Potential Policy Responses to the Underlying Causes of Deforestation

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- One of 15 centers in the CGIAR
- Member of the Collaborative Partnership on Forests
- Headquarters in Indonesia and staff based in Brazil, Bolivia, Burkina Faso, Cameroon, Ethiopia, and Zambia
- Research activities in more than 40 countries throughout the tropics

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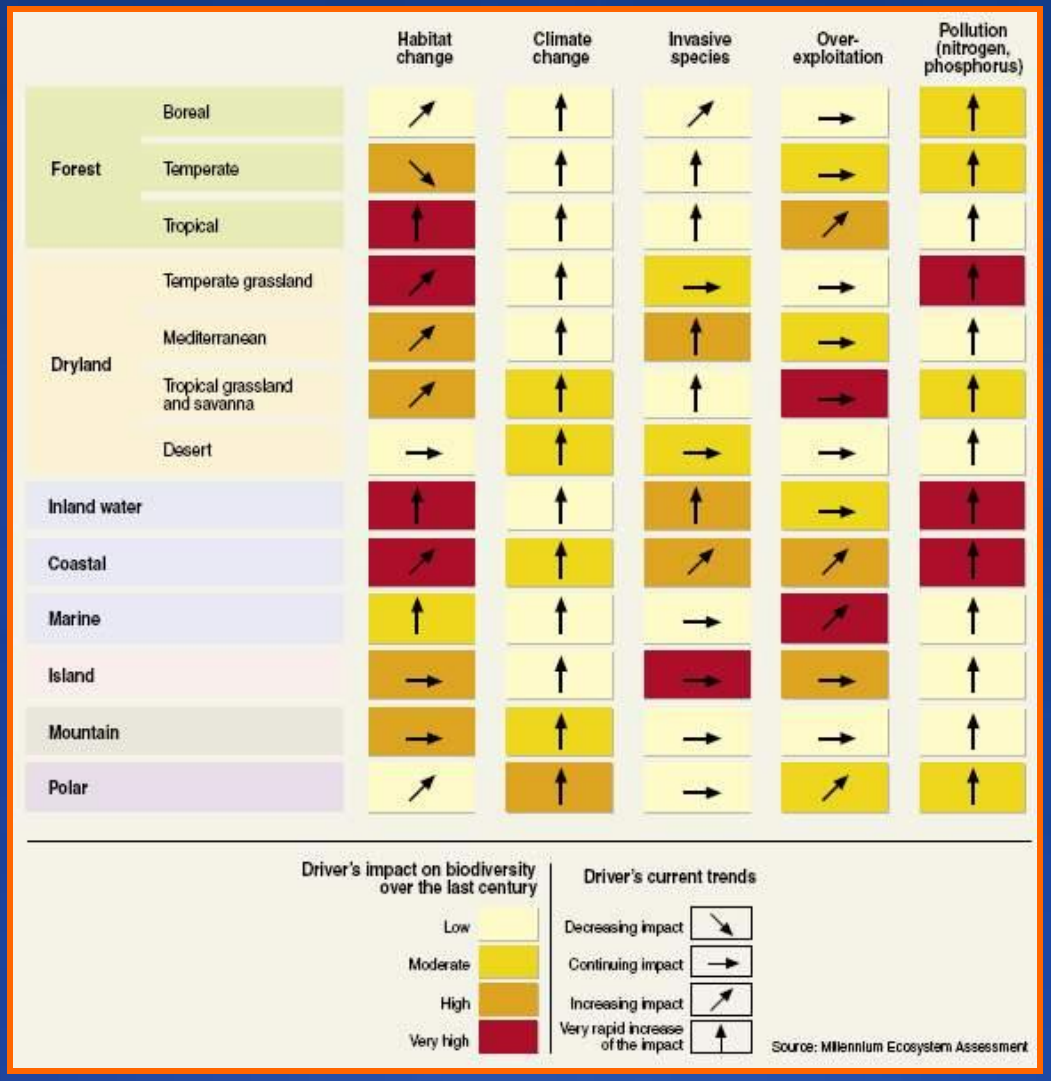
Presentation outline:

- Linkages among deforestation, biodiversity, and climate change
- Causes of deforestation and degradation
- Policy options
- REDD opportunities

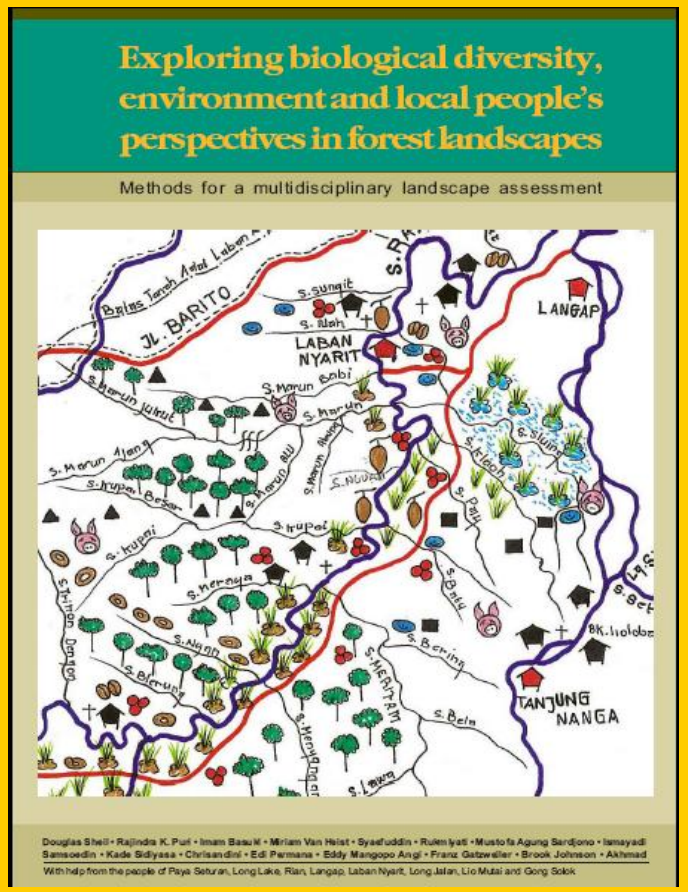
Main direct drivers of change in biodiversity and ecosystems



