

Bard Center for Environmental Policy



- Masters Degrees in Environmental Policy & Climate Science and Policy
- 3+2 degree: “Junior Year at Bard”



Leading The Revolution In Hard Times



Dr. Eban Goodstein, Bard Center for Environmental Policy

Hard Times

■ Economy

10% Unemployment: The New Normal?

■ Politics



“The country’s future crucially depends on education, science and technology as it faces increasing competition from China and other emerging science powers.... Yet the public often buys into anti-science, anti-regulation agendas that are orchestrated by business interests and their sponsored think tanks and front groups.”

– Nature, 9/7/10

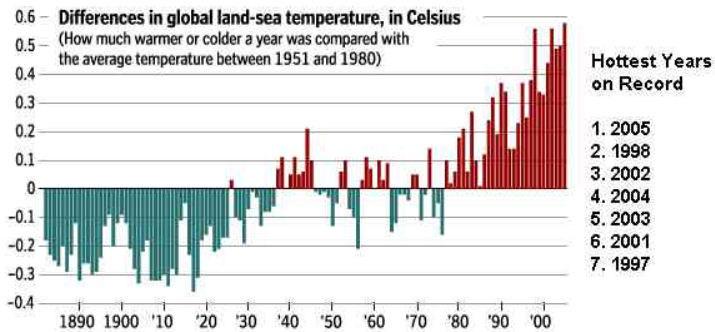
■ Planet



**NASA: 2010 is “What
Global Warming Looks Like”**

TIME

**Global Warming's Next Victim:
Wheat**

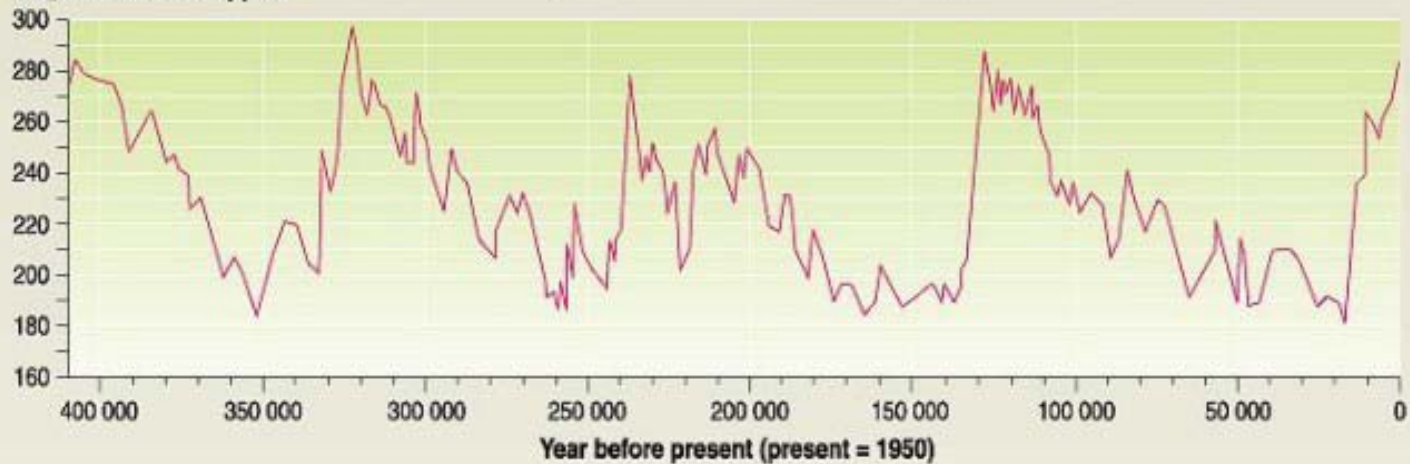


A NASA study concluded that 2005 was the warmest year on record. Two other studies differed slightly but indicated the Earth's temperature is rapidly warming.
 SOURCE: Goddard Institute for Space Studies
 GRAPHIC: The Washington Post - December 16, 2005

