



## Rethinking International Security in a Climate-Disrupted World



Carol Dumaine  
Adjunct Faculty, The Johns Hopkins University  
Paul H. Nitze School of Advanced International Studies  
Washington, D.C.

18 November 2018  
NATO Parliamentarians' Assembly  
Halifax, Nova Scotia

Photo by [@mrdougellin](https://www.instagram.com/p/Bp-RdgJHO64/) <https://www.instagram.com/p/Bp-RdgJHO64/>

# World leaders gather in Paris a century after WWI Armistice

More than 60 world leaders are scheduled to gather at precisely 11am, a century after the ceasefire.



French President Emmanuel Macron, left, welcomes United Nations Secretary-General Antonio Guterres (Thibault Camus/AP)



“Nationalism is the exact opposite of patriotism.” - President of France

## **A Theme: Considering The Frames Through Which We View Climate Change**

- What does “National Security” or “International Security” mean in a planetary emergency?
- Are these the right lenses through which to fight the climate change threat?
- Do our inherited paradigms help us deal with a threat that is outside of human experience?
- Who “owns” the problem & responsibility of charting a way forward?

## KEY GLOBAL CHALLENGES: LOOMING CRISES/NEW OPPORTUNITIES

Degraded environment & climate change impacts

Global financial contagion

Public health

Rising unemployment/underemployment

Laws, norms and human rights

Poor governance

Risks of food and water crises

Violent extremist ideologies/terrorism

Violent conflict

Biodiversity redistribution

Displacement of people

Digital domain and cybercrime

Rise of antibiotic resistant bacteria

Rise of nationalist populism



Some of the leaders watch an Italian flying squadron at the summit. All photos: AFP

### Interlocking Global Challenges...

### Mounting Pressures on Existing Governance Mechanisms



## A Stable Climate Has Made Civilization Possible...

Adequate supplies of fresh water for drinking, irrigation, and sanitation are the most basic prerequisite for human habitation.

But when governments are ineffective, instability increases

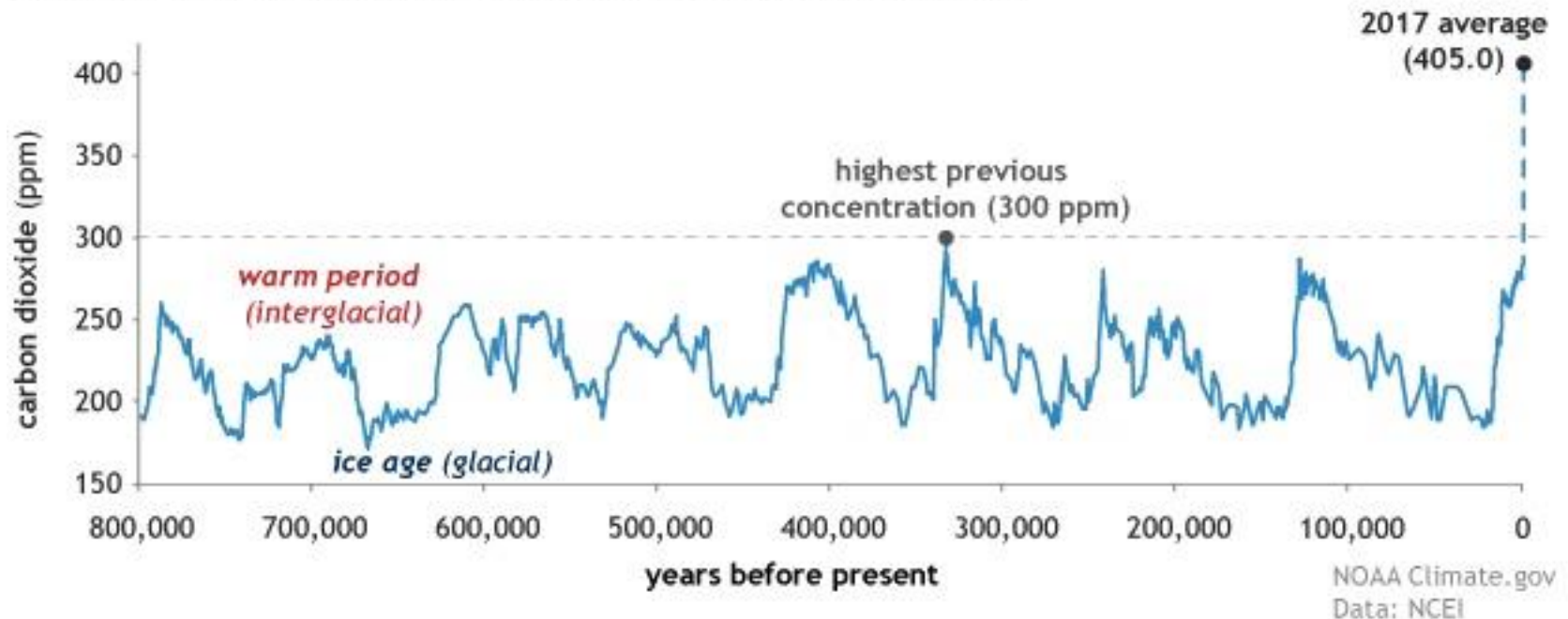
Vulnerable coastal areas  
Sea level rise  
Contamination of groundwater  
Mass migrations  
Displacement of people  
Indirect impacts on disease spread  
Fragile governments & infrastructure  
Declining food production  
Scarcity of clean water  
Sustained natural and humanitarian  
disasters



