



change



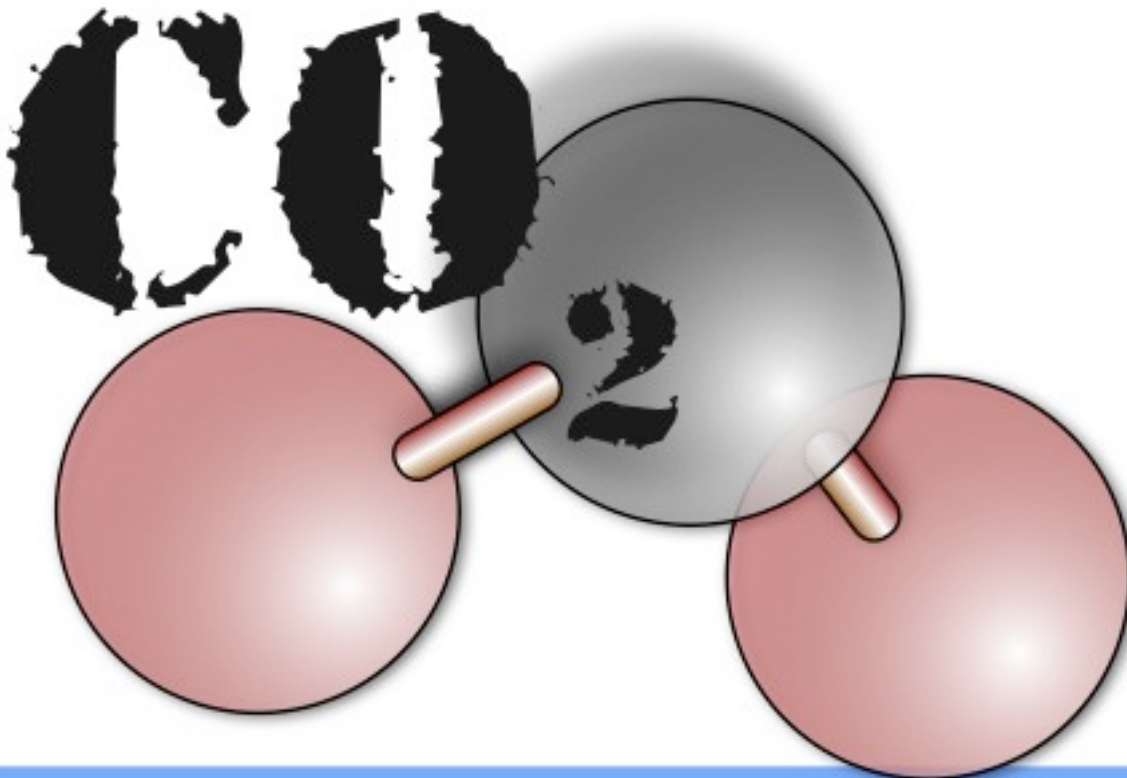
climate forchange

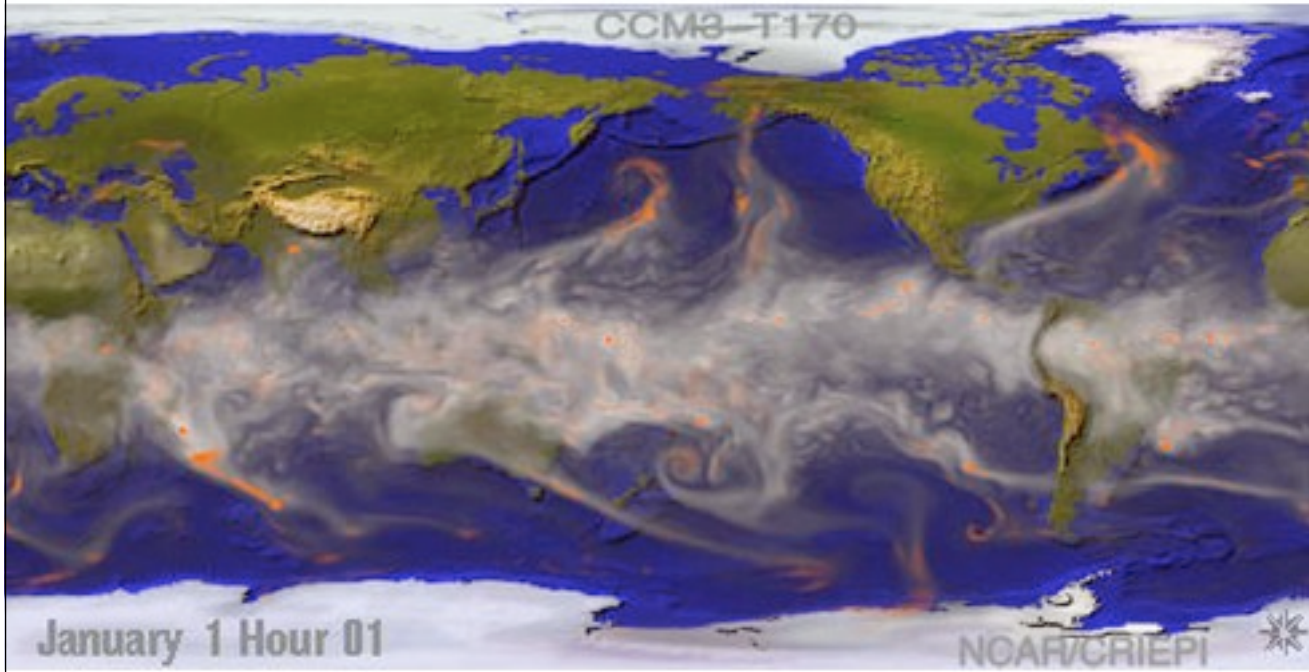


the climate is changing, will you?



