

The role of private investment in increasing climate friendly technologies in developing countries

Background & introduction

Barriers inhibiting private investment flows towards climate change mitigation in developing countries include:

- 1) Nascent technologies not yet profitable;
- 2) Lack of certainty for post-2012 agreement;
- 3) Sharp commodity fluctuations and fuel switching;
- 4) The present financial crisis.

With uncertainty in the post-2012 climate change agreement, investors are uncertain whether future emissions reductions will be compensated. Current markets for carbon credits remain small.

The financial crisis in particular may reduce private investment in this area. One policy solution is a large 'green' stimulus package focused on green infrastructure development in developing countries.

Scale of needs

Significant increases in private investment are needed. The UNFCCC has estimated \$200-210 bn USD of additional investment needed in the year 2030.

New resources are needed quickly since climactic changes are imminent, infrastructure investments are long lasting, and policies may take time to perfect.

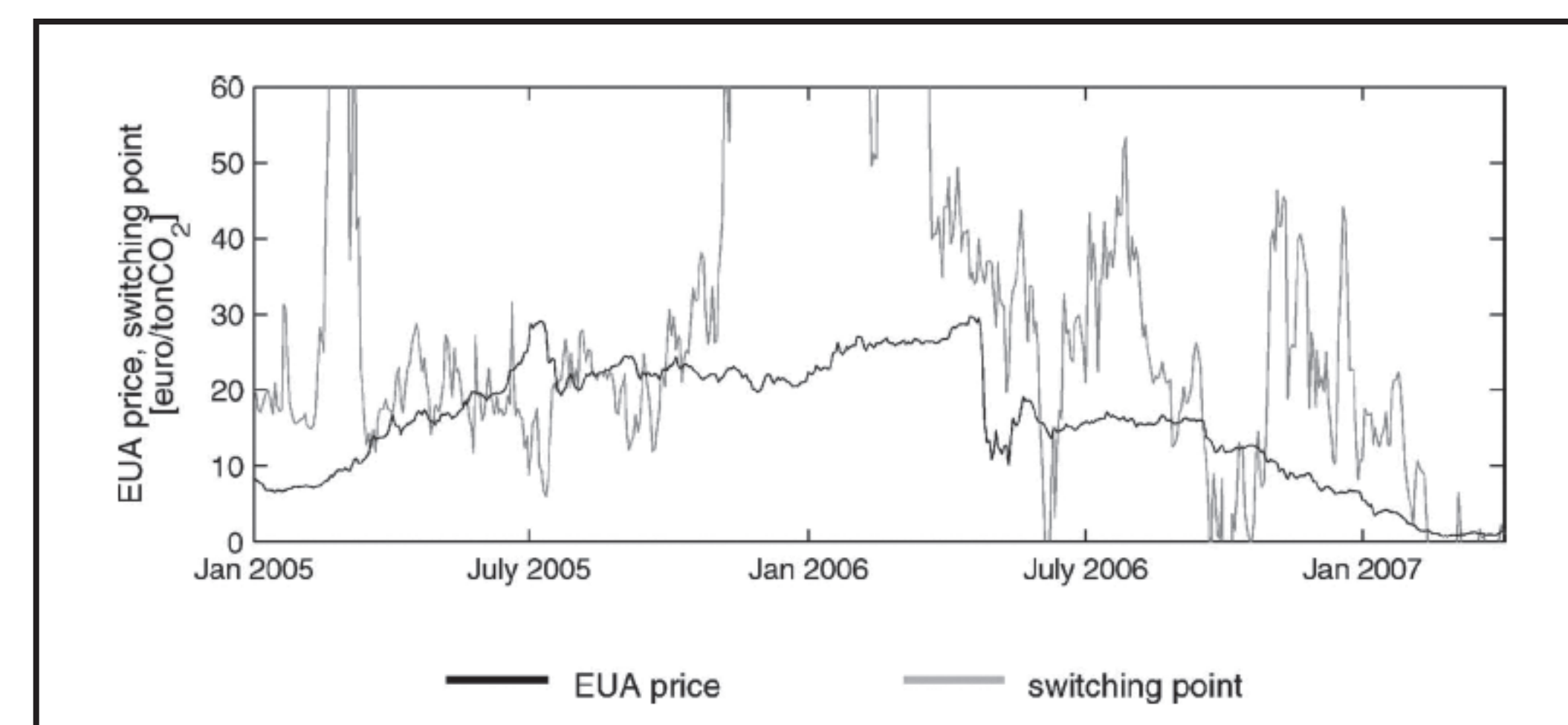


Figure 1. Emissions allowances on the EU ETS have proven sufficient to justify fuel switching. (Source: Delarue, Voorspools & D'haeseeler, 2008).

