

*ACHIEVING EARLY AND  
SUBSTANTIAL GREENHOUSE  
GAS REDUCTIONS UNDER A  
POST-KYOTO AGREEMENT*



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Environmental Protection*

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# *Overview*

1. The road from Bali
2. The case for substantial short-term GHG reductions
3. Proposal for substantial short-term reductions

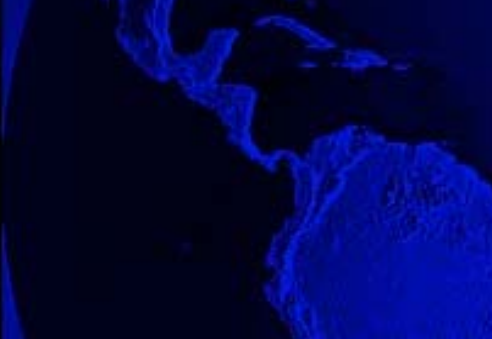


# 1. The Road from Bali



# *December 2007 Bali Meeting*

- ✧ Established a process for negotiating and reaching a decision on an agreement for addressing climate change after the end of the 2008-2012 Kyoto period
- ✧ Anticipated date and place of agreement: Conference of Parties, Copenhagen, Denmark, Nov. 30-Dec. 11, 2009





## *Bali Action Plan*

- ✧ Parties are to “address,” among other things, a “shared vision for long-term cooperative action, including a long-term global goal for emission reductions, to achieve the ultimate objective of the Convention”
- ✧ No agreement for a short-term goal




# *Developed Countries*

- ✧ Parties agreed to consider:
- ✧ Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances



# *Developing Countries*

- ✧ Parties agreed to consider:
- ✧ Measurable, reportable and verifiable nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported by technology and enabled by financing and capacity-building

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- ✧ Parties also agreed to address “enhanced” action on:
    - ✧ climate change mitigation
    - ✧ adaptation
    - ✧ technology development and transfer
    - ✧ provision of financial resources and investment.



## *Separate agreement on forestry*

- ✧ Deforestation estimated to contribute to 20% of world greenhouse gas emissions.
- ✧ Agreement aims to encourage developed countries to provide funding to avoid deforestation by, among other things, resolving the methodological issues of accounting from greenhouse gas emissions reduction from avoided deforestation.
- ✧ Process begins early in 2008.
- ✧ World Bank launched Forest Carbon Partnership Facility in anticipation (early commitment: \$160 million)



*2. The case for substantial short-term GHG reductions*





# *Science indicates urgency*

*"Most [of us] were skeptical that we would see strong signs of human-induced climate change in our lifetimes. But by the beginning of this decade, we observed that global temperatures are rising, plant and animal ranges are shifting, glaciers are in retreat globally, and arctic sea ice is retreating...."*

*"To the extent that these changes result from human alteration of the atmosphere, we know that they are just the first small increment of climate change yet to come if human societies do not curb emissions of greenhouse gases."*

*--Brief of Amicus Curiae Climate Scientists,  
Massachusetts v. EPA (U.S. 2006)*



# *Precautionary Approach*

- ✧ Precautionary approach to climate change science indicates value of early action
- ✧ "Safe" or "non dangerous" level of atmospheric concentrations under Framework Convention is likely illusory



## *Benefits of early action:*

- ✧ Avoided costs of climate change (including growing poverty, especially in developing countries)
- ✧ Co-benefits of climate change mitigation (including job creation, economic development, reduced air pollution, etc.)



*Many mitigation actions already  
cost-effective*

✧ Examples:

✧ Energy efficiency and conservation

✧ Changes in human lifestyle and behavior



## *Ethical justifications*

- ✧ Lowest possible stabilization level will have least effects; need to start early to achieve that
- ✧ Developed countries need to take lead
- ✧ Protect developing and most vulnerable countries
- ✧ Promotes sustainable development



## *More recently:*

- ✧ Global economic downturn/recession
- ✧ Increases need to:
  - ✧ Focus on conservation/efficiency
  - ✧ Integrate economic growth with GHG emission reductions

