



CDM as a source of financing for renewable energy services

Presentation at the EUEI Conference in Dar es Salaam
June 2005

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Overview



- Where is **SouthSouthNorth**?
- CDM summary
- Some projects
- Kuyasa case study
- Some points about the market for CDM credits
- Concluding remarks

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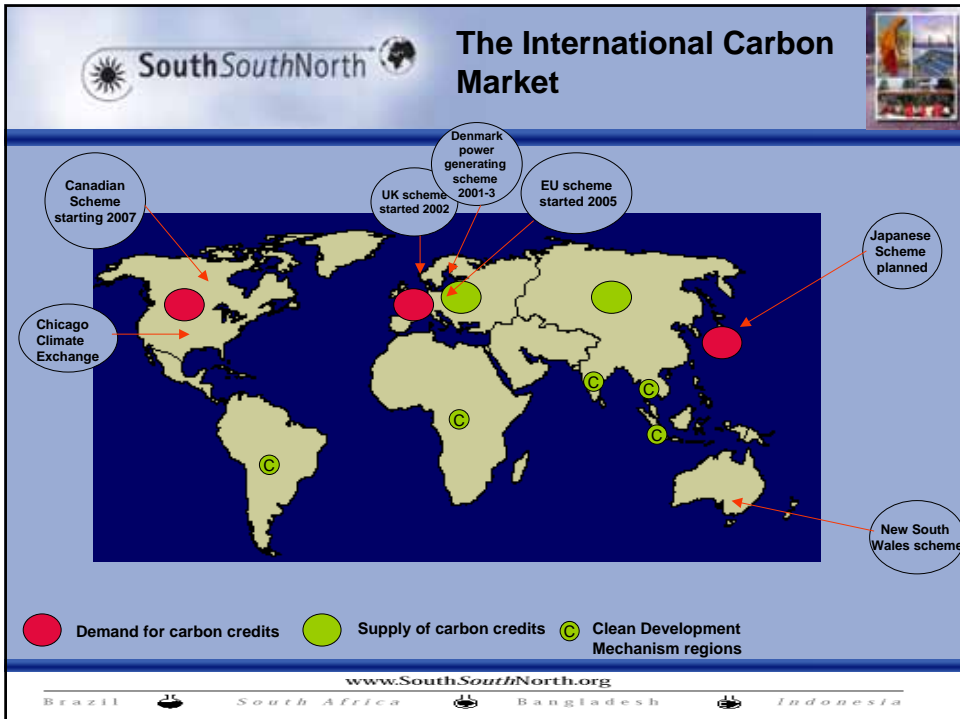
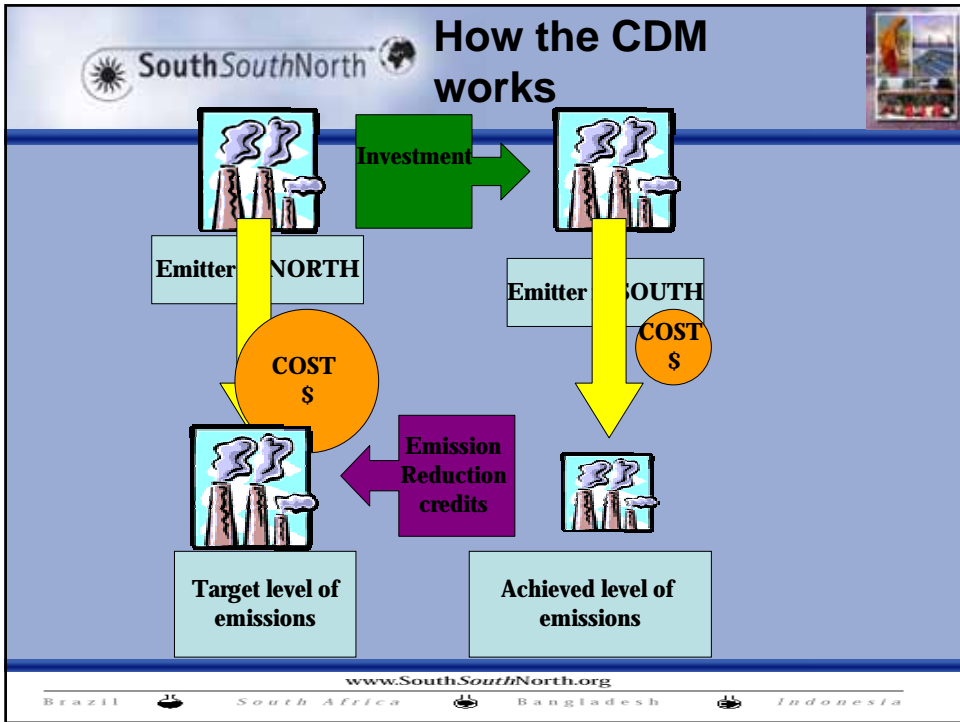
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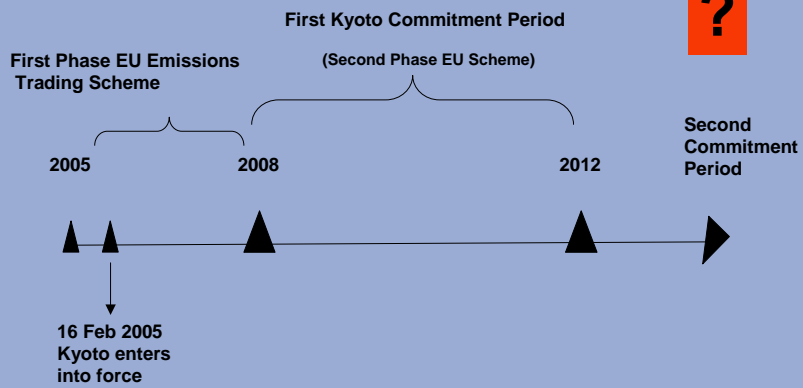


