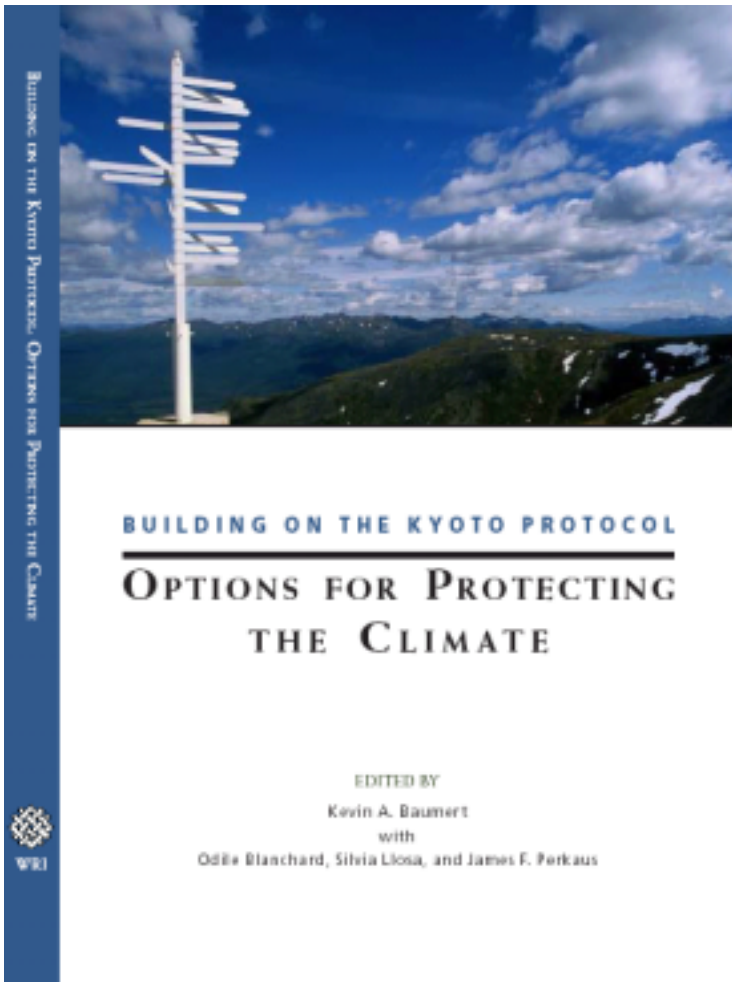
Climate of Trust



- Center for Sustainable Development in the Americas
- Centro Interdisciplinario de Biodiversidad y Ambiente
- COPPE, Universidade Federal do Rio de Janeiro
- Energy & Development Research Centre
- Fundacion Bariloche
- ENVORK Research & Development
- Institut Français de l'Energie
- Instituto Pró-Sustentabilidade
- Korea Environment Institute
- World Resources Institute

Expert Meeting on
Climate Change and Sustainable Development
Seoul, November 20, 2002

Overview

- Research
- Climate Protection Architecture (Chapter 1)
- Options for Protecting the Climate (Chapters 2-9)
- Conclusion (chapter 10)

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Research

- Purpose
  - Help prepare civil society and governments for the coming debate over future commitment periods

- Objective: Explore different approaches to promoting North-South cooperation on climate change
  - Explain, examine existing proposals *and* investigate new ideas
  - Carry out a critical analysis of different options

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Designing a Climate Protection Architecture: *What are the Possible Elements and Options?*

- **Legal Nature of Commitments**
  - Binding
  - Non-Binding
  - Mixture
- **Type of GHG Limitation Commitment**
  - Tax
  - PAMs (e.g., harmonized PAMs; SD-PAMs)
  - Targets (e.g., fixed, dynamic, dual)
- **Approach to Differentiating Commitments**
  - Pledge-based (e.g., Kyoto-style)
  - Principle-based (e.g., Brazilian Proposal, equal per capita)
- **Timing and Triggers**
  - By existing or new Annex
- **Coverage and Scope of Actions**
  - Different gases and/or sectors

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Designing a Climate Protection Architecture: *What are the Possible Elements and Options?*

Continued…

- **Market-Based Mechanisms**
  - Int'l emissions trading
  - CDM
  - Sector-CDM
- **Financial and Technology Commitments**
  - Funding for adaptation/impacts compensation
  - Funding for clean energy development
- **Accountability Mechanisms**
  - Measurement, reporting, and review of commitments
  - Compliance system
- **Overall Environmental Objective**
  - UNFCCC Article 2
  - More specific (e.g., keep 450 CO_2 eq. option open)

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Options for Protecting the Climate

2. Continuing Kyoto: Emission Caps in DCs?

. Description of the current climate protection architecture

.Two possible paths to further develop the climate change regime:

- Accession of individual non-Annex I Parties to Annex I and setting emissions caps
- Launch of a new negotiating round

. Challenges of extending caps to developing countries

- Most likely within negotiating groups (exempt LDCs, rest of G77 or subgroups, other groupings)
- Need for adapting the system to DCs needs (base year, cap scope, accounting-reporting- review, compliance, flexib. mechs.)

