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?
• 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 CO₂
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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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

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

The Harvard Environmental Economics Program
www.hks.harvard.edu/m-rcbg/heap/

www.stavins.com