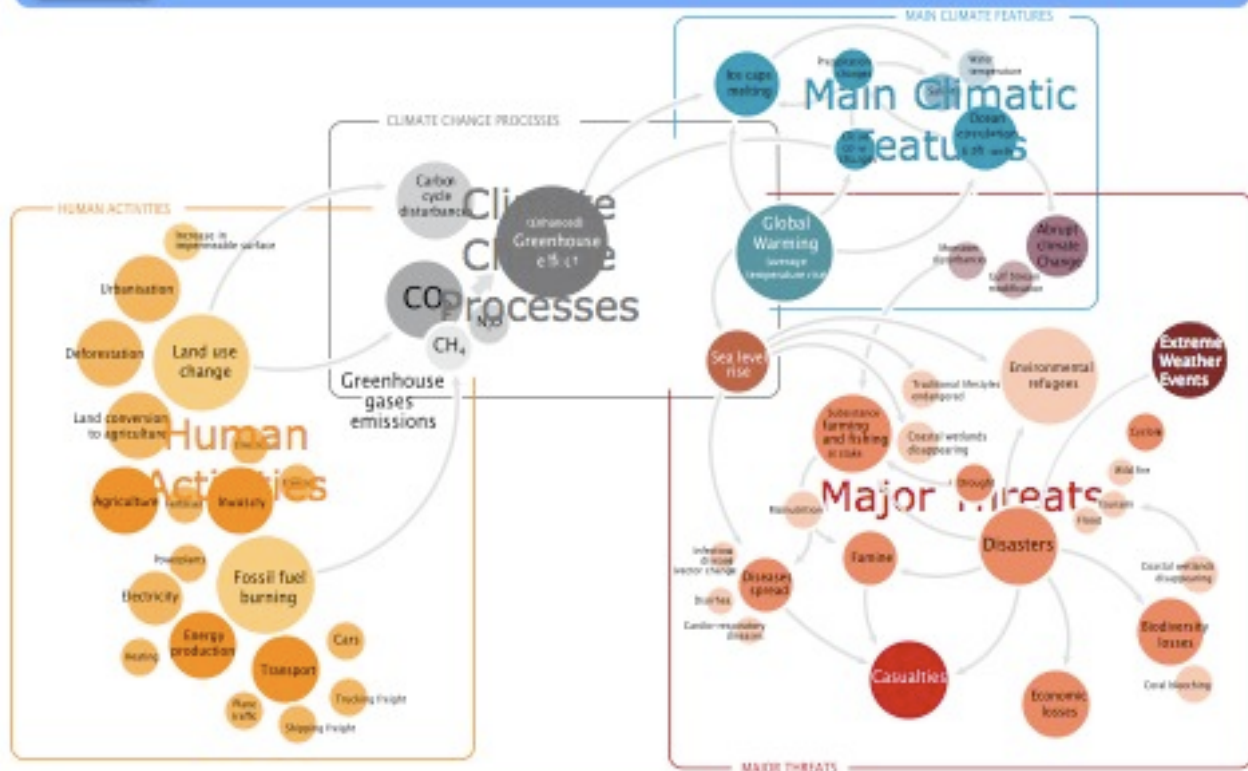
seai

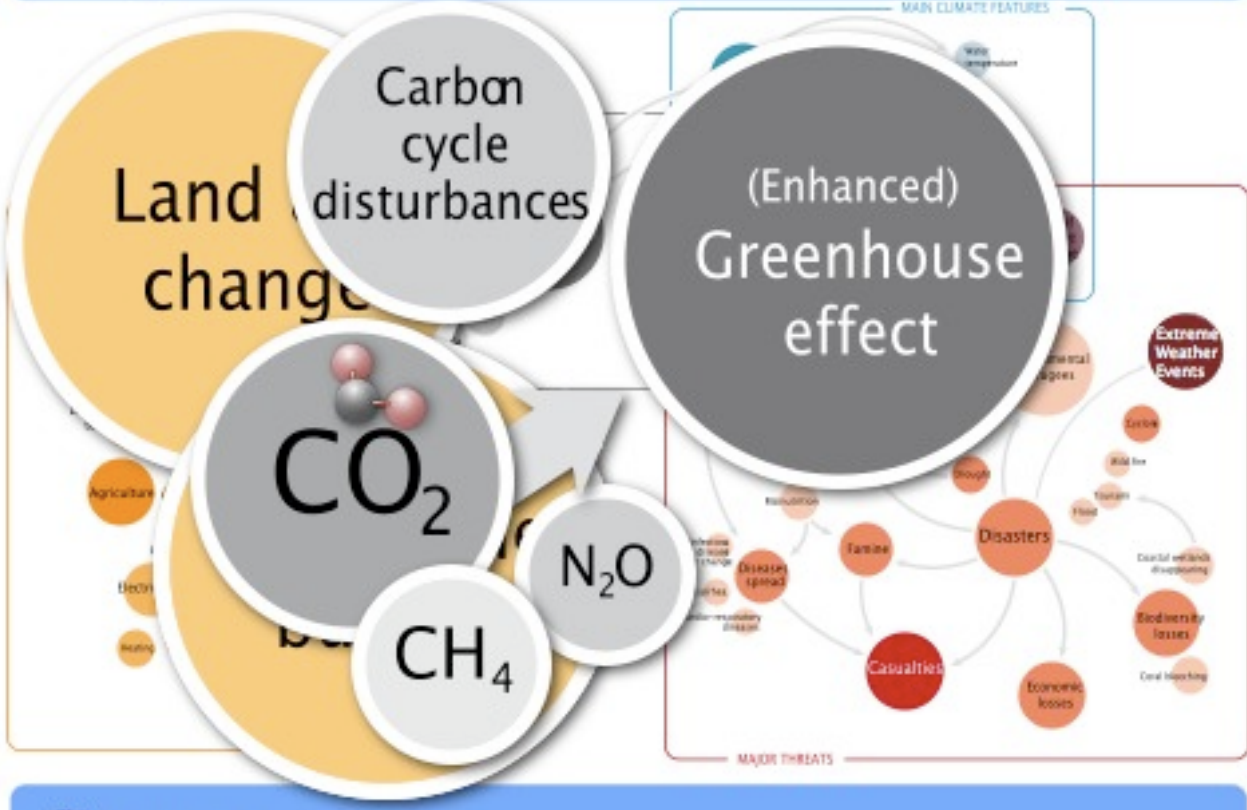




