

# Climate Favela: Regime Building with No Architect

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# Some Preliminaries

- What is meant by an “architecture”?
  - “A unifying structure that restricts potential agreements in ways that both simplify negotiations and point them in desirable directions” (Schmalensee, 1998)
- A common view of international process
  - Agree on the structure for negotiations
  - Negotiate commitment levels & measures
  - Nations implement control measures
- A scenario for greenhouse gases
  - The process begins the other way around

# The Lure of a Comprehensive Climate “Architecture”

- A global commons problem
  - So include all nations from the start
- But the world has rich and poor
  - So “common but differentiated responsibilities”
  - But all are involved in deciding the structure
- Many substances contribute to forcing
  - So include all gases in a common system
- Country cost differences will be inefficient
  - So introduce flexibility mechanisms

Who? politicians, negotiators & policy analysts

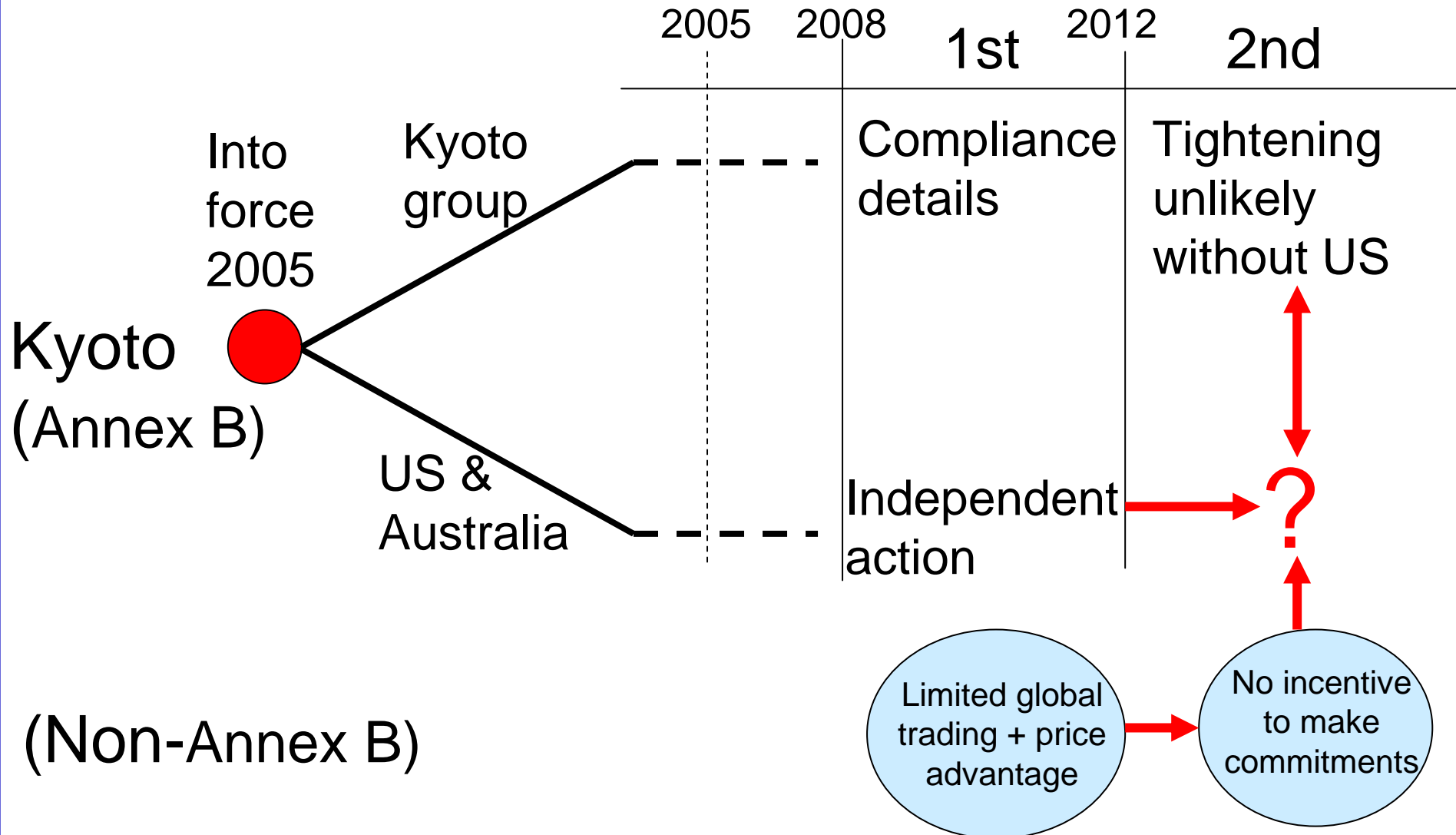
# An Effort Not to Be Disparaged

- For a meaningful long-term response, these aspects will need to be dealt with
  - It is faint criticism to say they (we) reached for too much, too soon in the way of structure
- Montreal provided an alluring model
  - But lessons drawn were not appropriate for a problem of very different scope & scale
- Ongoing search for comprehensive answer
  - Continuing stalemate in global discussions
  - Structure will emerge from early actions (including Kyoto) taken by key large nations

