



Citizens' Climate Lobby Canada's presentation to ENVI by Cathy Orlando and Caterina Lindman
 Bill C-317: An Act to establish a national strategy respecting flood and drought forecasting
 April 9, 2024

Introductions

Thank you for the privilege of speaking with you today. I am Cathy Orlando. I work as the Director of Programs at Citizens' Climate International (2017) and Director of Citizens' Climate Lobby Canada (2010). I live in Sudbury ON. I have been concerned about the climate crisis my whole adult life. My father-in-law, Dr. Sukhdev P. Mathur, was an IPCC scientist for the first report in 1990. I support volunteers in over 100 ridings in Canada and over 50 countries around the world in their noble efforts to bring evidence-based climate solutions to their governments and fellow citizens.

I am Caterina Lindman. I am a retired actuary, and I have been concerned about climate change for about 30 years. I joined various actuarial committees studying climate change and sustainability, and I chaired the committee that created the Actuaries' Climate Index. The Actuaries' Climate Index measures the frequency of climate extremes, and it shows that these extremes are increasing at an unprecedented rate. I did what I could to lower our household emissions, and then I wanted to help Canada enact effective climate policies. To do this, I joined Citizens' Climate Lobby in 2013.

About Citizens' Climate Lobby Canada

Citizens' Climate Lobby Canada is a non-partisan advocacy organization dedicated to promoting effective climate policies, including carbon pricing, with rebates to citizens, to address the challenges of climate change and building a liveable world for all. We were founded in September 2010 in Canada.

<https://canada.citizensclimatelobby.org/>

Cathy's Precipitation Anecdote

In the winter of 2018-2019 Sudbury, ON experienced [record precipitation](#). Ice built-up on the roof of my house. Professionals could not remove it. On the first warm day of spring 2019 in late March, the ice on the front of the roof melted faster than the back of the roof. The roof [collapsed internally](#). Walls pulled away from each other. My house was condemned and we were forced to evacuate. We lived in a hotel for over six months. The entire upper floor had to be reinforced and the roof replaced. We had special insurance and all our costs were covered. Three other houses on our street experienced similar internal structural failures (but not nearly as catastrophic) and have faced huge bills fixing their roof and house. I live on a street with 16 houses.

Caterina's Drought Anecdote

Last summer, my son, who lives in Yellowknife, NWT had to evacuate for 3 weeks due to forest fires, which were generally unheard of that far north. Since there is only one road out of Yellowknife, he had to drive towards the fire to get south, away from the fire. A large contributing factor to the forest fires was climate-related drought. So droughts don't only impact farmers and crops, they contribute to forest fires as well.

Canada Now

Canada is experiencing widespread [drought](#) ahead of a potentially brutal wildfire season after a record wildfire season last summer.

