

# Climate Action in Ontario: What's Next?

## 2018 Greenhouse Gas Progress Report

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Environmental Commissioner of Ontario

Faith and Our Collective Voice  
for Climate Action

January 15, 2019

**#ONClimateAction**



# Overview

- The ECO and the EBR
- Climate changes everything
- Opportunities for action



# Who is the Environmental Commissioner?

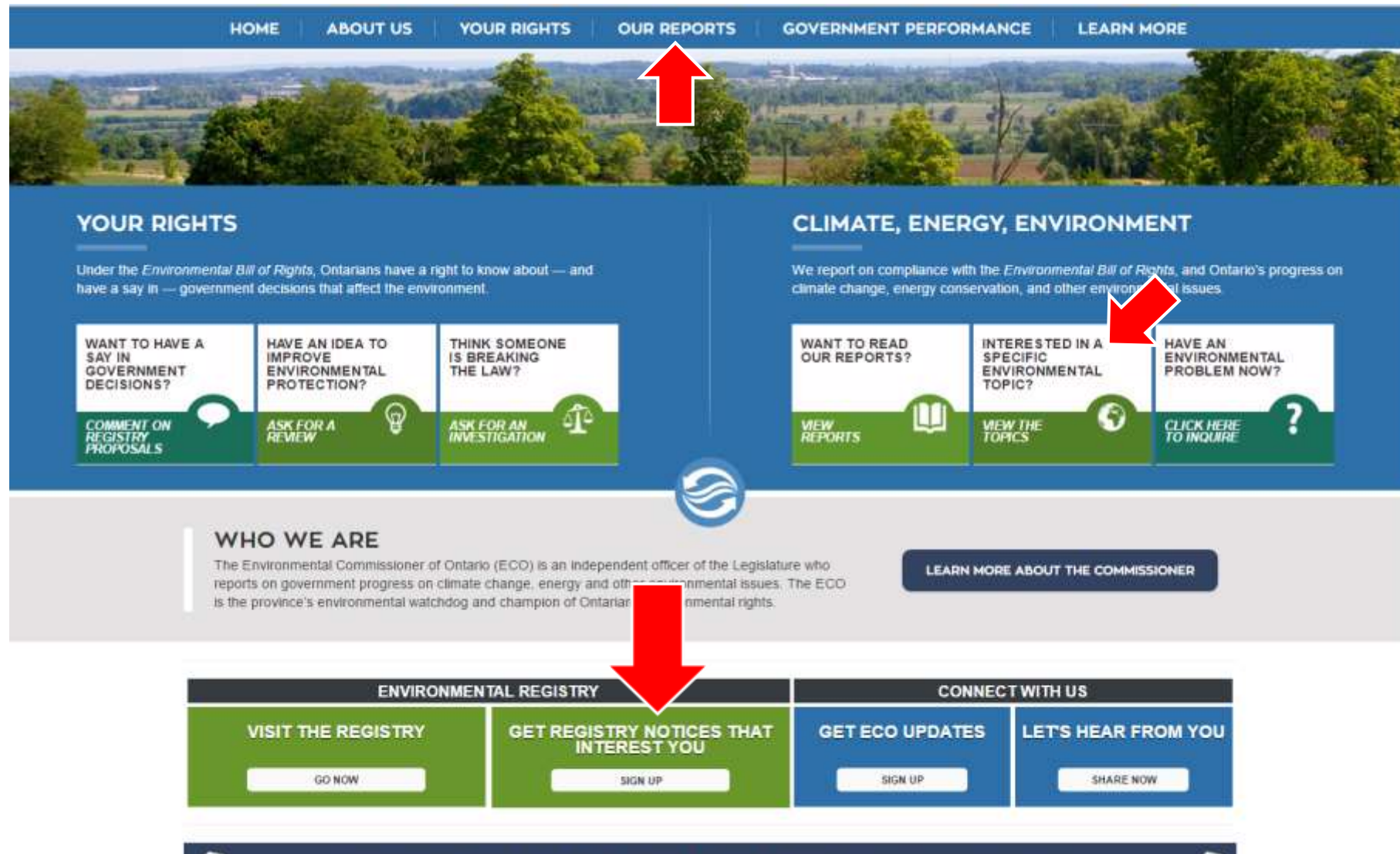
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- Impartial, independent officer of Ontario legislature
- Guardian of the Environmental Bill of Rights
- Watchdog on:
  - Greenhouse gas emissions
  - Energy conservation
  - Environmental protection
- It's my job to report the facts without fear or favour

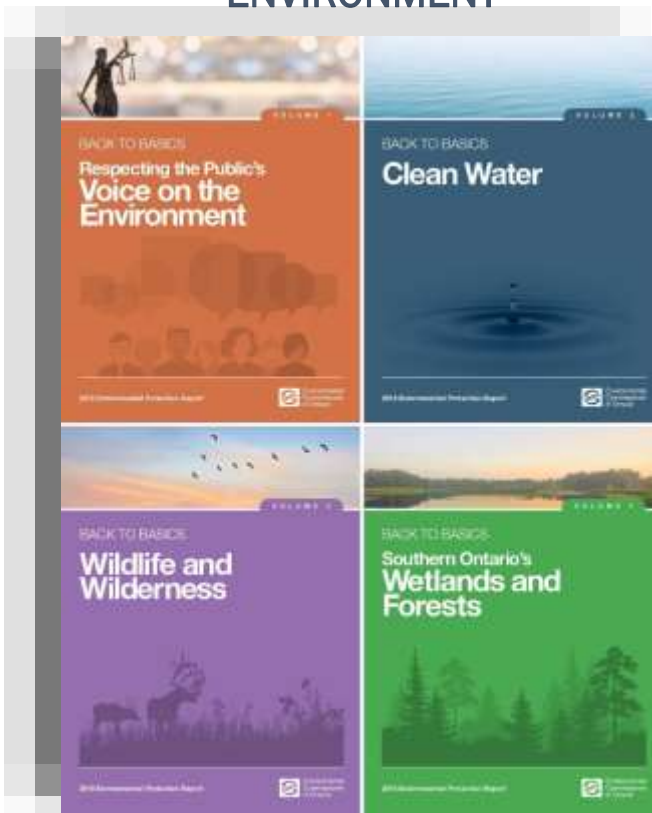


# eco.on.ca

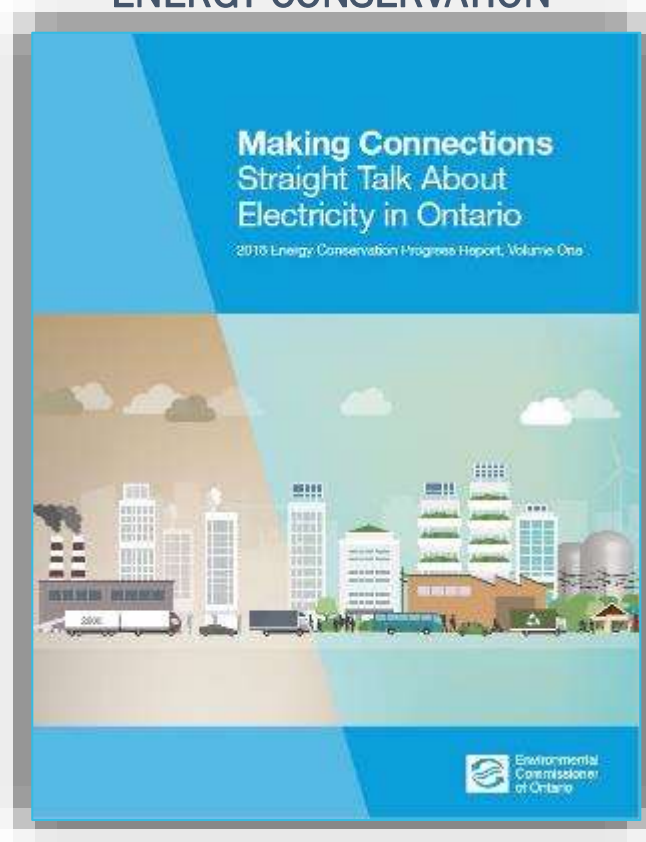


# Annual Reports

## ENVIRONMENT



## ENERGY CONSERVATION



## CLIMATE



*Is it as bad as  
we thought?*

*It's worse*

# Climate changes everything



# Who do we care about?

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# Climate change is here. It affects us now.

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Much worse is ahead.  
We're determining the future now.



# We must

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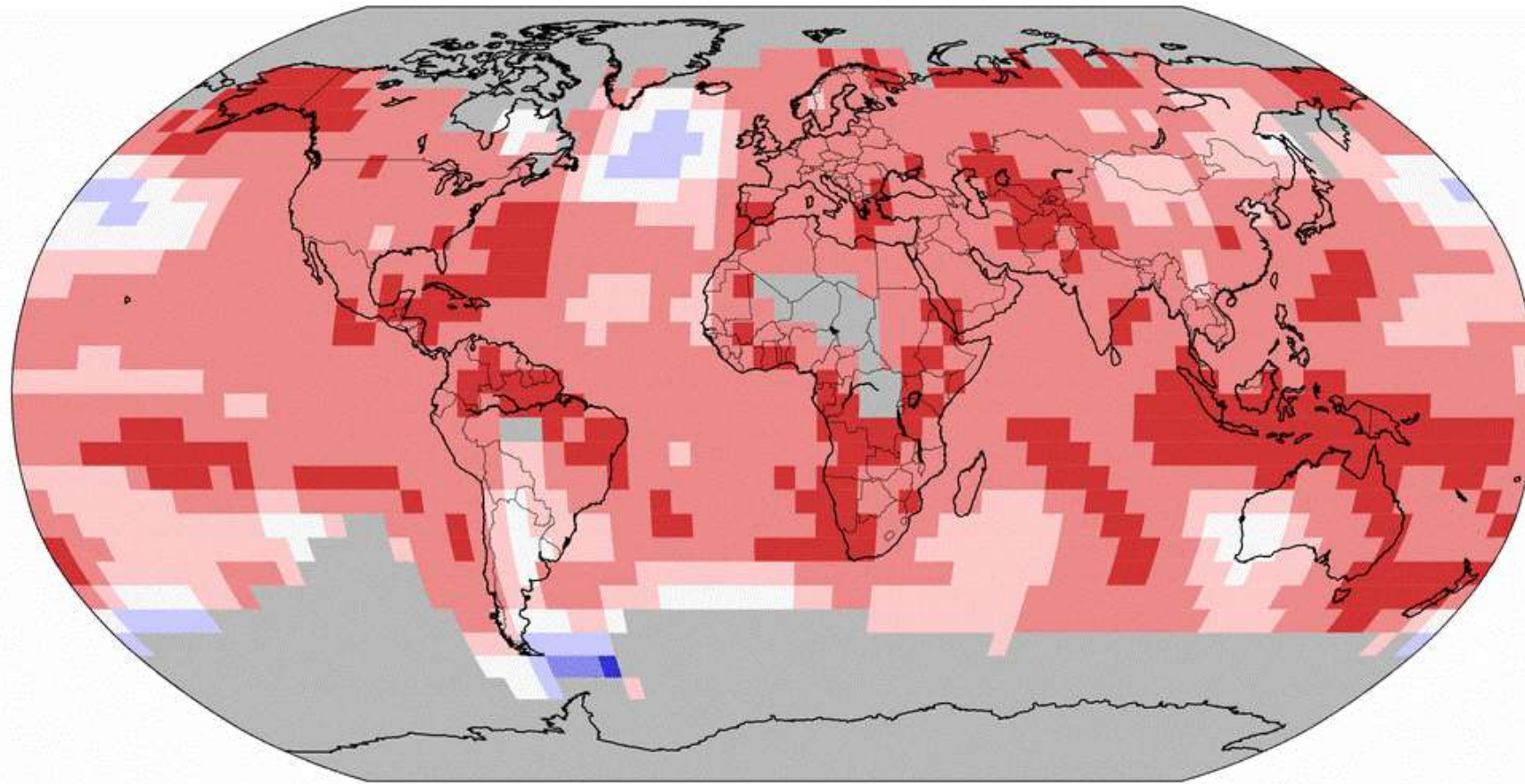
## Mitigate

