AFRICA CARBON CREDIT EXCHANGE

COMPETE CONFERENCE ON SUSTAINABLE BIO-ENERGY PROJECTS IN AFRICA: BARRIERS AND OPPORTUNITIES FOR FINANCING

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LLOYDS FINANCIALS LIMITED

AFRICA CARBON CREDIT EXCHANGE

Barriers to Success in CDM Projects in Africa

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BARRIERS TO SUCCESS

Barriers to the Development of Zambian Carbon Projects

A UNDP report of 2009, highlighted the following major barriers:

- Lack of access to Project Finance to implement Carbon Projects.
- Lack of understanding of Carbon Projects, and the financing structures amongst the local Financiers.
- Lack of technical competencies and professionals to help project promoters develop and implement carbon projects.
- Lack of awareness and knowledge of the opportunities presented by the Carbon Market, at every level of society, from Government, NGO, to Private Sector.

THE GENERAL FINANCING BARRIERS IN A PROJECT

Some of the Problems cited by Financiers

- Business Proposals are weak
- Lack of Security or Equity
- Too many risks which are not mitigated
- Inappropriate financing structure for the type of business

Problems faced by Project Promoters in accessing Finance

- Lack of Financial Products and Sources of Finance (VC Funds, Govt Funds etc)
- Financiers to too Risk Averse, and are unwilling to structure Finance to suit the business
- Lack of skills and competencies in the financial sector
- Decision making process is often too long (In some Banks the decisions are made offshore)

Financing Options for CDM Projects

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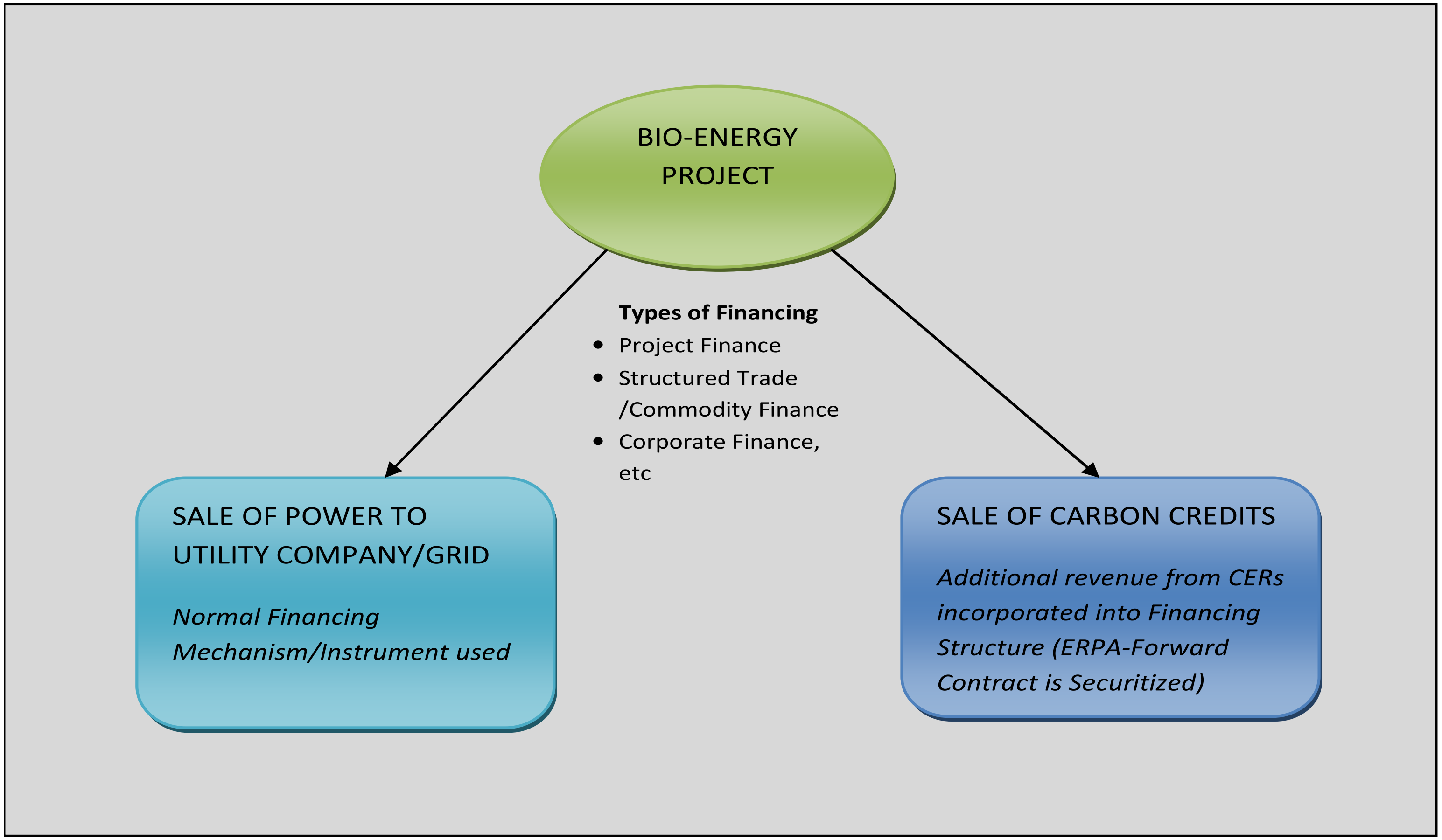
FINANCING CARBON PROJECTS



