

After Copenhagen – prospects for an international climate regime post-2012

David Freestone

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Outline

- Brief recap of the International Treaty Framework
- International carbon trading – why this matters for energy markets
- The objectives of the Copenhagen meeting ?
- The Copenhagen Accord
- The Road from Copenhagen
 - Prospects for a new post 2012 regime ?

International Legal Framework

- 1992 UN Framework Convention
- 1997 Kyoto Protocol
 - Kyoto Flexibility Mechanisms and Carbon Trading
- Existing Financial Mechanisms

Science

IPCC 4th Assessment, 2007

To avoid 'Dangerous Climate Change'

- Carbon Concentrations in Atmosphere must not exceed 450 parts per million – already 385 ppm and rising 2-3 ppm a year (nb 'amplification effects')

Or

- Temperature does not rise more than 2°C from pre-industrial levels (already rise of 1°C)

Science

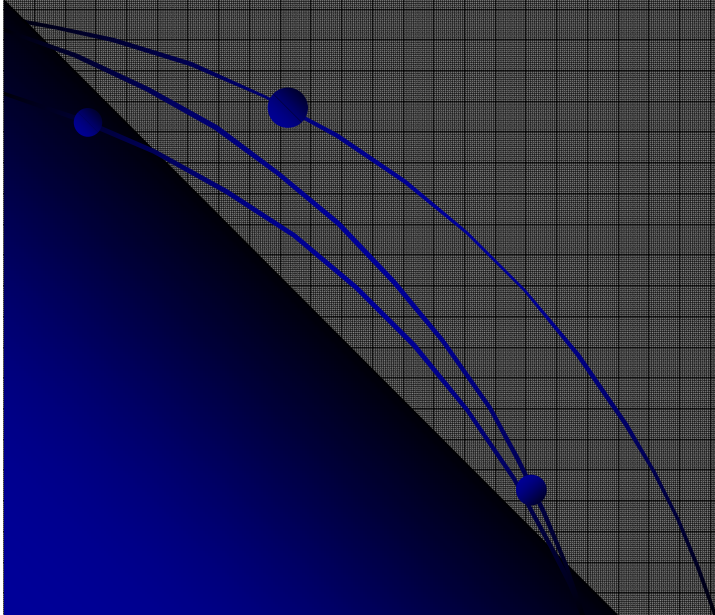
IPCC 4th Assessment, 2007

- with current emissions of Greenhouse Gases (GHG)
- by 2050:
 - much more severe weather events and
 - half metre rise in sea levels,
 - permanently displace at least 200 million
 - may result in the extinction of 15-40% of species.

Stern Review: *The Economics of Climate Change*, 2007

- If concentrations of carbon rise above 550ppm then
- costs could be as high as **20%** of global income **annually**.
 - 2050 c US\$135 trillion (i.e. US\$27 trillion pa)
- Action within 10-15 years to keep carbon concentrations under that critical level could cost **1%** of global income annually –
 - c US\$ 35 trillion - i.e. US\$ 350 billion pa
- Review points out - there is an “extremely high price for delay”.

International Legal Framework



1992 UN Framework Convention on Climate Change

- Signed at UNCED in Rio 1992 - 192 Parties
 - Commits to “stabilization” to avoid “dangerous” effects
 - “Common but differentiated responsibility”
 - Financial conditionality
 - Art 4(7) developing country implementation dependent on financial and technical commitments of developed countries
 - Global Environment Facility
 - Art 11 Financial Mechanism - ‘incremental funding’



Kyoto Protocol 1997

- 184 Parties
- Developed Countries (Annex I of UNFCCC) agreed GHG emissions reductions from 1990 levels by an average of 5.2%
- Commitment period is 2008-2012
- Specific targets (or assigned amounts) were set out in Annex B of the Protocol,
 - Iceland 10%+; Australia 8%+
 - European Union 8% reduction; US 7%; Japan 6%
- By two means:
 - “Domestic Policies and Measures”
 - Flexibility Mechanisms as “supplementary means”

Kyoto Protocol

“Flexibility Mechanisms”

