

Adaptation Case Studies in the Energy Sector

Overcoming Barriers to Adaptation

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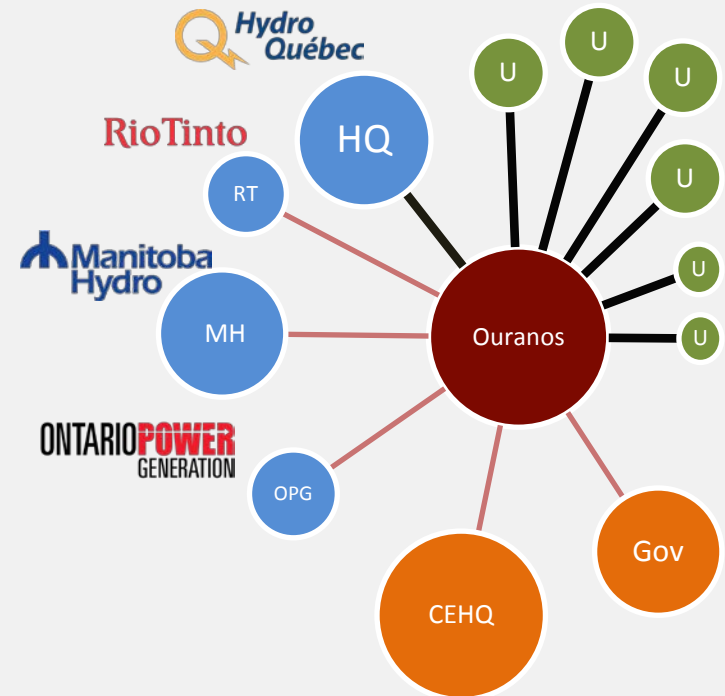


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What is Ouranos?

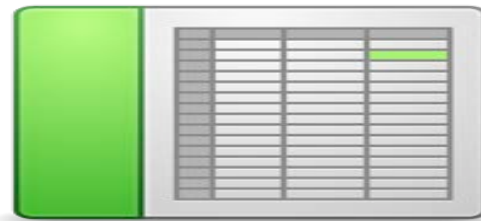
A boundary organization

- Regional climate modeling group
- Climate scenarios and services
- Climate impacts and adaptation studies
- About 400 collaborators
- Annual budget of approximately 10 M\$
- Over 100 projects completed since 2002
- Partners concerned with hydropower and dam safety