Current successes & challenges

The global carbon market has been growing quite rapidly, with new regional markets in the past ten years. The CDM, one component of this overall market, has shown significant growth in 2006-2008 although future growth depends on a post-Kyoto agreement.

There is significant debate between developed and developing countries over responsibilities for mitigation. Developing countries in particular feel that funding promised at Rio in 1992 has yet to be delivered.

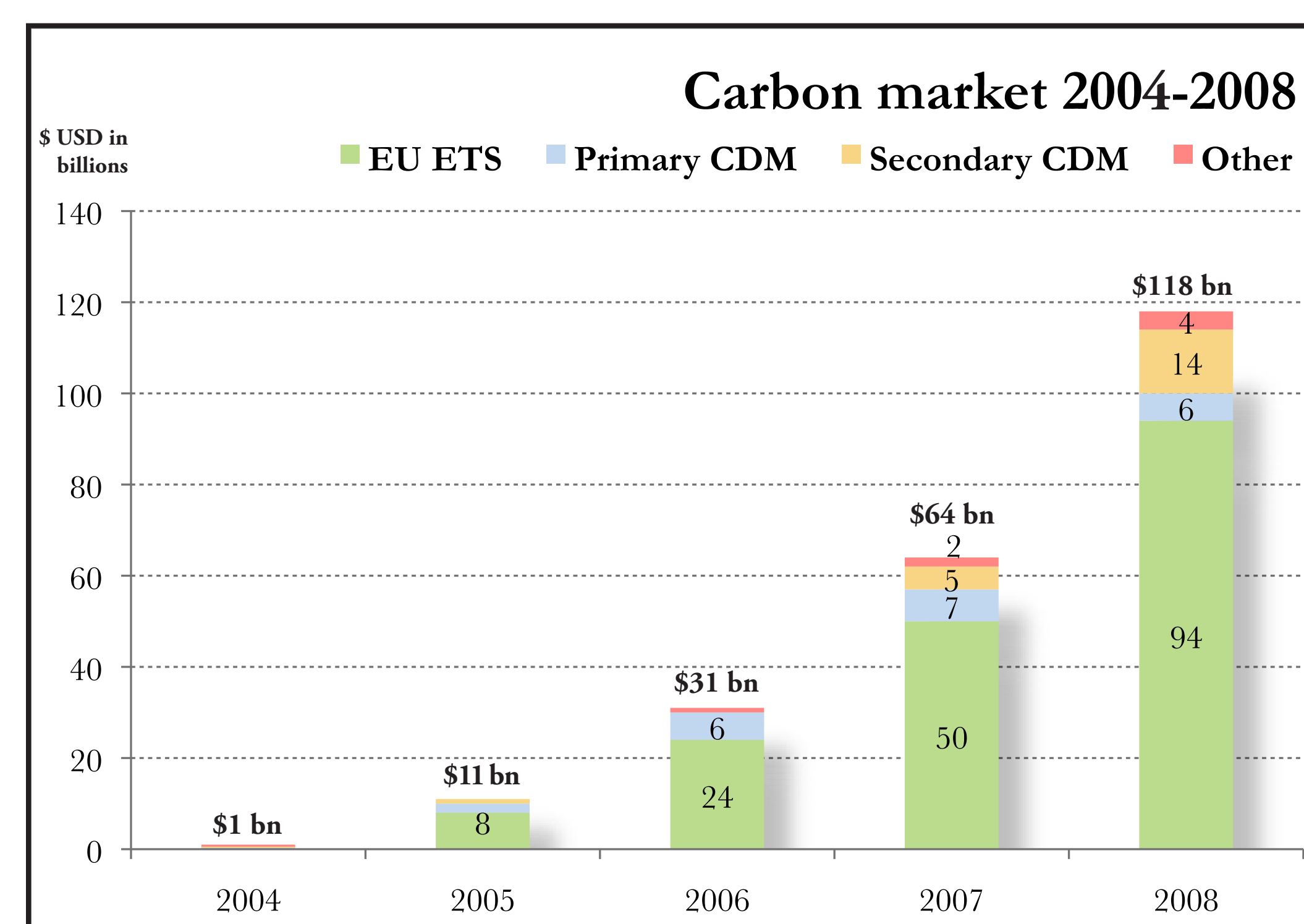


Figure 2. Growth in the carbon market is significant but limited for developing countries. Growth in the secondary CDM does not represent new flows to developing countries. (Source: New Carbon Finance, 2009).

