SOMMET DE QUÉBEC sur les changements climatiques

PROCEEDINGS

OF THE QUÉBEC SUMMIT ON CLIMATE CHANGE

Québec

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INTRODUCTION

The Québec Summit on Climate Change was held on April 14, 2015. An initiative by Québec Premier Philippe Couillard, the Summit was announced at the end of the August 2014 meeting of the Council of the Federation. For the first time, a meeting devoted to climate change gathered the decision-makers of Canada's provinces and territories at the highest level.

The Summit took place at a strategic moment. The 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), which will be held in Paris in December 2015, represents a critical step for the future of the international climate regime. Its objective is to lead to the adoption of a new ambitious international and universal agreement for the post-2020 period.

In this context, the purpose of the Québec Summit on Climate Change was to better leverage the variety and scope of initiatives adopted by all Canadian provinces and territories.

In highlighting these actions, the Summit was an opportunity to demonstrate the important and necessary contributions states and regions make in the fight against climate change. The fact it was attended by Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change, gave the Premiers a chance to address preparations for COP21 in their discussions.

Specifically, the Summit objectives were to

- Pool the experience and vision of each province and territory regarding the costs and benefits of reducing greenhouse gas (GHG) emissions and adapting to the consequences of climate change
- Foster exchanges on the best possible practices for reducing GHG emissions and the business opportunities linked to them
- Discuss additional possibilities for intergovernmental collaboration to foster a low-carbon economy and at the same time address energy and climate-related issues
- Assert the role that Canada's provinces and territories can play in contributing to the success of COP21.


WELCOME
SOMMET DE QUÉBEC
ALAIN BOURQUE

WELCOME REMARKS FROM THE PREMIER OF QUÉBEC, MR. PHILIPPE COUILLARD

(Check against delivery.)

Premiers,
Ministers from member delegations,

I am very happy to welcome you today to the Québec Summit on Climate Change, which follows up on our Council of the Federation meeting in August 2014. At this meeting, we agreed to reconvene specifically to discuss the fight against climate change.

The provinces and territories are here to share their experiences, discuss the best ways to improve our collaboration, and meet with experts who can provide us with food for thought on the actions we need to take now and in the future.

This Summit is therefore a starting point for discussions that will be continued notably within our Council of the Federation. Our objective here is not to promote a single model for taking action against climate change—on the contrary. Because the only way to effectively fight climate change is by embracing a diversity of actions adapted to the unique situations of each and every one of us.

Our objective here is to promote different initiatives put together by provinces and territories to fight climate change. The diversity of tools we use is a strength that we must showcase. Our exchanges today and moving forward will help us to go further.

The provinces and territories, each with its own specific geographic and economic context, all have a contribution to make. But one thing is certain: 2015 is a critical year. Next December in Paris, the entire international community will have to make the only decision we can afford to come to: the decision to take action. We must act now, act smart, and act together to take concrete steps for the future of our world.

The Parties to the United Nations Framework Convention on Climate Change now hold in their hands our collective hopes for the next international agreement on climate change. But the success of these negotiations does not depend on them alone.

The governments of the states and regions we represent today have a role that is just as important as—if not more important than—that of national governments. Because our jurisdictions are the ones that adopt the most concrete measures, and also because we are the ones directly affected by the consequences of climate change: whether floods, coastal erosion, or other issues. All the capitals of the world, including those of states and regions, are building the foundations for success in Paris.

Already, provinces and territories of different countries are getting involved in this fight. The Maritime Provinces have developed robust programs on energy efficiency and renewable energy. Thanks to these initiatives, 97% of the energy produced by Prince Edward Island is renewable, generated primarily by wind power. New Brunswick and Nova Scotia have followed suit by setting a 40% target of clean energy by 2020.

Through its two action plans on climate change, Newfoundland and Labrador has set up a substantial green fund to support energy efficiency and renewable energy projects.

As you know, Québec has also established such a fund to support concrete projects to fight climate change, as well as setting up a cap-and-trade system for greenhouse gas emissions allowances (C & T system), together with California, that covers all large emitters. And yesterday we learned that our neighbor Ontario has joined this initiative concurrently with its decision to eliminate coal-fired electricity generation and develop renewable energy sources.

Manitoba has also taken steps in this regard by banning coal for heating purposes and introducing a carbon tax on coal and petroleum coke combustion. A strategy also adopted by Saskatchewan, which recently introduced a major carbon capture and storage project at the Boundary Dam power station. This promising initiative rounds out the existing Go Green Fund in support of renewable energy and energy efficiency.

As for Alberta, in 2007 it adopted a regulation aimed at reducing the GHG emission intensity of large emitters, introducing a carbon pricing signal and putting in place a Green Technology Fund to foster development of less polluting green technologies.

British Columbia passed the *Greenhouse Gas Industrial Reporting and Control Act*, a bold initiative that builds on the fiscally neutral carbon tax already in place.

Yukon, Nunavut, and the Northwest Territories, too, have not sat idle, as in addition to taking specific initiatives to fight climate change and support renewable energy, these governments have joined forces to adopt a cross-territorial climate change adaptation strategy to tackle their shared challenges. And we could all take inspiration from this innovative cooperative approach.

So as you can see, there is a lot going on and we have all taken action by developing strategies, policies and action plans, financial mechanisms, and other initiatives in line with our own goals and situations.

To me, all these initiatives stem from a shared desire to make a positive contribution to the climate change challenges provinces and territories face, from the Atlantic to the Pacific and the Arctic shores of northern Canada, a region deeply and directly affected by the impacts of global warming.

U.S. states, such as our partners from Vermont led by Governor Peter Shumlin, are resolutely committed to adopting measures that will enable the development of a low-carbon economy. One example of this is the Regional Greenhouse Gas Initiative in New England.

Canada has a duty to push for concrete results. Our leadership and credibility on the international scene, as well as the economic development and well-being of our societies are depending on it.

We know that climate change is raising critical environmental, economic, and social challenges. So our governments must work together and take action in the most effective way possible. The inclusion of climate change in the Canadian Energy Strategy and the Canadian Council of Ministers of the Environment; the Joint Statement on Climate Change signed last December by Ontario, British Columbia, and Québec; and the upcoming Climate Summit of the Americas in Toronto are all examples of our ability to work together to tackle the challenge and build a low-carbon economy.

Data published last month by the International Energy Agency shows that the world economy grew 3%, while greenhouse gas emissions from the energy sector remained stable. This was the first time in 40 years that a stabilization in GHG emissions was not caused by an economic downturn.

This observation is very important because it dispels the myth that efforts to reduce GHG emissions curb economic development.

On the contrary, the fight against climate change is already helping to boost some very promising economic sectors, such as clean technology and energy efficiency. This creates quality jobs and enhances our energy security. Not to mention the important benefits that will come with the transition to a green economy, such as improvements in air quality, public health, and the quality of life of our citizens.

This message is particularly important because in order to succeed we need to get all of our citizens on board. And more importantly, we must reject some people's assertion that we have to make a choice between fighting climate change and growing our economies.

Dear colleagues, it's time for us to be more demanding and more ambitious as we build a new economy, a new type of economic growth, and good jobs through our initiatives to reduce GHG emissions.

The fight against climate change is an integral part of economic development and economic recovery. We have everything to gain by working together right now to leverage our vast creative and innovative potential. We all know that clean technologies are part of our economic future.

My colleagues who joined me on our joint mission to China got to see how this huge economy has truly gotten the message and is taking actions that are creating opportunities for growth for our businesses and for exporting our expertise abroad.

Acting now means acting to ensure both our prosperity and our posterity, because the cost of inaction will largely outweigh the investments needed today to reduce our emissions and adapt to the impacts of climate change. Acting now also means seeing to the health of our people today and ensuring a sustainable future for our children tomorrow.

Our fellow citizens, children, and the generations to come will judge us based on the courage and seriousness with which we approach this issue. We will have to answer to them for past, present, and future actions.

Given all the benefits we know will come out of our fight against climate change, can we step up our commitments? I think we can. To be even more ambitious in our actions, let us take inspiration from our economic partners with similar energy profiles who have successfully combined environmental protection with economic development. All of us should also take inspiration from those among us who have implemented ground-breaking measures that can be repeated at a larger scale.

We can make a bigger impact working together than by acting alone. Better cooperation between governments can only broaden the reach of our actions—and the resulting benefits for our societies.

This is what our discussions this morning will be about. First we will hear from two distinguished climate experts of the impacts of climate change in Canada and of adaptation to climate change. After the break, we will tackle carbon pricing and other pivotal initiatives in the fight against climate change head on.

At noon, we will have the great honor of welcoming Ms. Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change, who will give us an update about the negotiations on the future Paris agreement.

This afternoon, Executive Secretary Figueres and Climate Group CEO Mr. Mark Kenber will talk to us about the possibilities for heightened collaboration to make climate change issues a bigger part of our energy strategies.

Now, I am delighted to introduce our first two speakers, Mr. Alain Bourque and Mr. Paul Kovacs.

Our first speaker, Alain Bourque, is the Executive Director of the Ouranos Consortium, a research organization focusing on regional climatology and adaptation to climate change. Ouranos was created in 2001 by the Québec government in cooperation with four Québec universities, Hydro-Québec, and the federal government.

Having worked at the Consortium since its inception, Alain is one of its pioneers. He is a meteorologist and a climatologist who worked at Environment Canada from 1989 to 2001, before establishing Ouranos' "Impacts and Adaptation" program. He has also written and contributed to many scientific articles and publications on the impacts of climate change in Québec and across North America.

Our second guest is Mr. Paul Kovacs, founder and Executive Director of the Institute for Catastrophic Loss Reduction at Western University in London, Ontario. Since 1996, Paul has contributed to various reports published by the Intergovernmental Panel on Climate Change (IPCC). He is one of Canada's leading specialists in insurance and climate change. He has written numerous publications on the damage associated with climate catastrophes.

Mr. Bourque and Mr. Kovacs will both talk to us about the consequences of climate change in Canada and the socioeconomic costs it could have in the decades to come. Their presentation will be followed by a question period.

Thank you and enjoy the Summit.


PAUL KOVACS

SESSION: "CLIMATE CHANGE – WHAT CAN CANADA EXPECT?"

Joint presentation by Mr. Alain Bourque, Executive Director, Consortium Ouranos, and Mr. Paul Kovacs, Executive Director, Institute for Catastrophic Loss Reduction

For Messrs. Bourque and Kovacs, ambitious policies of greenhouse gas (GHG) emissions reduction aim first of all at avoiding the most negative impacts of climate change and at preventing an irreversible alteration of the climate system to happen.

No matter how ambitious international and cross-Canada policies will be, the speakers underline the fact that climate change generates and will continue to engender significant risks for the population of Canada. Climate change coupled with an increasing vulnerability of socioeconomic systems are resulting in greater economic losses. The future magnitude of climate change and associated uncertainty will in particular undermine both public and private insurance systems.

