

Towards a 'One Planet' region: A Community Conversation series



Image credit: Matt Jiggins via Flickr

Doom and Gloom: The growing climate crisis

Trevor Hancock

13 September 2018

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A shortage of grass in Ireland

I am in Ireland and in the rural area where I grew up. Last night I was kept awake by the cows in the next door dairy farm calling and calling because they were hungry. Hungry in early Sept in Ireland – you say – with all that grass! As it turns out there has been a serious drought in Ireland this year and that came after a viciously cold long winter. Farmers here tell me that animals are already being sent to the factory because of lack of feed and that the winter will bring starvation for animals if they are not shipped off in time and many farmers will go to the wall. . . . /

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A shortage of grass in Ireland-2

The idea of there being a shortage of grass in Ireland at this time of year is unheard of....

Climate change is playing out in different ways in different places. The calls of those cows last night was disturbing – by today they must have been give feed as farmers are now using their winter feed supply to keep going in hope of a late cut of silage at the end of Sept. But it shows how vulnerable things are when the green fields of Ireland are burnt and brown in summer.

Martha McMahon, UVic Prof
August 2018

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Tipping points

Sub-systems with the climate system that contribute to global warming and that can exhibit “tipping point behavior in which the feedback process becomes self-perpetuating after a critical threshold is crossed”.

*Trajectories of the Earth System
in the Anthropocene*

Steffen et al., August 2018

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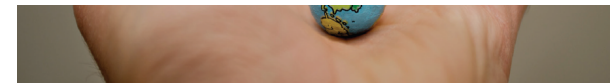
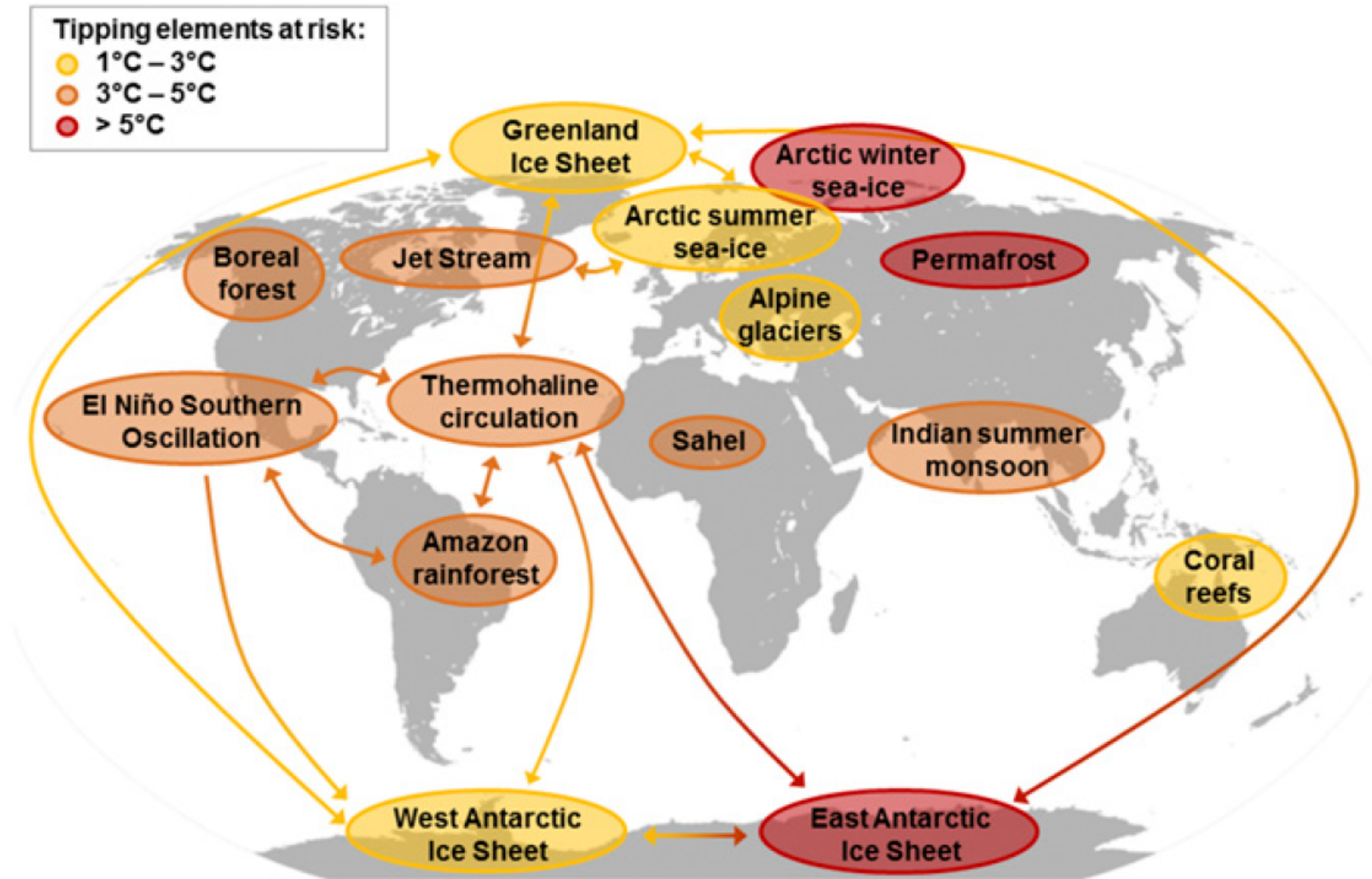


Tipping cascades

“Cascades could be formed when a rise in global temperature reaches the level of the lower-temperature cluster (1 – 3⁰C global warming), activating tipping elements, such as loss of the Greenland Ice Sheet or Arctic sea ice.”



