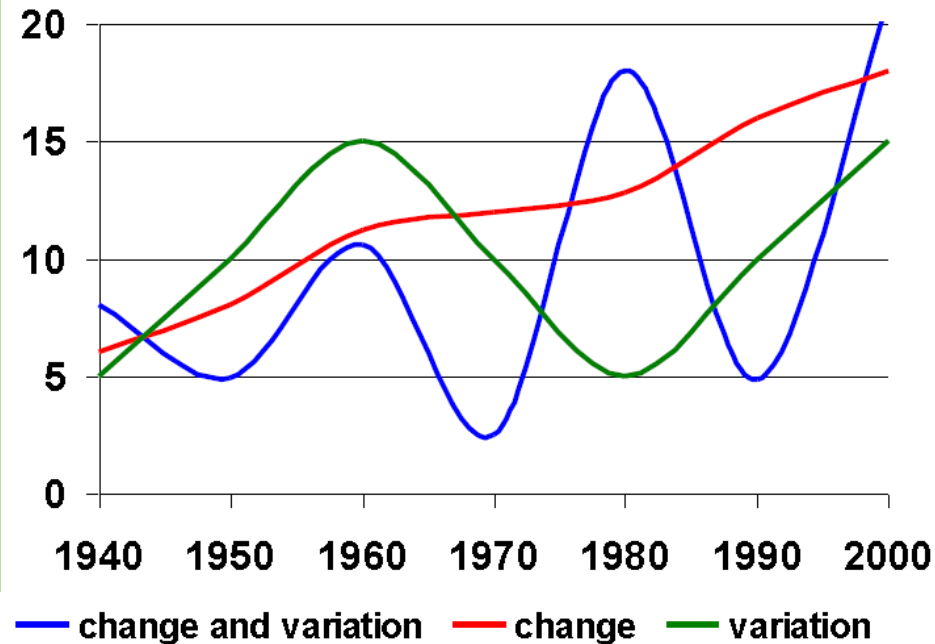
[www.fcm.ca/home/issues/environment/climate-change-adaptation.htm](http://www.fcm.ca/home/issues/environment/climate-change-adaptation.htm)

# Implications

- Importance of ongoing awareness raising
- Need to integrate climate change considerations into existing processes
  - Infrastructure investment
  - Emergency planning
  - Economic development
  - ICSPs
  - Development planning and permits

