

Ontario Centre for Climate Impacts and Adaptation Resources reacts to IPCC report

Businesses, communities, and people in Ontario can see the climate is changing. Ontario can build on existing efforts to help adapt to this change.

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SUDBURY — *The Ontario Centre for Climate Impacts and Adaptation (OCCCIAR) responds to the Intergovernmental Panel on Climate Change's Fifth Assessment Report on [The Physical Science Basis](#) of climate change:*

"This report on the global climate reflects what we're experiencing at the local level," said David Pearson, Science Advisor and Professor of Earth Science at Laurentian University. "Extremes, including heavy rainfall and flash floods, much like the ones that have washed out highways, damaged homes, and isolated communities in Northern Ontario, or led to over \$800 million in insurance claims in Toronto area, are becoming more common, more intense."

Lower levels on the Great Lakes are another local and very tangible consequence of a warmer climate. "Low water levels are a big concern," said Al Douglas, Director of OCCCIAR, who also runs a family-owned lodge on Manitoulin Island. "Recreational users, anglers, boaters and canoeists, know the water levels are low and it's costing small businesses".

Low water levels have forced commercial shippers to run lighter loads because of shallow waters. This could increase shipping costs by 22% by 2030, based on doubling of carbon in the atmosphere.¹ Without more aggressive action to reduce emissions, we are likely to go beyond that point. Water levels can reduce output from clean hydro-electricity plants; 5000 MW of capacity can become 4000 MW in low water years.²

"Ontario cities, communities, and industries know climate change is happening and are beginning to realize they need to adapt in a changing climate. Many of these groups are already taking steps now to adapt," Douglas adds.

"We know that reducing emissions quickly is the lowest-risk option in the short term and long term. But we recognize that we've already added a lot of carbon to the atmosphere, so we need to adapt to the changes in our climate," said Dr. Pearson.

"The rate of warming in the decades ahead, and the magnitude of the impacts we will have to respond to, depends strongly on how much carbon we put in the atmosphere," added Dr. Pearson. "The risks associated with continuing down a path of high emissions and ever greater concentrations of carbon in the atmosphere should be unacceptable to most people. We will be well served, as will future generations, by a concerted effort to cut emissions now," Dr. Pearson concluded.

¹ (The potential impact of climate change on Great Lakes international shipping. Millerd, F. Climatic Change. 2011).

² http://www.thestar.com/news/ontario/2010/05/22/low_water_levels_threaten_power_supply.html.

Burning fossil fuels is the main reason we're trapping too much energy in the earth system, leading to the warming we're already seeing. Over 90% of that excess energy has been absorbed by the oceans and that's showing up in the measurements of ocean temperature. The IPCC's report reviews multiple lines of evidence including ocean temperature increases, melting of sea ice and glaciers, sea level rise, and other observations stemming from climate change. Over 800 experts and scientists conclude there is more reason for concern and not less. "The IPCC report compiles these multiple story lines into a compelling and troubling narrative of a warming earth," said Al Douglas.

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BIO

Al Douglas holds the title of Director at the Ontario Centre for Climate Impacts and Adaptation Resources – OCCIAR. He has been working in the field of climate change impacts and adaptation for 11 years and has partnered with many different organizations in Ontario and Canada to develop and deliver adaptation resources. Specializing in facilitating adaptation planning at the local and watershed level, Al has contributed content to a host of municipal climate change adaptation guidebooks over his career and has held advisory positions on a variety of climate change panels and committees throughout Ontario and Canada. Al also has expertise in climate science; climate change impact, vulnerability and risk assessment; policy development and adaptation planning in natural resource sectors.

Dr David Pearson is a Professor of Earth Sciences and a member of the Co-operative Freshwater Ecology Unit at Laurentian University. He is the Co-Director of the Laurentian University / Science North Graduate Diploma program in Science Communication, and Senior Science Advisor to Science North, where he was the Project Director and then Founding Director from 1980 to 1986.

From 2001 to 2007 David was Chair of the Ontario Office of the Canadian Climate Impacts and Adaptation Research Network at Laurentian University. He is now science advisor to the Ontario Centre for Climate Impacts and Adaptation Resources, and Co-Chair of the Ontario Government's Expert Panel on Climate Change Adaptation. From 2008 to June 2010 he chaired the Science Advisory Panel for Ontario's Far North Initiative. He has hosted two TV series: *Understanding the Earth* (TV Ontario) and *Down to Earth* (Mid Canada TV); and was the scientist for CBC Northern Ontario's weekly *Radio Lab* from 1982 to 1997. In 2000 David received the Geological Association of Canada's Ward Neale Medal for communication of the earth sciences, and in 2003 he was awarded the McNeil Medal of the Royal Society of Canada for public communication of science.