

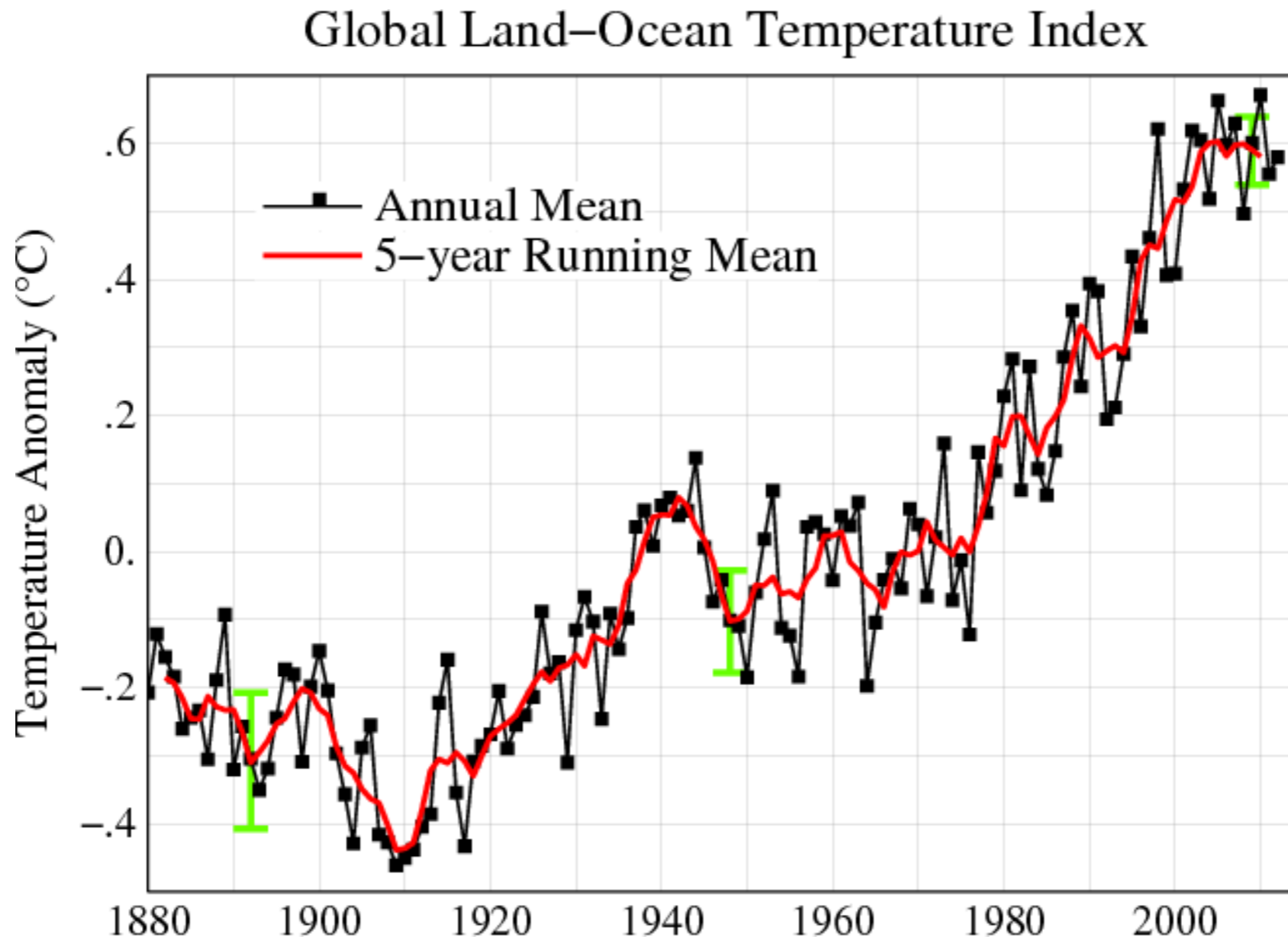
Sustainable Development in a Changing World



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Why do we care about climate change ?



