Markets and payments for environmental services

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TYPES OF ECOSYSTEM SERVICES

Carbon
Water
Biodiversity
### Forest carbon

- **Ethiopia**
  - Natural regeneration project
- **Malawi**
  - Tree planting – 20,000 ha
  - Plan Vivo
- **Madagascar**
  - REDD in Makira forest – WCS
- **Mozambique**
  - Carbon trust – Envirotade
  - Zambezi Delta
  - Sofala community carbon project CCB
  - Green Resources aforesation – 126,000 ha
- **Kenya**
  - REDD Kasigau corridor, 8000 ha, CCB
  - Aforestation in Karura forest UNEP
- **Tanzania**
  - REDD by TFCG, WWF and JGI
  - TIST
- **Uganda**
  - FACE Foundation;
  - Nile Basin afforestation – World Bank
  - REDD by JGI and WCS
  - Ecotrust aforesation
  - Global Woods – Kikonda
  - TIST
- **Rwanda**
  - Aforestation
- **Zambia**
  - REDD

### Water

- **Kenya**
  - Lake Naivasha, WWF-CARE program
- **Tanzania**
  - Uluguru Mountains EPWS – WWF-CARE-IIED project
- **South Africa**
  - Working for water through removal of invasive species
  - Drakenberg mountain
**Biodiversity**
- **Uganda:** Bwindi Impenetrable trust fund
- **Kenya:**
  - Kitengela Maasai land lease
  - Shompole community trust – 62000 ha

**Other**

**Uganda**
- Landfill project – World Bank $3000
- Urban stove improvement
- Hydro-dams

**Kenya**
- Ken Gen 9 CDM projects
- Efficient cookstoves – cell phone-based micro-credit

**South Africa:** Landfill project

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**Actors**

**Sellers:**
- Communities
- Governments
- Industry
- Large-scale investors

**Intermediaries:**
- Regulators
- Brokers
- Project developers e.g., NGOs
- Researchers

**Buyers:**
- Local and international companies
- Airlines and courier companies
- Coca cola – Uluguru
- Mining companies
- Water bottling companies
- Flower farms – irrigation
- Banks
- World Bank – Uganda Malawi, Zambia, Tanzania
- Governments: Norway, US
- Government tax: South Africa, Zambia
- CHOGM
- World cup
- Celebrities in music and film
Roles and responsibilities

Sellers:
• Develop projects
• Monitor
• Ensure quality and quantity: verification and certification
• Ensure permanence
• Account for leakage

Intermediaries:
• Setting standards
• Regulatory frameworks for PES
• Project development
• Fund channeling
• Research
• Brokering
• Negotiation
• Communication among all actors
• Market and legal information exchange
• Stocking and peddling

TYPES OF MARKETS
Voluntary
Regulatory
Markets and price trends

- Carbon 2009: 8.7 billion tCO2e; $144 billion
- CDM: 211 Mt; $ 2.1 Billion
- EU ETS: 6.3 billion tCO2e; Value: $118 Billion
- JI: 26 Mt; $354 MM
- Voluntary: 46 Mt; $338 MM
- One large electric utility’s emissions: 100MT

Forest carbon price trends

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Payment schemes

Commoditised payments – risk mainly on seller

- Payment in form of cash AFTER proving that a certain amount of service has been delivered
- Standards for proving: CDM, VCS, CCB
- Who proves: certified agencies
- Developed for carbon

Payment schemes

Co-investment - risk sharing

- Payment mostly in kind
- Community receive support based on agreement that they will change their landuse
- Community is paid based on evidence that sustainable landuse practices are adopted and maintained
- Payment not based on proof of ES delivery
- Common for water and biodiversity

- Ecotourism
- Benefit sharing
- Trusts
- Land lease
- Community based natural resource management
Payment schemes

Compensation for opportunities skipped

- Communities paid after quantifying the trade-off incurred by taking on sustainable landuse practices
- Requires quantification of the opportunities skipped
- Uses models
- Has been tried in Asia
- Buyers may not be willing to pay the actual value of opportunities skipped

Costs

- PDD development - once
- Monitoring - periodic
- Verification - periodic
- Validation – once
- Social impact monitoring – periodic
- Environmental impact monitoring
- Verification trigger
- Registration fees
- Certification fee
- Brokerage fee
- Sales tax
- Project implementation
- Legal advice
- Marketing
Likely PES pitfalls

- Perverse incentives
- Costs
- Relabeling of tired approaches
- Getting blown out of context – PES is additional to other approaches
- Not delivering – ES or livelihoods
- Creating expectations

Challenges and risks

- Information – generation, access
- Complex
- Scale – aggregation
- Brokering gap
- Financing the initial investment in PES structuring
- Elite capture
- New laws and institutions – MRV, enforcement
- Fears of loss of sovereignty
- Determining boundaries
- Governance; funds and contract management
- Willingness to pay
- Willingness to accept

- Contracts that cater for interests of key stakeholders
- Co-benefits
- Safeguards
- Leakage
- Non-permanence
- Loss of interest in case of long-term maturation period
- Opportunity cost of not expanding agriculture or not drilling oil
- Land ownership status of land stewards
- Technical capacity of project implementer
Potential for PES

- Geography: curricula and policies
- Diversity of services
- Diversity of schemes
- Diversity of beneficiaries
- Potential impact on environment
- Potential money saved by public and private sector
- Potential livelihood support
- Potential reduction in conflict

Thank you

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