



# Adapting to Climate Change: Municipal Governance, Policy and Planning in Nova Scotia, Canada

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Research and analysis into the local governance of climate change adaptation and the social context of adaptation decision-making presents ‘a revealing diagnostic entry point into the structural governance context’ in determining the ‘action-space’ and ‘structural constraints, barriers and [im]mutable limits’ associated with adaptation governance (Moser, 2009). The Nova Scotia adaptation policy-making approach provides an outstanding opportunity for conducting comparative, case-based research into the social dimensions of how Canadian coastal municipalities are dealing with the challenges of climate change impacts through adaptation planning. Nova Scotia is the only Canadian province to establish a climate change adaptation policy framework, which included a province-wide policy mandate requiring that all municipalities prepare and complete ‘Municipal Climate Change Action Plans’ (MCCAP) by January 1, 2014 in order to remain eligible for federal Gas Tax funding, as administered by the Province of Nova Scotia (SNSMR, 2011).

In September 2014, four focus groups were conducted with thirty-five Nova Scotian adaptation policy and planning stakeholders in high sensitivity coastal regions of Nova Scotia (Amherst, Port Hawkesbury, Bridgewater and Shelburne). The purpose of these focus groups was to engage with adaptation policy-making stakeholders to identify the barriers and opportunities for enabling adaptation policy and planning at the municipal level. The NCE-MEOPAR Partnership Program provided funding for these focus groups.



**Sensitivity to sea level rise / Sensibilité à l'élévation du niveau de la mer**

- High / Élevée (Red)
- Moderate / Modérée (Yellow)
- Low / Basse (Green)

Shaw, J., Taylor, R.B., Forbes, D.L., Ruiz, M.H. and Solomon, S. (1998a): Sensitivity of the coasts of Canada to sea-level rise: Geological Survey of Canada, Bulletin 505, p. 1-79. In Lemmen, D., and Warren, E. (2004) Climate Change Impacts and Adaptation: A Canadian Perspective. Natural Resources Canada, p.116.



**Focus Group Participant Demographics**

23 Municipal Focus Group Participants Representing 14 NS Municipalities (9 Counties & 5 Towns)

Group	Staff Representatives	Political Representatives	Non-Municipal Participants
Chief Administrative Officers	1	0	0
Water Utilities	1	0	0
Regional Emergency Management Organizations	1	0	0
Sustainability Planning	1	0	0
Land Use Planning	1	0	0
Wardens	0	1	0
Mayors	0	1	0
Councillors	0	1	0
NGOs	0	0	1
Provincial Gov't [NB]	0	0	1
Provincial Gov't [NS]	0	0	1
Academia	0	0	1

## FOCUS GROUP RESULTS

Consider the Gas Tax & MCCAP - how important was the Gas Tax as a driver for MCCAP? In other words, would the MCCAP have occurred without the Gas Tax incentive?

95% said Gas Tax was the main driver for MCCAP

79% said MCCAP was unlikely to have occurred without Gas Tax

Results based on 19 responses

When considering bridging the implementation gap between MCCAP preparation and implementation, what are the major barriers for MCCAP implementation? What are the major opportunities?

TOP 3 BARRIERS	TOP 3 OPPORTUNITIES
<b>Time, resources, capacity;</b> and/or expertise for the implementation of long-term adaptation and/or emergency plans	<b>Capacity building:</b> Experience, skills, staffing and resources for implementation of MCCAP priorities including better data to enable MCCAP implementation (ex. provision and acquisition energy usage data, access to LiDAR mapping)
<b>Lack of funding</b> dedicated / designated / matched for implementing MCCAP projects	<b>Integrated regional approaches</b> for long-term adaptation and/or emergency planning (ex. REMO; regional champions)
<b>Council engagement / buy-in / will/ motivation / leadership</b> for change; and/or public knowledge / desire / expectations; and/or competing ‘infrastructure gap’ priorities	<b>Integration of climate change</b> into municipal planning, work plans and capital plans & projects and related inter-governmental collaboration (ex. legal responsibility, planning implementation re: climate change adaptation & emergency preparedness)

Results based on 22 responses

Does academia have a role to play in decision-support for your municipality?



■ Yes - Academia has a role to play  
■ No - Academia does not have a role to play  
■ Maybe/Unsure

<b>Why is academic collaboration important for supporting municipal adaptation decision-making &amp; implementation?</b>
<b>Implementing MCCAPs may be complex:</b> Further research may be required to identify solutions; requires monitoring the integration and enforcement of MCCAP and gauging effectiveness and implementation progress through: Capital Investment Planning, staff reporting on MCCAP priorities and/or MCCAP ‘Report Cards’ / annual review processes
<b>Non-biased, external academic research, information and knowledge provides credibility:</b> Factual information is important for council, staff and community buy-in to adaptation projects
<b>Academic research and knowledge can play a supportive role in facilitating planning processes and implementation of policy initiatives:</b> Academic research can provide context / best practices and evidence for decisions and actions if based on empirical evidence and research from the field.

Results based on 19 responses