# A Key Kyoto Flaw

- Local politics drove Protocol text beyond the level of commitment of key nations
- In hindsight
  - Binding international agreements follow (not lead) domestic commitments
  - Climate architecture is more about economic policy than traditional environmental issues
- Differences in governmental structure & social priorities are crucial
  - US (Congress) vs. Europe/Japan (parliaments)
  - China, India, Brazil, Indonesia

# So, Regime Fragmentation



# A Scenario of Kyoto's Fate (Background for post-2012 vision)

- FCCC and the COP
  - Continued support from all parties
  - But focus shifts to other venues (G8, L20)
- Kyoto Protocol and the MOP
  - Survives post-2012 as a softer commitment
  - Many national measures (e.g., ETS) are permanent
- CDM
  - CER quantities are small; attempts to loosen fail
  - Post-2012 uncertainty weakens projects
  - Structure maintained by demand from the ETS & national systems and World Bank caretaking

# As Would-Be “Architects” Work: Uncoordinated Regime Building

- Diverse individual national programs
- Non-CO<sub>2</sub> gases as a separate target
- Proliferation of credit deal making ( $\Delta$  defn's)
- Sub-group pledge & review, by sector
  - Design standards
- Ad-hoc linking of trading systems
  - Among Kyoto parties & with nations outside
  - Sub-nation but across borders (New England, SW USA and NW Mexico)

# Diverse Country Measures

- Voluntary schemes & MOUs
- Regulations and standards
- Subsidies to low-CO<sub>2</sub> technologies
- Carbon prices
  - CO<sub>2</sub> & fuel taxes . . . & subsidy removal
  - Cap-and-trade systems
- RD&D and commercial demonstration
- \$ and technology flows to Non-Annex B

