

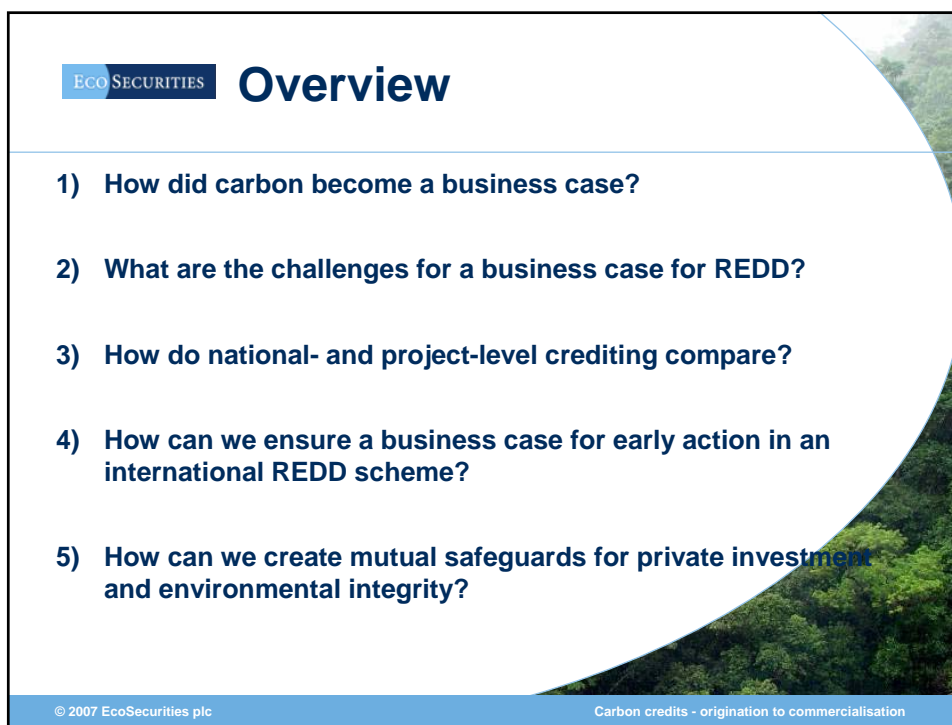
ECO SECURITIES CARBON CREDITS—ORIGINATION TO COMMERCIALISATION

Creating a business case for REDD

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EcoSecurities Global Consulting Services

COP 13 side event
6 Dec 2007

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ECO SECURITIES **Overview**

- 1) How did carbon become a business case?
- 2) What are the challenges for a business case for REDD?
- 3) How do national- and project-level crediting compare?
- 4) How can we ensure a business case for early action in an international REDD scheme?
- 5) How can we create mutual safeguards for private investment and environmental integrity?

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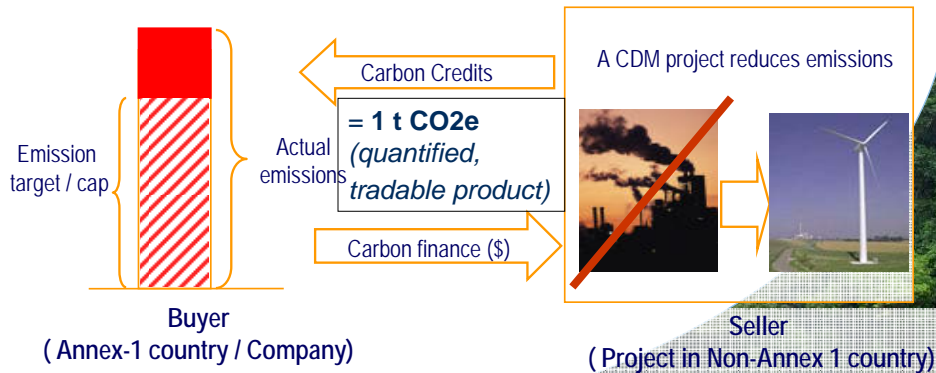
How did carbon become a business case?

1) What created business interest in carbon (emission reductions) ?