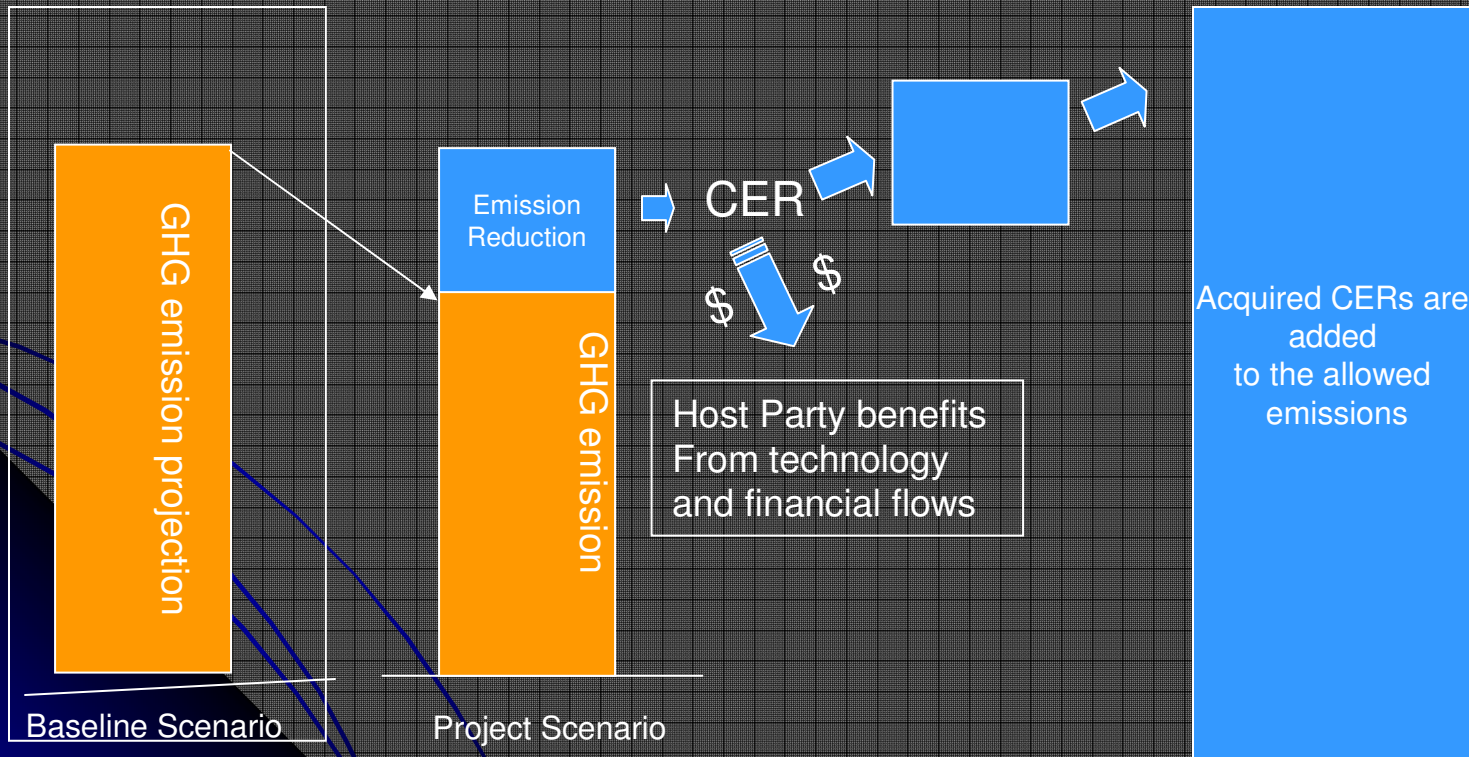
Principle: global atmosphere benefits from GHG reductions **anywhere** in world

- Joint Implementation (Art 6)
 - Developed country finances “additional” costs of project that reduces GHG emissions in another developed country
- Clean Development Mechanism (Art 12)
 - Developed country finances “additional” costs of project that reduces GHG emissions in developing country
- Assigned Amounts Trading (Art 17)

Emissions Trading under the Kyoto Protocol

Seller

Buyer



Impact of Carbon Finance on Project Financing at \$3/t CO₂e

Project,
Not
Equity,
FIRR.