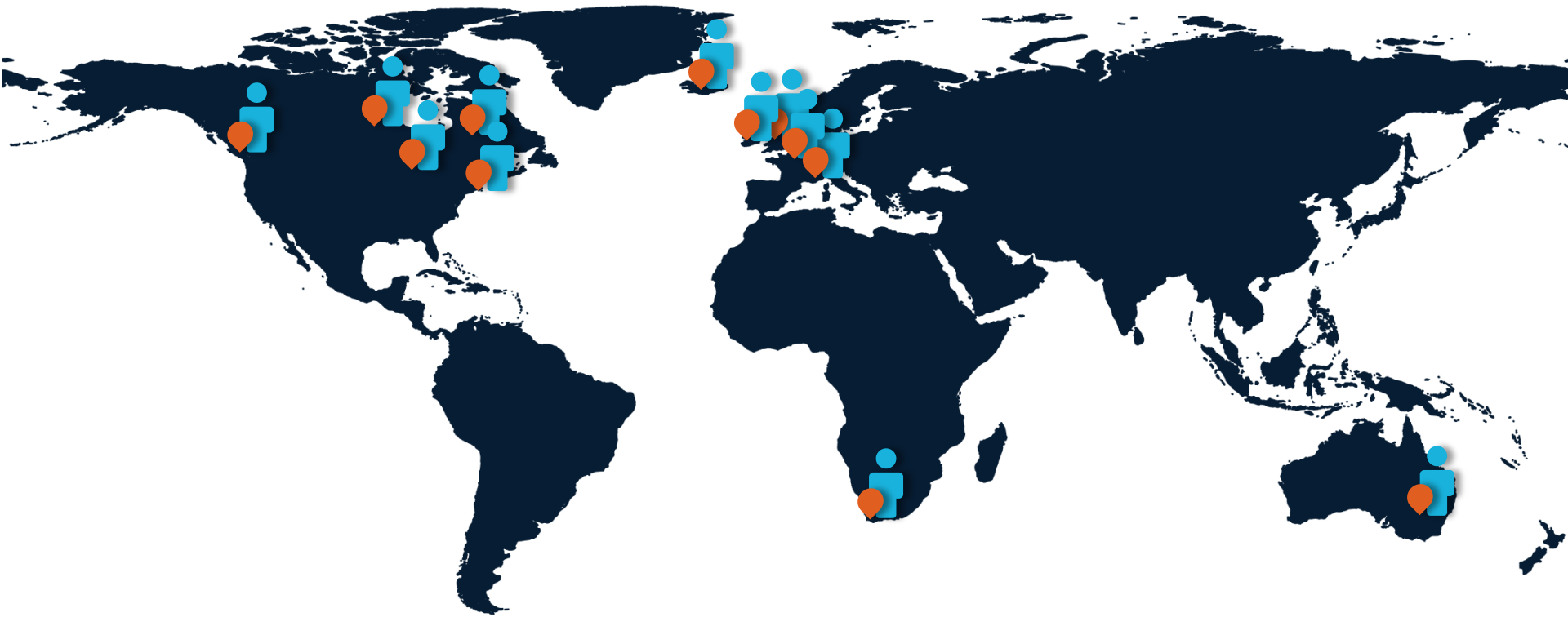


What is out there?

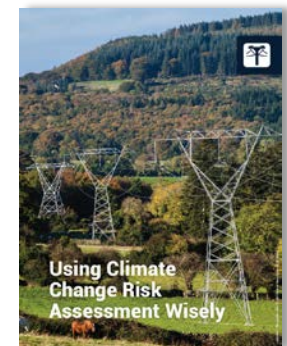
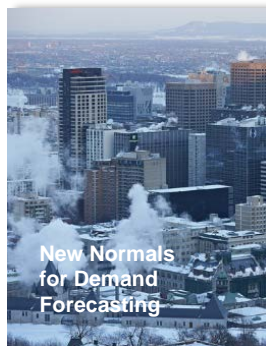
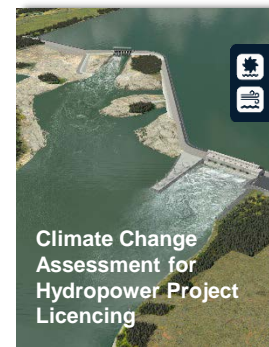
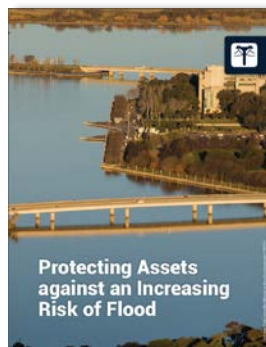
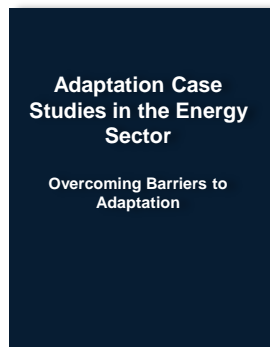




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Which generate interest?



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Which generate interest?
How was it done? By whom?
What can we learn?



ouranos.ca/en/programs/energy-adaptation-case-studies/
ouranos.ca/programmes/etudes-de-cas-adaptation-energie/

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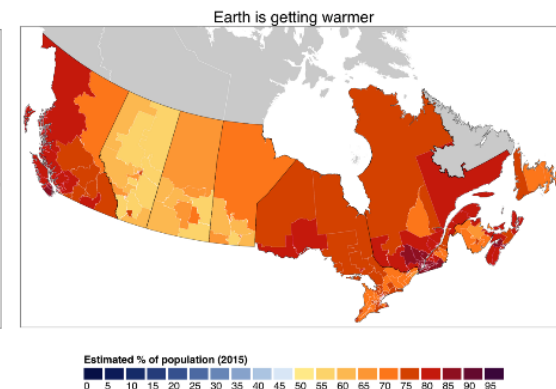
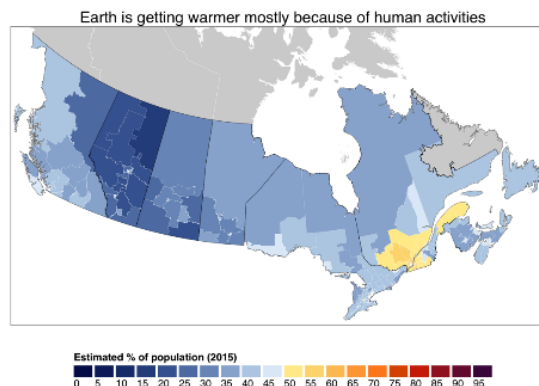
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BARRIERS

