Institutions II: International Climate Negotiations

- Evolution of Kyoto “architecture”
  - How might it have gone better?
  - Why the big national differences?
- Venue and architectural alternatives
- The road to Bali
- What path(s) to an international regime?
Fragmentation of the Kyoto Regime

UN General Assembly → Framework Convention on Climate Change

Conference of Parties

Treaty Bureaucracy

1st commitment period

Kyoto Protocol

Ratification by 55%

Ratif’n by 55%

Kyoto Protocol

U.S. → Tighten, Add LDCs

Annex B (OECD, Econ. In Transition)

Non-Annex B (Developing Countries)

2008

2012
The Evolution: 1992 in Rio

- Negotiations within the U.N. system
  - In the context of UNCED in 1992
- National targets and timetables
  - Concept: national quantity targets
  - “Aim” to return to 1990 by 2000
  - “Grandfathered” emissions at national level
- “Common but differentiated responsibilities”
  - Annex I vs. Non-Annex I

Q: What alternatives were available?
The Evolution: COP-1 in Berlin

• Mandated that negotiators agree to
  – Common “policies and measures”
• No discussion allowed of Non-Annex I emissions commitments
• Six-gas bundle
• Protocol to be prepared for agreement by COP-3, in Kyoto in 1997

Q: Were mistakes made here?
The Evolution: 1997 in Kyoto

• Agreed
  – Fixed quantity targets for 2008-2012, unrelated to growth
  – Commitments for Annex B nations only
  – Flexibility mechanisms & “new effort” sinks

• Not agreed
  – Restrictions on buying reductions abroad
  – “Do nothing” sinks
  – Compliance penalties

Q: What outcomes would have been better?
Final Protocol Steps

- Kyoto ➔ COP-6 (11/00): collapse on details
- Bush rejects Kyoto (3/01), quits negotiations
- Agreement in Bonn (7/01) & Marrakech (11/01) . . . without the US)
  - Relax targets by “do nothing” sinks
    - Bonn: 54 MMtC for Canada, Japan, Russia
    - Marrakech: another 15.4 MMtC for Russia
  - Dropped restrictions on emissions trading
- Deferred issue of compliance penalties

Q: Were opportunities missed in this period?
### Why Such Conflict?

<table>
<thead>
<tr>
<th>Perception of differences in attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>US, EU, Japan, Canada, Australia, Russia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of industry vs. government</td>
</tr>
<tr>
<td>Public attitudes &amp; environmental politics</td>
</tr>
<tr>
<td>Fiscal interactions</td>
</tr>
<tr>
<td>Role of NGOs</td>
</tr>
<tr>
<td>Culture/traditions</td>
</tr>
<tr>
<td>National policy structures</td>
</tr>
<tr>
<td>International negotiating process</td>
</tr>
</tbody>
</table>

Others?

- R&D and subsidies to new technology
- 10-year GDP-linked reduction target
- Voluntary programs to achieve it
  - Registry of emissions (still being designed)
  - Firms can record reductions, get credit against any follow-on mandatory scheme (?)
- Promise more action in 2012, if intensity goal isn’t met and “the science warrants”
- Bilateral and multi-lateral technology agreements
Action in Other Venues

• U.S. multilateral initiatives
  – Methane to Markets
  – Asia-Pacific Partnership on Clean Development and Climate (AP6)
  – Major Emitters Conference(s)

• Initiatives by the EU and others

• Group of 8 (summit meetings)

• Greenland Dialogue
Subsequent COP/MOP Activity

- Many details of implementation
- Compliance
  - Amendment vs. “decision”
- CDM
  - Clear bureaucratic underbrush
- Residual sinks issues
  - Credit for stopping deforestation?
- “Dialog” on long-term cooperative action
  - How to address the post-2012 question
The Path to Bali

- “Seminars” in previous COPs
- The conflict in Bali (& the footnote)
- Bali action plan
  - Provisions (& the political fingerprints)
  - Timing

---

Classification of recent (Post-Third Assessment Report) stabilization scenarios according to different stabilization targets and alternative stabilization metrics

<table>
<thead>
<tr>
<th>Category</th>
<th>Additional radiative forcing (W/m²)</th>
<th>CO₂ concentration (ppm)</th>
<th>CO₂ - eq concentration (ppm)</th>
<th>Global mean temperature increase above pre-industrial at equilibrium, using &quot;best estimate&quot; climate sensitivity (°C)</th>
<th>Peaking year for CO₂ emissions</th>
<th>Change in global CO₂ emissions in 2050 (% of 2000 emissions)</th>
<th>No. of assessed scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2.5-3.0</td>
<td>350-400</td>
<td>445-490</td>
<td>2.0-2.4</td>
<td>2000-2015</td>
<td>-85 to -50</td>
<td>6</td>
</tr>
<tr>
<td>II</td>
<td>3.0-3.5</td>
<td>400-440</td>
<td>490-535</td>
<td>2.4-2.8</td>
<td>2000-2020</td>
<td>-60 to -30</td>
<td>18</td>
</tr>
<tr>
<td>III</td>
<td>3.5-4.0</td>
<td>440-485</td>
<td>535-590</td>
<td>2.8-3.2</td>
<td>2010-2030</td>
<td>-30 to +5</td>
<td>21</td>
</tr>
<tr>
<td>IV</td>
<td>4.0-5.0</td>
<td>485-570</td>
<td>590-710</td>
<td>3.2-4.0</td>
<td>2020-2060</td>
<td>+10 to +60</td>
<td>118</td>
</tr>
<tr>
<td>V</td>
<td>5.0-6.0</td>
<td>570-660</td>
<td>710-855</td>
<td>4.0-4.9</td>
<td>2050-2080</td>
<td>+25 to +85</td>
<td>9</td>
</tr>
<tr>
<td>VI</td>
<td>6.0-7.5</td>
<td>660-790</td>
<td>855-1130</td>
<td>4.9-6.1</td>
<td>2060-2090</td>
<td>+90 to +140</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>177</td>
</tr>
</tbody>
</table>

Figure by MIT OpenCourseWare.
No Shortage of Proposals, e.g.

• KP-type targets & timetables (Reductions from baseline, rolling negotiations)
  – Wealth trigger for accession
  – Role of “historical responsibility”
  – Path to equal tons per capita

• Targets & timetables with emissions trade
  – Head-room provided to Non-Annex B
  – International safety valve

• Harmonized carbon taxes
More Proposals

- International fund to buy reductions
  - By direct aid (perhaps development related)
  - Through an emissions trading regime

- Portfolio of policies and measures
  - Implementation by pledge and review
  - Targets and timetables as only a loose guide

- Protocol on R&D and demonstration

Wide open, awaiting the dialogue
What Path to Coherence?

- What venue?
- Who is involved?
- What form of agreement?
- What actions?
- What timing?

FCCC

COP

Sec’y  SBSTA  SBI

Kyoto Protocol

US & Others

MOP
Web Sites

- www.ipcc.ch
- www.unfccc.int
- http://globalchange.mit.edu/
- www.weathervane.rff.org
- www.pewclimate.org