## Living in a Different World

The global average atmospheric carbon dioxide in 2017 was 405.0 parts per million (*ppm* for short), with a range of uncertainty of plus or minus 0.1 ppm. Carbon dioxide levels today are higher than at any point in at least the past 800,000 years.

CO<sub>2</sub> during ice ages and warm periods for the past 800,000 years



# How to "Plan" in Uncharted Territory?

Global Agenda | Climate Change | Environment | Global

## These extreme weather events show that our climate is in 'uncharted territory'



2016 was the year for record shattering climate events.

Image: REUTERS/Rodrigo Garrido

24 Mar 2017

**Alex Gray**  
Formative Content

We know that 2016 was [the hottest year on record](#) - a remarkable 1.1°C above the pre-industrial period and 0.06°C above the previous record set in 2015. Unfortunately, this was not the only climate record that was shattered last year

Source: [https://www.weforum.org/agenda/2017/03/record-breaking-climate-events-in-the-last-year?utm\\_content=bufferf6d97&utm\\_medium=social&utm\\_source](https://www.weforum.org/agenda/2017/03/record-breaking-climate-events-in-the-last-year?utm_content=bufferf6d97&utm_medium=social&utm_source)



## “Security” and “Climate Change”



“We already live in an “age of consequences,” one that will increasingly be defined by the intersection of climate change and the security of nations,” —



**The Age of Consequences: The Foreign Policy and National Security Implications of Global Climate Change, 2007,**  
published by Center for Strategic & International Studies and Center for New American Security



# Extreme global weather in 2010-2011 led to all-time high global food prices



The global cost of wheat had been climbing since summer 2010, when drought and bushfires laid waste to crops in Russia, Ukraine, and Kazakhstan... (from The Arab Spring and Climate Change, February 2013)