For tropical forests, habitat change has the highest impact and worst trend

Source: Millennium Ecosystem Assessment

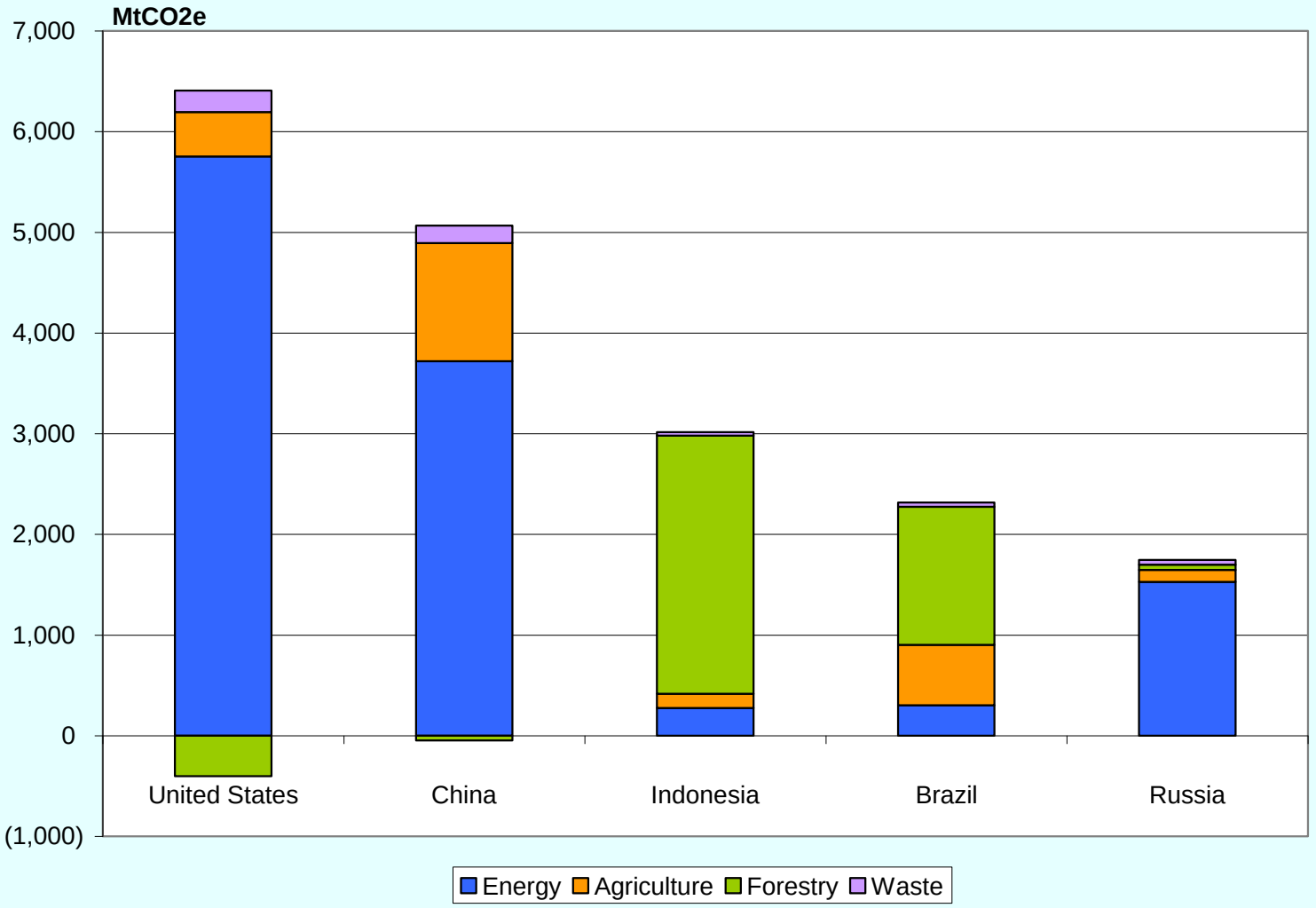
Forest biodiversity and human well-being



Field survey results from 200 plots in East Kalimantan:

- **> 2,100 species**
- **3,642 specific uses**
- **119 non-substitutable**

Significance of forests for climate mitigation (Among top five emitters)



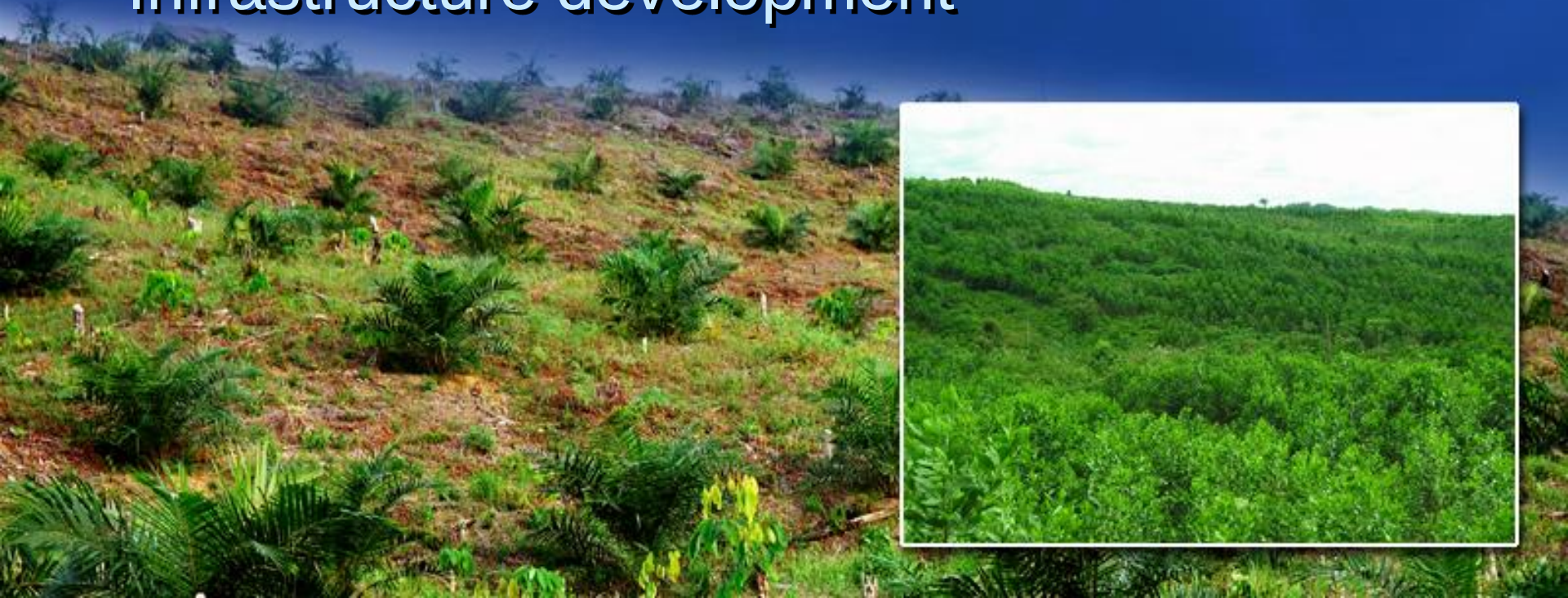
Source: Adopted from PEACE (Pelangi Energi Abadi Citra Enviro) report, 2007.