### *3. Proposal for substantial short-term reductions*





# *Short-term emissions stabilization goal*

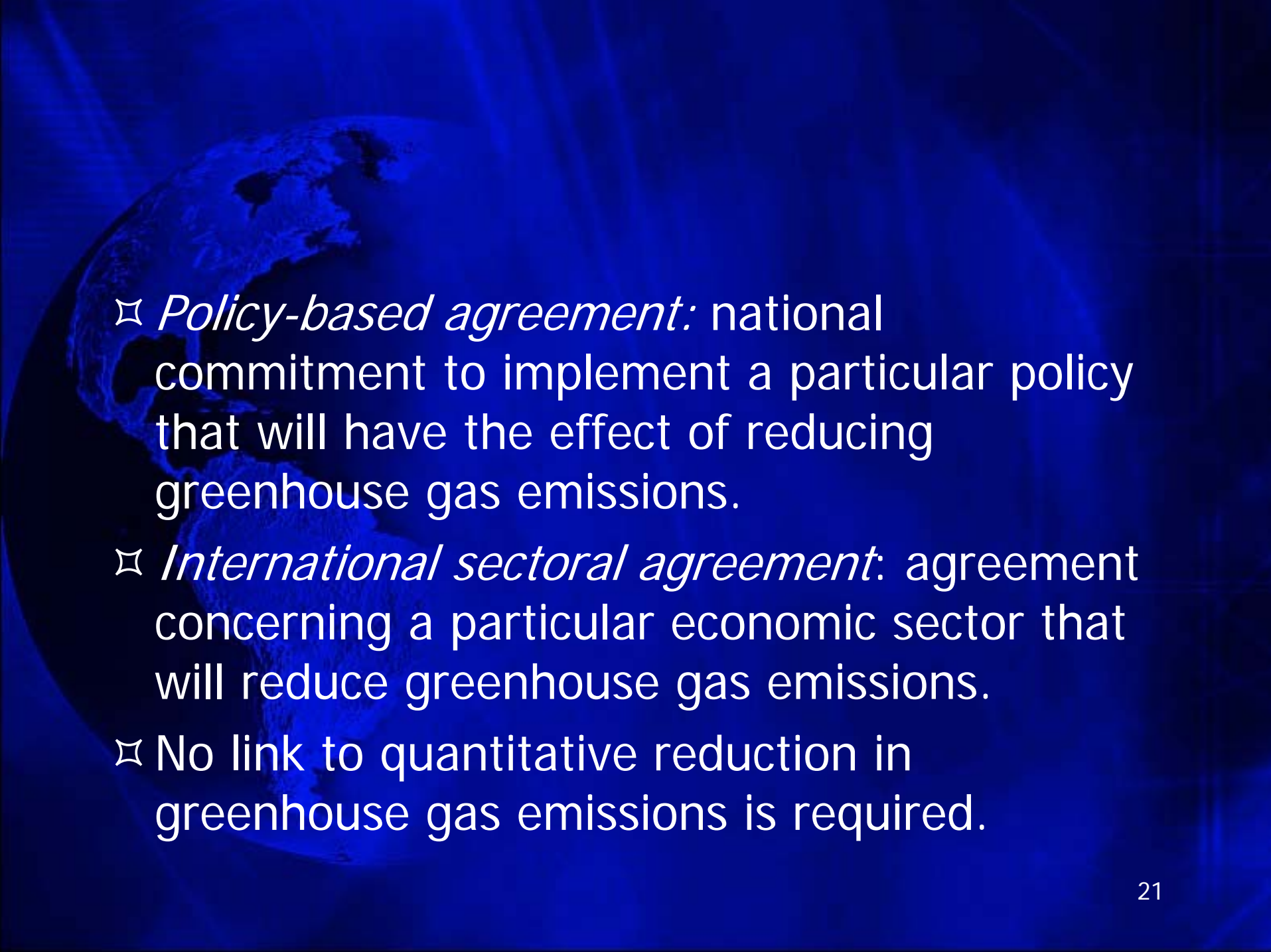
## ✧ Options:

- ✧ Urgent science-based goal
- ✧ Goal for developed countries
- ✧ Goal based on emissions reductions to be achieved by post-Kyoto agreement
- ✧ U.S. emissions peak in 2025 (Bush)
- ✧ 20-30% below 1990 levels by 2020 (EU)



# *Multi-track framework*


- ✧ One track: quantifiable emission reductions (a/k/a cap and trade, probably limited to developed countries)
- ✧ Other tracks (for developing and perhaps for developed countries) can include:
  - ✧ National policy-based agreements
  - ✧ International sectoral agreements
  - ✧ Other
- ✧ Timing of each can differ (e.g., Bali deforestation agreement)

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- ✧ *Policy-based agreement*: national commitment to implement a particular policy that will have the effect of reducing greenhouse gas emissions.
  - ✧ *International sectoral agreement*: agreement concerning a particular economic sector that will reduce greenhouse gas emissions.
  - ✧ No link to quantitative reduction in greenhouse gas emissions is required.



# *Factors to Consider in Selecting Policies and Economic Sectors for Early Results*

- ✧ Opportunity for early reductions that are substantial and quantifiable
- ✧ Energy efficiency and energy conservation
- ✧ Cost-effectiveness
- ✧ Opportunity to foster sustainable development—and achieve substantial co-benefits
- ✧ Policies and measures that some (but not all) countries have begun to implement
- ✧ Avoidance of technological lock-in



*Sources of greenhouse gas emissions that are unlikely to be affected by economy-wide measures, such as cap-and-trade or taxation, because of market imperfections.*

- ✧ 1) consumers undervalue efficiency/conservation savings
- ✧ 2) principal/agent problem for efficiency/conservation
- ✧ 3) price signal not sufficient for needed investment

## *Suggested process and timeline for selecting and implementing options*

- ✧ Use criteria to identify candidates in 2008
- ✧ Approve policies for negotiation at COP 14 (Dec. 2008)
- ✧ Negotiate policies (e.g., national policy commitments, international sectoral agreements) in 2009
- ✧ Finalize agreement at COP 15 in Copenhagen in December 2009 and begin implementation immediately



# *Structure of agreements*

- ✧ For each policy and measure, the final agreement should describe the measure and explain how it will be implemented, describe the minimum level of required performance, and provide an easy means for countries to ratify or accede to the agreement.
- ✧ These agreements should support, and be supported by, long-term and economy-wide agreements.
- ✧ Supported by appropriate financial incentives, including a modified Clean Development Mechanism, in large part to encourage developing country participation.
- ✧ Include provisions for increasing their stringency over time
- ✧ Supported by appropriate trade incentives and restrictions.



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