- **Science & policy** defined a quantifiable product
 - 1 ton of carbon / CO₂
- International and national **regulation** created demand for this product
 - E.g. through national limits on carbon emissions (Kyoto and EU Allowances (AAUs, EUAs), National Allocation Plans)
- **Companies**, NGOs, research institutions etc. developed technologies to supply the product
 - E.g. Emission reducing technologies and land-use activities

Generating carbon credits – What makes an offset an offset?

- Projects in developing countries (“Non-Annex 1”) can reduce emissions and sell carbon credits to Annex 1 countries
- Avoided deforestation currently not eligible under the CDM



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What created business interest in carbon ?

- But also **voluntary** demand for carbon reductions
 - CSR & PR, consumer conscience
 - Mainstreaming of climate change, e.g. Foodmiles
 - Pre-compliance “training” (not strictly voluntary)
- Supply follows and creates further demand
- However, important to note differences in market size:
 - Regulatory carbon markets: US\$ 32.2 billion in 2006
 - Of which US\$ 7.9 billion under CDM
 - Voluntary carbon markets: US\$ 92 million in 2006
 - less than 0.3 % of regulatory markets...

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What else is needed for carbon markets to work?

- **Predictable regulatory framework**
... creating predictable **demand** for the product, e.g. emission reductions
- **Risk management** tools for
 - Project risk (affecting project performance, i.e. ES provision), incl.:
 - Technology risk (e.g. renewable energy, tree planting)
 - Project management (e.g. financial mgt)
 - Governance in host country, political stability, judicial system etc
 - Policy risk (regulatory framework, e.g. CDM)
 - Market risk (carbon prices, demand)
- **Pioneers** – someone to stick out their neck (take a risk)
 - E.g. WorldBank Prototype Carbon Fund, BioCarbon Fund
 - EU (EU Emission Trading System)
 - Private investors, project developers, etc.
 - E.g. EcoSecurities

What else is needed - background: CDM risks and price

- **Carbon sales contracts are usually forward contracts**
 - Delivery risk – who bears what portion? (Buyer, seller, intermediary)
 - Price – how is risk reflected?
 - Price lower in case of up-front payment
- **How big are different risks?**
 - Project risk & Governance risk
 - Regulatory risk
 - Carbon market risk
 - Policy risk

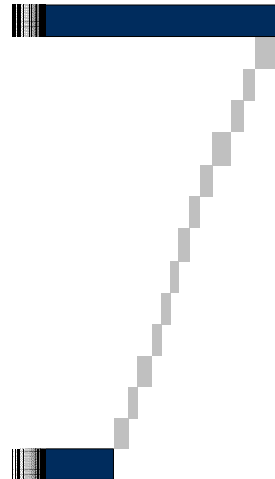
Risk

Risk free price per CER

Country political
Counterparty
Methodology
Host country approval
Validation
Registration
Performance
Monitoring
Verification
Review of issuance
Transfer
Market
Post-Kyoto

Risk adjusted price per CER

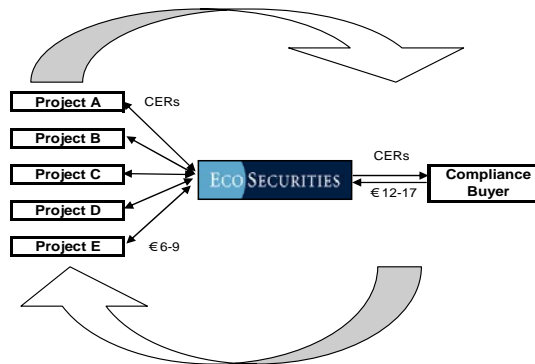
Impact on Price



What else is needed? - e.g. risk management tools

- Standards
 - Carbon due diligence:
E.g. CDM, VCS, with external verification of additionality etc.
 - Permanence (insurance, guarantee)
 - Leakage prevention
- EcoSecurities' portfolio approach

EcoSecurities is a leading originator and aggregator of carbon credits in the global carbon market



What are the challenges for a business case for REDD?

