

# A Call to Action: Understanding the Human Impacts of the Climate Emergency





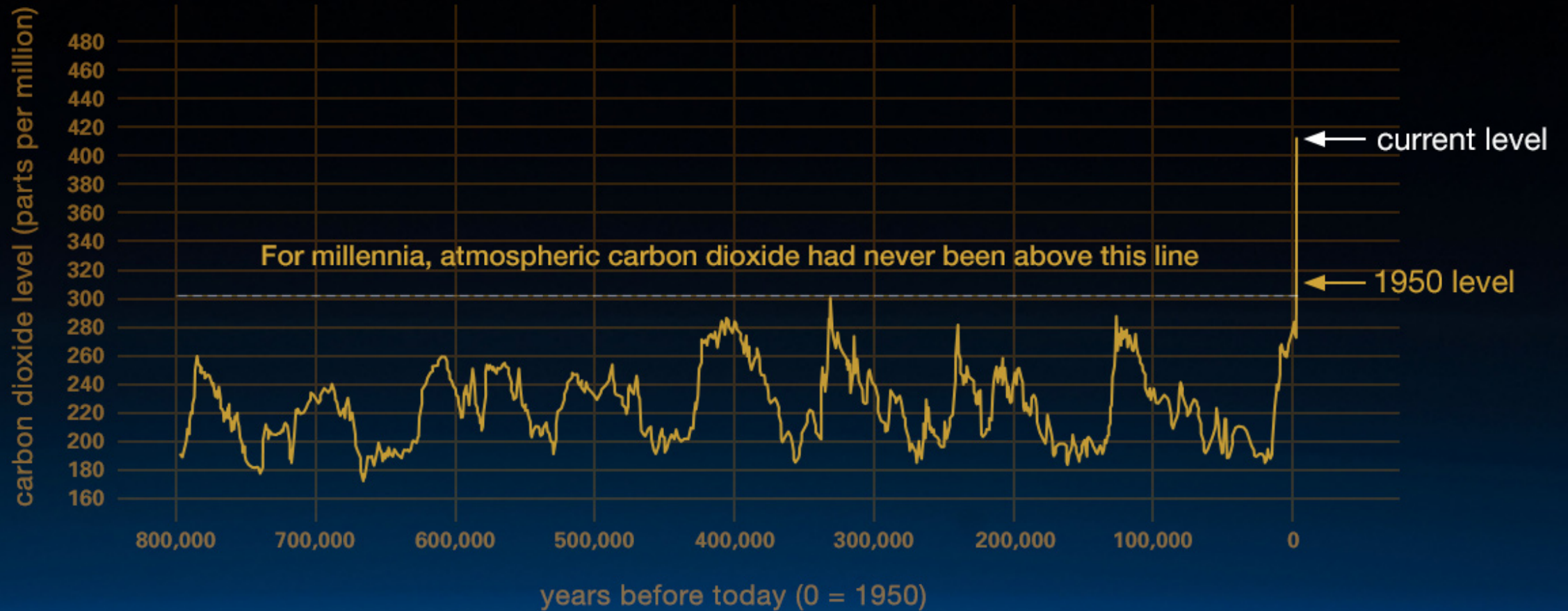
---

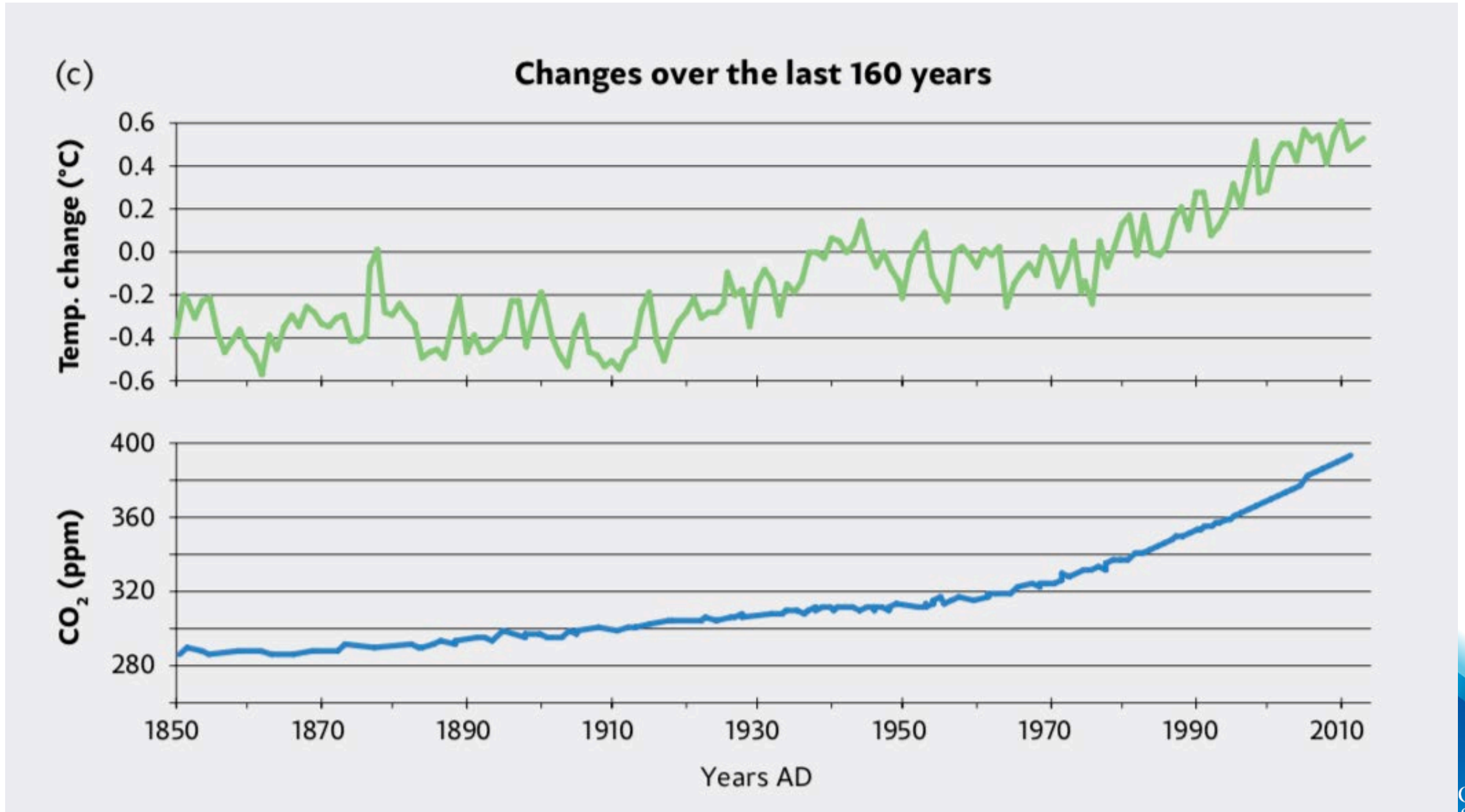
