

creative climate communications



an inflection point at the human-environment interface



Major Hurricane Mitch

Dates: 10/22 - 11/09 1998

Maximum Wind Speed: 180 mph

Minimum Pressure: 905 mb

US Landfall Category: Tropical Storm

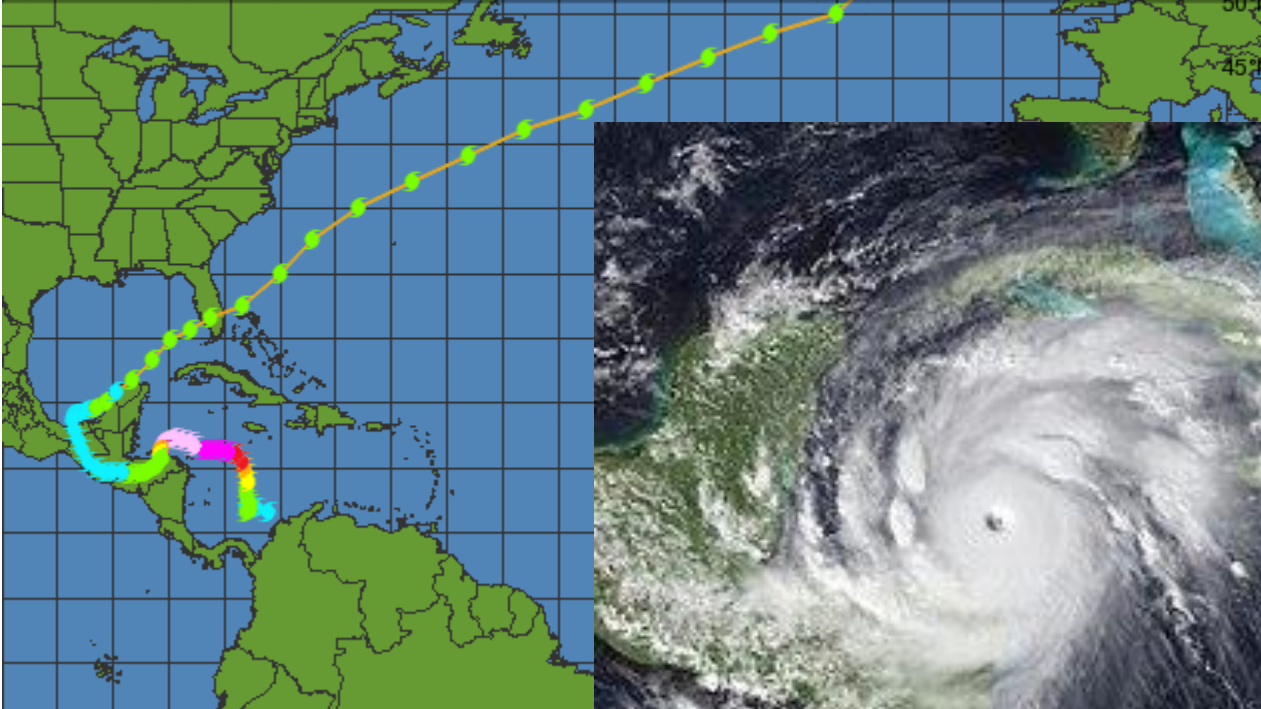
Deaths: 9086

US Damage (Millions US \$): 40

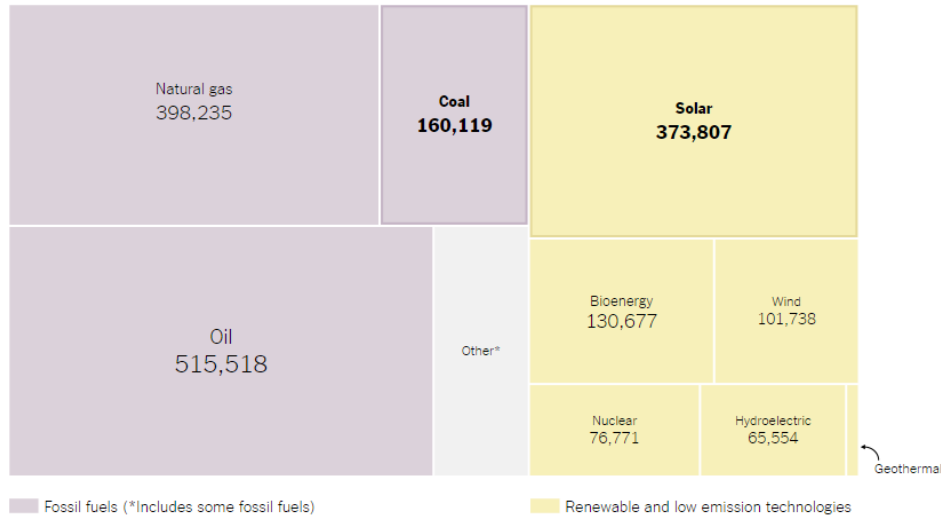
Storm Category

Tropical Depression	Tropical Storm	Category 1	Category 2	Category 3	Category 4	Category 5
< 39 mph	39-73 mph	74-95 mph	96-110 mph	111-130 mph	131-155 mph	156+ mph

Weather Underground
wunderground.com



Power creation jobs in 2016
1.9 million



Popovich (2017)

Q SEARCH

The New York Times

ECONOMY

The Challenge of Cutting Coal Dependence



Eduardo Porter

ECONOMIC SCENE AUG. 30, 2016



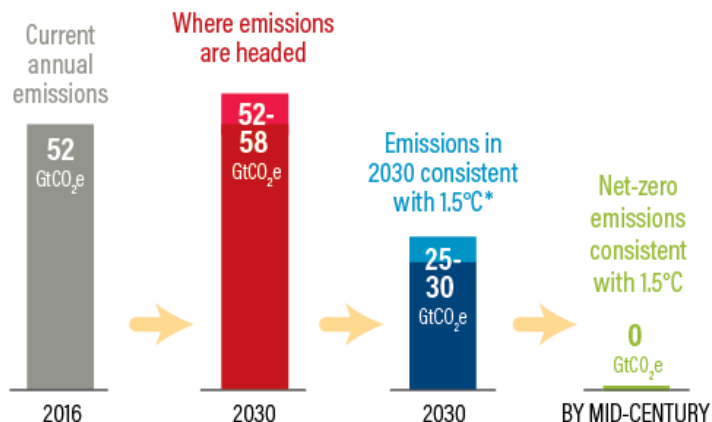
decarbonization

- decreasing the carbon-content of energy generating fuels
- levers: efficiency gains, mode-switching
- achieved thru **political economic measures** & **cultural/societal demands**
- associated with diminishing the environmental impact of energy generation

