

Investment and financial flows to address climate change

Q&A Session

Erik Haites
Lead Consultant

Bali – December 3rd, 2007



Introduction

- Project launched in 2007 in response to **COP 12 mandates: assessment of investment flows needed** to meet worldwide mitigation and adaptation requirements
- **Consultations** with IFIs, UN agencies, IGOs, NGOs, private sector and civil society
- Analysis was **based on existing work**
- The **results should be seen as indicative only**
- To be used as **instrument panel** for developing options to improve I&F flows



Methodology

- Analysis for I&F flows in 2030 (Annual data for year indicated, 2005 USD)
- Investment is the initial (capital) cost of a new physical asset with a life greater than 1 year. Excludes purchases of existing physical assets and financial assets
- Financial flow is an ongoing expenditure related to climate change mitigation or adaptation that does not involve investment in physical assets
- As much disaggregation as possible:
 - Regional detail
 - Sectors (economic sectors do not always match mitigation and adaptation sectors)
- Reliance on existing models/scenarios and data sets
- Not an assessment of “total costs” of adaptation and mitigation



Many challenges

- First time a comprehensive analysis of global I&F flows to address climate change was undertaken
- Identifying role of different sources of funding for specific sectors is not easy.
- Specific needs from countries were difficult to assess based on inputs to the Convention process only (e.g. national communications)
- No operational definition of adaptation for some sectors
- Lack of expert knowledge of climate change implications and finance for some sectors, particularly adaptation
- Common scenario not available for all sectors. Some sectors (e.g. forestry) had no widely accepted reference scenario.



Key findings

- The **additional estimated I&F flows needed in 2030** are large compared with the funding currently available under the Convention and its KP, but small in relation to estimated GDP (0.3 to 0.5%) and global investment (1.1 to 1.7%) in 2030:
 - **Mitigation measures** needed to return global GHG emissions to current levels in 2030, require additional I&F flows between USD 200-210 billion in 2030.
 - **Adaptation** additional I&F flows needed for in 2030 amount to several tens of billions of USD.

Additional investment and financial flows in 2030

Mitigation Sector	Global (billion USD)	Share of developing countries
Energy Supply	(-) 67	55%
Industry	36	53%
Building	51	29%
Waste	0.9	67%
Transport	88	41%
Agriculture	35	66%
Forestry	21	99.5%
Energy RD&D	35 - 45	-

Global: 200 – 210 billion USD (0.92% of projected global investment and 0.26% of global GDP in 2030)

Non Annex I Parties: 76 - 77 billion USD (0.86% of Investment and 0.29% of GDP in 2030)

Amount large in absolute terms, but small relative to GDP and total investment

Additional investment and financial flows in 2030

Adaptation Sector	Global (billion USD)	Share of developing countries
Agriculture, forestry and fisheries	14	50 %
Water supply	11	80 %
Human Health	5	100 %
Coastal zone	11	40 %
Infrastructure	8–130	25 %

Global: Overall needs identified in this study correspond to 0.2 – 0.8 % of global investment flows or 0.06- 0.21 % of projected GDP in 2030.

Non Annex I Parties: USD 28 to 67 billion in 2030.

Amount large in absolute terms, but small relative to GDP and total investment

Sources of investment and financial flows

- Most of the investment in mitigation measures is domestic
- Private sector – households (25%) and corporations (60%) – is responsible for most investments.
- ODA is important in Africa and the LDCs (up to 6%)
- Potential of the financial mechanism of the Convention is limited if continues to rely on voluntary contributions at current levels (USD 990 million for 2006-2010).
- Carbon market is already playing an important role in shifting investment flows. This shows how quickly investment flows can respond to changes in policies and incentives.

Instrument panel

- Creating climate change safe future will require:
 - **Shifts in investment patterns,**
 - **Scaling up** funding,
 - **Optimising the allocation** of existing funds.
- With **appropriate policies and/or incentives**, a substantial part of the additional I&F flows needed could be provided by current sources.
- **Additional external public funding** for climate change mitigation and adaptation will be needed particularly for sectors in developing countries that depend on government I&F flows.