# The Ecological Crisis

# The Climate Emergency

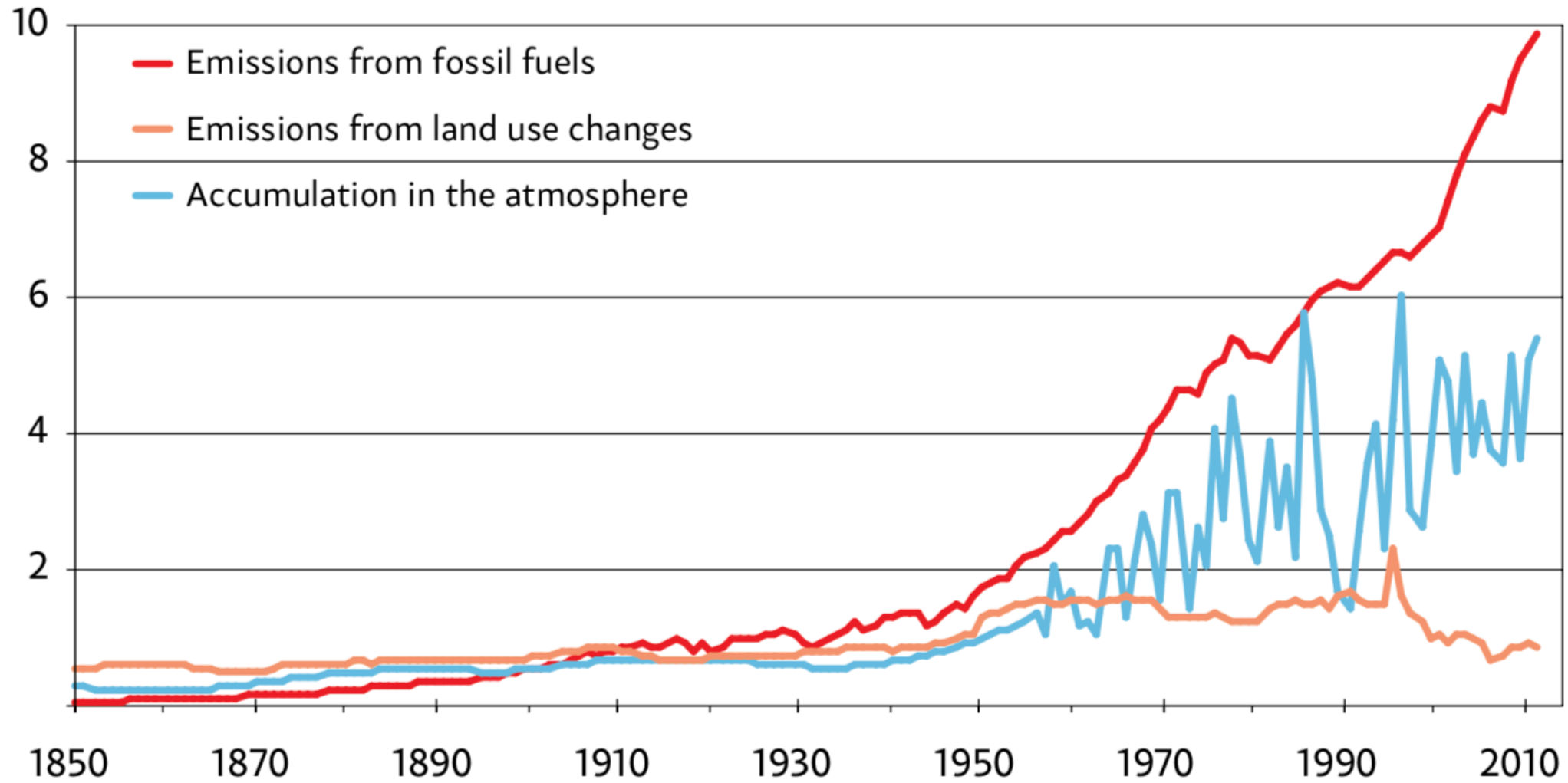


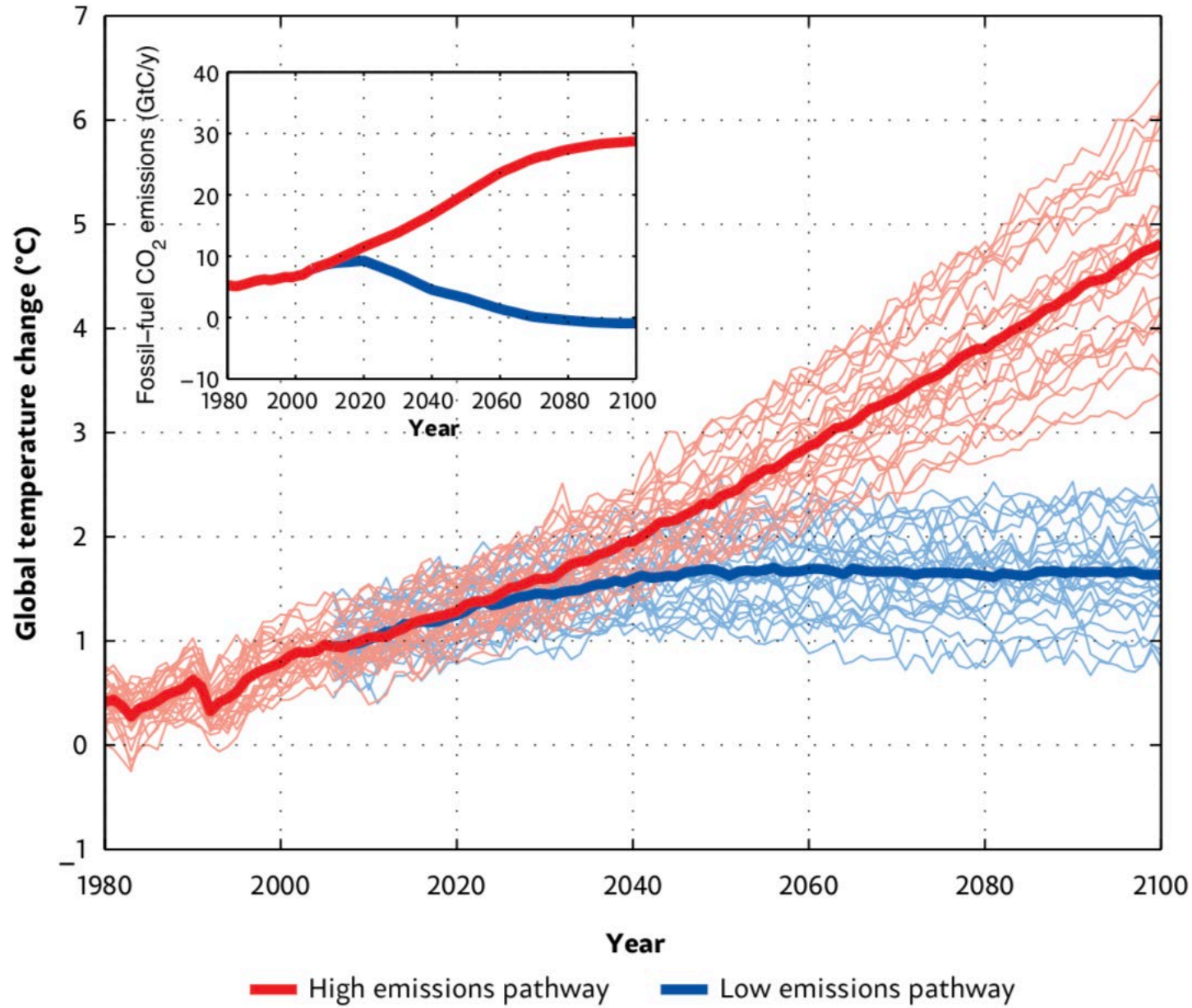
# Climate Change





## Atmospheric CO<sub>2</sub> sources