Significance of forests for adaptation

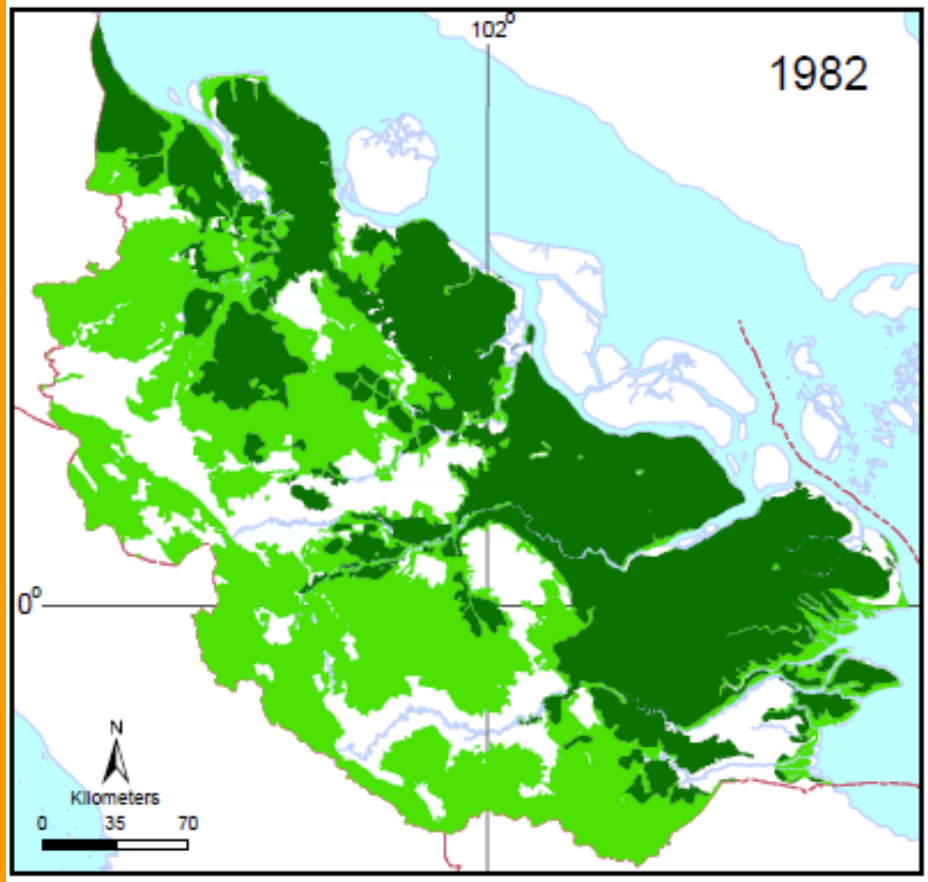
- Forests provide resilience to extreme weather events and safety nets

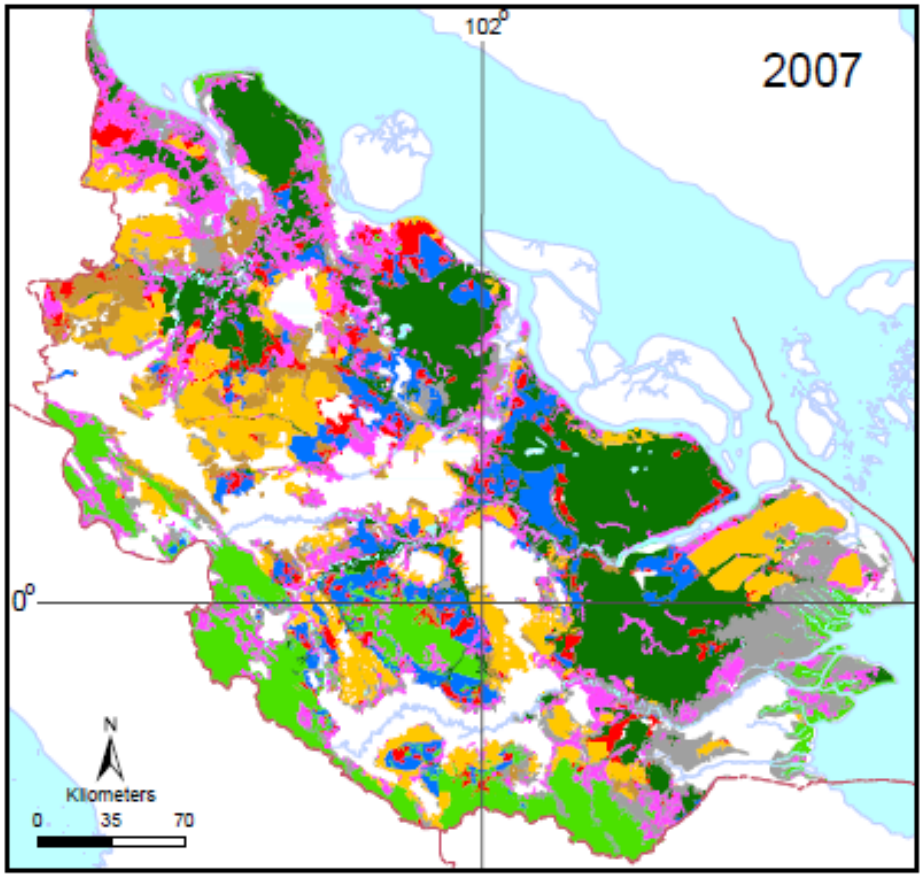
Direct causes of deforestation and degradation:

- Conversion due to agricultural expansion (smallholder farms, ranches, commercial plantations)
- Unsustainable wood extraction
- Infrastructure development