Considering that the cost of action is far lower than the cost of inaction, both experts recommend provinces and territories to invest massively for lowering their carbon footprint and for enhancing their capacity to adapt to climate change.

In the coming decades, the climate of Canada will be warmer, with a probable temperature rise around +3 °C. It will also be wetter and stormier. Days of extreme heat will be more frequent and contribute to an increased risk of mortality – particularly in urban areas. The water cycle will be more active, with some regions becoming more arid and others experiencing more episodes of heavy precipitation. In general, both the quality of water and biodiversity will deteriorate. The climate will become less stable: violent and extreme weather events will be more frequent and heighten danger to infrastructure essential to public safety and prosperity.

Given the size and diversity of Canada, impact type and magnitude will vary by region and by sector. Coastal areas will be exposed to flooding and erosion. In the North, buildings and transportation networks will be affected by permafrost melting. Forest fires will probably become more frequent and widespread. Currently based on historic data, building codes should be revised for taking into account climate statistics and in particular the growing probability of violent weather events. If this is not done, the impact on the built environment will be significantly greater.

While adaptation to climate change must take numerous local and sectorial specificities into consideration, Messrs. Bourque and Kovacs believe that the efficacy of measures will depend on whether governments could adopt a global approach to fighting climate change. Such an approach should address both GHG emission reduction and adaptation to the climate change that is well under way.


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LUNCHEON CONFERENCE BY MS. CHRISTIANA FIGUERES, EXECUTIVE SECRETARY OF THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

Ms. Figueres gives an update regarding the preparatory work for the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC), which will be held in Paris in December 2015. She announces that 34 countries have submitted their Intended Nationally Determined Contributions (INDCs) and that, in the coming weeks, all other Parties to the UNFCCC are expected to do so. Contributions from industrialized countries and other large emitters are particularly expected. She salutes the decision of the Canadian federal government to publicly announce its contribution before the G7 Summit in Germany in early June 2015. She predicts that the INDCs submitted prior to COP21 will cover between 90 and 95% of worldwide GHG emissions.

Ms. Figueres insists that the future climate agreement cannot be limited to an aggregation of INDCs. She affirms that the agreement would need to cover a much longer period of time than was set out in the Kyoto Protocol, involve advanced and developing economies and, in particular, provide a common framework that recognizes a wide variety of initiatives, including those undertaken by sub-national governments, regions and cities.

Ms. Figueres states that the morning's discussions of the Quebec Summit were very similar to those that are being held throughout the international community. Indeed, in that respect, Canada is a microcosm of the issues addressed at a worldwide level to fight climate change.

Seen in this perspective, provinces and territories may take different approaches to the problem that suit their individual economic preferences, while participating in a process of collaborative experience sharing, as Parties to the UNFCCC often do. Within Canada, some members of the federation are major players in fossil energy production and look to solutions such as carbon capture and sequestration (CCS) technologies that could enable them to reduce their carbon footprint. Various regions in the North are particularly vulnerable to climate change, and have made adaptation a priority. Other provinces have set up carbon pricing mechanisms through fiscal measures or a cap-and-trade system, looking to integrating the costs of climate change into the economy.

According to Ms. Figueres, based on international experience, the policy diversity does not in and of itself impair the achievement of aggressive GHG emission reduction goals, because it allows for optimal economic, social and environmental solutions to be developed.

However, simply opting for a bottom-up approach to the fight against climate change will not suffice. Local and national initiatives need a common framework in order for them to reach their full potential. Recommendations from the scientific community through the intermediary of the Intergovernmental Panel on Climate Change (IPCC) provide a common basis to the future Paris agreement. Following the IPCC's recommendations, the world must reach carbon neutrality by the end of the 21st century. This involves immense challenges, not only for industrialized countries but for developing countries as well, due notably to the latter's strong expected demographic growth.

Ms. Figueres observes that in relation to the preparatory work for COP21, the degree of ambition of the Parties remains generally lower than what the IPCC recommends in order to prevent the worst of climate risks. The contributions that are expected by COP21 shall thus be seen as a first step in a path to a gradual rise in the international community's level of climate ambition.

She states that national and sub-national governments need to fully participate in the transformation of the world economy that has already begun if they want to benefit from the considerable business opportunities it offers.

Three signs of this profound economic transformation can be seen already. First, there is the uncoupling of economic growth and rising emissions. The year 2014 was the first in which the world economy as measured by GDP grew even as GHG emissions dropped. Such an uncoupling, if it persists, would demonstrate that decarbonization and economic growth can go hand-in-hand.

The second and third signs of the transformation relate specifically to the energy sector. On the one hand, renewable energy has become more competitive with fossil energy, and has much more sustained growth potential. On the other, the perspectives for long-term fossil energy demand are subject to numerous uncertainties stemming as much from political choices as from economic considerations that are linked to the integration of the costs of climate change into investors' decisions.

According to Ms. Figueres, Canada has many assets with respect to this worldwide economic transformation, particularly in the area of renewable energy and CCS technology.

In concluding her presentation, Ms. Figueres concedes that the transition to a low-carbon world will not take place overnight or be problem-free. As such, all actors in the fight against climate change, which in Canada places both levels of government in the front lines, need to collaborate in finding optimal solutions for the sustainable development of their societies.

SESSION: "ENERGY AND CLIMATE CHALLENGES – JOINT SOLUTIONS"

Presentation by Mr. Mark Kenber, CEO, The Climate Group

Mr. Kenber makes the case for ending the opposition between economic development and climate change objectives. While recognizing that the transition to a low carbon world will not be easy, he notes that the process will be accompanied by numerous business and other economic opportunities. Inaction cannot be a choice because climate change has already had negative impacts that will continue to grow in the forthcoming decades. Those that commit the earliest to reducing their carbon footprint will reap the most benefits.

Knowing that non-national governments will be responsible for 50 and 85% of the global effort to counter climate change, The Climate Group has, since 2005, sought to broaden its States and Regions Alliance, which currently includes 30 states and regions of a combined population of 313 million. Alliance members such as Québec, Ontario, California and New York are motor forces in their national economies. In some cases, their economic size is close to those of some influential Parties to the UNFCCC. All have taken on ambitious goals for 2050 to reduce their GHG emissions and better adapt to climate change. Their experience bears witness to the fact that it is possible to be protagonists in the on-going Clean Revolution while remaining major hubs of prosperity.

According to Mr. Kenber, sub-national actors – and in fact all authorities – should not commit themselves to fighting climate change in a grudging way. On the contrary, their actions in this area should be deemed opportunities for attracting investment and polishing their good international reputations. The experiences of a number of Climate Group members have proven to be veritable laboratories for innovation that can serve as examples for others. To illustrate this, Mr. Kenber mentioned the case of South Australia where 39% of the energy mix is renewable, while only a few years ago the share of renewables was marginal. In Massachusetts and Connecticut, investments in renewal energy have both improved the balance of trade and fiscal sustainability while becoming one of the major drivers of the economic recovery at the end of the last decade.

In concluding, Mr. Kenber invites all the Canadian provinces and territories to join the States and Regions Alliance, sign the Compact of States and Regions that was developed at the September 2014 New York Climate Week, and commit to reaching ambitious GHG emission reduction targets and measuring their results using the methodologies agreed by the members of the Alliance.


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SOMMET DE QUÉBEC sur les changements climatiques

DECLARATION OF THE PREMIERS OF CANADA*

Québec Summit on Climate Change

April 14, 2015

Recognizing that there is a scientific consensus calling for significant reductions in global greenhouse gas (GHG) emissions to limit global warming to less than 2˚C compared to the preindustrial era;

Recognizing that the health and security of populations, as well as the economy, infrastructure, and ecosystems are already affected by climate change, and that climate risks have significant implications for the economic and social development prospects of provinces and territories;

Recognizing that the cost of inaction is greater than the cost of action with regards to GHG emissions mitigation and adaptation to the impacts of climate change;

Recognizing that Arctic states such as Canada are particularly vulnerable and disproportionately affected by the impacts of climate change, adaptation must complement ambitious mitigation measures to address the effects climate change is having on Canada's northern regions;

Recognizing that investing in the fight against climate change, especially in areas such as renewable energy, energy efficiency, and cleaner energy production, holds great promise for sustainable economic development and long-term job creation;

Recognizing that Canadian provinces and territories are well positioned to contribute towards the development of technological innovations and global solutions;

Recognizing that achieving our environmental goals, addressing climate change and reducing GHG emissions will require an integrated, economy-wide approach that includes all sectors;

Recognizing that transitioning to a resilient and lower-carbon economy by 2050 is necessary to ensure the sustainable development of provinces and territories;

Recognizing that carbon pricing is an approach that is being taken by an increasing number of governments;

Recognizing that climate actions will be consistent with the international competitiveness of provincial and territorial economies and sustainable development of Canada's natural resources sectors;

Recognizing that provinces and territories hold important responsibilities in the fight against climate change by virtue of their jurisdictions and powers;

Recognizing that Federated States, such as Canada's provinces and territories, and regional governments can play an important role in contributing to the success of the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change to be held in Paris in December 2015, and whose objective it is to conclude a new international climate agreement to limit global warming to 2˚C;

Recognizing the will of provinces and territories to contribute to Canada's fight against climate change and strengthen the contribution made by Federated States and regional governments to the international climate effort;

Meeting at the Quebec Summit on Climate Change, the Premiers, seeking to foster a transition to a lower-carbon economy, **commit to:**

Adopt a long-term perspective to facilitate the achievement of near-term and long-term GHG reduction targets;

Advance innovation and the development and deployment of technologies needed to transition to a lower-carbon economy;

Promote actions that support intergovernmental and cross-sector linkages in addressing climate change and that are inclusive of all sectors of the economy;

Implement programs and measures to adapt to climate change and reduce GHG emissions;

Strengthen pan-Canadian climate change cooperation, in particular by sharing information, expertise and best practices in order to reduce GHG emissions and increase adaptation initiatives in order to build more resilient populations, infrastructures and economies in the face of climate risks;

Make a transition to a lower-carbon economy through appropriate initiatives, which may include carbon pricing, carbon capture and storage and other technological innovations;

Better coordinate GHG emissions reporting systems among jurisdictions;

Foster investments in the development of resilient infrastructure and energy networks to reduce the GHG emissions associated with the production and consumption of energy;

Implement policies to reduce GHG emissions, which may include improving climate change literacy, increasing energy efficiency and conservation, or the use of clean and renewable energy;

Partner with the federal government in a concerted effort to develop an ambitious contribution from Canada at the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change;

Promote the actions taken by provinces and territories as well as the contribution made by Federated States and regional governments in reaching the international objectives aimed at countering global warming, notably during the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change;

Disseminate this statement to the various bodies involved in the fight against climate change, both in Canada and internationally, in order to demonstrate the leadership of the provinces and territories of Canada in this regard.