Statistics

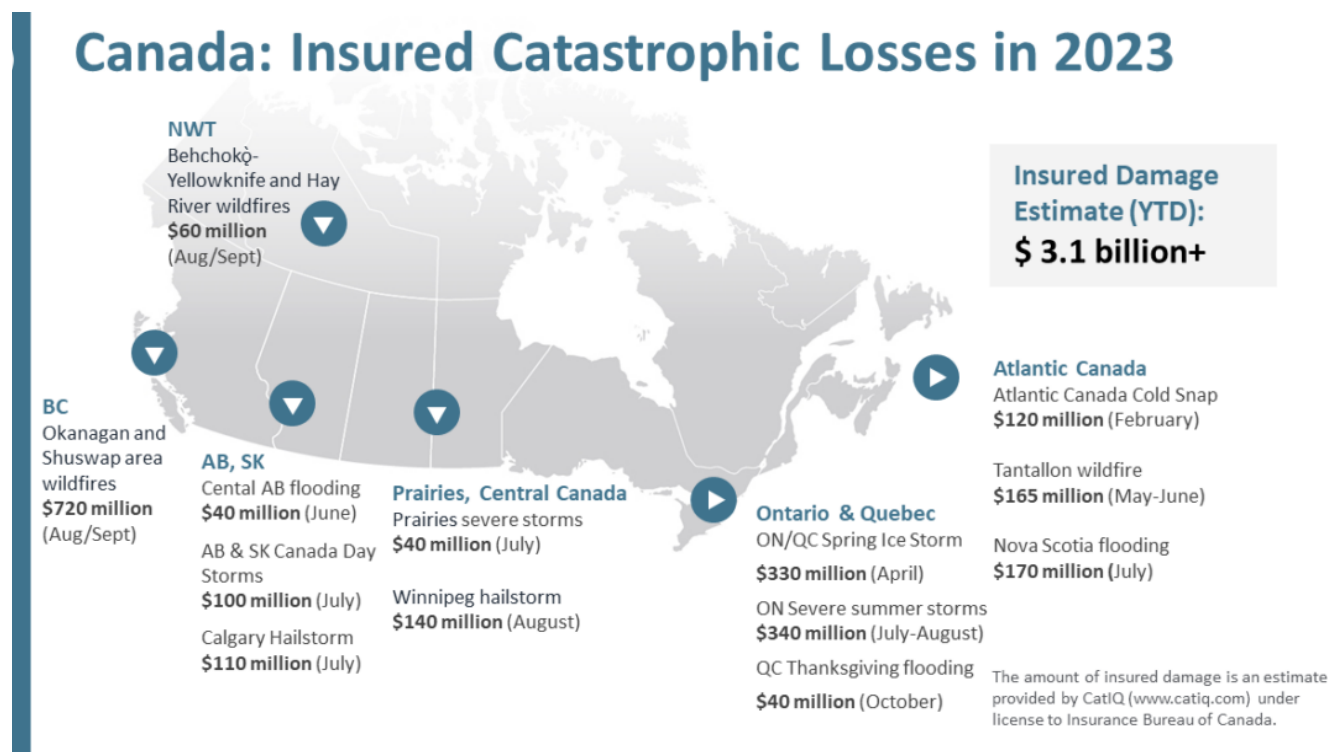


Image from the Insurance Board of Canada (January 2024)

The above shows that in Canada, the insured loss was \$3.1 B in 2023. Both economic and insured losses, with the fingerprints of climate change all over it, have increased dramatically over the past 20 years. Worldwide, [economic losses](#) of \$380 Billion US, is more than three times the amount of the insured losses (\$118 B US). So in Canada, the economic losses were much more than \$3 Billion, perhaps around \$9 Billion. We have submitted a longer version of this presentation with more detailed statistics and sources.

Closing Statement

We appreciate that Canada is developing a National Strategy for Drought and Flood forecasting. An ounce of prevention is worth a pound of cure. Since 2015, Canada has enacted over a dozen effective climate-related [policies](#) and initiatives, formed many climate alliances [globally](#) and emissions are [finally starting](#) to go down but we are still at risk for an uninsurable world. Collectively, we need to do more to prevent this. As part of our strategy for managing drought and flood risks, we request that the National Strategy for Drought and Flood incorporate forecasts that model both business-as-usual scenarios and various mitigation scenarios. This approach will safeguard not only our insurable assets but also our agriculture sector, financial system, social stability, and national security.

To quote the Right Honourable Brian Mulroney, *"I think the government has to reposition the environment on top of their national and international priorities."*

Details that will not be read and are here for the record

Thank you for the privilege of speaking with you today. I am Cathy Orlando. I work as the Director of Programs at Citizens' Climate International (2017) and Director of Citizens' Climate Lobby Canada (2010). I live in Sudbury ON. I have been concerned about the climate crisis my whole adult life. My father-in-law, Dr. Sukhdev P. Mathur, was an IPCC scientist for the first report in 1990. I was trained by Climate Reality Canada in 2008. I served as the co-chair of the Greater Sudbury Climate Adaptation Panel in 2010 and 2011. I am a recipient of the Queen Elizabeth II Diamond Jubilee Medal (2012), the Desjardins Citizens Engagement Award (2017), and the Senate of Canada's 150th Anniversary Unsung Heroes Medal (2018). I support volunteers in over 100 ridings in Canada and over 50 countries around the [world](#) in their noble efforts to bring evidence-based climate solutions to their governments and fellow citizens. I have been an observer at the UNFCCC COPs since 2017, an observer at the IPCC plenary in 2017, an observer at the UN Biodiversity COP in 2023, a civil society member (C7 and C20) at the G7 and G20 since 2018. I was selected as a Women's Advisor (W7) to the G7 in Germany (2022) and G7 in Japan (2023). I have been a civil society delegate at the World Bank and IMF since 2011.

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Our Uninsurable World

Summary: Wildfires. Floods. Drought. When climate change comes knocking at the door, who pays for the damage? More and more frequently, the answer is: Not insurance.

As the [Intergovernmental Panel on Climate Change \(IPCC\) reports](#), the cost of catastrophic weather events has risen exponentially in recent decades *despite* significant and increasing efforts to fortify infrastructure and enhance disaster preparedness during that time.

Yearly global economic losses from catastrophic events increased from \$4 billion in 1950-1959 to a staggering \$40 billion in 1990-1999. The insured portion of these losses rose from a negligible level to \$9.2 billion during the same period. According to [Statistco.com](#), In 2023, the estimated economic loss of natural disasters worldwide was 380 billion U.S. dollars, while the estimated insured loss amounted to 118 billion U.S. dollars.

