Climate Change Realities

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Political reality must be grounded in physical reality, or it's completely useless'

Prof. Hans Joachim Schellnhuber, Founder, Potsdam Institute for Climate Impact Research

So what is climate change reality today?

What has been the policy response?

What is really required?

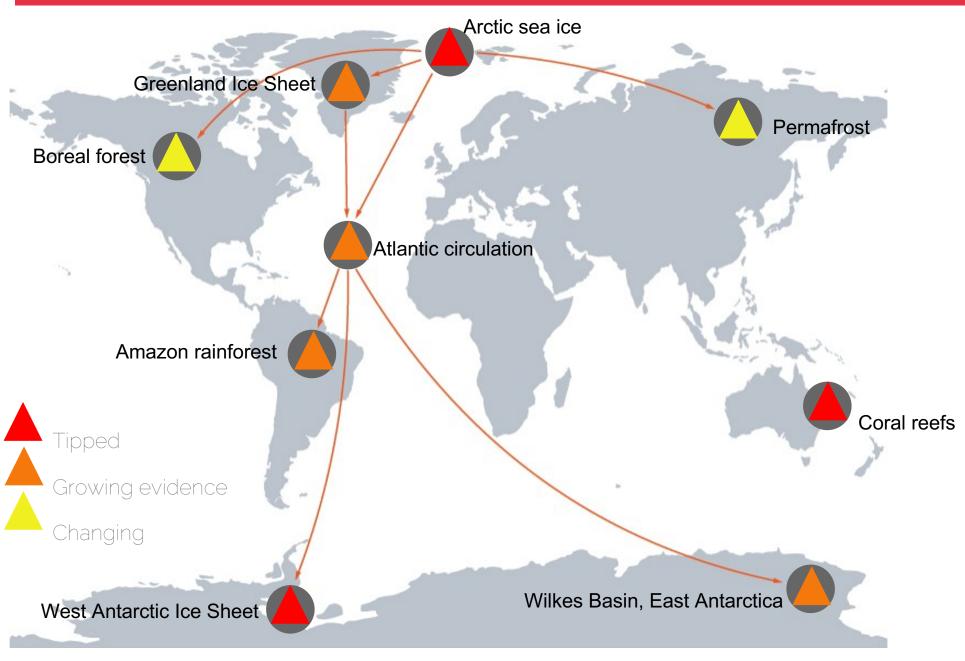
Paris Climate Agreement objective is to keep global temperature increase:

"well below 2°C above pre-Industrial conditions and to pursue efforts to limit the increase to 1.5°C"

Science

- 1. 1.5°C global temperature rise will occur before 2030, irrespective of actions taken in the interim.
- 2. 2°C is likely prior to 2050, even with actions better than the current Paris Agreement commitments, 3°C in the early-to-mid second half of the century on current emissions trajectory, with 5°C possible before 2100.
- 3. Even substantial emission reductions will have no significant impact on the warming trend over the next 20-25 years, due to the offsetting effect of aerosols.
- 4. The current 1.2°C of warming is already dangerous; 2°C would be extremely dangerous; 3°C catastrophic; and 4°C unliveable for most people. Australia was already 1.5°C in 2019.
- 5. "Hothouse Earth", non-linear, irreversible, self-sustaining warming may be triggered by tipping points between 1.5–2°C. There is a risk that we have already lost the ability to prevent accelerating warming.

Climate Tipping Points



Policy Implications

- 1. A target of net zero emissions by 2050 is totally inadequate. NZE must be achieved as soon as possible, ideally by 2030.
- 2. A government's first priority should be the security and prosperity of the people. Climate change is the greatest threat to that secure future. The threat is immediate, not years ahead.
- 3. Climate inertia means impact of increased atmospheric carbon takes years to manifest itself. We cannot avoid escalating impacts due to past emissions. Priority must be to prevent matters becoming worse
- 4. In addition, atmospheric carbon must be reduced from 500ppm CO₂e toward a more stable 350ppm. Technology to do that is in its infancy, hence greater risk.
- 5. May have to resort to geoengineering to cool parts of the planet before other measures take effect

Policy Response



Political Unreality



7. The failure to seriously address climate change is the greatest threat to the security of present and future generations of Australians – far greater than China or the lack of submarines.

Actions Required

Societies that are successful in overcoming the pandemic threat do so by making it the highest priority of politics, economics and society, based upon the best available science.

Climate change, a much bigger threat, requires the same. It is not just one more item on the political agenda, but an existential threat to our society.

- 1. Assess the real risks with brutal honesty.
- 2. Accept that climate disruption requires emergency mobilisation, akin to wartime.
- 3. Act fast for net zero emissions by 2030.
- 4. Stop all fossil fuel expansion, rapidly reduce fossil fuel use
- 5. Build capacity to draw down carbon.
- 6. Research geoengineering possibilities.

We have technology and solutions which now offer enormous social and economic benefits.

But only if we stop climate denial, and act to implement them. "There is much discussion about how much carbon budget there is left to burn.

There is none, we have already burned far too much. We need to go into reverse."

"What we do in the next 3-5 years will determine the future of humanity".



breakthroughonline.org.au

climaterealitycheck.net



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Sir David King Former UK Chief Scientist February / March 2021