Governance Risk in REDD

If a **country (government)** is the project developer & carbon seller

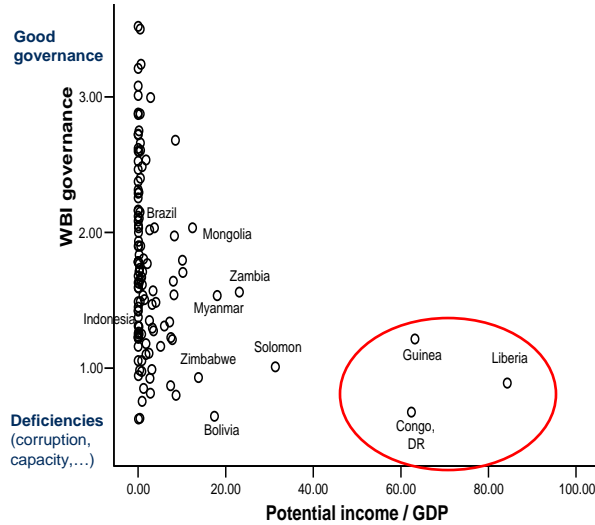
- Will they manage to lower deforestation, i.e. achieve REDD ?
 - Will there actually be any REDD credits?
- What is the country's track record of natural resource management?
 - Large share of current emissions from 'illegal' activities
 - Insecure land tenure, corruption, intransparent judicial systems, etc.
- **Can these underlying causes of deforestation be addressed?**
- Is there a strong institutional set up / willingness to reform?
 - How can benefits (and incentives) get to communities and landholder?
- Are there good monitoring and reporting systems?

Governance Risk in REDD

If a **landholder, company, or community** is the project developer:

- Governance still matters a lot!
- What risks to the project arise from governance in the country?
 - e.g. land tenure security, economic, political, judicial stability
- If government is intermediary for international REDD trading:
 - What is the risk of intransparency, misallocation and corruption?

The governance challenge

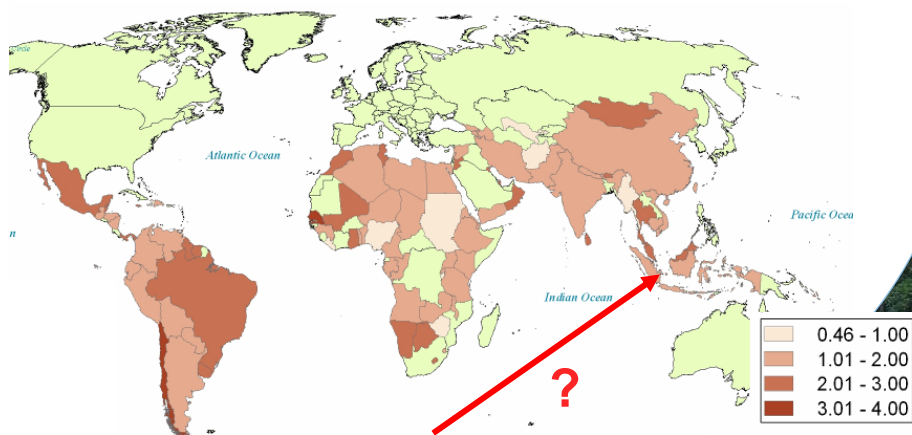


- How realistic is it to realise the theoretical income & mitigation potential?
- Some of the countries with the **highest potential carbon income** have severe governance issues.

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The Governance Challenge



- Also: Within-country variation....
- Governance at the forest frontier?

WBI governance indicators

Source: Ebeling & Yasue 2007

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How do national- and project-level crediting for REDD compare?

So what is good about national-level crediting?

- National baseline, monitoring, and accounting system address leakage within a country
- Governments can implement changes that are outside the scope of projects
 - E.g. command-and-control policies, land-tenure and judicial reform, infrastructure planning, tax incentives,...
 - Consider “governed” deforestation
- Potentially larger scale = potentially greater climatic benefit and lower relative transaction costs





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Could the private sector provide similar support as for projects?

Intermediaries like EcoSecurities are instrumental for the success of project-based GHG reduction

- Projects can prove cash flow to investors through an Emission Reductions Purchase Agreement (ERPA)
- Intermediaries such as EcoSecurities
 - take on transaction costs of the CDM and VER projects
 - can provide seed capital through upfront payments in ERPAs
 - can directly invest into projects or facilitate investment
- Buyers don't like uncertainties regarding delivery (under forward contracts)
 - EcoSecurities takes on delivery risk through portfolio approach

Why is this relevant for REDD?