A realization

The image is a screenshot of a CNN video player. At the top, the CNN logo is visible. Below it, there are navigation tabs for 'MORE', 'Collections', 'Shows', 'Watch CNN', and a search bar labeled 'Search videos'. The video title is 'Connection to extreme weather', dated 'July 12, 2012'. Below the title are social media sharing buttons for Facebook ('Share this'), Twitter ('Tweet this'), and other options. The video content shows a man with glasses, identified as Prof. Peter Demenocal, speaking in a studio setting with a world map in the background. A lower-third graphic at the bottom of the video frame identifies him as 'PROF. PETER DEMENOCAL, Columbia University' and shows the date 'Dec. 7, 2009' along with the CNN logo.

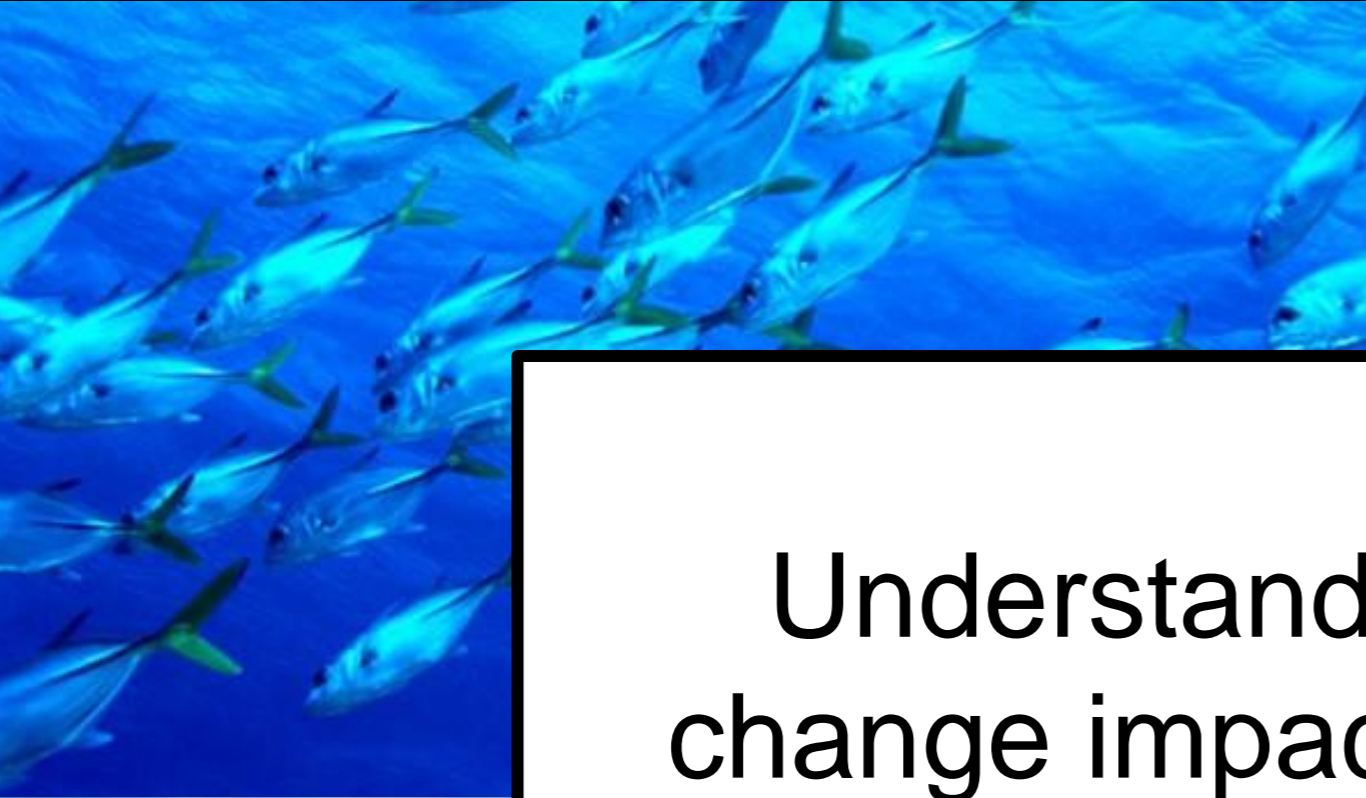
Connection to extreme weather
July 12, 2012

manmade climate change significantly increase
droughts and freakishly warm winters.

