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Integrated Solutions: Water, Biodiversity and Terrestrial Carbon in West Africa

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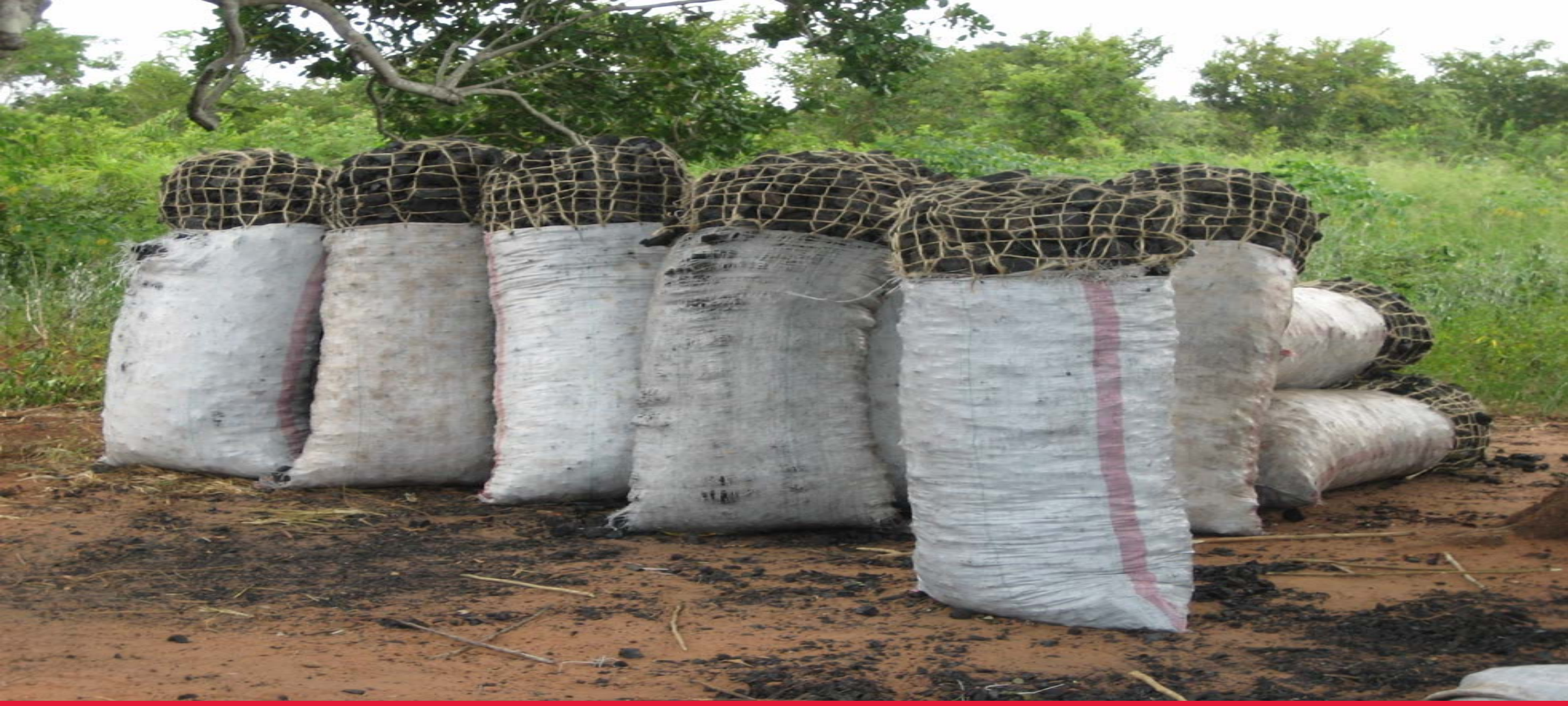
PRESENTATION OVERVIEW – QUESTIONS!

1. What lessons have been learnt in East Africa about sustainable charcoal and PES?
2. Are there any solutions to the charcoal problem?
3. Is there a place for carbon finance?