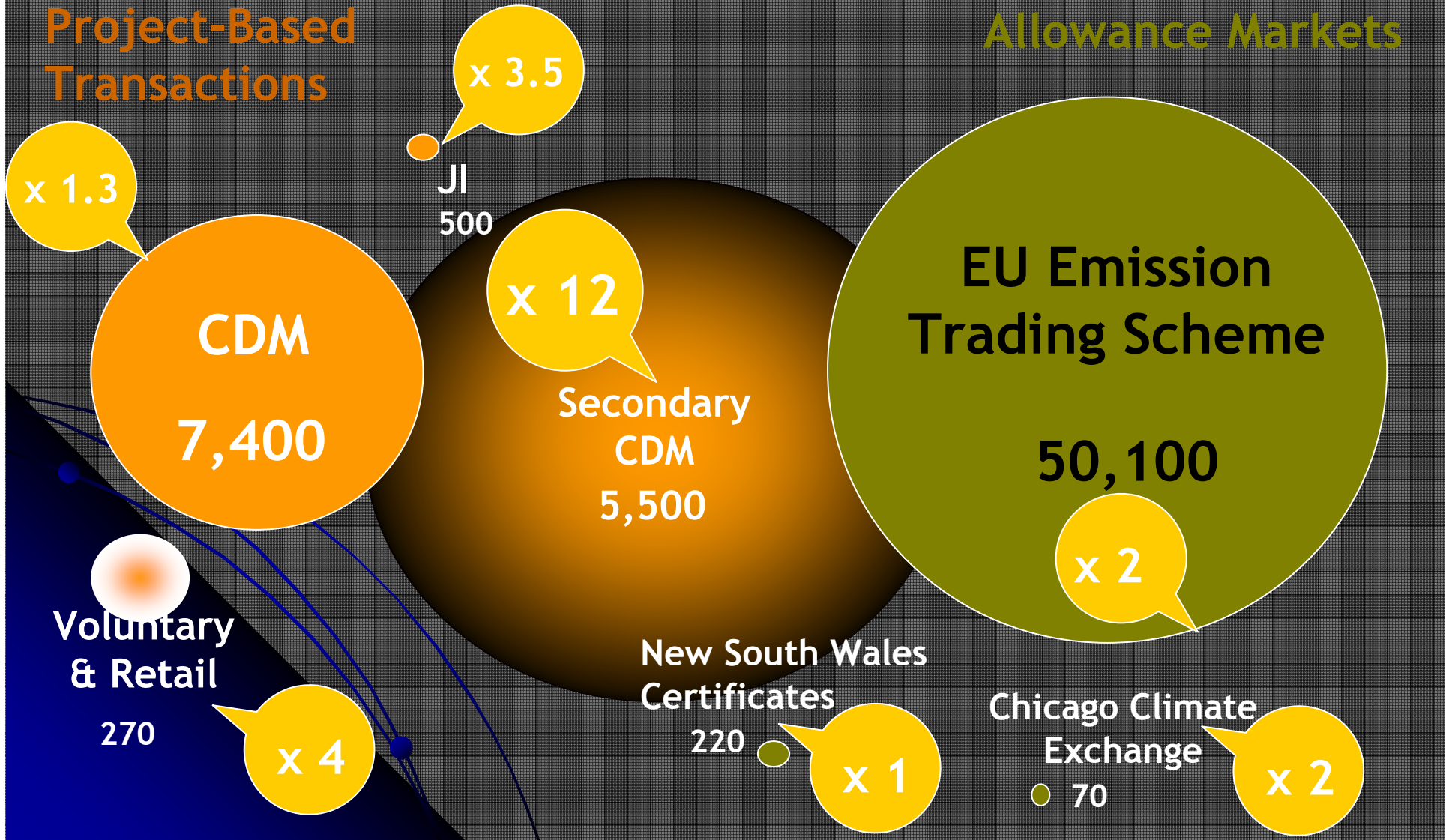
Technology	Δ IRR
Energy Eff.-District Heating	1.4
Wind	0.3-1
Hydro	0.2-0.8
Bagasse	0.5-3.5
Biomass with methane kick	Up to 5.0
Municipal Solid Waste with methane kick	>5.0

Note: data are preliminary

Market Value Growth 2007 (in US\$ millions)