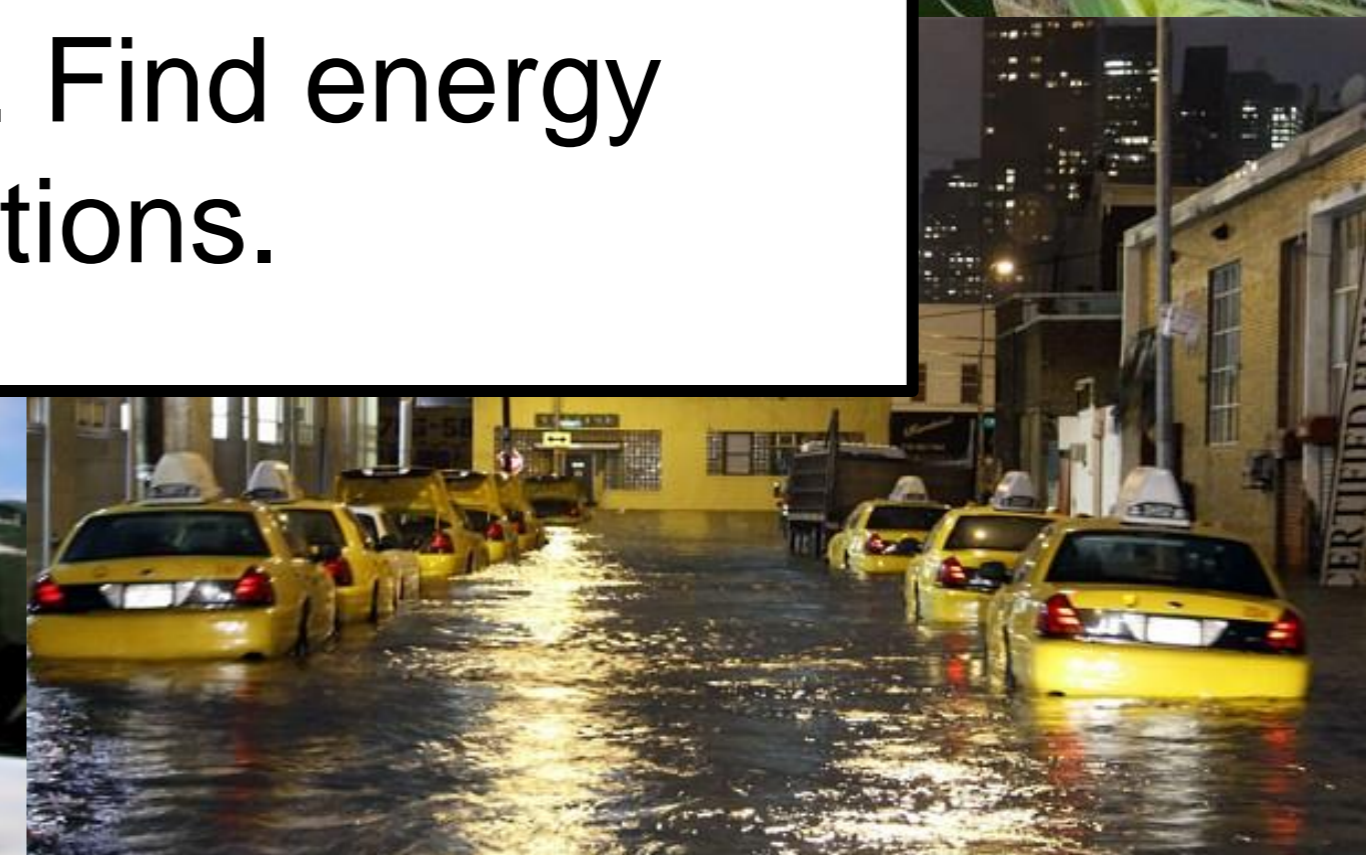
PROF. PETER DEMENOCAL
Columbia University

