

Carbon Finance – a brief for the press...

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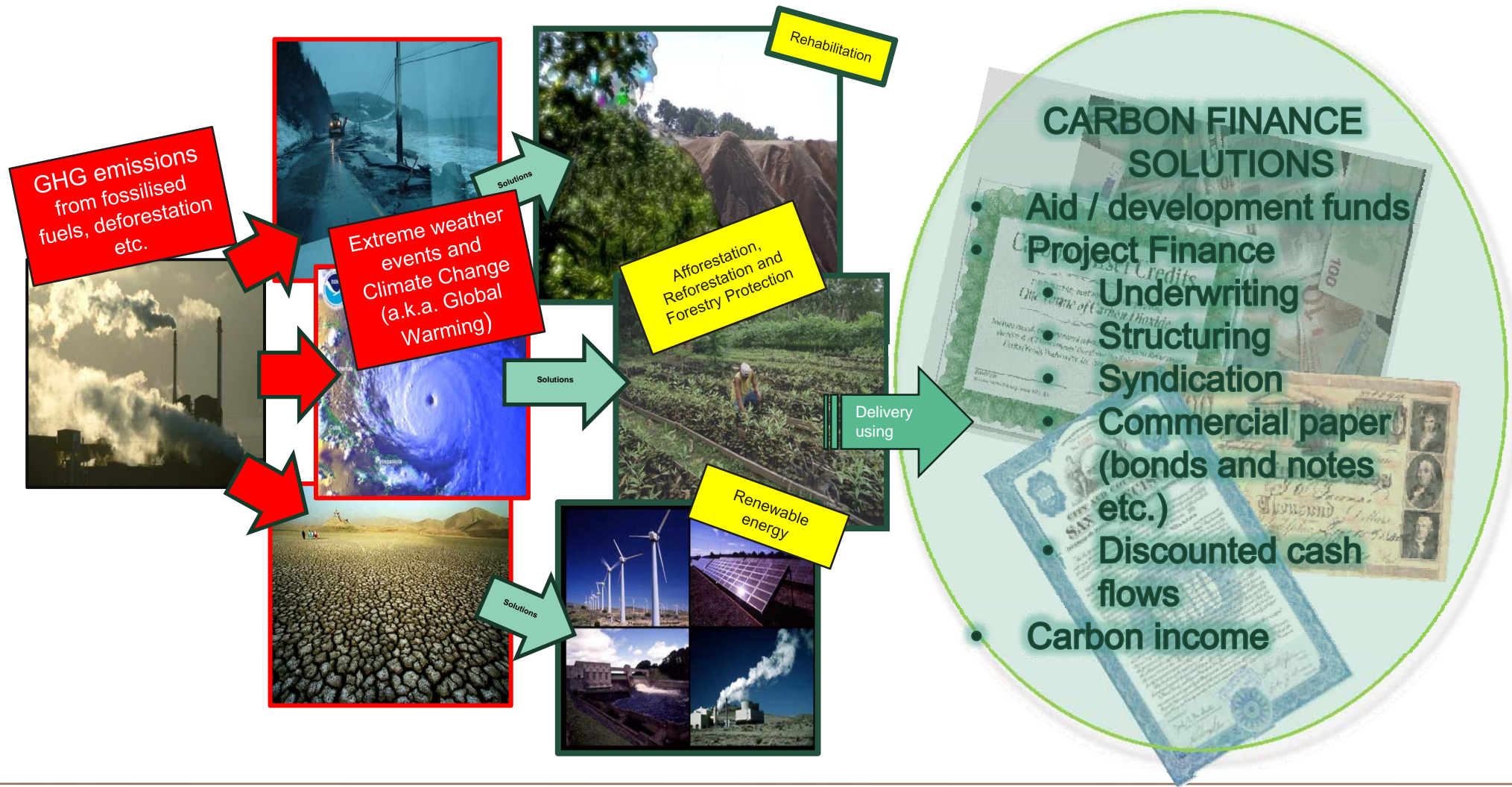


MAKE THINGS HAPPEN

NEDBANK | CAPITAL

A Member of the  OLD MUTUAL Group

Carbon Finance & Global warming – the science at a glance



Carbon Credits in a nutshell ...

Carbon Credits come in many flavours.

The most important distinction is between...

Regulatory Carbon Instruments & Voluntary Carbon Instruments

- CER's (CDM 'reduction')
- EUA's (Europe allowance)
- ERU's (Europe - reduction)
- VU's - (VCS)
- PVC's - (Plan Vivo)
- VER's - (VER Plus)

... and there's more

... and there are many more

The prices are different, buyers have different drivers but the way to get them is essentially the same...

