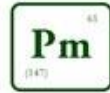


PROMETHIUM
C A R B O N



**A PoA
platform
that is
transparent,
profitable
and secure**

14 February 2014

IT'S A JOURNEY...



Outline

- PoA landscape in Africa
- What are the options in choosing a CME
- Case studies



PoAs in Africa (February 2014)

- 74 registered PoAs on the continent of Africa
 - of which 17 are large scale and
 - 57 small scale
- 31 of the registered PoAs are located in South Africa

A Coordinating/ Managing Entity for a PoA

- Function of a CME is well defined by the UNFCCC
 - Duration of about 28 years
- Commercial arrangement is not defined at all
- There are three standard options
 - A bank or investment institution/ carbon buyer
 - A carbon consultancy
 - CPA1 owner or technology provider
- There are two alternative options
 - A government institution
 - A neutral Non Profit Organisation

CME Structures in Africa

Carbon consultants

- 37 examples

Funding organisations

- 12 examples

CPA1 or technology providers

- 8 examples

Independent NPO

- 6 examples

Government

- 11 examples

Evaluating the standard options

- Financing institution/ carbon buyer
 - Funding the upfront costs
 - Trading the subsequent credits
- Carbon consultants
 - Understanding the value in PoAs and the rules
 - Developing practical monitoring plans
- CPA1 or technology owner
 - Developing the PoA to fit CPA1
 - Viewing the PoA and a marketing tool

Evaluating the alternative options

- Government or government institutions
 - Enabling PoAs in a jurisdiction
 - Providing a short cut to government approvals
- Independent Non Profit Organisations
 - Focusing on the best interest of underlying projects
 - Informed decision making on an annual basis
 - Flexibility on structuring, focal point arrangements and fees

However.... Conflict of interest

- **Funders** look for return on investment – even if carbon prices are low
- **Carbon consultants** have their capacity in individuals – and mergers and acquisitions will change the competency over 28 years
- **CPA1 owners or technology suppliers** might have limited knowledge on the continually changing CDM rules, and concerns about anti competitive behaviour could restrict PoA growth

However...

- **Government institutions** and capacity constraints might limit long term maintenance of the PoA and support of underlying projects - putting the issuance of credits at risk
- **Independent NPO** needs to contract in the various capacities – therefore requiring a competent coordinator to understand the risks in the different phases of a PoA

Case study 1

- Earth Patrol is a South African sustainability consultancy group identifying emission reduction opportunities such as waste to energy projects
- Waste streams are guaranteed but methane flow rates are uncertain and highly depend on actual circumstances
 - and not suitable for standardised baselines
- CDM methodologies are available but anaerobic digestion (AD) and electricity generation requires expensive monitoring equipment
- Validation of AD related PoAs take exceptionally long and successful registration not a certainty.

