

CARBON CREDITS—ORIGINATION TO COMMERCIALIZATION

EcoSecurities

CDM Market Outlook
Eron Bloomgarden, EcoSecurities
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EcoSecurities




What is EcoSecurities?

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ECO SECURITIES

Introduction to ESGP

EcoSecurities Group plc is the largest environmental finance company in the world and was awarded the "Leading Greenhouse Gas Advisory Firm Worldwide" title by 'Environmental Finance' magazine over the last five years.

Founded in	: 1996	
Offices in	: Oxford, Los Angeles, New York, Rio de Janeiro, The Hague, Mumbai, Bangkok, Kuala Lumpur, Mexico City, Jakarta, Santiago, Madrid	
Professionals	: 100+	
Projects	: 150 in 26 countries and using 15 technologies	
Methodologies	: 9 out of 36 UN approved methodologies	
Registered projects	: 19 (~25%) and 1 st registered in the world	

First CERs to be issued in the world

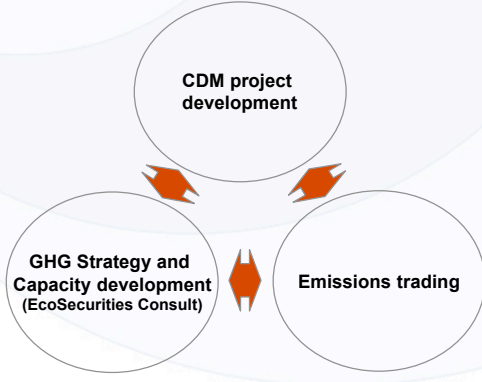
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EcoSecurities' Overview