Countries claim  
credit for all

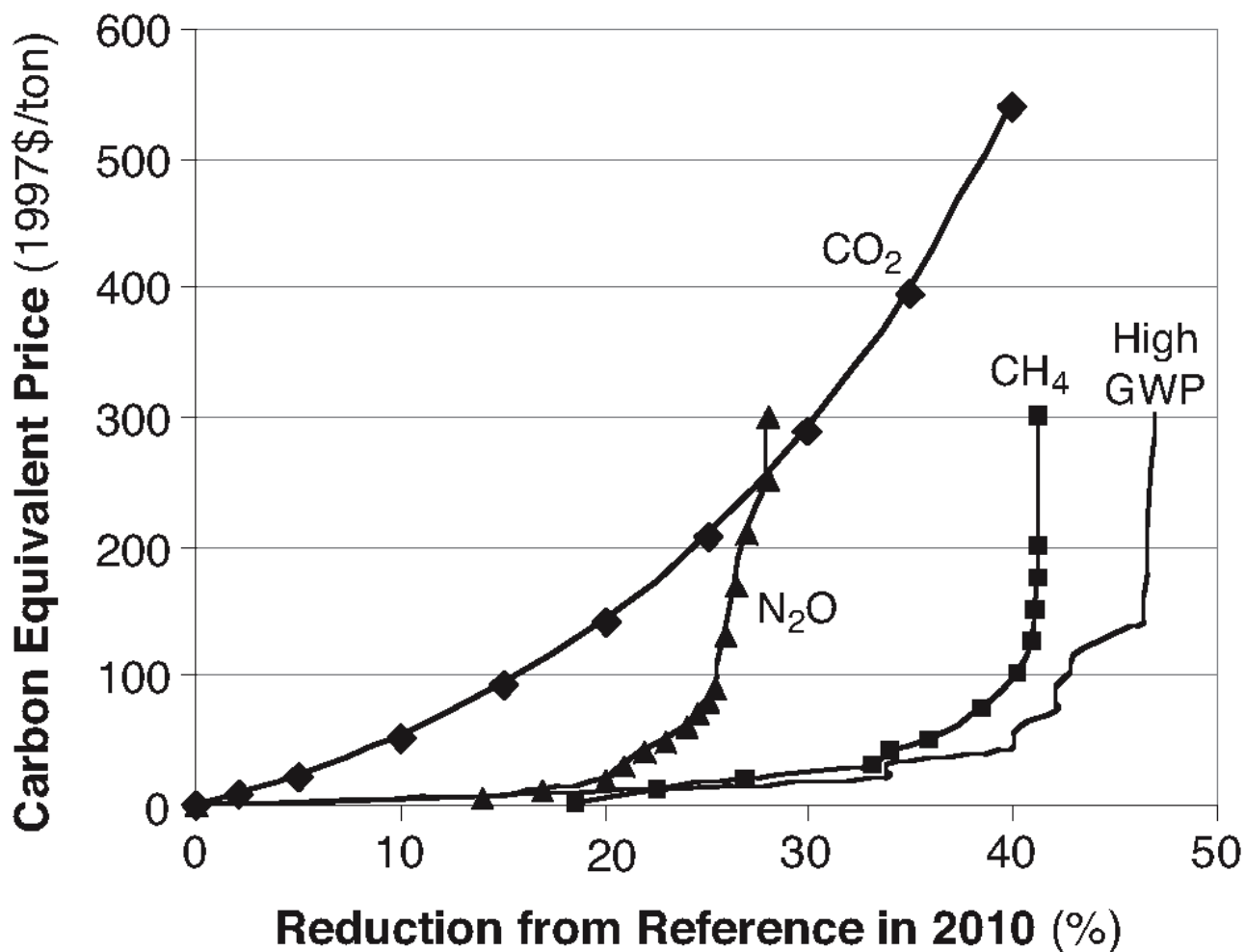


Negotiations more  
complex than targets  
& timetables

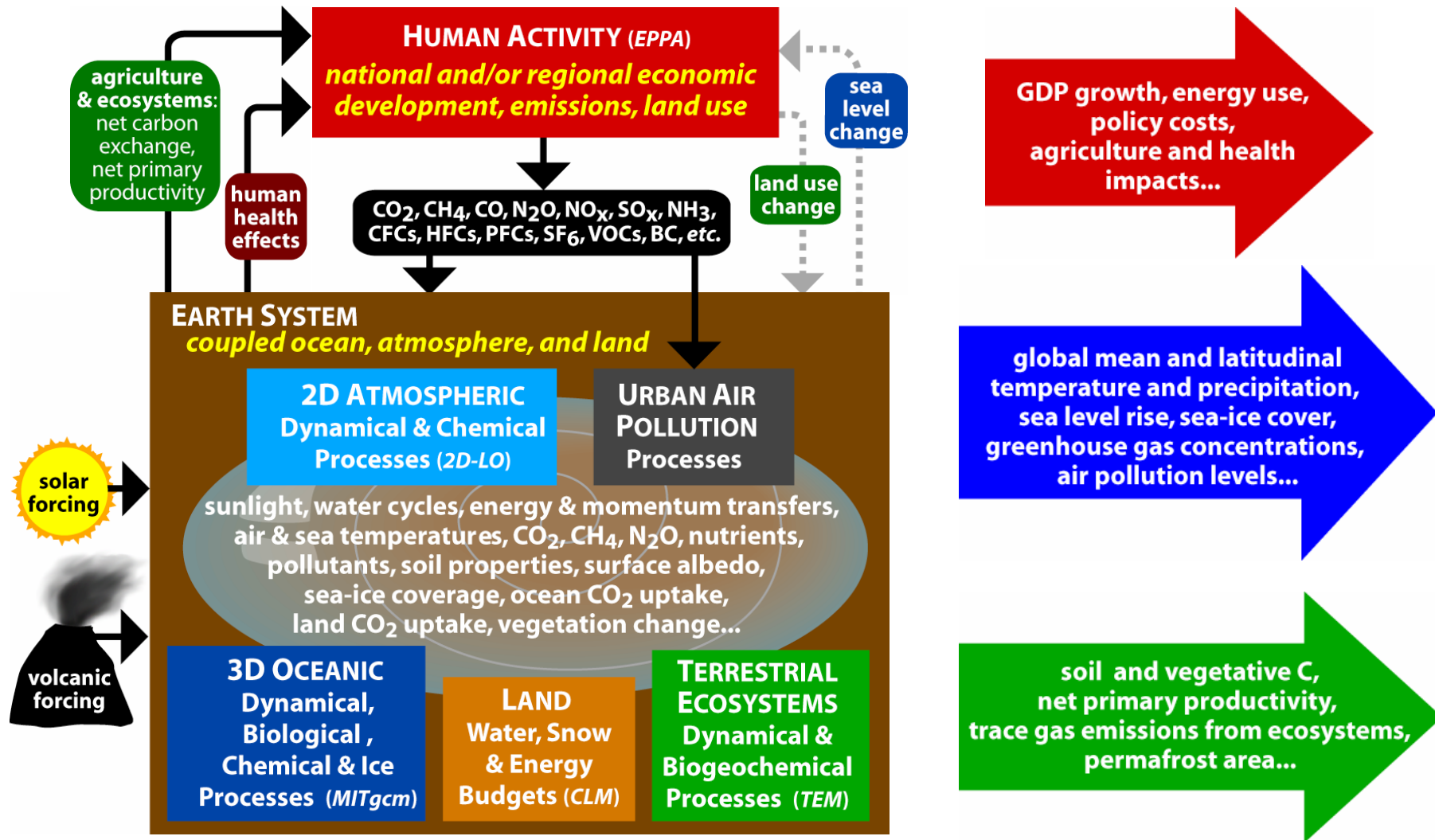
# Focus on Non-CO<sub>2</sub> Gases

- While stalemated . . . a shift of focus?
  - From all gases, partial coverage (Kyoto)
  - To non-CO<sub>2</sub> gases, wide coverage
- A thought experiment regarding their potential contribution and cost (Reilly *et al.*)
  - Kyoto forever (CO<sub>2</sub> only version here) vs.
  - Policies imposing A \$15/tce marginal cost on non-CO<sub>2</sub> gases, with all nations participating
  - What effectiveness . . . & what cost?