Existing financing mechanisms to support private flows

1) CDM

The Clean Development Mechanism (CDM) is a major policy working to increase private flows in this area. Linking credits from the CDM with other carbon markets (e.g. EU ETS) has shown some success to date.

CDM successes include: innovative mechanism, strong investment growth, good interface between developed/developing countries, creativity shown in finding emissions reduction opportunities, demonstrated market competence, trained practitioners, levy for adaptation fund, implemented "differentiated responsibilities" principle.

CDM weaknesses include: inadequate governance resources, lack of transparency, lack of feedback to applicants, onerous approval timelines, unclear criteria, inequitable distribution of projects, lack of additionality, lack of sustainable development imperative, removing low-hanging fruit opportunities from developing countries.

CDM reform: Increase in sustainable development co-benefits (e.g. 'Gold Standard'), sectoral approach with industry emissions baselines, focus on technology transfer, 'atmospheric benefits' (e.g. 2:1 emissions reductions: credits).

2) Renewable Energy Financing & Energy Efficiency

Renewable energy financing is critical to decarbonizing the world's energy supply. Policymakers will create private flows in this area by pricing carbon and setting market price signals. Successful policies to date include: feed-in tariffs, quotas and tenders.

Feed-in tariffs are successful because they guarantee a reliable, stable rate of return. Government costs under this policy can be quite high, so the tariff should be brought down over time as technology improves. Quotas can support growth, but should remain stable to ensure sustainable growth. To date, wind energy has shown success in both China and India because of policies at the state level.

Energy efficiency is an area where low-carbon technology has an implicit cost savings and the International Finance Corporation (IFC) has been working with financial institutions in developing countries to help design lending programs focused on energy efficiency. The IFC also offers a partial risk guarantee, although default rates are very low.