Weather or Climate

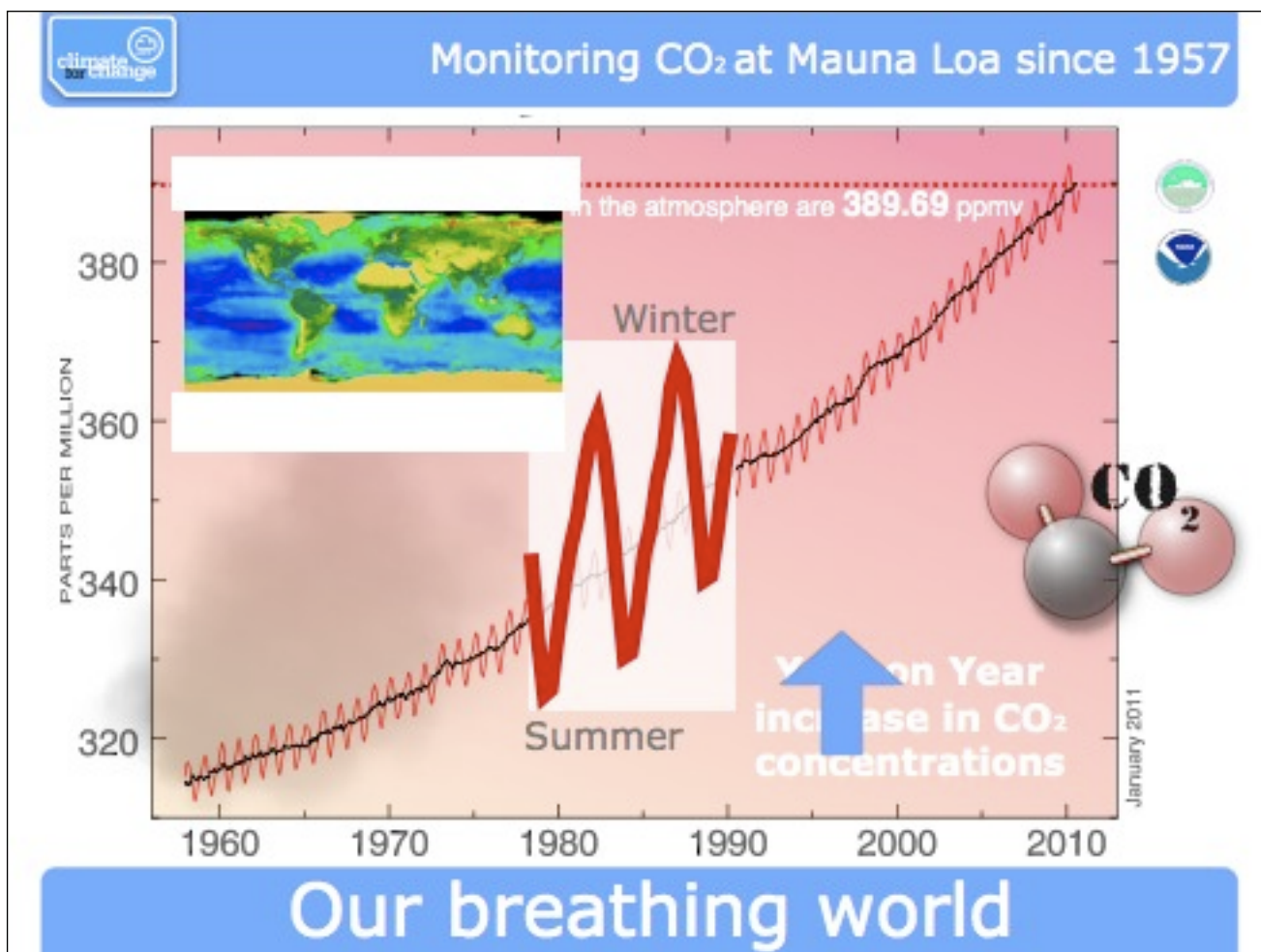
