

Incorporating Climate Change into Decision-Making Processes



**ONTARIO ASSOCIATION FOR IMPACT
ASSESSMENT**

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ONTARIO SCIENCE CENTRE

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AND ADAPTATION RESOURCES**

Overview



- Climate change
- OCCIAR and climate change
- Incorporating climate change into decision-making processes
 - Risk Management
 - Environmental Assessments
- Available guidance
- Questions?



Climate Change as a Multi-faceted Threat

QUICK RECAP:

- Global issue with different challenges depending on location
- Uncertainty regarding where, when, how intense
- New weather threats: compound events
- Adaptation is a response to a moving target of CC impacts



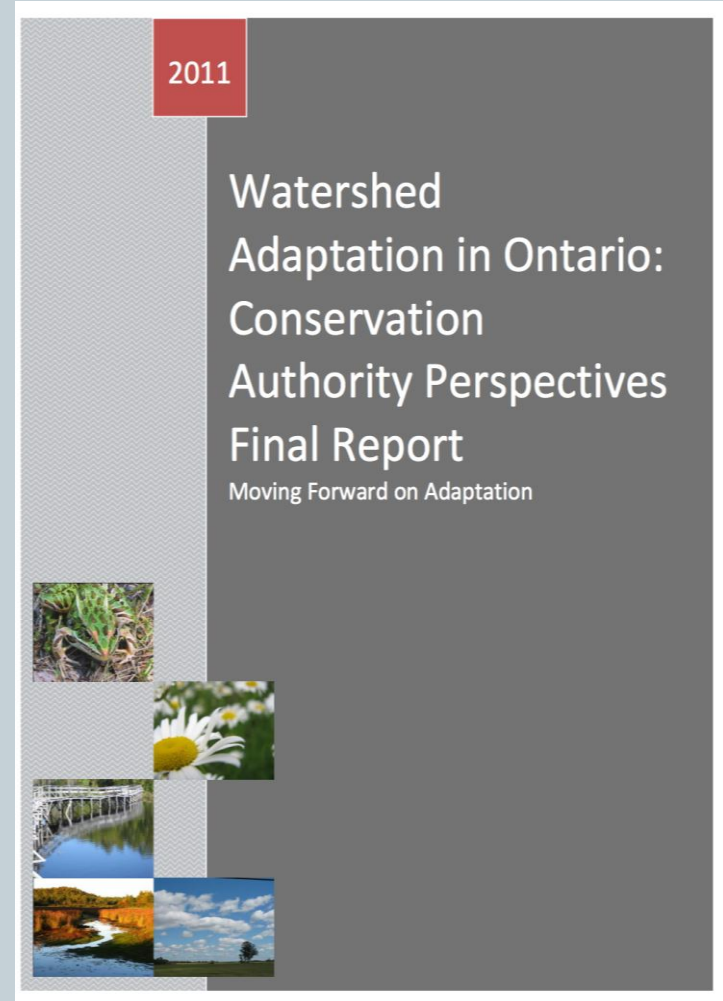
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OCCAR AND CLIMATE CHANGE



- Climate change impact and adaptation work since 2001
 - Communities
 - Industry
 - Government
- Vulnerability/Risk Assessment
- Case Studies
- Climate data
- Policy Analyses
- Environmental Assessment Analysis



Climate Change and Decision-making



To build resilient, long-lasting and safe communities and businesses, climate change must be considered during decision-making processes

- Design standards
- Vulnerability Assessments
- Risk Assessments/Management process
- Environmental Assessment process

Climate Change in Risk Management

Risk analysis and assessment goal: identify, understand and prioritize risks to allow for their management

3 parts in the Risk Management process: Analysis, Assessment and Management

Why address climate change in risk management processes?

- Natural fit
- Guidelines - Bruce, Egner and Black
- Uses tools and processes that stakeholders are familiar with
- Some success has been realized



Climate change in Risk Analysis



BUT....

Some challenges in incorporating climate change into the process:

- Requires specialized knowledge to collate, manipulate and use climate information
- Probabilistic in nature so requires stakeholders to consider risk, not necessarily to act

Climate Change in EAs



Environmental Assessment goal: to understand (and limit) the impact of the project on the surrounding environment

Why address climate change in environmental assessment processes?

- Must be completed for large projects across Canada (CEAA)
- Established process that industry/municipalities are familiar with
- Ensures climate change consideration at planning stage

Climate Change in EAs Cont'd



BUT...