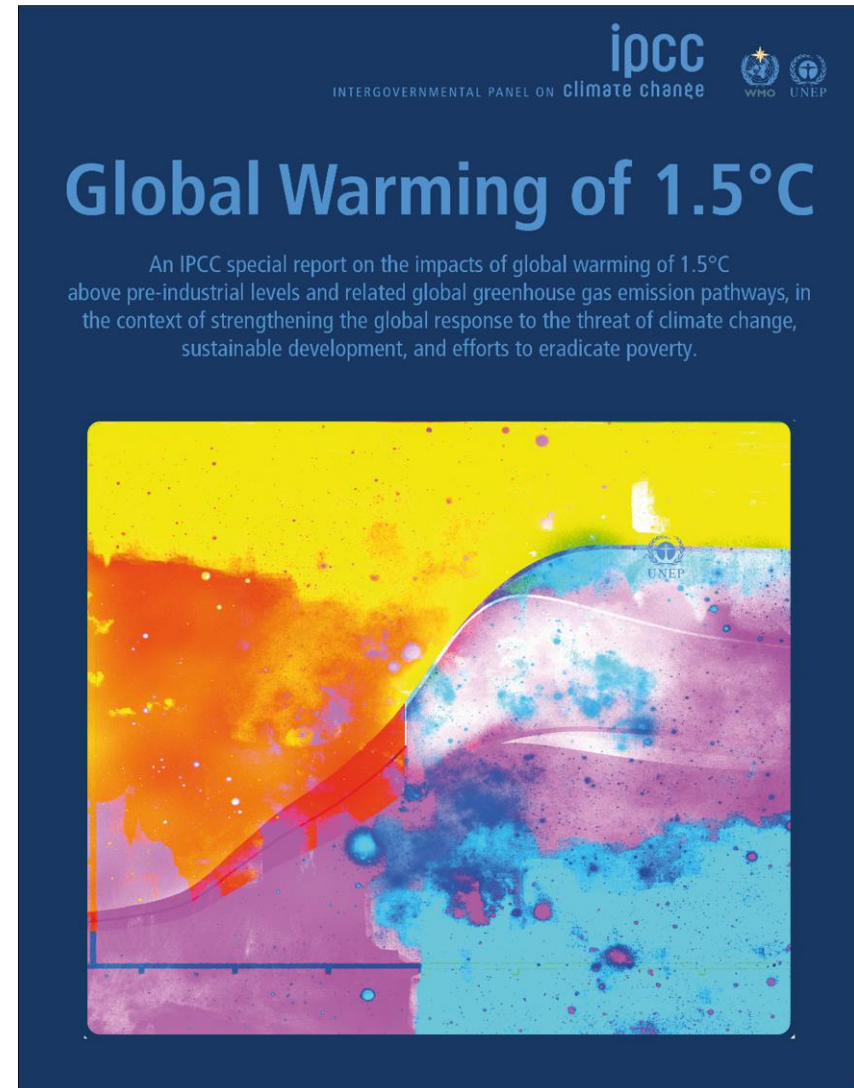
Special report on 1.5°C

- 45% cuts from 2010 levels by 2030
- 'net zero emissions' by 2050

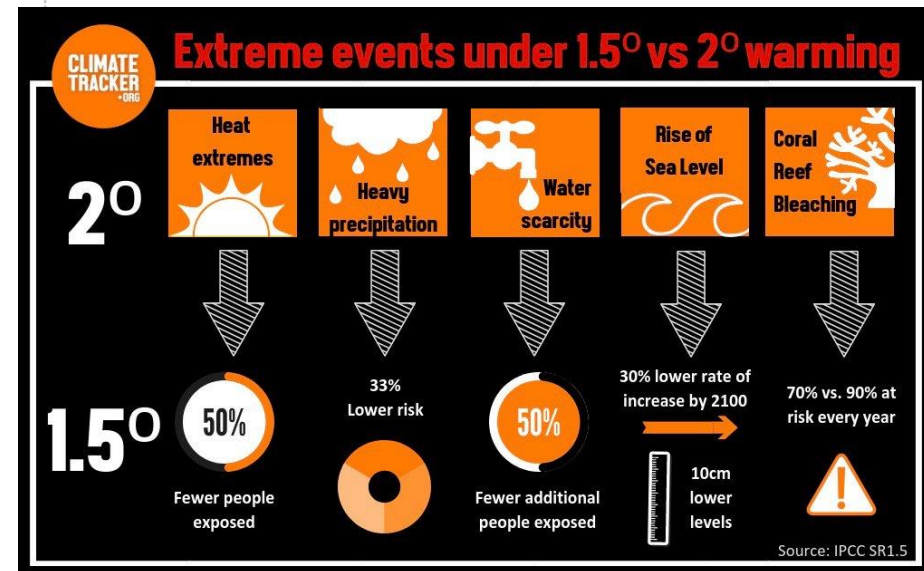
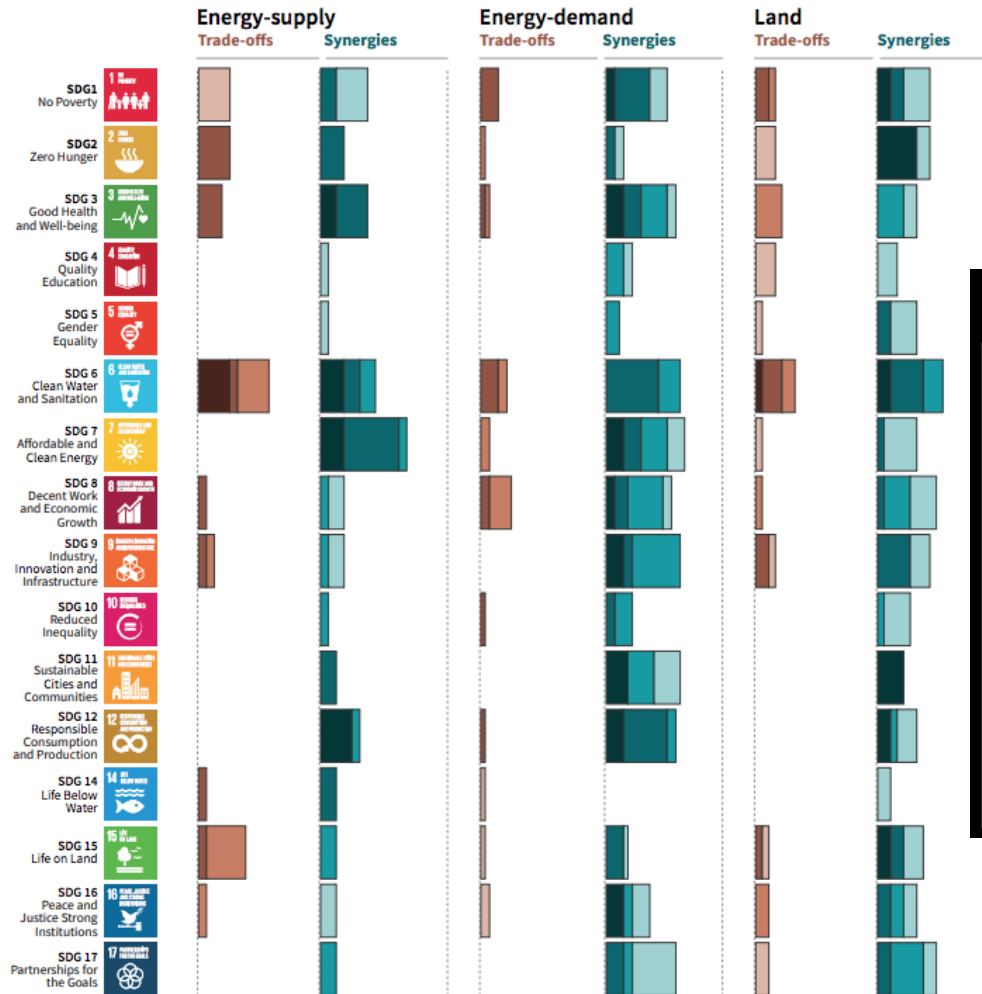
The World Is Not on Track to Limit Temperature Rise to 1.5°C