- reduce emissions of pollutants (GHGs) that cause climate change

## Adapt

- cope with the impacts that have already occurred and will occur as a result of climate change

# Highest temperatures in human civilization



Record  
Coldest

Much  
Cooler than  
Average

Cooler than  
Average

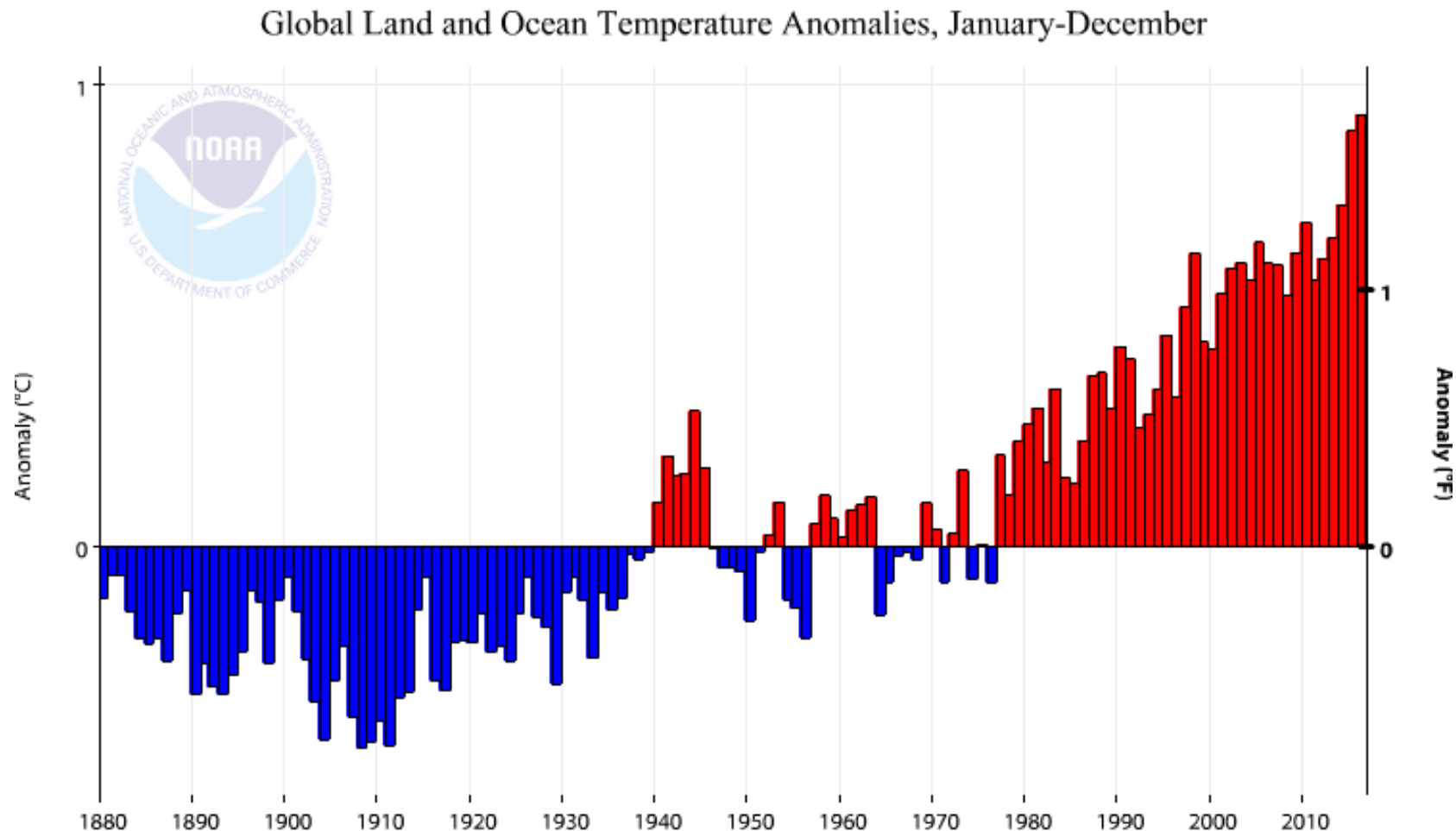
Near  
Average

Warmer than  
Average

Much  
Warmer than  
Average

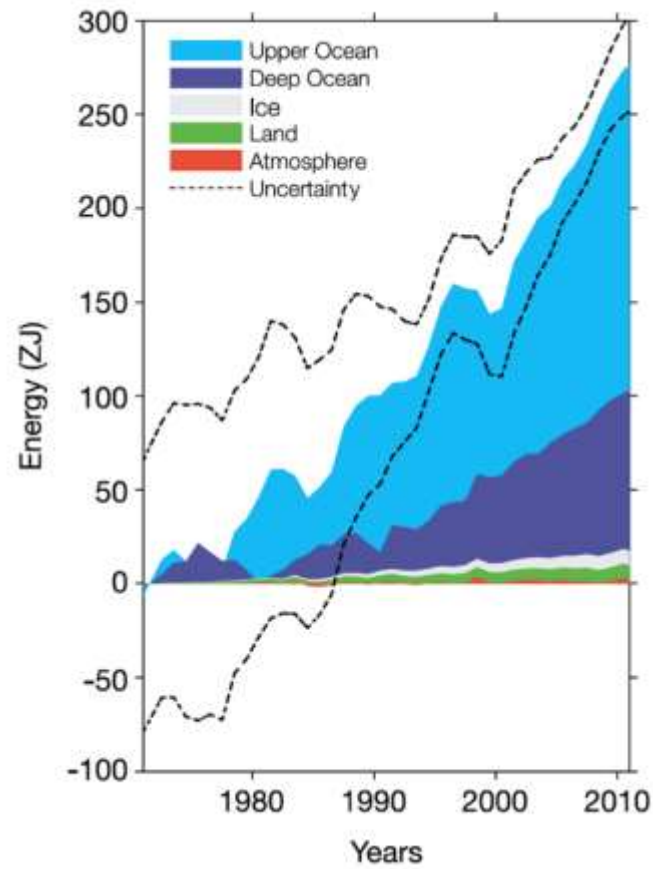
Record  
Warmest

# 20<sup>th</sup> Century “normal” is gone



Source: National Oceanic and Atmospheric Administration, [Climate Change – Global Temperature](#)

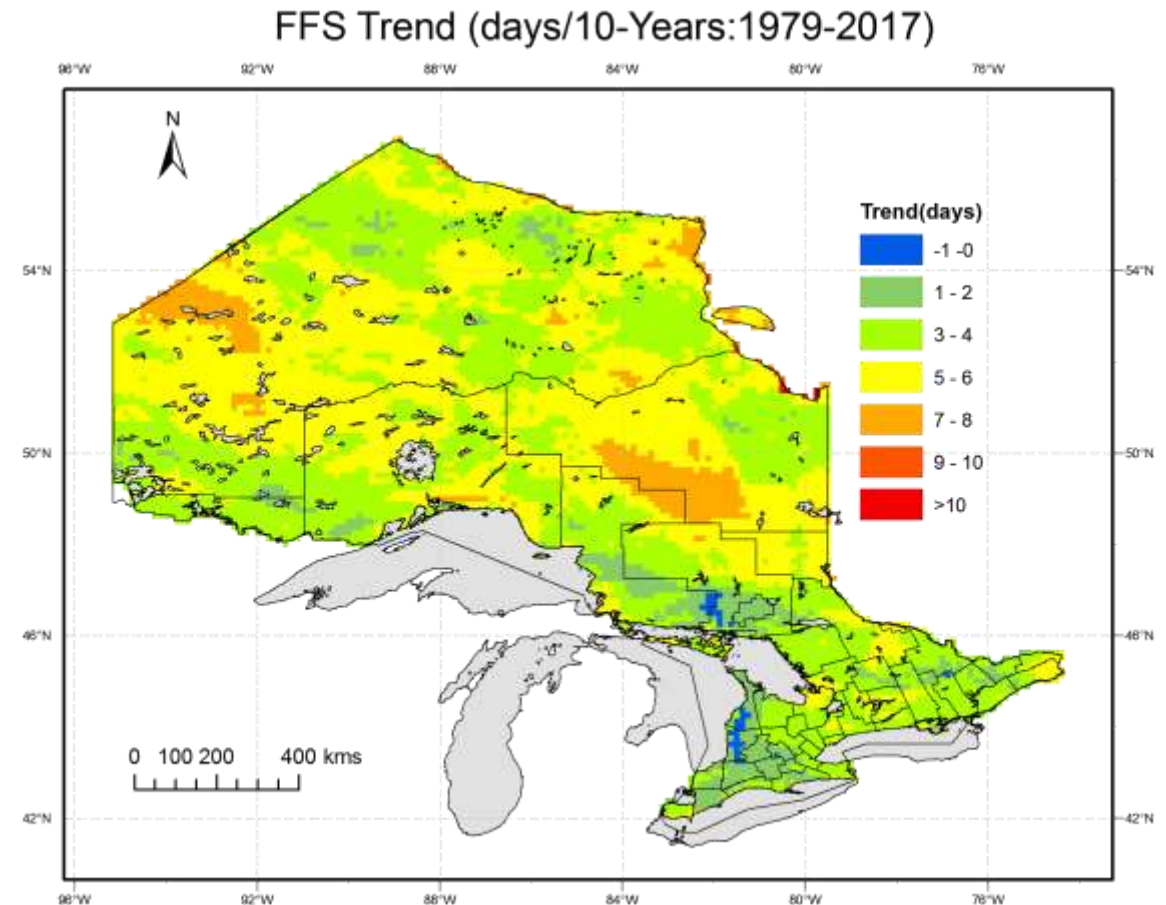
# 93% of the extra heat is in oceans, lakes





# Ontario warming faster than global average

- 1.5°C warmer since 1948
- 2.5°C to 3.7°C warmer by 2050
- Differs by region
  - latitude, topography, water...

