



Evolution of the Carbon Asset Market

"Climate Change and Financial Service Providers
Tapping Markets of the Future – Avoiding Business Risks"

August 30, 2007

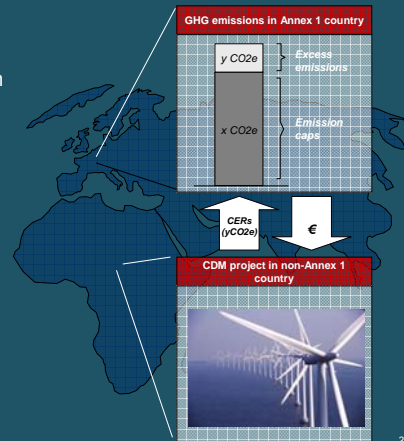


Carbon Emission Reductions are an Alternative Asset Class

- Carbon trading across the world reached \$30 billion in 2006, three times higher than the previous year
- Over \$11 billion has now been committed to carbon investment funds.
- The financial sector has taken the lead (example: Citigroup's commitment to invest \$50 billion in climate-related projects over the next decade)
- This flow of funds represents a new source of direct foreign investment: how can investors get involved?

Emission Reductions are the underlying Commodity

- The CDM is the most developed of the three flexibility mechanisms of the Kyoto Protocol
 - Enables industrialized countries to invest in clean infrastructure in developing countries...
 - ...and to meet Kyoto targets at lower cost
 - Promotes sustainable development and technology transfer
- The investment result, Certified Emission Reductions, are a regulated, tradeable commodity
 - Quality-ensuring governance (DNAs, EB) and infrastructure (ITL) in place
 - Emerging market investment risks have been largely structured out of this commodity



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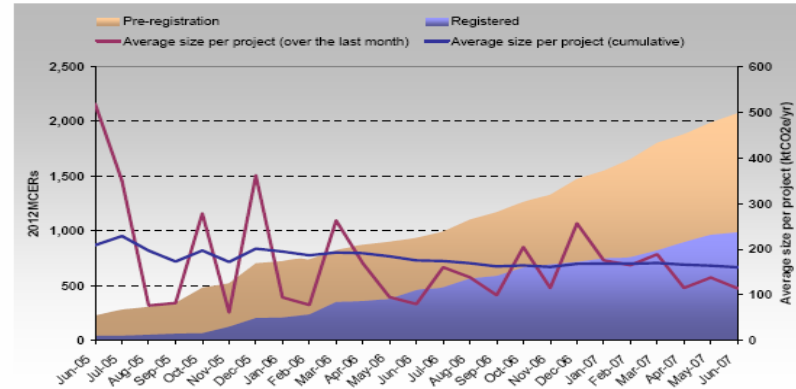
Carbon Credits from CDM Projects are beginning to be Produced in Substantial Volume

- **Projects submitted to the UN total 2,170 and continue to accelerate.**
- **A total 2.075 million tonnes is expected to be produced with 1,014 million tonnes registered.**
- **A total of 63 million tonnes of carbon credits (CERs) has been issued from 295 projects.**

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Growth of CDM Project Pipeline

Evolution of CER Pipeline (as of the 30th June) – non risk adjusted

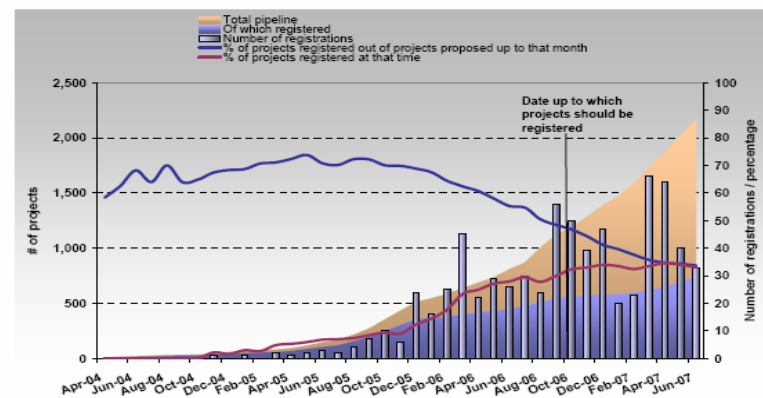


Source: New Carbon Finance, UNFCCC

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The Regulatory System is Working

Evolution of Projects Entering Pipeline and Currently Registered (15th May – non risk-adjusted)



Source: New Carbon Finance, UNEP

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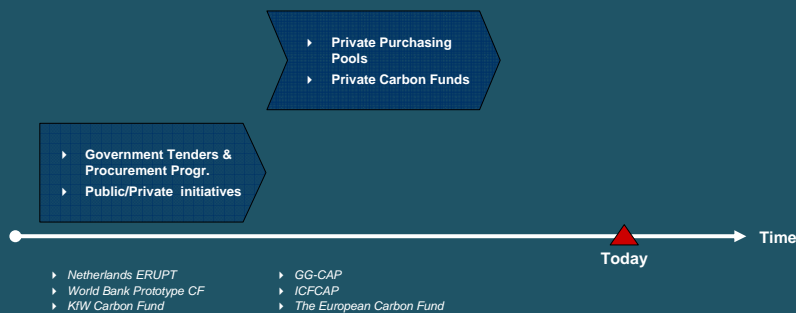
What are the Opportunities for Investors?