Notes: *on average, no or low overshoot.



IPCC special report: keeping below 1.5°C

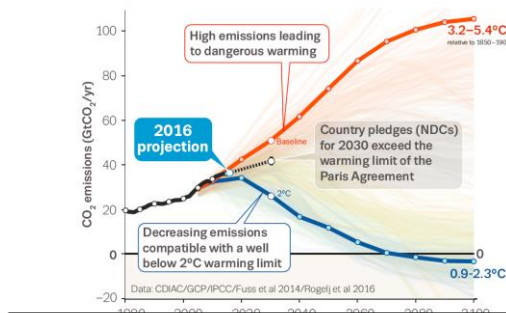
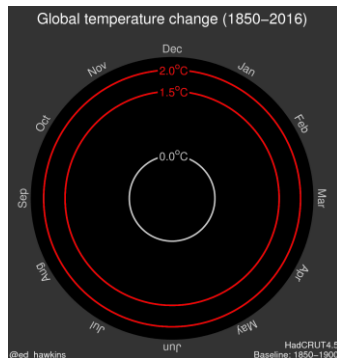
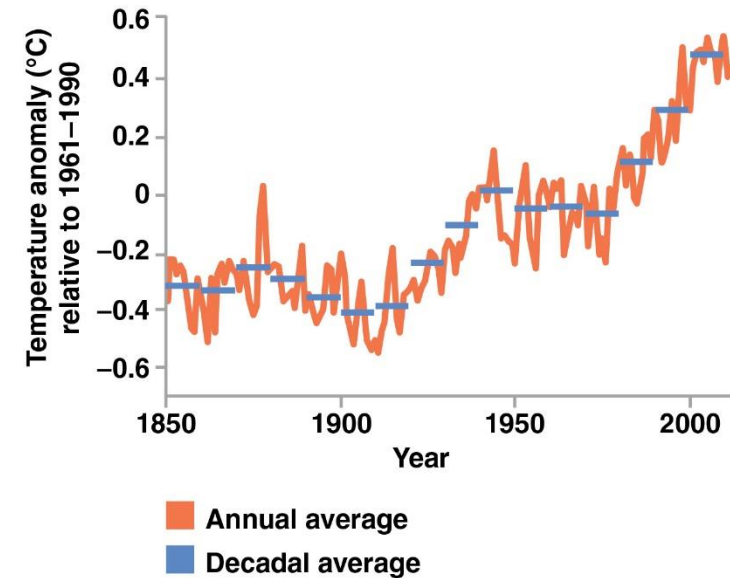


IPCC(2018)

indications of climate change

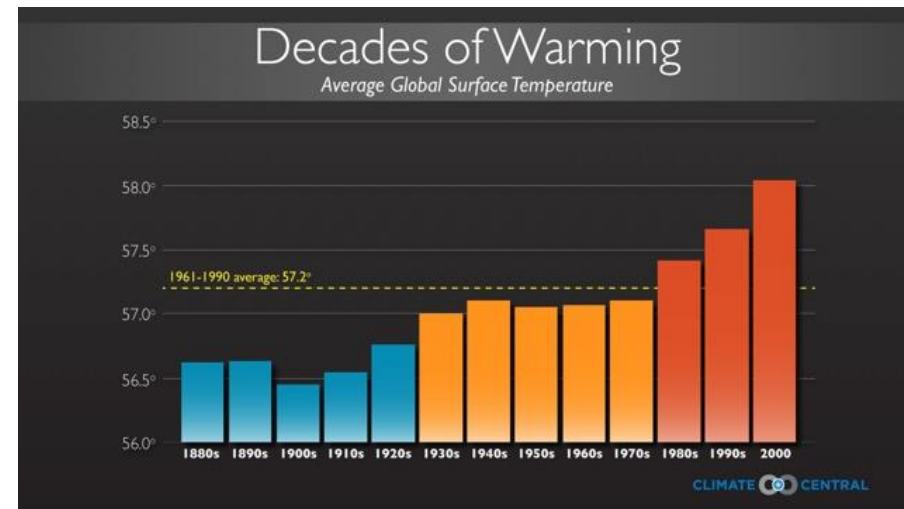
sea levels are expected to rise
16 to 24 in. by 2100