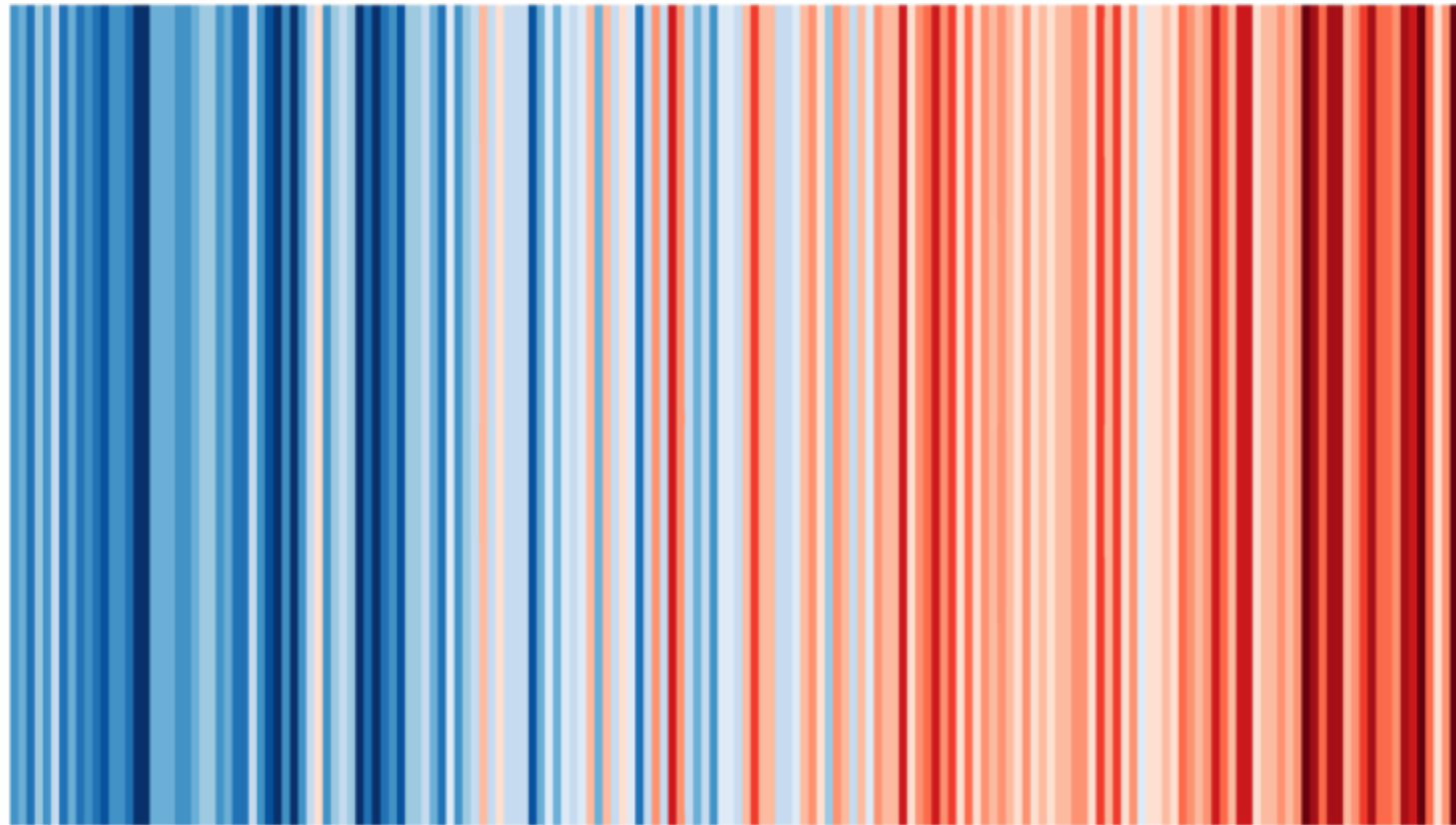


Source: LAMPS Climate Change Group, [Ontario Frost Free Season Changes Analysis](#).

# Annual temperatures in Toronto, 1841-2017

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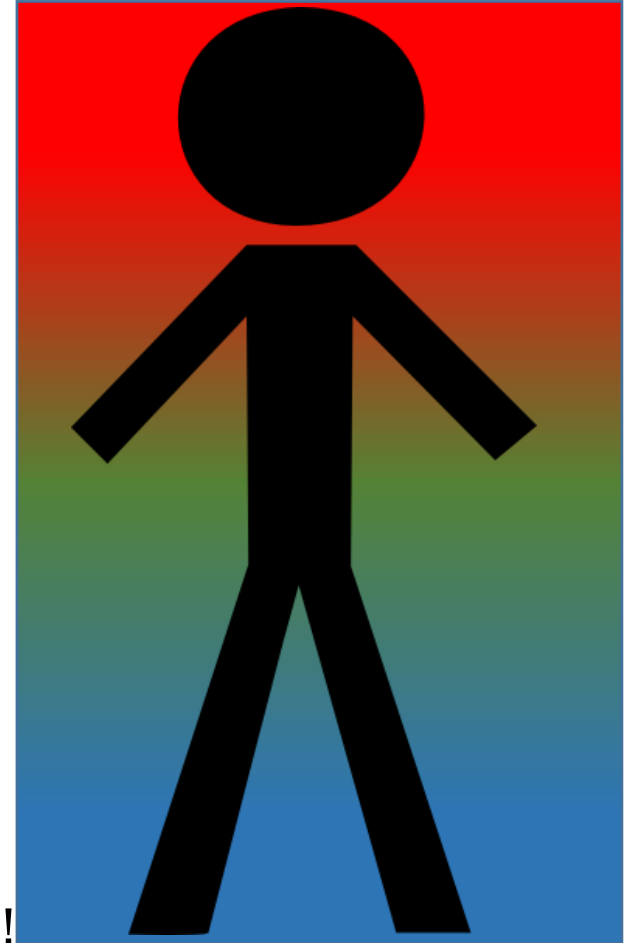
Colour scale: from 7.6°C (dark blue) to 10.8°C (dark red)



# “Global Warming”?

- $\neq$  everywhere always warmer
- higher average temperatures
  - But unevenly distributed
  - Disruption of natural cycles
- more damaging, more unpleasant extremes
- extreme weather didn't start with climate change, but climate change did load the dice

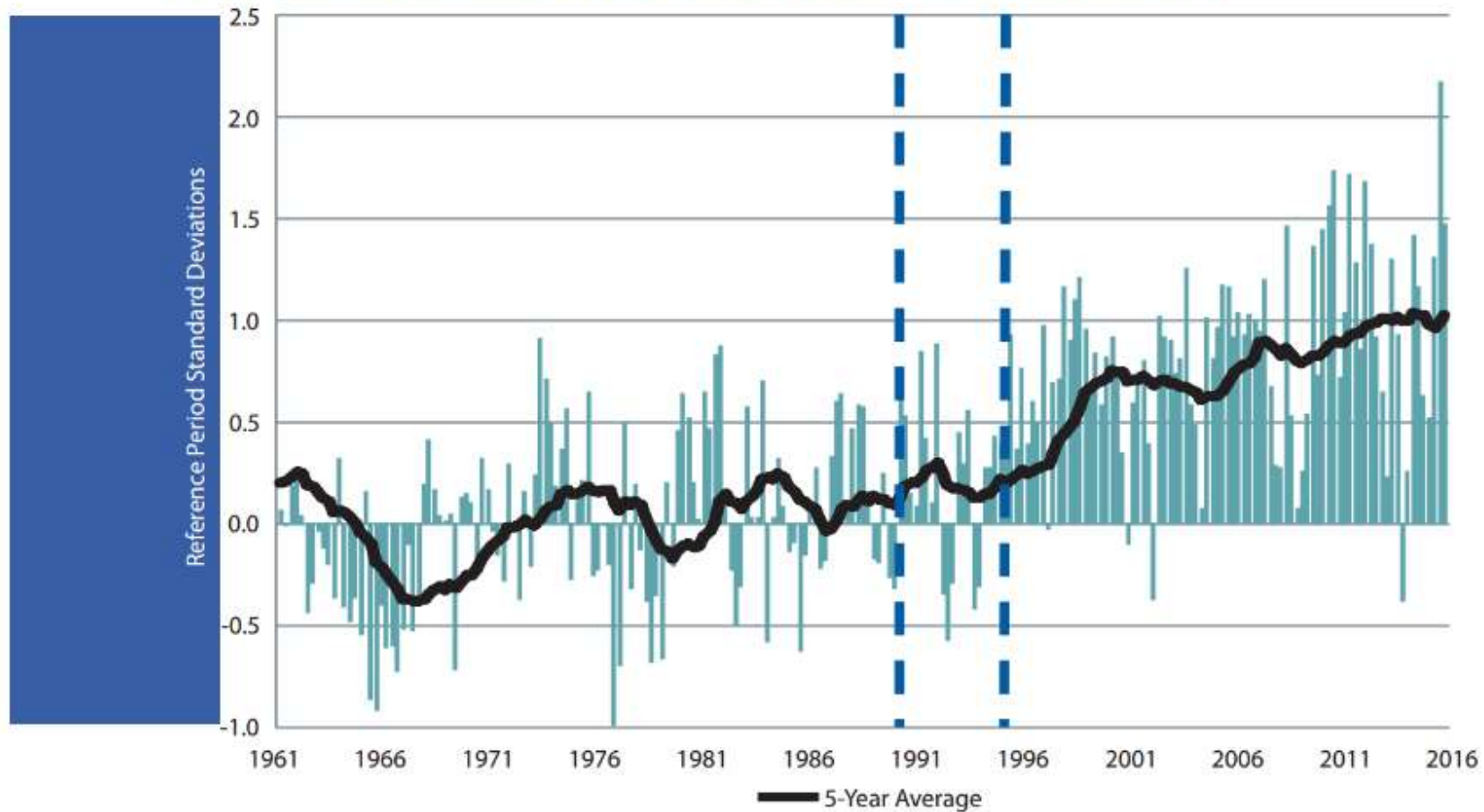
TOO HOT!



TOO COLD!

# 4 x climate extremes

The Actuaries Climate Index for Canada and the United States.