STRUCTURING FINANCING OF CDM PROJECT

TWO MODELS OF FINANCING

•Emission Reduction Purchase Agreement (ERPA)

- Buyer purchases CERs from project owner under a contract for sale and purchase and provision of services called an ERPA
- Payments for CERs often are structured as up-front payments, at a discounted price. This is when the buyer provides project development services
- Buyer will often sell CERs on the secondary market
- Title to CERs vests initially with the project owner
- In the Off-take model, up-front payment is less likely, and CER payment is made against delivery under the ERPA

•Project Development Agreement (PDA)

- Investor involved in the project from early stages, and provides development services
- As part of equity deal, investor and project owner share carbon, and non-carbon revenue
- CERs are assigned to the investor for sale at best price
- Project owner responsible for sale of non-carbon assets
- % share of revenue through carbon and non-carbon sale agreed

TYPES OF CER TRADES

• Spot Trade

- Sale concluded after issuance of CERs
- Highest price (prone to price movement risk until issuance)
- Use spot ERPA.

• Forward

- Sell now for future delivery and payment
- Project owner avoids price risk, but no up-front payments
- Discounted price, but buyer takes price risk
- Forward contract can be used as receivables to borrow against
- Use ERPA.

• Futures

- Enter a derivative contract for a fixed future price
- Require complex trading arrangements
- Hedges price risk but penalties for non-delivery.

CONSIDERATIONS FOR SELECTING A STRUCTURE

▪ Conduct an Objective Needs Analysis

- Analyze your resource base and identify gaps
- Determine how investors/buyers can help bridge those gaps
- Determine the ratio of Equity: Debt required.

▪ Decide on a Suitable Structure based on Cost Benefit Analysis of each option

- Access to Finance
    - Upfront finance required?
    - Need to secure debt finance (leverage ERPA)
- Access to expertise
    - Foreign Investor able to provide technical expertise
    - Investor reduces owner's control over project
- Risk allocation
    - Project Risks define type and availability of finance
    - Higher risks provide better returns – shared risk and revenue may give greater degree of success
- Regulatory issues
    - What are the regulatory requirements – power sector regulations?
    - Tax incentives for FDI?
    - Can Foreign Investors develop under domestic laws
- Long-term profitability
    - Will you realize most profit under ERPA or PDA Model
    - Which party will commercialize the CERs
    - To what extent will your business depend on carbon and/or non-carbon revenue for long-term profitability?

Mitigating Risks in Bio-energy Projects

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MITIGATING RISKS

A Major Consideration in Financing a Bankable Project is Evaluation and Mitigation of Risk

UNCERTAINTY IN THE MARKET

- Post 2012 Uncertainty & Is the time between now and 2012 too short to start a project?
  - *Post 2012 Funds*
  - *Projects with strong ROI despite CER component*
  - *Taking Equity Positions*
  - *Funds taking on early-on higher risk, leverage Finance*
  - *Forward Contracts*
  - *Consider LDC Credits – untapped opportunity*
- Price Recovery Uncertainty – Linked to the Global Financial Crisis
  - *Global Markets on the rebound*
  - *COP 15 Outcome*
  - *Forecast of Price is High*
- Demand Vs Supply – Current Major Market is EU
  - *Develop Trade within African Continent*
  - *International Pressure on America & Australia*
  - *Forward Contracts*
- African Credit at a premium – Growth & Adaptation Strategy

