

# Getting Serious About Global Climate Change: Alternative International Climate Policy Architectures for the Post-Kyoto Era

**Robert N. Stavins**

*Albert Pratt Professor of Business and Government  
Harvard Kennedy School*

*Director, Harvard Project on International Climate Agreements*

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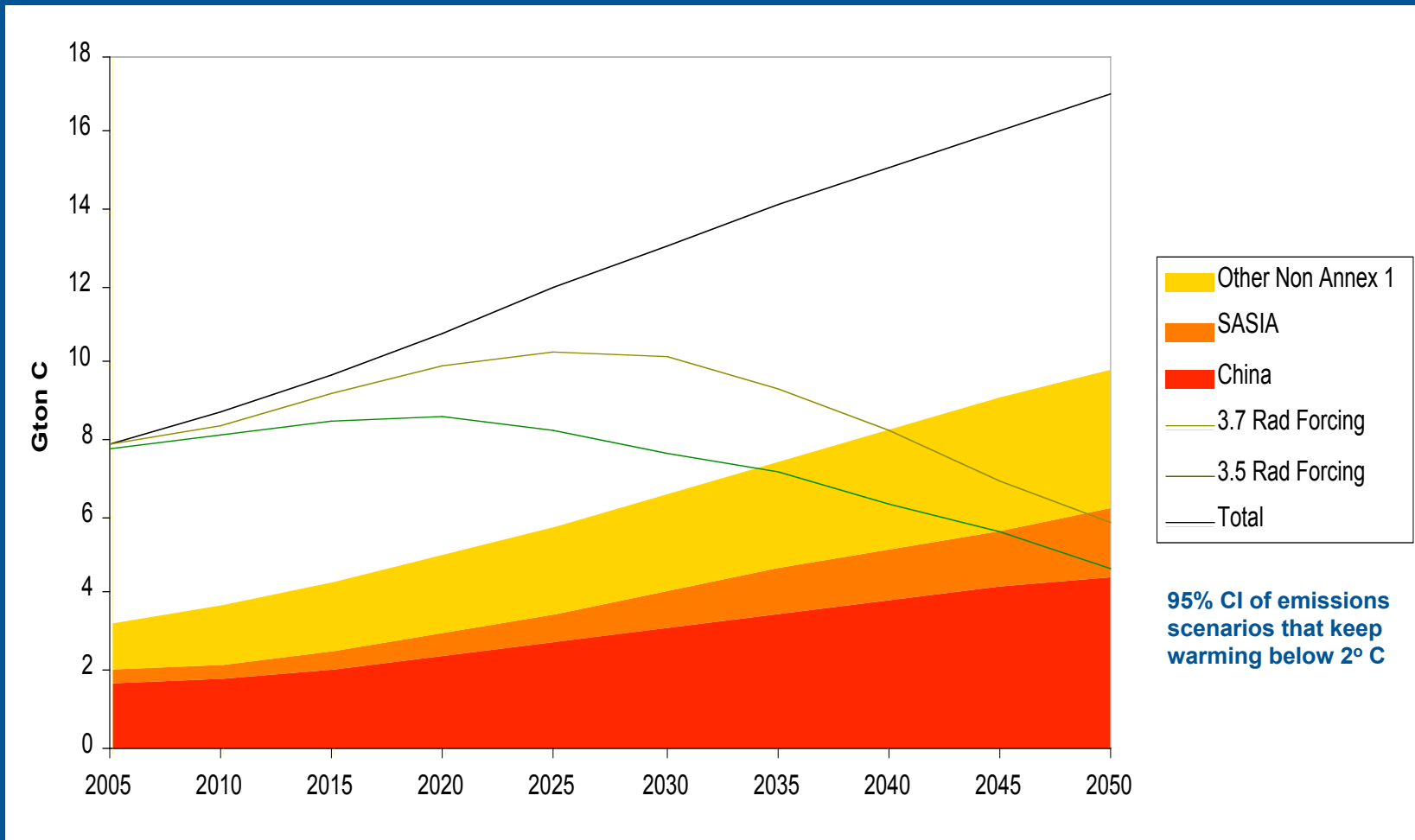
# Agenda