Number of CDM Projects by Host Country

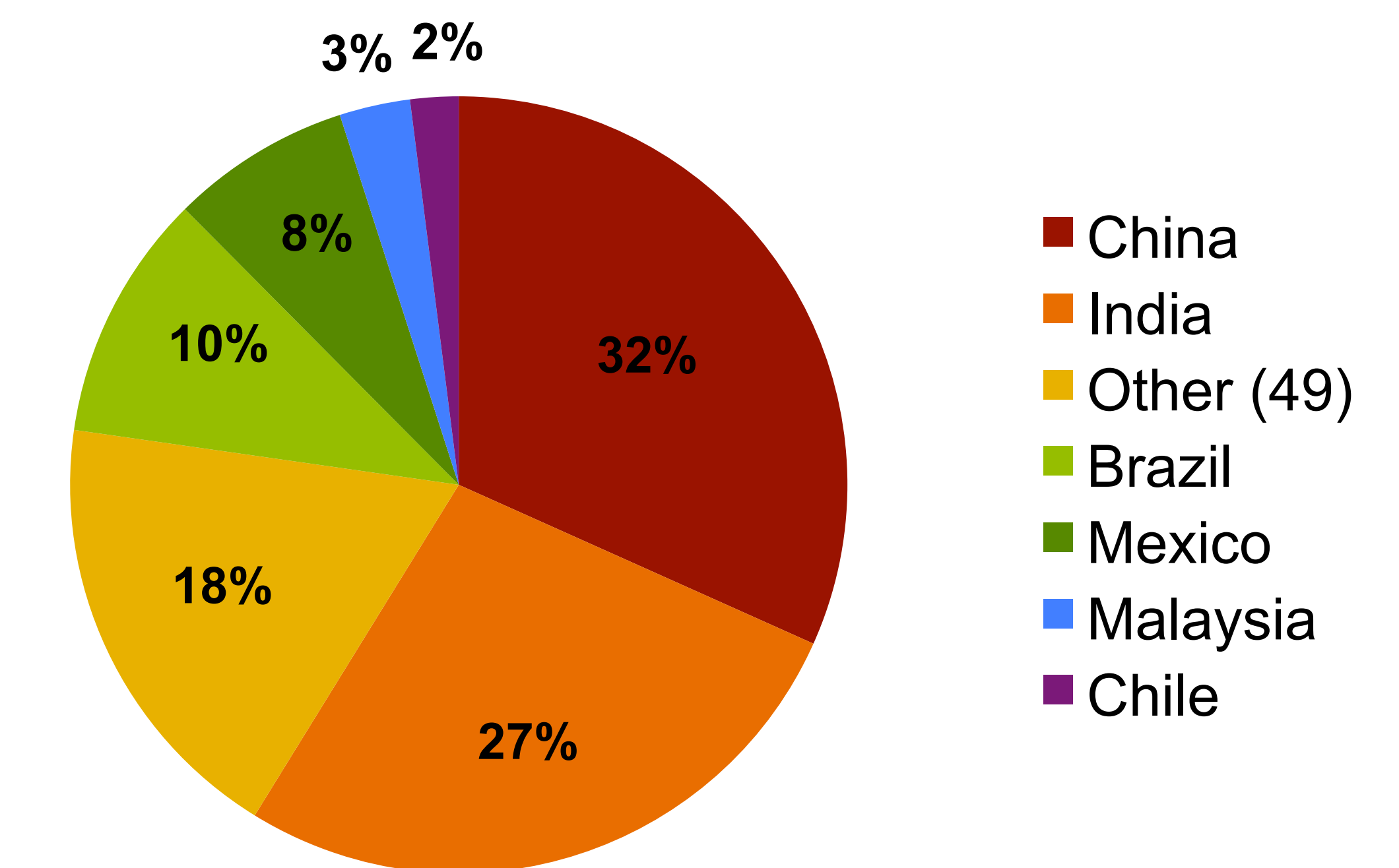


Figure 3. CDM projects have been concentrated in a handful of countries. Often, least-developed countries have trouble accessing projects and funding. (Source: UNFCCC, 2009).

3) Reducing emissions from deforestation and forest degradation (REDD) in developing countries

REDD policies are currently being structured to make forest preservation, with its carbon sequestration and biodiversity co-benefits, a financially viable route for developing countries to participate in mitigation. One challenge is to ensure low-cost forestry credits do not flood the credit market. The Coalition of Rainforest Nations has been particularly active here and is currently attempting to answer economic and implementation questions. The Forest Carbon Partnership Facility (World Bank – \$300 million), UN-REDD (UN – \$35 million) and an additional \$3 billion from developed countries have been pledged in this area.

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Bibliography

Delarue, Voorspools & D'haeseeler. (2008). Fuel Switching in the Electricity Sector under the EU ETS: Review and Prospective. *Journal of Energy Engineering*, 134(2): 40-46.

Haites, E. (2008). Negotiations on additional investment and financial flows to address climate change in developing countries. UNDP Environment and Energy Group, 1-48.

New Carbon Finance. (2009). Carbon market up 84% in 2008 at \$118bn. Press Release. Available at: <http://www.newcarbonfinance.com/>.

UNFCCC. (2009). Registered project activities by host region. United Nations Framework Convention on Climate Change. Available at: <http://cdm.unfccc.int/>

Category	Options
<i>Increasing the Scale of Existing Mechanisms</i>	<ul style="list-style-type: none"> The Convention Funds (from developed countries) The CDM and Other Possible Crediting Mechanisms The Adaptation Fund
<i>Additional Contributions by Developed Countries</i>	<ul style="list-style-type: none"> <i>New Bilateral and Multilateral Funds</i> <ul style="list-style-type: none"> Cool Earth Initiative International Climate Protection Initiative Clean Investment Funds Global Climate Financing Mechanism <i>Proposals Funded by Defined Contributions from Developed Countries</i> <ul style="list-style-type: none"> Convention Adaptation Fund, Technology Fund and Insurance Mechanism Adaptation Fund and Multilateral Technology Acquisition Fund Mechanism for Meeting Financial Commitments under the Convention Efficiency Penny <i>Proposals Funded by Contributions from Developed and Developing Countries</i> <ul style="list-style-type: none"> World Climate Change Fund Multilateral Adaptation Fund
<i>More Stringent Commitments by Developed Countries</i>	<ul style="list-style-type: none"> Auction of Assigned Amount Units under EU ETS Nationally Appropriate Mitigation Actions Carbon Market Expansion (RGGI, Western Climate Initiative)