and accumulation

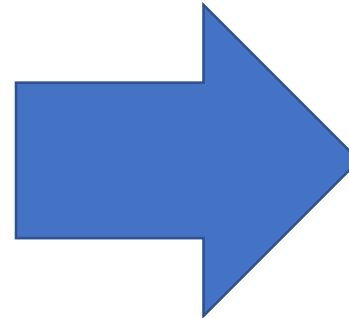




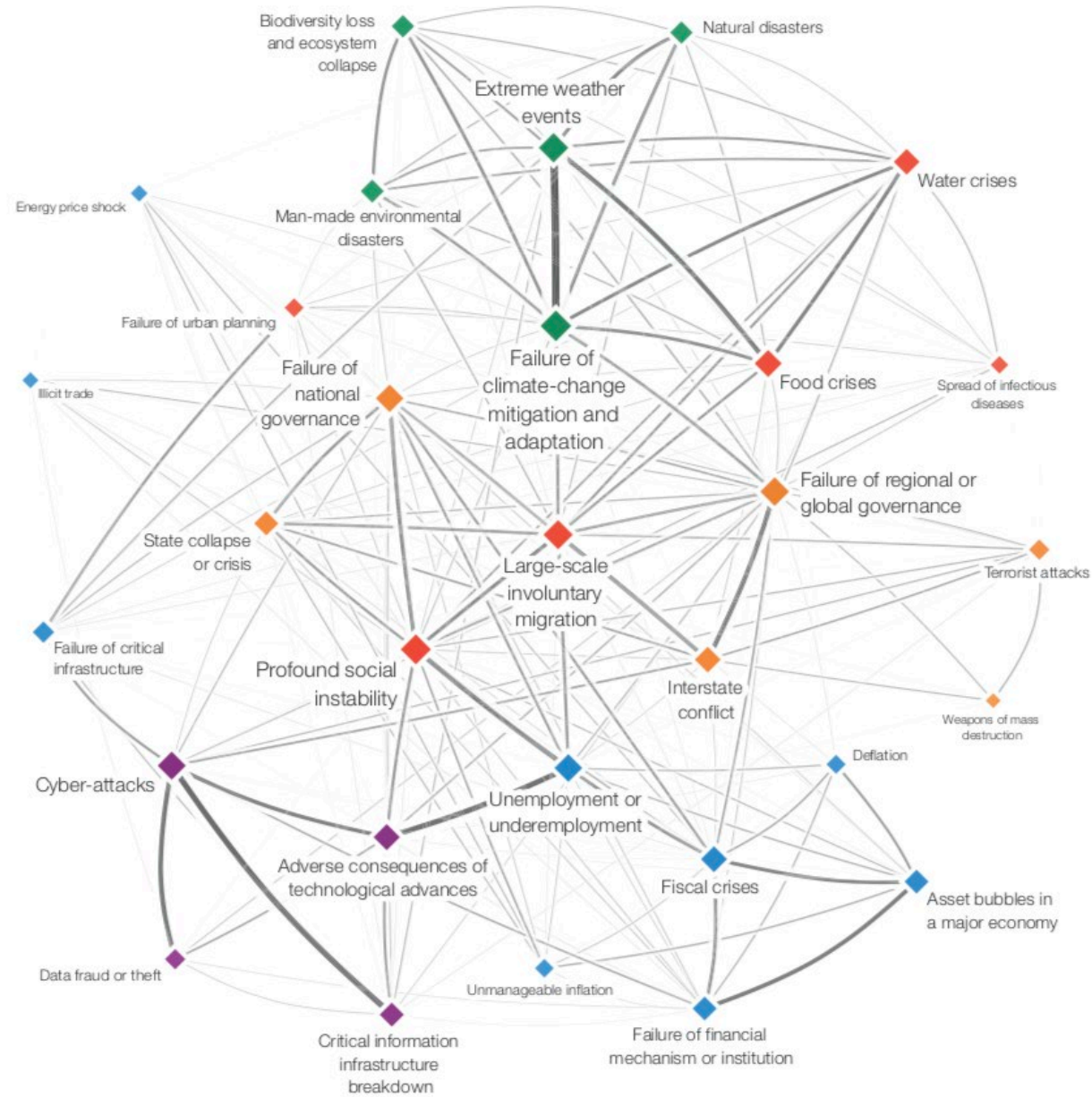


# Impacts of Climate Change

- More frequent and extreme heat
- Rising seas and increased coastal flooding
- Longer and more severe bushfires
- More frequent and more severe cyclones and storms
- Significant and widespread health impacts
- Destruction of marine ecosystems
- More severe droughts in some areas
- Impacts on groundwater supplies
- Disruption to food supplies
- Species extinctions (biodiversity loss)