** The Premiers of PEI and Alberta were unable to attend due to their elections. The newly-elected premiers of both provinces have since confirmed their support, meaning that all Canadian provinces and territories now support the commitments of the Québec Declaration.*

APPENDICES

Appendix 1: Summit Program

SOMMET DE QUÉBEC sur les changements climatiques

SOMMET DE QUÉBEC SUR LES CHANGEMENTS CLIMATIQUES
QUÉBEC, APRIL 14, 2015

Monday, April 13, 2015

7:00 p.m. **Private dinner for Premiers | Price Building**, 65 rue Sainte-Anne, Vieux-Québec

Private dinner for Ministers | Bistro B, 1144 Avenue Cartier, Québec

Free evening for delegates

Tuesday April 14, 2015 | Québec Hilton

7:00 a.m. to 9:00 a.m. **Registration and breakfast for delegates**

7:30 a.m. **Private breakfast for Premiers**

Private breakfast for Ministers

9:00 a.m. **Welcome remarks from the Premier of Québec, Philippe Couillard**

9:15 a.m. **Climate change – What can Canada expect?**

Invited experts:
Mr Alain Bourque, Excecutive Director, Consortium Ouranos
Mr Paul Kovacs, Executive Director, Institute for Catastrophic Loss Reduction

The world's climate system has been hit by significant changes in recent decades. The impact of these upheavals has already been seen in a number of Canadian regions, and costs are constantly on the rise. How does climate change affect Canadians and their health, infrastructures, security, ecosystems and economy? What does the future hold in store? What benefits can be hoped for through better adaptation to climate change throughout Canada?

In the first session of the day, Messrs Alain Bourque and Paul Kovacs will jointly profile the impact of climate change in Canada and the related social and economic costs in the coming decades. A Q&A will follow their presentation.

10:00 a.m. **Break**

10:15 a.m. **Carbon pricing, and other structuring actions to fight climate change**

The internalization of carbon costs in the economy is being used more and more often throughout the international community, given its efficiency in reducing greenhouse gas emissions. In Canada, some governments have implemented market and/or fiscal mechanisms for this purpose. Others, while not using carbon pricing signals, have implemented greenhouse gas reduction measures that target the main emitting sectors. What social and economic benefits have provinces and territories seen from these measures? What are their future intentions?

This session will provide Premiers with a platform for presenting their vision on carbon pricing and/or setting up other structuring actions. The discussion will begin with the presentation of the two main examples of carbon pricing, namely the tax and the GHG emission allowance cap-and-trade system. A round table discussion will ensue, during which Premiers will dialogue about the social, economic and environmental added value of their governments' implemented and/or envisaged initiatives to fight climage change.

Québec

12:00 a.m. **Luncheon conference by Mrs Christiana Figueres**

Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC) Christiana Figueres will speak about preparations for the 21st Conference of the Parties to the UNFCCC, which will be held in Paris in December 2015. Her speech will especially focus on the role that Canadian provinces and territories can play in helping to ensure the success of the Conference.

1:30 p.m. **Energy and climate challenges – Joint Solutions**

Invited experts:
Mr Mark Kenber, CEO, The Climate Group
Mrs Christiana Figueres, Executive Secretary of the United Nations Framework Convention on Climate Change

Energy challenges are closely linked to the development of a green, resilient and competitive economy. Canada benefits from vast energy resources which, if used wisely, can help reduce its carbon footprint while ensuring economic prosperity. Which approaches to energy efficiency, renewable energy, carbon capture and storage, electrification of transportation and energy interconnectivity have been used until now by the provinces and territories? Which factors have facilitated their implementation and social acceptance? Is there any interest in strengthening intergovernmental collaboration in any sector?

Centred on the search for solutions, the third session of the Summit looks firstly to foster a discussion on energy and climate issues and secondly, to assess the potential for intergovernmental collaboration to confront both issues simultaneously. The session will begin with presentations by the following two expert advisers: Mr Mark Kenber and Mrs Christiana Figueres. These experts will then take part in the dialogue among Premiers.

3:00 p.m. **Private discussions among the Premiers**

3:30 p.m. **Press conference of Premiers**

Appendix 2: "Climate Change – What can Canada expect?" presentation

- Climate change -
What can Canada expect?

Alain Bourque
Paul Kovacs

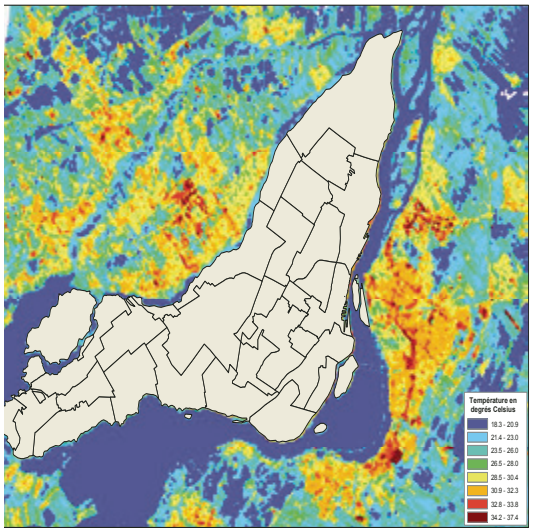
Sommet de Québec sur les changements climatiques

April 14, 2015

OURANOS

Western Institute for Catastrophic Loss Reduction (ICLR)

Ouranos



- Based in Montreal, created by members in 2002
- Critical mass of expertise to insure the development and coordination of interdisciplinary, applied and user driven R&D
- Innovation through collaborative research connected to decision making (policy, planning, operations)

1. A program in Climate science dedicated to climate scenarios and regional climate modeling (300km/45km/10km)

2. A multidisciplinary and multi-stakeholder program in Vulnerability, Impacts and Adaptation

- Water resources
- Built environment
- Maritime environment
- Northern Environment
- Ecosystems and biodiversity
- Forestry
- Agriculture
- Energy
- Health
- Tourism

Environnement Canada Environment Canada
Hydro Québec
Québec
Ontario Power Generation
Université du Québec École de technologie supérieure
McGill
UQÀM Université du Québec à Montréal
INRS Université d'avant-garde
Université Laval
Rio Tinto Alcan
UQAR
Manitoba Hydro

Institute for Catastrophic Loss Reduction

Established in 1997 by Canada's insurers, based at Western University

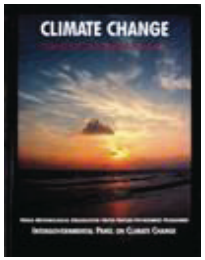
Mission: Reduce the risk of loss of life and property damage due to severe weather and earthquakes

Champion for evidence-based adaptation and risk reduction based on multi-disciplinary research

Programs focus on:

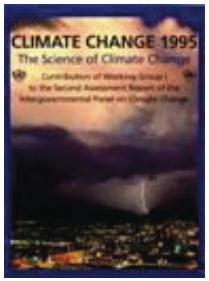
- Flood damage reduction tools for local gov'ts
- Building codes adapted for climate extremes
- Better protection for existing buildings

1988



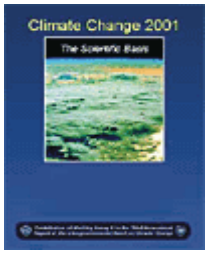
First assessment report (1990)

- The unequivocal detection of the enhanced greenhouse effect from observations **is not likely** for a decade or more.



Second assessment report (1995)

- Our ability to quantify the human influence on global climate is currently limited because the expected signal is still emerging from the noise of natural variability… Nevertheless, the ***balance of evidence*** suggests that there is a discernible human influence on global climate.

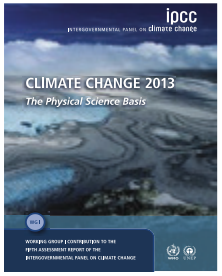


Third assessment report (2001)

- Most of the observed warming over the last 50 years is ***likely*** to have been due to the increase in greenhouse gas concentrations.

Fourth assessment report (2007)

- Most of the observed increase in global average temperatures since the mid-20th century is ***very likely*** due to the observed increase in anthropogenic greenhouse gas concentrations.



Fifth assessment report (2013)

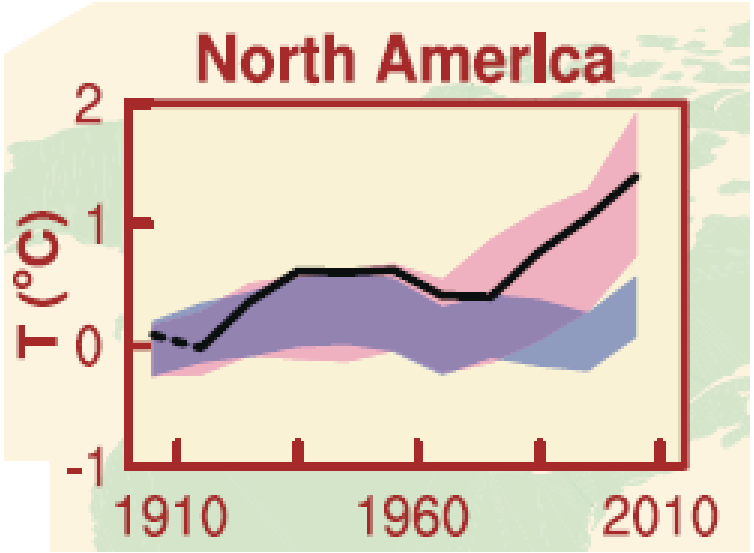
- It is ***extremely likely*** that human activities have caused more than half of the observed increase in global average surface temperature since 1950.

