

# Advancing Development Goals in a Sustainable Manner: Climate Change, Development and Developing Countries

UNCTAD/WTO COP-14 side event  
*Capturing Trade and Development Opportunities under the Climate Regime*  
December 10, 2008 Poznan

Aaron Cosbey, UNCTAD Advisor  
acosbey@telus.net



# Outline

- Context
  - The logic of the argument for advancing development goals as a climate change strategy
  - Pressure on developing countries to mitigate
- Elements of a strategic approach:
  - Avoided deforestation
  - Clean energy
  - Clean transportation
- Regime implications of each option



# Context

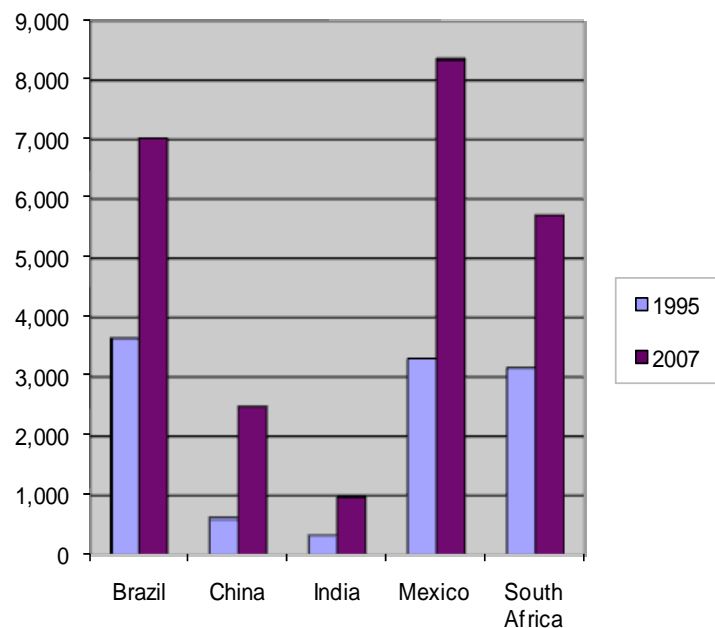
- COP-11 mandated *Dialogue on LCA* to look at advancing sustainable development goals in a sustainable way.
- This heavily influenced the Bali Action Plan, where the concept is a cross-cutting theme among the four pillars.
- Can be teased out of UNFCCC text, but not explicit.
- Needs to be solidly advanced as a guiding principle, operationalized.

# The Underlying Reasoning

- Action to address climate change is imperative
- So is action to address poverty and inequity
- Economic growth is an important means to development
- Potential conflict between growth and climate
- Potential synergies between climate and development
- For all countries, important to find synergy between development and climate action
- International community should focus in particular on helping developing countries do so

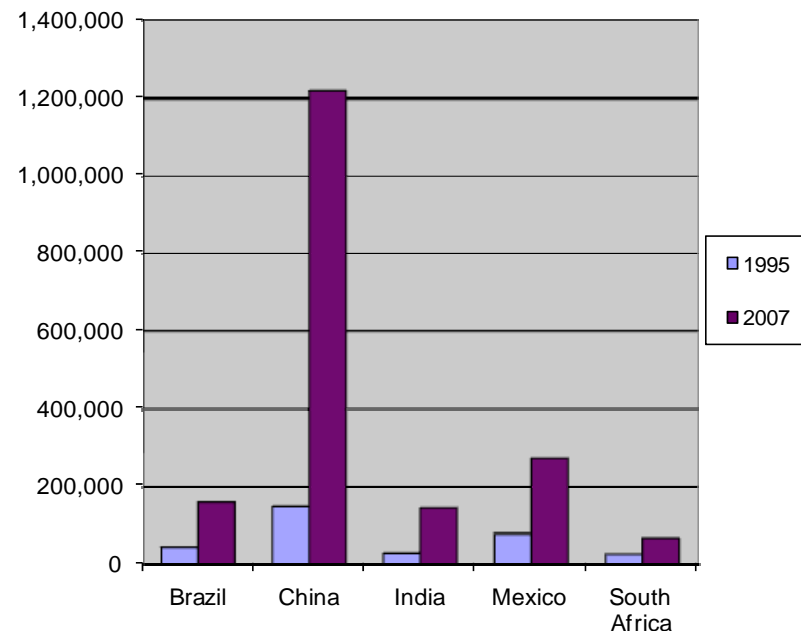
# Pressure on Developing Countries to Act

Figure 2: GDP per capita, 1995 - 2007



Sources: 2007 data UNCTAD 2008a. 1995 data World Bank 1997.  
Note: Millions current \$US.

Figure 4: Total exports, 1995 - 2007



Sources: 2007 data: UNCTAD 2008a. 1995 data: World Bank 1997.  
Notes: Millions current \$US, f.o.b.

# Pressure on Developing Countries to Act

Country	CO2 emissions (kilotonnes)	CO2 emissions (tonnes per capita)	GDP per capita (current USD)
China	5,005,687	3.9	2,517
India	1,341,761	1.2	973
Mexico	437,630	4.3	8,346
South Africa	436,641	9.4	5,719
Brazil	331,498	1.8	7,023
United States	5,877,677	20.6	44,594
Japan	1,284,376	9.8	34,348
Germany	892,545	9.8	34,979
Canada	593,063	20.0	43,191
United Kingdom	558,938	9.8	45,060

**Notes:** CO<sub>2</sub> emissions per capita data are for 2004, from World Bank's World Development Indicators on line. GDP per capita data is for 2007, from UNCTAD 2008a.