What replaced natural forests? 1982-2007
WWF Land Cover Database Riau, Indonesia

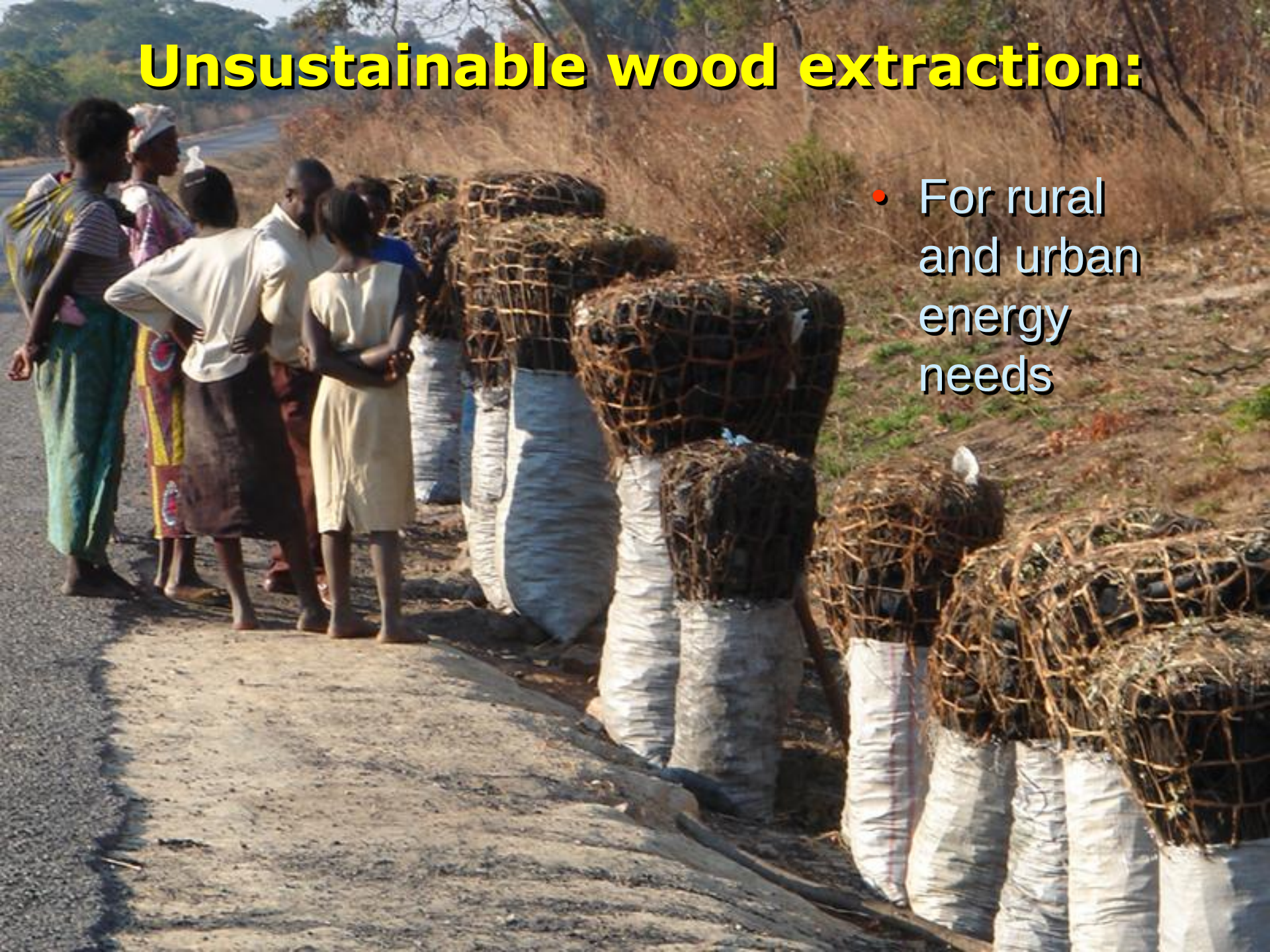




Forest on peatland remaining
Forest on non peatland remaining
Waste land ➔ 17% of deforestation
Other land covers

Acacia plantation ➔ 24% of deforestation
Oil palm plantation ➔ 29% of deforestation
Small holder oil palm plantation
Cleared

Unsustainable wood extraction:



- For rural and urban energy needs

Unsustainable wood extraction:

- Poor logging practices in “legal” concessions
- Illegal logging
- Debris left behind fuels forest fires

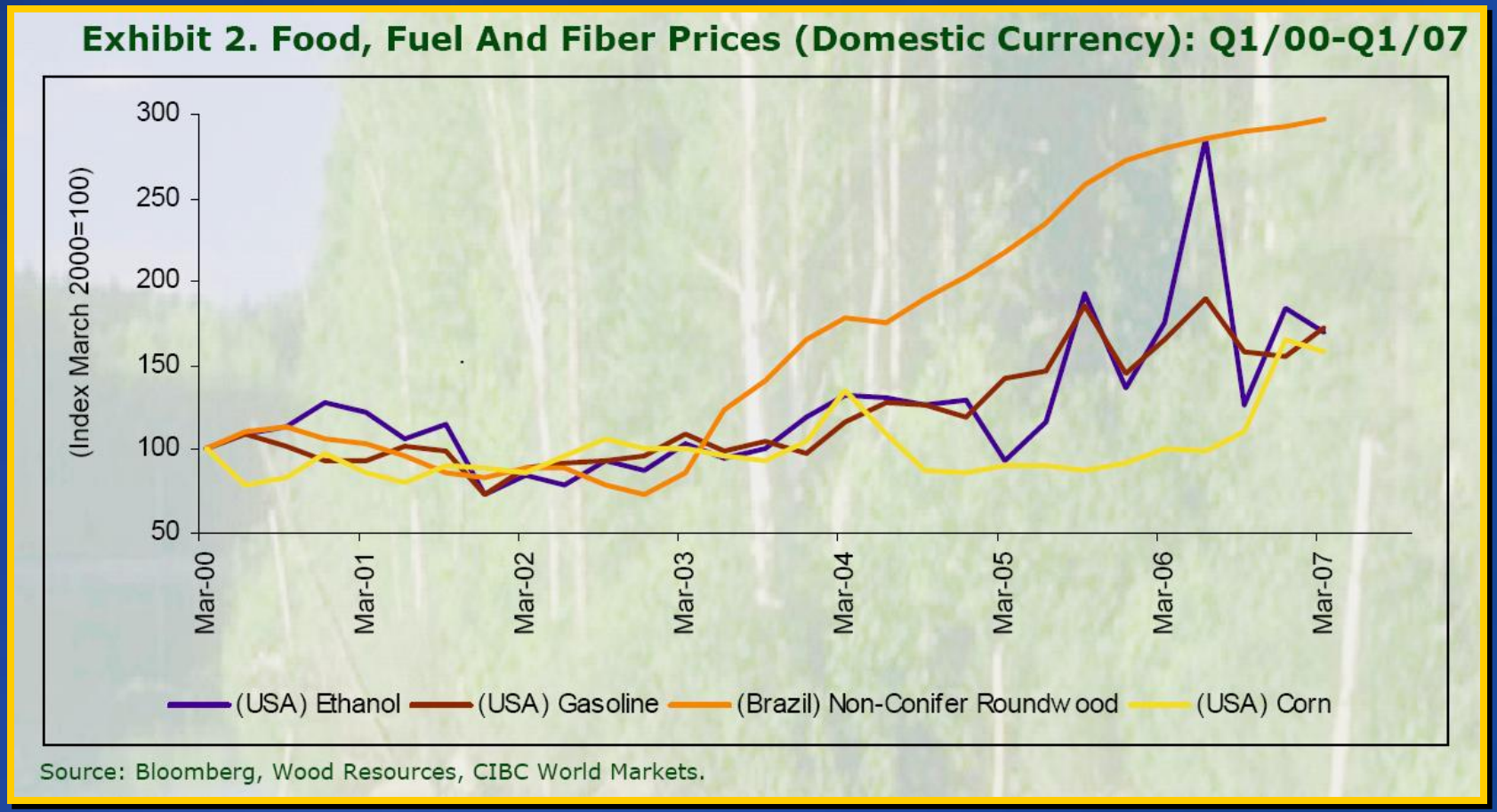
Infrastructure development, especially road-building

- Provides access for extraction, conversion, and settlement

Underlying causes of deforestation and degradation

- Market failures
- Governance failures
- Misguided polices

Upward trends in food, fuel and fiber prices; Biodiversity and ecosystem services still mostly unpriced