Project-Based Transactions

Allowance Markets



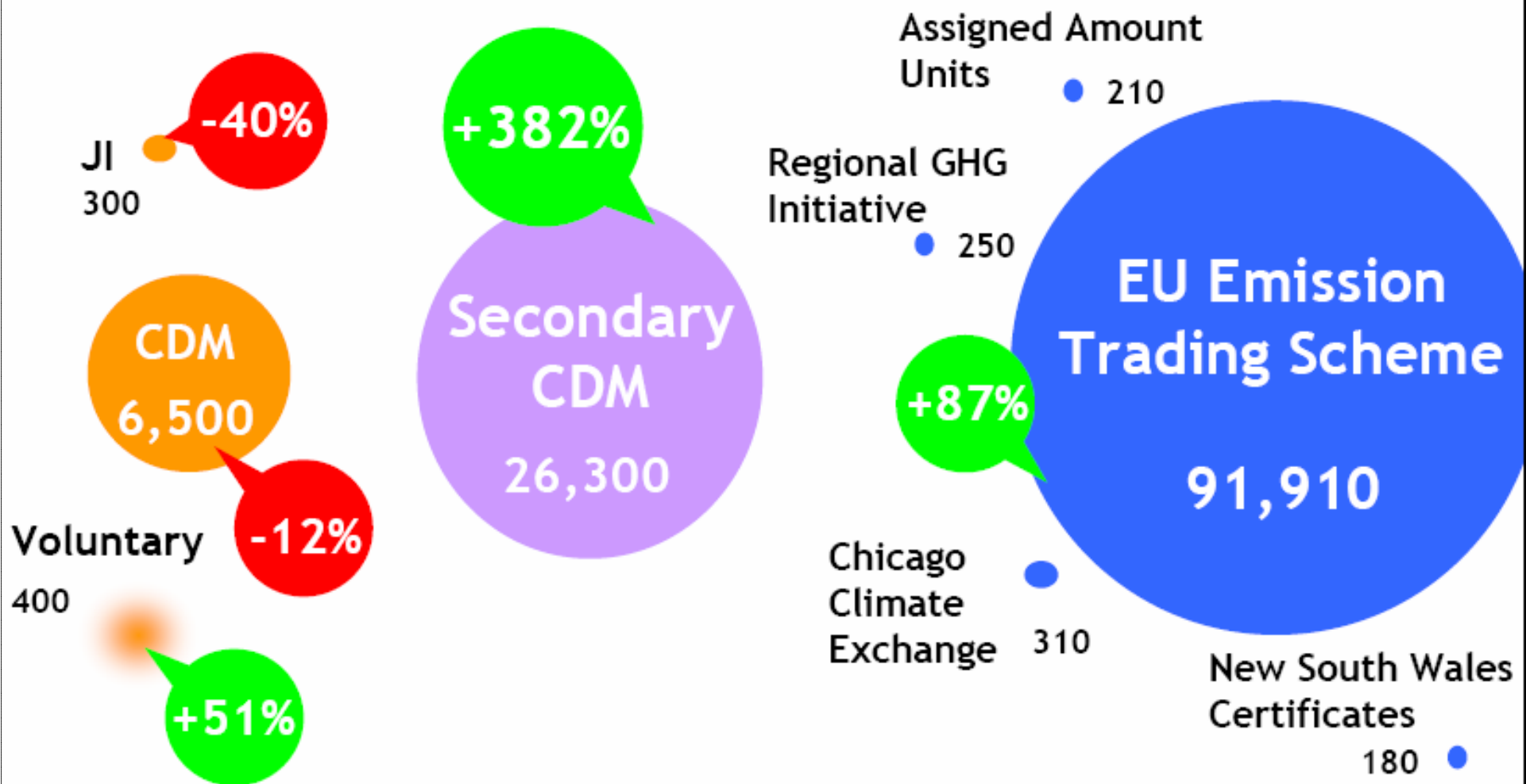
Market Value Grows in 2008



(in M US\$)

Project-Based Transactions

Allowance Markets



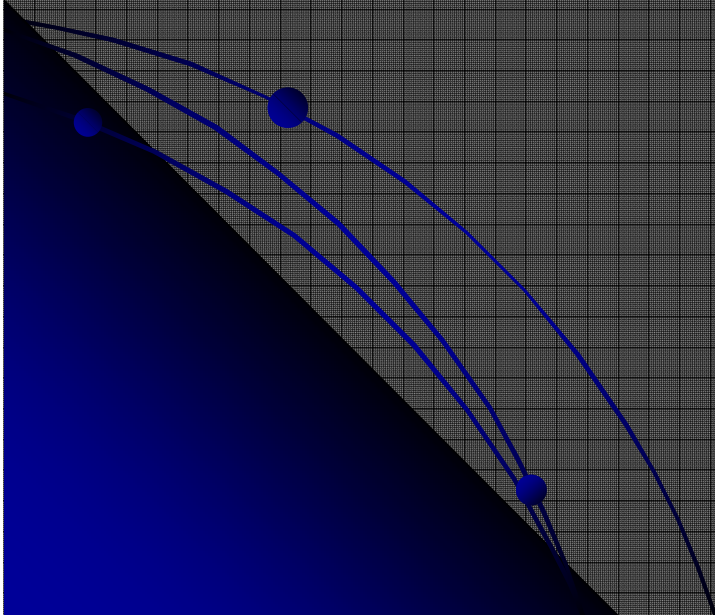
Kyoto Protocol Mechanisms- Mobilizing Private Sector Resources

- Resources have doubled each year for the last six years
- Total Value in '05: US\$ 10 billion
- Total Value in '06: US\$ 30 billion
- Total Value in '07: US\$ 67 billion
- Total Value in '08: US\$ 120 billion
- **BUT Private Sector Investors need clarity and certainty in the post 2012 regime**

Public Sector Funds

- Global Environment Facility
- Marrakech Funds (2001):
 - Least Developed Country Fund LDCF
 - Special Climate Change Fund SCCF
 - c US\$ 300 million
 - Adaptation Fund
 - 2% share of the proceeds of CDM
 - c US\$ 150 million pa
- World Bank Climate Investment Funds 2008
 - Clean Technology Fund (mitigation)
 - Strategic Climate Fund (vulnerability)
 - Capitalised at US\$ 6.2 billion

Road to Copenhagen



Bali Action Plan 2007

“a shared vision for long-term cooperative action”