Instrument panel

- How can the Climate Change Convention and its Kyoto Protocol influence future I&F flows?
 - Expanded carbon markets
 - Adaptation Fund
 - Financial mechanism / ODA
- What other options should be considered to address I&F flows in a future regime?
 - New sources
 - National Policies
 - Int'l coordination



Carbon markets - potential

- Abundant **supply of Kyoto units (CERs, ERUs and surplus AAUs) to meet the compliance demand for 2008–2012.**
- Under a **low estimate** of compliance demand by Annex I Parties in 2030 (market of USD 5–25 billion per year), **the current flow of CDM and JI projects would be sufficient.**
- **A high post-2012 demand** for emission reduction credits **could allow large expansion of existing market mechanisms.**
- **Policy certainty is important for investors.** A longer-term international agreement on climate change broadens the range of mitigation measures that are attractive investments.

Adaptation Fund

- Funding for the Adaptation Fund between 2008 and 2012 is estimated at about **USD 80-300 million/year**.
- **Post 2012** the Fund depends on the continuation of the CDM. The level of funding could be:
 - **USD 100–500 million/year** for **low demand** by Annex I Parties in 2030 for credits from non-Annex I Parties; OR
 - **USD 1–5 billion** in 2030 for **high demand**.
- The Adaptation Fund could be further expanded with **additional sources of funding**.



ODA and Financial Mechanism

- Although **ODA** funds are currently less than 1 per cent of investment globally, LDCs and smaller developing countries will continue to rely on ODA and soft loans from IFIs.
- If the funding available under the **financial mechanism** remains at its current level and continues to rely mainly on voluntary contributions, it will not be sufficient to address financial flows estimated to be needed for mitigation and adaptation.



Options for other sources of funding

- Several options have been identified. Some of these options could generate revenues commensurate with the additional investment and financial flows needed.
- Any of these options would require further analysis and agreement at the intergovernmental level.

Application of a levy similar to the 2 per cent share of proceeds from the CDM to international transfers of ERUs, AAUs and RMUs	USD 10 to USD 50 million	Annual average for 2008 to 2012
	Depends on size of carbon markets post-2012	Any estimate for post 2012 requires assumptions about future commitments
Auction of allowances for international aviation and marine emissions	USD 10 to USD 25 billion	Annual average for aviation rises from 2010 to 2030
	USD 10 to USD 15 billion	Annual average for marine transport rises from 2010 to 2030
International air travel levy	USD 10 to USD 15 billion	Based on charge of USD 6.50 per passenger per flight
Funds to invest foreign exchange reserves	Fund of up to USD 200 billion	Voluntary allocation of up to 5 per cent of foreign exchange reserves to a fund to invest in mitigation projects
Access to renewables programmes in developed countries	USD 500 million	Eligible renewables projects in developing countries could earn certificates that could be used toward compliance with obligations under renewables programmes in developed countries to a specified maximum
Debt-for-efficiency swap	Further research needed	Creditors negotiate an agreement that cancels a portion of the non-performing foreign debt outstanding in exchange for a commitment by the debtor government to invest the cancelled amount in clean energy projects
Tobin tax	USD 15 to USD 20 billion	A tax of 0.01 per cent on wholesale currency transactions
Donated special drawing rights	USD 18 billion initially	Some special drawing rights issued could be donated to raise revenue for Convention purposes

National policies

- **Governments set the rules** for the markets in which investors seek profits. Relevant policies are needed both in developed and developing countries to direct private investments.
- **Incentives and support** for development and implementation of policies in developing countries are needed.
- **International coordination of policies** by Parties in an appropriate forum will be most effective for areas such as technology R&D and deployment, and energy efficiency standards for internationally traded appliances and equipment.