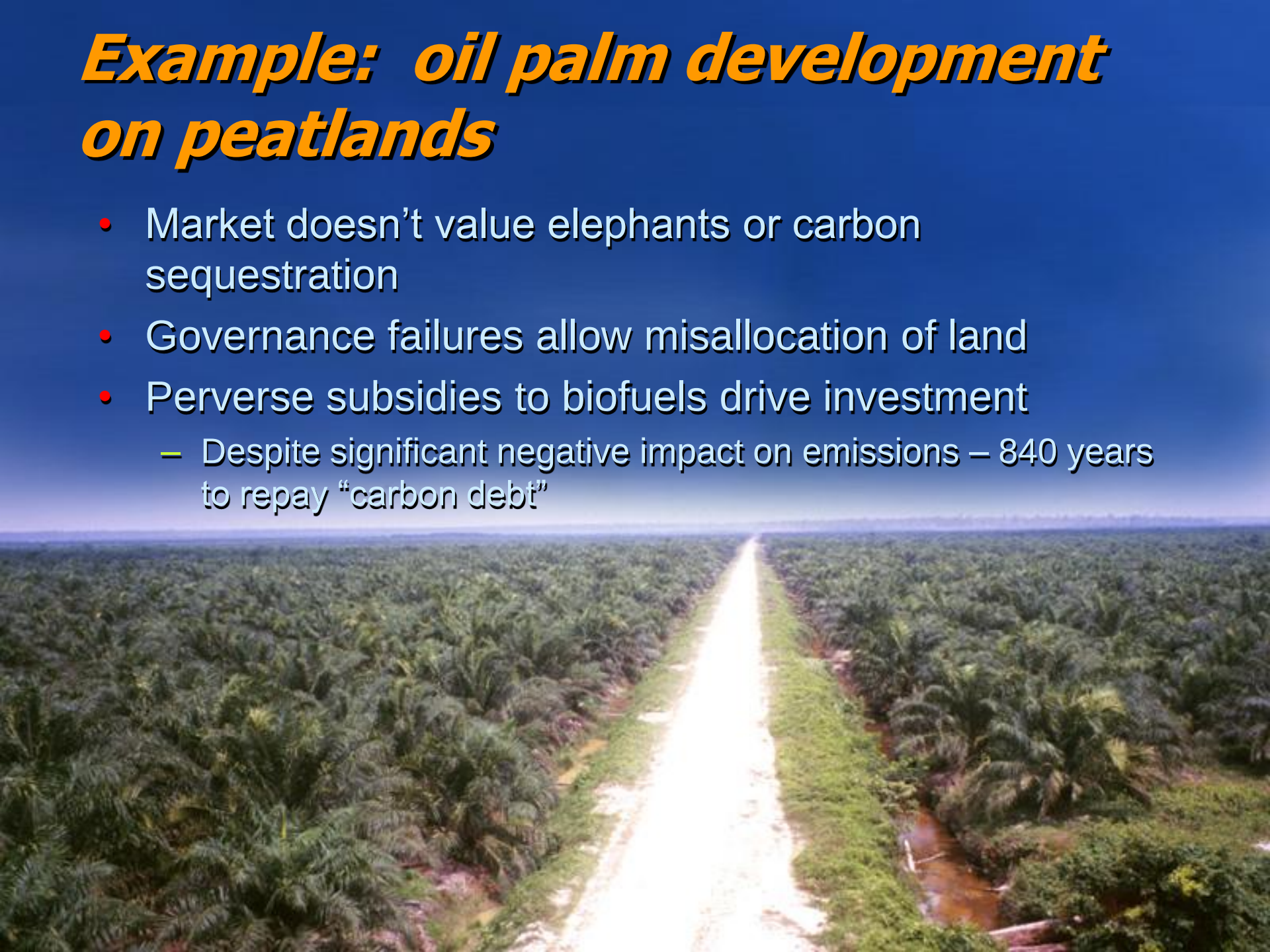
Source: Don G. Roberts, Managing Director, CIBC World Markets Inc.
Paper For The MegaFlorestais Working Group Meeting In St. Petersburg, Russia

Governance failures

- Unclear property rights and overlapping jurisdictions
- Non-transparent decision-making
- Weak law enforcement and judicial systems

Example: oil palm development on peatlands

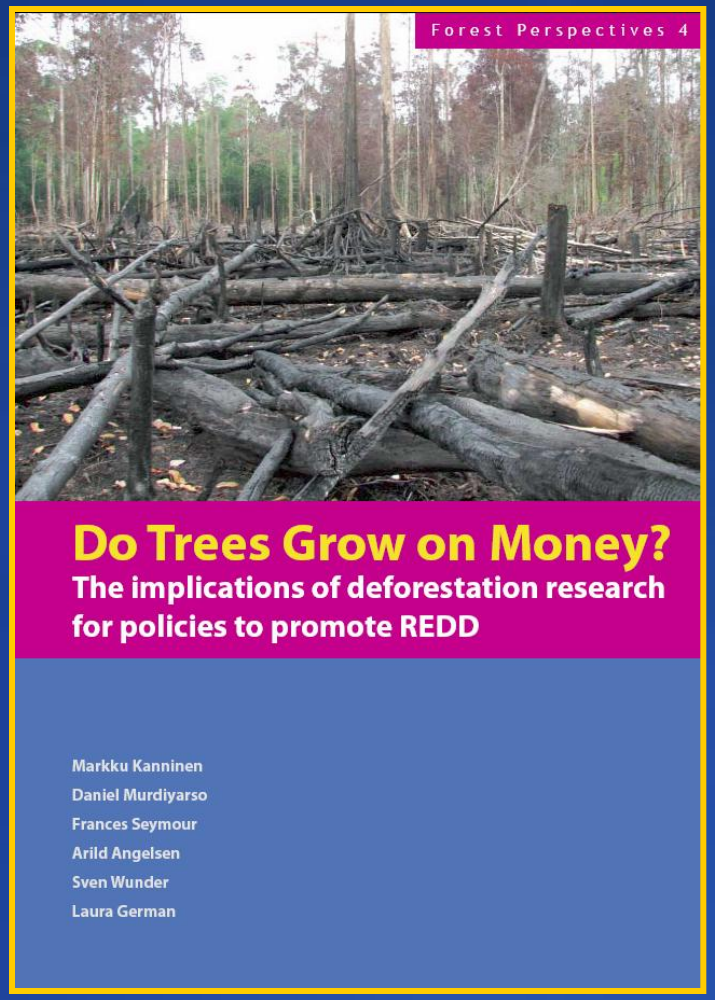
- Market doesn't value elephants or carbon sequestration
- Governance failures allow misallocation of land
- Perverse subsidies to biofuels drive investment
  - Despite significant negative impact on emissions – 840 years to repay "carbon debt"



Example: Structural overcapacity in the pulp and paper sector

- Investors fail to do due diligence on legal and sustainable supply of feedstock
- Governance failures allow mills to run on illegally-sourced wood
- Bailout of companies following financial crisis

Policy Options:



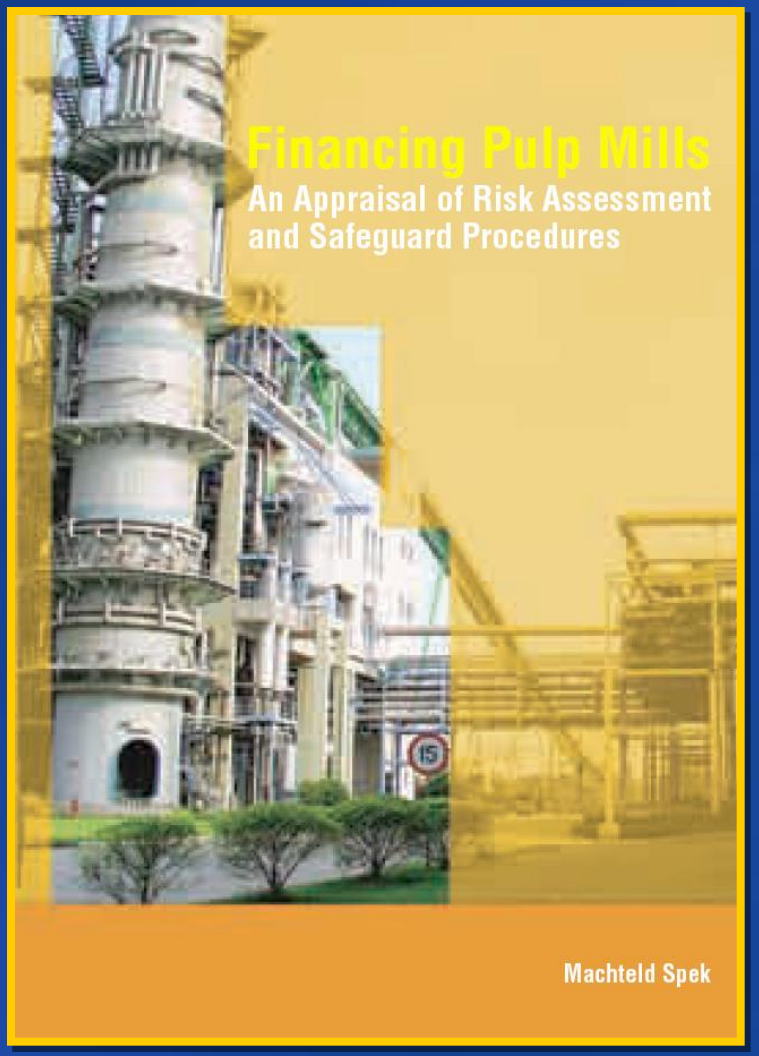
1. Economic and financial instruments
   - Remove perverse subsidies
   - Provide positive incentives
2. Strengthen direct regulation
3. Strengthen governance mechanisms and institutions

(1a) Eliminate perverse subsidies:

- …to agricultural expansion that replaces natural forests
- …to forest industry without a legal and sustainable supply of wood

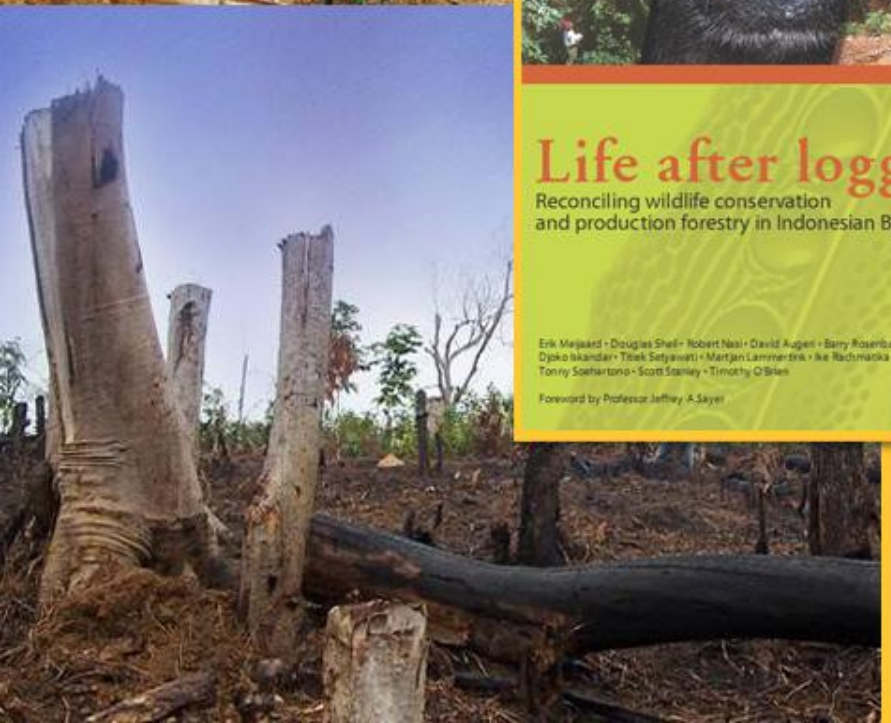
(1b) Create positive incentives for sustainable forest management:

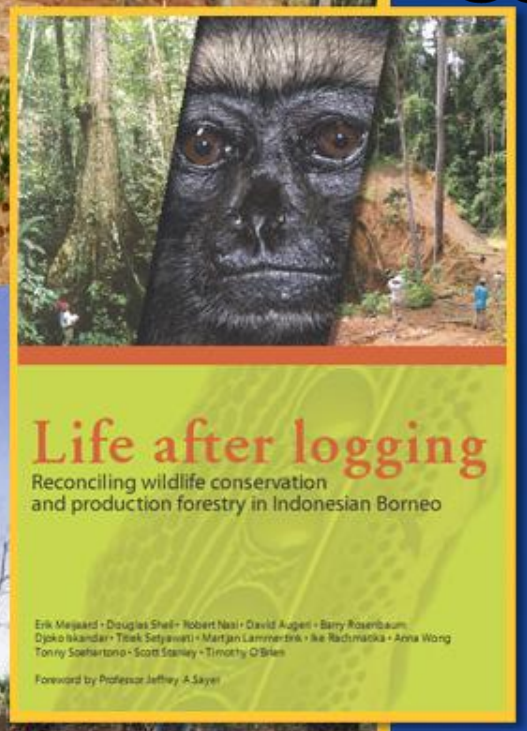
- Access to markets through certification
- Access to finance through increased transparency and compliance with safeguards
- Access to payments for ecosystem services



(2) Strengthen direct regulation:

- Reroute roads away from forest areas vulnerable to conversion or degradation
- Provide adequate support to protected area management
- Improve regulation of production forests
- Strengthen law enforcement (without harming the poor)