2020

Canada's climate is changing

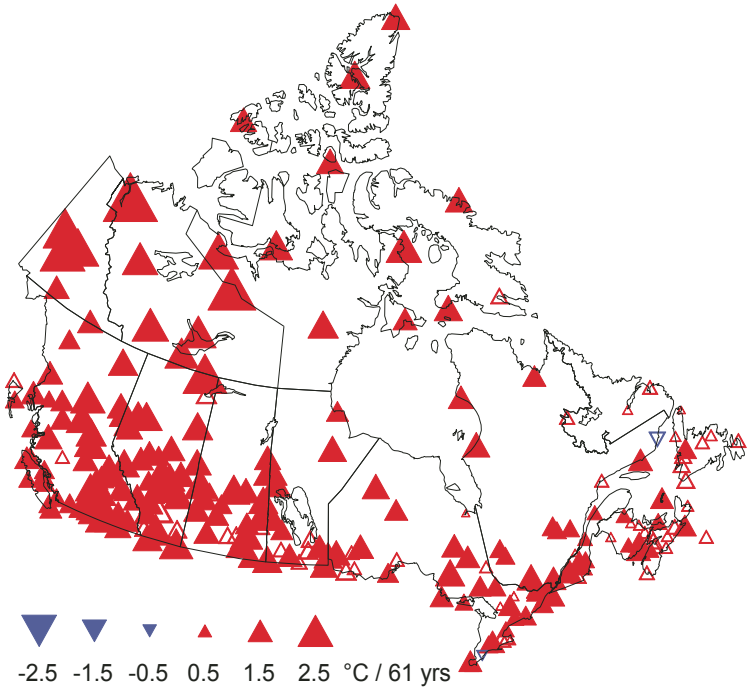
Canada has become warmer (1948-2013):

- Average temperature increased by 1.6° C (2X global)
- In Arctic, average temperature increased by 2.2° C (3X global)



Temperature change with vs without GHG increases
Source: IPCC

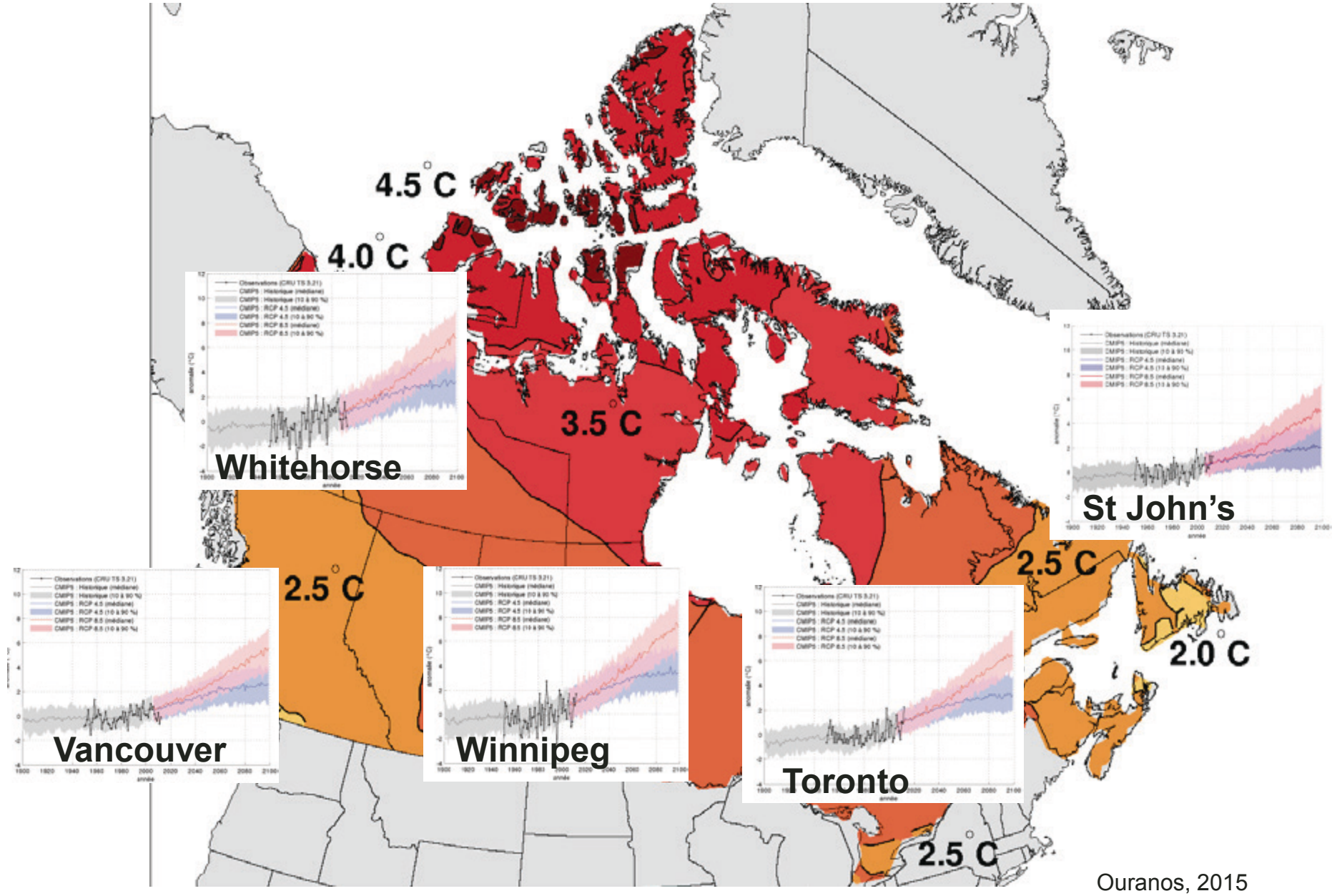
Observations
Models using only natural forcings
Models using both natural and anthropogenic forcings



Mean Annual Temperature Trends

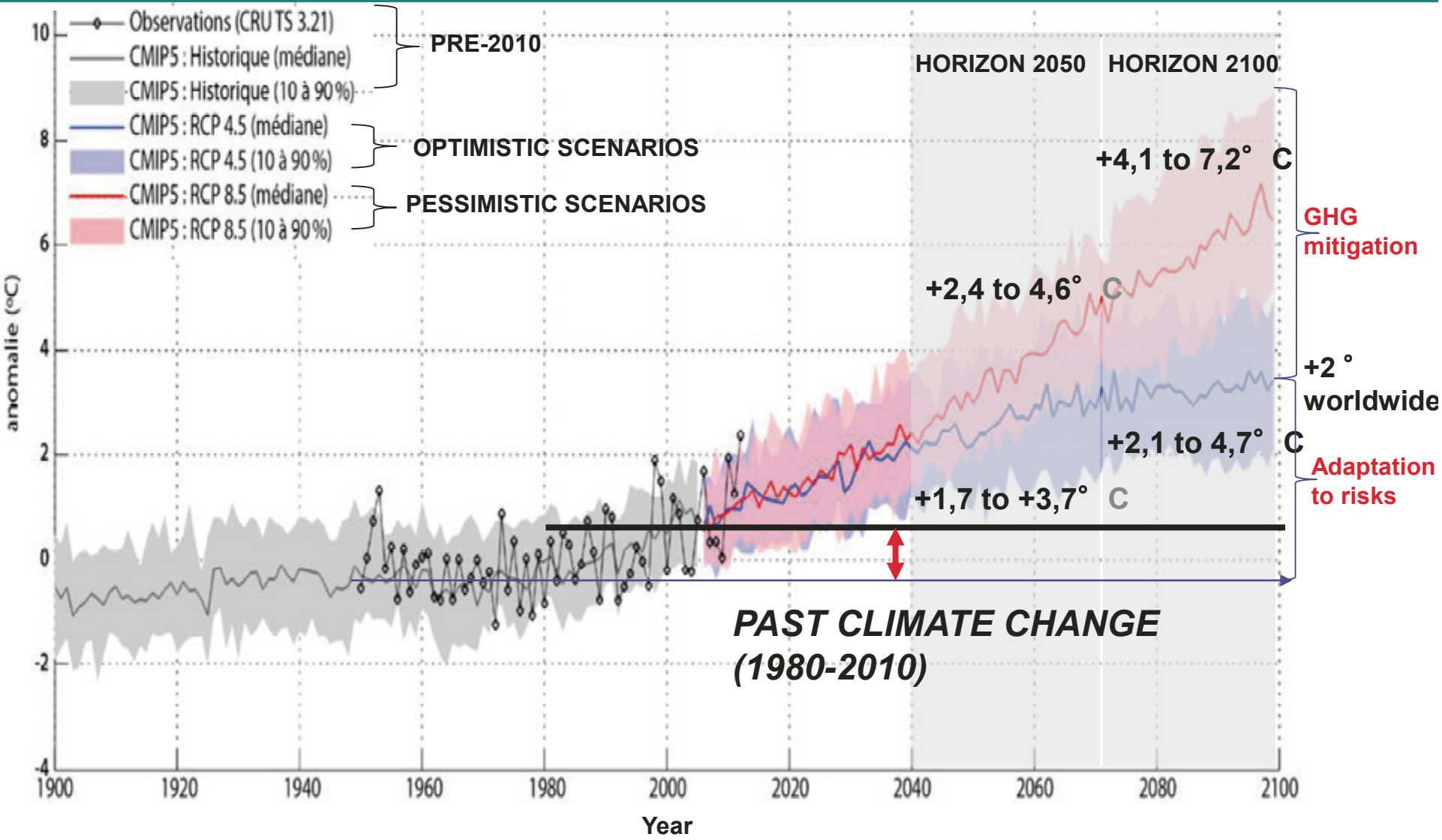
Source: Environment Canada

Regional climate scenarios for 2050's



Ouranos, 2015

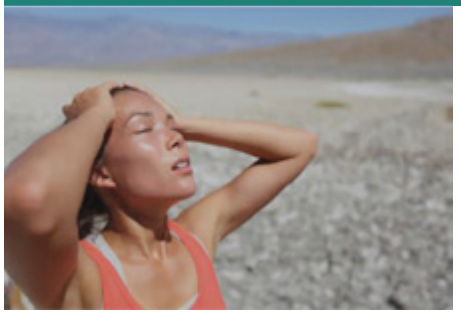
Trend for temperatures in Southern Quebec



Observed annual temperature anomaly trends for Southern Quebec (1950-2012) and simulated (1900- 2100) compared to 1971-2000 mean, for the past (gray) and the optimistic scenarios RCP4.5 (blue) and pessimistic RCP8.5 (red).

Ouranos, 2014

Impact of climate change on Canada



Canada will be warmer

- Increased risk of heat-health fatalities

Canada will be wetter (except when/where needed)

