

Harnessing market forces to transform Amazon beef and soy industries



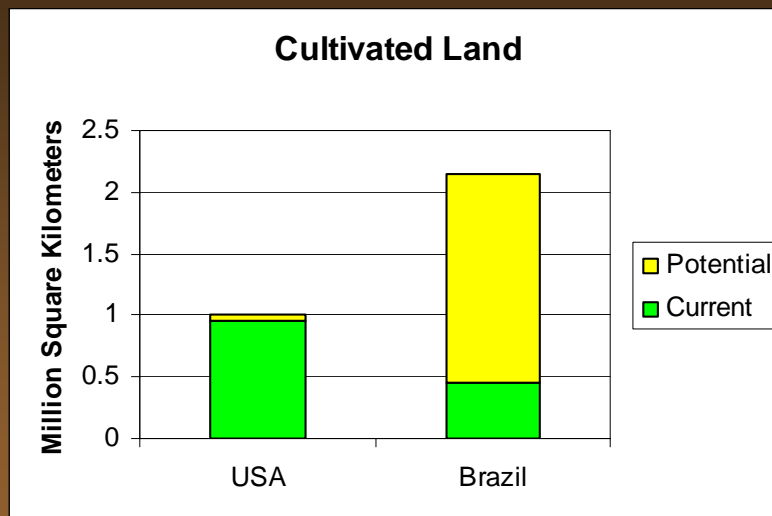
Topics:

- 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

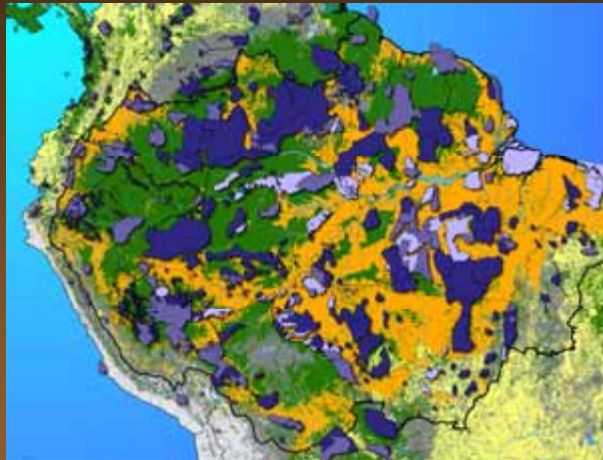


FAO 2005; Michael Schean, USDA/FAS, communic. pessoal.

Business-as-usual



Business-as-Usual,
2050



**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

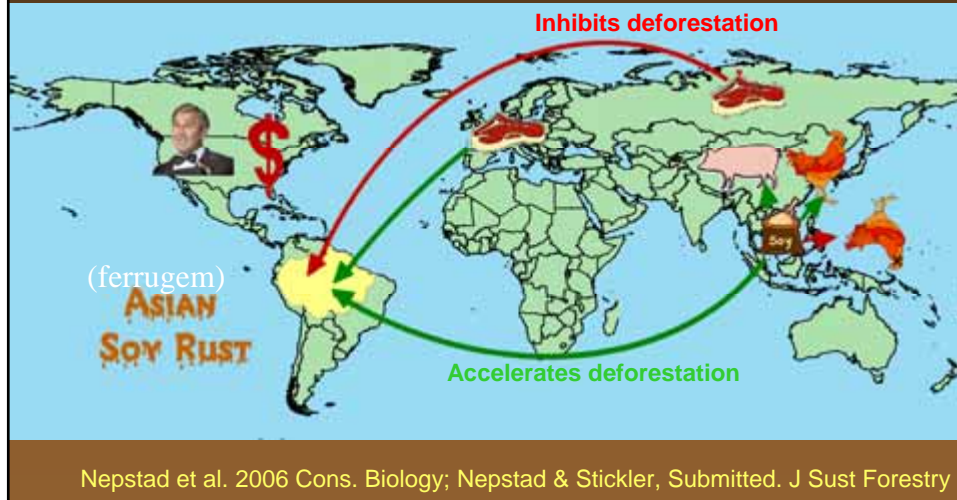
Impacts on Communities



An agricultural revolution
is upon us—the
opportunity:

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

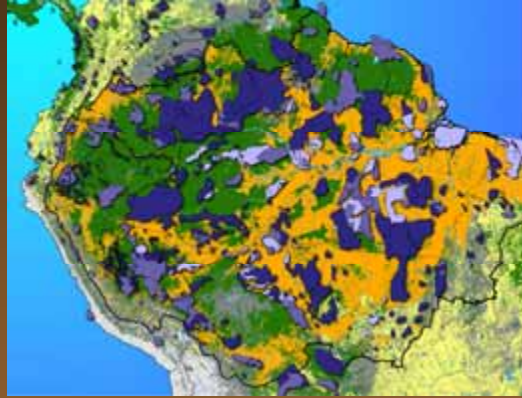
Economic Teleconnections



Historical markers:

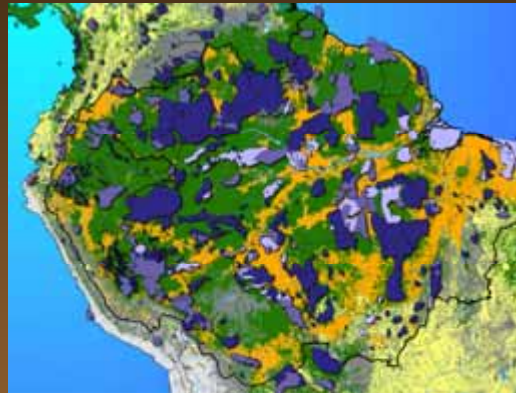
- UNFCCC-L2 process
- ABIOVE moratorium on Amazon soy
- Responsible Soy Roundtable: EU animal ratio buyers
- Loans with environmental conditions
- Next: ecological beef supplying the biggest markets?

**Business-as-Usual,
2050**



**33 billion
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2006, Nature

Governance, 2050



**Lower emission:
17 billion
ton Carbon**

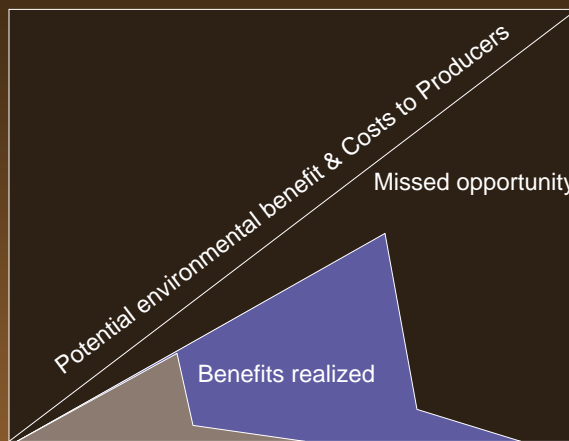
The central issue: paying for stewardship



More rigorous standards for farmers



With economic incentives, greater adhesion



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

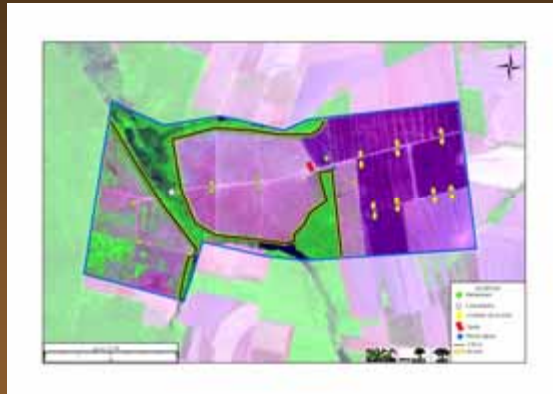
Management of
agrochemicals

Costs of best practices

“Cadastro de Compromisso
Socioambiental”
(Alianca 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