## Elements of a Strategic Approach

- Avoiding and reversing deforestation
- Clean energy production and use for developing countries
- Clean transportation options

# Avoiding and reversing Deforestation

- IPCC: CO<sub>2</sub> emissions from land use change between 1989 and 1995 were 20% of global anthropogenic emissions.
- Deforestation amounts to over 100% of net emissions from land use change.
- Deforestation negatively affects those poor that rely heavily on ecosystem services: food, fuel, flood prevention
- Use of biomass for cooking and heating: 1.6 million early deaths per annum from indoor air pollution



# Avoiding and Reversing Deforestation

- This issue is now part of the Bali mandate (para. 1(b)(iii)).
- Currently not allowed under the CDM
- An economic proposition. Stern:
  - “Effective action to protect existing forests and encourage afforestation and reforestation requires changes to the structure of economic incentives that lead to unsustainable logging and to the conversion of forestland to agriculture.”

# Options for Action

- **PNG/Costa Rica proposal and UN-REDD:** Try to incorporate avoided deforestation in UNFCCC-administered carbon market.
- **Brazilian proposal/SD-PAMs:** new and additional support, also additional to commitments – no CDM-like mechanism. No-lose targets.
- **Developing country targets:** Assign targets, set tough developed country targets, allow trading.

# Clean Energy in Developing Countries

- Energy supply is the biggest single contributor to GHG emissions at 25%. End use efficiency is also critical for emissions reduction.
- Energy is also fundamentally linked to development: two related challenges:
  - Energy for basic needs – 1.6 billion still have no grid access; 2.4 billion use traditional biomass
  - Energy to feed economic growth – IEA projects a need for \$26.3 trillion in new energy investment between 2007 and 2030, more than 60% non-OECD.

# Options for Action

- CDM-like mechanism for bringing power and efficiency to energy-poor.
- International fund (ODA) with development and climate-related goals – energy access, increased energy investment.
- Cooperation to alter baseline energy paths, esp. in fast-growing economies:
  - Subsidize investments, technologies, IPRs
  - Support policy reform to create enabling environments

# Clean Transportation Options

- Almost all of global growth between now and 2030 will be in developing country urban centres.
- Car ownership and use in those centres is growing fast. China: domestic production up 177% between 1999 and 2004. Chile: private vehicle use doubled from 1991 to 2001.
- Still much growth to come. China has 9 per 1,000 population. US had 700. Middle income developing economies: 150 – 200.

# Clean Transportation Options

- Transportation: 18% of human-based CO<sub>2</sub> emissions, road transport 72% of that. Almost 40% growth in road transport emissions by 2030.
- Energy security concerns: by 2030, India will be almost 100% import-dependent
- Transport options are a development benefit, but increase in cars implies significant costs:
  - Increased air quality problems – CO, NO<sub>2</sub>, VOCs, particulates
  - Increased traffic fatalities
  - Loss of arable land

# Options for Action

- National level: efficiency standards
- Rapid mass transit:
  - Dedicated bus lanes, increased stations
  - Larger buses, more feeder stations
  - Pre-ticketing, free transfers
  - Centralized system management
- Transmilenio Project in Bogotá, in two years:
  - Travel time cut 32%, accidents down 80%
  - SO<sub>2</sub> levels down 43%
  - NO<sub>2</sub> and particulates cut by 18%

# Options for Action

- CDM-like mechanism: Transmilenio is actually registered as a CDM project. Three others in process of validation.
- SD-PAMs: Support for pledges to reduce transport-related emissions. No crediting. From UNFCCC or other ODA channels.
- Technology cooperation: advanced clean fuel technologies, green automobile technologies (but difficult for *governments* to share)





# Regime Implications

- Most of the proposals boil down to three basic approaches:
  - A market mechanism for developing country initiatives
  - An SD-PAMS approach
  - Developing country targets



# Market Mechanism

- Implies a need for quantitative targets, and a dual-obligation system (e.g., Kyoto Protocol Annex B, non-Annex B)
- Could survive as a set of regionally linked markets, but almost impossibly difficult
- Would involve evolution of CDM: to include avoided deforestation, to more top-down vs. project-based emphasis.
- Would need strong Annex I targets, as supply would be potentially huge

## SD-PAMS Approach

- Assumes no quantified targets for developing countries
- Funding would be additional to traditional ODA flows, probably through traditional channels.
- Could also function as an alternative sort of commitment by developing countries – a non-quantified target (either hard or no-lose).
- In that case, could function side-by-side with a CDM-like mechanism

# Developing Country Targets

- For developing countries to take on targets, avoided deforestation would really have to be part of the mix – not ancillary to obligations.
- Then there might be a large quantity of AAU-like carbon credits available from avoided deforestation.
- Hard to avoid being tainted as “hot air” by buyers.
- Would need to be accompanied by tough targets for developed countries, or prices would crash

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