- Increased risk of flood damage

Canada will be stormier

- Increased risk of disruptions from disaster

Nature of impacts will vary by regions

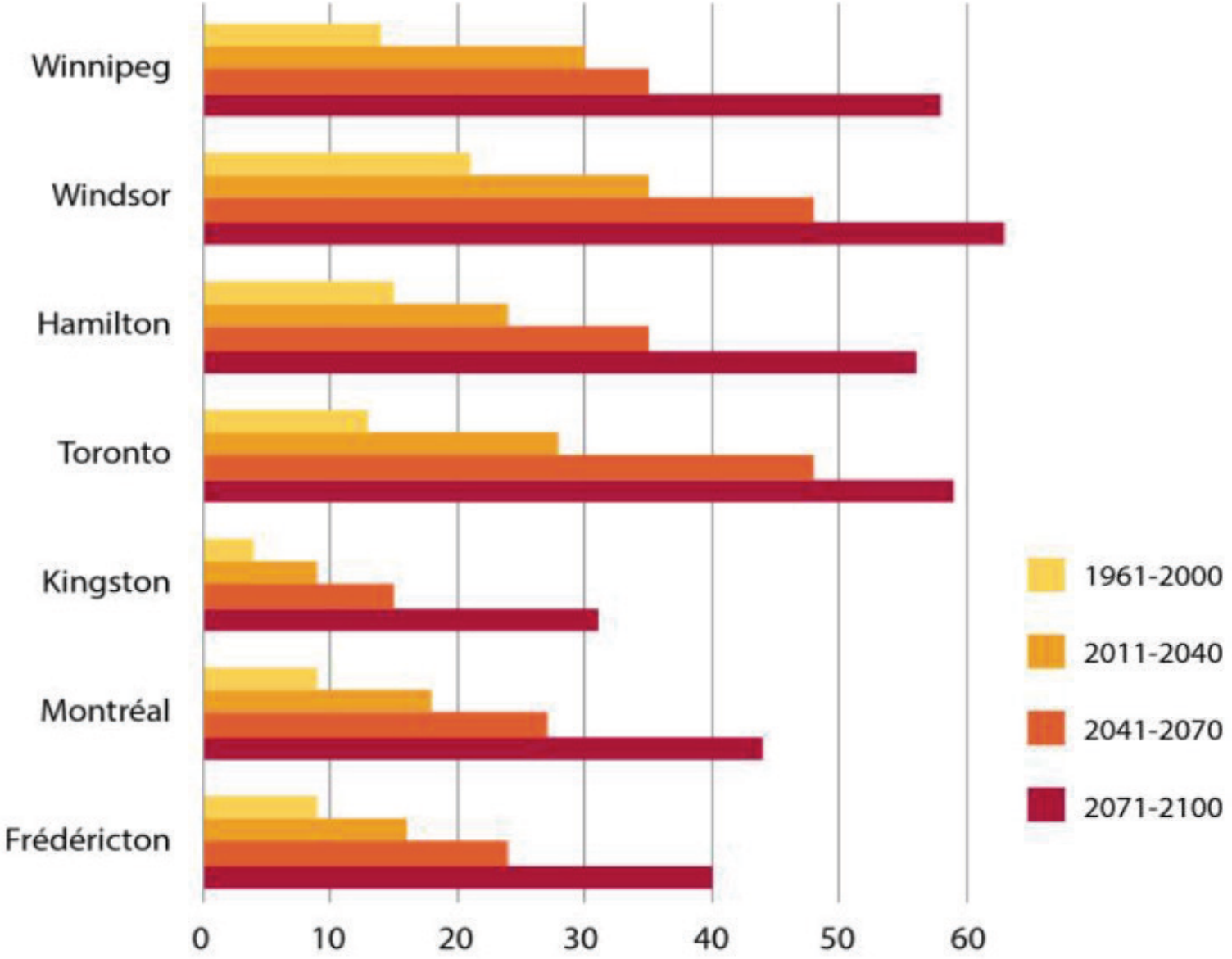
- Increased risks will depend on preventive actions

1. Canada will be warmer

OURANOS

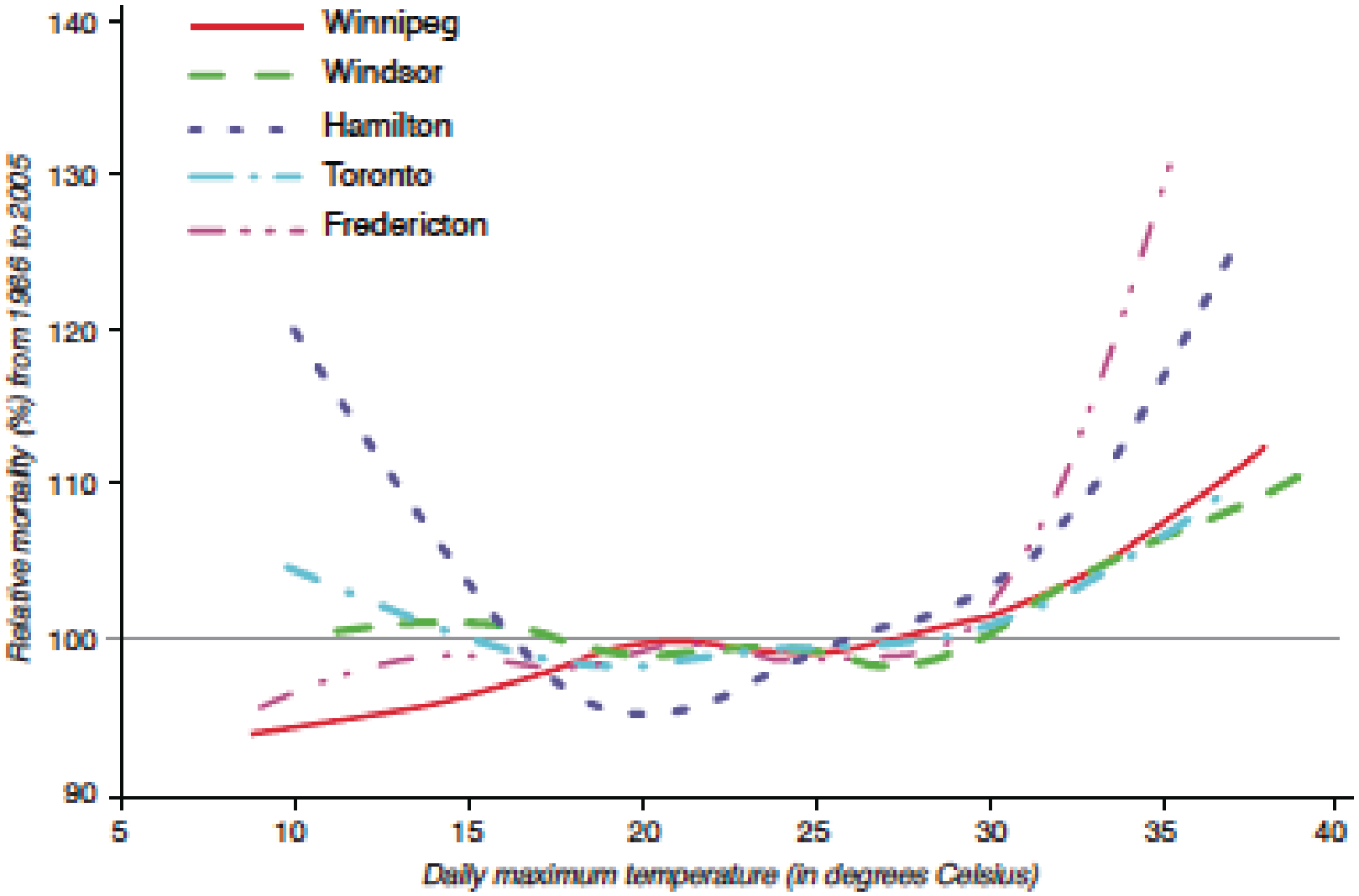
Western Institute for Catastrophic Loss Reduction (ICLR)

1. Number of hot days (>30˚C)



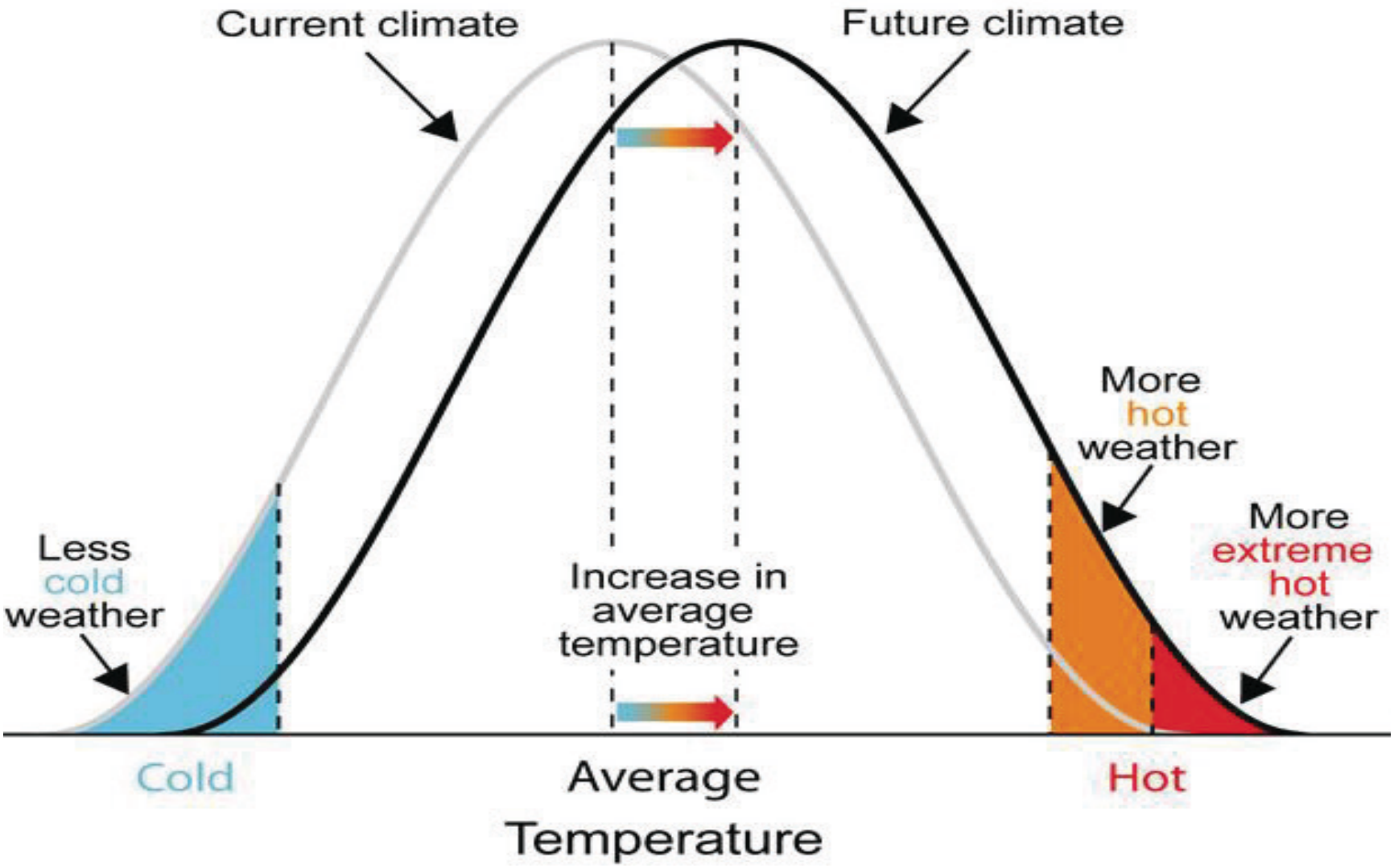
Casati and Yagouti (2013)

1. Greater risk of death in extreme heat



Casati and Yagouti (2013)