atmospheric temperatures are
expected to increase
2.7°F to 10°F by 2100

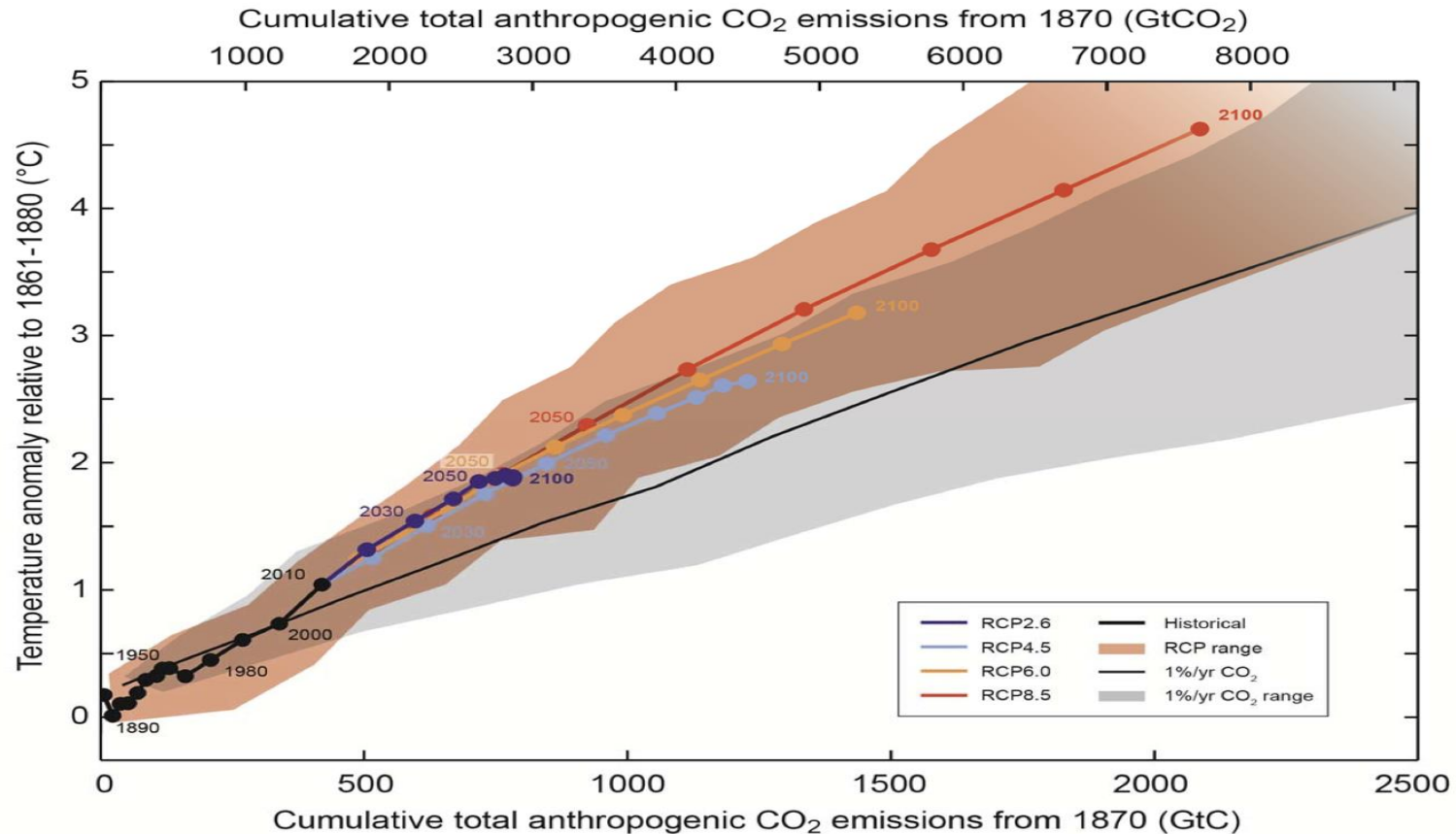


Corinne Lequere, Global Carbon Project

contingent primarily on
emissions scenarios...



Earth's carbon budget



IPCC 5th assessment report, WG I (2013)

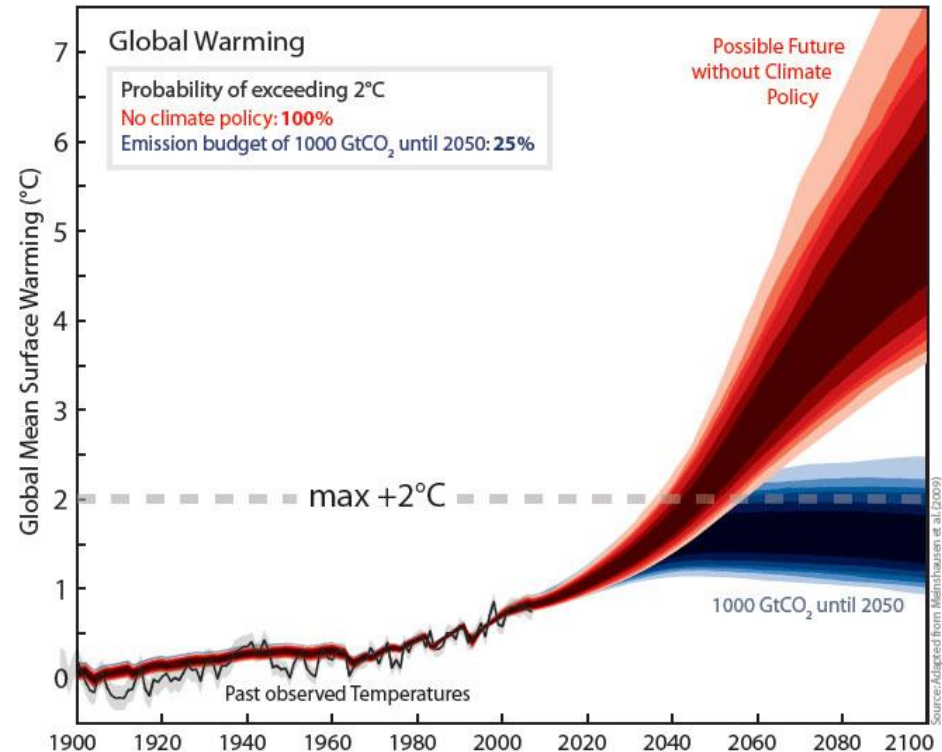
500 gigatons can be emitted (IPCC) before crossing 2°C
(1 gigaton = 1 billion tons; global emissions approx. 10gt/yr)

How can we divide up the global emissions allotment?