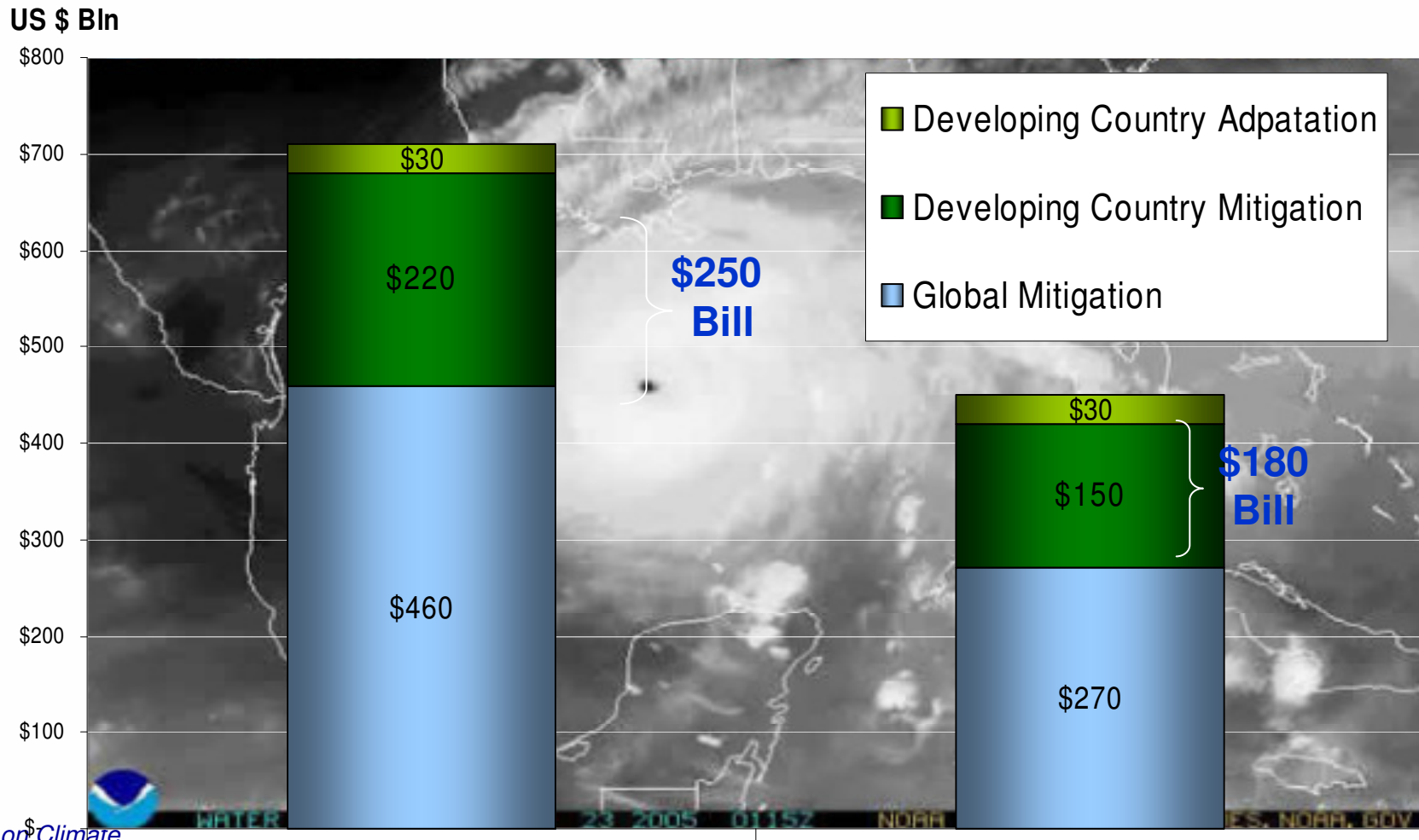
- Building Blocks
 - mitigation
 - adaptation
 - technology transfer
 - financial resources
- Other issues:
 - reduction of emissions from deforestation/degradation
 - expansion of CDM and JI
 - compensation for the effects of Annex I Party mitigation actions on non-Annex I Parties
 - international aviation and marine transport emissions
 - easier mechanisms for voluntary commitments from non-Annex I Parties

Basic Issues

- Kyoto Commitment Period expires 2012
- Need GHG reductions from both developed and developing countries
- Cap emissions at 450ppm or 2°C
 - Must peak by or before 2020 and be at least halved by 2050
 - Must deal equitably with all countries
 - Annex I Parties would need to reduce their emissions by 213% by 2050 if non Annex I Parties are to maintain their current per capita emission level
 - Mitigation – need to accommodate developing countries reasonable growth
 - And Adaptation ...

Additional investment/financial needs

Climate Finance Costs in US \$Bln: (2010 to 2020)



"Acting on Climate Change: Delivering As One"