1. Greater risk of extreme heat incidents



2. Canada will be wetter *(except when/where most needed)*

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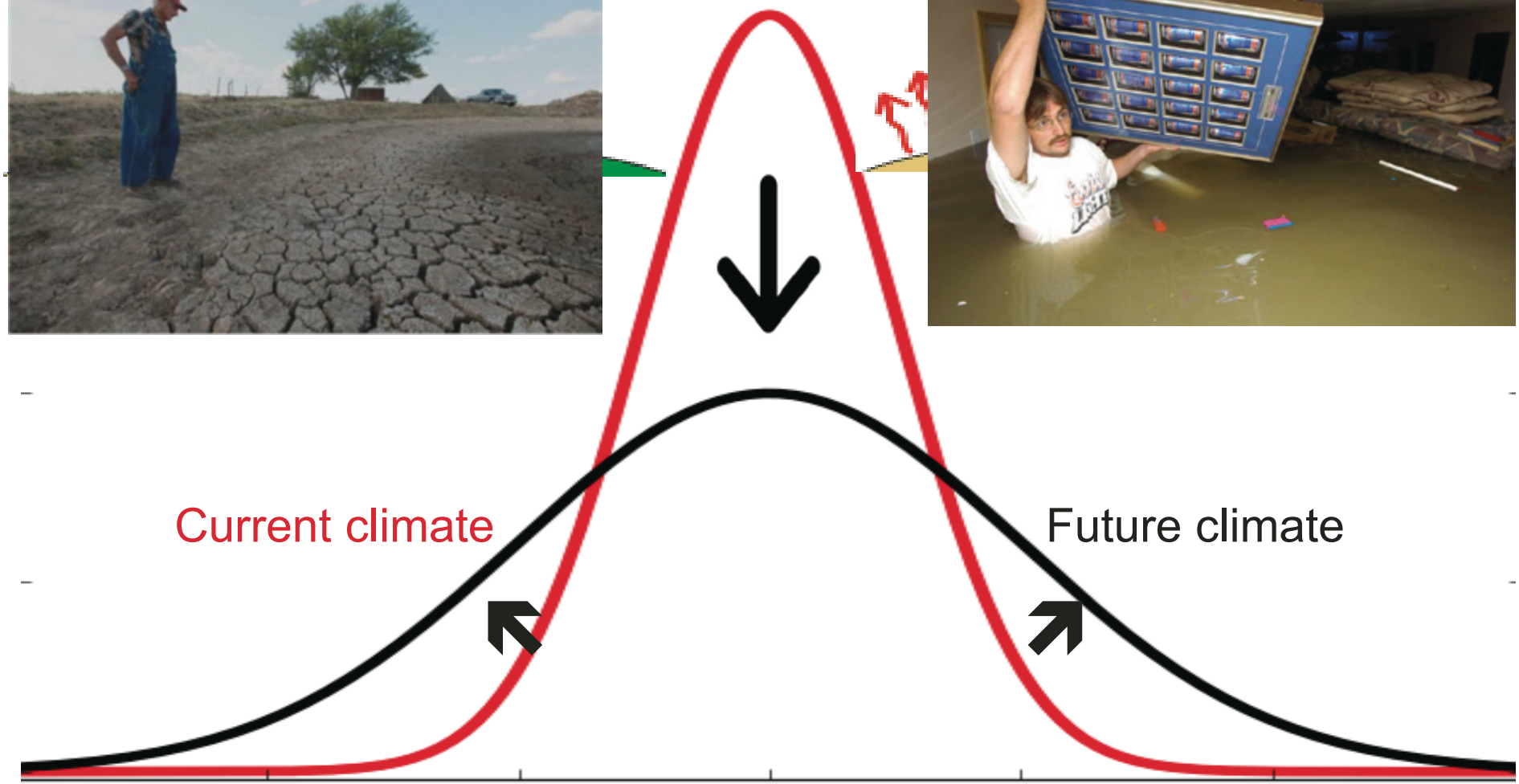
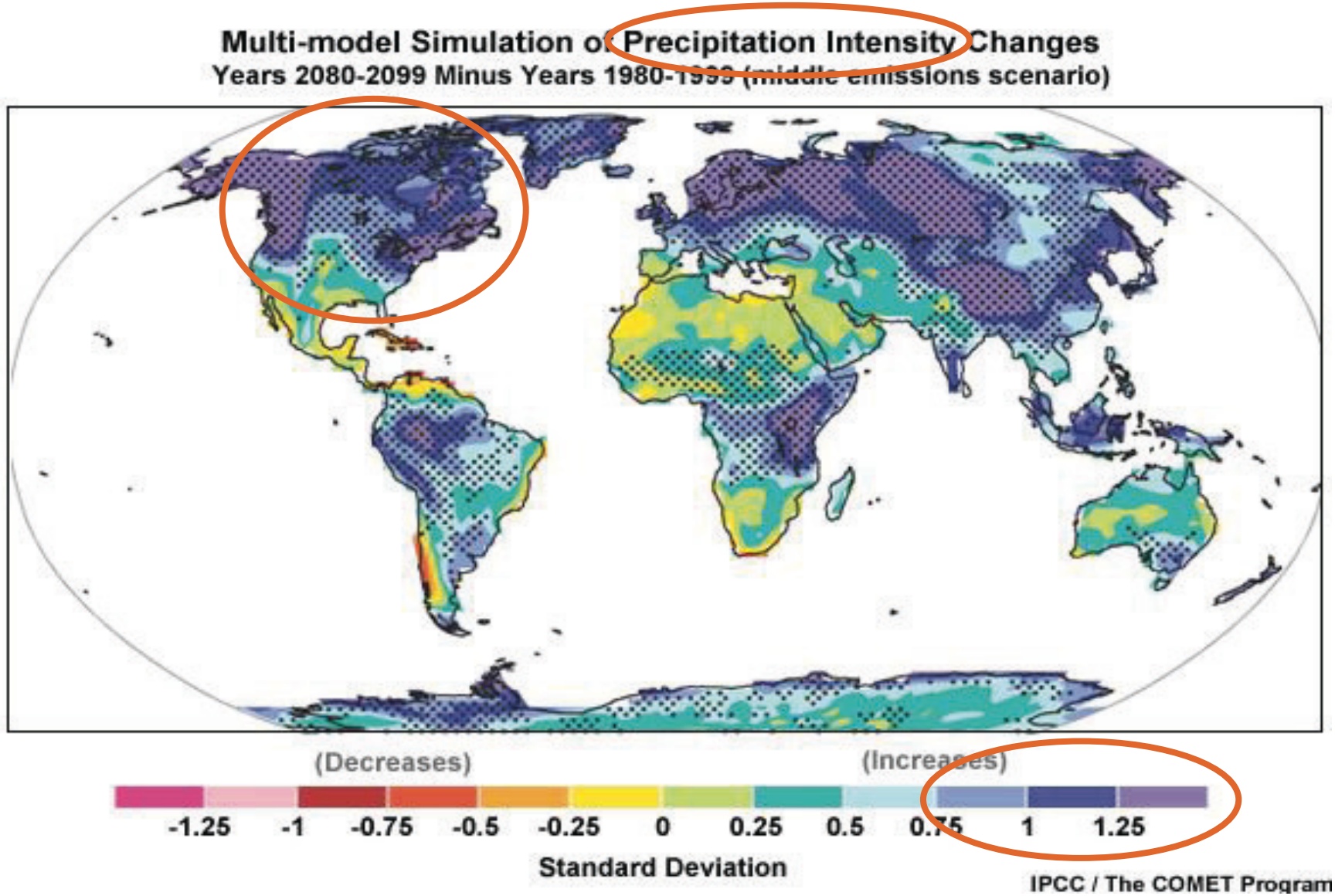
2. Greater risk of extreme rainfall and drought

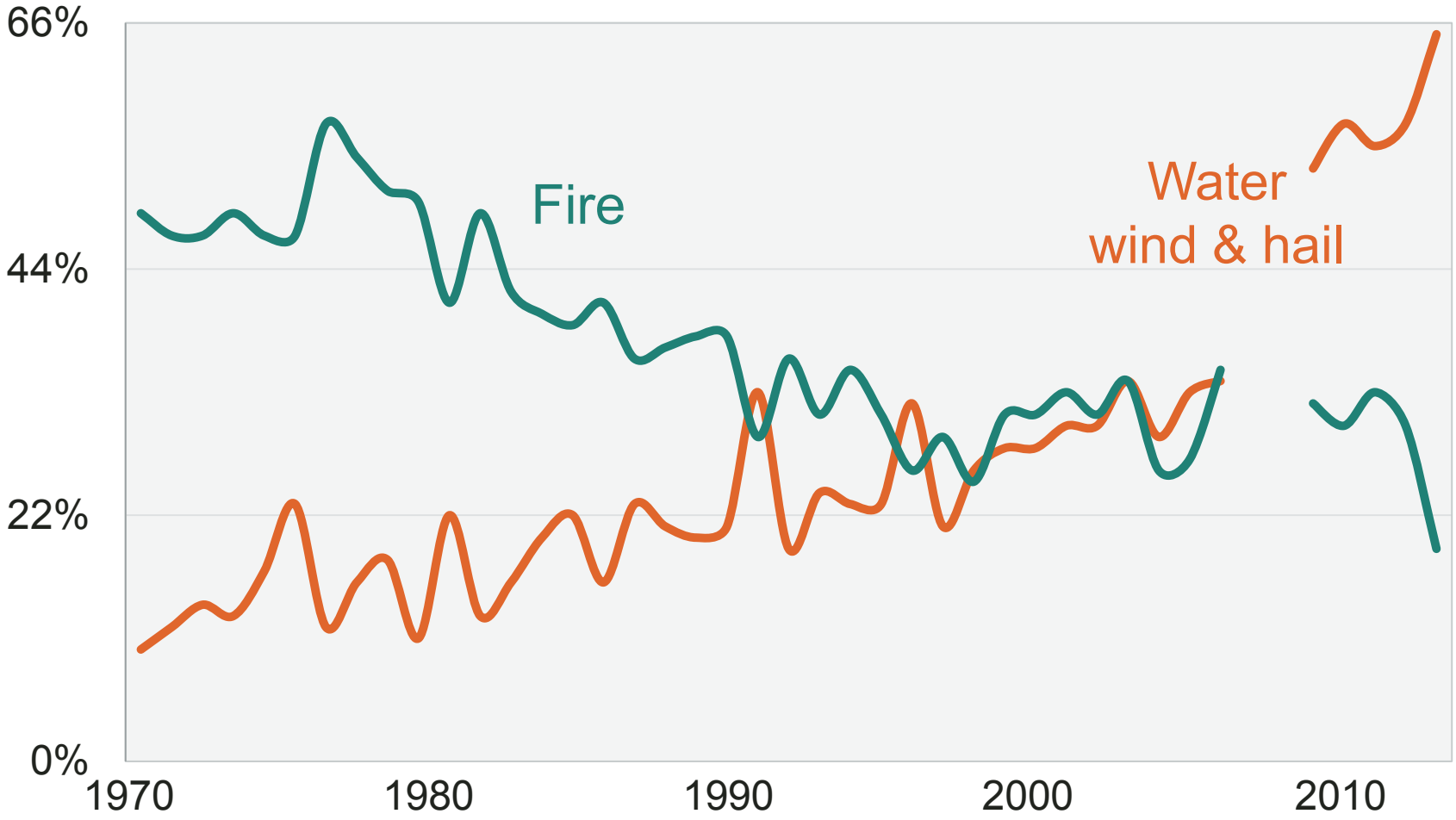


2. More extreme rainfall



2. Water damage to homes is increasing

Share of insurance property claims incurred, Canada



Institute for Catastrophic Loss Reduction

3. Canada will be stormier

OURANOS

Western Institute for Catastrophic Loss Reduction (ICLR)