Some challenges in incorporating climate change into the process:

- Not mandated in Canada
- Different EA requirements in different regions of Canada
- Requires specialized knowledge to obtain and use climate information appropriately in planning process

Assessing the Incorporation of Climate Change into Completed Environmental Assessments of Mining Projects



Project goal: to understand the extent to which climate change is considered in environmental assessments in the mining industry

- 1 year research project - partnering with Risk Sciences International
- Funded by NRCan under Enhancing Competitiveness in a Changing Climate Program
- National in scale

Deliverables:

- Report comparing EA guidance across Canadian jurisdictions
- Descriptive analysis of environmental assessments
- Critical analysis of environmental assessment
- Best practice review
- Key informant interviews



Guidelines – Risk Assessments

- Bruce, Egener & Noble – Adapting to Climate Change: A Risk-Based Guide for Ontario Municipalities 2006
- Halifax Regional Municipality – Climate Change Risk Management Strategy Report 2007
- Deloitte Canada – Climate Change Adaptation Framework Manual

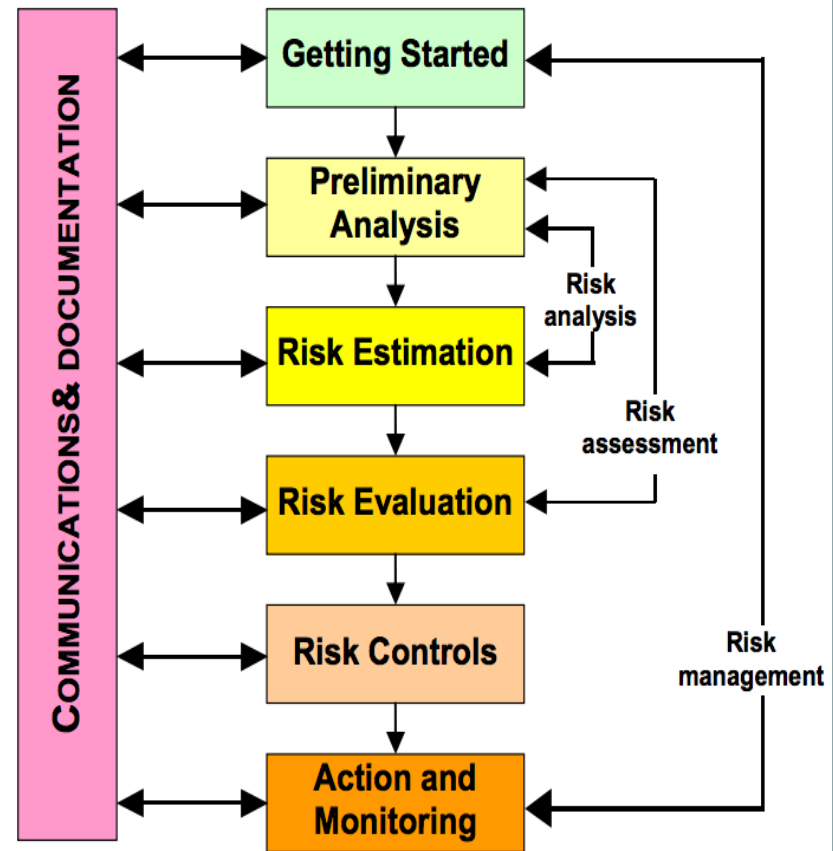


Figure 1: Steps in the risk management process

Guidelines - EAs



Federal level guidance includes:

- *Incorporating Climate Change Considerations in Environmental Assessment (2003) – CEAA*
- *Practitioner's Guide: Incorporating Climate Change into the Environmental Assessment Process (2003) – ClimAdapt*

Regional or provincial guidance exists as well.

EA Guidance Cont'd



CEAA, 2003. Incorporating Climate Change Considerations in Environmental Assessment: General Guidance for Practitioners

- “The identification of impacts consideration should:
 - Identify the sensitivity of the project to variation in or changes to specific climate parameters and identify the potential impacts on the project...
 - Review available information on how regional climate change may affect these parameters to which the project is sensitive”

Nova Scotia Environment, 2011. Guide to Considering Climate Change in Project Development in Nova Scotia

- Asks proponents to consider
 - Climate change impacts applicable to project location
 - Identify components likely to be affected by climate change
 - Project location with respect to areas that are vulnerable to climate change
 - Local or community strategy
 - External climate risks affected by the project

Guidelines – EA Cont'd



Limitations:

- Little guidance offered on sources, types and use of climate information
- Old information – much has changed since 2003!
- Cannot force stakeholders to consider climate change, only demonstrate how and why it is a good idea to do so
- Driving specific adaptation measures

Concluding thoughts



Our future safety and well-being depends on our ability to plan for climate change. How else can we ensure that this occurs?



Questions?





THANK YOU!

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