- SSN 1 entry sust. dev., maximise southern benefits and create axis of information exchange 2000-2004
- Outputs: Facilitate 2 CDM projects (to the point of transaction) in Bangladesh, Brazil, Indonesia, South Africa, a toolkit and establish DNAs
- Project methodology bottom-up: hands-on learning-by-doing
- SSN 2 entry point poverty reduction 2005-2008
- Outputs: facilitate 5 GHG mitigation projects and 7 adaptation to impacts of climate change projects
- Countries original 4, plus Mozambique, plus one other Tanzania or Malawi.

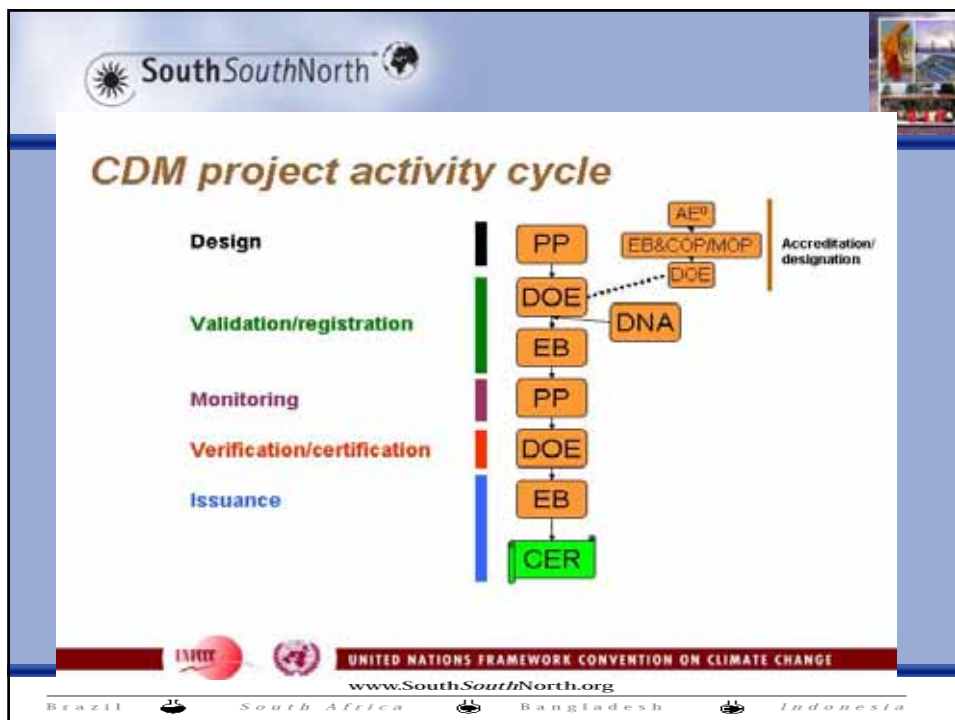


- Developing Countries to assist industrialised countries in achieving their emissions reduction targets
- In return ...
- Industrialised Country entities invest in projects in developing countries that contribute to the sustainable development of the host country

