# Mitigation commitments by developed countries

#### **Bert Metz**

Towards a comprehensive and ambitious post-2012 climate change agreement, Brussels, October 15, 2008

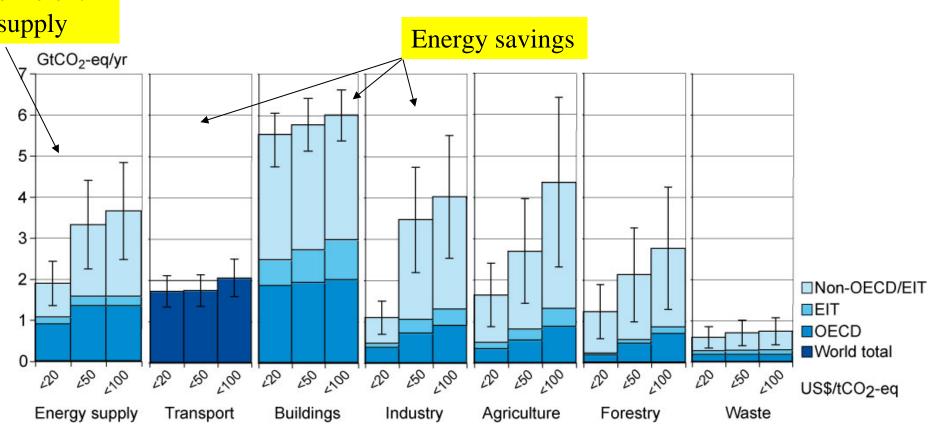
# Industrialised countries will have to deliver a 25-40% reduction below 1990 by 2020 in a 2 degree scenario

Scenario category	Region	2020	2050
A-450 ppm	Annex I	-25% to -40%	-80% to -95%
CO <sub>2</sub> -eq <sup>2</sup>	Non- Annex I	Substantial deviation from baseline in Latin America, Middle East, East Asia (-15% to -30% from BAU)	Substantial deviation from baseline in all regions
B-550 ppm	Annex I	-10% to -30%	-40% to -90%
CO₂-eq	Non- Annex I	Deviation from baseline in Latin America and Middle East, East Asia (0 to -20% from BAU)	Deviation from baseline in most regions, especially in Latin America and Middle East
C-650 ppm	Annex I	0% to -25%	-30% to -80%
CO₂-eq	Non- Annex I	Baseline	Deviation from baseline in Latin America, Middle East, and East Asia

Source: IPCC WGIII, 2007 and den Elzen and Hoehne, 2008

Changing energy source/ efficient supply

#### Mitigation potential in developed countries



Note: estimates are for 2030 and do not include non-technical options, such as lifestyle changes.

Source: IPCC WG III, 2007

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### Most effective policies vary by sector

- Energy supply
  - Tradable permits
  - □ (CCS) Performance standards
  - □ (renewables) Renewable energy obligations/ feed-in tariffs
- Transport
  - Vehicle emission standards
  - Public transport investments
- Buildings
  - Building codes/ appliance standards
  - Demand side management
- Industry
  - Tradable permits
  - Performance standards
- Agriculture/forestry
  - Financial incentives
  - □ Land-use regulations



## The role of international policy instruments

- International emission trading, CDM, JI are offset mechanisms to allow for cost minimisation, not to replace domestic policy
- International policy coordination (article 2 Kyoto Protocol) attractive for standards and for globally competing industries

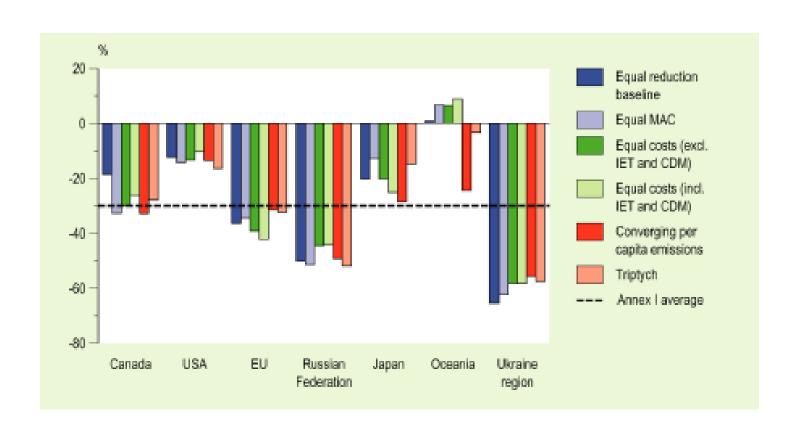
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## Comparability of emission reduction efforts

- From ad-hoc (Kyoto) to systematic approach
- What is a fair distribution?
  - Responsibility
  - Capacity
  - Opportunity
- Different "formula's"
  - □ Equal marginal costs
  - Equal reduction below baseline
  - □ Equal cost as % GDP
  - Per capita convergence
  - □ Sectoral "triptych"
- Applicable to other countries