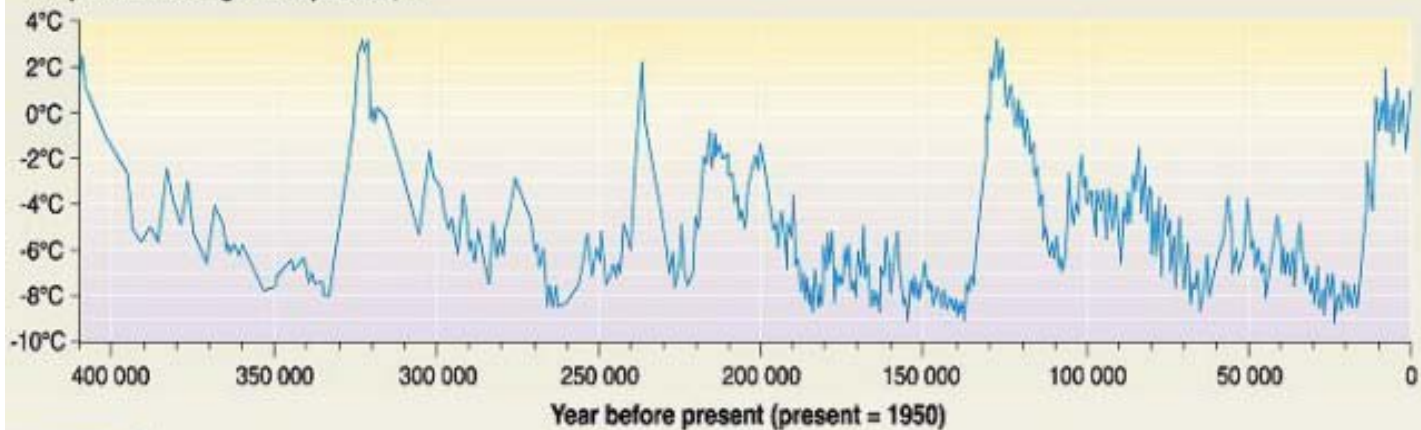


Temperature and CO₂ concentration in the atmosphere over the past 400 000 years (from the Vostok ice core)