Potential tipping cascades



A domino-like cascade

- “a 2 °C warming could activate important tipping elements, raising the temperature further to activate other tipping elements in a domino-like cascade that could take the Earth System to even higher temperatures.”



Hothouse Earth

- “Hothouse Earth is likely to be uncontrollable and dangerous to many, particularly if we transition into it in only a century or two, and it poses severe risks for health, economies, political stability (especially for the most climate vulnerable), and ultimately, the habitability of the planet for humans.”



We can't easily go back

“if a planetary threshold is crossed toward the Hothouse Earth pathway, accessing the Stabilized Earth pathway would become very difficult no matter what actions human societies might take.”



4 key strategies for a Stabilized Earth

- Enhancing or creating negative feedbacks through carbon sinks
- Reducing greenhouse gas emissions from fossil fuels and other sources
- Modifying Earth's energy balance
- Fundamental changes in societies



Fundamental changes in societies

- Slow or reverse human population growth
- Change consumption behaviour
- Improved governance across scales, including the Earth System level
- Value changes to support transformations to Earth System stewardship
- Technological innovation
- Management and governance philosophies emphasizing adaptiveness, complexity and uncertainty





Breakthrough – National Centre for Climate Restoration, Melbourne, Australia

**An independent think tank
that develops critical
thought leadership to
influence the national
climate debate and policy
making.**

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What lies beneath –

Excerpts from Summary/1

“Human-induced climate change is an existential risk to human civilisation: an adverse outcome that will either annihilate intelligent life or permanently and drastically curtail its potential, unless carbon emissions are rapidly reduced.”



What lies beneath –

Excerpts from Summary/2

“The bulk of climate research has tended to underplay these risks, and exhibited a preference for conservative projections and scholarly reticence IPCC reports also tend toward reticence and caution, erring on the side of “least drama”, and downplaying the more extreme and more damaging outcomes.”



What lies beneath –

Excerpts from Summary/3

But this conservative approach “is now becoming dangerously misleading with the acceleration of climate impacts globally. What were lower probability, higher-impact events are now becoming more likely.”



What lies beneath –

Excerpts from Summary/4

“This is a particular concern with potential climatic tipping points . . . the extreme risks to humanity, which these tipping points represent, justify strong precautionary management. Under-reporting on these issues is irresponsible, contributing to the failure of imagination that is occurring today in our understanding of, and response to, climate change.”

(p 40)



Deep Adaptation: A Map for Navigating Climate Tragedy

27 July 2018

Professor Jem Bendell BA (Hons) PhD

- Institute of Leadership and Sustainability (IFLAS), University of Cumbria, UK
- Professor of Sustainability Leadership, Department of Business, Law, Policing and Social Science

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A near term collapse in society

An analysis of recent studies on climate change “leads to a conclusion there will be a near term collapse in society with serious ramifications for the lives of readers”

Bendell - *Deep Adaptation*

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Decline and collapse as a plausible scenario

- I have worked as a futurist for many years, using plausible scenarios
- Decline and collapse is a plausible scenario that **NOBODY WANTS TO TALK ABOUT**
- But we need to consider it plausible and work to avoid it and prepare for it



The reformist approach is redundant

- “Recent research suggests that human societies will experience disruptions to their basic functioning within less than ten years due to climate stress.”
- “This situation makes redundant the reformist approach to sustainable development and related fields of corporate sustainability that has underpinned the approach of many professionals.” -

Bendell - *Deep Adaptation*

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The Deep Adaptation Agenda

- “consider collapse as inevitable, catastrophe as probable and extinction as possible”

Bendell - *Deep Adaptation*

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Three key aspects of Deep Adaptation

- **Resilience - how do we keep what we really want to keep?**
 - the capacity to adapt to changing circumstances so as to survive with valued norms and behaviours
- **Relinquishment - what do we need to let go of in order to not make matters worse?**
 - letting go of certain assets, behaviours and beliefs where retaining them could make matters worse
- **Restorations - what can we bring back to help us with the coming difficulties and tragedies?**
 - rediscovering attitudes and approaches to life and organisation that our hydrocarbon-fuelled civilisation eroded

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Facing adversity, finding hope

“Hope is . . . the commitment to positivity in the face of adversity”

Dutt and Brcic, 2014

- **Robert and Todd will speak to this**



Messages of hope

- 1. The shift to a more ecologically sustainable society results in health gains from a healthier way of living.**
- 2. We have successfully helped to create major societal shifts in favour of health before.**
- 3. We are not alone; we have many potential partners.**

- 4. For the most part we know what needs to be done, indeed we have known for a very long time**
- 5. We have made some progress, there are in fact many examples of people, organisations, businesses, communities, cities, even entire nations, who are doing the right things and setting an example.**