UN System

450 ppm

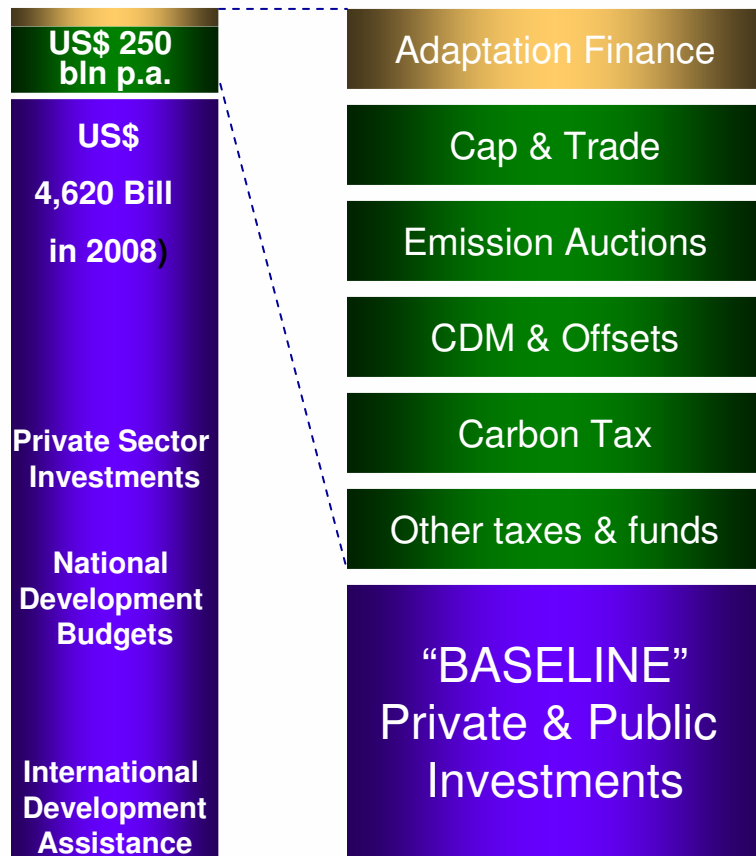
2° C

5° - 6° C

550 ppm

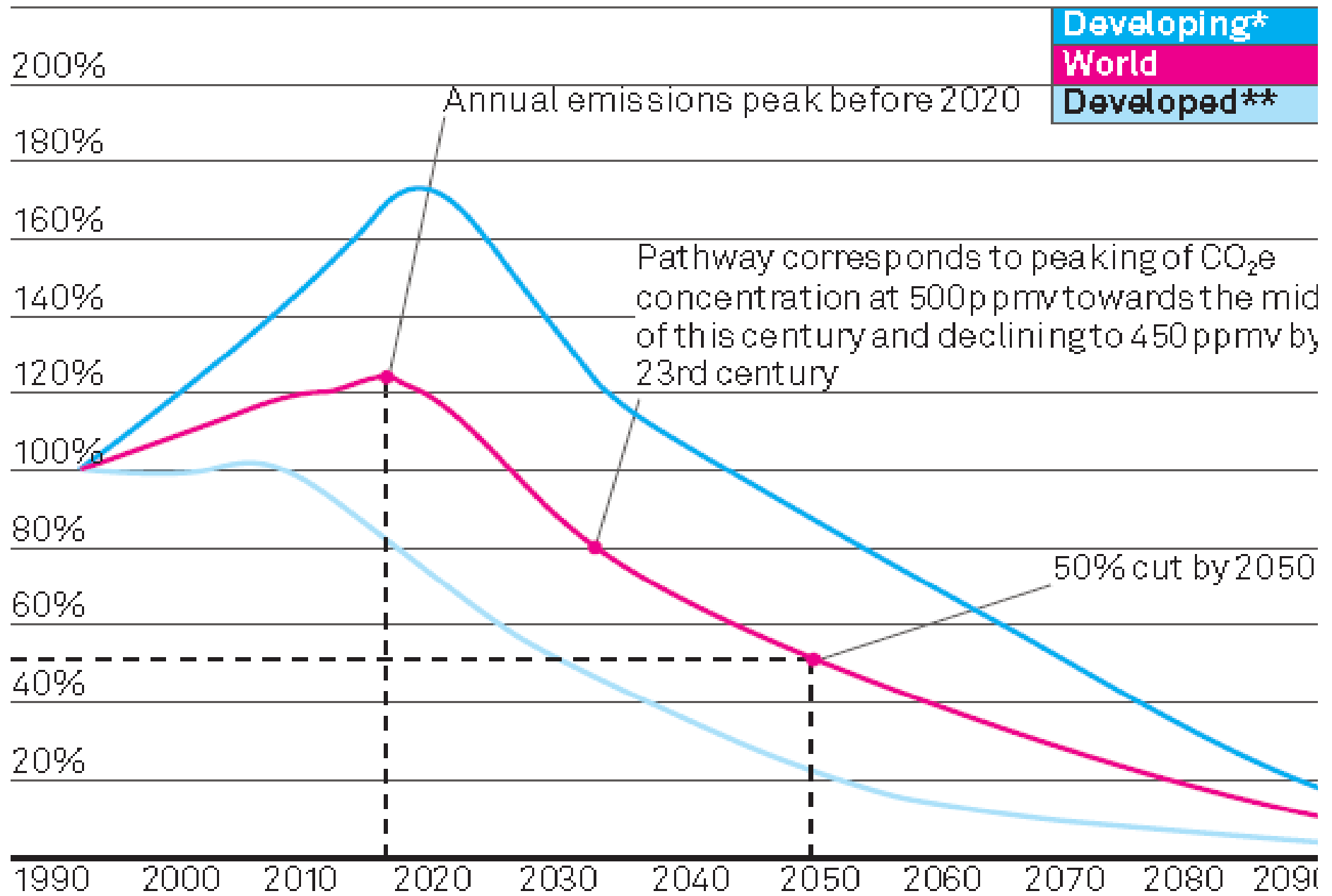
Leveraging Finance

Climate finance can leverage other investments. When blended together...