- If REDD scheme allows for direct project crediting, then private sector can facilitate ERs as in CDM
 - If REDD only allows crediting to governments, then business case for facilitating on-the-ground activities probably falls away...
- If so: Will the market function well without the facilitating role and financial flows of the private sector?
- Is a role for the private sector desirable or necessary?

How would a national crediting system work in the market?

- Host governments need large incentives to put effort into reducing deforestation on a national scale
 - They need large purchase commitments
- Large transactions with few sellers = high delivery risk!
- And many host governments will face delivery problems (governance, capacity, drivers of deforestation)
- Risk of upfront payments is high
 - Buyers will pay on delivery

How would a national crediting system work in the market?

- How will governments translate future credit sales into incentives for on-the-ground activities?
 - Upfront investments are needed
- Private sector reluctant to pay upfront in forward carbon contracts with developing-country governments: high delivery risk!
- Currently active role of private sector to achieve GHG reductions (and many NGOs in forest stewardship)
 - Governments would have to take on their role or transfer sufficient incentives to them
 - Forest conservation has no other income apart from C credits; opportunity costs can be high

Worst-case scenario for REDD

- Without sufficient commitments from buyers, a selling REDD host country will not invest into reducing deforestation
- End result: Nothing happens!
 - Especially no early action – and it may take many years for countries to even have the potential capacity to implement national REDD approaches, let alone put them into practice
 - Business-as-usual with all the negative effects for climate, biodiversity and livelihoods

A hybrid crediting approach in REDD – A suggestion for discussion

- 1) National monitoring and accounting system measures country-wide emission reductions, i.e. government activities to reduce deforestation
 - Also accounts for leakage (from projects and local activities)
- 2) Projects can directly receive and sell international credits
 - But they have to pay a 'tax' / 'levy' to governments for leakage control, monitoring, etc.
- 3) Project credits get deducted from a mandatory national registry (no double-counting)

Advantages of hybrid approach

- Capacity of private sector to implement and facilitate activities is maintained (similar dynamics as in CDM)
- Buyers could more effectively manage their purchasing strategies and don't have to commit to buying large volumes from a single seller
- Host governments would have incentives
 - to reduce deforestations for national crediting, but also
 - to facilitate project performance in order to collect REDD 'tax' (which is proportional to performance, i.e. ERs)

How can we ensure early action in an international REDD scheme?

Encouraging early activities under REDD agreement

- **Incentives** for early action needed (pre-2013)
 - For “readiness” and capacity & for on-the-ground emission reduction activities
 - Incentives for latter could be carbon **credits** or **fund-based** payments
 - Credits could be early crediting under REDD or VERs (but beware of uncertain demand/ overall market volume)
 - We need: funds on sufficient scale and relatively quick to mobilise
- Hybrid crediting schemes could also bridge “**transitional**” period to national REDD
 - But some countries may never get there or need many years
 - Important not to penalise early movers, i.e. provide fair and consistent incentives
 - Important to not double-count and to stop crediting once all carbon of a forest is sold

How can we create safeguards for both private investment and environmental integrity in REDD?

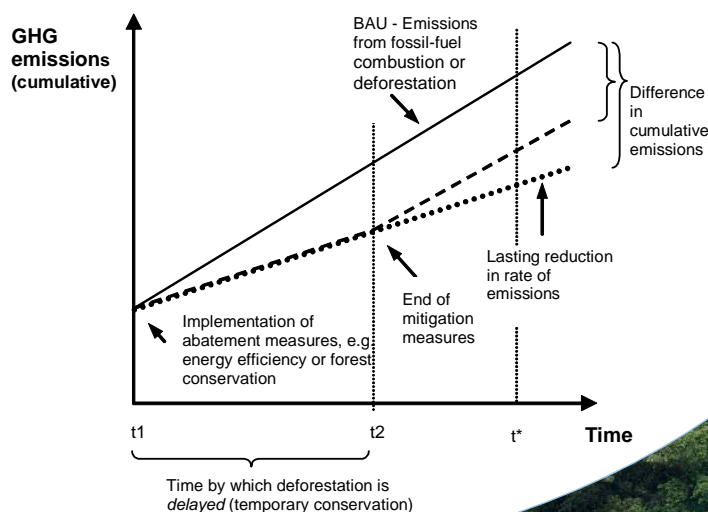
Safeguards for early action

- Don't let perfect be enemy of the good (and **feasible**)!
 - That does NOT mean to lower standards but to find pragmatic solutions (e.g. discounting instead of most complex leakage accounting)
 - In both ways – ensuring environmental / social safeguards and investment safeguards!
 - No one says markets are without issues but we have moved on from the past “sinks debate”