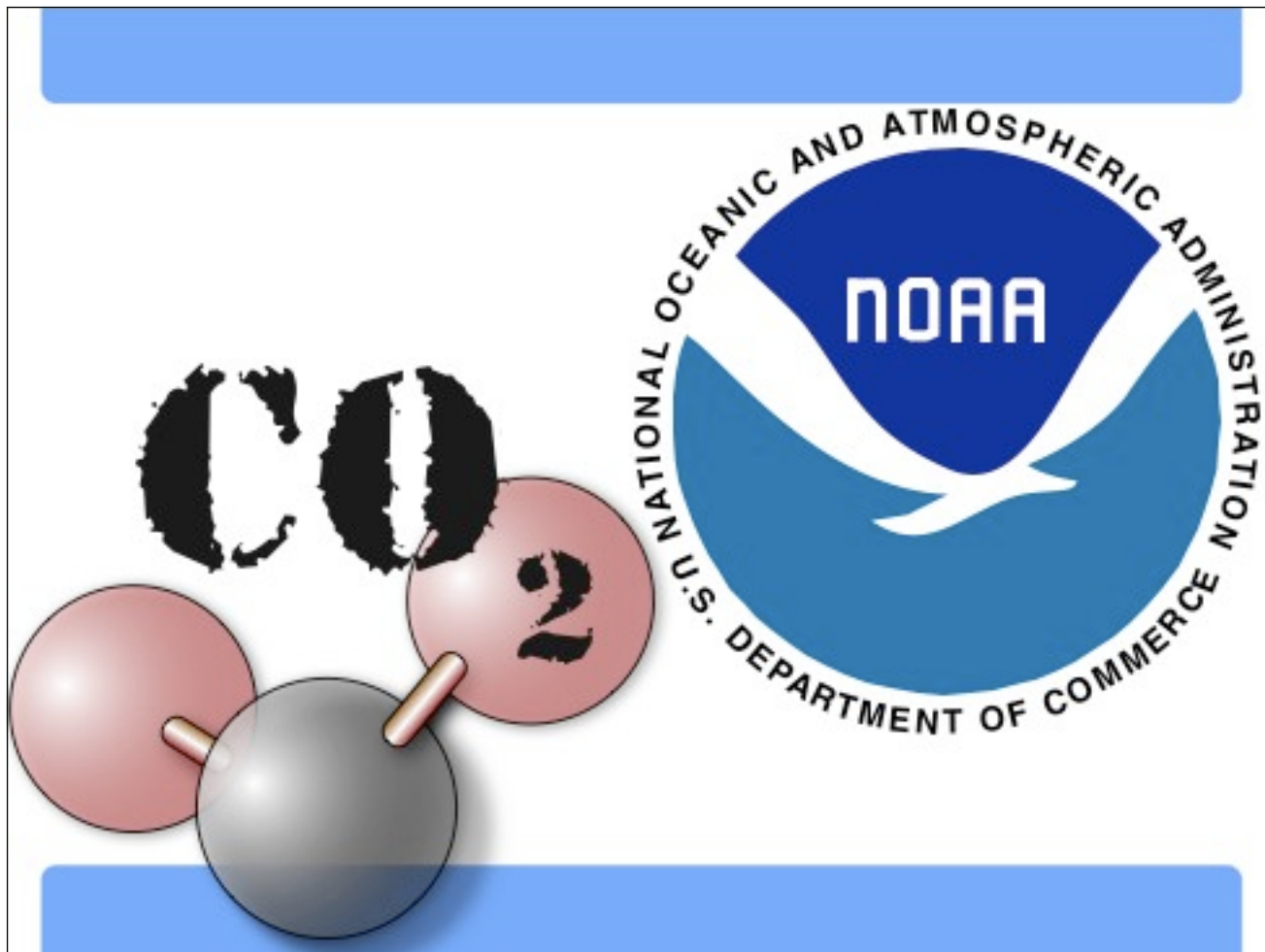
Unravelling the climate change story