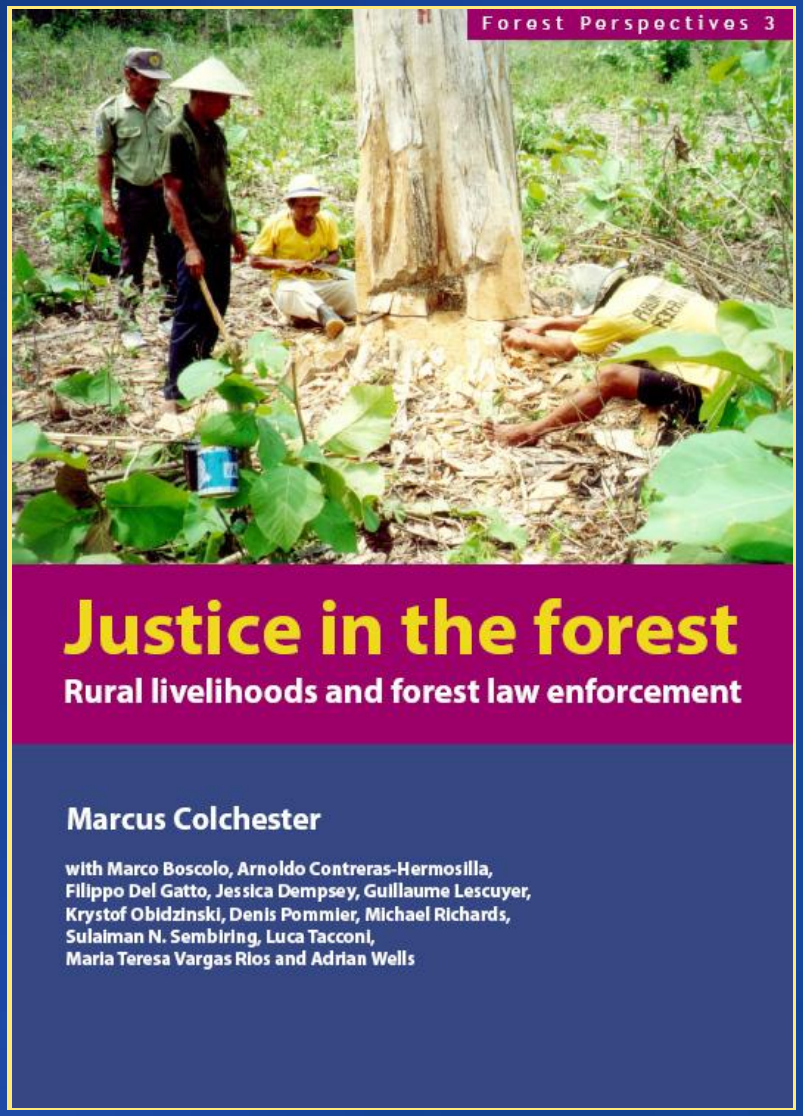


Improve management of concession areas:

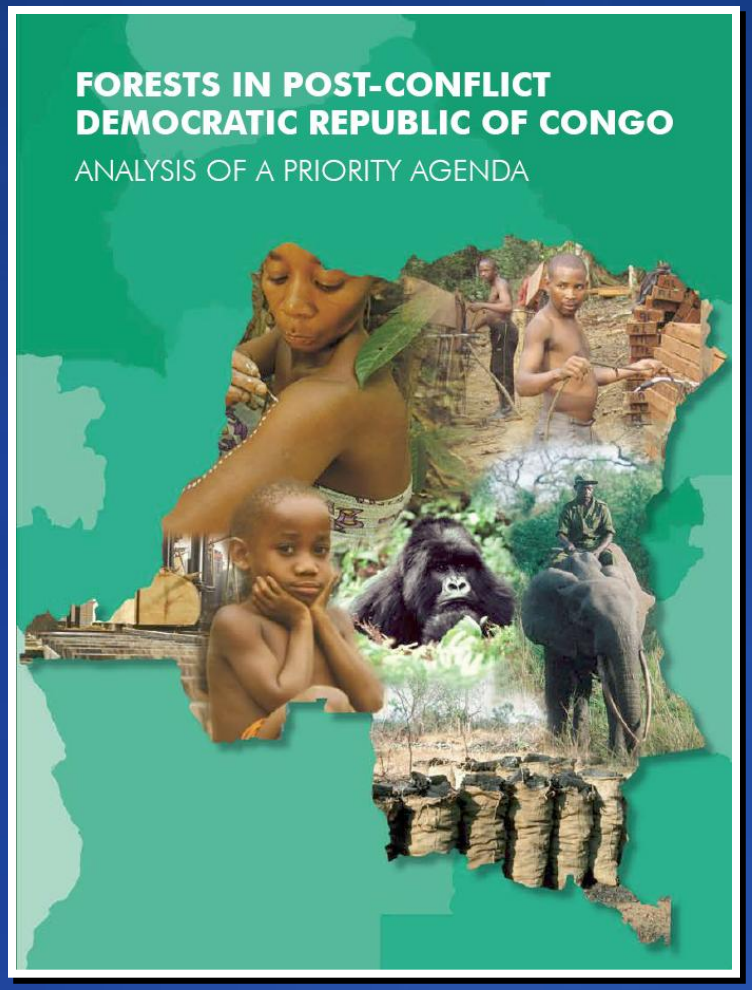
- Significant biodiversity benefits can be achieved through improved planning and operational practices

Strengthen law enforcement (without harming the poor):

- Illegal logging “crackdowns” tend to focus on the little guy with the chain saw rather than the big guy with the bank account
- Need to use law enforcement tools more targeted to the “big guys”, such as anti-money laundering and anti-corruption laws



(3) Strengthen governance mechanisms and institutions:



- Clarify tenure and strengthen property rights
- Improve the transparency and inclusiveness of decision-making
- Improve intersectoral collaboration
- Build capacities of local communities and governments
- *Example: Post-conflict agenda in the Democratic Republic of Congo*

The bottom line:

- Decrease the profitability of activities leading to deforestation and degradation
- Increase the profitability of SFM
- Empower stakeholders whose interests are aligned with SFM