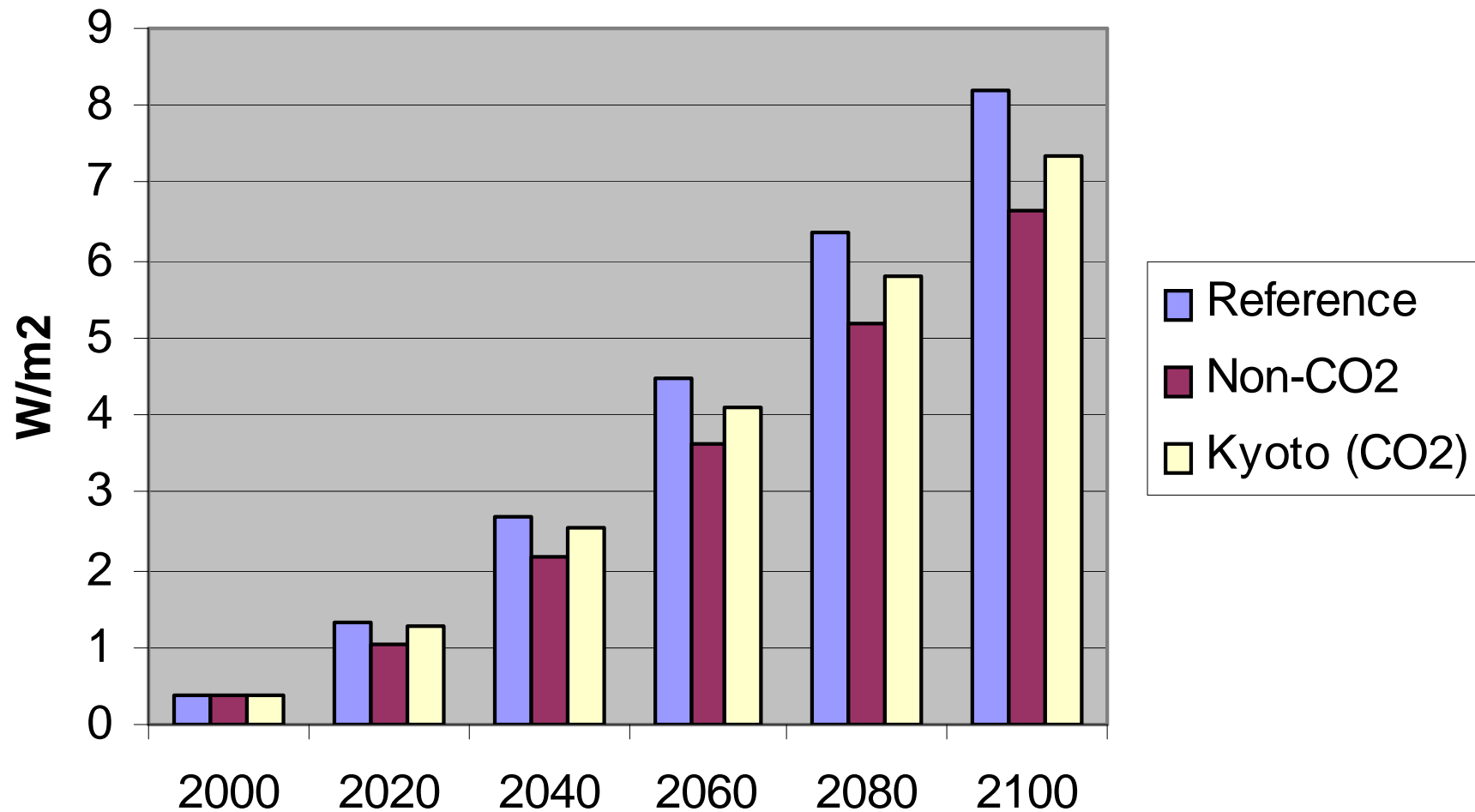
# Marginal Cost of Abatement (US Data using IPCC GWPs)