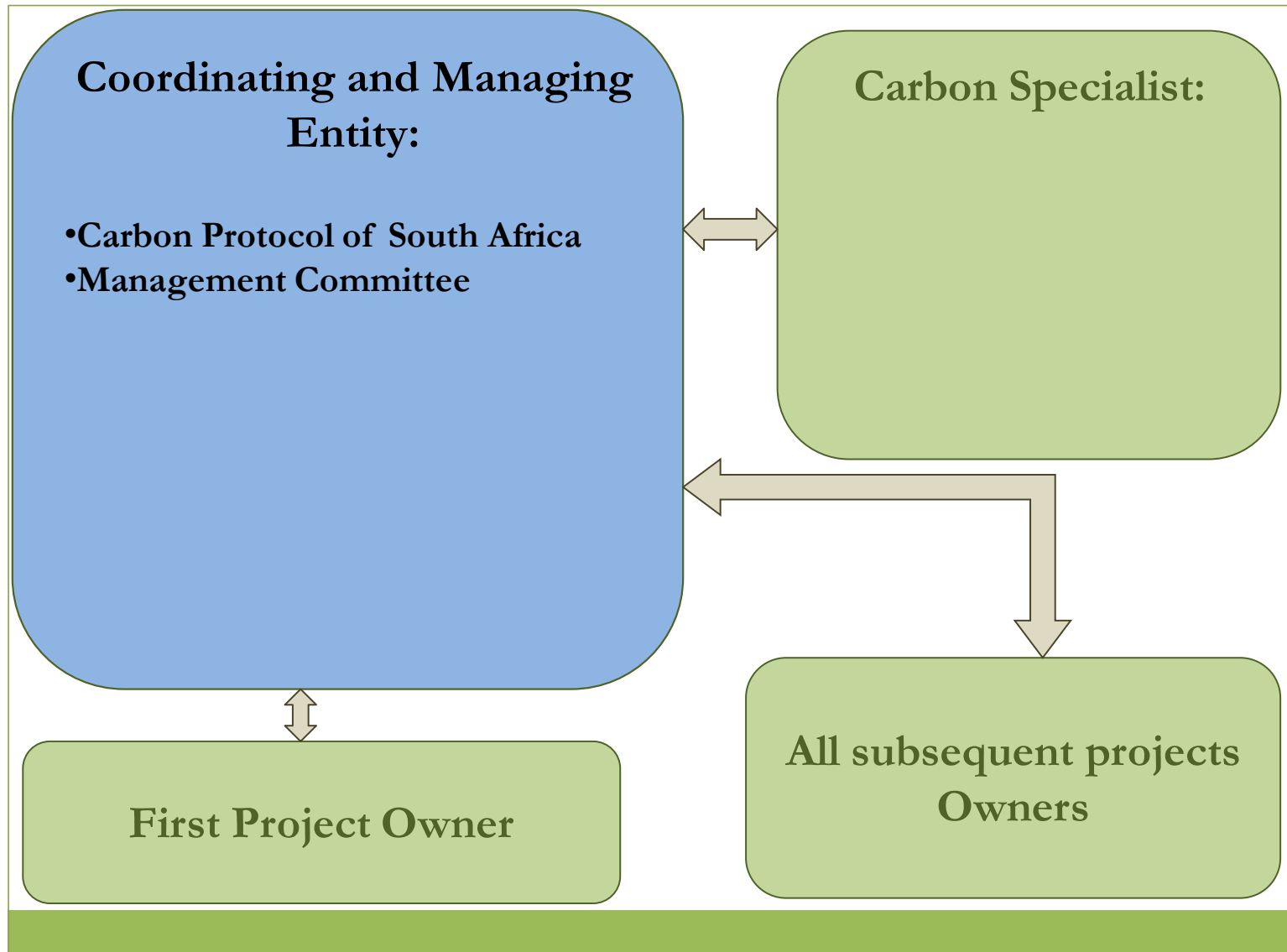
Case study 1 options

- Develop project under a registered Ugandan PoA either
 - directly, or
 - using a local CME platform for QA/QC purposes
- Join an existing PoA currently under validation to ensure that the monitoring arrangements are compatible
 - Sharing data and information with competitors
- Develop a new PoA, completely compatible but high cost
 - Funding for PoA development virtually non-existent

Case study 1 – criteria to consider

- Eligibility: compatibility of project design vs registered monitoring plans
- Cost of different institutional arrangements
- Contractual arrangements
 - Robustness, transparency and ease of understanding
- Flexibility of the PoA
 - Who does the credits belong to?
 - Who decides to sell and at what price?
 - Can verification be delayed if the carbon price is depressed?
 - Is there QA/QC capacity in the CME for example to perform internal audits
- What is the long term strategy of the CME

Case Study 2 – a neutral platform



Coordinating and Managing Entity

Main responsibilities:

- Host and maintain UNFCCC Account
- Host and maintain Bank Account
- Enter into contracts with buyers of credits
- Market PoA to potential new CPAs
- Contract with Carbon Specialist

Management Committee:

- Consist of Carbon Protocol of South Africa, Carbon Specialist, CPA1, other CPAs
- Approves annual Management Plan and Budget
- Approves all contracts

Modalities of Communication:

- Sole or shared CDM focal point

Carbon Specialist

Main objectives:

- Maintain databases
- Monitor implementation of CPAs
- Prepares Monitoring Reports
- Communicates with EB, DOE and DNA
- Communicates with CPAs

First Project Owner

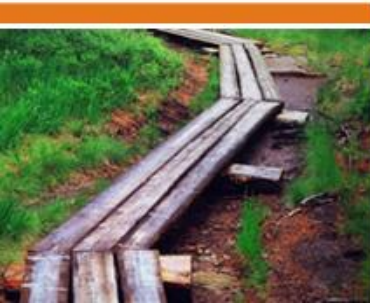
- Funds development phase
- Earns royalty on future CER cash flows
- Manage CPA1

All Subsequent Project Owners

- Included via Contract
- Pays inclusion fee
- Manage CPAX

Case study 2 Benefits of neutral structure

- Possible to sell credits for the best price to other Carbon Credit buyers
- Can appoint another Carbon Advisor if required
 - Continuity of Carbon Advisors are usually dependent on individuals
- Can include projects from other Carbon Advisors
 - Eliminates competition amongst Carbon Advisors
- Promotes adding other CPAs to the PoA
 - Competition amongst industry players
 - Competition Act: Can't share information
- Legal documentation drafted by Edward Nathan Sonnenbergs



Case study 2 Current PoAs on the neutral platform

- Solar PV
 - Cennergi
 - Installation of photovoltaic cells
- Wind
 - Cennergi
 - Development of wind farms
- Solar CSP
 - Kumba Iron-Ore:
 - Installation of large scale concentrated power plant
 - Owns land with high solar intensity
 - High energy usage
- Tri-generation
 - MTN (South Africa):
 - Production of electricity, heating and cooling from natural gas
 - Requires uninterrupted power supply for minimum operational requirements, especially regarding the cooling of servers
 - Potential to roll out to other businesses, i.e. hospitals and airports

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Thank you

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