Enhanced Investment and Financial flows for Mitigation

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Key Messages from the Technical Paper on Investment and Financial Flows (2007)

- **Substantial share of mitigation potential exists in non Annex I Parties**
- **Lowest investment per tCO_2e reduction in non Annex I Parties**
- Need for **substantial shifts** in investment **as well as scale up and optimization of** investment and **financial flows**
- **National policies** can play key role in driving many of the needed shifts and increases
- **The entities that make the investment decisions are different** in each sector, and the policy and/or financial incentives needed will vary accordingly
- However, **optimal combination of mechanisms**, such as the carbon markets, the financial mechanism of the Convention, ODA, national polices **and new sources** of finance is needed

Bali Action Plan – What is Requested?

- Enhanced national/international action on mitigation of climate change
  - Nationally appropriate mitigation actions supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner
  - Mobilization of public- and private-sector funding and investment
  - Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions
- Incentives to undertake mitigation
  - Positive incentives for the enhanced implementation of national mitigation strategies
  - Policy approaches and positive incentives on issues relating to REDD, conservation and sustainable forest management

Mitigation Section

- A brief review of new information relating to emissions scenarios and estimated investment needs
- Technology innovation and transfer are discussed in much greater detail than in the 2007 report
- Options, tools and mechanisms for financing enhanced mitigation action
  - Private finance, with a focus on carbon markets
  - Public finance
  - National policies
- Delivery issues with regard to increasing mitigation efforts in developing countries

New information relating to emissions scenarios and estimated additional investment needs

I&F Flows Report 2007

Global reduction in 2030: 31.7 GtCO2 and non-Annex I Parties: 21.7 GtCO2

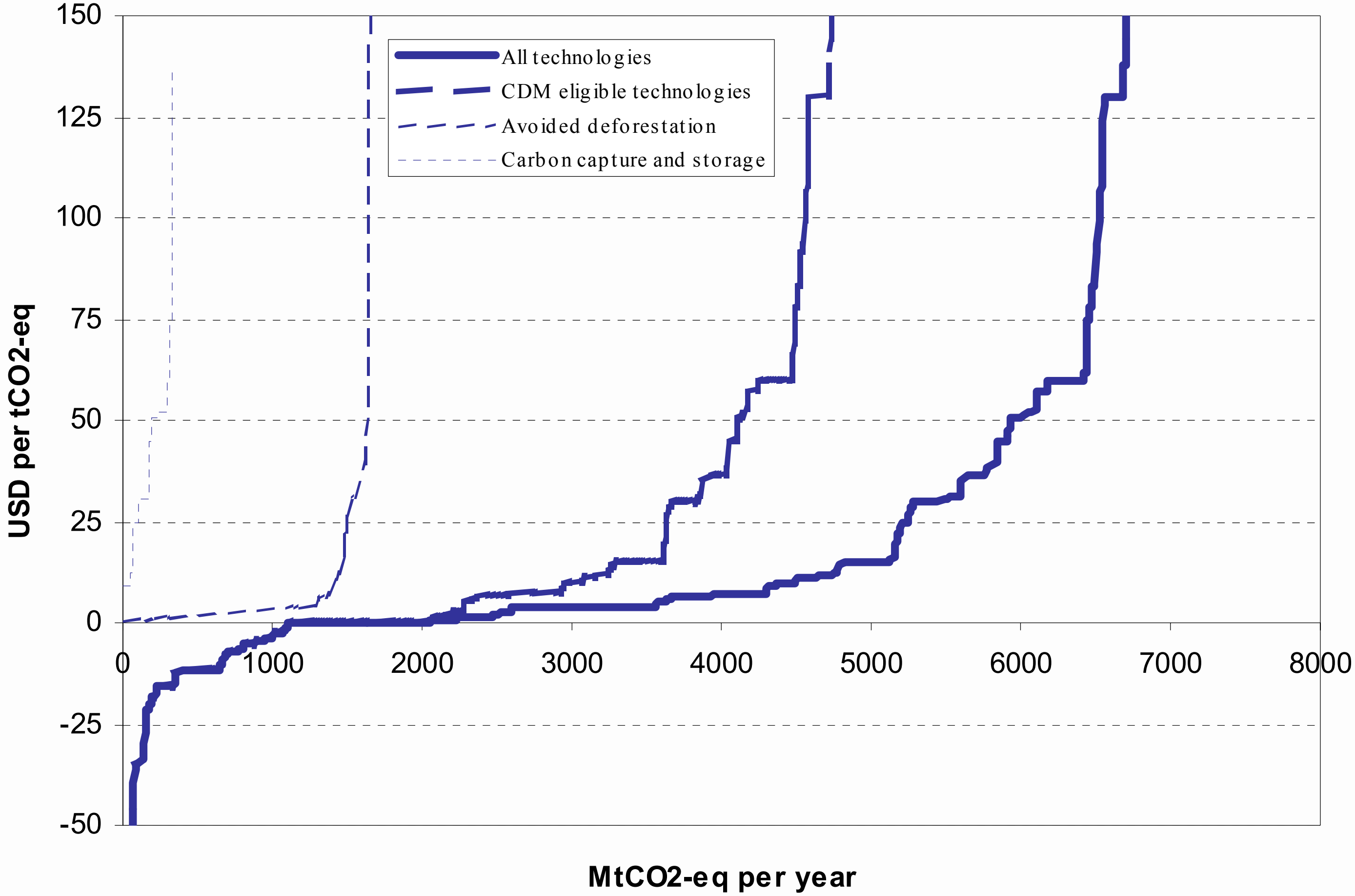
- Mitigation scenario consists of the energy-related CO_2 emissions of the IEA WEO 2006 Beyond the Alternative Policy Scenario (BAPS)