... Can catalyze transformational investments for low-carbon, climate-resilient development





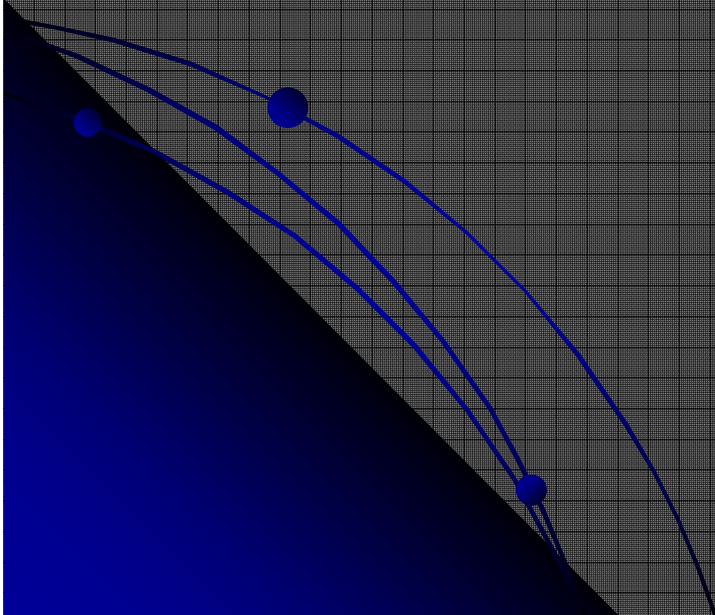
* Developing - UNECCC Non Annex 1 ** Developed - UNECCC Annex 1

The Road to Copenhagen

- August
 - 10-14 3rd UNFCCC Intersessional - Bonn
- September
 - 22 UN Sec-Gen High Level Event on Climate Change
 - 24-26 G20 Summit Pittsburgh
- October
 - 28/9-9/10 4th UNFCCC Intersessional - Bangkok
 - 29-30/10 EU Council
- November:
 - 2-6 5th UNFCCC Intersessional - Barcelona
- December
 - 7-18 UNFCCC COP 15 Copenhagen

Copenhagen:

Success or Train Wreck ?



The Process

Kyoto Protocol

AWG-KP

Ad Hoc Working Group/ Kyoto Protocol

- Negotiation of post-2012 commitments for countries with Kyoto targets (i.e., not US)
- Launched in 2005 in Montreal
- No agreement yet on target range

UNFCCC

AWG-LCA

Ad Hoc Working Group on Long-Term Cooperative Action

- 2007 Bali Action Plan calls for “agreed outcome” in 2009 on:
- “Shared vision for long-term cooperative action, including a long-term global goal”
 - Developed country mitigation “commitments or actions”
 - Developing country mitigation “actions” supported by technology, finance, etc.
 - Adaptation
 - Mitigation and support are to be “measurable, reportable, and verifiable”

Copenhagen Accord

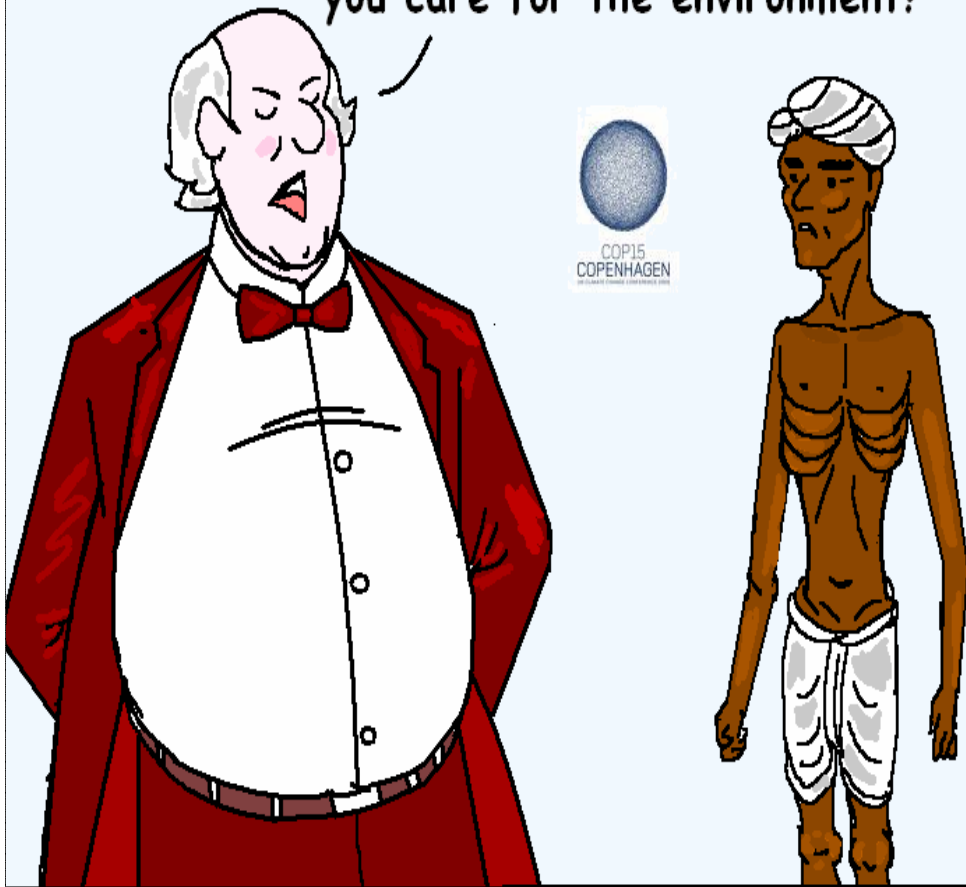
- 'Noted' by UNFCCC COP
- Strong political will to address one of greatest challenges of our time
- Agree to keep temperature change $< 2^{\circ}\text{C}$
- 'Adequate predictable and sustainable financial resources, technologies and capacity building'
- Annex I countries listed their unilateral commitments in Appendix I
- Non Annex I countries will list voluntary mitigation actions in Appendix II

The Copenhagen Accord Score Card

- ✓ Raised climate change to the highest level of government;
- ✓ The Copenhagen Accord reflects a political consensus on the long-term, global response to climate change;
- X The negotiations brought an almost full set of decisions to implement rapid climate action near to completion.