# MIT Integrated Global System Model (IGSM) Version 2



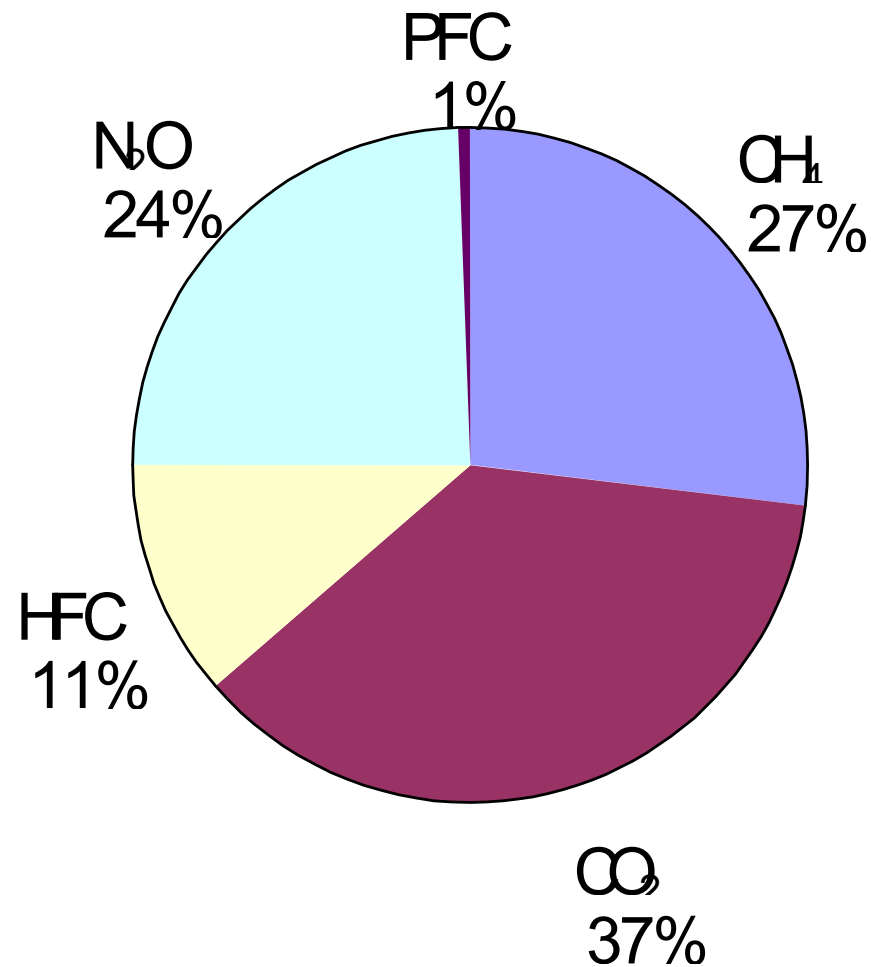
# Reduction in Radiative Forcing Universal Non-CO<sub>2</sub> vs. Partial Kyoto CO<sub>2</sub>



# Intimations of Missed Opportunities

- Voluntary programs on industrial gases
  - World Semiconductor Council PFC target
  - US SF<sub>6</sub> Emissions Reduction Partnership
- Methane to Markets Partnership
  - Coal mines, landfills, leaky oil & gas
- Current CDM

# Percentage Breakdown of CDM Proposals by Gas, 2005



Source: CDM Watch & analysis by Satoro Kasahara

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# Uncoordinated Construction Until Key Nations Take Leadership

- The US
  - Direct action, beyond R&D & voluntary measures
  - The process under way
  - The timing
- China & India
  - Some action & contingent commitments
  - Any process under way?
  - The timing?

# Scenario or Recommendation?

- Is this just a bottom-up vision?
  - Messier than most proposals
  - No clear view of the ultimate structure
- From favela to global architecture
  - Coordination from messy start is easy compared to difficulty of first commitments
  - Action by big nations is a necessary condition
- So, seek low-cost gains while waiting
  - The timing is bad regarding any Article 2 goal
  - It may be all we get for many years, and will lower climate change risk