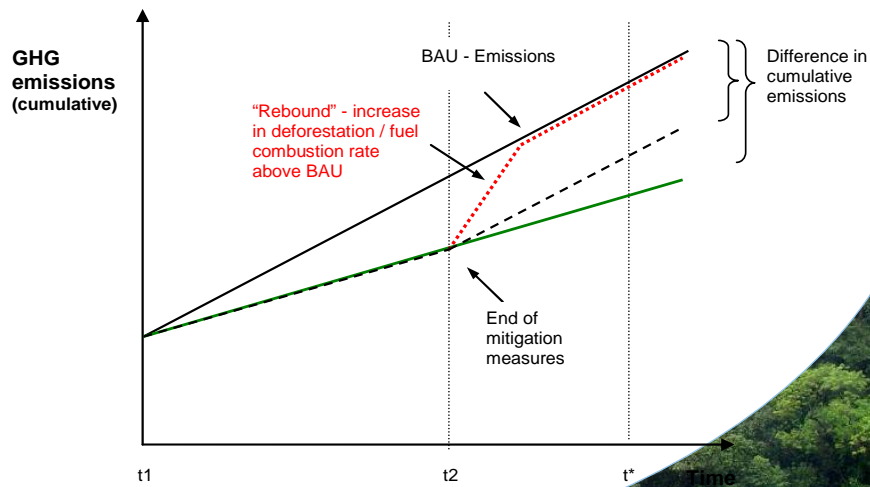
Necessary safeguards for hybrid approach

- Leakage: CDM / VCS accounting
 - If uncertain: be conservative and discount but work towards functioning market
 - CDM AR methodologies are very conservative and complex (high environmental integrity) to the point of discouraging project investment (trade-off with overall emission reductions achieved!)
- Permanence: differences between projects and national crediting
 - Emissions are reduced rather than sinks created but nevertheless insurance against non-permanence is required
 - E.g. buffers for projects (VCS global bundling applied nationally?)
 - Size depends on drivers, risks, management, size of carbon pool / forest, etc. and needs to be revised
- Discount for remaining uncertainties

Emission reductions from REDD can be permanent in many cases



Potential risk of rebounds in deforestation rates (especially in project case)



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Suggestions for addressing further perceived risks for / of markets

- Market flooding / crowding out
 - Risk may not be real, but concerns are very real
 - negotiated **cap** (but *fungible* credits)
 - Cap to be revised as experience gathers
 - Supply up to cap has to be matched by strict Annex-1 commitments
 - Floor on demand could provide some certainty for sellers and investors

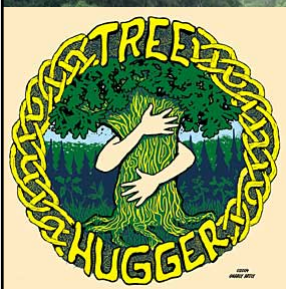
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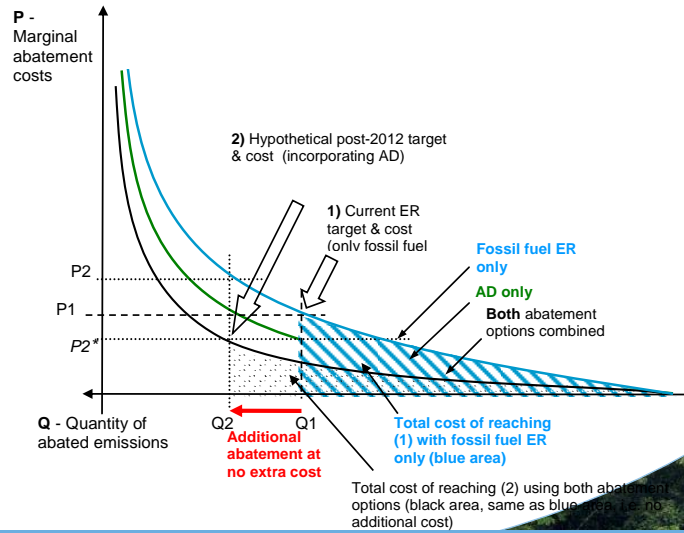
Suggestions for addressing further perceived risks for / of markets