3. More large storms

Winter storms

- Ice storms shift North

Hurricanes

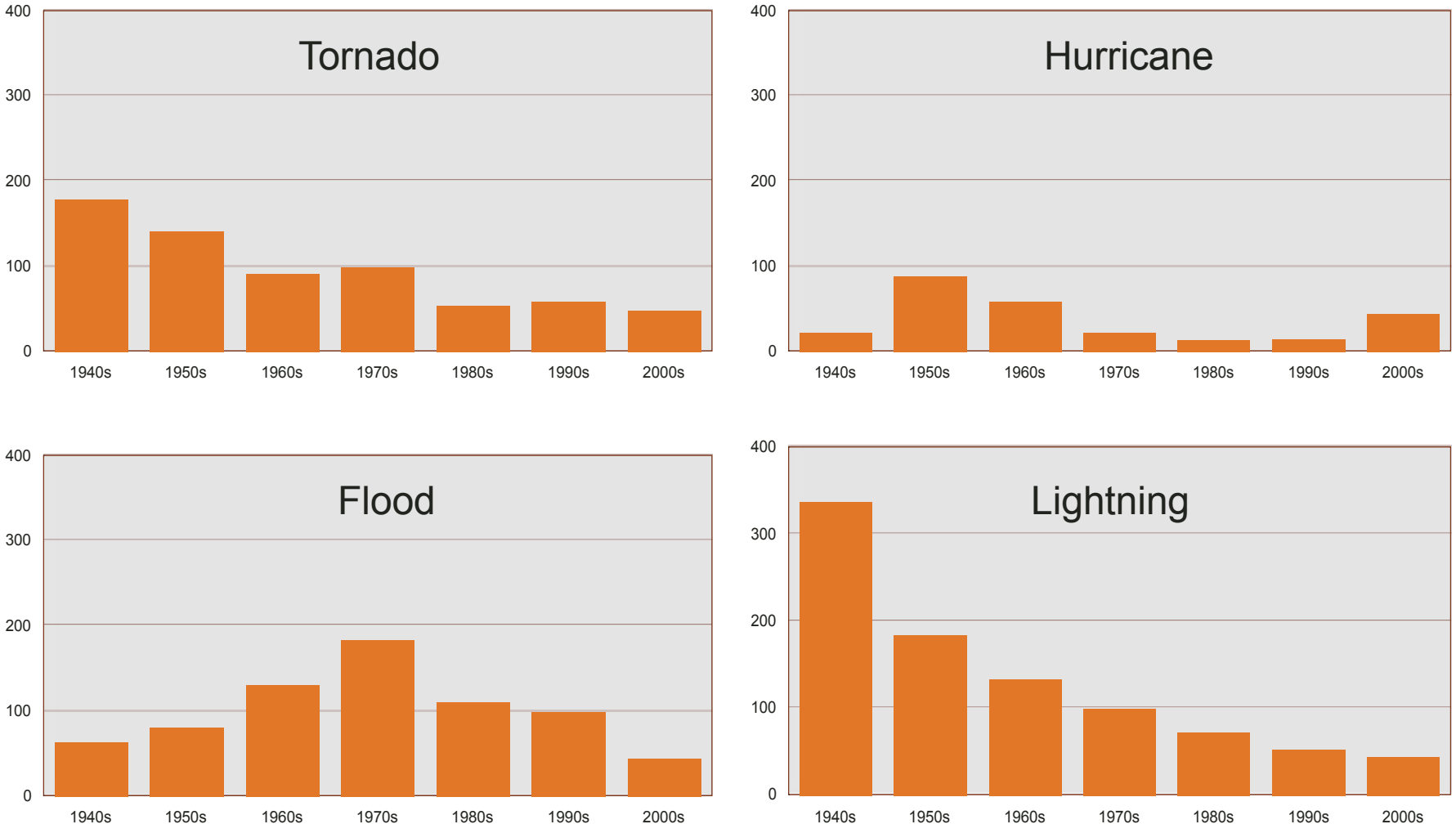
- More large hurricanes

Tornadoes and hail

- Likely increase

3. Storm fatalities have been falling

Annual average number of accidental deaths, United States



NOAA Natural Hazard Statistics

3. More disruptions from disasters


J. Hayward/THE CANADIAN PRESS


S. Williams / THE CANADIAN PRESS


Radio Canada

4. Nature of impacts will vary by region

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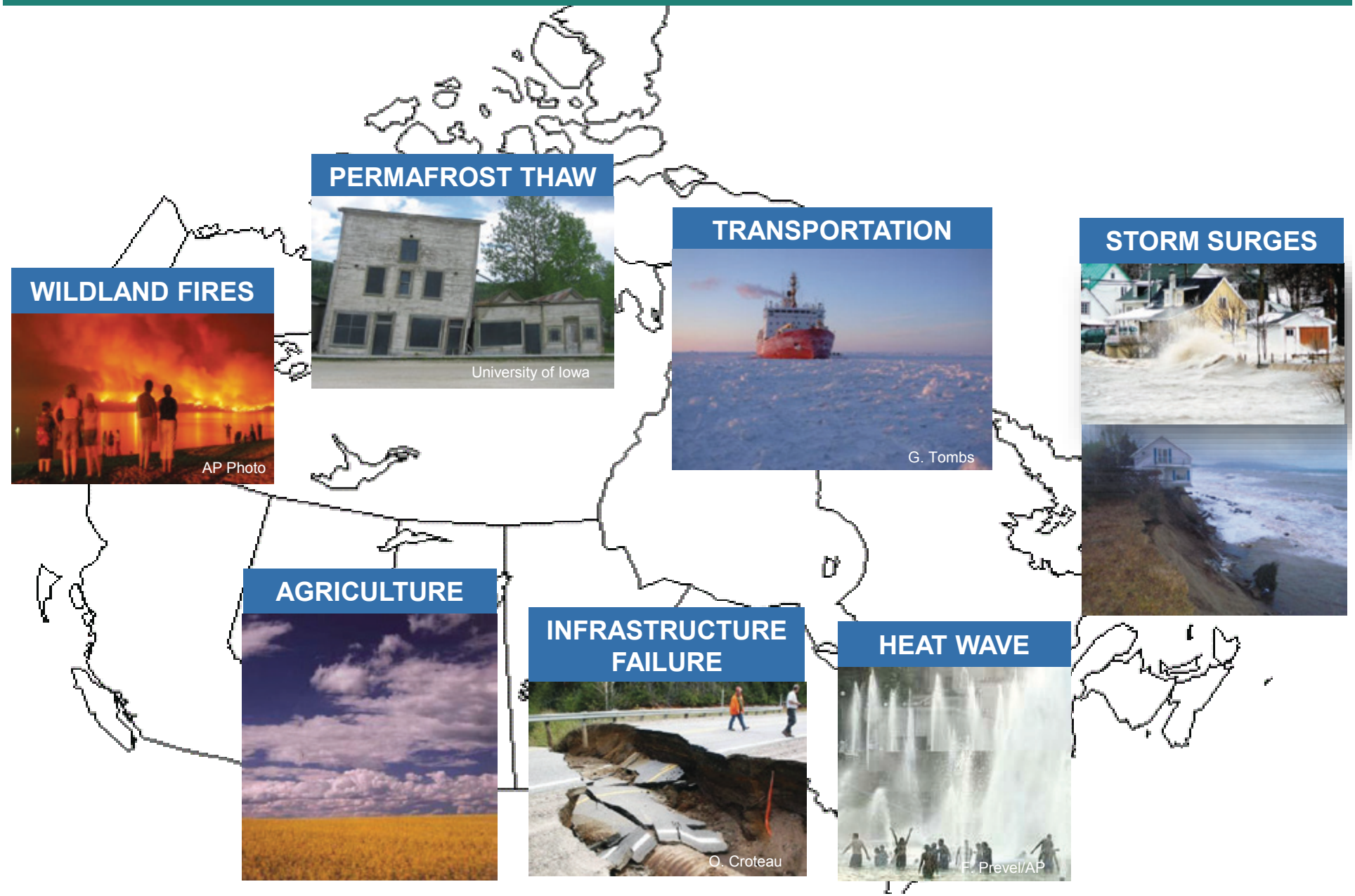
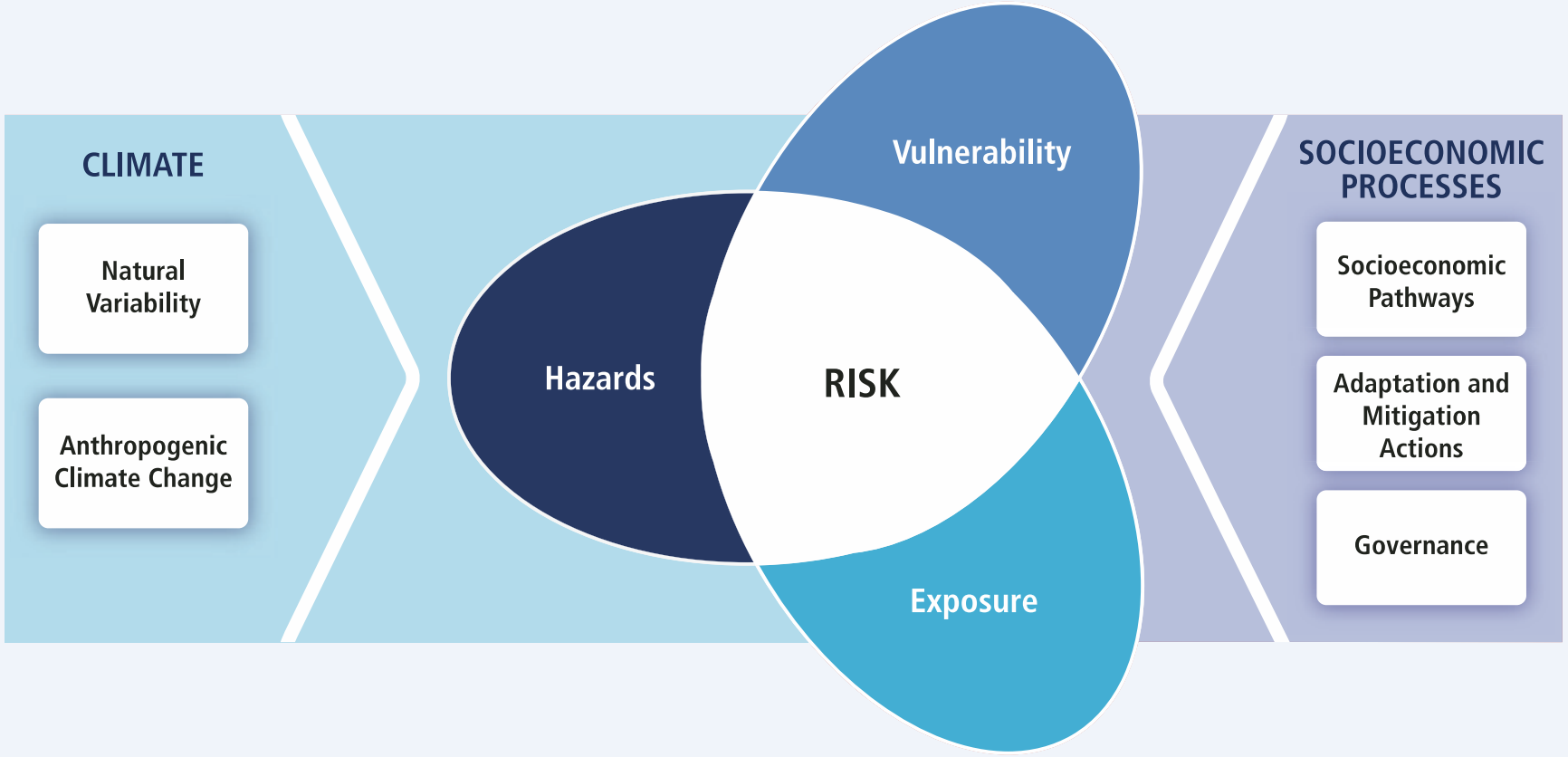
Western Institute for Catastrophic Loss Reduction (ICLR)

