

Climate Change and its Effect on the Insurance Industry

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Thank you for this opportunity.

I would just like to preface my remarks by stating that I am an Insurance Broker, not representing an Insurance Company. Brokers advise clients and recommend appropriate coverage from the offerings of the insurance companies we represent, based on our understanding of their individual needs. My remarks are based on my experience and observations and not necessarily the policy and practice on any individual insurer.

Insurance Bureau of Canada has stated the Climate change is one of the most pressing issues facing Canadians today, increasing the frequency and severity of extreme weather events across the country.

Climate induced Natural Disaster losses have doubled every five to ten years since the 1950s, and in 2016 approached \$100 billion worldwide. If this trend continues, insurers around the world will face a trillion dollars in damage claims over the next 15 years. Severity, Intensity and Frequency are increasing exponentially. This is an alarming trend, is not sustainable, and needs to be confronted.

The most damaging catastrophes over the course of 2016, in order of insurance loss were: the earthquake on the Kyushu Island, Japan; Hurricane Matthew in Florida, the Carolinas, Georgia and the Caribbean; storms and flooding in Louisiana; hail storms in Texas; floods in Europe; and wildfires in Alberta.

North America accounted for more than half of the insured losses from catastrophes that year.

Canada's largest insurance loss in history, was to Fort McMurray wildfires at \$9.9Billion. 80% of the economic loss was covered by insurance. 68% of personal property claims from the fires were settled before the end of 2016. (so the insurance industry responded in a reasonable manner).

Flooding also hit hard, especially along China's Yangtze River, however low levels of insurance coverage in China meant that out of \$29 billion in losses, only \$535 million was covered by insurance.

Sigma, the Swiss Reinsurance Institute reports that for 2017, global insured losses jumped to over \$300 billion from climate induced natural disaster events. The highest in history.

Events such as:

- Frequent Heavy Rain Events – (Peterborough 2002 & 2004)
- Storm Water Flooding
- Hail Storms
- Extreme Heat
- Extreme Wind – (Ottawa & Gatineau 2018)
- Wild Fires – (Ontario, summer 2018)
- Hurricanes and the resulting Storm Surge

are occurring more frequently and causing great and great damage.

I thought I would begin by sharing a few of my own observations from the flooding events of 2002 and 2004 in Peterborough. Although on a much smaller scale, I use this as an example of just what is happening today around the world. I am sure there are a number of you here who also experienced this first hand.

In the Peterborough "Flood" of 2004, 280 millimeters (11 inches) of rain fell in about 4 hours. This resulted in insured losses for over \$100 million. That does not include damage to city owned infrastructure, the extensive cleanup the city had to do or a \$12 million remediation program instituted by the city after these 2 events to try to reduce the impact of any further such incidents.

Which incidentally also help to make the city “insurable” as some companies looked to withdraw from offering any floor coverage in Peterborough,

Challenges When Extreme Events such as this occur:

- Availability of Qualified Contractors
- Availability of building materials
- Availability of means of disposal of massive amounts of waste material, dumpsters, waste haulage – community landfills
- Mold and other forms of contamination
- Availability of Insurance Adjusters to handle a sudden influx of 2800 claims, essentially overnight
- The Interruption to Businesses and Community Resources diverted to repair damages

The Limited availability of the materials and services increase the price of those materials and services. Increased prices eventually work their way down to the consumer by way of increased premiums.

The limited availability of disaster recovery services leads to anger and frustration for policy holders effected. Many were left to cope on their own for a period of several days, having to take time off work. Elderly and / or disabled policyholders - some without insurance at all - were particularly adversely affected.

To further exacerbate the situation, our own office was heavily damaged by the flood. We had 8 ft of water in our building. We lost our phone system, our computer system, and only had partial power, due to a damaged transformer just outside our building on Hunter Street. Thankfully none of us had damage at our homes.

In the past, these concentrated massive events were not really contemplated by the insurance industry, so systems to deal with them were not in place.

The average flooded basement results in \$43,000 in damages.

Properties that have sustained flood damage can lose up to 30% of their market value. People do not want to purchase homes that have been damaged by flood.

I also cannot over emphasize the psychological / emotional effects an event like this has on people. Anger, frustration, depression and a feeling of helplessness were common reactions.

In addition to the trauma of the disaster itself, the mental health of the population at large is impacted in the aftermath of the disaster, as the affected population tries to rebuild both literally and figuratively.

The University of Waterloo INTACT Centre on Climate Adaptation have studied the impact of Climate Change on Mental Health. A recent study reported that flooded household members were still worried years after a flood event. Three years after their home was flooded, almost half (48%) of respondents from flooded households were very worried when it rained.

A few weeks ago I had the opportunity to meet Darby Allen, the former Fire Chief from Fort McMurray. He is still visibly suffering from the effects of that fire, being brought to tears at times as he recounted the events. He is clearly suffering from the trauma of the event.