MITIGATING RISKS

PROJECT SPECIFIC RISK

- Bio-Fuels from Crops
  - Government Policy on Bio-Fuels (Mix with National Stock)
  - Government Policy on use of Food Crops
  - Efficiency of Cooperative Model - Supply uncertainty
  - Methodology & Mechanization – Weather patterns
  - Regulatory Issues – incentives?
  - Cost Benefit Analysis for the Country
- Landfill Bio-Methanation
  - Cost Benefit Analysis
  - Leakage & Efficiency Issues
- Biomass
  - Source and sustainability of supply
- Renewable Energy
  - Cost of construction high (hydro)
  - Pricing in PPA unfavourable to investment – tariff adjustment/ incentives

MITIGATING RISKS

DEVELOPMENT EXPERIENCE

- CDM can be complex
  - Seek expertise through consultants or investors
  - Partner with successful developer
  - Ensure project has adequate financial returns
  - Ensure methodology exists
  - Be aware of the long process, and bottle-necks in the CDM process
  - Comply with host country approval criteria

OTHER MITIGATING FACTORS

- Reliable supply
- Predictable price
- Good equipment
- Appropriately structured finance (Equity: Debt ratio)
- Reliable and Credit worthy Off-take agreements
- Reliable output

Developing Innovative Products To Address The Financing Barriers In CDM For Africa

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ENGINEERING PROBLEM SPECIFIC SOLUTIONS TO CDM PROBLEMS:

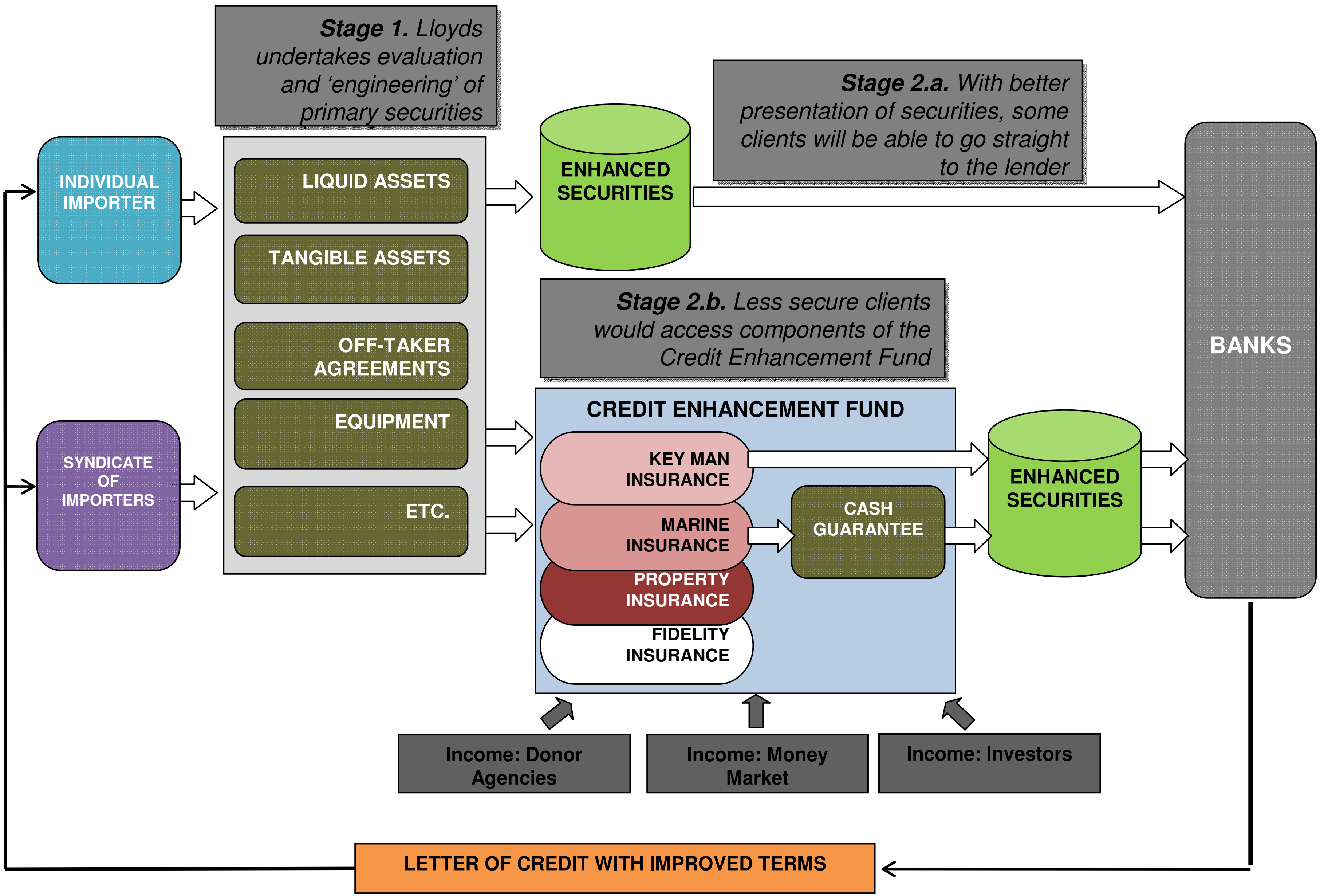
LLOYDS CREDIT ENHANCEMENT FUND

- Able to unlock financing for CDM projects, including p-CDM
- Enables growth of importers of renewable energy technologies, and hence increased use of these technologies
- Reduces risks for Local FIs to fully participate in CDM
- Enhance and compliment financing capacity of other FUNDS, like AREED, ACCE – Carbon Fund

AN EXAMPLE OF HOW TO USE LCEF

- Acquiring Renewable Energy Technologies:
    - To Electrify villages
    - To power irrigation system thereby helping rural communities with alternative economic activity other than manufacturing charcoal.
- Small scale farmers can now be aggregated:
    - To enhance their capacity to borrow
- Once issues of mechanization, skills transfer and farming methods, access to inputs and equipment, and access to markets are resolved, small scale farmers would be able to grow.

Lloyds Credit Enhancement Fund



ENGINEERING PROBLEM SPECIFIC SOLUTIONS TO CDM PROBLEMS:

AFRICA CARBON CREDIT EXCHANGE (ACCE)

- The Design of ACCE takes into account the Barriers to Success and Lessons learnt from other Zambian Exchanges.
- The supply/volume of Carbon Credits into ACCE shall be developed purposefully through the Africa Carbon Fund and Green Knowledge Institute, to unlock both Finance and Technical Capacity.
- The Trading Platform provides the medium for transaction, and supporting structures in the form of brokers in every country.

THE UNIQUE DESIGN OF THE AFRICA CARBON CREDIT EXCHANGE (ACCE)

AFRICA CARBON CREDIT EXCHANGE (ACCE)

TRADING PLATFORM

1. Normal Exchange Functions (Regulations, Investor protection)
2. Exchange of Tradable Instruments
3. Facilitation of price discovery and transparency
4. Provide Credible Africa Carbon Credits

CARBON FINANCE

1. Unlock Finance for Projects through access to Project Finance & Carbon Finance- AFRICA CARBON FUND
2. Structure Carbon Assets
3. Provide Advisory Services
4. Implement Projects

GREEN KNOWLEDGE INSTITUTE
(The Knowledge Hub)

1. Build capacity through sensitization, short courses, certificates and formal coursework
2. Courses accredited through a University
3. Develop Capacity of Brokers (Trade) & Governments (Policy Alignment)

DEVELOPING THE CARBON MARKET
Facilitation, Advisory, Development and Verification / Validation
Role of the Exchange

DEVELOPING PROJECT PIPELINE FOR INCREASED TRANSACTIONS ON THE EXCHANGE

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CONCLUSION

I wish to conclude the presentation by saying that:

- Unlocking Finance to support CDM, and Bio-Energy Projects has to be a deliberate programme and process in Africa,
- Many of the traditional lending structures on the ground may not be appropriate to cater for the needs of CDM,
- Most FIs in Africa do not understand CDM and are not willing to change traditional lending practices,
- We must find African Solutions to African Problems, and tap into the global technical expertise to assist Africa market its opportunities and develop sustainably,
- We must ensure we cater for Africa's needs in the coming negotiations for the reforms in CDM (Hydropower, Agriculture, etc)
- LCEF and ACCE are a mechanisms through which Finance can be unlocked for CDM
- LCEF and ACCE in their structures mitigates risks to enable traditional FIs feel comfortable to participate in financing CDM projects.

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