CO₂ Chemistry





Weather and Climate

Wet **Weather** Dry
Hot Short Term **Days**
and
Years Long Term Spring
Autumn **Climate** Summer

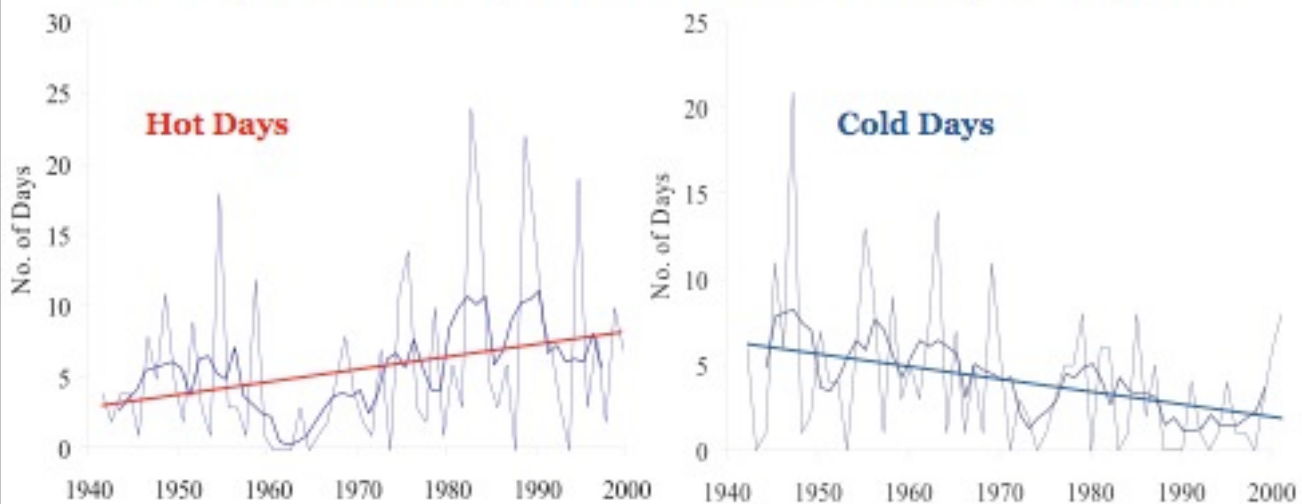
Climate

30
Years

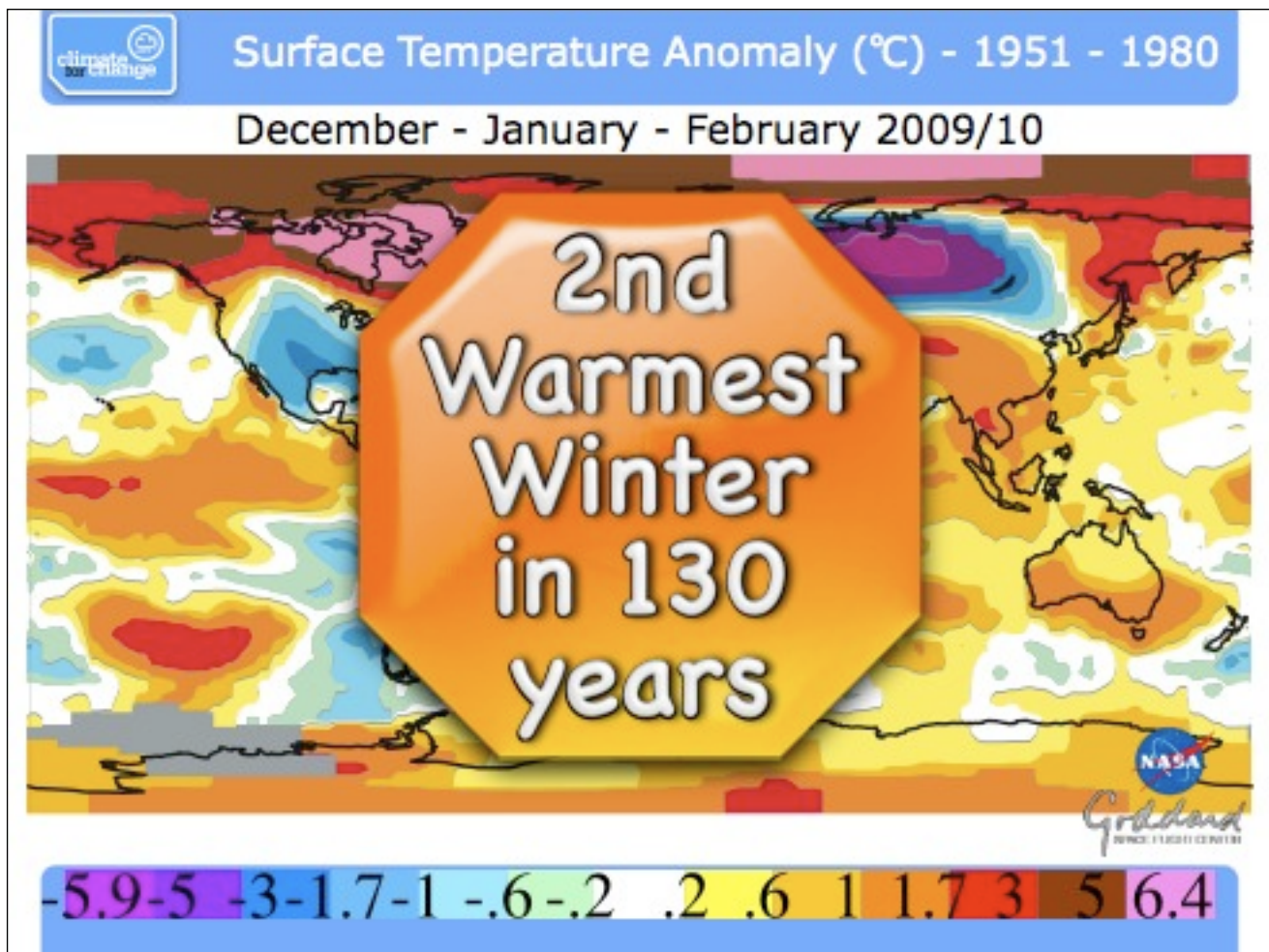
Weather

Frequency of 'hot' and 'cold' days at Dublin Airport

The average annual number of hot days in eastern Ireland has doubled, and cold days have halved over the past 40 years