Note that property and casualty companies offer one-year term insurance, and therefore, they can react annually as climate change risk evolves. As the amount and frequency of weather-related losses and payouts rise and the unpredictable nature of our worsening climate

become realized, it has shown to result in a number of undesirable outcomes related to insurance:

- Insurance company bankruptcies
- Elevated consumer prices, which can become unaffordable
- Increasing publicly funded compensation and relief (Damages paid directly with tax dollars)
- Withdrawal of insurance coverage

In the United States, insurance companies such as [State Farm](#), [Farmers Insurance](#), [Nationwide](#), [Progressive](#), and [Liberty Mutual](#) (along with hundreds of other small insurance companies) have pulled out of states like Florida, Texas, Louisiana, and California, after experiencing the growing losses from their hurricanes, floods and wildfires. In some of those areas, state-backed insurers of last resort have become the only option, providing basic coverage when private companies deem areas too risky for new policies and renewals.

In Canada, while the threat of insurance company withdrawal looms, rising insurance premiums are a greater burden with rates [increasing by 7.7 per cent](#) in 2023 alone, according to Statistics Canada, with premiums increasing and coverage diminishing as well. Over [1.5 million high-risk](#) households cannot obtain affordable flood insurance in Canada.

As an ever increasing portion of these costs fall on taxpayers (whether through increases in direct payments or increases in tax dollars spent on coverage), the need for urgent climate action becomes clear.

Mitigation of these impacts will surely play a large role in diminishing our losses in the years to come.

Canada's Top 10 Highest Insured Severe-Weather Loss Years on Record (loss and adjusted expenses in 2022 dollars)			
Rank	Year	Total loss (\$ billion)	Notable severe weather events
1	2016	5.96	Fort McMurray, Alberta, fire
2	2013	3.87	Alberta floods; Greater Toronto Area (GTA) floods; December GTA ice storm
3	2022	3.4	Multiple events
4	2023	3.13	Okanagan and Shuswap, BC, area wildfires; Nova Scotia flooding
5	1998	2.83	Quebec ice storm
6	2021	2.48	Calgary hailstorm; British Columbia floods
7	2020	2.46	Fort McMurray flood; Calgary hailstorm
8	2018	2.40	Multiple events: Ontario and Quebec rainstorms and windstorms
9	2011	1.97	Slave Lake, Alberta, fire and windstorm
10	2012	1.65	Calgary rainstorm

Image from the Insurance Board of Canada (January 2024)

The Dire Picture of Climate Change in Ontario

Summary: A report quietly released by the Ontario government in August 2023 suggests that climate change is having significant impacts on everything from agriculture to infrastructure and that the majority of the province will likely experience an average of over 60 extreme hot days per year by the end of the century. If greenhouse gas emissions are not significantly reduced, “warming trends will continue into the latter half of this century, leading to an increase in more devastating and frequent extreme weather.”

Full version: A [553-page report](#) written by the Climate Risk Institute, was commissioned in 2020 and contains three years’ worth of information. It was released publicly on a government website on Aug. 25, 2023.

The report paints a dire picture of how climate change is impacting Ontario, noting there are medium to very high risks associated with agriculture, infrastructure, business and people—in addition to the impacts on the natural environment.

For Ontario’s agriculture, the report suggests the sector faces “declining productivity, crop failure and livestock fatalities,” with a very high risk of climate change impacts by the end of the century. It also suggests that risk profiles across all of Ontario’s natural systems and species are likely to rise to high or very high by 2050.

Infrastructure is already experiencing failures related to extreme weather and changing climate conditions, the report says, while most Ontario businesses will also face increased risks as a result.

In particular, the report notes that climate change impacts vulnerable populations across the province.

The Climate Risk Institute warns that if greenhouse gas emissions are not significantly reduced, “warming trends will continue into the latter half of this century, leading to an increase in more devastating and frequent extreme weather.

According to the report, the majority of Ontario will experience an average of over 60 days in which the temperature surpasses 30 C by the end of the century.

On average, these regions of the province experience up to 18 extreme hot days per year.

A government report found the number of extreme heat days is likely to triple by the end of the century.

As such, extreme cold days are expected to decline, from an average of over 55 days on average per year in northern Ontario to about 12 per year by 2080.

In 2023, Ontario experienced hazardous air quality as a result of fires from both northern Ontario as well as Alberta and Quebec. Extreme heat and severe thunderstorms also plagued the summer months.