



Illustration by Fred Reibin

Come Hail or High Water

Exchanging insurance and drought knowledge to advance research and its application

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It was the spring of 2022 and I was thinking hard about the outlook for drought on the prairies. One morning I was surprised and pleased to see an email pop up from Caroline Floyd of the Catastrophic Loss Analysis of CatIQ (Catastrophe Indices and Quantification Inc.) -- an organisation that provides detailed analytical and meteorological information about Canadian natural and human-made catastrophes for the insurance industry.

CatIQ hosts an annual Canadian catastrophe conference. They were developing a panel on the insurability issues faced by agriculture in Canada related to climate change. Caroline had seen my work on this topic and, because CatIQ's previous focus had been on floods and meteorological events other than drought, wanted to consider including that threat in their analysis.

Because Caroline reached out to me, I took part in CatIQ's June 2022 event, Catastrophes in Canada: the Big Picture. The meeting brought together some important players when it comes to climate extremes. There, I participated with Public Safety Canada, The Cooperators, University of Waterloo, Global Catalyst, MNP, Canadian Red Cross, and the Canadian Crop Hail Association.

With CatIQ input and co-author Dr. Barrie Bonsal of Environment and Climate Change Canada, we developed a presentation that addressed many aspects of drought, including impacts on agriculture and water resources, dynamics of past and future possible droughts, and risk management options. We drew upon our Global Water Futures (GWF) Precipitation Extremes work for the presentation and discussion.

The audience for the event was mainly insurance industry people, and I learned a lot, for example about the combined effect of hail and drought. When a crop is stunted by drought it is less able to protect itself from hail and recover, so the impacts are more severe.

These interactions of researchers and users open new avenues of research, and possibly, more expansion possibilities for industries.

Bonsal, B, Z Liu, E Wheaton, R Stewart. 2020 Dec. Historical and Projected Changes to the Stages and Other Characteristics of Severe Canadian Prairie Droughts. Past and Future Trends and Variability in Hydro-climatic Processes, Special Issue of Water 2020, 12, 3370; doi:10.3390/w12123370