# Floods, fires, drought, wind, heat...



Photo credit: Ottawa Paramedics



Photo credit: Ryan Forbes



Photo credit: Associated Press



Photo credit: Viv Lynch. Used under CC BY-NC-ND 2.0

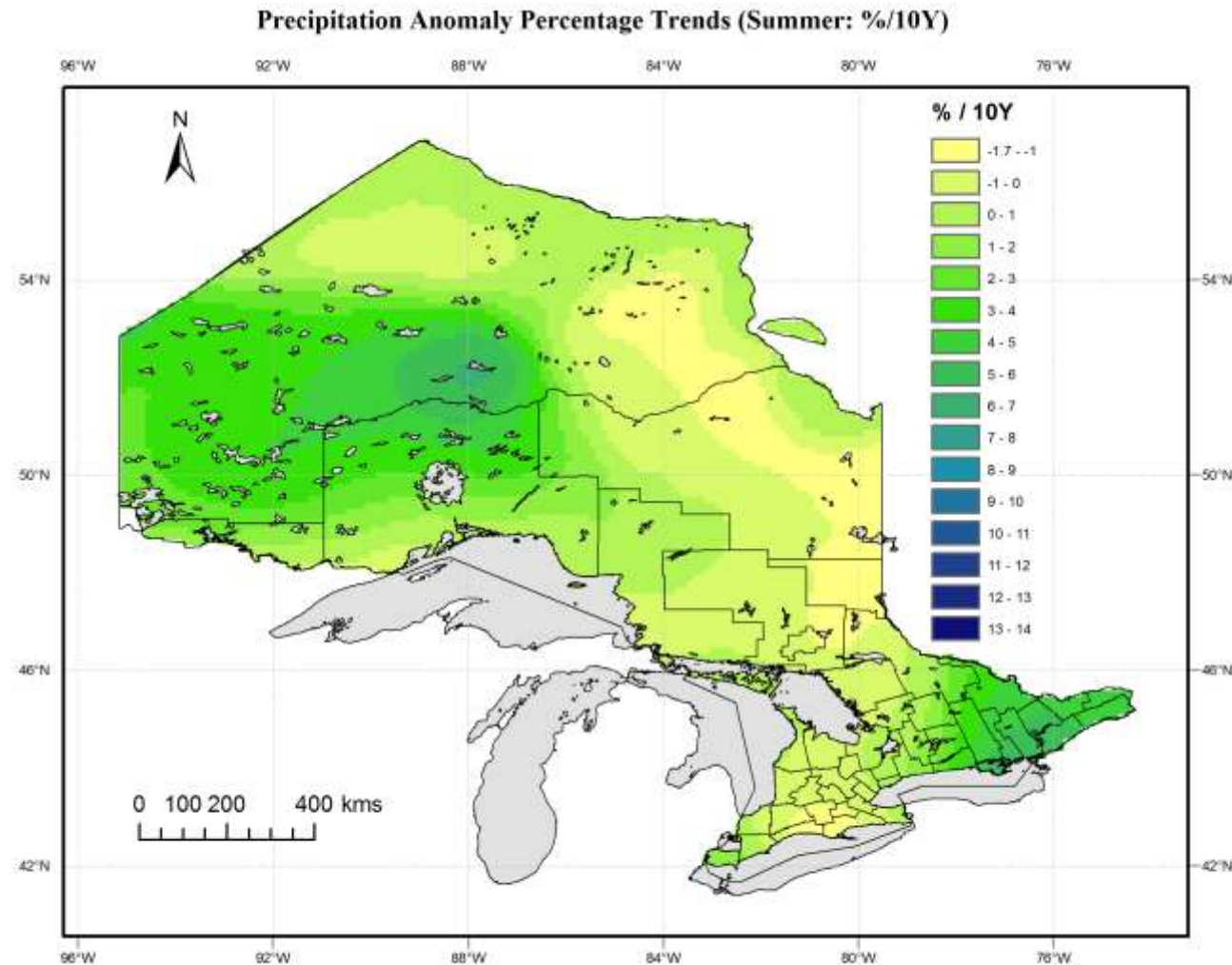


Photo credit: The Canadian Press



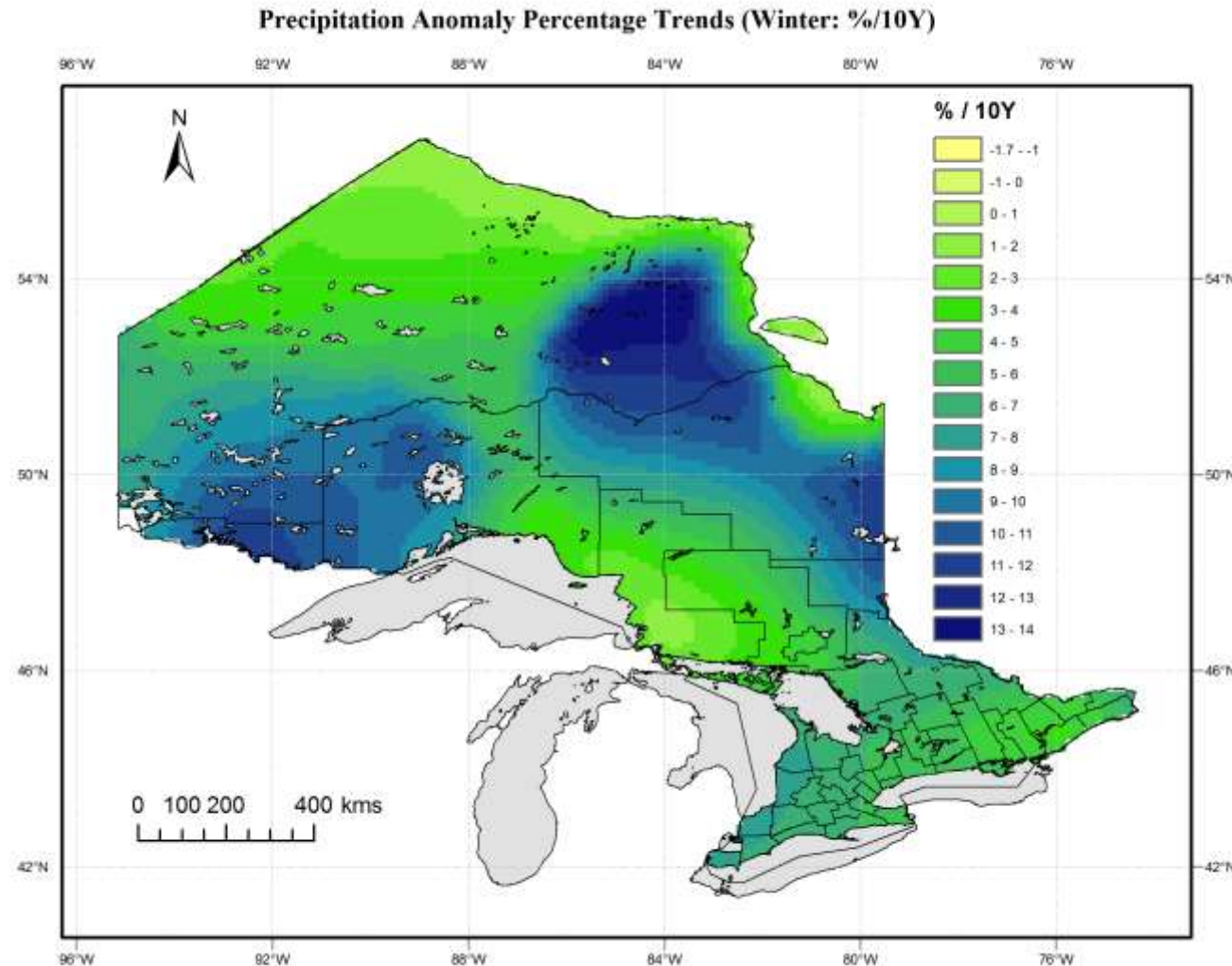
Photo credit: OPP North East

# Precipitation: summer



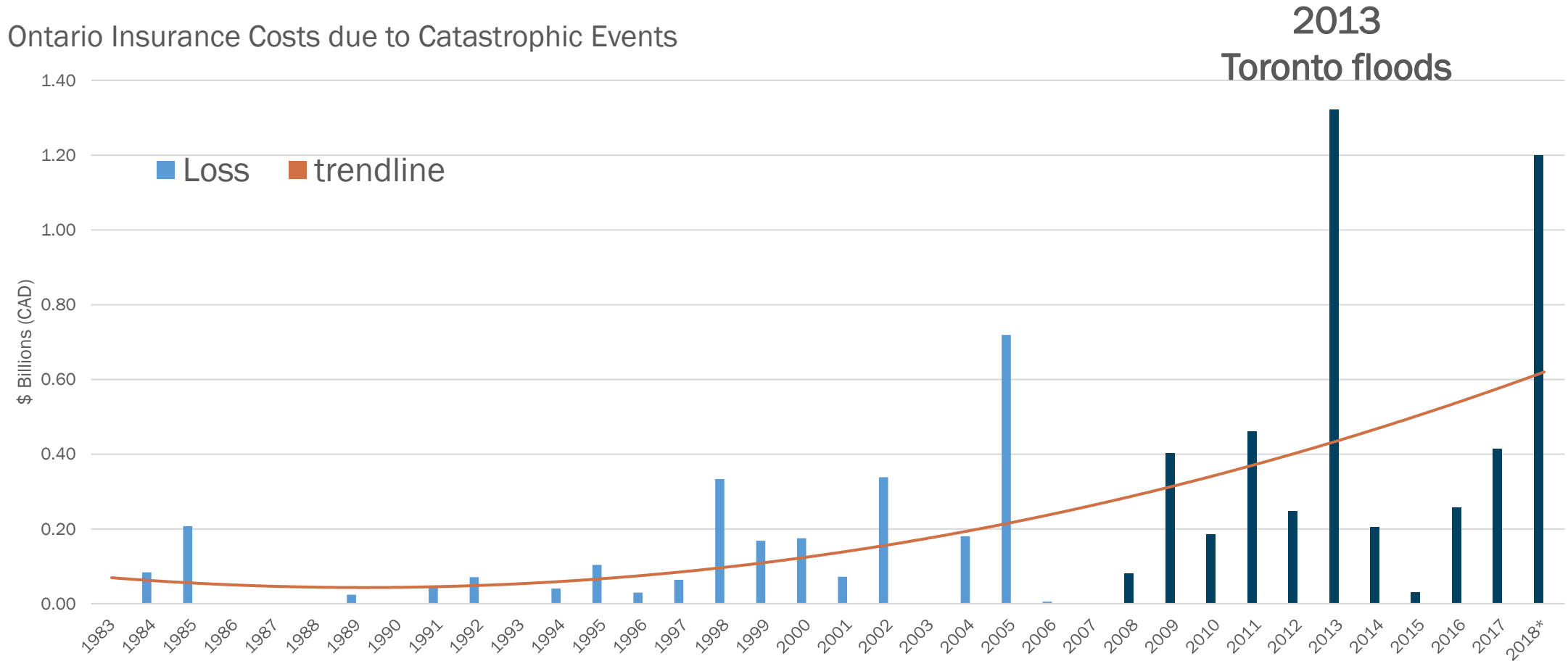
Average change  
per decade  
1979-2016

# Precipitation: winter



Average change  
per decade  
1979-2016

# Insured losses (not including uninsured)

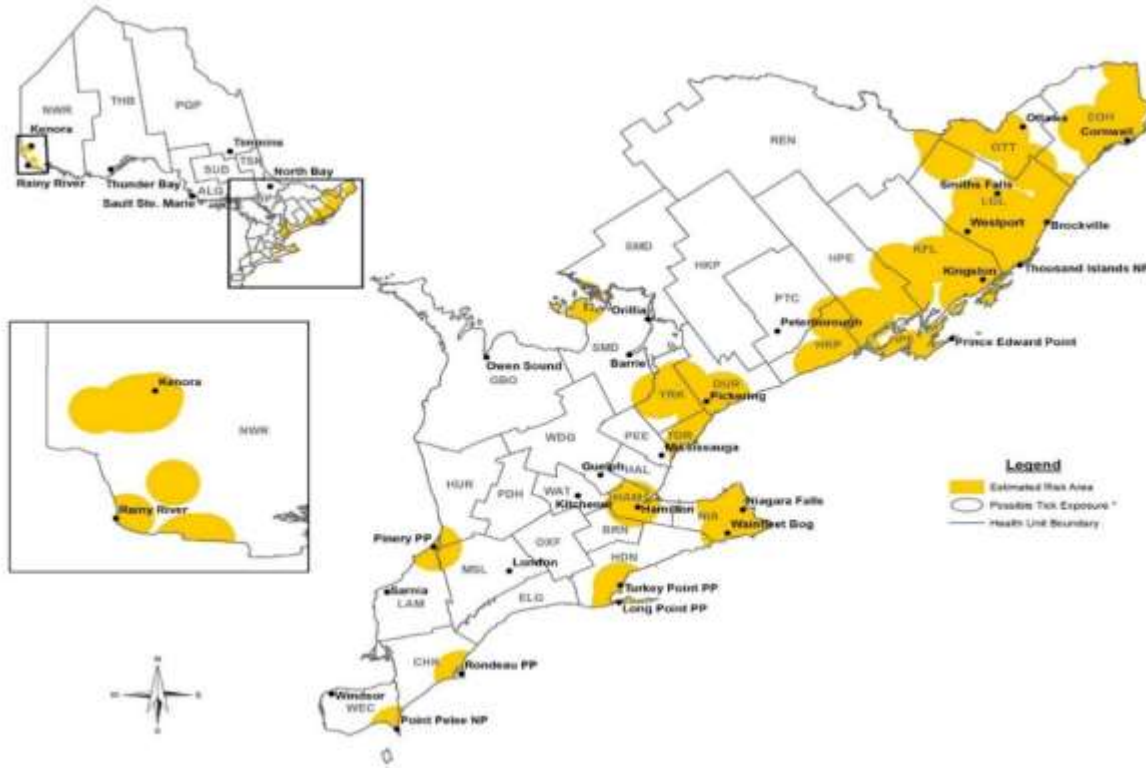


**\$1.2 billion in first 9 months of 2018**



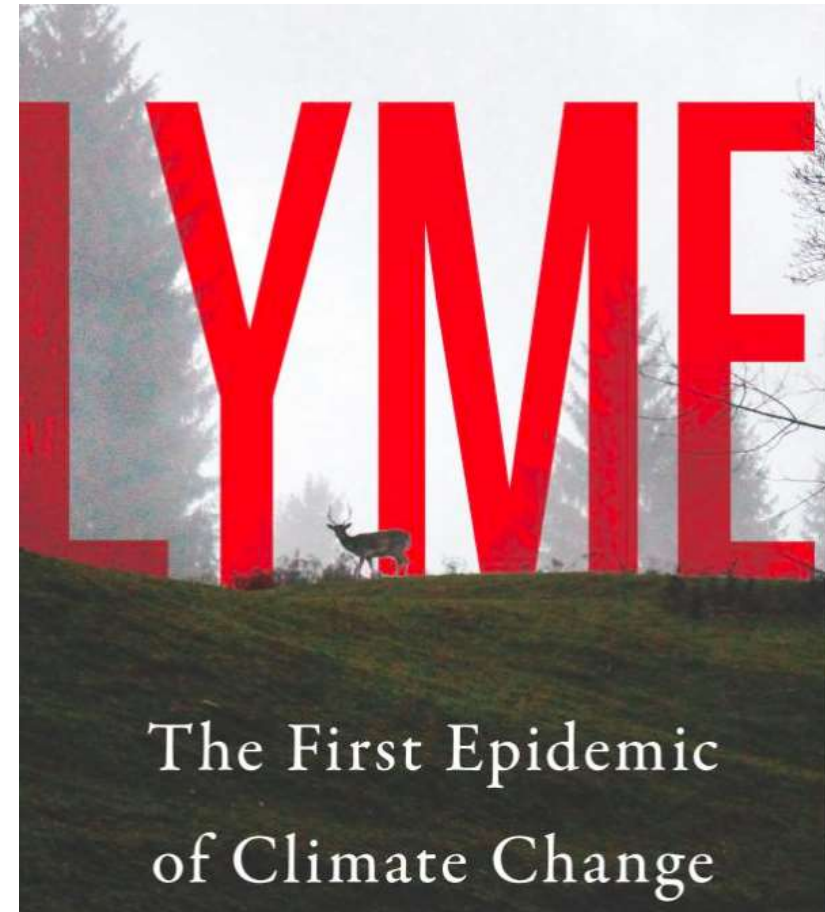
Up to 10% of Canadian properties may soon be too high risk for private sector flood insurance, if no protective measures are taken.