- Introduction: Looking Back, Moving Forward
- Principles for a New International Agreement
- Potential Global Climate Policy Architectures
- Design Issues and Elements
- The Path Ahead

# The Global Climate Policy Challenge

- Kyoto Protocol came into force in February 2005, and the first commitment period began in 2008 (& ends in 2012)
- Even if the United States had participated, the Protocol's direct effects on climate change would be very small to non-existent
- Science and economics point to the need for a credible international approach
- Climate change is a classic global commons problem — so it calls for a global solution

Even if industrialized country (Annex I) emissions are completely eliminated, a 450 ppm (2° C) stabilization target is physically impossible to achieve unless China and India reduce their emissions!

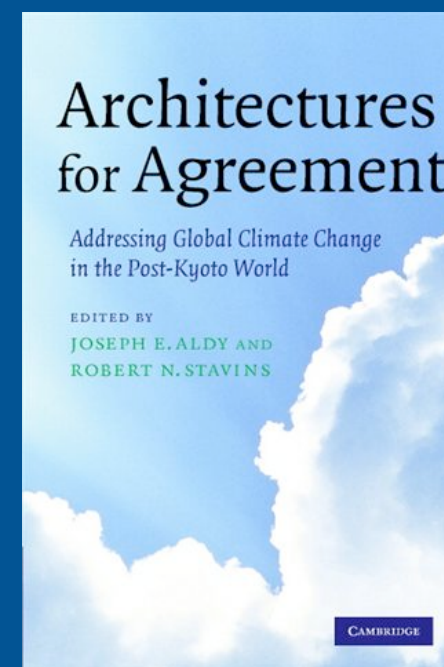


# Can the Kyoto Protocol Provide the Way Forward?

- The Kyoto Protocol has been criticized because:
  - The costs are much greater than need be, due to exclusion of developing countries (conservative estimate: costs are four times cost-effective level)
  - The Protocol will generate *trivial* climate benefits, and *fails* to provide any long-term solution
  - Short-term targets are excessively ambitious for some countries
  - So, the Kyoto Protocol is “*too little, too fast*”
- Nevertheless, can structure of the Kyoto Protocol provide the way forward?

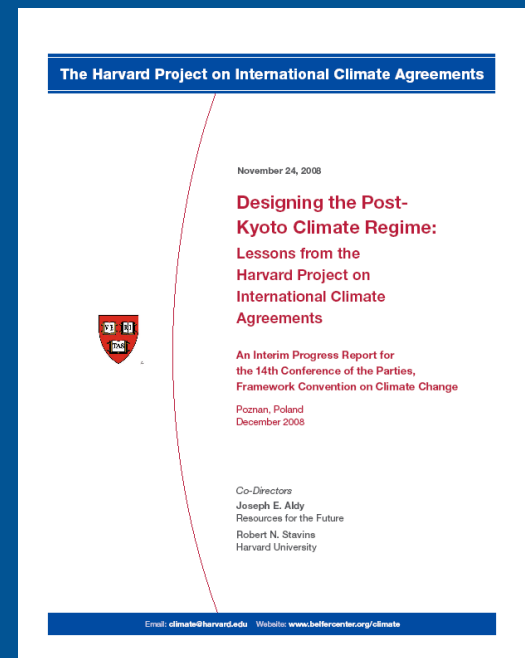
# Searching for the Path Forward for Post-2012

- The Harvard Project on International Climate Agreements
- Mission: To help identify key design elements of a scientifically sound, economically rational, and politically pragmatic post-2012 international policy architecture for global climate change
- Drawing upon research & ideas from leading thinkers around the world from:
  - Academia (economics, political science, law, international relations)
  - Private industry
  - NGOs
  - Governments