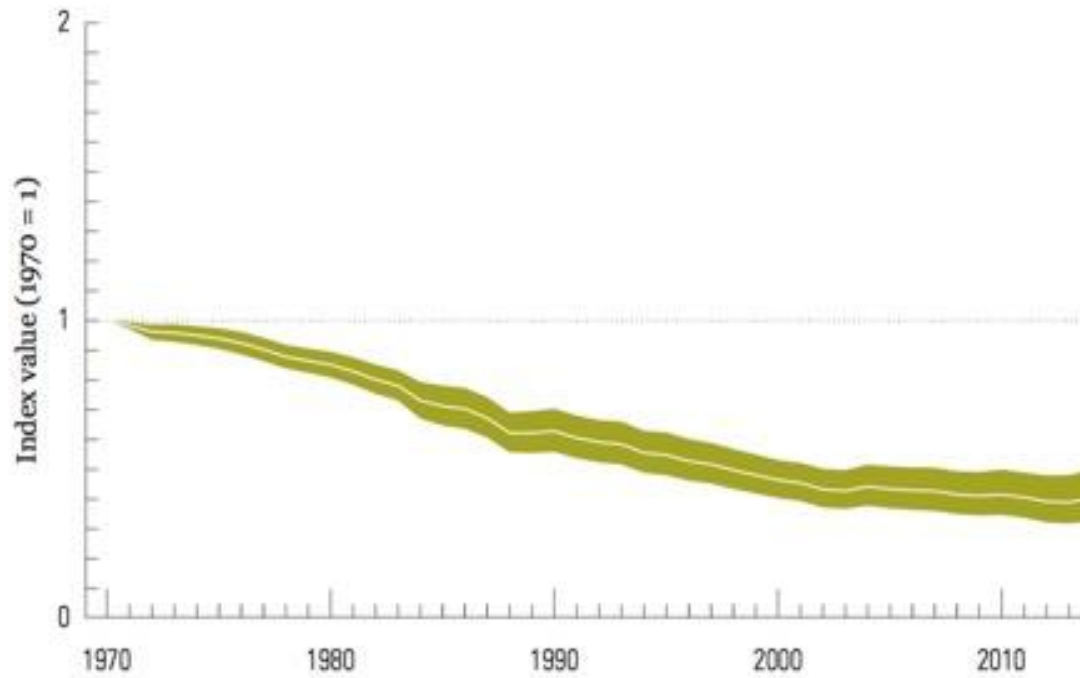
# IPCC Special Report on the Impacts of Global Warming of 1.5 degrees C above pre-industrial levels

## Summary for Policymakers, 6 October 2018

### Key Findings

- “Global warming is likely to reach 1.5 degrees C between 2030 and 2052 if it continues to increase at the current rate. (high confidence)
- “Estimate anthropogenic global warming is currently increasing at 0.2 degrees C (likely between 0.1 degrees C and 0.3 degrees C) per decade due to past and ongoing emissions.” (high confidence)
- “Warming greater than the global annual average is being experienced in many land regions and seasons, including two to three times higher in the Arctic... (high confidence)
- “Warming from anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term change in the climate system, such as sea level rise, with associated impacts (high confidence)...”
- “Future climate-related risks would be reduced by the upscaling and acceleration of far-reaching, multi-level and cross-sectoral climate mitigation and by both incremental and transformational adaptation.” (High confidence)