# Health impacts



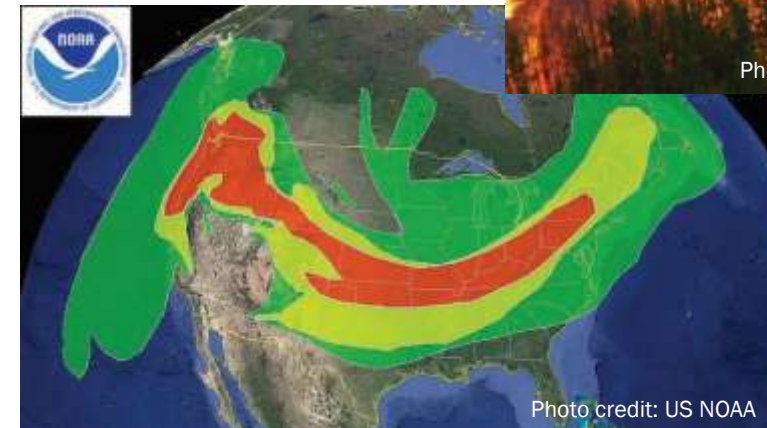
Ontario Lyme Disease Risk Map 2018: Estimated Risk Areas

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario)



# Forests

- Warmer, drier conditions plus pests/ diseases = higher risk
  - e.g., BC, California, Chile, Sweden, Portugal....
- Loss of winter cover
- Soot/ black carbon
- Who breathes the smoke?
- MNRF: 1,325 forest fires in 2018



# Plants, animals, fish

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Photo credit: Heidi Riedner/Georgina Advocate. Used with permission.



Photo credit: bcameron54, (CC BY-SA 3.0)



# Impacts for food and farming?

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- Longer growing seasons
- But less predictable
- Increased droughts and floods
- Erosion
- Pests



Photo credit: Shutterstock

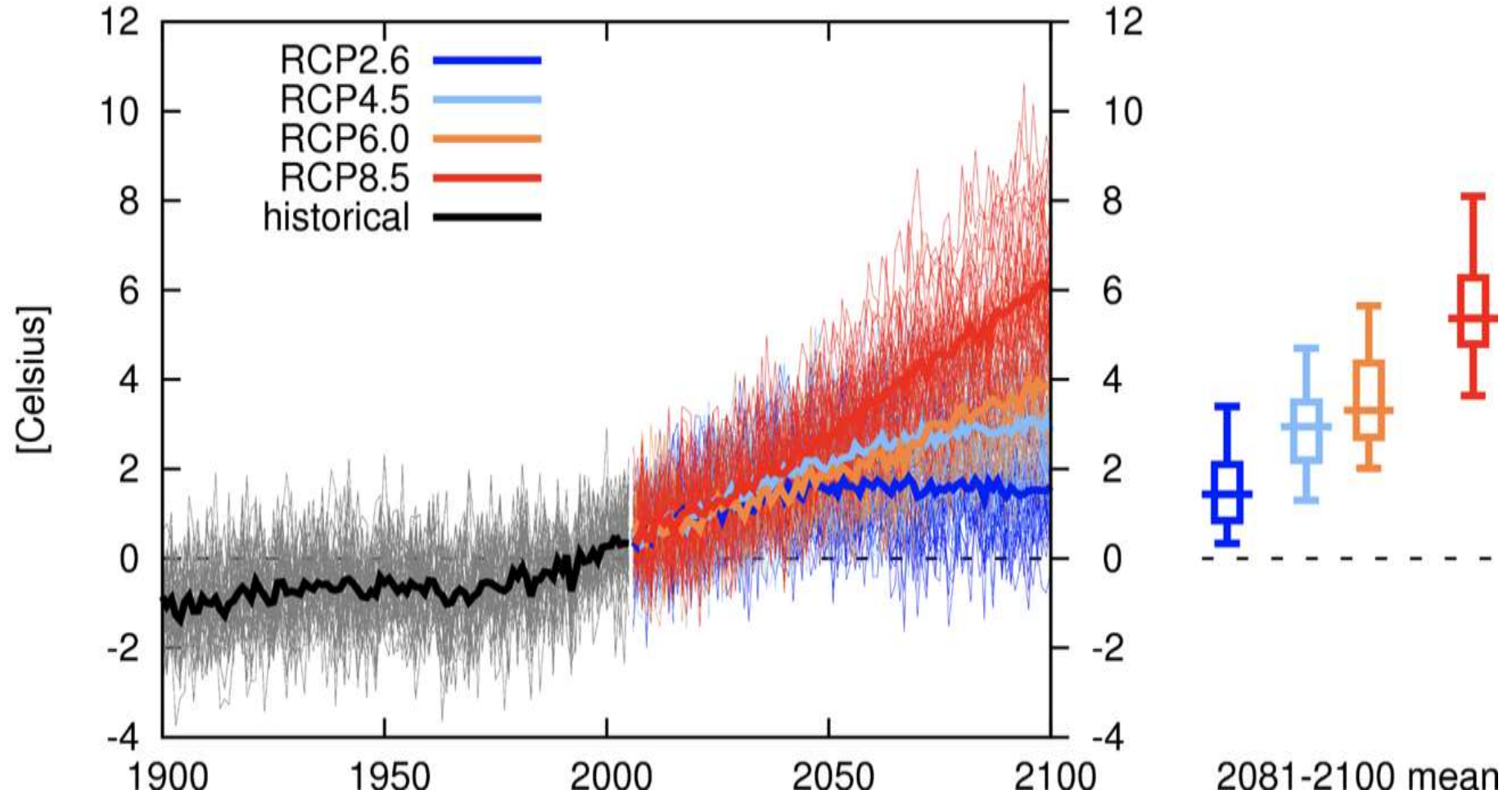
# And what else?

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*“Large-scale uneven impacts of climate change may destabilize existing institutional arrangements, increase incentives to violently redistribute wealth, or generate other forms of social conflict.”*

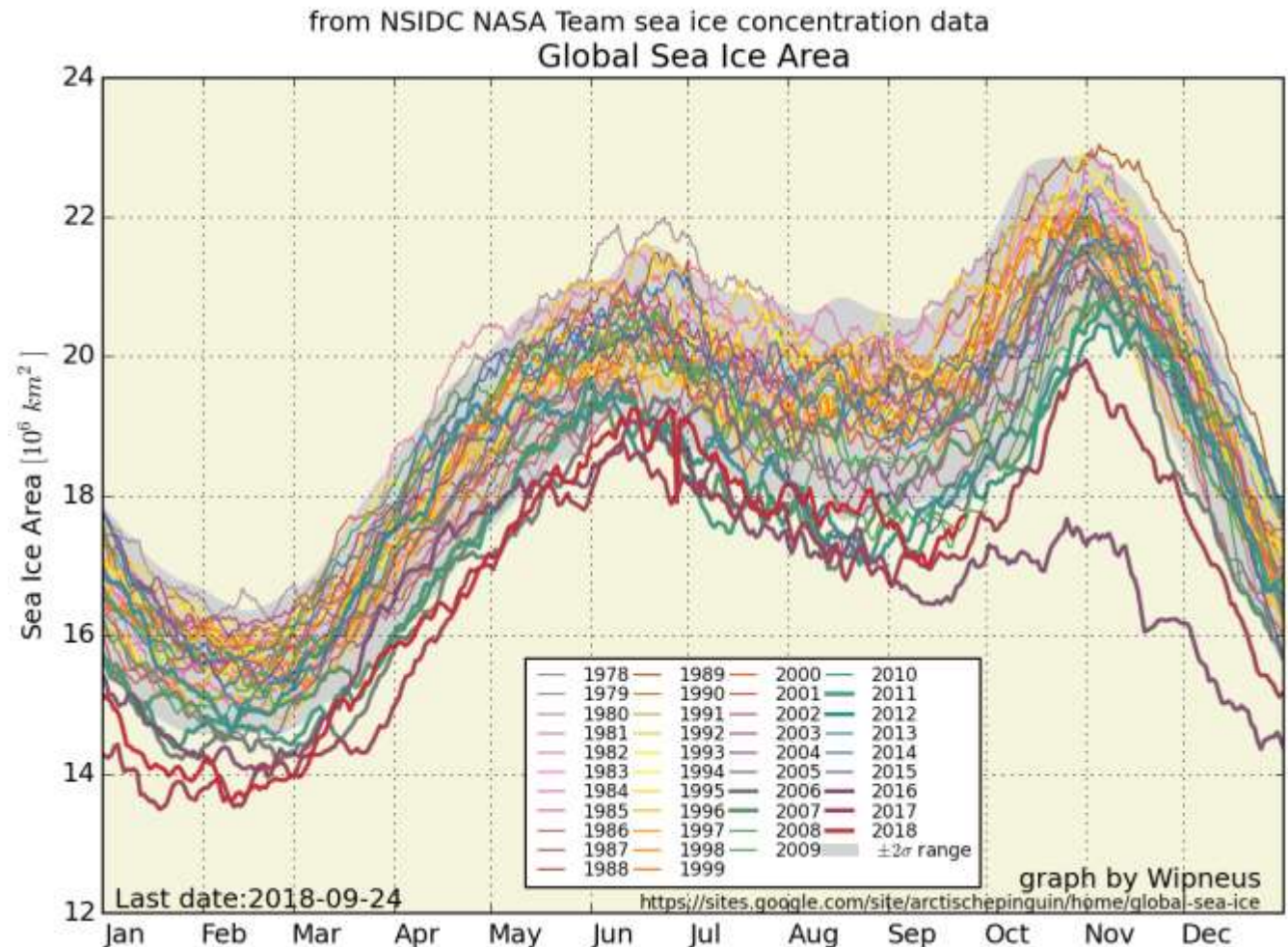
Hsiang, Oliva, Walker 2017

# How much worse? Depends on emissions



# And on tipping points

- Permafrost
- Soil carbon loss
- Forest die-back
- Ocean current changes
- Loss of sea ice





# Is it too late?

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- We are in for big changes
- There is still a little time to have an impact on what's coming
- **Our choices, right now, matter**
- Canadian actions really matter