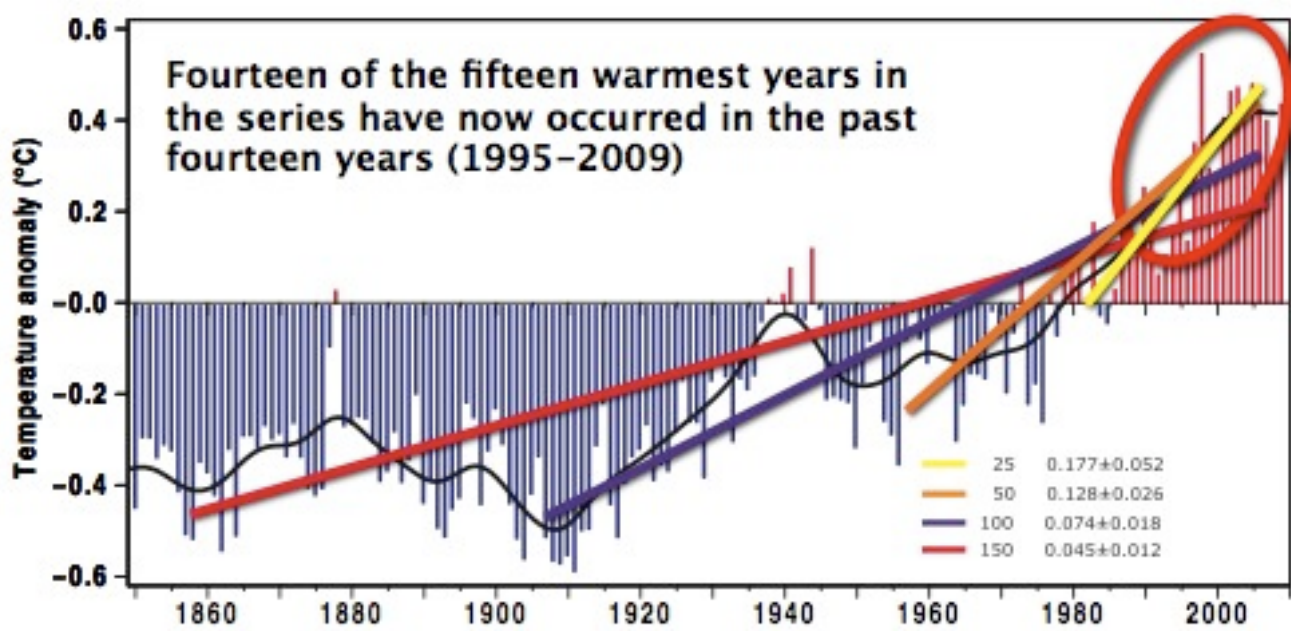
'Hot' day = mean temperature > 18°C 'Cold' day = mean temperature < 0°C



"Satellite data indicates that the global average temperature of the lower atmosphere during 2010 was statistically indistinguishable from that recorded in 1998 - the hottest year in the satellite record."



Global Temperature Record





ipcc

INTERGOVERNMENTAL PANEL ON
climate change



ipcc

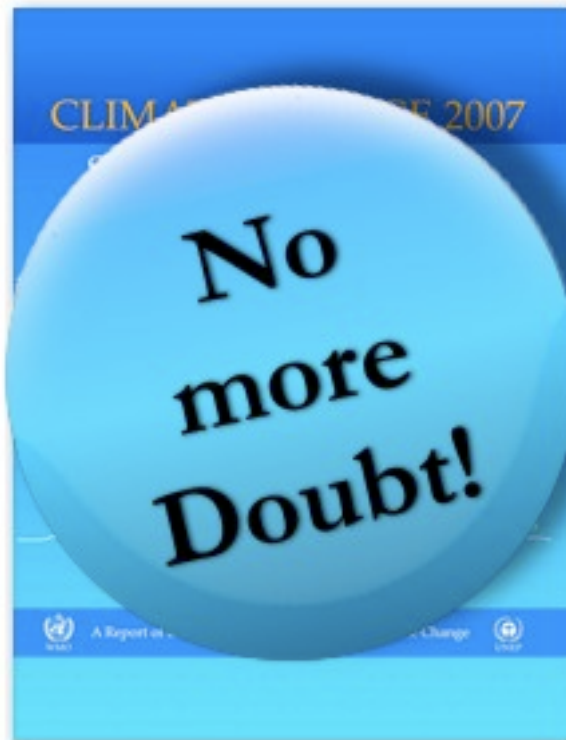
INTERGOVERNMENTAL PANEL ON
climate change



UNEP

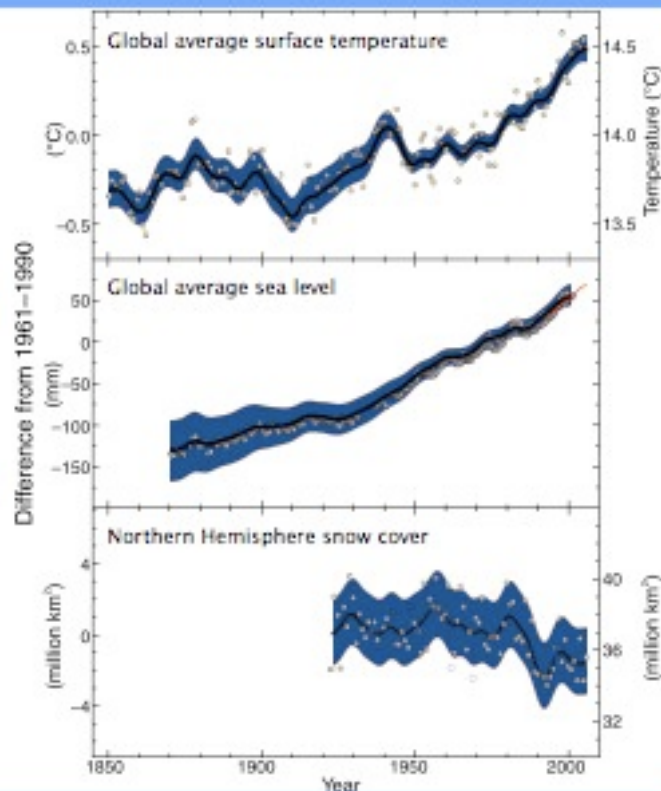


WMO



Climate Change is Unequivocal

Warming of the climate system is **unequivocal**, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.