Carbon Project Process – It's complicated !

Carbon Project Development

Project Concept

National approval (DNA) & Prior Notification (UNFCCC)

Develop physical project plan

Plan and engage with financiers

Select or develop project methodology

Define project benefits

Document project baseline

Evaluate project for additionality

Generate PDD & submit for approval to:

National sustainability & development criteria

Public comment

Validation / DSE

Project acceptance/registration

Complete physical project implementation

Project commissioning

Measure & Monitor Project Performance (Emissions Benefit)

Annual Report submitted for Verification

Carbon Project Production Cycle

CER's issued & allocated in accordance with ERPA

Submitted for Carbon Issuance

Project Owner

Carbon Sales
Carbon Price

Carbon
Auditor

Registry
Administrator

The experts love to complicate things!
There are more acronyms in carbon than stars in the sky...
The rules are rigid and obedience is a must... But no matter what anyone says, this process is not actually complex.

Some popular myths ...

A Carbon Credit represents a unit of Carbon ...

- They actually represent an emission (saving) of one of the recognised greenhouse gasses that has the same global warming potential as 1tCO₂e

Carbon projects reduce emissions ...

- Although some do (e.g. energy efficiency, wind and solar) many projects add to total emissions, but slower than business as usual (e.g. gas-derived power)

Carbon projects are environmentally beneficial...

- Clearing invasive tree species is carbon negative

Being environmentally friendly costs money ...

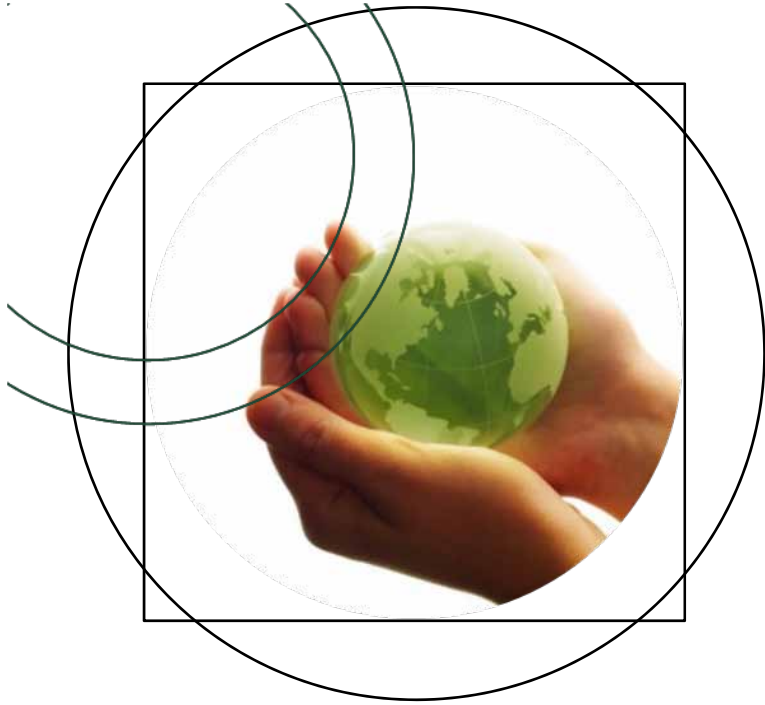
- Since 2007, Nedbank has :
 - reduced it's annual electricity bill by R11m (capex R6,5m)
 - cut R29m from annual business travel bill (no capex)

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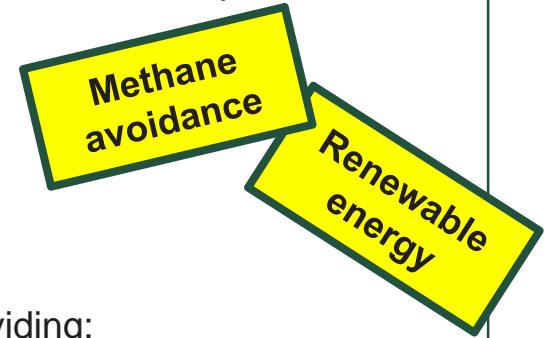
Thank You



Appendices
Making Carbon Work
Examples

Making Carbon Work – 1 Municipal wastewater treatment plant refurbishment

- Existing municipal wastewater treatment plant using biodigesters venting into the atmosphere
 - Refurbishment of biodigesters and bio-gas collection
 - Installation of new bio-gas electricity generators
 - Emissions reduction from methane avoidance & renewable energy generation
- CDM project development and registration on-risk by Nedbank Capital
- DNA issued letter of no objection (PIN submitted to DNA)
- Emissions Reduction Purchase Agreement (ERPA) under negotiation providing:
 - Advance payment (funding) against forward purchase of CER's for guaranteed future delivery
 - Additional carbon purchase at floor plus share in market up-side, payable on delivery
- Project funding on offer, subject to municipality need



Anaerobic digestion :

is a series of processes in which microorganisms break down biodegradable material in the absence of oxygen, used for industrial or domestic purposes to manage waste and/or to release energy.