. Conclusion:

- Procedurally, the design of the climate change regime is highly adaptable
- Political obstacles ; current lack of authoritative emissions data

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Options for Protecting the Climate

3. Sustainable Development Policies and Measures

. Backcast from desired future state of development
(commitment to implementing SD policies in practice)

. Climate change: "ancillary benefit" of achieving SD
(assumption that, on balance, GHG emissions will be reduced / conventional development path)

. Steps applying SD-PAMs (example of South Africa):

- country outlines future development objectives
- identifies PAMs to achieve D more sustainably
- Quantifies the changes in GHG emissions
- Identifies synergies or conflicts (SD benefits / GHG limitations)
- Summarizes net impact of SD-PAMs on D and GHG emissions

. Strength: acknowledges each country' situation, starts from D

. Weakness: does not guarantee a global reduction in GHG

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Options for Protecting the Climate

4. Evolving to a Sector-Based CDM

. Complementary to the current CDM

. Projects could be : sectoral (electricity, transport, forestry), **territorial** (cities, regions), **a combination of both**

. Built on the current CDM in terms of :

- **funding** (emission reductions sold to industrialized country)
- **country's definition of sustainable development priorities**
- **project cycle** (approval, registration, certification)
- **additionality**
- **no target:** emission reductions relative to the BAU case

. Case-Study of Mexico City (Federal District, across sectors)

. A win-win option (deeper cuts in ICs, higher contribution of DCs)

. Challenge: technical capacity

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Options for Protecting the Climate

5. Dual-Intensity Targets: Reducing Uncertainty

. Future GHG emissions highly uncertain in DCs

. Under fixed targets, for DCs:

- objective may be difficult (costly) to reach
- Or may lead to "hot air"

. Dynamic target: emission target adjusts to another variable (GDP)

- emissions intensity target : $I = Emissions / GDP^a$
- indexed target: allowable em. relative to AAAGR of GDP

. Dual targets : 2 targets for a country

- lower target (selling) : incentive to reduce emissions
- higher target (purchasing): punitive function
- in-between : safe zone

. Compatibility with international emissions trading

. Low-risk strategy to participate in global climate protection

. Complexity of negotiations internationally

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Options for Protecting the Climate

6. Learning from the Argentine Voluntary Commitment

. Announced at COP 4, 1998 (held in Buenos Aires)

. Political context:

- International pressure on DCs ; Argentine's foreign policy
- Expected access to ALL the flexibility mechanisms of the KP

. Establishing the target:

- Procedurally : closed government circle + private sector advisory committee + technical team
- Emissions intensity target, function of the square root of GDP

. Inherent challenges of the voluntary commitment :

- Argentine GHG emissions not solely linked to GDP
- No strategy to operationalize the target within int'al context

. Lessons for other countries:

- Need for enhanced technical expertise when setting a target
- Need for involvement of domestic stakeholders and buy-in
- Need for a workable, policy-consistent target

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Options for Protecting the Climate

7. **The Brazilian Proposal** on Relative Responsibility

. The original BP (1997) :

- Emission reductions for Annex I, 30 % below 1990 levels by 2020
- Reductions distributed according to the country's relative responsibility for global warming
- Creation of a punitive fund (CDF) for non complying countries ; funds distributed according to relative responsibility of DCs

. Defining responsibility : the farther down the causal chain of global warming (from emissions to sea level rise), the larger responsibility share for ICs

. **Future potential of the BP : how to adapt it ?**

- Use cumulative emissions instead of global warming for resp. ; from 1990 onwards ?
- Participation threshold (eg GDP/cap)
- Participation of DCs when their relative resp. exceeds ICs' resp.

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Options for Protecting the Climate

8. Equal Per Capita Entitlements

. A resource-sharing issue:

- Limited assimilative capacity of the atmosphere / GHGs
- Every human being is equally entitled to this resource
- Definition of an allowable level of global emissions ("budget")
- Distribution of this budget equally among the global population

. Examples: GCI's Contraction and Convergence ; variants

. Debates :

- Is the atmosphere an allocatable natural resource ?
- Is the Equal Per Capita Entitlements approach equitable ?
- Benefits from international emissions trading: essential to approach
- Is the approach flexible to account for national circumstances?
- Potential for global acceptability ?

. Author's proposal : fixed portion of entitlement(level of per cap survival emissions) combined with variable portion (national circumstances)

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Options for Protecting the Climate

9. Differentiated Commitment Scenarios: Quantitative Analysis

.Intermediate environmental goal compatible with LT 450-550 ppmv CO2 concentration goal

.Formalization of 3 worldwide CO2 emission allocation proposals over the period 2010-2030:

- Per Capita Convergence
- Relative Responsibility
- Emission- Intensity Target

. Results in terms of distribution of emission allowances :

- Emission limitations + stringent for Annex I,
- 2030 allowances: above 1990 levels for Non-Annex I (NAI)
- In Per Cap Conv, allowance surpluses of some NAI

. Results in terms of costs and trade

- Across scenarios, higher reduction costs in AI
- Trading: benefits for all ; typically AI are buyers, NAI sellers
- Per Cap Conv: highest volume of trade (transfer of wealth)

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Options for Protecting the Climate

Conclusion

. No proposal can satisfy the interests and concerns of all countries

. Options depicted could be part of a climate protection architecture

. Design of a menu of near-term options to build confidence

- Multiple options : enhanced participation in emissions reductions
- Some options may operate simultaneously in different countries
- Experience, capacity gained (eg through SD-PAMs, S-CDM)
- But insufficient to address climate change over the LT

. Need for a Principled, Long-Term Framework

- To combat bargaining power of pledged-based commitments
- To avoid the complexity of multiple options
- Could include a more definite environmental objective
- Calls for further research (eg account for national circumstances)

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BUILDING ON THE KYOTO PROTOCOL

OPTIONS FOR PROTECTING THE CLIMATE

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