'one trillion tons'

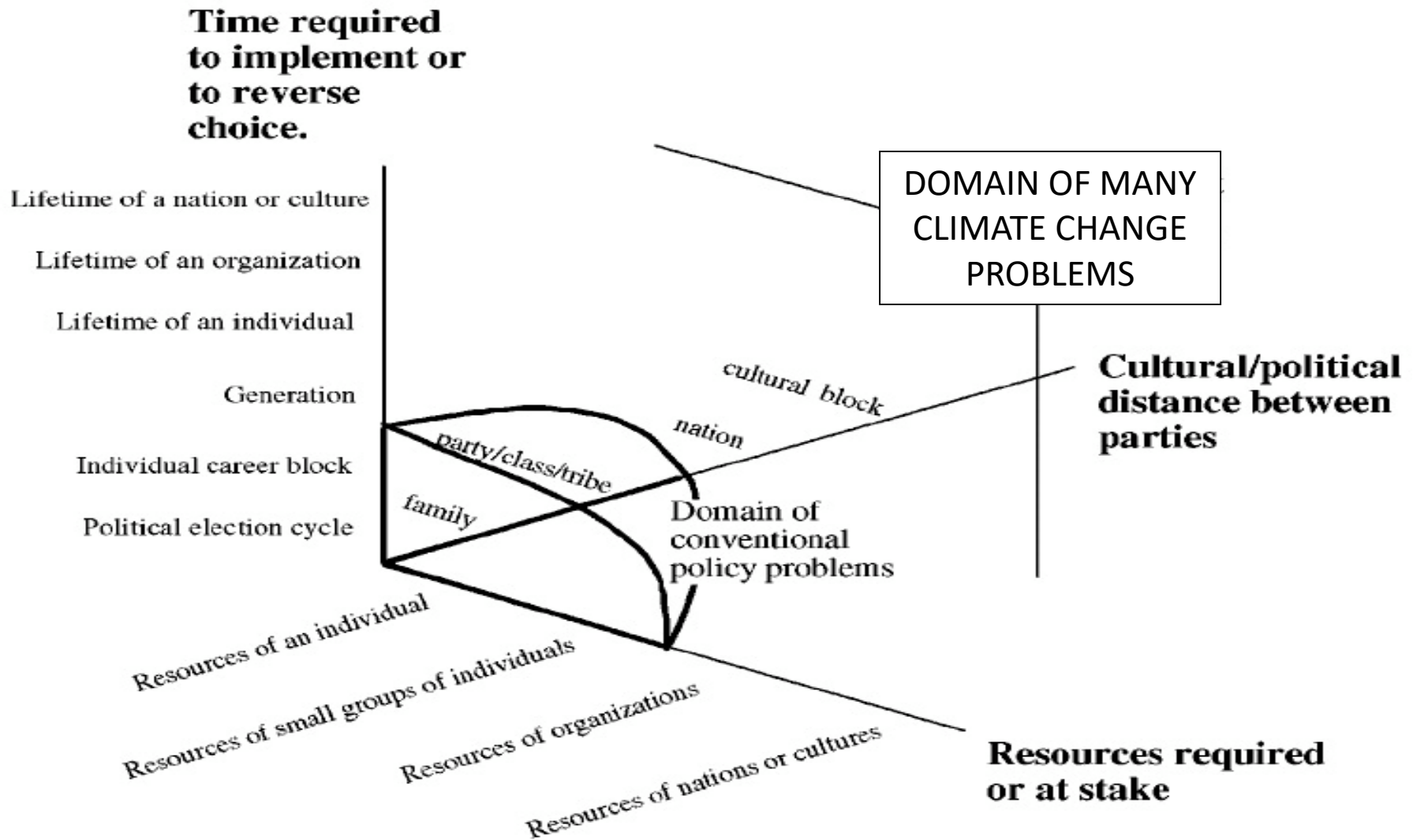
the amount of carbon dioxide that could be released into the atmosphere while keeping global warming under 3.6°F (2°C)

- since industrial revolution we have already emitted 500 billion tons of CO₂
- "It took 250 years to burn the first 500 billion tons. On current trends we'll burn the next 500 billion in less than 40 years." ~ Myles Allen



Meinshausen et al (2009)

inherent climate change engagement challenges



Morgan et al (1999)

intricacies and complexities of climate negotiations include:

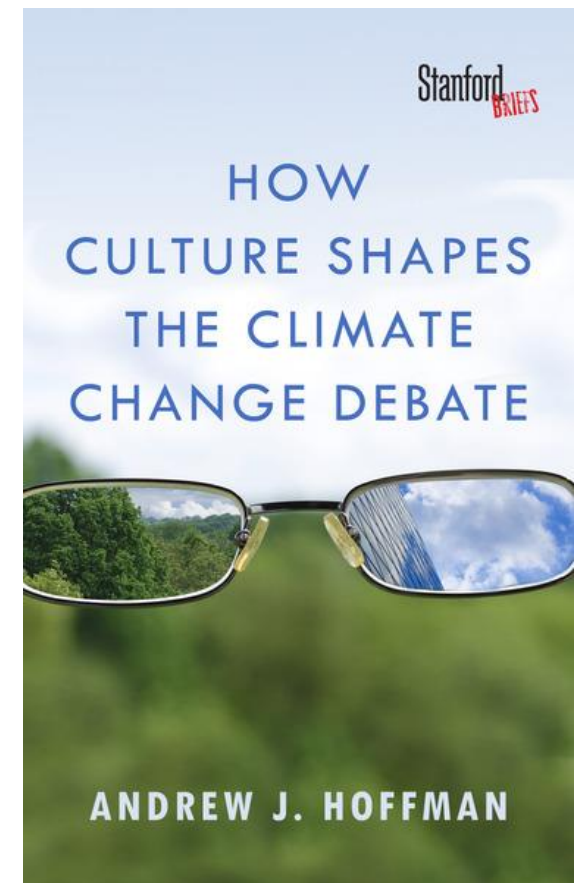
- (1) **centrality/ubiquity of carbon**– embedded in human activities of transportation, land use, industry, and household energy use
- (2) **differences between contributors and those who bear the burden** – common but differentiated responsibilities (CDR)
- (3) **institutional arrangements** – how to best configure organizations to optimally deal with mitigation and adaptation challenges



