

Answers to the Questions Posed to Prof. Kent Moore on October 6, 2020

Question: *From Ivor Wright : Have you spoken to Donald Trump?*

Question: *From Tom Watson : We humans seem to be rationally self-interested beings, a trait that leaves us more prone to dealing with the short range than the long range. The tough slug with respect to climate is doing what's necessary long range. What can turn that around, especially given the denial of the human effect upon climate change?*

Answer: I agree Tom that we as a species are programmed to look at the short term not the long term. However, we now have enough data to show that there have been changes in the climate- changes that are accelerating. We now have examples of the economic impact of extreme events. This should be sufficient for individuals to recognize that it is in our self-interest to address the issue of climate change.

Question: *From John Prescott : What causes ice ages; is there one coming in the next decades? Will this save us?*

Answer: John, ice ages occur on scales of 10,000s of years. Typically ice ages have an 100,000 year timescale with ~30,000 years of warm temperatures and about 70,000 years of cold temperatures. We are about 15,000 years into the inter-glacial period and so would not expect a cooling to occur for some time. During an ice age, there is approx. 3 km of ice over southwestern Ontario and so that would also be a rather extreme event!!

Question: *From Ted Pritchard : Many years ago Al Gore attempted to explain Global warming with a fairly easy to understand movie. Many others have attempted to do the same thing. Just about everyone who has attempted a logical explanation for this phenomena has been subjected to ridicule by climate deniers? Why is this concept so hard to accept by the great unwashed?*

Answer: Ted, there are clearly interests who want to confuse the public on this issue. It is important for people to understand when they are receiving biased or misleading information on climate change. The issue that I spoke of regarding the temporary rebound in sea ice after the 2012 minimum is an example of misleading information. Like all other areas of human endeavour, we need to more critical of the information we receive.

Question: *From Howard Johnson : It seems that we are headed to Armageddon. What should we do or what can individuals do that can make a difference?*

Answer: Howard, I believe that individuals can make a difference by reducing their use of carbon-driving our cars less and taking public transit. We also need to continue to pressure our governments to take climate change seriously.

Question: *From Howard Johnson : Some years ago I was with my son and we hiked what was know as the Burg Lake Trail, one on the most difficult physical things I have ever done. At the Burg Lake, some 1,00 meters above the start you could see the glaziers that made up the lake and see the decline of them written on the walls of the mountains. At night we found that it was difficult to sleep as there was so much noise from the glaciers calving off the glaciers*

Answer: You are correct Howard, glaciers are excellent ways to see the impact of changing climate. They respond on timescales of decades and so are not so sensitive to short term fluctuations. When you see a retreat of a glacier, you are looking at a long-term change.

From Alex Smith : Great Presentation. Wish we had more time.

Thanks.