Forward to 2018 – California & British Columbia

Bring things forward to 2018 and the California Wildfires events directly related to Climate Change.

1) In California;

- Approximately 8000 structures lost
- CoreLogic, a data evaluation company, places Current Estimates of the rebuilding costs of the lost properties = \$18 Billion. That is not the contents, vehicles, or infrastructure. 60% of those properties are estimated to be underinsured and 20% uninsured.

- Stanford University Earth System Science Centre recently published a report that atmospheric conditions for California wildfires are expected to worsen in the future because of the effects of climate change. In California "what we're seeing over the last few years in terms of the wildfire season [is] very consistent with the historical trends in terms of increasing temperatures, increasing dryness, and increasing wildfire risk." The report states. The situation is just going to get worse.
- Fire Services in California have declared that "Fire Season" is now year round and that "this is the new normal".
- Our daughter lives just south of San Francisco, approximately 150 miles from the "Camp Fire" She and the people in the Bay Area have been forced to wear a N95 particulate respirator whenever they go outside for any period of time. Schools had to close for several days, major sporting events postponed, and that wasn't even in the fire zone!

2) In British Columbia;

"The size and scale of the wildfires this summer have been the largest in British Columbia's history," reported by the Insurance Bureau of Canada. "These wildfires are yet more evidence that severe weather events are happening with greater frequency and intensity across Canada".

The wildfires around Williams Lake caused close to \$100 million in insured damage to homes, vehicles, and businesses, while the Elephant Hill wildfire caused over \$27 million in insured damage. These fires also caused the evacuation of tens of thousands of residents to emergency centers in Kamloops, Prince George, and across the province.

How will the insurance industry respond to these two massive events? Massive infrastructure repairs will need to be undertaken before rebuilding can start. And once that has begun there will be severe shortages of contractors, building materials, demolition and disposal services.

The challenges are enormous.

**So what is the reaction of the Insurance Industry?
And how will it affect consumers.**

The Insurance Bureau of Canada estimates that, left unchecked, severe weather due to Climate Change related disruption will cost Canada \$15 billion per year by the end of 2019, and increase to \$30 to \$40 billion per year by 2050.

Insurance companies are “For Profit” corporations; they are not charities. They are responsible to their shareholders to make money. They will, and are designing and pricing their products to be profitable.

Insurance industry is structure in such a way that allows companies to absorb a number of very large losses. However if these events become too large or too frequent insurance companies risk becoming insolvent and could fail. Something which could have serious repercussions worldwide throughout the financial industry.

So what are they are doing now;

- Increased Premiums for certain types of coverage such as “Water Damage”.
- Subtle changes to personal and commercial insurance wordings to effectively restrict or eliminate coverage for certain events such as Flood / Sewer Backup.
- Sub Limits on water damage. For example some insurance companies now will pay only \$25,000 on any flood related losses.
- Very High Deductibles.
- Segmentation by Postal Code & Credit Score to exclude coverage in areas and for individuals deemed to be “at greater risk”. Which essentially means

that the poor and disadvantaged will suffer much greater loss in a catastrophic event.

- Not offer the coverage at all

If the July 2004 event happened again in Peterborough there would be a significant portion of the population whose insurance would not cover or only partially cover the loss.

Therefore, in the future, an ever increasing portion of the costs associated with extreme weather events is going to become a cost to society as a whole as people look to their governments for compensation for uninsured losses.

What Can Be Done?

- Changes to the Building Code, to make buildings more resilient.
- Not permit buildings to be constructed in certain areas.
- Shift certain types of insurance (for example flooding) to government agencies. Which has been done in parts of the US & Europe.

But in the greater scheme of things these are only short term, “Band-Aid” solutions, and they will take up precious time to implement.

Another segment of the insurance industry which I have not specifically addressed this evening involves the affect that climate change will have on Health Insurance and Agricultural insurance. Illness brought on by extreme heat, contaminated water and air quality, crop failures and livestock mortality are all expected to increase exponentially as the planet warms.

The insurance industry is trying to offer workable, affordable solutions to these issues. We are after all at the forefront of dealing with the economic consequences. However the industry is only capable of absorbing so much in terms of the damage caused by these catastrophic events. There will be a breaking point and we are rapidly accelerating towards that point.

The reality is that Climate Change is real and it needs to be addressed. We are running out of time. We cannot rely on the Insurance Industry as the “fall back” to resolving the problem. Change has to come at the highest level.

Thank you

Sources:

- Insurance Bureau of Canada
- CoreLogic, data evaluation
- Stanford University Earth System Science Centre
- Sigma, Swiss Reinsurance Institute
- INTACT Centre on Climate Adaptation University of Waterloo