The main points from the Intergovernmental Panel on Climate Change's February 2007 report

Temperature increase of 2-6°C by 2100

Sea-level rise of 1-1.5 m by the end of the century*

Snow cover to shrink with increases in thaw depth of most permafrost regions

The increase in hurricane and tropical cyclone strength since 1970 can be attributed to man-made global warming

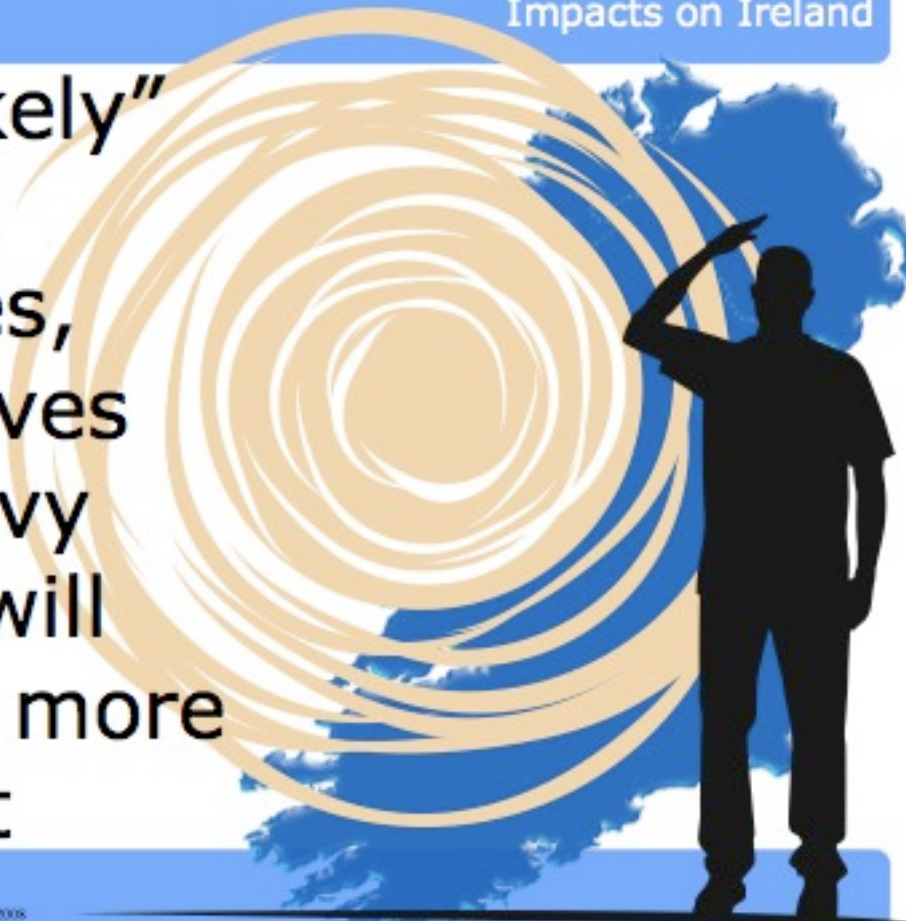
"Very likely" that hot extremes, heat waves and heavy rainfall will become more frequent

***revised projections 2009**

[Source: IPCC]

Climate Change: In Context
Brenda Wilmoth-Lesser & K. Lee Lesser, Editors, 2008

"Very likely" that hot extremes, heat waves and heavy rainfall will become more frequent



[Source: IPCC]

Climate Change: In Context
Brenda Wilmoth-Lesser & K. Lee Lesser, Editors, 2008

The Great Floods of 2009



My hometown of Bandon

Flood Mark



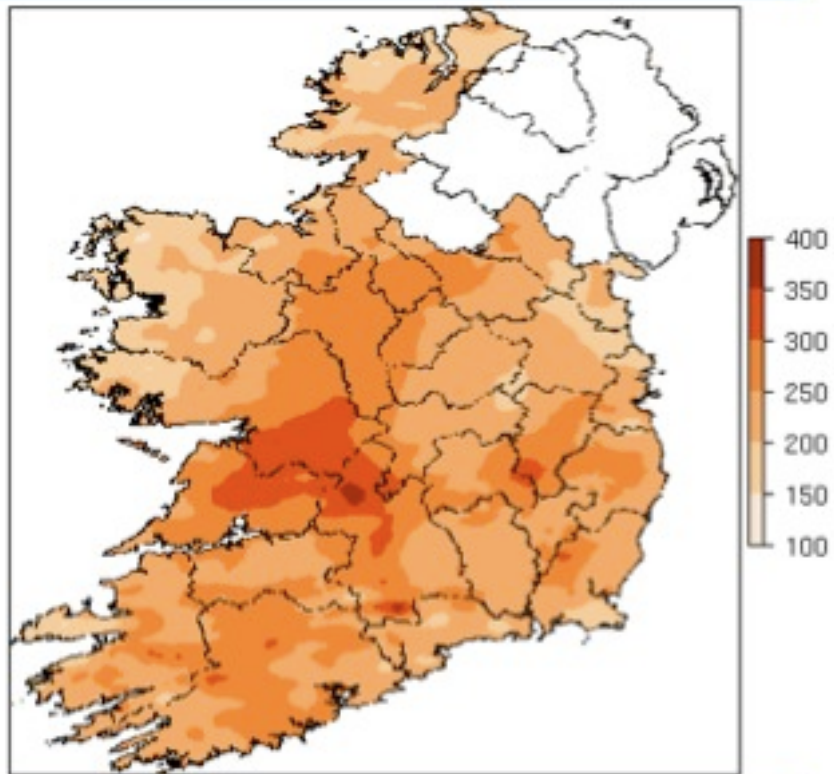
The worst flood ever!

Bandon

November 2009 rain as a percentage of 1961-1990 normal

More than twice the average November amounts were measured at almost all stations, and over three times the normal amount fell in some places.