# Developing Insights for Post-2012 Climate Regime

- 26 research initiatives in Europe, United States, China, India, Japan, & Australia
- Outreach with governments, NGOs, and business leaders throughout the world (working with heads of governments & ministers in many countries)
- **Interim Report** builds upon lessons emerging from 26 research initiatives
  - Key principles for a new international agreement
  - Promising global climate policy architectures
  - Key design issues and elements
  - Negotiating countries can and should create their own hybrids from the architectures and design elements



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# Key Principles for a New International Agreement

- **Climate change is a global commons problem**
  - Cooperation of countries is essential, whether through UNFCCC, G20, or bilateral negotiations
  - Since sovereign nations cannot be compelled to act, treaties must create incentives for participation and compliance
- **A credible climate change agreement must be equitable**
  - Industrialized nations should accept responsibility for historic emissions
  - Key rapidly growing, developing countries will need to take on increasingly meaningful roles
  - In both cases, the scope of attention and action should include all greenhouse gases, not only fossil CO<sub>2</sub>

# Key Principles for a New International Agreement (continued)

- **A credible agreement must be cost-effective**
  - Needs to bring about technological change & transfer
  - Must be consistent with international trade regime
  
- **A credible agreement must be practical and realistic**
  - Build on existing institutions and practices, where possible
  - Negotiations must attend to short-term achievements and long-term goals
  - No single approach guarantees a sure path to ultimate success, so best to pursue multiple approaches simultaneously

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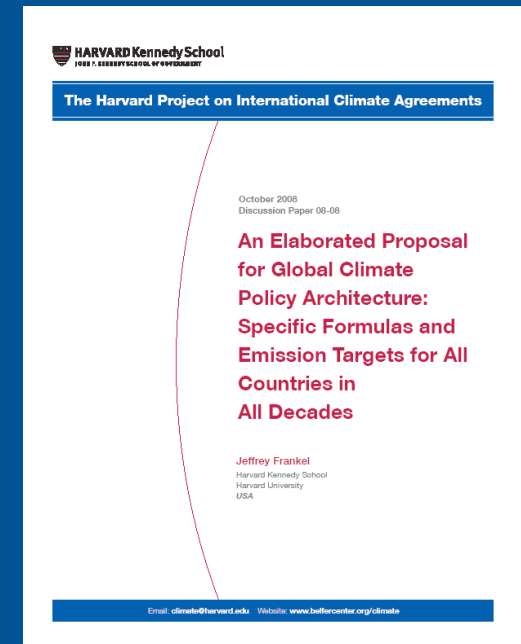
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# Potential Global Climate Policy Architectures

- **Harvard Project does not endorse a single approach**
  - Decision to adopt particular architecture is ultimately political, and must be reached by nations of the world, taking into account complex factors
- **Two examples of architectures among a much larger set considered, within three categories:**
  1. Targets & Timetables (as in Kyoto Protocol)
    - *Formulas for Evolving Emission Targets for All Countries (Frankel)*
  2. Harmonized National Policies
  3. Independent National Policies
    - *Linkage of National & Regional Tradable Permit Systems (Jaffe & Stavins)*

# Formulas for Emission Targets for All Countries

- **Core: Key principles lead to design of targets**
  - Formula used to set national emission caps to 2100 using three key elements
  - *Progressivity factor*: richer countries make more severe cuts
  - *Latecomer factor*: nations that did not achieve targets under Kyoto make gradual emission cuts to account for post-1990 emissions
  - *Equalization factor*: moves targets of all countries in direction of global average per capita emissions
- **Formulas assign quantitative emission caps to countries to 2100**
  - Developing countries are not asked to bear any cost in early years
  - Developing countries are not asked to make any sacrifice different from sacrifices of developed countries, accounting for differences in income
  - No countries have targets costing more than 1% of GDP
- **International trading links national & regional systems**
- **Every country contributes no more than its fair share**