Okereke (2009)

“the debate over climate change...is not about carbon dioxide and greenhouse gas models; it is about opposing cultural values and worldviews through which that science is seen”

- (1) we all use cognitive filters
- (2) our cognitive filters reflect our cultural identity
- (3) cultural identity can overpower scientific reasoning
- (4) our political economy creates inertia for change



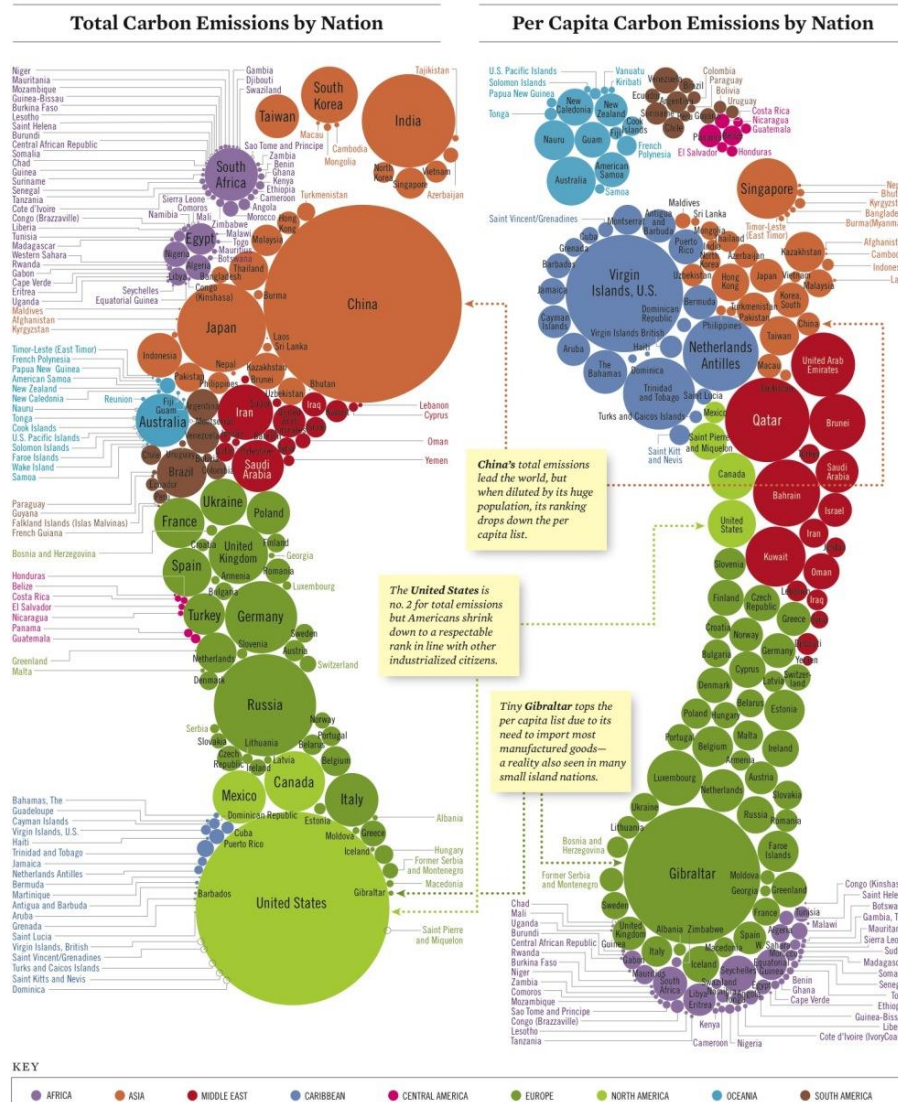
carbon, our lives & livelihoods



Tracking Carbon Emissions

A footprint comparison of total carbon dioxide emissions by nation and per capita shows there's plenty of room for smaller countries to reduce their carbon footprints.

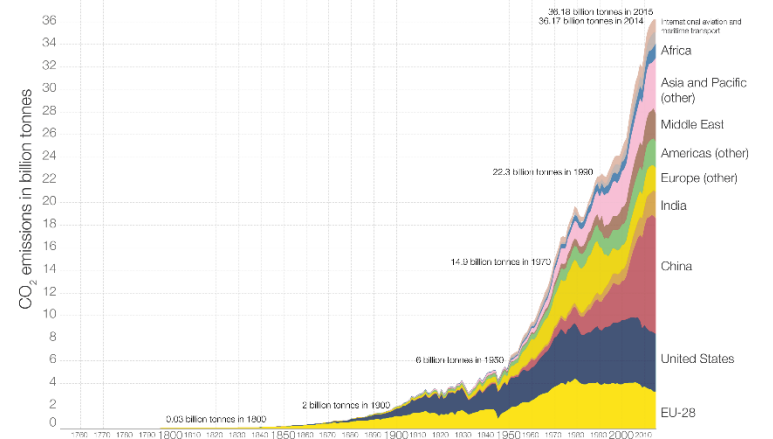
By Stanford Kay



Global CO₂ emissions by world region, 1751 to 2015

Annual carbon dioxide emissions in billion tonnes (Gt).

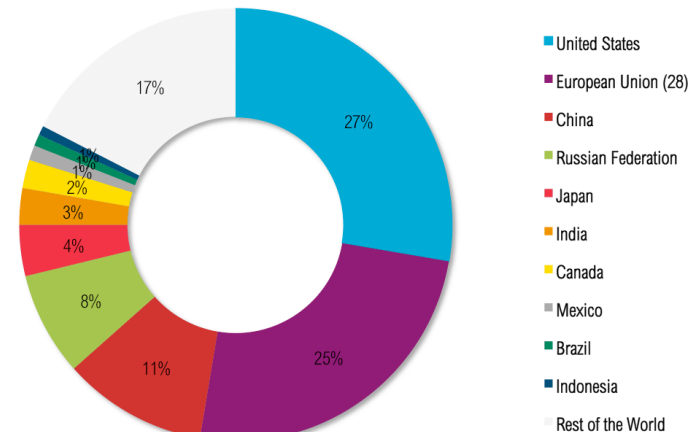
Our World in Data



Data source: Carbon Dioxide Information Analysis Center (CDIAC), aggregation by world region by Our World in Data. The interactive data visualization is available at OurWorldInData.org. There you find the raw data and more visualizations on this topic.