Dec. 7, 2009

Columbia University Center for Climate and Life



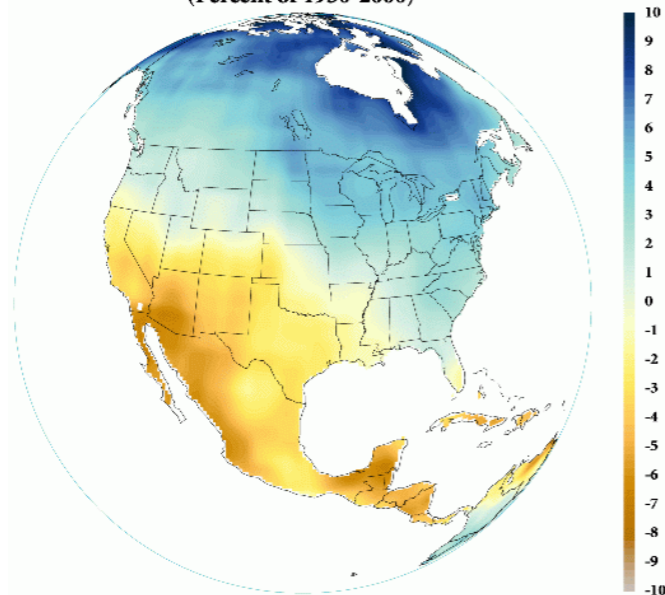
Understand how climate change impacts food, water, and shelter. Find energy solutions.



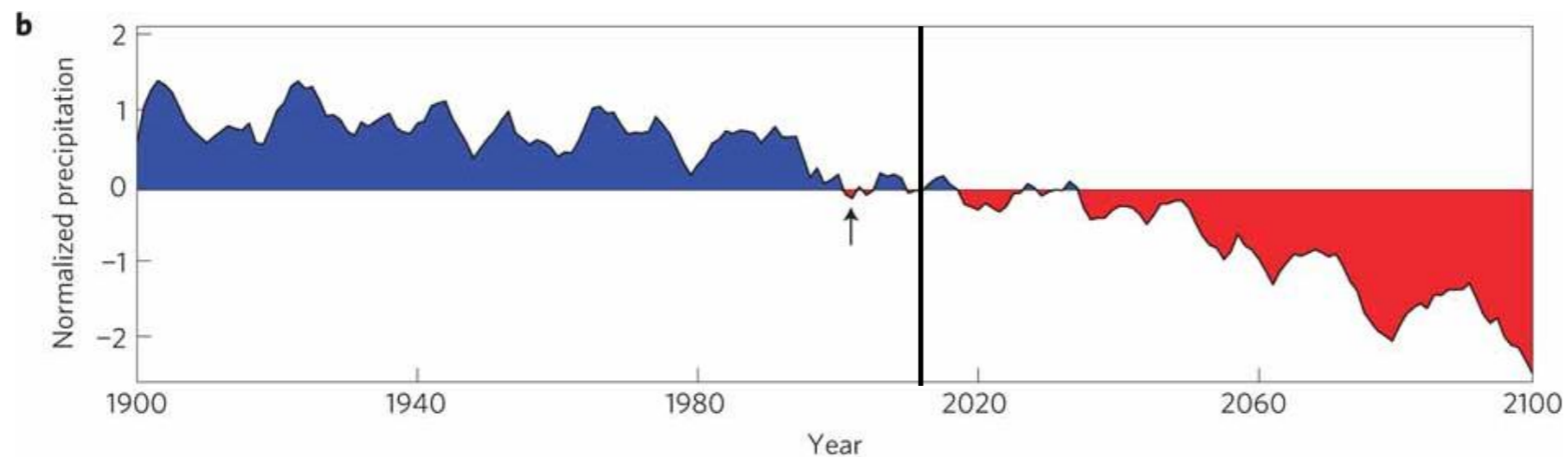
Water

Climate change is changing access to water for drinking, agriculture, and power

Projected Change in Precipitation 1950-2000 to 2021-2040
(Percent of 1950-2000)