## An Average Loss of 60% of Vertebrate Species Since 1970



**Figure 7: The Global Living Planet Index, 1970 to 2014**

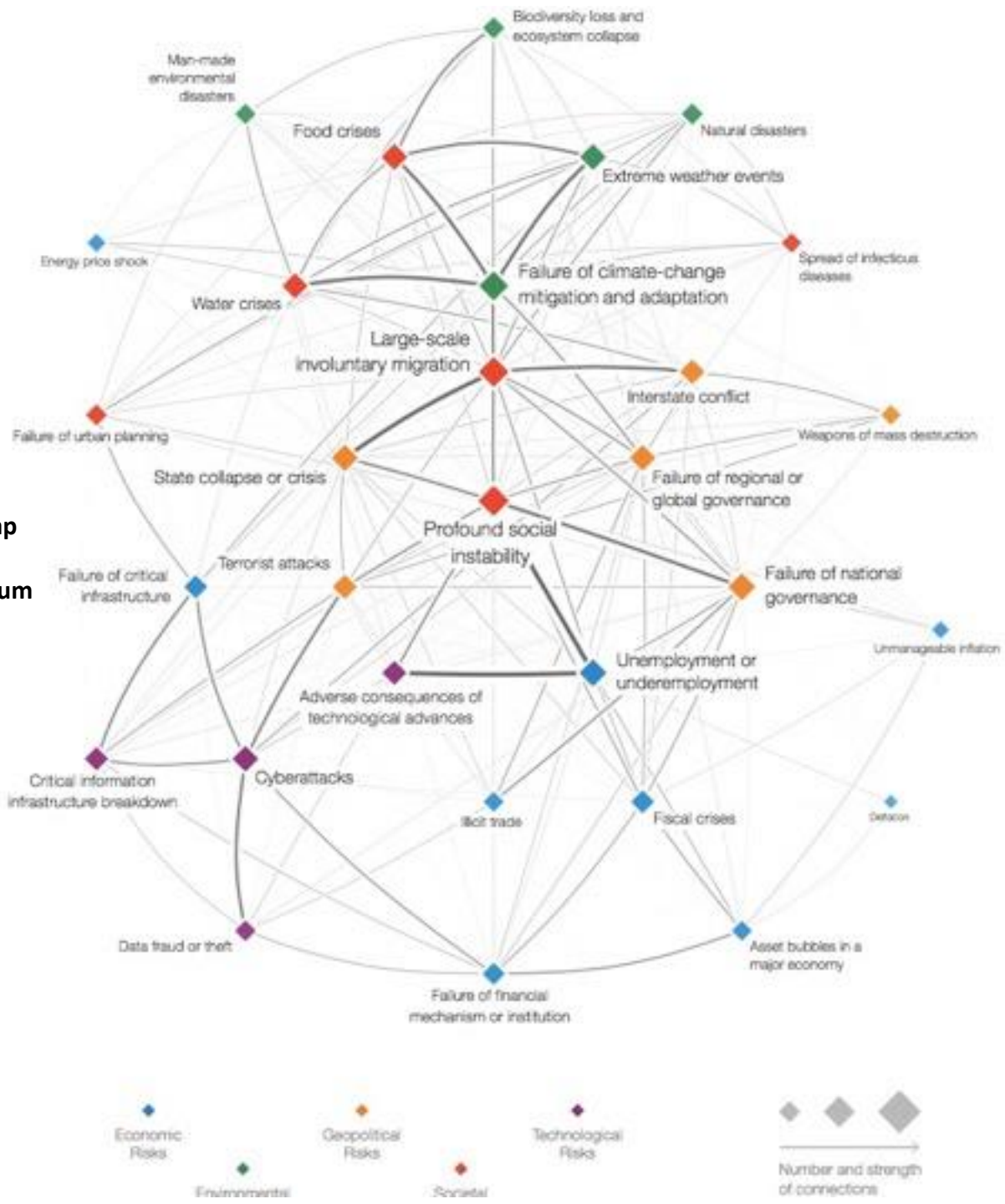
Average abundance of 16,704 populations representing 4,005 species monitored across the globe declined by 60%. The white line shows the index values and the shaded areas represent the statistical certainty surrounding the trend (range: -50% to -67%)<sup>34</sup>.