Lesson learnt about charcoal and PES in East Africa

Current situation - overview

- CHARCOAL BANS DON'T WORK!!! You cannot wish charcoal away – need to accept that it is a major energy source. Solution based approach required to confront energy scarcity rather than prevention.
- Most charcoal production is inefficient and unsustainable
  - Low recovery rates
  - Earth kilns
  - Unsustainable feedstock
- Current practises are a major cause of deforestation and forest degradation across the entire region
- Widespread associated environmental and social damage (as a result of current unsustainable practises)
- Negative impact even on protected / environmentally sensitive areas
- Major source of greenhouse gas emissions
- Major source of revenue and employment for rural poor
- No regulation
- Missed opportunity – lost tax revenue

Tanzania background

- Current forest area is approximately 33.5 million hectares (2002)
- >1 million tons of charcoal consumed annually
- Valued at approximately $350 million / per year
- Third largest sector in the economy (after mining and tourism) although it is mostly informal “underground”)
- Only source of revenue for majority of rural producers
- Over 90% of urban people use charcoal on daily basis
- Significant driver of deforestation (net area estimated at 100,000 ha per year)
- Significant source of greenhouse gas emissions (estimated at 9 million tonnes CO_2 / year)
- A lot of awareness raising still required to become accepted as legitimate economic activity

Kenya background

- Current forest area is approximately 1.7 million hectares (3% of land area)
- ~1.6 million tons of charcoal consumed annually
- Valued at more than $500 million / per year
- Equivalent to income generated from Kenya's tea industry
- Only source of revenue for majority of rural producers
- Approximately 200,000 producers
- Approximately 500,000 involved in business (producers, transporters and vendors) – total number of dependants as high as 2.5 million.
- Over 80% of urban people use charcoal on daily basis
- Significant driver of deforestation
- Significant source of greenhouse gas emissions (estimated at 13 million tonnes CO_2 / year)
- Commercial – Delamere. (NB EATEC and Kakuzi Ltd.)

Are there any solutions?

Policy framework

- Kenya and Tanzania now have charcoal policies relating to:
  - Sustainable feedstock
  - Accepted designated areas for harvesting
  - Transportation rules (e.g. only during the day)
  - Authorised harvesting and transportation
  - Reforestation plans
  - Protection of endangered species
  - Target invasive species for making charcoal (e.g. Prosopis spp.)
  - Use agricultural waste and other authorised clearances for feedstock
  - Encourage briquettes from charcoal dust + other waste products

Regulations

- Charcoal rules in Kenya – developed in 2008 – being piloted in five districts in Kenya
- KFS and provincial local administration to issue licenses
- No harvesting, charcoal production or transportation without a valid license
- Need to be member of charcoal association (can be costly and bureaucratic)
- Requirement for reforestation / conservation plan
- Protection of endangered / threatened plant species
- Need for record keeping
- To allow inspections
- All charcoal to be sold in designated areas
- Fines for infringement of ~$150 / prison sentence (corruption)

Certification

- Need to agree standards for sustainability and resource accountability
  - Sourcing raw materials
  - Production processes
  - Packaging and transportation
  - Distribution
- Community charcoal associations (CCA's) – village level / registered at district level (no fee) – required to periodically obtain charcoal licences (fee). Need to 'avoid punishing the poor' and benefitting larger scale commercial producers
- Registration and licensing – CCA will pay a fuel levy per bag from authorised sales
- Link certification to licensing but back up with 3rd party verification