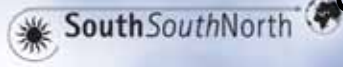




- A CDM project activity is mostly a part of a larger project
- CDM is available for emissions mitigation projects and certain sequestration projects
- CDM is market based
- CDM is project based
- CDM outputs are Certified Emissions Reductions (CER) = 1 tonne CO₂ equivalent
- CERs give annex 1 countries possibility to emit one tonne of CO₂ = globally neutral



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- ## Elements of CDM
- Project activities
 - Baselines
 - Additionality
 - Monitoring plans
 - Transaction
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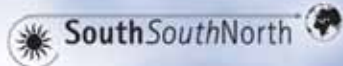
Some examples of projects



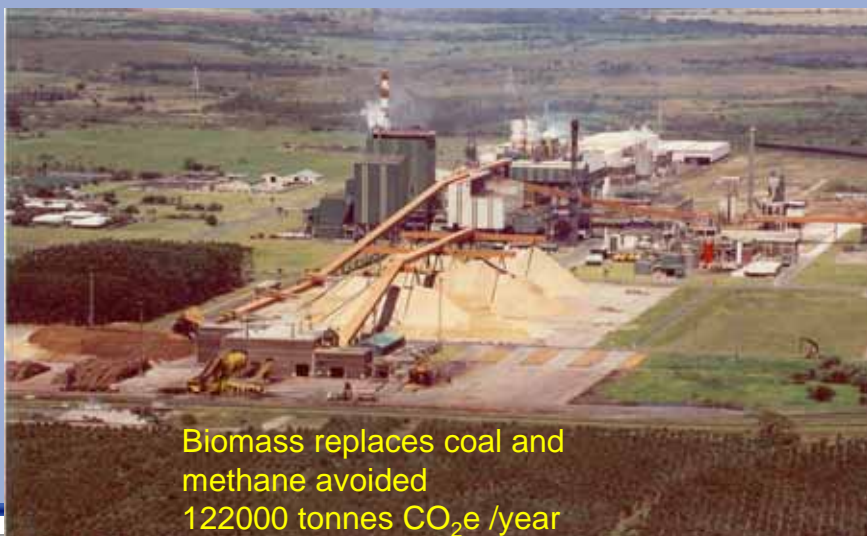
Project	Capex R million	NPV of CDM Rm
Mondi Biomass	9	45 (7 Euro, 10 years)
Mondi Gas Turbine CHP (25.5MW)	135	32 (10 Euro, 6.25 years)
Bellville South Landfill	68	31.7 (7 Euro, 10 years)
Kuyasa Energy Upgrade	20	2.5 (8 Euro, 10 years)

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Mondi Richards Bay biomass project



Biomass replaces coal and methane avoided
122000 tonnes CO₂e /year

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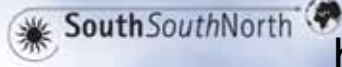

 Bellville South Reduced landfill gas to industry replacing LSO/HFO
 



124000 CO₂e tonnes/year

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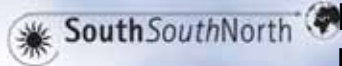


The Kuyasa project has champions



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Kuyasa: Low-cost Housing Energy Upgrade



Retrofit 2309 low-cost RDP houses in Kuyasa, Khayelitsha Cape Town with:

- Insulated ceilings
- solar water heaters and
- compact fluorescent lamps and
- associated infrastructure



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- Alleviates energy poverty and provides new services
- Saves R600/hh/annum in energy costs
- Creates over 500 person years employment
- Improves health conditions for occupants
- Improves local air quality
- Contributes to renewable energy targets
- Example of sustainable energy in W. Cape