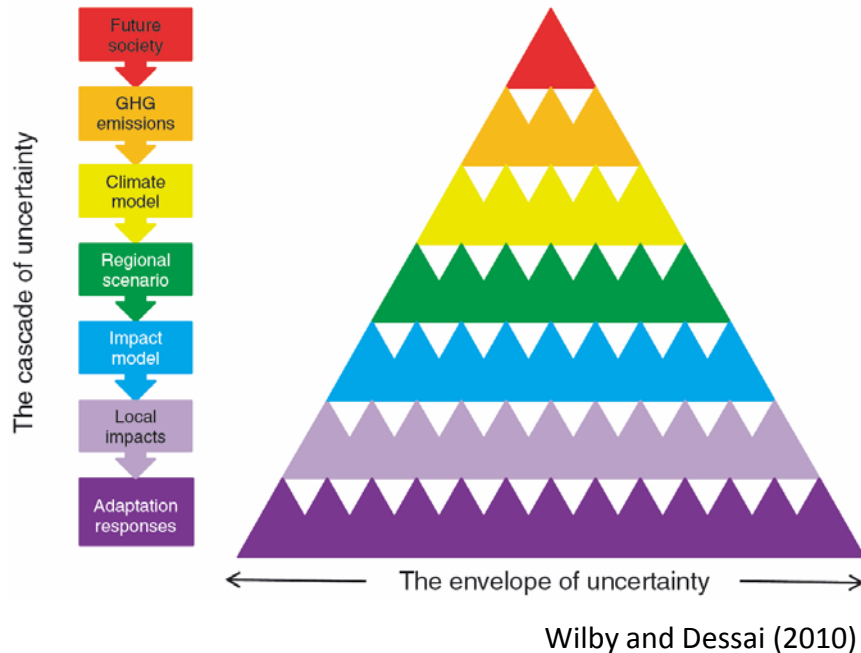
AND REMEDIES

Understanding and Perception of Climate Change Risk

- Complexity (too hard!)
- Imperceptiveness (not bad!)
- Gradual nature (not now!)
- « Climate Sceptics » (a hoax!)
- Collaborate with climate experts
- Precautionary principal
- Serious skeptical questions lead to better and more robust understanding
- Don't call it climate change!



Climate Projection Uncertainty



- Most decisions are made with imperfect information
- Uncertainty differs between climate parameters
- Assess options under a range of uncertainty
- Decision support tools
- Novel approaches to making decisions under deep uncertainty

Inadequacy of existing Tools

- Business tools not built to ingest climate information
- Tools built to ingest observed climate data
- Tools not sensitive to climate/weather information
- Improving tools can have co-benefits, even for other applications
- Adapting tools may improve business operations



- Adaptation to climate change is becoming mainstream in proactive businesses around the world
- 11 Case Studies cover a range of energy types, adaptation types and practices, issues and organizations
- Sharing and comparing adaptation experiences can have a powerful influence on the energy world
- The formation of consortia engaging industry, government, academia and regulators promotes a common understanding and helps to lift the technical, financial and regulatory constraints
- An adaptation measure is ultimately a decision-making exercise, which always benefits from a diverse set of alternative strategies



CONCLUSION



Thank you!

Questions?



Ressources naturelles
Canada

Natural Resources
Canada

Canada

ONTARIO **POWER**
GENERATION

 Manitoba
Hydro

RioTinto

 Hydro
Québec

9 out of 11 case studies are available in French and English at:
ouranos.ca/en/programs/energy-adaptation-case-studies/
ouranos.ca/programmes/etudes-de-cas-adaptation-energie/

**For any further
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