ENVS 3521
Climate Politics & Policy

University of Colorado-Boulder ~ Spring 2012
Component III – March 22

reminders & announcements:

next week – SPRING BREAK

Tuesday, April 3 – flexible class time for Activity #2 planning

Thursday, April 5 – regional and state-level climate action

Tuesday, April 10 – City/County of Boulder climate policy action
w guest Jonathan Koehn
Thursday, April 12* – Colorado climate policy action
w guest Alice Madden

*activity #2 presentations will be postponed slightly, time/day TBA

top themes in Prins & Rayner readings

Time to Ditch Kyoto

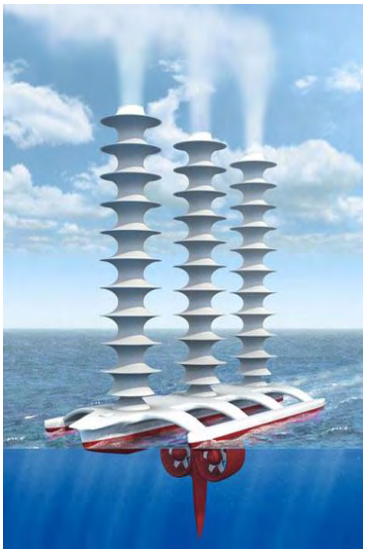
- "Kyoto tries to to do too much too soon" (p. 794)
- innovation emphasis (e.g. R&D) over hollow regulatory aims
- "The proper purpose of politics is to do things *for* people, not *to* them" – calls for flexibility and multiscale action
- multilateralism OUT, minilateralism IN

The Hartwell Paper

- "The UNFCCC/Kyoto model was structurally flawed and doomed to fail…"
- path dependence concerns – sunk costs, political capital
- *refocus efforts*: ensure energy access for all; ensure 'sustainable' development; ensure that our societies are equipped to deal with climate risks and dangers

'geoengineering' defined

geoengineering (or **climate engineering**): deliberate engineering and manipulation of the planetary environment to combat or counteract anthropogenic changes in atmospheric chemistry (Royal Society, 2009)



top themes in today's readings

<u>carbon intensity</u> (CI): GHG emissions of a fuel's production and use through its life cycle, per unit of energy delivered → grams of carbon dioxide equivalent emissions per megajoule of energy [gCO2e/MJ]

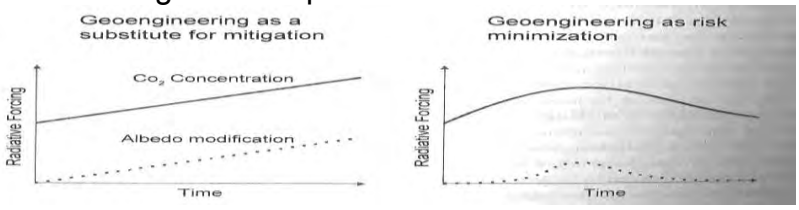
COAL > OIL > Natural Gas > Renewables (debates on hydrogen, nuclear)

<u>*Schneider et al. (2010)* chs 45-47</u>:

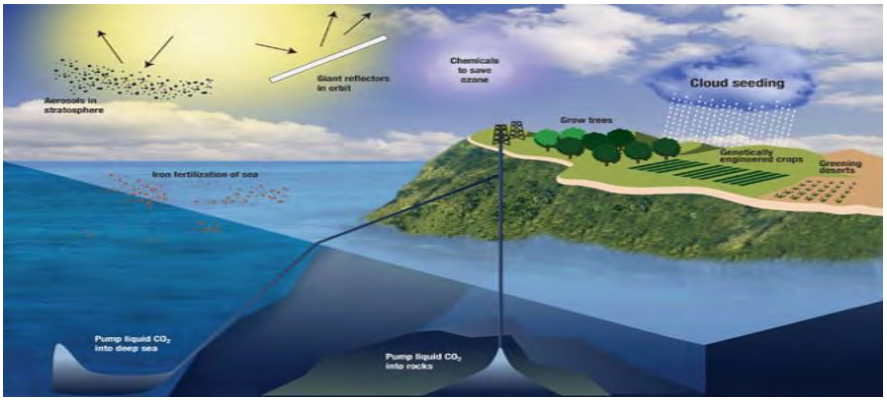
- hydrogen, nuclear, carbon capture & storage

<u>*Schneider et al. (2010)* ch 48 (by David Keith)</u>:

- controlling the weather [and links to military endeavors]
- 'Should we engineer the planet?'



two main types of geoengineering



Solar Radiation Management (SRM) [adaptation]

e.g. painting rooftops, enhancing cloud reflectivity, SO_x

Carbon Dioxide Removal (CDR) [mitigation]

e.g. ocean fertilization, air capture, lithosphere storage

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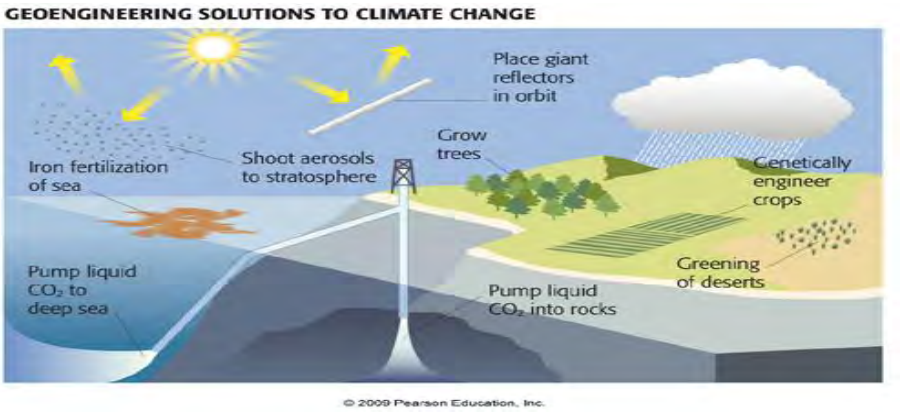

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Planetary engineering: a moral hazard?

"to suit human needs & promote habitability" NYT, 2006

Yale poll on attitudes & climate change (Leiserowitz et al, 2010):

- 74% of respondents had never heard of geoengineering
- 3% of the respondents could accurately define it

CONSIDERATIONS

→ a 'way out' of emissions reductions responsibilities?
→ reducing political/public citizen will for mitigation actions?
→ do humans have a 'right' to deliberately change the climate?
→ how can 'we' agree on the optimal climate globally?

questions of power & jurisdiction

→ are regulations and standards too underdeveloped to address this?
→ how are we addressing overlapping risks w fracking/natural gas extraction?
→ are these 'band aid' efforts, overlooking root causes of climate change?

planning & research

Asilomar International Conference on Climate Intervention Technologies (nov 2010)

Objectives:

- Identify potential risks associated with climate intervention experiments
- Propose a system to assess experiment design for potential categorical risks and suggest precautions to assure their safe conduct
- Propose voluntary standards for climate intervention research for the international scientific community

Recommendations:

- pursue research that advances the collective well-being of society, env't
- coordinate and plan internationally
- during consideration and conduct of planned activities, take in account governmental oversight, public involvement, and decision-making
- conduct research with transparency and accountability
- undergo independent evaluation and assessment of research.

climate governance & scale

Does the scale of the challenge match the scale of responses?

"radical changes..will be needed for a low carbon society" – Fawcett (2010, 6875)

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