**Exacerbate  
Existing  
Inequities and  
Disadvantage**



# Sea Level Rises

According to the IPCC, the mean sea-level rise between 1901 and 2010 was 1.7 millimetres per year (mm/y). Between 1993 and 2010 it was 3.2 mm/y.

a 2°C increase will cause sea levels to rise between 0.30 metres and 0.93 metres by 2100. Other research suggests this rise could be as much as 2 metres even with warming below 2°C.

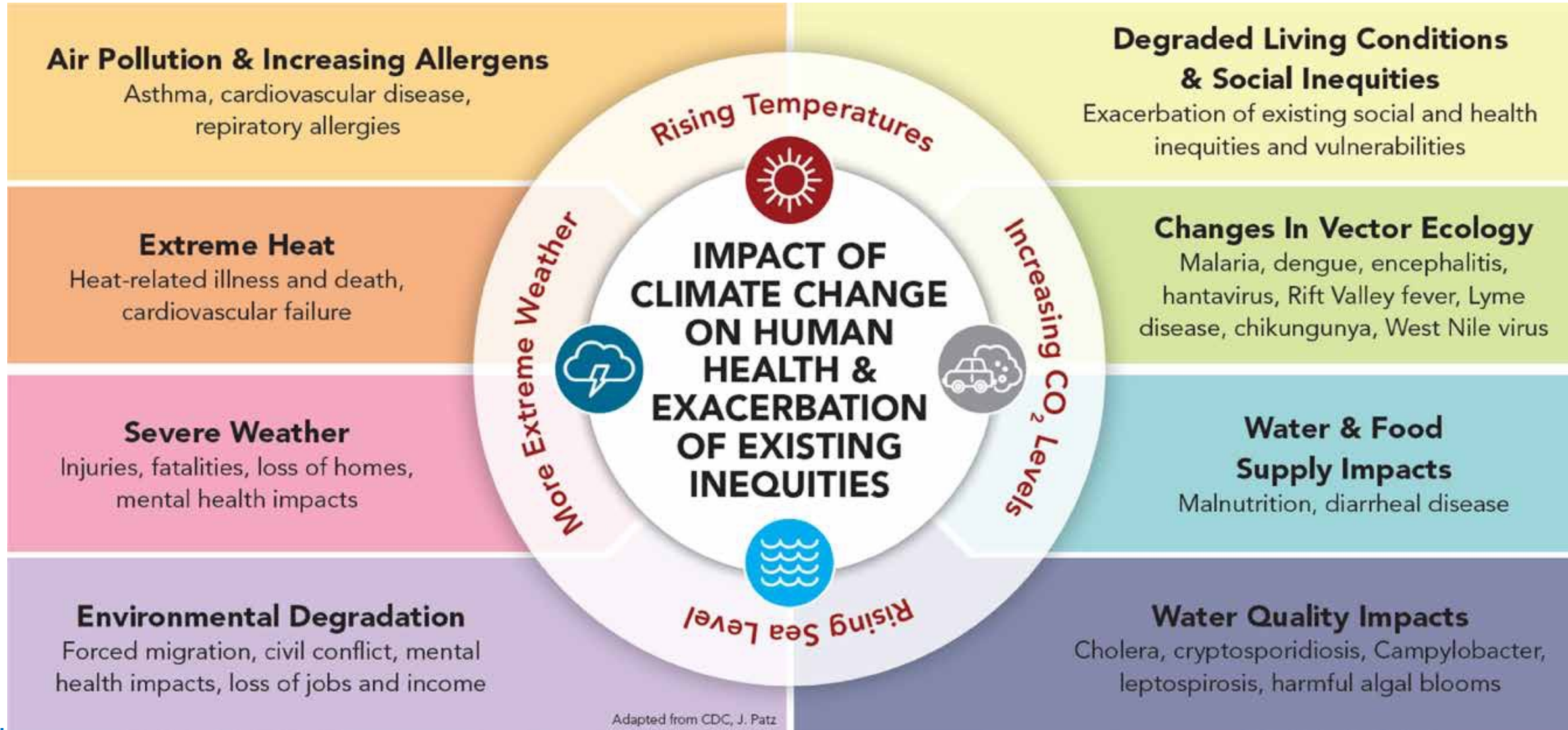
Beyond 2100, it could eventually reach 6 metres.