Global additional investment needed: 200 – 210 billion USD and non-Annex I Parties: 92-96 billion USD

New scenarios of IEA's WEO 2008 and estimates of potential emission reductions do not differ substantively from the scenarios presented in the 2007 report

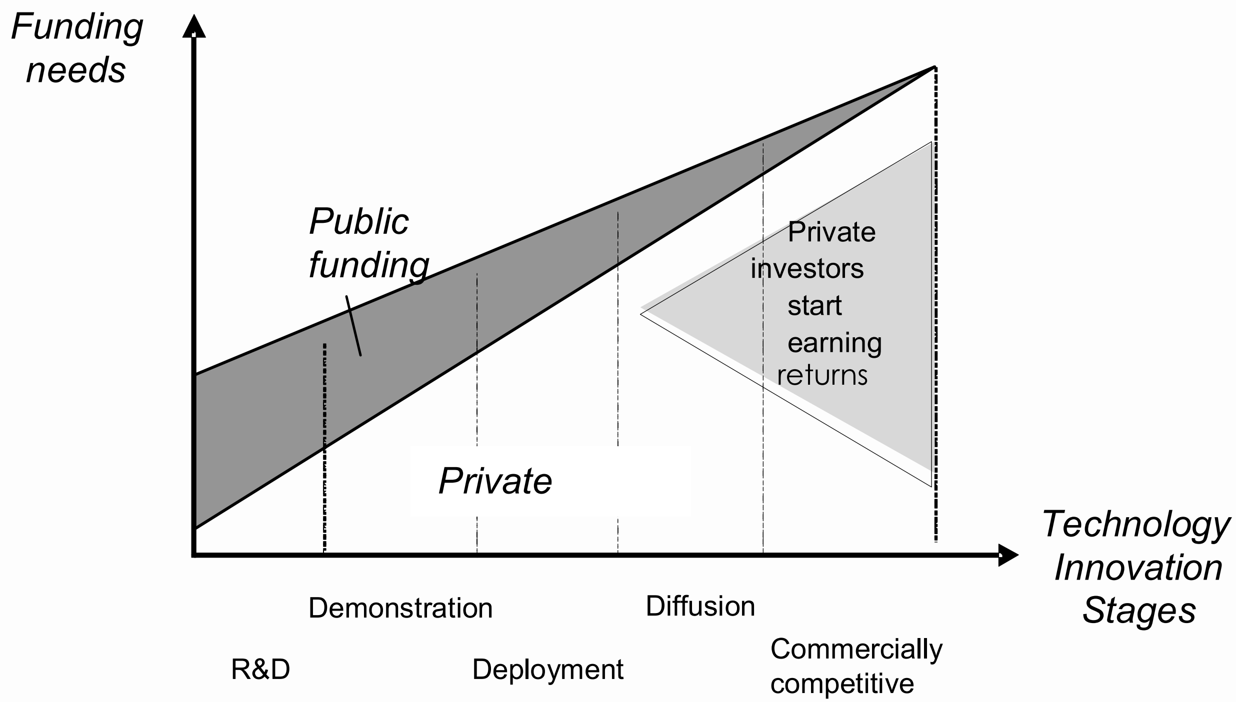
The additional investment needed to reduce energy-related CO2 emissions in IEA's WEO 2008 is about 170 per cent higher than in WEO 2006.

Updated Bottom-up Estimates of Mitigation Potential in non-Annex I Countries in 2020



Technical reduction potential of 7 $GtCO_2$-eq/yr in 2020

Financial Resources for Mitigation Technology



Effectiveness and efficiency of policies, tools and mechanisms will hinge on their ability to

- Address greenhouse gas emissions by all sectors in all countries;
- Foster innovation and diffusion of low-carbon technologies.