**Key**

- Global Living Planet Index
- Confidence limits



**Global Risks  
Interconnections Map  
2018,  
World Economic Forum**



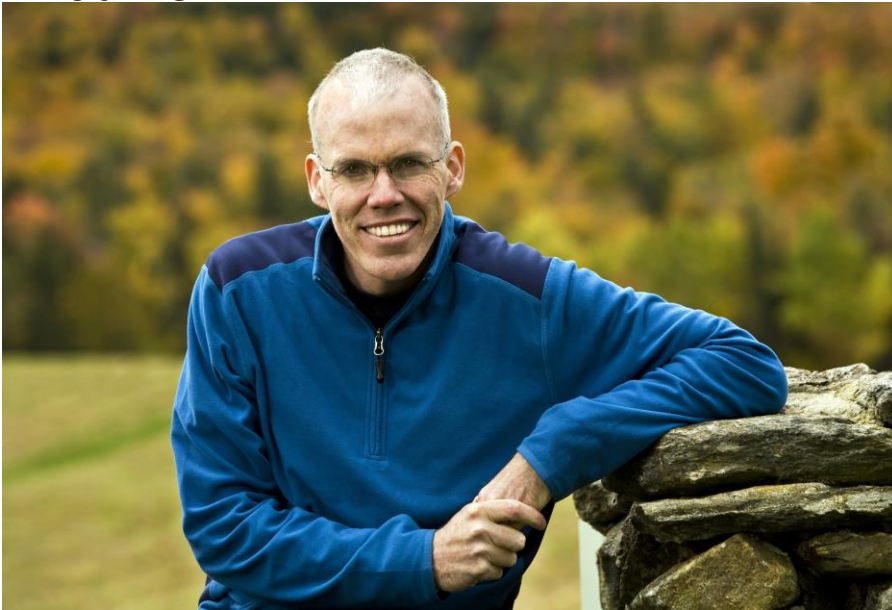
“Climate change is a global threat to security in the 21st century. We must act quickly to limit the future risks to the planet we share and to the peace we seek. “

**-- A New Climate For Peace: Taking Action on Climate and Fragility Risks,  
An Independent Report commissioned by the G7 Members, 2015**

## Voices Raising the Alarm on Climate Change

“By most of the ways we measure wars, climate change is the real deal: carbon and methane are seizing physical territory, sowing havoc and panic, racking up casualties and even destabilizing governments...

And, like...war, climate change demands the massive and immediate mobilization of American industry...like the mighty Manhattan Project”, from “A World At War,” **The New Republic**, 15 August 2016, <https://newrepublic.com/article/135684/declare-war-climate-change-mobilize-wwii>



Bill McKibben, environmentalist and author, **The End of Nature** (2014)



## Greta Thunberg, Climate Activist (age 15)



*Greta Thunberg's protest outside of Sweden's parliament building has made climate change a topic of that country's daily conversation.*

Photograph by Anders Hellberg

“If adults don’t care about my future, why should I?” – Greta Thunberg on school strike she organized in Sweden

## Developing Needed Responses

- A **strengthened partnership with the United Nations** using as springboards the tenets of the Paris Climate Summit in 2015, the Sustainable Development Goals, and the Shared Socio-economic Pathway scenarios of the IPCC Special Report
- 
- A **semi-autonomous inter-institutional strategic foresight platform** serving at a summit-like level and connected to NATO, the NATO Parliamentary Assembly, the UN and young professionals' organizations (e.g, in foreign policy, diplomacy, international security, food and agriculture, renewable energy technologies, etc.) both inside and outside these institutions.
- 
- **An anticipatory risk assessment function**, enabling early warning, recognition, and response capabilities among all stakeholders, including the UN

**Such an Inter-institutional approach also would:**

**Adopt a global framework, inclusive of earth systems science and diverse participation**

**Boost international cooperation**

**Oversee strategic global change assessments (including climate change)**

**Emphasize systems literacy in the science and behavior of interconnected systems**

**Update risk assessment capabilities**

**Build climate-smart infrastructure**

**Expand public health preparedness**



## Some issues outside a traditional “security” lens

- Implications of an unstable climate for assumptions, disciplines, business sectors, educational priorities, “lost generations,” and supply chains
- Global interconnectedness, systemic risk, unpredictability
- Interlinked second and third order effects, causing stresses and shocks in global system. Eg., Arab spring, distressed migration
- Interconnectedness with issues of economics, international law, human rights, preventative engagement, health, food security, and values
- Unsustainability of fossil-fueled corporate model of development
- Risks of stranded assets & managing a rapid transition to a low-carbon economy
- Unequal impacts of climate change on most vulnerable populations, including in the developed world
- Intergenerational issues of justice and inequality
- Destruction of, including irreversible damage to, coral reefs, animal species, plants
- Magnitude of extreme weather disasters, costs incurred, and time needed to recover – issues taken up by reinsurance industries and municipal bond markets
- Climate change’s amplification of weaknesses in societies and their governments and acceleration of impacts cascading across interlocking systems