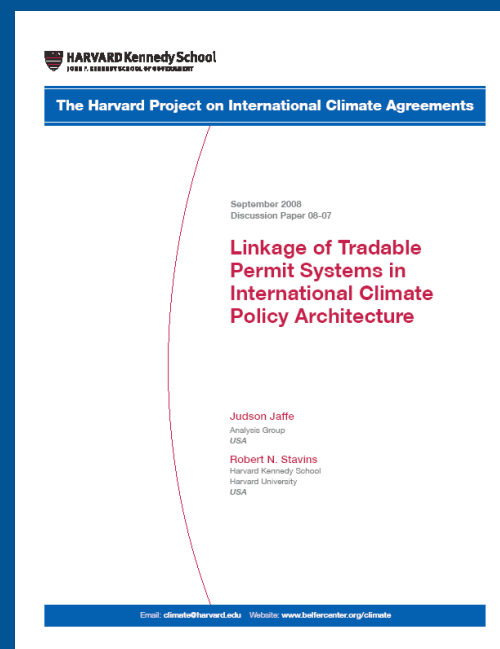
# Linkage of National & Regional Tradable Permit Systems

- **Cap-and-trade systems are preferred domestic approach in many countries and regions**

- Linking these cap-and-trade systems reduces overall costs, market power, and price volatility
- But linking causes automatic propagation of cost-containment design elements: banking, borrowing, and safety valve
- Therefore, advance harmonization required

- **The Emerging International Regime**

- If cap-and-trade systems link with common emission-reduction-credit system, such as CDM, the cap-and-trade systems are indirectly linked
- All the benefits of linking are achieved – cost savings, etc.
- But propagation of design elements across systems greatly diminished
- May be evolving as part of *de facto* post-Kyoto architecture



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# Key Design Issues and Elements

- **A new international policy architecture will need to address several particularly important design issues and elements**
  - Burden-Sharing Criteria and Mechanisms
  - Technology Transfer Policies and Institutions
  - Reforming or Replacing the Clean Development Mechanism
  - Addressing Deforestation Worldwide
  - Making the Global Climate Regime Compatible with Global Trade Policy
    - *Measures follow guidelines agreed by countries participating in KP or post-KP*
    - *Measures used only by complying countries against non-complying/participating countries*
    - *Any import penalties target only fossil fuels & 5-6 of the most energy-intensive bulk products*
    - *Judgments regarding findings of fact made by independent panels of experts*
- **All these are analyzed in the Interim Report; others in Discussion Papers**
- **Many involve relationship between climate policy and economic development**

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# Future U.S. Participation in an International Agreement?

## ▪ **Bush Administration**

- Plan of “slow, stop, & reverse” emissions made sense, *but* needed dates & targets for “stop & reverse”
- Plan’s embrace (in principle) of market-based instruments was good, but need real cap-and-trade in U.S., not just voluntary programs
- Bush criticized KP as a highly flawed international approach, but what was the Administration’s proposed alternative?

## ▪ **Does Everything Change with President Obama in the White House? *No.***

- Keep in Mind: Senate vote on Byrd-Hagel Res. against KP approach was 95-0
- President Clinton did not submit KP to Senate, nor would Vice President Gore had he been elected President, nor would Senator Kerry had he been elected, *nor will President Obama.*
- No matter who occupies the White House, a Kyoto-like treaty will *not* be ratified by the U.S. Senate

## ▪ **Do Some Things Change with President Obama in the White House? *Yes.***

- State-level and regional initiatives *will* advance in the U.S., and there will quite possibly be a comprehensive *national cap-and-trade system in place by end of 2010*, and ....
- *In 2009*, U.S. beginning to work with other nations on a *better international agreement*

# For More Information

**Harvard Project on International Climate Agreements**

[www.belfercenter.org/climate](http://www.belfercenter.org/climate)

**Proposal for a U.S. Cap-and-Trade System**

[www.brookings.edu/papers/2007/10climate\\_stavins.aspx](http://www.brookings.edu/papers/2007/10climate_stavins.aspx)

**The Harvard Environmental Economics Program**

[www.hks.harvard.edu/m-rcbg/heap/](http://www.hks.harvard.edu/m-rcbg/heap/)

[www.stavins.com](http://www.stavins.com)