Key Factors and Options Determining Additional Investment and Financial Flows from Private Secto

- Shift investments and financial flows made by private investors to more sustainable climate-friendly alternatives
  - Provision of other economic incentives to invest more in specific sectors
- Scale-up international private capital dedicated to investments and financial flows in mitigation or technologies
  - Expansion of the international carbon markets

Private Investment and Financial Flows for Enhanced Mitigation Action

- Private sector finance for clean energy
  - Current financing patterns for clean energy technologies
- Foreign Direct investment
  - Greenfield FDI projects in climate-change-related industries
- Carbon markets
  - Developments relating to domestic emissions trading schemes
  - Developments relating to the Kyoto mechanisms
  - Update on Kyoto market supply and demand
  - Updated estimates of the demand for emission reduction credits in 2020
  - Update on potential supply for emission reductions in 2020

Carbon Markets

- MAC curve analysis shows potential supply for emission reductions in 2020
  - Current CDM eligible technologies is about 4.8 $GtCO_2eq$ per year in 2020
  - REDD is about 1.64 $GtCO_2$/yr for per year in 2020
  - CCS is about 350 $MtCO_2$/yr for per year in 2020
- Updated estimates of the demand for emission reduction credits in 2020
  - Ranges from 500 to 1,700 $MtCO_2$ eq. per year

Key Factors and Options Determining Additional Investment and Financial Flows from Public Sector

- Scaling-up public capital dedicated to investments and financial flows in mitigation or technologies
  - Increasing contributions from Annex II Parties
  - Identifying new sources of funding
- Shifting investments and financial flows made by public investors to more sustainable climate-friendly alternatives
  - Challenge to shift more public investment into lower carbon, more climate-proof measures without sacrificing development priorities
- Role of public finance to optimize the allocation of the funds available by spreading the risk across private and public investors

Public Investment and Financial Flows for Enhanced Mitigation Action

- To raise public finance at adequate scale
  - Domestic public finance
    - Subsidies
  - International public finance
    - Current sources of international public finance for technology innovation
- To use public finance in an effective manner
  - Public finance instruments for enhance
    - Technology research and development
    - Demonstration,deployment and diffusion

National Policies

- National policies are a crucial element in scaling up and shifting both international and domestic investment.
- Types of national policies
  - Policies, measures, and instruments are available to national governments to limit emissions of greenhouse gases
- Policy instruments and their effect on the technology innovation process
- Policy instruments to foster investment and financial flows for enhanced mitigation action

Delivery Issues to Finance Enhanced Mitigation Action in Developing Countries

- Delivery issues for mitigation funding
  - Proposals to expand private finance
  - Proposals to expand international public finance
  - Proposals to foster implementation of national policies

Proposals to Expand Private Finance

- Classic CDM
- Programmatic CDM, or programmes of activities (PoAs)
- Sectoral CDM
- Multiple project baseline
- Entire sector baseline
- Sectoral no-lose target (SNLT)
- Policy CDM
- NAMAs (Nationally Appropriate Mitigation Actions)

- Applicability (Sectoral scope)
- Transformation potential
- Net climate effect
- Additionality
- Data MRV
- Integration with Annex I targets
- Interaction with other policy tools
- Incentives
- Incentive distribution
- Government capacity
- Transaction Costs
- Readiness / Experience

Proposals to Expand Public Finance

- Proposed enhanced financing from national budgets
  - Direct funding from national budgets to climate change activities on a bilateral basis
  - National budget contributions to multilateral funds
  - Commitments from national governments for raising resources from capital markets
  - Earmarking of government taxes or revenues on a national level for contributions to climate funds
- Proposed enhanced financing from international sources
  - International levies on emission reduction credits
  - Auctioning of emission allowances at the international level

Proposals to Expand Public Finance

- Proposals by Parties
- New bilateral and multilateral initiatives
  - Public finance for supporting mitigation projects
  - Public finance for REDD
- Other proposals like Climate Bonds

Proposals to Foster Implementation of National Policies

- How to incentivize national policies that have GHG benefits ?
  - Sustainable Development Policies and Measures (SD-PAMs)

Key messages

- Investment and financial flows needs to be scaled up, shifted over to activities with no or lower GHG emissions, and be optimized for enhanced mitigation action
- Developed countries need to scale up mitigation activities and there is need to scale up support for mitigation efforts in developing countries as well
- Many opportunities for **technological or behavioural change** to enhance mitigation action are available in various sector
- To exploit mitigation potential, various options, tools and mechanisms could be considered-private sector,public finance and national policies
- Bottom-up analysis shows a mitigation potential of at least 7 $GtCO_2$ eq per year for less than USD 130/ton in developing countries in 2020 per year
- Carbon markets have been shown to be a powerful tool to scale up private finance and shift it to cleaner technologies

Key messages continued….

- Carbon markets cannot deliver all possible reductions:
  - Demand relying purely on Annex I cannot match potential supply
  - Carbon markets are sometimes not able to incentivize cost competitive technologies due to non-price barriers.
- International public finance is nevertheless crucial in several regards
  - Supporting national mitigation actions such as policy implementation
  - Funding research, development and early deployment of technologies for new and potentially cheaper mitigation opportunities in the future
  - Leveraging private finance in countries or for mitigation opportunities where the risk/return profile is not adequate to attract private finance even with carbon market incentives
- National policies are a crucial element in scaling up and shifting both international and domestic investment.
  - Such policies often have both sustainable development and climate benefits.
  - Policy implementation might require financial support to be put in place, the unleashed investment and associated benefits are generally much higher.
  - Significant experience exists with regard to various types of policies