- Any additional mitigation option reduces average abatement costs (REDD does not simply create cheap credits from one source displacing others!)
 - Let's not waste opportunity for cheaper and deeper emission cuts overall!!
- Concrete requirements for environmental and social safeguards should come from countries
 - Political acceptability is key and there is not one definition of 'sustainable development'.
 - Carbon colonialism, denial of right to develop,... lets not waste time on same debates again!
 - Bilateral, voluntary add-ons, commitments etc. for extra safeguards, e.g. CCBS, HCVF framework on landscape and project level!

Thank you!!

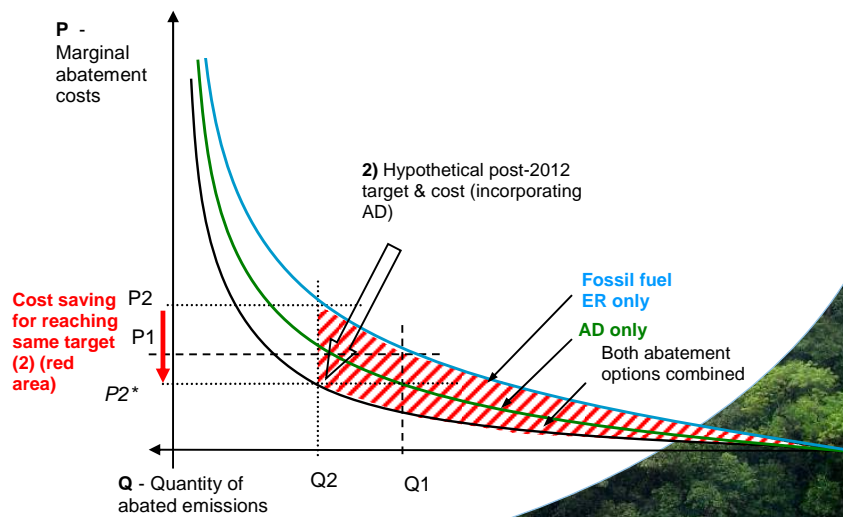


Cost savings through REDD and options for tighter targets at no extra cost



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Is there a business case for poverty alleviation in ES markets?

- Mixed (and disappointing) experiences with the CDM
 - Investors prefer large-scale projects with high returns and established technologies (industrial gases, hydro-power,...)
 - Complex and bureaucratic standards increase transaction costs
 - High transaction costs deter from small community-based investments
- How to “commoditise” poverty alleviation?
 - Payments for emission reductions & maybe for biodiversity o.k., but for livelihood provision? (How could it be measured, how to set targets?)
- Danger of over-regulating ES markets
 - E.g. as it has happened for forestry CDM
 - Markets may not be the ideal approach for development benefits
 - However, private investment need not be via markets
- Voluntary carbon markets value (demand & price) development co-benefits
 - Different buyer motivation than in mandatory schemes

Is there a business case for poverty alleviation in ES markets?

- We need simplified and pragmatic approaches to implement pro-poor ES projects while safeguarding the ES provision (e.g. credible, verifiable carbon reductions)
 - Promising approaches via project bundling and “Programme of Activities” under the CDM (and small-scale methodologies)
 - Alternative approaches: E.g. aim for high transaction volumes that can be taxed with revenues used for targeted development interventions
 - REDD is the most immediate (large-scale) ES opportunity with a large potential for poverty reduction
- **The Global Mechanism and EcoSecurities develop multiple-benefit projects**
- To create benefits for poverty alleviation and rural livelihoods
 - To address land degradation, while mitigating CC



Carbon Credit portfolio at 5 September 2007 comprised of:

- **456** CDM projects
- Projects have the potential to generate over **142** million CERs
- **44** voluntary projects
- Projects have the potential to generate over **4.3** million VERs



Headcount

June 2005	27 employees
Dec 2005	90 employees
August 2006	178 employees
Dec 2006	209 employees

* No legal presence but EcoSecurities has entered into contracts with individuals to act as EcoSecurities representatives

294 projects under construction as of 5 September 2007



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145 projects operating as of 5 September 2007



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