4. Regional impact of climate change



4. Regional impact of climate change

Risk management can reduce the impact



ipcc
INTERGOVERNMENTAL PANEL ON Climate change

IPCC Advice for Governments

A COMPLEMENTARY APPROACH

INTERNATIONAL COMMITMENTS | **NATIONAL NEEDS**

REDUCE
greenhouse gases

ADAPT
to changes

AVOID
3 - 4 X CO_2

PREPARE
2 X CO_2

Managed GHG

Canada (2012)
Oil and gas = 25%
Transportation = 24%
Electricity = 12%
Buildings = 11%
Agriculture = 10%

Manage impacts

Natural environment
Built environment
Public health and safety
Socio-economic activities

We must adapt to…

STAY COOL
WINDSOR-ESSEX

DRAFT
HEAT ALERT AND RESPONSE PLAN

… protect health

- Establish local response plans
- Invest in risk reduction
- Plant trees, swimming pools, drinking fountains

… build resilience

- Rebuild our storm and sanitary sewers
- Green and safe standards for new developments
- Managing risks with better costs/benefits

… reduce disruption

- Plan for more disaster response
- Build back better
- Invest in resilience

- Climate change -
What can Canada expect?

Canada will be warmer, wetter and stormier

We have means to avoid most irreversible impacts

Some impacts can be offset or managed by adaptation

OURANOS

Western Institute for Catastrophic Loss Reduction (ICLR)

Appendix 3: Fact sheet – Main Provincial and Territorial Actions in the Fight Against Climate Change

SOMMET DE QUÉBEC sur les changements climatiques

CANADA'S PROVINCES AND TERRITORIES: KEY ACTORS IN THE FIGHT AGAINST CLIMATE CHANGE

Throughout the international community, reducing the carbon footprint is no longer only seen as a necessity but also as a societal choice that holds the promise of prosperity while allowing for the prevention of a variety of long-term public health, social justice and security problems. By virtue of their powers in key areas pertaining to the fight against climate change, Canada's provinces and territories are an integral part of the solution to this planetary challenge. Several greenhouse gas (GHG) mitigation and climate change adaptation measures are currently in effect or in the works, while four provinces have already implemented various carbon pricing mechanisms.

Yukon

- Climate Change Action Plan (2009), including targets to address GHG emissions from government's internal operations, and its Climate Change Action Plan Progress Report (2012), which includes sectoral GHG reduction targets
- Energy Strategy (2009) aimed at increasing the production of renewable energy and raising energy efficiency by 20% by 2020

Northwest Territories

- Solar Energy and Biomass Strategies (2012)
- Greenhouse Gas Strategy (2011) setting targets and describing energy efficiency and renewable energy actions

Nunavut

- Finalizing the Nunavut Climate Change Adaptation Action Plan
- Risk management tools integrating traditional knowledge and climate science to raise awareness of land-based climate change hazards

British Columbia

- Climate Action Plan (2008) setting up a fiscally neutral carbon tax, and aiming at making the public sector carbon-neutral
- Greenhouse Gas Industrial Reporting and Control Act (2014)

Alberta

- Regulation (2007) aiming at reducing the GHG emission intensity of large emitters, introducing a carbon pricing signal, and putting in place a Green Technology Fund
- Climate Change Strategy (2008)

Saskatchewan

- Go Green Fund (2011) supporting renewable energy and energy efficiency in housing
- Boundary Dam Thermal Power Plant Integrated Carbon Capture and Storage Project (2014)

Manitoba

- Carbon Tax on coal and petroleum coke combustion (2012), and coal heating ban (2014)
- Clean Energy Strategy (2012) and Tomorrow Now Strategy on governmental environmental management (2014)

SOMMET DE QUÉBEC sur les changements climatiques

MAIN PROVINCIAL AND TERRITORIAL ACTIONS

IN THE FIGHT AGAINST CLIMATE CHANGE

Newfoundland and Labrador

- Climate Change and Energy Efficiency Action Plans (2011)
- Green Fund to support energy efficiency and renewable energy projects

Québec

- Cap-and-trade system for GHG emission allowances aimed at all large emitters (2013) - Quebec-California carbon market
- Climate Change Action Plan and Adaptation Strategy (2013-2020)

Prince Edward Island

- Climate Change Strategy aimed at energy efficiency and renewable energy (2008)
- Wind Energy Development Plan

Ontario

- Elimination of coal-fired electricity generation (2014)
- Climate Change Action Plan (2007) and ongoing consultations aimed at developing a new climate change strategy

New Brunswick

- Climate Change Action Plan (2014); and examining further enhancements
- Renewable Energy Portfolio Standard aiming at 40% clean energy by 2020

Nova Scotia

- Climate Change Action Plan (2009) and the *Greenhouse Gas Emissions Regulations* mandating a progressive drop in electricity-sector emissions 2010-2030 (2009, amended in 2013)
- Regulations aimed at generating 40% of electricity from renewable sources by 2020

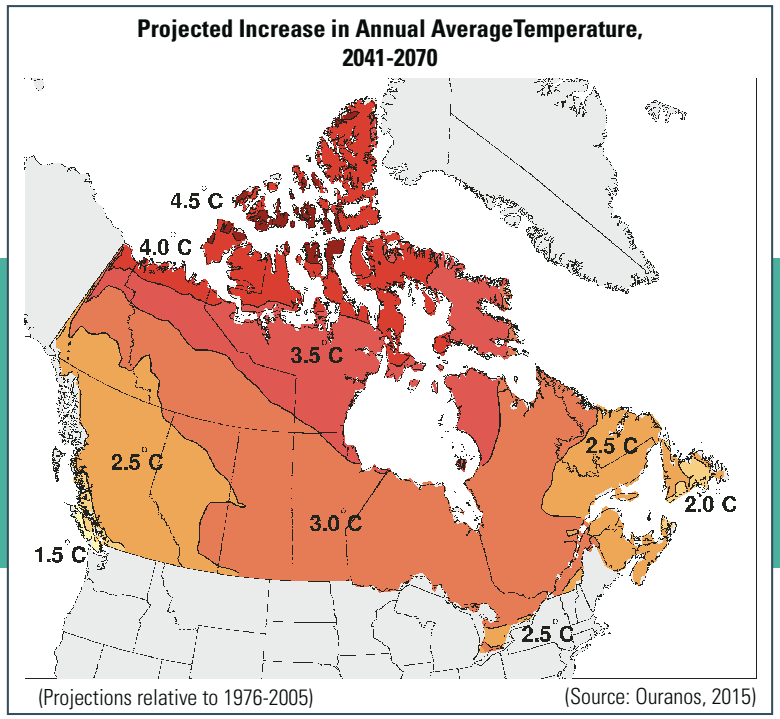
WORKING TOGETHER

Provinces and territories from coast-to-coast share a common determination to make a positive contribution to address the climate change challenge. In 2015, as governments worldwide are mobilizing for the Conference of the Parties to the United National Framework Convention on Climate Change (UNFCCC) in Paris, Canadian provinces and territories have taken the initiative to enhance this crucial dialogue, both in Canada and throughout the Americas:

- Québec Summit on Climate Change, April 14, 2015, Québec City, QC
- Canadian Council of Ministers of the Environment, June 22-23, 2015, Winnipeg, MB
- Climate Summit of the Americas, July 7-9, 2015, Toronto, ON
- Council of the Federation, July 14-18, 2015, St. John's, NL

CLIMATE CHANGE FROM COAST TO COAST

Over the last decades, the average temperature in Canada has increased by 1.5°C; twice the level observed worldwide. This temperature increase will continue right across Canada in the 21st century and will be particularly felt in the Canadian North, which will become one of the world's regions most affected by climate change.



This general trend will have multiple and diverse consequences for the different regions of Canada.

In the Canadian North, climate change already has a major impact on infrastructure, housing and life habits, notably because of permafrost melting and the shrinking of the ice pack. Glaciers in Western Canada have lost a significant part of their mass, even reaching 25% in Alberta alone. Milder winters have opened the door to a mountain pine beetle infestation that affected some 18.1 million hectares of forests in British Columbia in 2012.

In the Prairies, a higher frequency of extreme weather events is increasing the risks of flooding. Provinces in this region also have to deal with lower farm production due to higher numbers of invasive pests, and an increase in crop disease and drought.

In South Central Ontario, mortality rates due to extreme heat are forecast to more than double by 2050. This alarming trend is also of concern to many Canadian metropolitan areas. Great Lake water levels could drop, thereby affecting the management of water flows in the Great Lakes and St. Lawrence River, the availability of drinking water for numerous municipalities, and international maritime trading. The increased risk of flooding also poses a threat to numerous river and lake communities.

In the Atlantic Provinces and Eastern Québec, increased storm frequency and ferocity, coupled with rising seas, will contribute to deepen problems related to soil erosion and coastal flooding. In this region, dryer summers will become a source of stress in the agricultural and forestry sectors.

MORE KNOWLEDGE MEANS MORE EFFICIENT ACTION

Acquiring knowledge and sharing of best practices are strategically vital to our efforts to adapt to the current and future impacts of climate change. In this context, many institutions supported by provincial and territorial governments have become essential research centers in this field: the Pacific Climate Impacts Consortium, the Ouranos consortium, the Institut de prévention des sinistres catastrophiques, the Ontario Climate Consortium, and the Northern Climate ExChange of Yukon Research Centre and the Prairie Adaptation Research Collaborative. In addition to this list, the Adaptation Platform of Natural Resources Canada also stimulates research in collaboration with the private sector.

Québec