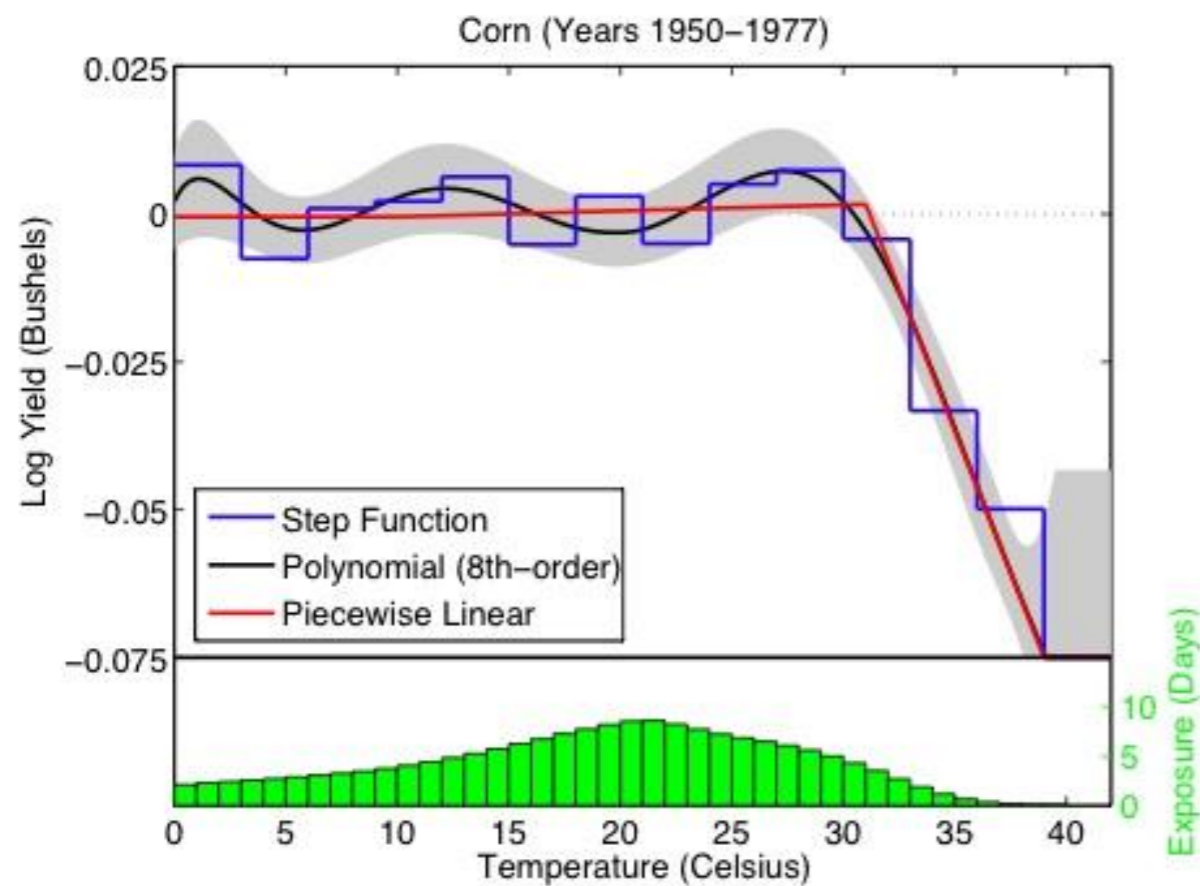


Seager et al., 2007



Food • Commodity Crops

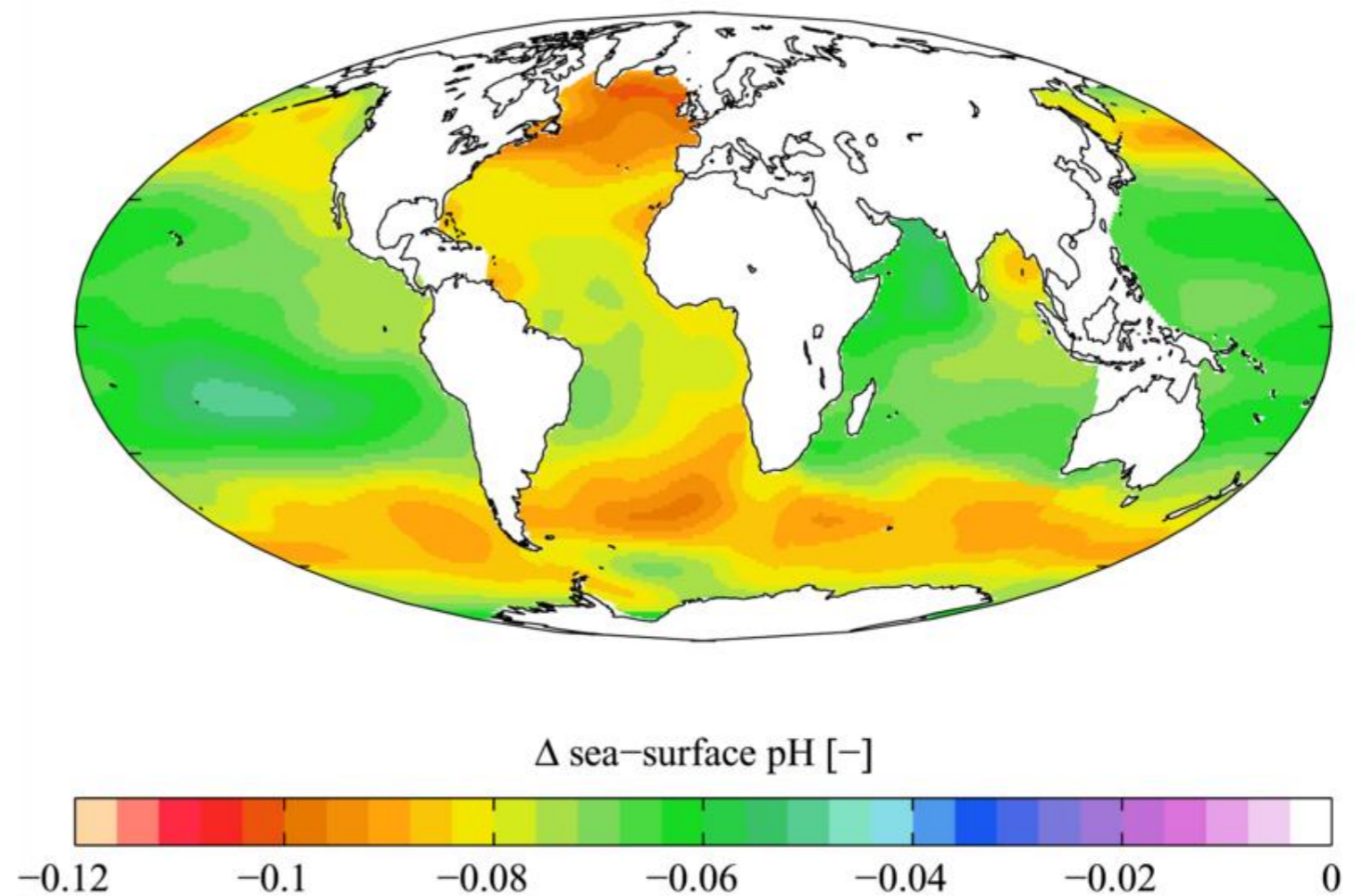