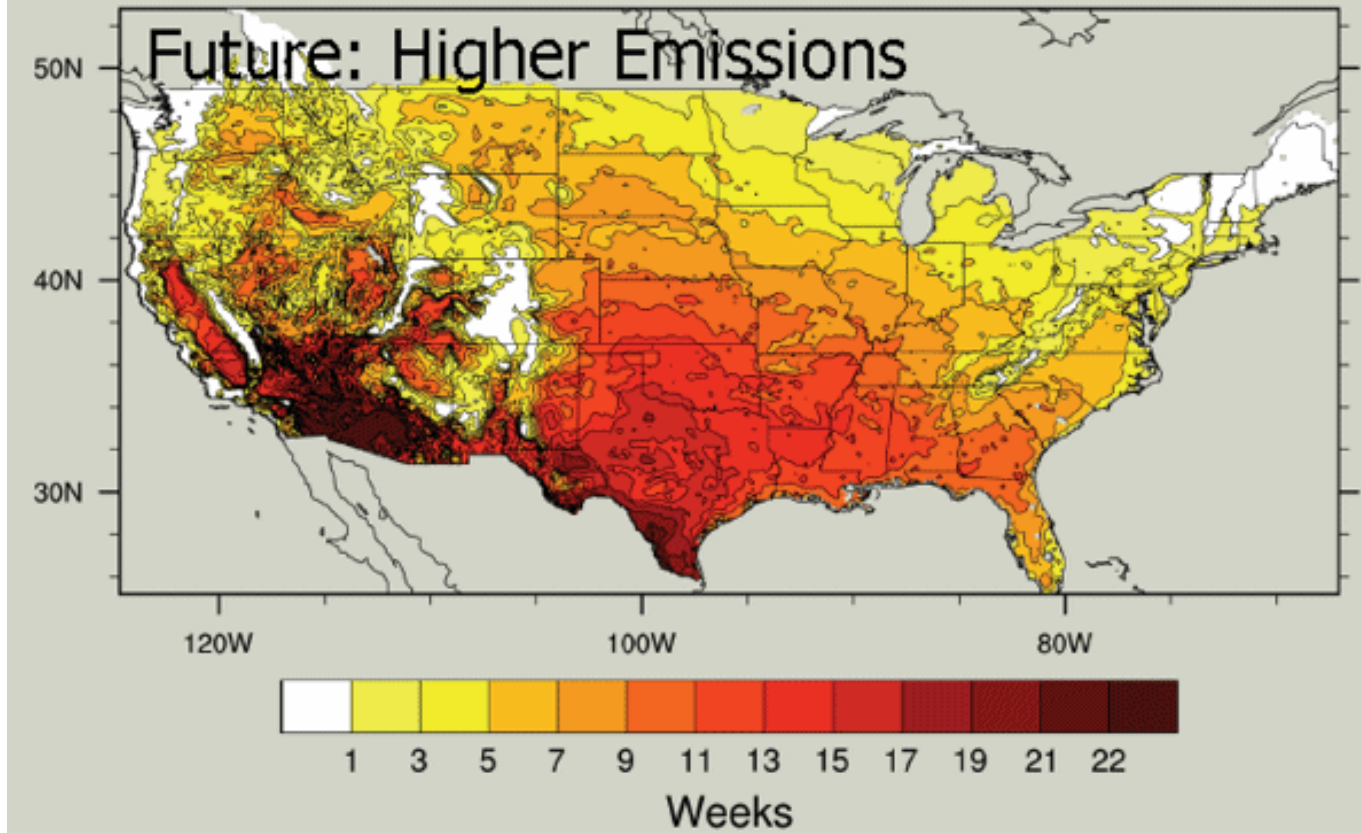
CO₂ concentration, ppmv



Temperature change from present, °C



Weeks per Year > 100°F (38°C)



Catharine Hayhoe,; Texas Tech University.

Positive Feedbacks in The Climate System

- Arctic albedo changes & methane release from tundra and continental shelves: accelerated warming
- Ocean acidification: potential collapse of marine foodchains
- Fire-driven deforestation: accelerated warming
- Continental Ice Sheet Collapse: sea level rise of 35-40 feet





“How far can it go? The last time the world was three degrees warmer than today – which is what we expect later this century – sea levels were 25m higher. So that is what we can look forward to if we don't act soon...

How long have we got? We have to stabilize emissions of carbon dioxide within a decade, or temperatures will warm by more than one degree. That will be warmer than it has been for half a million years, and many things could become unstoppable....*We don't have much time left.*”

Dr. James Hansen, Director, NASA Goddard Institute for Space Studies.

– *The Independent* 2/ 17/2006

The Fight of Our Lives



Emission Reduction Profile to achieve 450 PPM

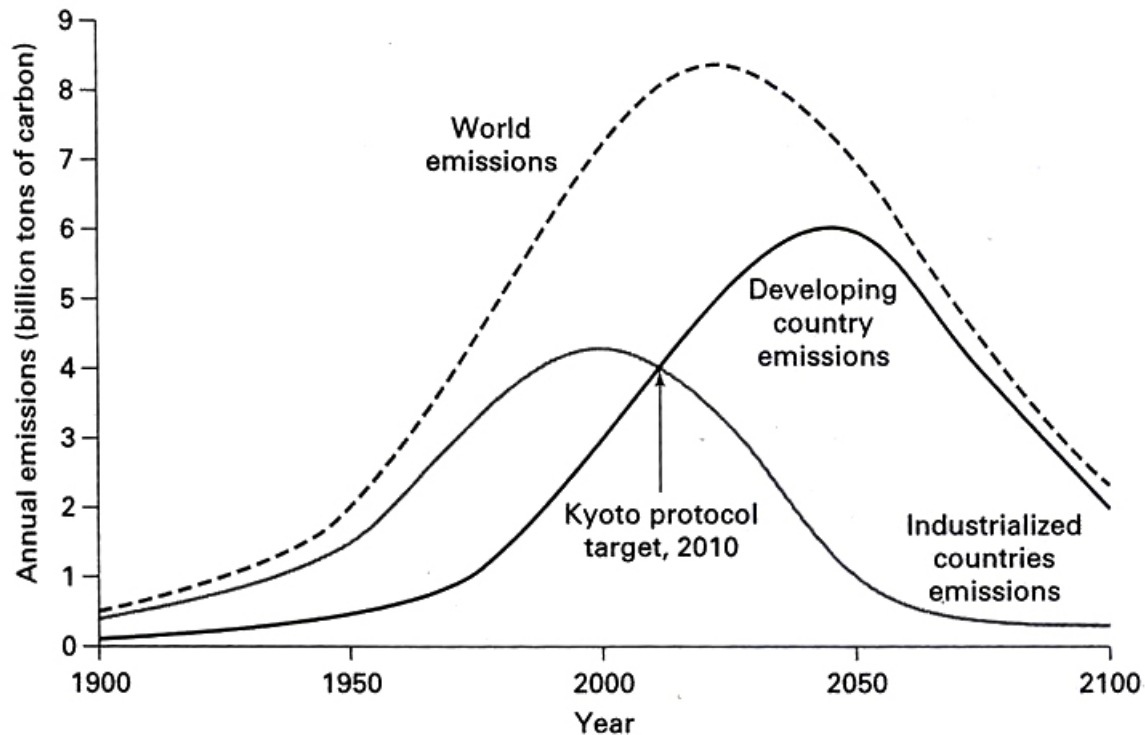
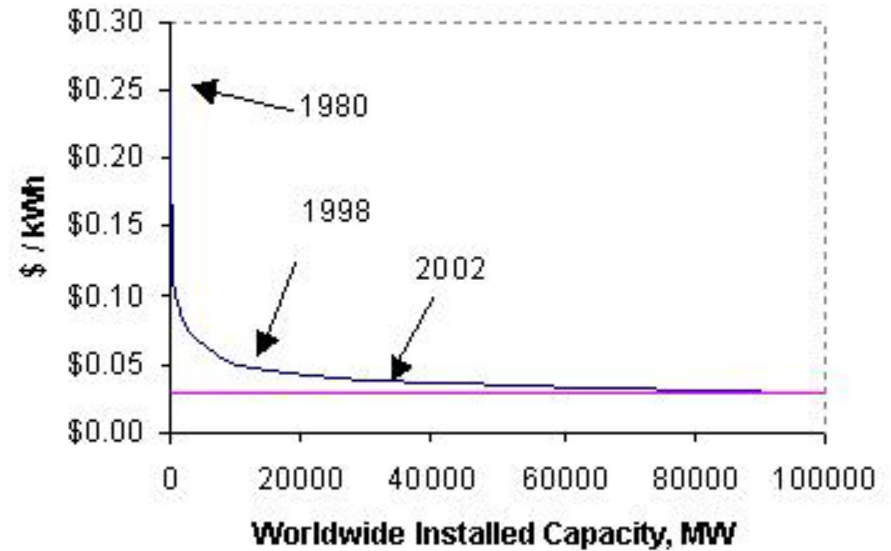