# Sea Level Rises

Roads | Railways | Ports | Internet | Sanitation |  
Drinking Water | Energy | Tourism | Agriculture

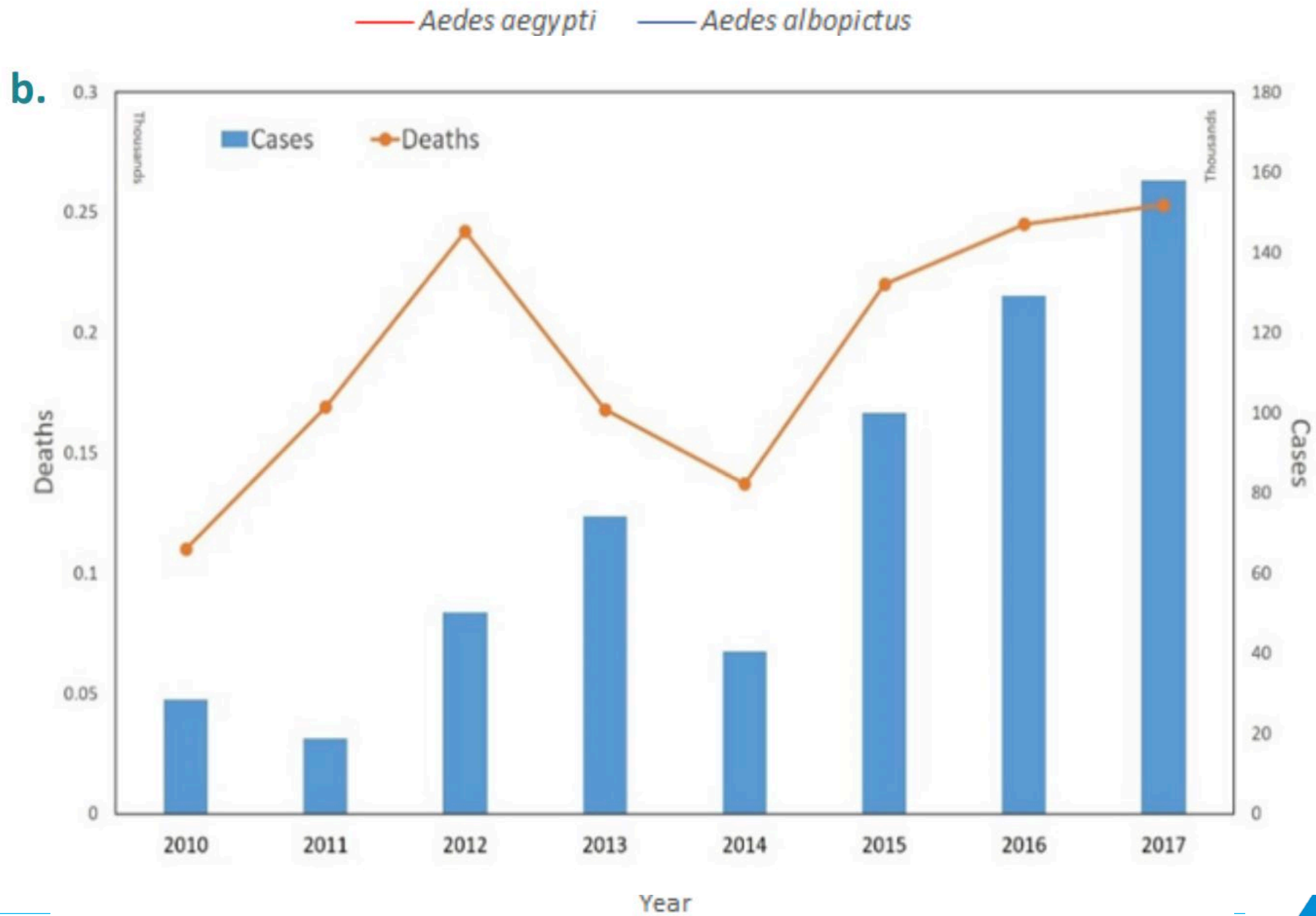
Deltas are home to more than two-thirds of the world's largest cities and 340 million people. These delta cities are particularly vulnerable to land subsidence. Relative sea-level rise poses the highest risks for the Krishna (India), Ganges-Brahmaputra (Bangladesh) and Brahmani (India) deltas. **In Bangladesh, a rise of 0.5 metres would result in a loss of about 11% of the country's land, displacing approximately 15 million people**