BUT...

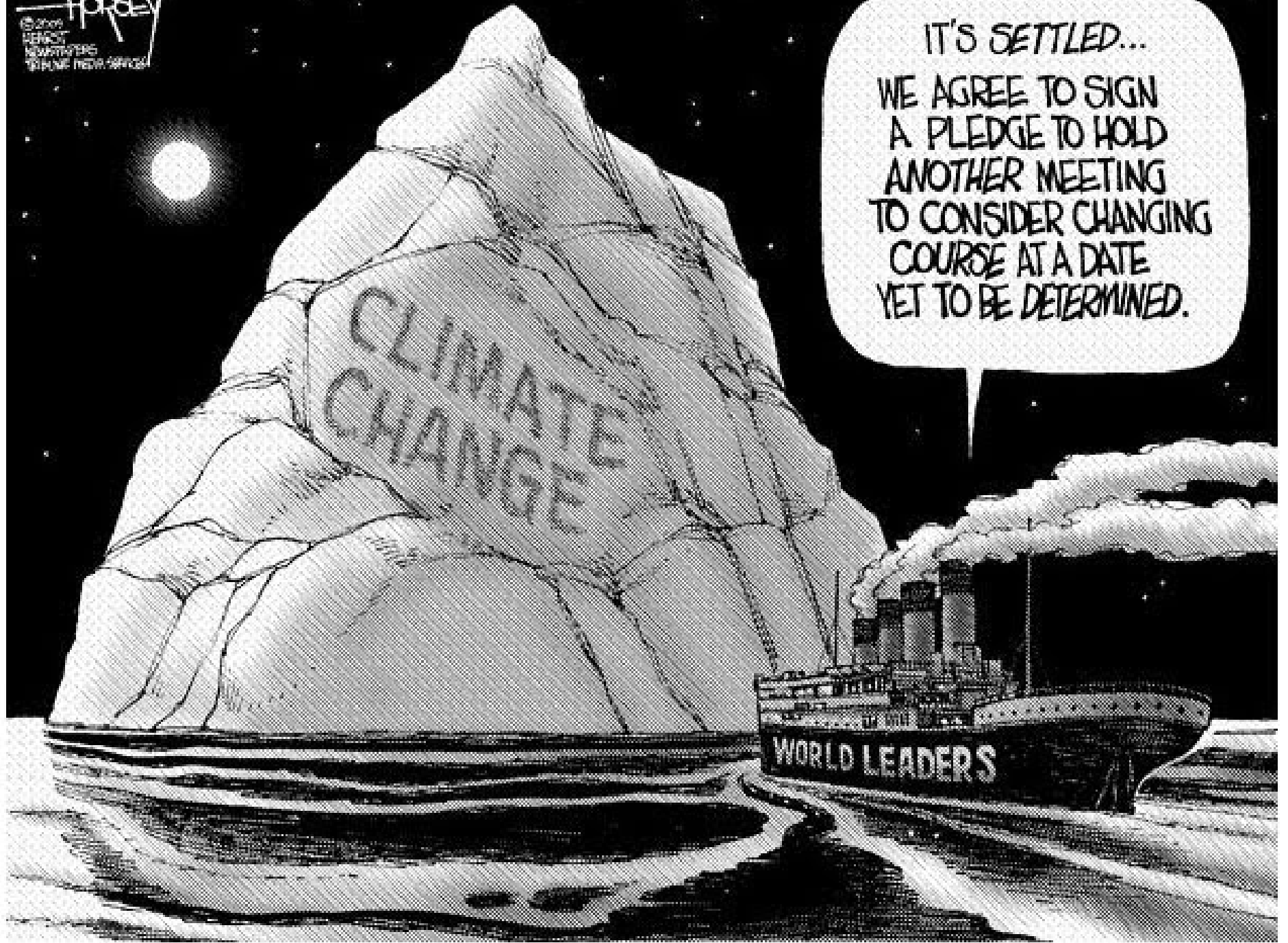
All you are interested in is development and getting rich! Don't you care for the environment?



- NO Binding framework and obligations
- No shared vision
- No agreement on institutions and process

Road from Copenhagen

- Has Copenhagen killed the UNFCCC process?
- Next COP - Mexico City December 2010
- Test for Mexican Diplomacy
- Mexico - bridge between north and south ?
- Will the real 'deals' need to be done at the G20
- Will the US pass Federal Legislation by then ?



IT'S SETTLED...
WE AGREE TO SIGN
A PLEDGE TO HOLD
ANOTHER MEETING
TO CONSIDER CHANGING
COURSE AT A DATE
YET TO BE DETERMINED.