FIGURE 23.1 Stabilizing CO₂ Concentrations at 450 ppm

Source: Bernow et al. (1999). Used with permission.

The model for a clean energy revolution



Source: Goodstein 2004

Key Role for States & Cities

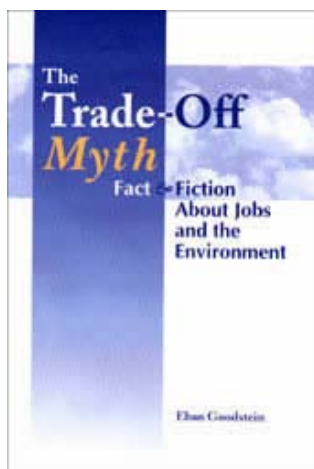


**Thick Networks of Social Capital:
Trust to support aggressive public-private
partnerships.**



<http://www.youtube.com/watch?v=5LrjsFvJ574>

From “Jobs vs Environment” to “Green Jobs”



**The Trade-off Myth: Fact and Fiction
About Jobs and the Environment
(Island Press: 1999)**



**Climate Policy and Jobs:
An Update On What Economists Know
www.e3network.org**

Why **green** jobs?

- 1. Domestic Content Intensive:** eg, replace imported oil (or coal or gas) with domestically produced efficiency, wind, solar or renewables. Keep the dollars at home.
- 2. Labor Intensive:** weatherization versus fuel oil combustion; recycled paper versus virgin production; home deconstruction versus demolition. Net effect of 1 & 2: 1.7 million near-term jobs possible.
- 3. Technology Leadership:** wind power, solar thermal photovoltaics, high speed rail.
- 4. Capital Mobilization:** Help end the “jobless recovery” and prevent a Lost Decade.



Where will green jobs come from?

Business and Government Investment

in

States and Cities with strong Social Capital networks
supporting Innovative, Aggressive Policy

in

Countries with shrinking Carbon Caps and National
Support for Clean Technology investment

By 2040, The Greatest Generation will transform the global economy



Our generation will get them started





Leading the Revolution

Leaders:

- Take people where they otherwise would not go.
- Empower others to lead.

Leading Requires:

- Vision (Why are you here?)
 - Courage (Can you keep doing this?)
- .