The Great Floods of 2009

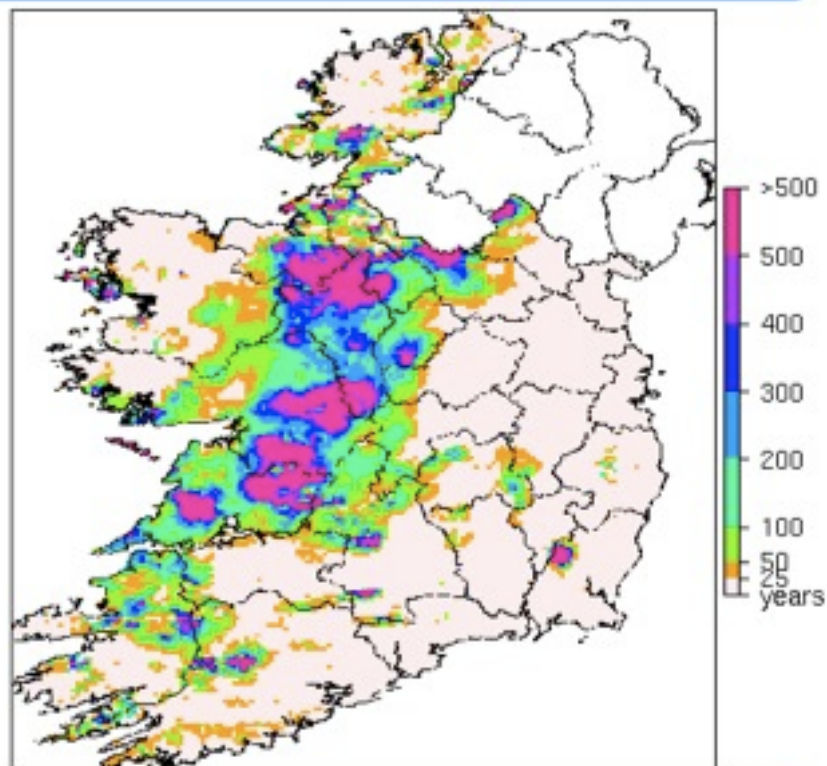


NOVEMBER 2009 RAINFALL
REPORT TO THE COMMITTEE
ON ENVIRONMENT, HERITAGE
AND LOCAL GOVERNMENT

Return period 25 day duration

Large parts of the country experienced rainfall in November that should normally only occur once every 500 years.

The Great Floods of 2009



NOVEMBER 2009 RAINFALL
REPORT TO THE COMMITTEE
ON ENVIRONMENT, HERITAGE
AND LOCAL GOVERNMENT

More Rain - More Extremes !!!

There has been approximately a **10%** increase in annual rainfall over parts of Ireland since the 1970s. There has also been an increase in extreme rainfall events

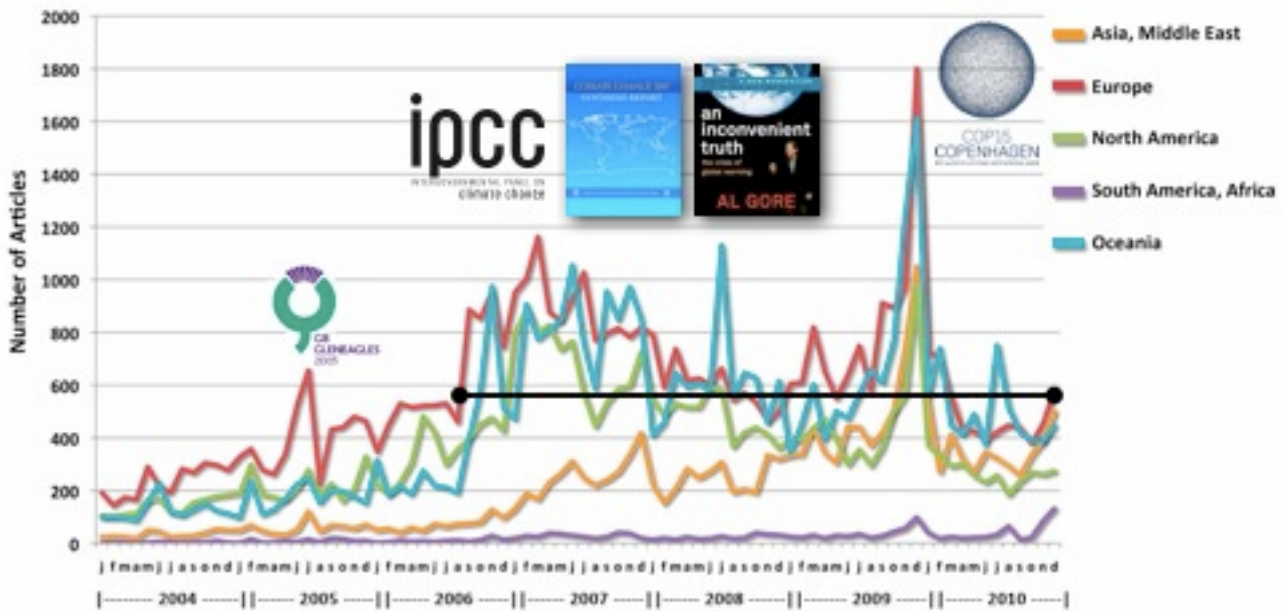


Extreme Weather, Climate and Natural Disasters in Ireland, 2010, Kiely et al

Media coverage of Climate Change



2004-2010 World Newspaper Coverage of Climate Change or Global Warming



http://sciencepolicy.colorado.edu/media_coverage/

climate
for change