It is widely used as part of the process to treat wastewater^[1]. As part of an integrated waste management system, anaerobic digestion reduces the emission of landfill gas into the atmosphere.

Anaerobic digestion is widely used as a renewable energy source because the process produces a methane and carbon dioxide rich biogas suitable for energy production, helping to replace fossil fuels. The nutrient-rich digestate which is also produced can be used as fertilizer.

http://en.wikipedia.org/wiki/Anaerobic_digestion



Anaerobic digesters at the Lübeck Waste Treatment Facility a mechanical biological treatment plant.

http://en.wikipedia.org/wiki/Image:Haase_Lubeck_MBT.JPG

Making Carbon Work – 2 REDD in Kenya

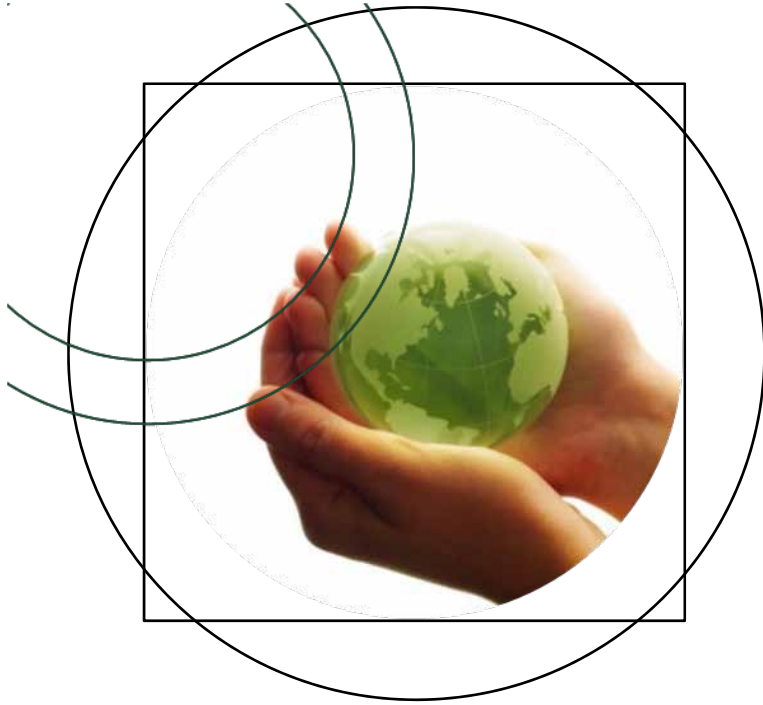
- **Reduced Emissions from Deforestation and Degradation (REDD) project in SE Kenya**
- **Estimated avoided emissions over 20 years - approximately 200,000 metric tonnes of CO₂e (VER's) per year after issuance buffer**
- **Partially funded through Nedbank purchase of REDD carbon finalised November 2009**
 - Initial purchase 2006-2009 vintage pre-CCB Accredited VER's
 - Additional purchase option for VER's annually 2010 to 2015
 - High price attained due to project appeal and limited availability of African carbon offsets
- **First stage payment immediate**
- **Second stage payment due upon CCB Accreditation (issued December 2009)**
- **Third stage payment due upon Voluntary Carbon Standard (VCS) REDD AUFDD (Avoiding unplanned frontier deforestation and degradation) registration (anticipated during 2010, actual Feb 2011)**
- **Community support initiatives form the basis of the carbon offset leakage avoidance strategy, including:**
 - Ecotourism an ecotourism provider operates a camp which provides employment for local wildlife rangers and safari guides and other service jobs, as well as a market for local produce
 - Eco-factory organic clothing factory employed over 150 people from the community in the construction phase
 - Organic greenhouse and nursery program grow citrus trees for sale at a discount to local farmers for shade and income generation, chillies for cash crop and human/wildlife conflict intervention
 - Dryland farming scheme working with the Kenyan Agricultural Research Institute (KARI) to explore the potential of growing jojoba as a dryland cash crop
 - Participation in school construction and bursary scheme