# Health Impacts of Climate Change



Between 2030 and 2050 climate change is expected to cause an additional 250,000 deaths per year due to malaria, malnutrition, diarrhea and heat stress (WHO)

220 million additional vulnerable people were exposed to heatwaves in 2018, 11 million more than the previous 2015 record (Lancet)



Climate change is expected to affect all the four dimensions of food security: availability, accessibility, utilization and food systems stability. Pathways include higher temperatures, increased incidences of pests and pathogens, water scarcity, and more frequent and intense extreme weather events.

As India ranks 102 of 117 countries according to the 2019 Global Hunger Index, the impacts of climate change on food and nutrient security in India are of especially high importance.



Climate change is also expected to decrease the nutrient content of crops.

By 2050, CO<sub>2</sub> concentrations are projected to reach levels which will lead to zinc and protein deficiencies in an additional 50 million and 38 million people respectively in India by 2050; and 0.4 billion women of childbearing age and 0.1 billion children under 5 at greater risk of iron deficiency.

In addition, it is estimated that climate change could also cause a decline in land productivity (in monetary terms) of 49%, dramatically impacting the livelihood of farmers in India.

# A Climate Emergency?

# CLIMATE EMERGENCY

# DECLARATIONS



0

2010

2017

2030

2050

1.5°C is equal to 2.7°F  
Source: IPCC Global Warming of 1.5°C Report

CLIMATE  CENTRAL

# Responses to the Climate Emergency

- Reaction
- Adaptation
- Mitigation



# As individuals...what now?

- Become better informed about the relationship between humans and the natural environment
- Become better informed about the scale and impacts of the ecological crisis and climate change
- Take individual action to reduce your ecological footprint
- Work with groups and organisations to reduce their ecological footprint and embed sustainability as 'core business'
- Look for ways to harness the positives of the environment in your practice....and raise awareness of environmental issues

# As Global Citizens...what now?

- Work towards meaningful action on climate change at the Local, State, National and International levels
- Lobbying governments, petitions, submissions, letters, VOTE
- Get Active: Get Involved; with community groups, with social activists, with change oriented organisations

- 
- The Lancet 2019 Countdown
  - IPCC Special Report on 1.5 degrees warming (2018)
  - GEO 6 – Global Environmental Outlook
  - IPBES Report on Biodiversity
  - WEF Global Risks Report
  - The Guardian news site
  
  - [peter.jones1@jcu.edu.au](mailto:peter.jones1@jcu.edu.au)

# Thank You



Peter.jones1@jcu.edu.au