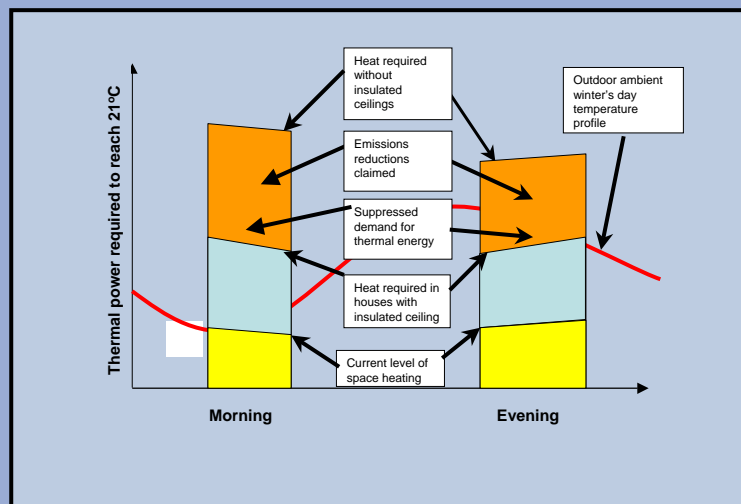


- Reduces peak grid electricity demand
- Benchmark for replication throughout SA
- Prices and risk: use of renewable energy stabilises future fuel price and availability uncertainties
- Spill over: procurement can drive economies-of-scale in price of technologies





- The project establishes a baseline that takes into account the suppressed demand for energy services as a result of energy poverty and/or lack of energy infrastructure





Outflows:

- Upfront Capital cost: **R17.05m**
- Ongoing Maintenance Costs **R1.14m** (NPV over 10 years at 12%)
- Project management costs **R0.85m**
- Upfront CDM costs **R0.62m**
- Ongoing CDM costs **R0.36m**



Current Anticipated Inflows:

- Carbon Income **R2.48m** (price of carbon is €8)
- Dept Environmental Affairs and Tourism (DEAT) Poverty Alleviation Grant **R12.4m**
- Provincial Housing Dept research grant **R4m**
- Community repayment scheme **R2.4m** (R20/hh/month, NPV over 5 years)
- Total **R21.3m**



The financial challenge...



- To create a model which will enable the replication of the Kuyasa project nationally.
- This process was started in 2004, but a postponed due to lack of resources and the need to wait until the Kuyasa project was more advanced
- SSN has now received REEEP funding to undertake the project for completion by March 2006
- Kuyasa has been validated, and is the first SA CDM project to be approved and registered. Implementation is starting in July 2005.

Aspects of carbon income



- Subject to high level of uncertainty and price volatility – very difficult to know what potential this holds for projects going forward.
- But highly probable that some form of market related compensation for undertaking emission reduction projects will exist in the long term.
- There are a variety of ways of selling credits from a project.



- Markets:
 - Compliance (CERs)
 - Verified (VERs)
 - Offset (VERs)
 - Gold Standard (high quality CERs)
 - Incremental cost (GEF not market)



- Prices going up (early PCF price \$3.5/CER)
- Bilateral procurements Euro 8/CER
- Current price range reported 8 to Euros 10/CER
- EU Emissions Trading Scheme (EUETS) Euro 18 to 20/tonne CO₂ for allowances
- VERs Euro 2 to 10/tonne CO₂



- Multilateral funds (World Bank PCF, CDCF, etc.)
- Bilateral procurements through tenders: Austria, Netherlands, Belgium, Finland, Japan etc.
- Private purchases
- Transfer within multinationals
- Brokers
- Project developer/wholesale purchases
- Spot (still to come)
- Forward purchases, guarantees, rights of refusal, options etc...



- CDM is not easy – it requires specialists...
- Prices for CERs are going up
- If you need funds for project development, there are forward purchases of CERs at discounted rates
- CDM project activities are mostly a part of a larger project
- Underlying finance is often the largest financial



More concluding remarks



- RE projects could also sell TRECs
- Unfortunately Sustainable Development not monetised
- Consider Gold Standard labelling because of purchase premium
- To maximise benefits: choose your projects, choose your investors and time your transactions
- If you can afford it, unilateral projects give the greatest flexibility
- Be careful with the brokers, bankers and consultants!



For more information try:

www.southsouthnorth.org

For assistance in project development try:

www.cdmguide.org or www.cdmguide.com

Many thanks