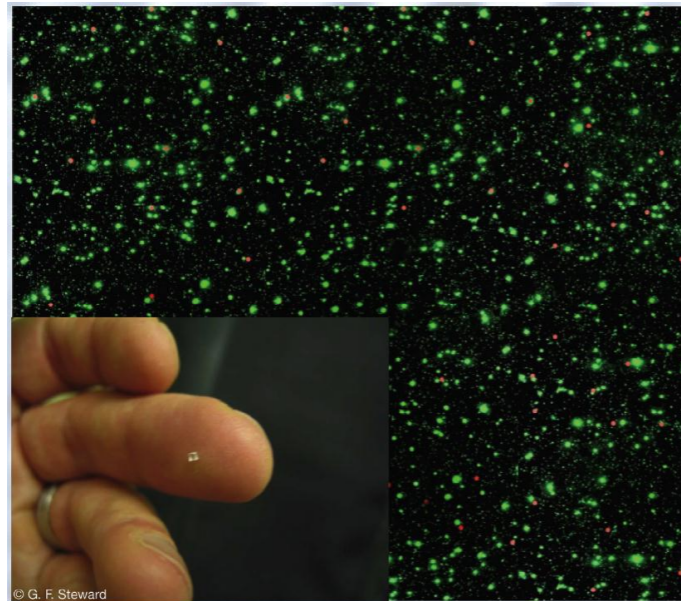
For each degree of warming
crop yields lower by 5-10%