A brief history of investment vehicles:

1. Early carbon purchase funds were set up to encourage the development of the Carbon Markets

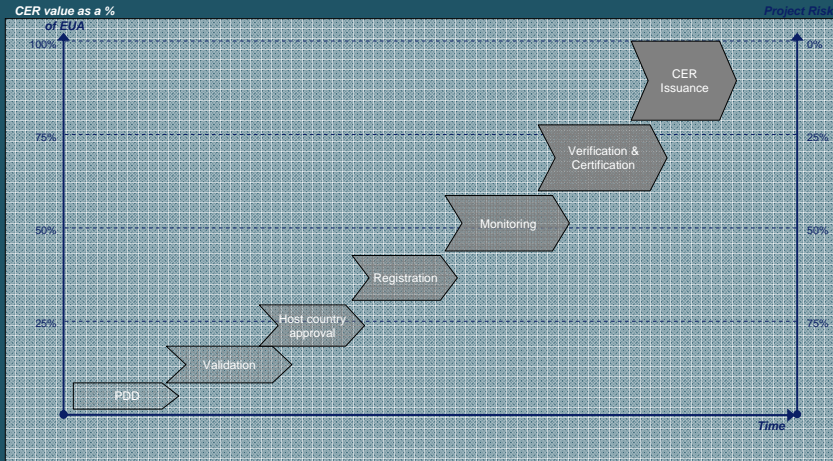


2. Private funds were launched to take commodity positions in carbon offsets

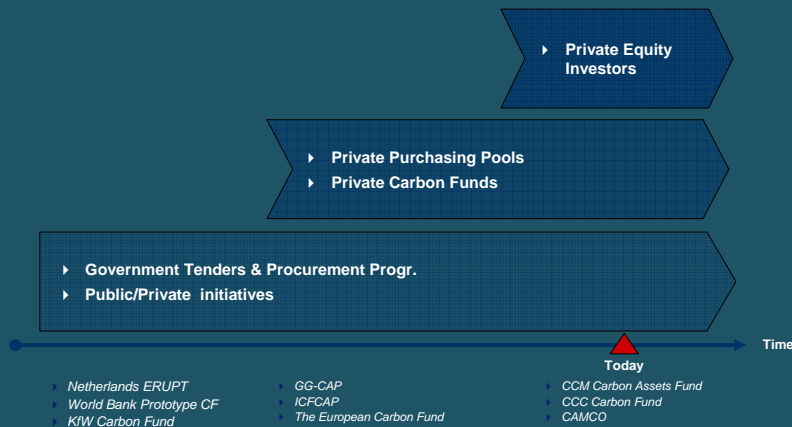


But Purchase Funds do not promote Direct Foreign Investment in CDM Projects

Basic Problem: Developers lack up front financing



Opportunity: Private equity investors commit capital and expertise to CDM projects, returning full market arbitrage to Investors



Private Equity model offers an attractive alternative to Forward Sales

		Forward sale	Private Equity
CDM objectives	Encourage cost effective reductions	😊	😊
	Contribute to sustainable development	😊	😊
Project developer's objectives	Finance project development	😊	😊
	Minimize project and market risk	😊 😞	😊
	Retain upside exposure	😞	😊
	Leverage investor's investment, management and technical expertise	😞	😊
	Secure access to CER buyers	😊	😊

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Carbon Assets Fund is a €100m hedge fund investing directly in global CDM projects

- Invests in CDM projects to generate lowest-cost CERs
- Projects offer means to directly reduce carbon emissions reduction - as opposed to more diffused investment in clean tech.
- Provides necessary equity capital to develop, register, and operate projects:
 - Development funds - desktop studies, on-site pump-tests, preliminary project design
 - CDM costs - PIN, PDD, Validation
 - Capital expenditure - landfill remediation, gas collection pipes & flares
- Investment Manager contributes substantial value added
 - Market maker in the EU Allowance Markets, expert in the CDM process

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The Fund also Provides Additional Sustainability and Poverty Reduction Benefits

- ▶ *"Waste Management has the greatest convergence of carbon finance returns and development impact":*
- ▶ Poor waste disposal conditions in low income countries has a significant impact on local communities:
 - Disposal is often done by open dumping and burning
 - Waste pickers, mostly young women and children, sort through the dumpsites for recyclables to support their families
 - 97% incidence of internal parasite infection in Olinda, Brazil
 - Blood lead content among children is 2.5 times above WHO recommendations
- CAF contributes a portion of the CERs generated through CDM projects for sustainable development at its landfill sites
- CAF has an agreement with UNICEF to optimise the implementation of social programmes for children on landfill sites.



Conclusion: At last the CDM merits Direct Investment Funds – an evolution in Carbon Finance.

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