

Climate change ?nightmares are here?

By **Dr. Hans Martin**

On Aug. 5, Rolling Stone magazine published an article by Eric Holthaus titled ?The point of no return:?climate change nightmares are already here.?

To the casual reader this title may seem far-fetched and overly dramatic. However, taking account of the integrity of this publication and the international reports on the subject elsewhere, it behooves us to pay a little bit more attention.

There is little merit in quoting the list of predicted and occurring disasters. We can read them in the international media every day. On the other hand, from my perspective, it is inconceivable that the topic of climate change has escaped the hawk-eyed politicians who daily heap scorn on each other on a wide range of topics, notably the Canadian economy and our national liquidity dilemma. The words ?Nero fiddled while Rome burned? come to mind.

Instead of embracing a national plan to assess the veracity of predictions and speculations, to assess potential impacts to Canadian institutes and our well-being and to propose even modest mitigative measures to blunt the potential catastrophe, we must listen to and watch the daily prattle and antics of our would-be leaders. There is no national strategy. And as a further insult to Canadians, the one knowledgeable voice in this charade is, alas, not allowed into the circus ring.

Elizabeth May has lived and breathed climate change since the mid-80s. Her counsel is ignored. Furthermore, we have actually rejected the work of the international body, the United Nations' Framework Convention on Climate Change (UNFCCC). That organization draws together the global assessment of risk, of current damage and of mitigative options. Apparently we prefer to wallow in squabbles and ignorance. We, who just 25 years ago, were in the vanguard in the development of rational global approaches and widespread environmental documentation, have abandoned our former leadership post. I just don't get it.

In order to remind us of some of the evidence at hand we have the following:

? The Northwest Territories and northern British Columbia have been on fire most of the past summer.

? Southwestern Manitoba and southeastern Saskatchewan had massive floods in the last months.

? Arctic ice cover and ice volume have been declining over the last three decades. In the case of ice cover, it has been declining since about 1950.

? In Greenland ice is disappearing at an alarming speed. During the summers of 2012 and 2013, the Jakobshavn glacier was moving at a rate of 4 m per day (17 km. per year) towards the sea.

? Over the past spring and summer, violent rainstorms have caused extensive damage in many regions across Canada.

These events and many more are noteworthy individually. Taken together they are cause for alarm, if not panic. The events are related directly or partially to climate change.

Locally we have had some bad experiences but in general do not worry too much about the long-term implications of these sporadic outbursts of nature. But there is no free lunch. There can be immediate personal consequences associated with these events, such as a rise in taxes and property insurance.

If you want to learn about climate change and its long-term impacts don't ask your politicians, don't ask your local scientist, ask your home insurance agent (simplyinsurance.com has fast home insurance rates worth checking if renewal time is coming up). The global insurance industry studies trends in claims associated with flooded basements, floods, windstorms, forest fires, crop loss, etc. With that information present-day coverage costs are calculated. Insurance companies don't need to know what scientists predict. They have no political angle. They try to provide a service that is fair and yields a profit. It's a service that alleviates the pain of misfortune by distributing that pain among a larger group of individuals. In truth, their premiums can be an excellent objective indicator of the implications of climate change, though the agents may ignore the issue itself.

To some it may seem that over the past year or so, the chatter about climate change has exploded without any warning. This notion could not be further from the truth. Fourteen years ago I was one of a group of five people contracted by the government to assess Canada's ?Vulnerability and Adaptation to Climate Change? in the water sector. Essentially we were asked to examine what was happening, what might happen and advise on what we should do. The 140-page report was delivered in June 2002. The report was based on a synthesis of 250 scientific papers, many meetings with special interest groups and a workshop in Yellowknife. Our report identified regional vulnerabilities and suggested some of the adaptive measures which we might take. The proposals for action and the identification of responsibilities were quite specific though not intending to be complete. Rather, the report presented a guide for all of us from which we can start taking charge of a crisis which is getting out of hand.

We worked somewhat separately on individual aspects. I was not involved in the assessment of future predictions derived from computer models. When I read the climate predictions I was surprised at their specificity. I have only a limited understanding of these large complex computer models which are developed at centers in North America and Europe. They are undertaken only in places where inordinate computer capacity is available. Their predictions are remarkably accurate. A few examples are:

? Less frequent showers and more frequent heavy downpours in specific parts of Canada, for example, southwestern Ontario. In the last few months we have had record floods in several southwestern Ontario towns.

? Droughts will occur in northern British Columbia and in the Northwest Territories. The unprecedented number of forest fires in this region is testament to the lack of rain.

? The Great Lakes levels will fall. In part this is due to greater evaporation from the lakes due to diminishing ice cover in the winter with implications for power production at Niagara and shipping restrictions.

? Widespread infrastructure damage will be associated with permafrost melting in the Arctic. A growing annual problem in Yellowknife is road slump.

? Temperatures in the Arctic are rising above historic levels and sea-ice will disappear at an alarming rate.

The Arctic references deserve a further word. The melting of permafrost makes road transportation extremely difficult and road maintenance nearly impossible. With warming, ice roads can no longer be constructed. The winter road to the diamond mines 400 kilometres north of Yellowknife is at risk. If the annual 8,000 to 10,000 truckloads of materials and supplies cannot be delivered in the 6 to 8 short weeks each January and February, the enterprise will need to develop other options. Diamond mining represents nearly 30% of the GDP of the Northwest Territories (\$3.3 b, 2010).

Sea ice disappearance has grave sovereignty implications. The Arctic Archipelago, with over 36,000 islands, represents nearly 15% of the area of Canada. As long as the Canadian islands in the Arctic were ice bound, they were part of our ?true North strong and free.?

What is going to happen as the ice disappears? We always have enjoyed the idea of having the Arctic up there for us to use whenever we felt like it. When we have open waters for hundreds of kilometers in every direction there may be many other interested parties snooping around charting the unknown, but highly anticipated phenomenal mineral wealth in this Canadian treasure house. Can we maintain our sovereignty? Can we rely on the loyalty of those who have lived there throughout history and have been shamelessly neglected by us over the last 200 years?

On Sept. 23, the World Climate Summit occurred at UN headquarters in New York. The preamble to the meeting underscores the urgency of our current situation and calls for courage and wisdom:

?Climate change is not a far-off problem. It is happening now and is having very real consequences on people's lives. Climate change is disrupting national economies, costing us dearly today and even more tomorrow. But there is a growing recognition that affordable, scalable solutions are available now that will enable us all to leapfrog to cleaner, more resilient economies.

?There is a sense that change is in the air. UN Secretary-General Ban Ki-moon has invited world leaders, from government, finance, business, and civil society to Climate Summit to galvanize and catalyze climate action. He has asked these leaders to bring bold announcements and actions to the Summit that will reduce emissions, strengthen climate resilience, and mobilize political will for a meaningful legal agreement in 2015. Climate Summit provides a unique opportunity for leaders to champion an ambitious vision, anchored in action that will enable a meaningful global agreement in 2015.?

For more than a decade we have snubbed the work and concerns of world bodies such as the United Nation Framework Convention on Climate Change, the UNFCCC. I wonder what our bumbling nation will have to say and contribute to this gathering tomorrow, in the event that we show up at all.

Why not:

? Call your Member of Parliament and ask what Canada intends to do about climate change.

? Call your property insurance agent and confirm that you are covered for climate change related property damage.

? Read the report discussed above ?Vulnerability and Adaptation to Climate Change.? It can be found at the University of Waterloo at http://www.env.uwaterloo.ca/research/aird/aird_pub/Water_Sector_Vulnerability_and_Adaptation_to_Climate_Change.pdf

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