Licensed under CC-BY-SA.

Cumulative CO₂ Emissions 1850–2011 (% of World Total)



from diagnoses to questions of what to do...



Mitigation ~ human intervention to reduce the emissions of GHGs

Adaptation ~ the alteration of an organism or the capacity to make changes to suit conditions different than those normally encountered

Education ~ informing one another through different ways of learning & knowing about climate change



Does the scale of response(s) match the scale of the challenges?

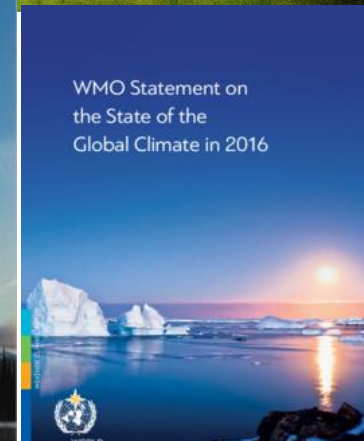
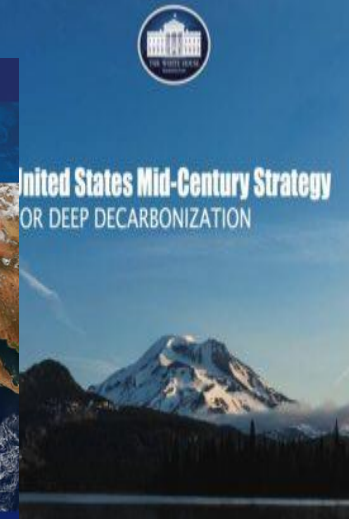
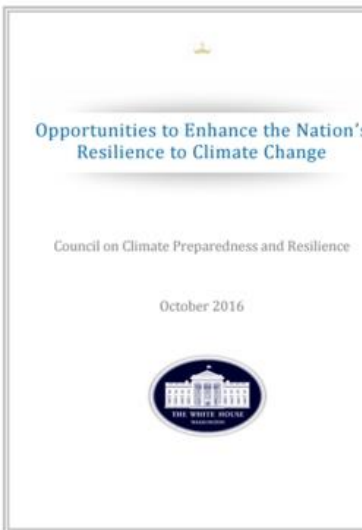
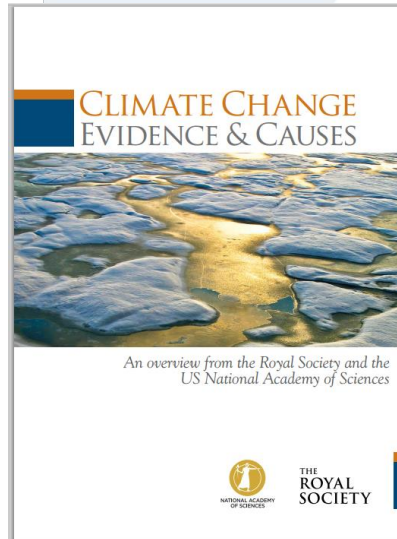
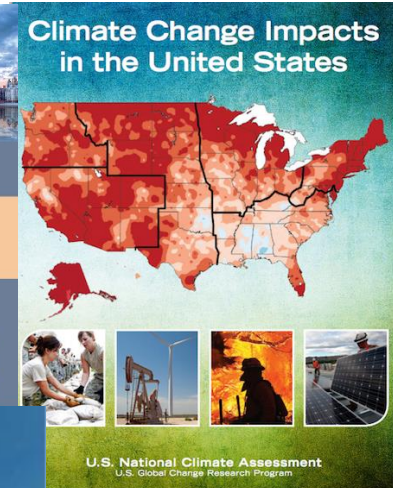
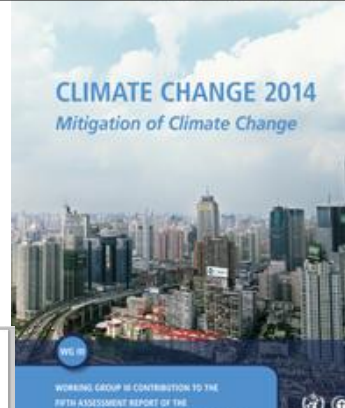


“radical changes..will be needed for a low carbon society” – Tina Fawcett (2010)

historical/traditional conditions of engagement



“The deficit model is dead...long live the deficit model.” ~ Brian Wynne (2008)



“providing information and filling knowledge gaps is at best necessary but rarely sufficient to create active behavioral engagement.” ~ Susanne C. Moser (2009)

2004–2018 World Newspaper Coverage of Climate Change or Global Warming

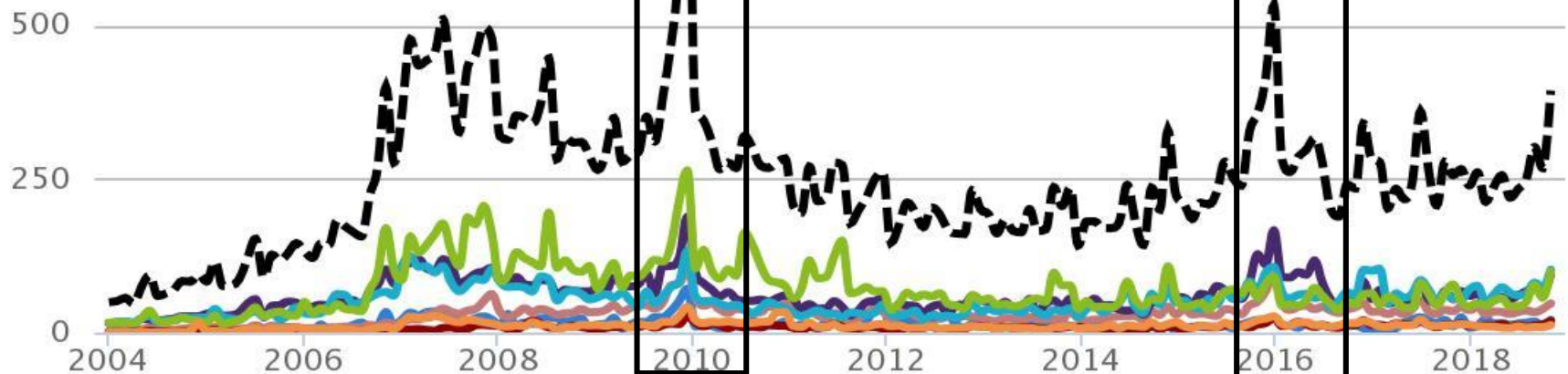
global trends:

2007: IPCC AR4
2009: COP15, 'climate-gate'
2013-4: IPCC AR5
2015-2016: COP21 Paris, ratifications

RESONANT THEMES:

- ecological/meteorological events and issues
- scientific events and issues
- cultural events and issues
- political events and issues

Articles per source



updated monthly at http://sciencepolicy.colorado.edu/media_coverage/

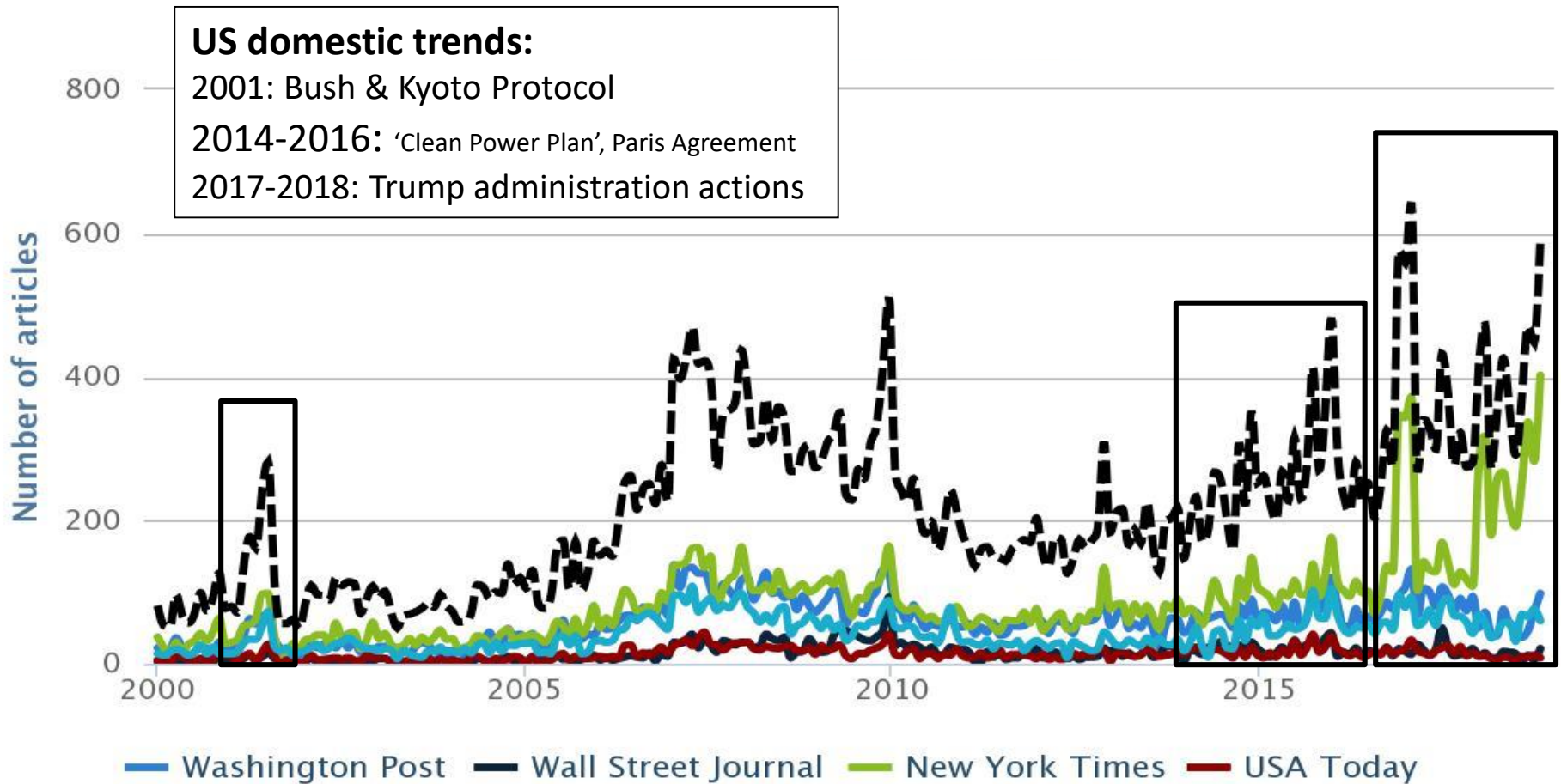
“Few things are as much a part of our lives ...a[n] instant historical record of the pace, progress, problems, and hopes of society.” ~ W. Lance Bennett (2002)

examining media representational practices

Media & Climate Change Observatory (MeCCO)



2000–2018 United States Newspaper Coverage of Climate Change or Global Warming



updated monthly at http://sciencepolicy.colorado.edu/media_coverage/

moments in time



5 rules of the road

5 features on a road map

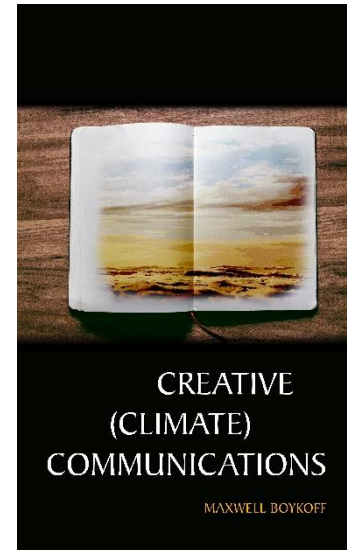
First, **be authentic.**

Second, **be ambitious.**

Third, **be accurate.**

Fourth, **be imaginative.**

Fifth, **be bold.**



First, **find common ground and meet people where they are on climate change.**

Second, **emphasize how climate change affects us here and now, in our everyday lives.**

Third, **focus on how climate change engagement ultimately makes our lives and livelihoods better.**

Fourth, **creatively empower people to take meaningful and purposeful action on climate change.**

Fifth, **‘smarten up’ communications about climate change to match the demands of a 21st century communications environment.**

burgeoning spaces creatively communicating about climate change

a living laboratory situated in a University setting, an intentional space for development and experimentation with creative modes to communicate, evaluate and confront climate change through a range of mitigation and adaptation strategies

