Harnessing market forces to transform Amazon beef and soy industries

Topics:
- The tropical agriculture revolution
- Tropical forests and carbon: the mega-service
- Corporate risk & the reform of agroindustry
- Rewarding farmers and ranchers for stewardship, indirectly
An agricultural revolution is upon us—the threat:

- Scarcity of land in the North
- Agro-industrial technologies for the humid tropics
- Rising oil prices & biofuels
- Emerging meat-eaters
- Trade liberalization

Why we must hurry:
Future agricultural expansion will be mostly in the tropics

Cultivated Land

USA Brazil

Potential Current

FAO 2005; Michael Schean, USDA/FAS, communic. pessoal.
Soares, Nepstad, et al. 2006, Nature

33 billion tons Carbon
Soares, Nepstad, et al. 2006, Nature
Tropical forests and drought

- 1998 ENSO: 2 B tons from deforestation + 2 B tons from fire & drought
- 2005 N. Tropical Atlantic Anomaly: 2 B tons deforestation + 1 B tons fire & drought
- In the 20XX ENSO/NTAA: 2.5 billion tons deforestation + 3 B tons fire & drought???

Tropical forests: essential to achieving a stable climate

- 420 billion tons carbon in tropical trees (50 years of emissions)
- 20-40 billion tons could be released by 2015 through deforestation, drought, and fire (2-5 years of emissions)
- Climate stability cannot be achieved without addressing the tropical forest source
Impacts on Communities

An agricultural revolution is upon us—the opportunity:

• “Economic teleconnections”
• Corporate risk avoidance = corporate responsibility
• Equator banks
• Agro-industrial certification
Economic Teleconnections

Historical markers:

• UNFCCC-L2 process
• ABIOVE moratorium on Amazon soy
• Responsible Soy Roundtable: EU animal ratio buyers
• Loans with environmental conditions
• Next: ecological beef supplying the biggest markets?
Business-as-Usual, 2050

33 billion tons Carbon
Soares, Nepstad, et al.
2006, Nature

Governance, 2050

Lower emission:
17 billion ton Carbon
Potential environmental benefit & Costs to Producers

More rigorous standards for farmers

Benefits realized

Missed opportunity

The central issue: paying for stewardship

With economic incentives, greater adhesion

Potential environmental benefit & Costs to Producers

Missed opportunity

Benefits realized

More rigorous standards for farmers
Why direct payments for ES will have limited success:

• Difficult to measure
• High transaction costs
• Equity
Fazenda Tanguro: 82,000 ha (Grupo Maggi)
- Riparian zone recovery
- Reservoir management
- Forest fire effects
- Land use effects on water quality
- Carbon flux
- Fauna
- Management of agrochemicals
- Costs of best practices

“Cadastro de Compromisso Socioambiental”
(Aliança da Terra, IPAM, WHRC)

- Transparency (web-based)
- Recognizing/rewarding responsible producers
- “Pre-certification”
- Open to all
An Amazon Soy Ranch: Fazenda S. C_______, 4,700 hectares, no stream access for cattle, 120 erosion barriers, 18 km anti-erosion bunding, forest reserve compensated: **US$180,000 invested thus far**

“Cadastro de Compromisso Socioambiental”: The Long Term Goal

• Certified regions, (similar to the aftosa-free regions)—competition among regions to demonstrate socio-environmental performance
• Attached to government property-level monitoring
• Integrated with sanitation and labor practice monitoring
Conflict:

Fight Globalization? or Manage It?

Payments for Ecosystem Services or Transformation of Commerce?

- In the great remaining tropical forests, direct payments for environmental services are likely to have a small impact on conservation.
- But market forces, corporations' fear of risk, and new financing of reduced carbon emissions could leverage change.