Schlenker et al., 2013, 2009

Food • from the Ocean

Ocean acidification affects the base of the food chain

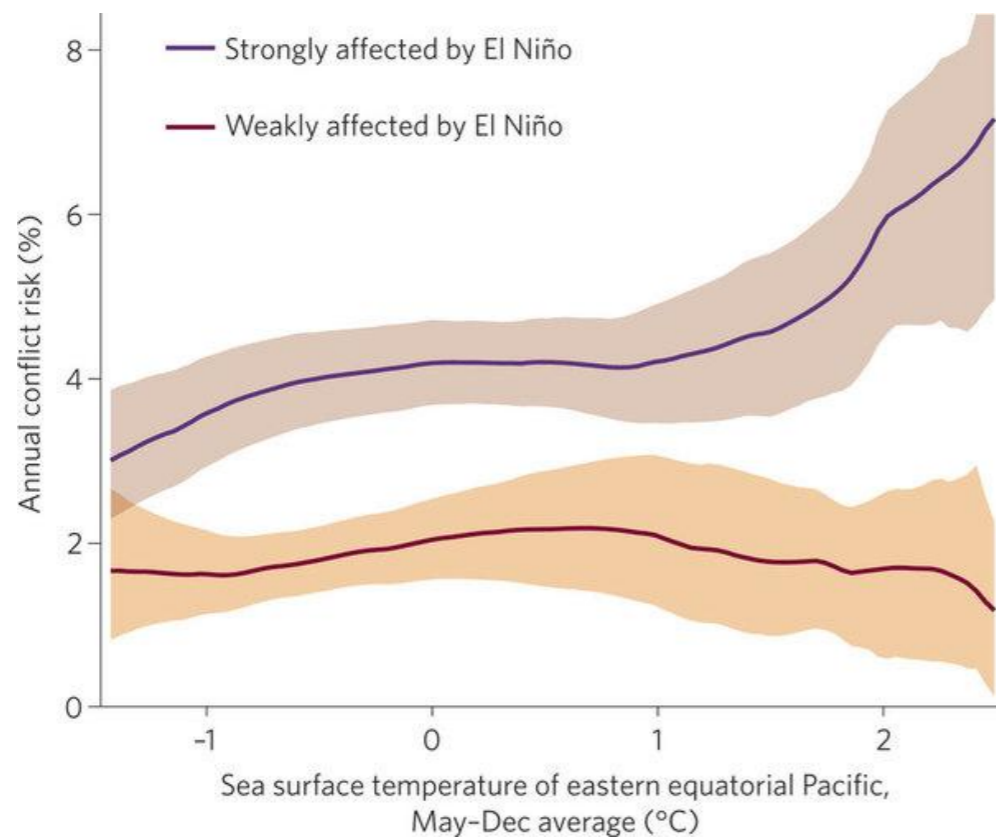


Shelter • Sea level & extreme weather



Conflict

Climate and conflict are related.



US Dept of Defense (2010 QDR): “Climate change will have significant geopolitical impacts around the world, contributing to greater competition for more limited and critical life-sustaining resources like food and water”



Mary Robinson
Fmr. President of Ireland

“Climate change is, after all, a development issue.

Unchecked, climate change will undermine development gains and increase poverty and vulnerability.

Acknowledging climate change and setting in place policies to address it can make a positive contribution to long term, sustainable growth, job creation and prosperity.”

Climate change threatens the world we want

Climate shouldn't
be just an SDG
theme.

Health
Education
Growth and employment
Environmental Sustainability
Governance
Conflict and fragility
Population dynamics
Hunger
Food and nutrition security
Energy
Water

... and climate change

Climate impacts
most SDG themes

Climate Change impacts:

Health
Education
Growth and employment, Environmental Sustainability
Governance
Conflict and fragility
Population dynamics
Hunger
Food and nutrition security
Energy
Water

Thank you & Possible Discussion topics

1. This isn't going away. Climate and energy transitions are near – are these SDG opportunities ?
2. How to work in such a polarized issue ?
3. Science can inform future choices and priorities. How to fast-track needed knowledge ?
4. Adaptation can lead to long term, sustainable growth, job creation and prosperity.
5. Domestic leadership, international partnerships. (Lessons from Montreal ?)

Thank You.