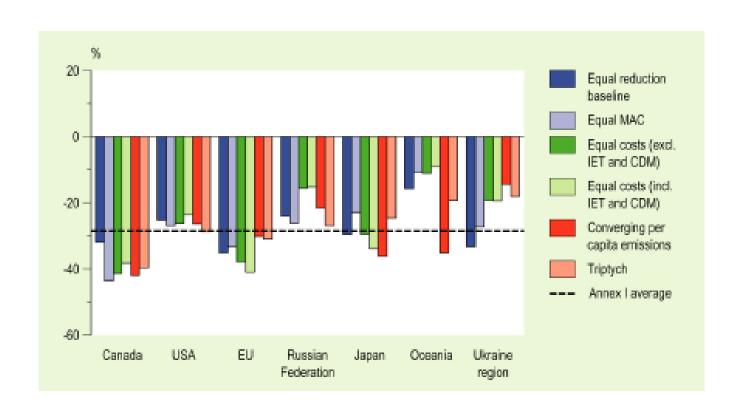
#### Reduction below 1990 for different approaches



Source: den Elzen et al, 2008



#### Reduction below 2000 for different approaches



Source: den Elzen et al, 2008

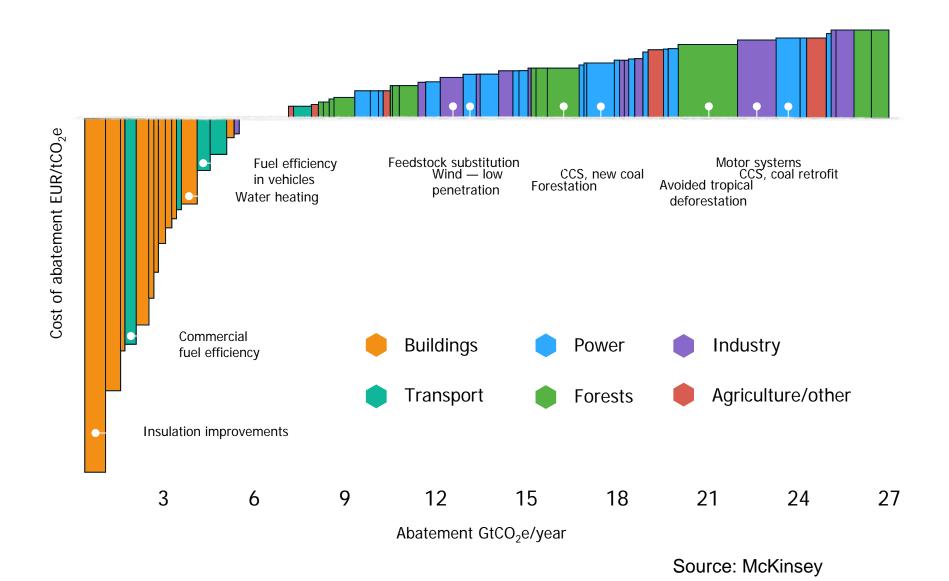
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# Sharing financial support to developing countries

- Additional investment developing countries: US\$ 80-100 billion/yr (2030) (=2% of total annual investment)
- Partly domestic, partly international
- Loans, grants, FDI, etc
- International "zero carbon fund"
- Carbon market NOT for (advanced) developing country commitments (only for additional)
- CDM for least developed countries
- Criteria for contribution: GDP/cap, E/Cap

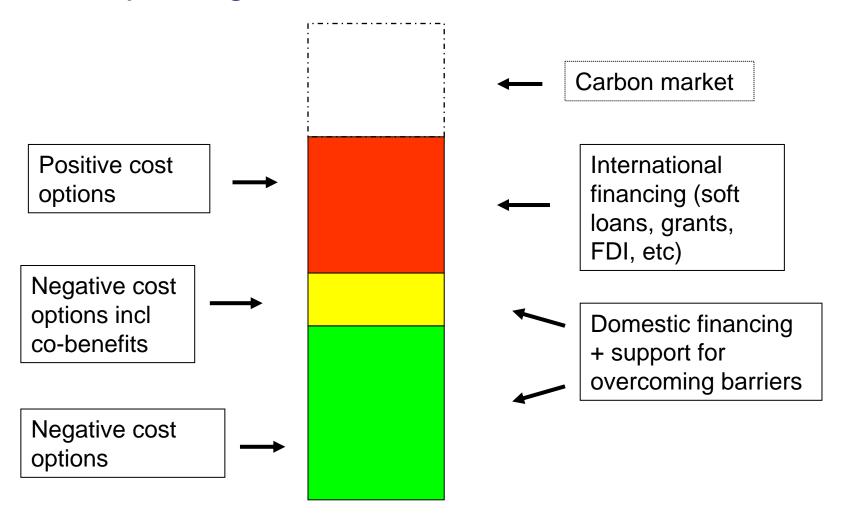
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## Part of the reductions is profitable





# Financing modes for (advanced) developing country mitigation commitments



# Thank you

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