



The Daily Gleaner

October 16, 2010

Our Climate Future: Adapt & Prosper

How is climate change affecting our environment and our economy? What should we do as a nation and provinces to prosper as the world's climate shifts? These questions are at the heart of several initiatives undertaken jointly by The Royal Canadian Geographic Society and the National Round Table on the Environment and the Economy (NRTEE), an independent agency that advises the federal government and other stakeholders on sustainable development.

October's issue of *Canadian Geographic* (www.canadiangeographic.ca) focuses exclusively on this groundbreaking work, and it is well worth the \$7.95 you will spend to buy the issue so you can read it for yourself. It is groundbreaking in a Canadian context because it is the result of rigorous analyses of two decades' worth of Canadian climate change research and modelling; and is the first work to focus comprehensively on expected impacts of climate change in Canada.

To punctuate this research, the Summer of 2010 gave us a myriad of climate-related disastrous scenarios around the world. The heat wave and related deaths in Moscow; the floods in Pakistan displacing millions; and devastating mudslides in China all captured international headlines. But here at home severe climate events dotted our landscape as well: BC and Quebec forest fires; flooding in Saskatchewan; and record heat and humidity across the country causing hundreds of fatalities.

Whether they were random acts of nature or the result of human-induced conditions, these and other devastating environmental events have enormous social and monetary implications. And as the research in *Canadian Geographic* indicates, the frequency of such events is increasing, so it is crucial that we find a way to minimize the havoc they wreak on our economy and our society.

Back in 2009 the prestigious medical journal *The Lancet* caused a stir when it stated that "climate change could be the biggest global health threat of the 21st century". Increasing incidences of heat-related fatalities, respiratory and heart disease caused by smog, and warmer-climate diseases (e.g., Lyme disease, E. coli, malaria) are all projected to take a huge toll on societal health, and resultantly healthcare costs.

Something called 'the urban heat island effect' is now being experienced in our large Canadian centers. This means that intensely developed urban areas act as heat islands due to sunlight-absorbing buildings and a lack of green space. *Canadian Geographic* talks about temperatures in parts of Montreal hovering 5 to 10 degrees higher than surrounding areas. Toronto is promoting green roofs (roofs covered with vegetation instead of tar or shingles) as a way to reduce the heat island effect, and have determined that widespread implementation could lower the city's average temperature by up to two degrees.

Are you wondering about a silver-lining in all of this? Well, climate change doesn't exactly have one that fits everyone's bill. But if we are smart and innovative we will adapt and prosper even in a warmer, wetter world. As an example, in a city that values trees, Fredericton is already ahead of the curve when it comes to the heat island effect. With nearly 70 percent forest cover and massive interconnected green space Fredericton temperatures likely won't be subject to this dangerous phenomenon. So protecting our urban forest from diseases and continuing to plant trees and maintain green spaces is critical.

The nature of our economy in Fredericton is also advantageous. We are a low-carbon government, university, technology and knowledge-based city, and this bodes well for our ability to prosper in a carbon-constrained world.

And fortunately, we are not a coastal community, like Halifax, subject to eroding coastlines and storm surges. An article in the magazine titled "In the eye of the storm" is well worth a read, as it talks about how global warming is giving Halifax "a sinking feeling", and how they are seriously planning for a future of rising seas and wild weather.

But we do have to plan around a mighty river that will swell beyond its banks more frequently in the future. That means our infrastructure must be designed accordingly, and riverfront encroachment is likely not a wise idea.

All of this scientific and experiential Canadian evidence means that right now we must think about creating a sustainable future for ourselves. A future in which Fredericton and its citizens can thrive, despite a hotter, wetter and wilder climate. NRTEE describes it best as part of their Climate Prosperity initiative: "This is not just about coping with climate change, but prospering through it."

Fredericton has a real chance to be one of those jurisdictions positioned to thrive and prosper. But we must continue to be vigilant in learning more about what the climate future may bring, and insulating ourselves from its negative consequences while continuing to look for the upsides.

Sonya Hull is a consultant working on the City of Fredericton's environmental and sustainability portfolio. To contact her, e-mail greenmatters@fredericton.ca