# 3) Information gaps and mismatch

**Terminology:** change vs. variation, climate vs. weather, adaptation vs. mitigation, growing degree days



Newfoundland  
Gardening



Peter J. Scott

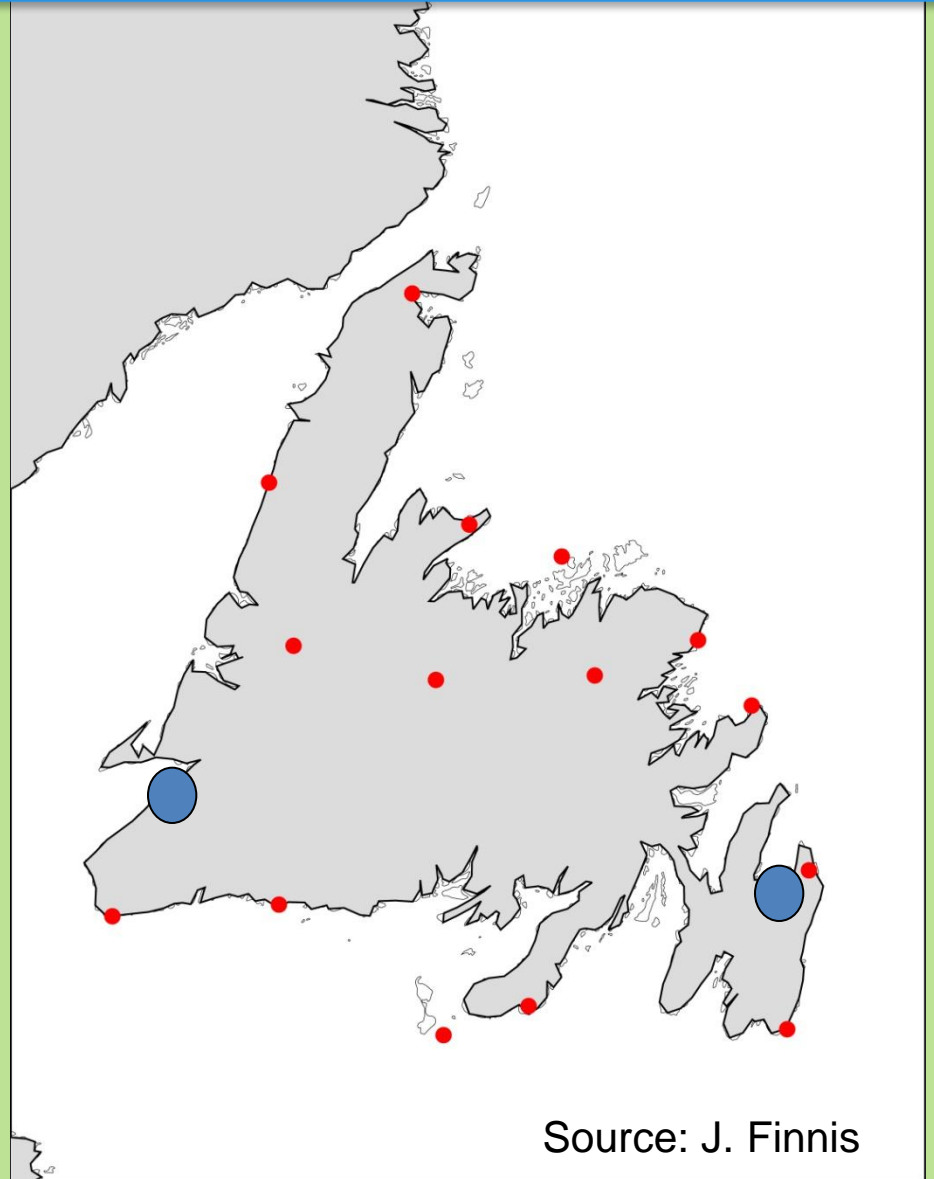




# Newfoundland climate information

- Limited # of weather stations
- CC scenarios typically of limited application at community level
- Investments required for further risk mapping and analysis

**= gaps, requirement for specific knowledge and interpretation**



# Implications

- Need for region-specific data and scenarios
- Need for partnerships in data generation, support services and appropriate tools to assist with information access and interpretation



Source: Govt of NL

# Appropriate Tools

- Relevant, accessible
- Context appropriate case studies
  - examples of bad, incremental, and “best” practices
- Simple tools, e.g. checklists, yes/no questions
- Lists of contacts for assistance
- Sources of local information
- Varying human resources, literacy and access to technology taken into account

# 4) Engagement and collaboration

- Logistics and costs, differing objectives, circumstances and abilities to participate BUT

- Active community participation enhances adaptation capacities



Photo credit: Kimberly Bittermann

- Issues are cross-jurisdictional - important role for policy, regulation, training and scientific and technical support



# Implications

- Need for continued awareness-raising, collaboration in monitoring and information generation and knowledge sharing
- Recognition of the value and challenges of local input and action
- Toolkit + : training, incentives and requirements, “hands-on” support and facilitation



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Credit: Norm Catto



# Thank You!

A photograph of a steep, rocky hillside. The hillside is covered in dark, jagged rocks and patches of brown, dry grass. A long, irregular patch of white snow runs horizontally across the middle of the slope. At the top of the hill, a wire fence is visible, supported by wooden posts. The sky is overcast and grey.

Comments? Questions?

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