Originate → **Implement** → **Commercialise**



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graph TD
    A((CDM project development)) --> B((GHG Strategy and Capacity development  
(EcoSecurities Consult)))
    A --> C((Emissions trading))
    B <--> C
  
```

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ECO SECURITIES

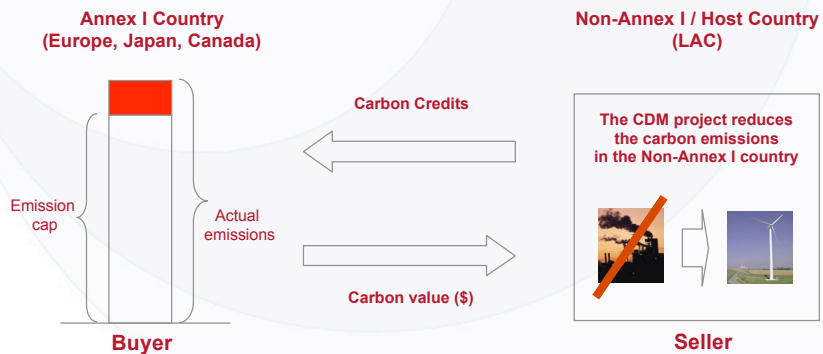
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Kyoto and the CDM

- ❖ The Clean Development Mechanism (CDM) is one of **three flexibility mechanisms** agreed to under the Kyoto protocol
 - ❖ Emissions Trading
 - ❖ Joint Implementation
 - ❖ *CDM*
- ❖ It is the **only one** of the project based mechanisms that operates in the developing world.
- ❖ The CDM has two primary objectives:
 - *Contribute to sustainable development in the host nation; and*
 - *Reduce emissions of Greenhouse Gases (GHGs)*

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How does the CDM work?



The principal buyers of carbon credits are governments of and private entities in Europe, Japan and Canada.

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Brief Market Overview

As of End of March 2006

- ❖ **The carbon market experienced incredible growth in volume and prices in 2005:**
 - November 2004: First project registered—Nova Gerar Landfill Gas project
 - February 2006: 101 projects registered; 25% of these projects registered in Dec 05
- ❖ **Events that triggered growth:**
 - Feb 2005: Entry into force of Kyoto Protocol and EU ETS
 - Oct 2005: Issuance of first tranches of CERs to three projects
- ❖ **Statistics:**
 - Registered Projects: 146
 - With expected CERs of > 330,000,000 until end of 2012
 - Total in project pipeline: > 670
 - With expected CERs of > 800,000,000 until end of 2012
 - CERs Issued to date: 4,173,719

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Who's buying? Who's selling? What determines price?

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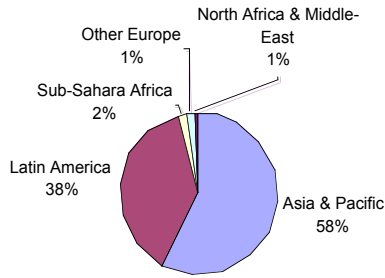
Who's Buying?

Buyer Category	Percentage
Funds	43%
Private	42%
Governments	12%
Unknown	3%

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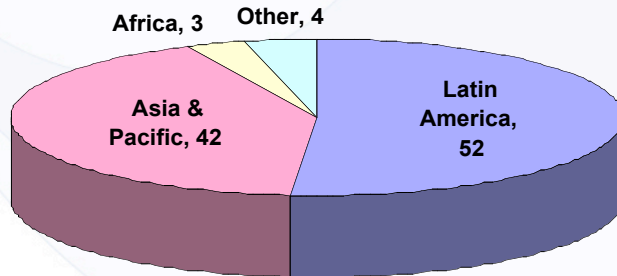
Who's Selling?

Regional Distribution (PDDs)



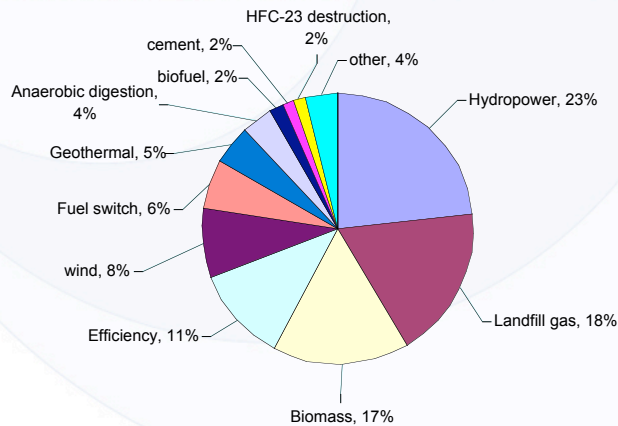
Registered Projects by Region

Total Registered Projects (100), by region:



Source: UNFCCC, Feb 2006

Opportunities in the CDM Market per Sector



Snapshot of the number of projects per project type as a percentage of the total number of projects

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Key Price Determinants

- Risk allocation
- Creditworthiness & experience of project sponsor
- Viability of underlying project
- Contract structure (e.g. upfront payments incur discount, penalties for non-delivery, ability to pay penalties)
- ER vintage & seniority
- Cost of validation & potential certification
- Host country support & willingness to cooperate
- Additional environmental and social benefits

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Reflection of Risk in the CER price



Three categories of CDM risks

1. Registration Risk:

- Bureaucratic risk at every step of the CDM project cycle: Baseline Methodology approval, Host Country Approval, Validation, Registration, Investor Country approval, Review and Issuance

2. Delivery Risk:

- Volume risk & Price risk: pertain to delivery of CERs
- Project risks: Country risk (polit./eco./etc.) & Operational risk (credit rating, capacity of staff, infrastructure, etc.)

3. International CER Transfer Risk:

- Registry risk: registries online (CDM Registry, ITL under development)
- Annex I country eligibility risk: incl. registry, 1990 baseline, Monitoring system, GHG inventory, UNFCCC approval

→ Risks endanger (timely) delivery of CERs

Structure of Transactions

- Most transactions still follow a commodity model (i.e. forward contract, payment on delivery)
- Very few follow investment model (i.e. debt and/or equity for ERs as part of the return)
- So, most carbon contracts do not address upfront financing barrier
- Also very few cases where carbon value is leveraged for upfront financing
- No standard contract yet
- Contracts vary depending on how project, country & Kyoto risks allocated

Market Outlook

- CDM is working
- Projects getting through
- Credits being issued
- Explosive growth
- Massive undertaking -> touches nearly every component of the industrial economy

However...

- Relatively under-resourced until recently
- Greater responsiveness & transparency still needed
- No direct interaction with regulators
- Hyper regulated -> environmental integrity must be maintained
 - Credibility and integrity of CERs are central
- *Starting to see significant flow of capital and technology into sustainable development projects in the developing world.*

Market Issues

- EU ETS up & running
 - Prices have been rising – despite recent market correction
 - High EUA prices – sellers want to share some of that upside but risky
 - Large demand for JI and CDM credits
 - Price Volatility



Market Issues

- CDM
 - Asia becoming largest CDM producer
 - Will AAUs (“Hot Air”) from Ukraine & Russia enter?
 - Regulatory transparency and integrity of CERs
- Post 2012 no clear regulatory signals – window of opportunity closing?
 - Additionality?
 - On the Horizon

On the Horizon

- **RGGI**
 - 7 states signed MOU in December 2005 to implement a cap-and-trade system
 - model rule has been crafted
 - set to launch in 2009
 - offsets allowed
- **California**
 - Governor support for cap-and-trade
 - Offsets envisioned

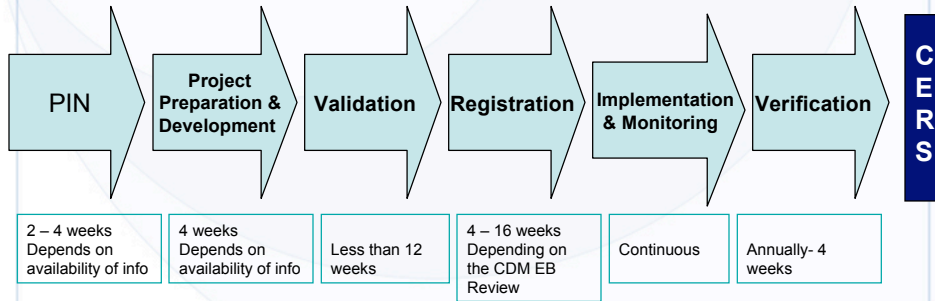
Bottom Line:

- *Climate change is not going away (barring a technological breakthrough)*
- *Infrastructure has already been built --- large investment – It works!*

Thank You

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The CDM Process



Our experience shows that a project can start operating after 6 months

CDM Project Qualifications

- ✓ The project reduces an eligible gas; six GHG gases eligible in CDM
 - CO₂, CH₄, N₂O, SF₆, PFCs, HFCs
- ✓ The Host country is a party to the Protocol
- ✓ The project is ADDITIONAL and not considered business-as-usual
- ✓ GHG emissions reductions are measurable and long-term
- ✓ There is no diversion of Overseas Development Assistance (ODA)
- ✓ Contributes to the sustainable development objectives of the host nation
- ✓ The project type is eligible as a CDM project activity
 - *No sequestration*

How does the CDM Impact a Project? (Financial Additionality)