# Opportunities for action

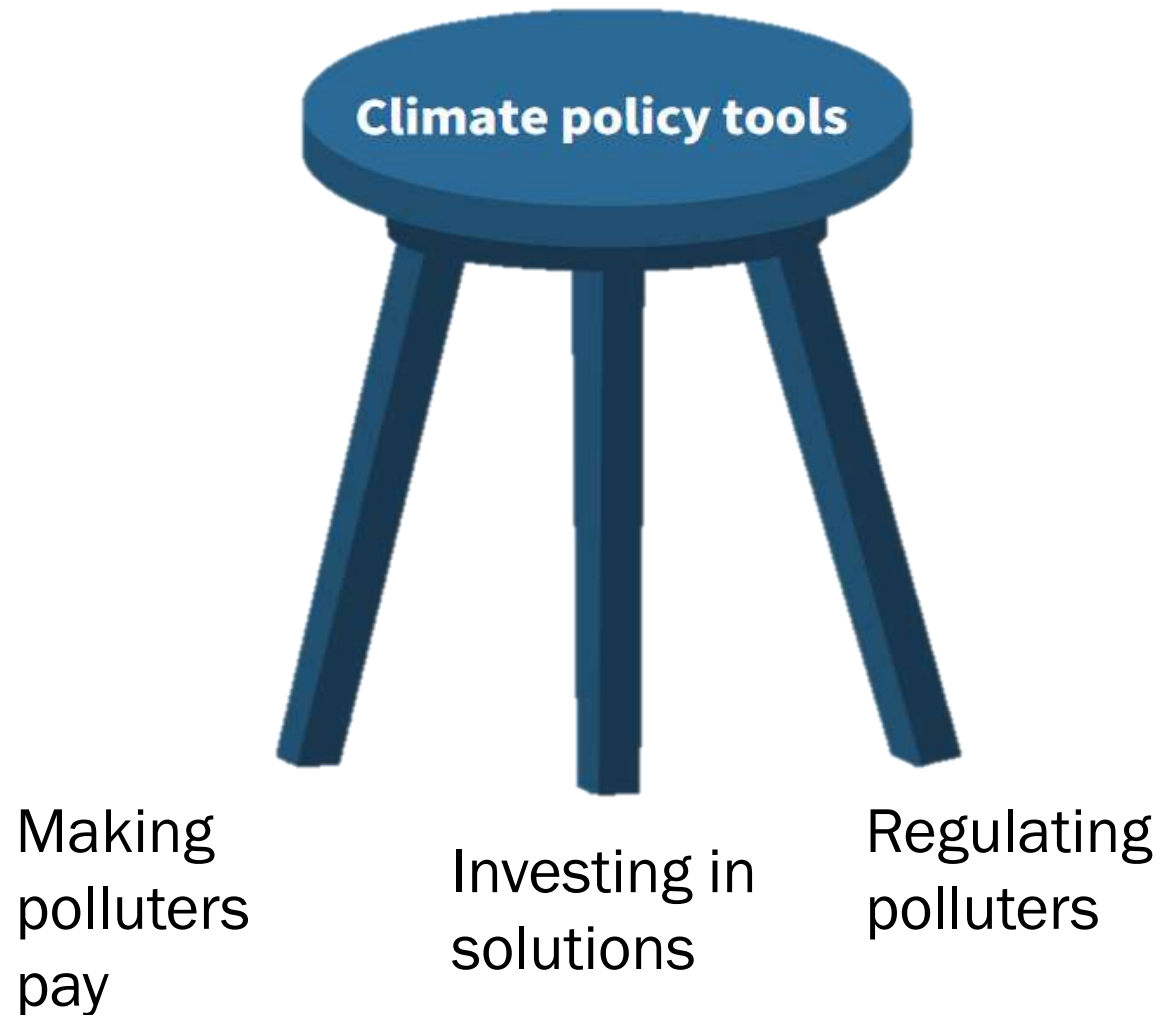
# Climate Action in Ontario: What's Next?



- 1 Ontario (again) needs a climate policy
- 2 Commitment and credibility
- 3 Reducing Emissions
- 4 Getting Ready for What's Coming
- 5 Recommendations

# Ontario does know what works

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# Ontario was doing so much right

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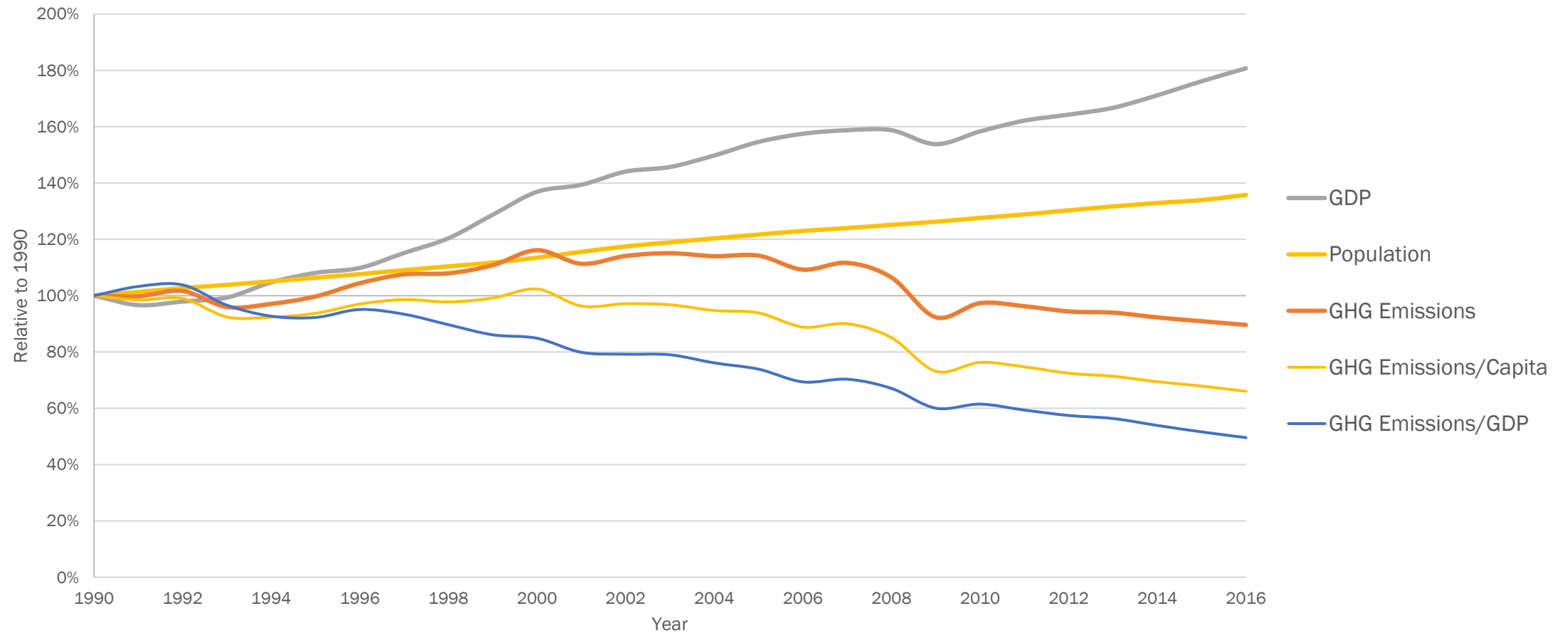
Coal power plant closures

Price on carbon

GGRA/ Action Plan

Starting on adaptation

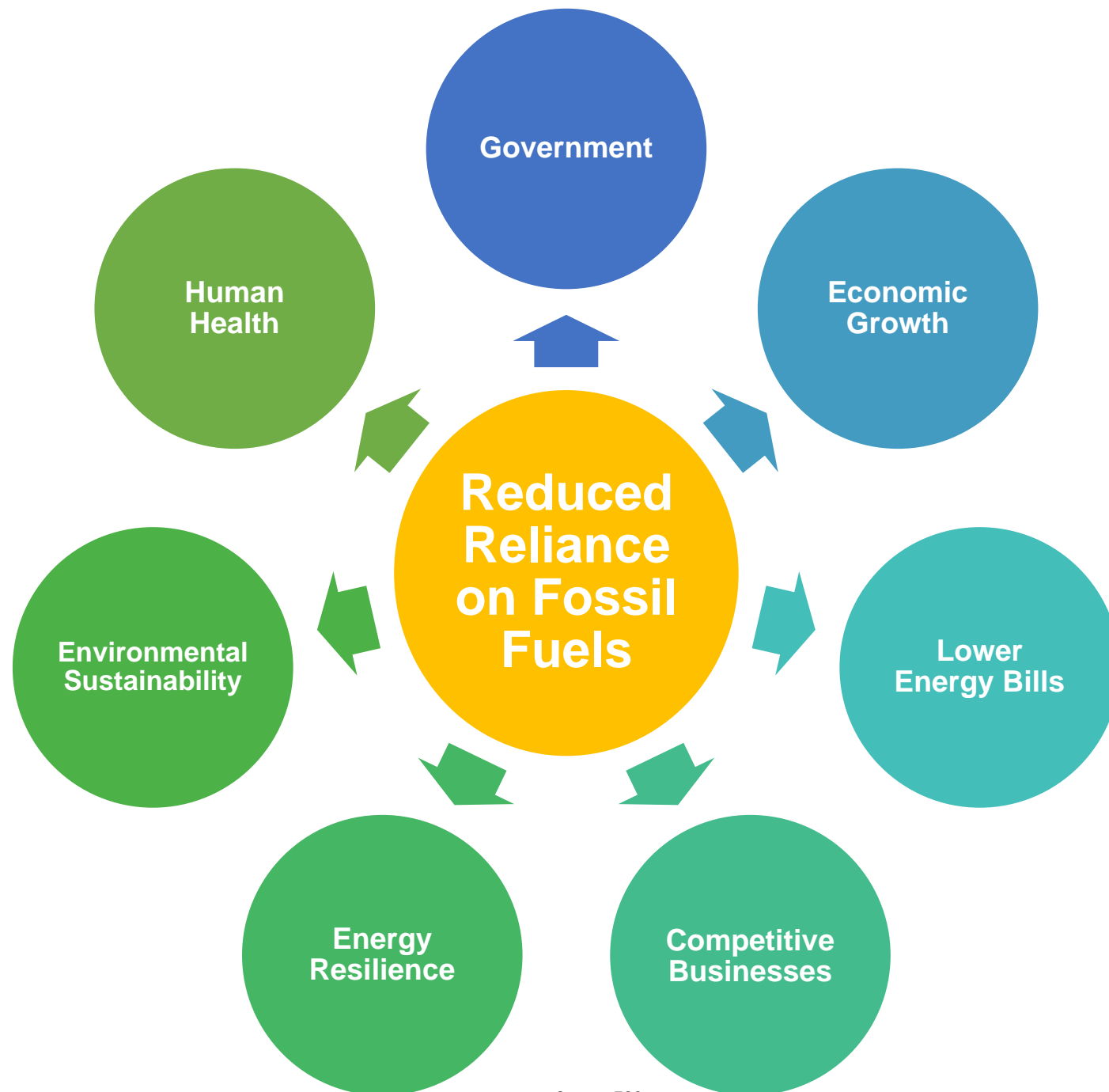
# It was working



Money,  
climate,  
wellbeing:

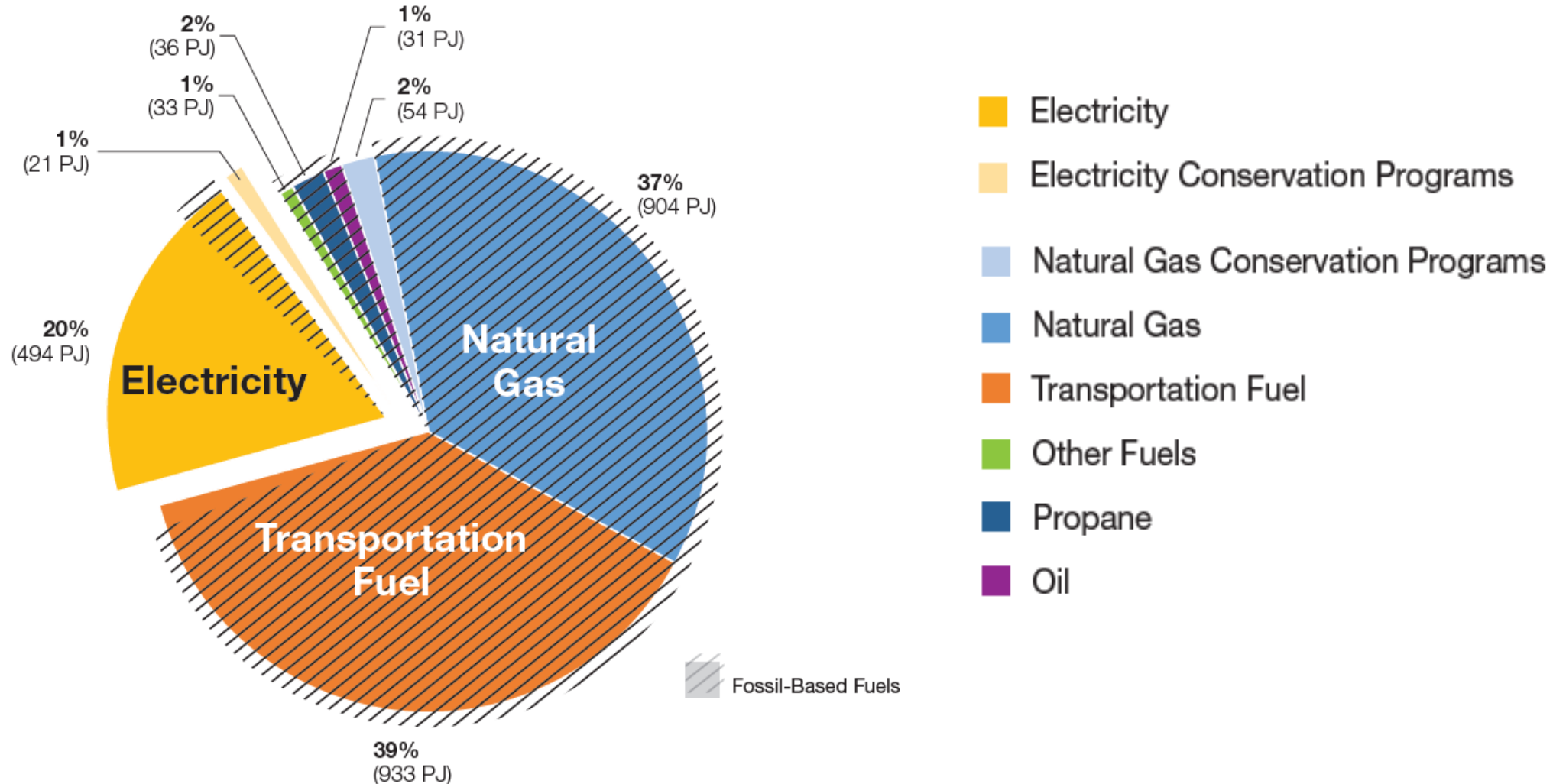
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Major  
co-benefits  
of reducing  
reliance on  
fossil fuels



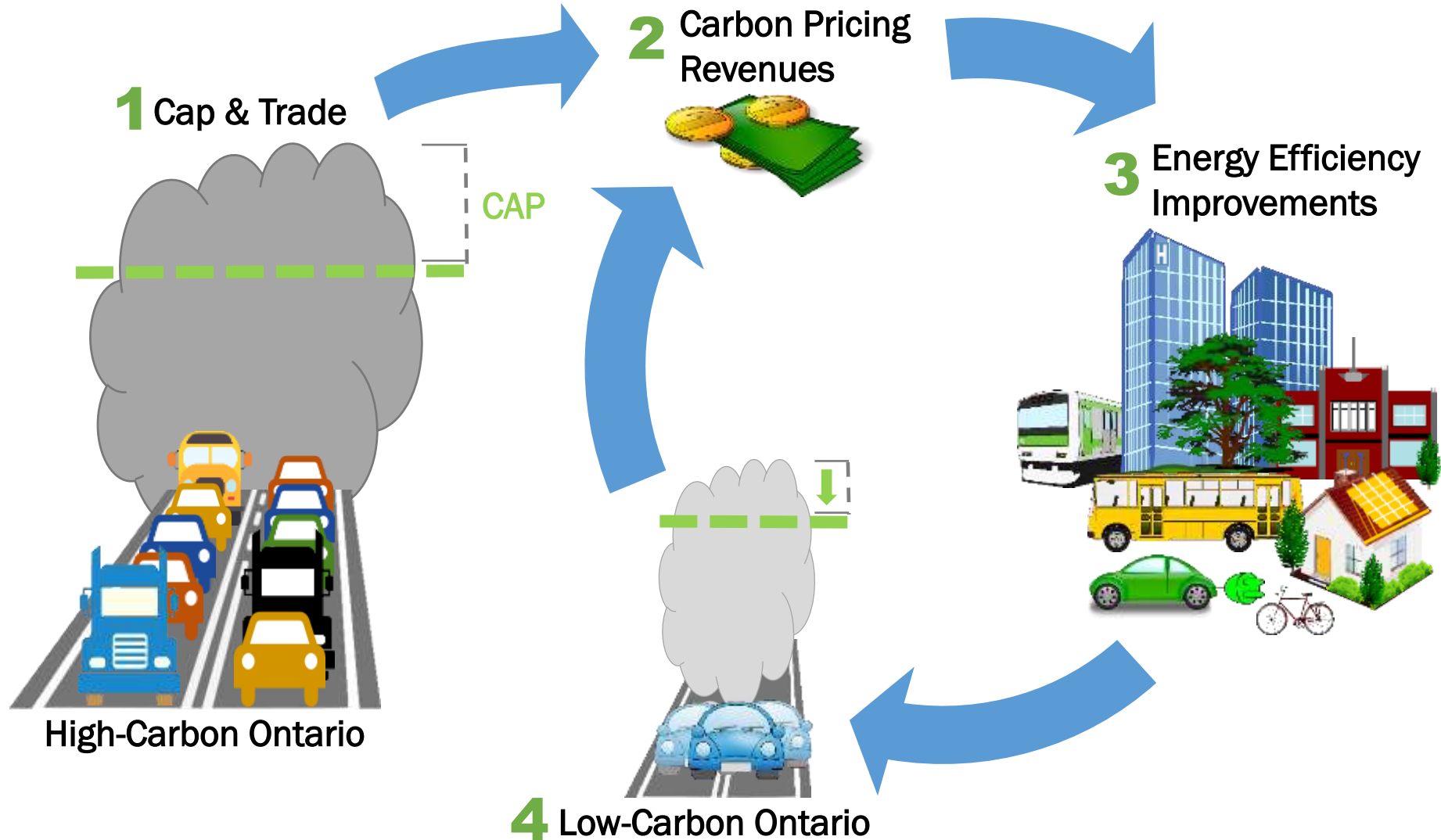
Source: ECO

# Electricity key to Ontario's low carbon energy future

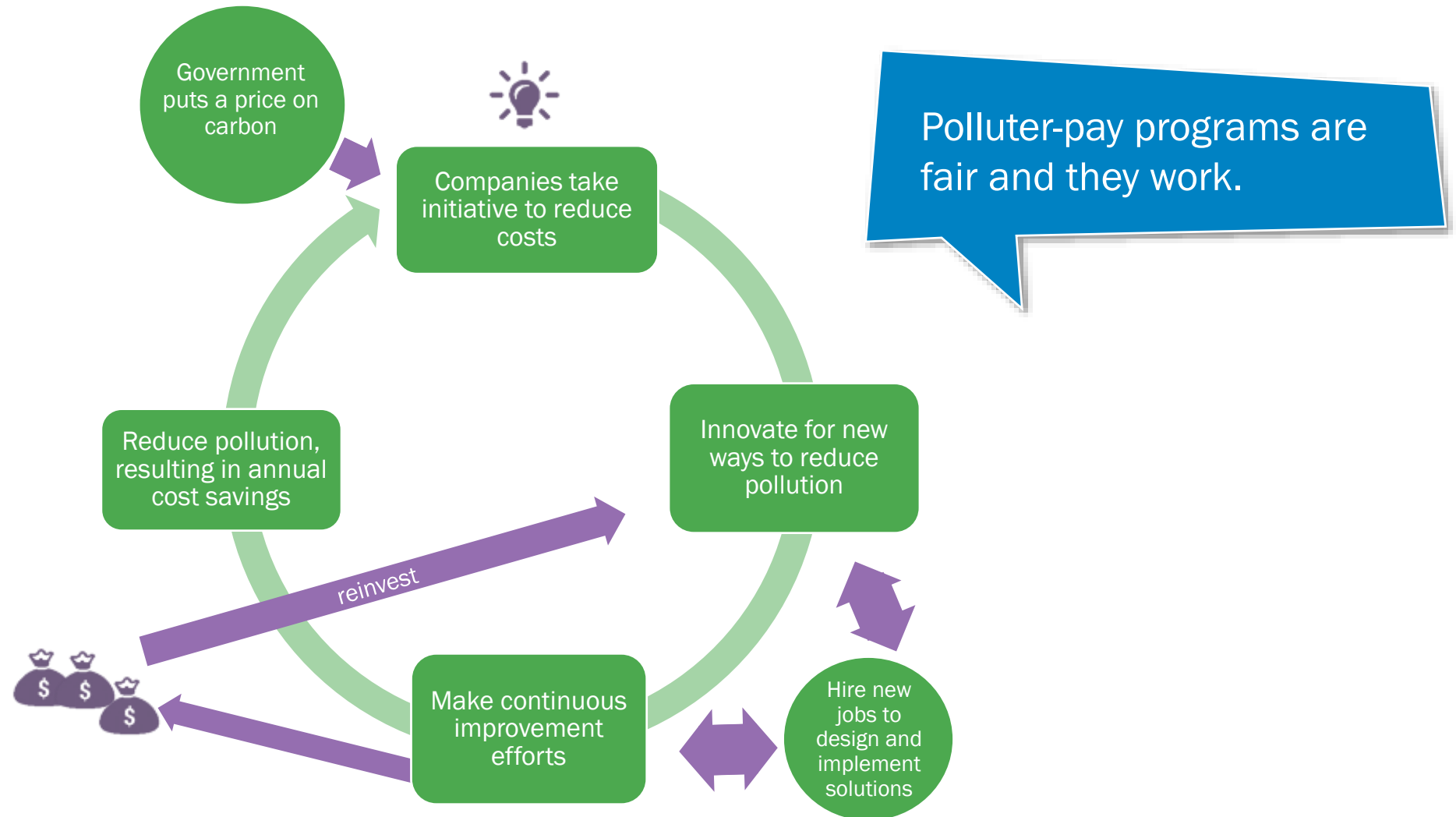




# Cap and Trade was starting to work



# Making polluters pay can lead to innovation, creativity, and jobs



# Raised billions for low-carbon initiatives

- Cap and Trade raised \$2.9B since January 2017
- \$1.9B was spent on programs to reduce GHG emissions
- 74% → public services (hospitals, schools, social housing and municipalities)



19,000 social housing units received energy efficiency upgrades



Energy retrofits at 98 hospitals, 621 schools, 48 universities and colleges



129 municipalities received funds for transit, waste, energy efficiency and cycling infrastructure



\$4 invested by industry for every \$1 in Cap & Trade funding

# But now: a wrenching halt

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- All serious provincial programs cancelled, including cap and trade and renewable energy contracts
- No meaningful replacements
- Weak targets, little action
- Only 1% public support
- Instead, shoot the watchdog



Where are we now?



Ontario is sitting on its hands,  
or worse.