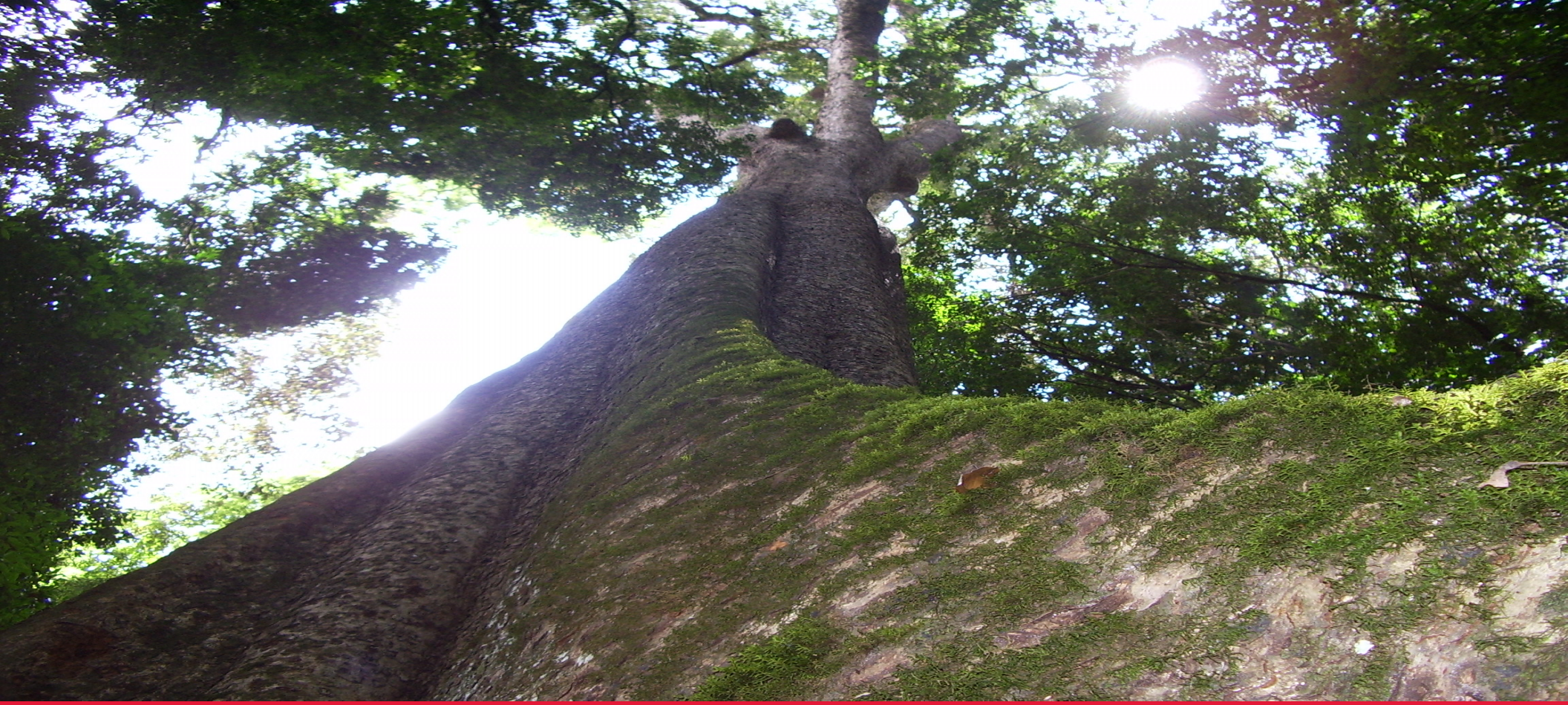
Charcoal associations

- Charcoal producers, transporters and retailers.
- Form at village level – answers to District office – nationally co-ordinated. Uniform policies and application of charcoal activities.
- Charcoal levy to cover administration (~2%)
- To be effective all charcoal producers / dealers should be members (in each village)
- Self policing
- Exchange of knowledge + to have a stronger voice (lobbying)
- Help producers to get value / better access to markets
- Facilitates change of technology / working practises / marketing
- Help government to regulate and derive taxes from charcoal
- CCA’s can provide vehicle for distribution of carbon finance

Practical implementation of sustainable charcoal

- Holistic approach required:
  - Improved conversion techniques (drying, stacking, kilns)
  - Establish woodlots
  - Agroforestry
  - Sustainable harvesting and rehabilitation of existing productive forests
  - Protection and rehabilitation of protected forests

- Requires full community engagement and organisation of charcoal producers in associations



Carbon finance – payments for ecosystem services

Potential emission reductions

- Potential avoided emissions (assuming):
  - Current recovery rates (wood – charcoal) of 10 – 15% are increased to ~40% as a result of improved technology (kilns) and conversion techniques (drying, stacking, cooling)
  - Current unsustainable sourcing of feedstock is all converted to sustainable sources

  = Avoided emissions of approximately 9tCO2 per tonne of charcoal produced

- Potential revenue of approximately $45 / tonne charcoal
- No premium should be expected for ‘eco-charcoal’
- Can carbon finance compensate for higher production and administration costs (as well as carbon qualification and certification costs)?

Carbon qualification

- Fuel switching
  - No existing methodologies for fuel switch where baseline is charcoal production using wood from unsustainable sources
- REDD
  - Currently only eligible under VCS or Plan Vivo (CCB has no carbon registry). Challenging MRV (need to designate and map protected areas) and equitable disbursement of funds to charcoal producers
- A/R (establishment of woodlots for charcoal feedstock)
  - CDM
  - VCS
  - CFS
  - Plan Vivo

Conclusions

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- Charcoal will continue to be major source of energy for foreseeable future
- Current production is inefficient and unsustainable
- Project interventions should embrace wide range of land use and fuel switching activities
- Carbon finance may provide bridge to cover additional costs BUT still not tested – unresolved methodological issues
- REDD is very elusive!
- Need for demonstration projects – to engage with all charcoal stakeholders
- Policy / regulations.
- Certification standards
- Be careful to avoid pushing charcoal even further underground

Thank you