Making Carbon Work – 3 Mine rehabilitation + renewable energy

- **Pro-active mine rehabilitation program (commencement prior to mine closure)**
- **Reforestation through :**
 - Nursery growing indigenous forest trees
 - Planting out indigenous tree species
- **Solid renewable biomass to energy**
- **Carbon emission reductions through :**
 - Reforestation
 - Renewable Energy / Fuel switch
- **Community support initiatives using carbon income, including:**
 - Direct employment in energy generation plant
 - Direct employment in nursery and planting schemes
 - Various community education and upliftment programmes
- **Nedbank are providing :**
 - Project concept development advisory services
 - Technology solutions and project implementation management partner introductions
 - Debt funding
 - Carbon project development and registration
 - Carbon sales and distribution services





Appendices
Some information about Nedbank
Examples

Who is Nedbank Limited?

- Nedbank Ltd is one of the major 4 banks in South Africa
 - Listed on the Johannesburg Stock Exchange (“JSE”) with a market cap of R71.8 bn (Bloomberg 11 May 2011)
 - Total assets of R R609,7 billion (Mar 2011)
 - At the forefront of African sustainability, as evidenced by its 2010 accolades¹
 - 51.37% held by Old Mutual Life Assurance Company (South Africa) Ltd
 - Old Mutual Life Assurance Company (South Africa) Ltd is part of Old Mutual Plc
 - Financial highlights of Old Mutual Plc group
 - FUM of £309.3 billion (Dec 2010 preliminary results)
 - Operating profit (IFRSAOP) of £1,481 million, with basic earnings per share of (4p 2010 preliminary results)
- Nedbank Capital is a division of Nedbank Ltd
 - Housing the bank’s investment banking offering
 - comprises several divisions that manage Nedbank’s structuring, lending, underwriting and trading businesses.
 - Offering a full spectrum of investment services and products, ranging from equity research and specialised advice to debt raising and long-term project financing
 - Clients include the who’s who of southern Africa’s top corporations, government bodies, financial institutions, emerging BEE consortiums, multinational corporates and consortiums undertaking major infrastructure and mining projects in Africa
- Financial Products, Carbon and African Treasuries² – our business unit, offer :
 - Carbon advisory, strategy development and carbon footprinting
 - Carbon neutrality through credible offset acquisition
 - Carbon project advisory, assessment and development
 - Innovative carbon-backed funding solutions
 - Carbon asset management, sales and distribution

Sustainability highlights, awards, indices and memberships

NEDBANK'S RECENT SUSTAINABILITY HIGHLIGHTS, AWARDS, INDICES AND MEMBERSHIPS INCLUDE:

- **Carbon Neutral** – Africa's first carbon neutral financial organisation.
- **Dow Jones World Sustainability Index membership** – the world's premier performance benchmark for companies in terms of corporate sustainability. Included for fifth year. One of only 25 banks worldwide and three companies with primary listings in South Africa to be included on the index (only SA Bank). 2010: 78% (2009: 77%).
- **JSE SRI Index** – inclusion since 2004.
- **South African Carbon Disclosure Project Leadership Index** – 2010, the group recognised as a leader in the performance category and placed third in the disclosure category.
- **Water Carbon Disclosure Project (Water CDP)** – 2010 voluntary participant.
- **Global 1000 Sustainable Performance Leaders Index** – Ranked 284th (third highest SA company).
- **Financial Times** – 2010, Emerging Markets Sustainable Bank of the Year for Middle East & Africa.
- **Equator Principles** – first African bank signatory.
- **Ernst & Young Excellence in Sustainability Reporting** – award of excellence received.
- **UNEP FI** – signatory to official Statement on Climate Change.
- **Signatory to the Cancun Communiqué**
- **Climate Change Leadership Awards** – 2010 joint winner Financial Services Sector.
- **Green Start 'as built' rating** – In 2010 Nedbank became the first company in South Africa to be awarded a Green Star 'as built' rating for Phase 2 of its head office complex

National and International Environmental Initiatives

NEDBANK IS REPRESENTED ON THE FOLLOWING NATIONAL AND INTERNATIONAL ENVIRONMENTAL INITIATIVES:

- Climate Neutral Network
- UNEP FI African Task Force
- UNEP FI Banking Commission
- UNEP FI Human Rights Work Stream
- UNEP Water & Finance Initiative Work Stream
- United Nations Global Compact - 'Caring for Climate' Programme
- National Business Initiative Advisory Committee on Climate Change
- National Energy Efficiency Accord
- Banking Association of South Africa: Sustainable Finance Committee
- UNISA Climate Change Advisory Committee
- WWF-SA Conservation Partnership