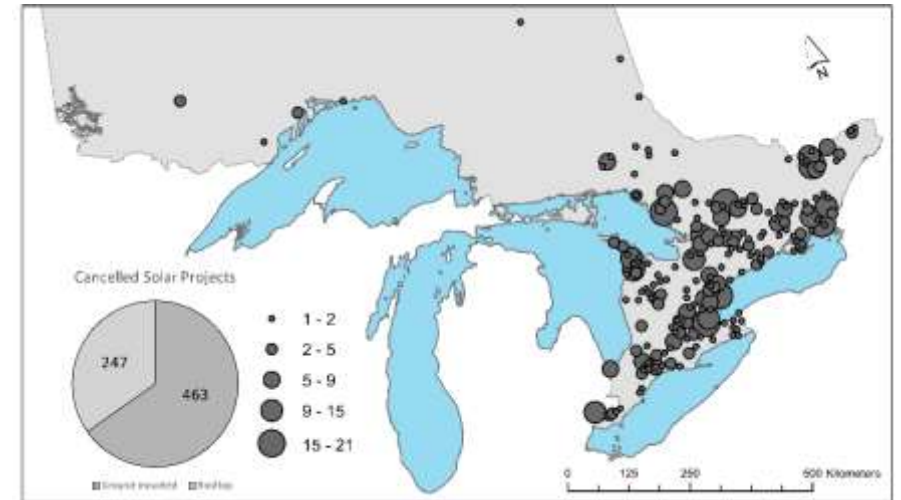


# Tearing up clean energy contracts

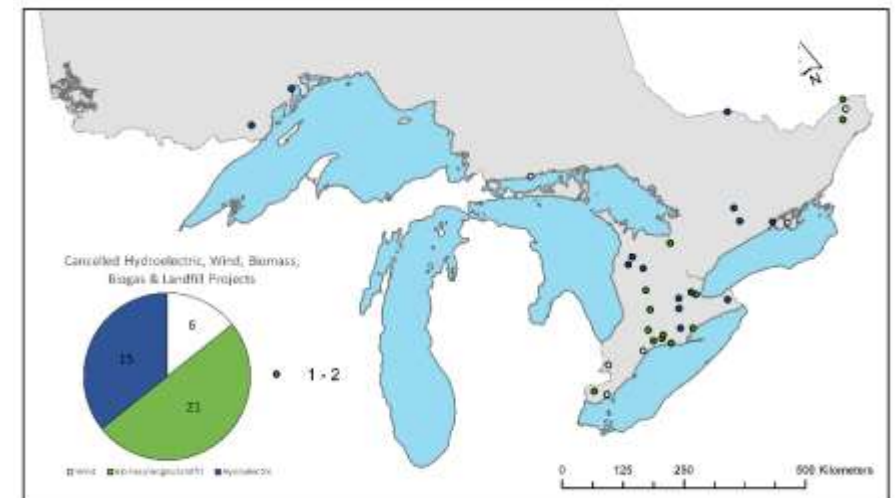
*“The sanctity of contracts is fundamental. The government unilaterally cancelling contracts is harmful to business investment in Ontario.”*

Ashley Challinor – Director of Policy,  
Ontario Chamber of Commerce

- Adverse effects on investors, public sector, First Nations, Long-Term Energy Plan



752 cancelled renewable energy projects



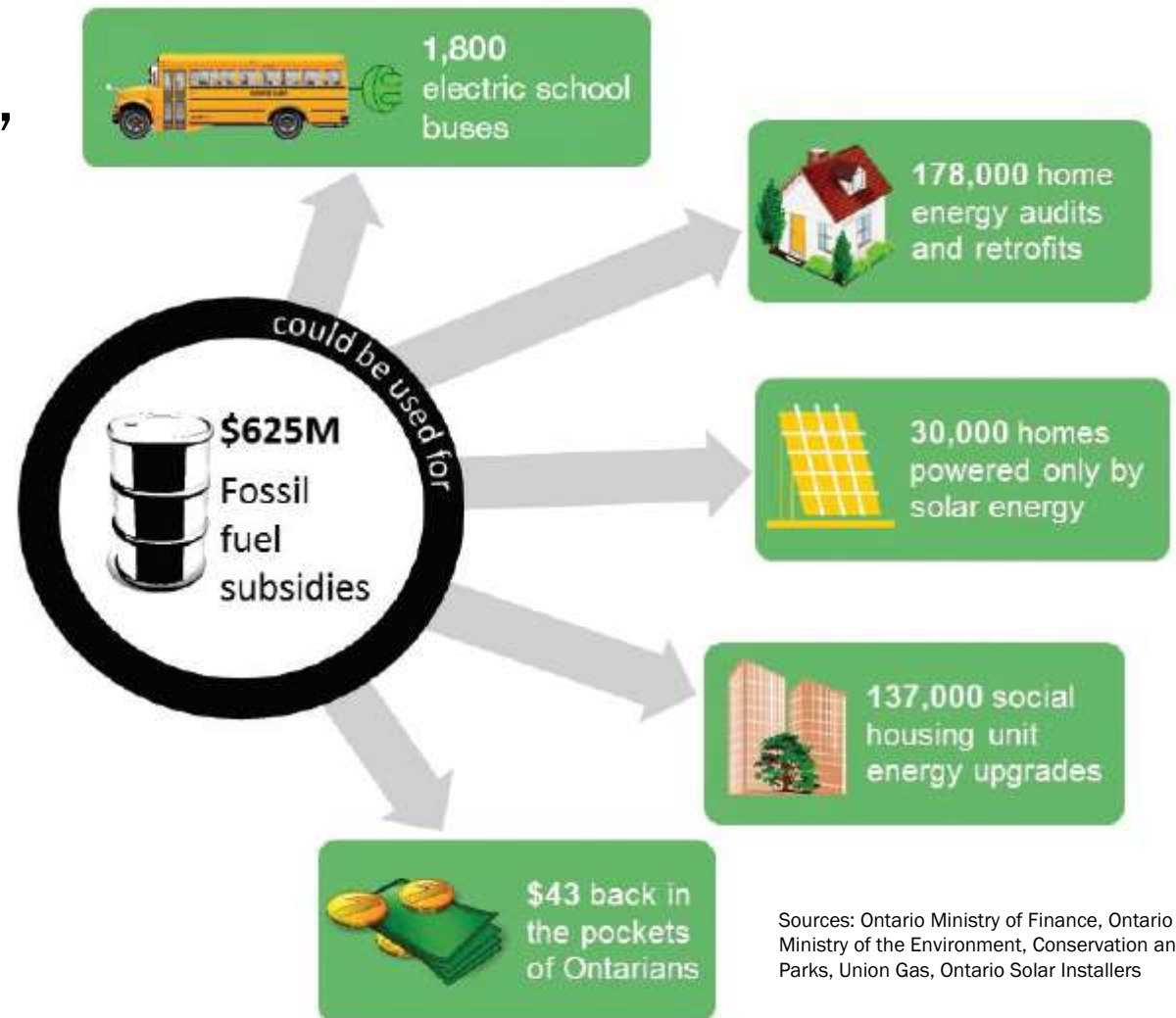
Source: University of Guelph

# Big setback to Indigenous people

	Large Renewable Project (LRP)		Feed-in Tariff (FIT)		Total (LRP + FIT)	
	Number of Projects	Capacity (MW)	Number of Projects	Capacity (MW)	Number of Projects	Capacity (MW)
Projects with Indigenous Participation	8	139.9	208	86.8	216	226.7
All Projects	10	174.9	741	266.9	751	441.8
% of cancelled projects with Indigenous participation	80%	80%	28%	33%	29%	51%

# Subsidizing fossil fuels

- Existing fossil fuel tax breaks, plus
- Subsidizing natural gas pipeline expansion
- Cutting gas tax
- Fair Hydro Plan?



Sources: Ontario Ministry of Finance, Ontario Ministry of the Environment, Conservation and Parks, Union Gas, Ontario Solar Installers

# When the province won't lead

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- Federal action – Pan Canadian Framework
- Municipalities
- Business
- Investors/pension funds
- Universities
- Media
- Everyone



The federal backstop is a good start.

# What can we do?

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- Climate cannot be left entirely up to government

Reduce your carbon footprint

Get ready to adapt

Speak up



**Simple clear messages,  
repeated often,  
by a variety of trusted voices.**

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“I used to think that top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that thirty years of good science could address these problems. I was wrong. The top environmental problems are selfishness, greed and apathy, and to deal with these we need a cultural and spiritual transformation.”

- Gus Speth

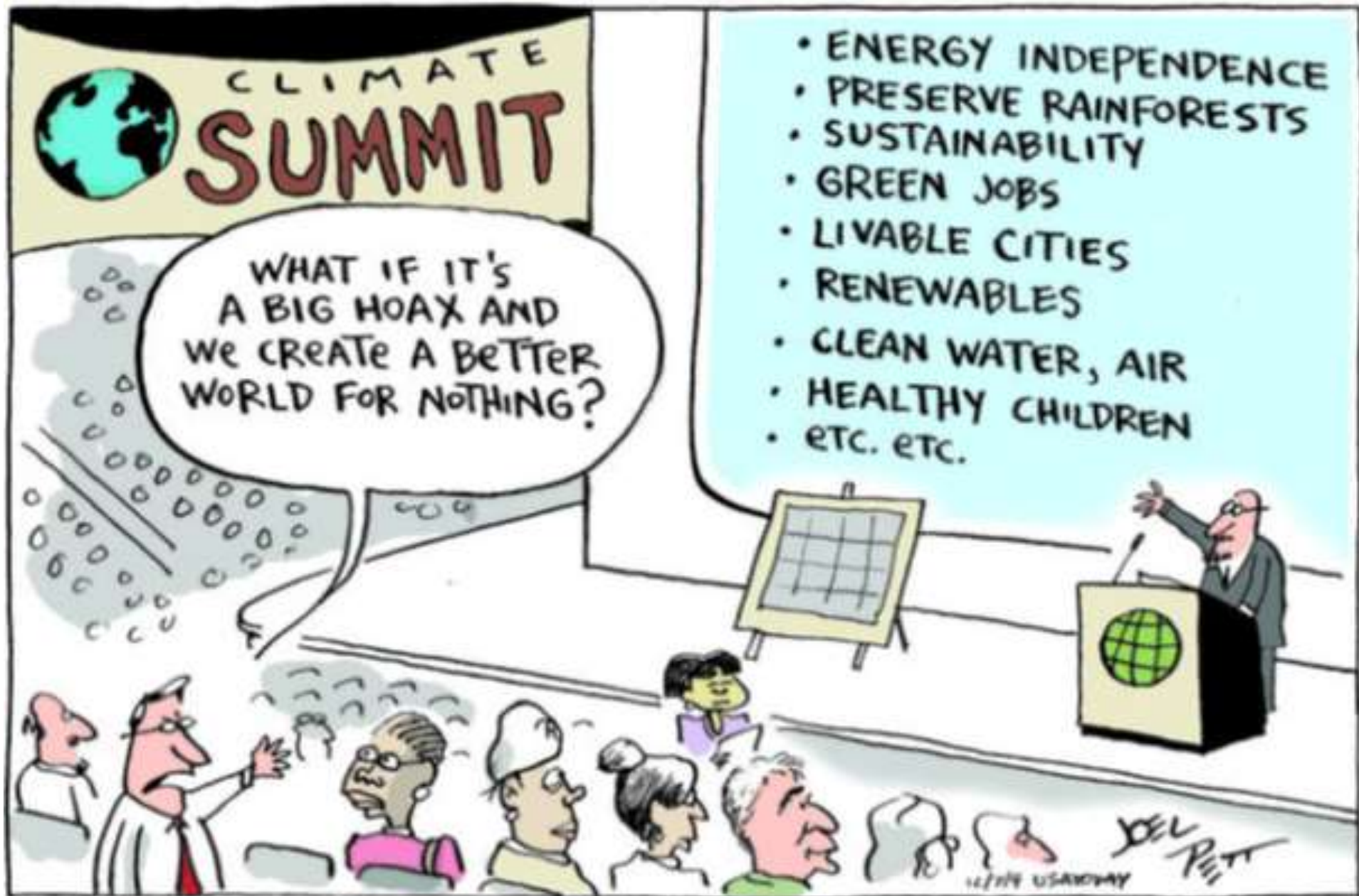
# Faith leadership matters:

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- Keep it simple, and repeat, repeat, repeat.
- Use your trusted voice, and engage additional trusted voices to amplify your message.
- Tell people:
  - It's real, it's us, experts agree (97%+).
  - It's bad for us in many ways—weather, health, food, economy—especially for our children and grandchildren, and for the least of us.

**The climate crisis presents an opportunity for the world's trusted faith leaders to not just avoid catastrophe, but also to create a better world.**

**It's not just a moral obligation.  
It's a moral opportunity.**





# Questions?

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