Example: Community-based fire management

Community-based fire brigade

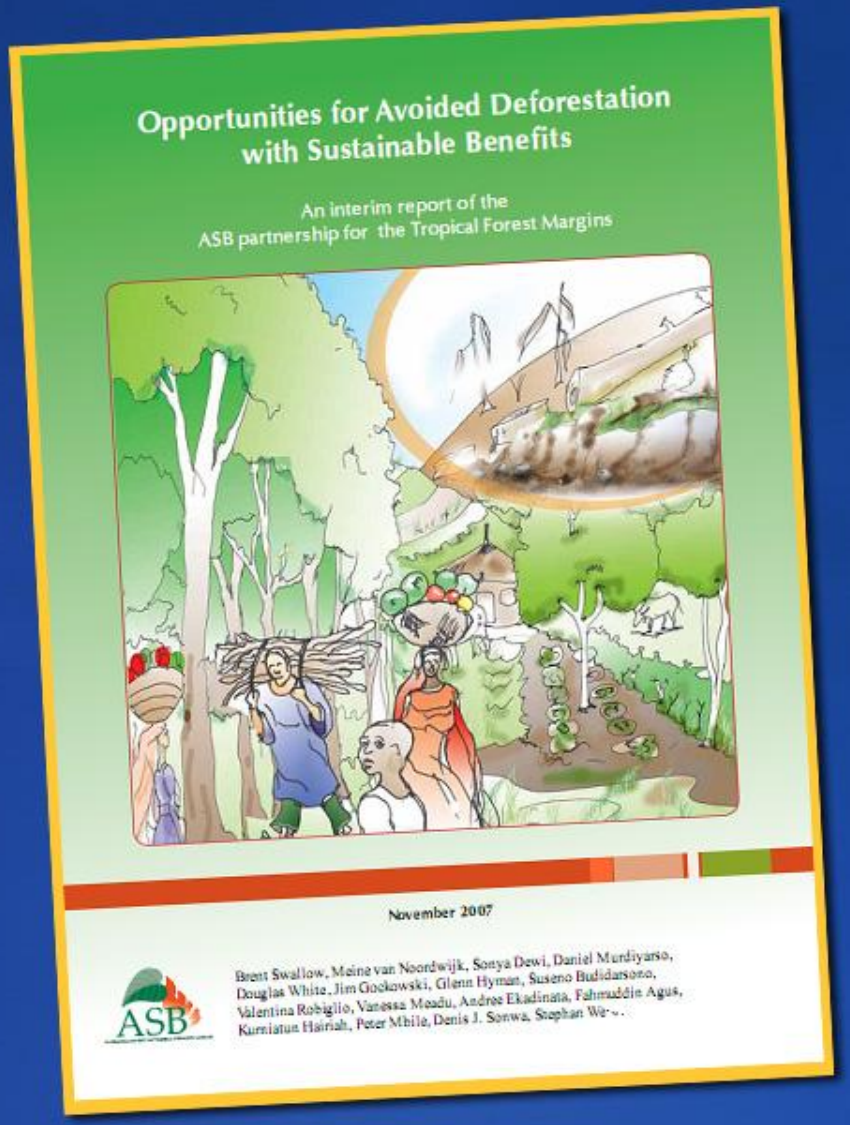
Controlled fire for land clearing – community action


REDD

Possible paths to success:

- Volume of finance sufficient to shift the political economy of drivers of deforestation and degradation
- Engagement and political attention at the national level
- Performance-based finance

Good investments available:



- Research shows much forest conversion provides limited economic return
- In some cases, <$1 per ton of carbon emitted

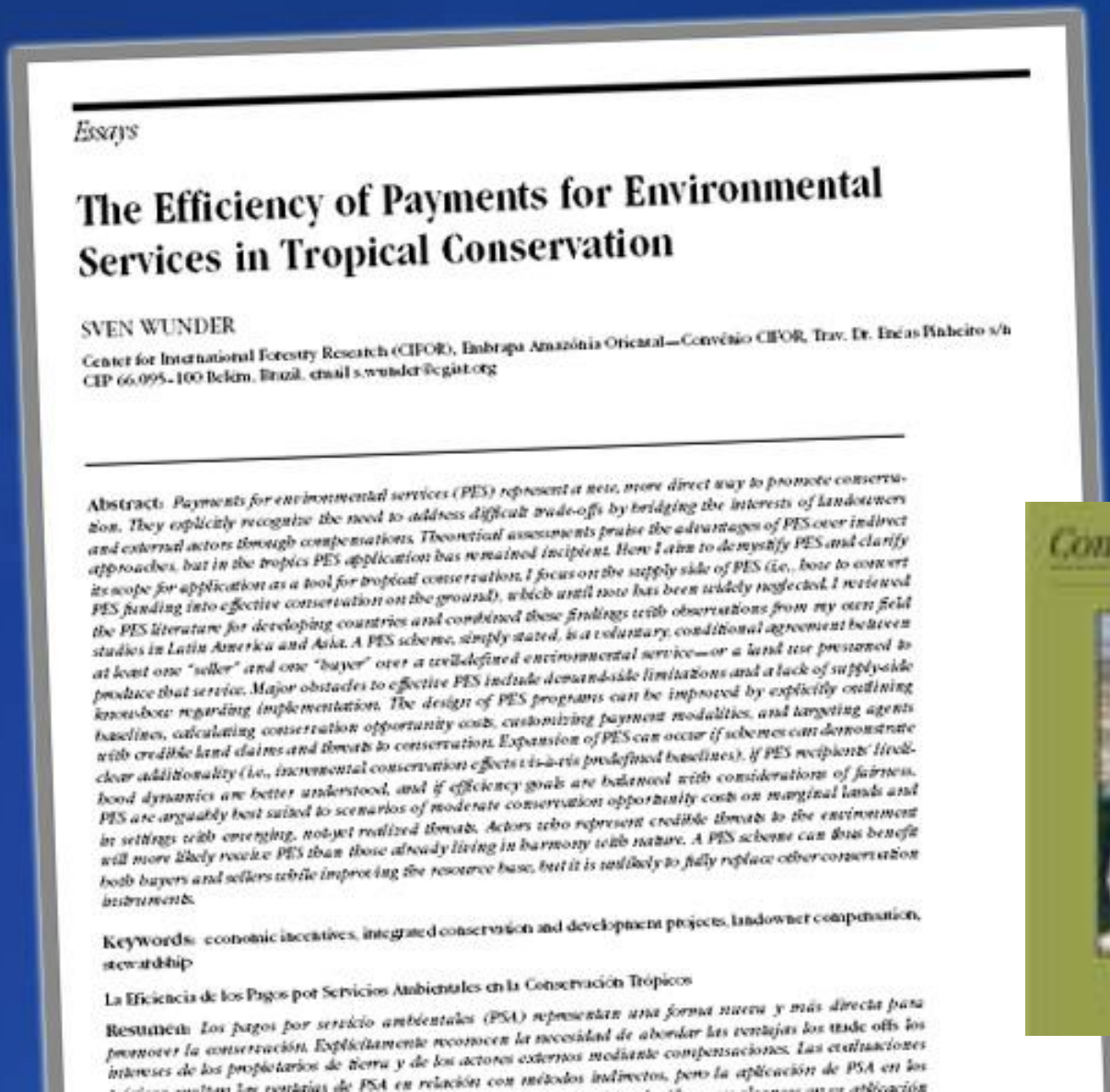
Optimizing biodiversity conservation and sustainable use

- REDD policies designed to optimize co-benefits
  - Biodiversity conservation: targeting priority ecosystems
  - Sustainable use: importance of the second “D” as an incentive for SFM

…but serious challenges ahead

- Need for “REDD readiness”: governance mechanisms and institutional capacity
- Need to manage risks and trade-offs
- Need to safeguard legitimacy
  - Inclusive process
  - Equitable outcomes

Lessons from early PES experience:



Essays

The Efficiency of Payments for Environmental Services in Tropical Conservation

SVEN WUNDER

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Abstract: *Payments for environmental services (PES) represent a new, more direct way to promote conservation. They explicitly recognize the need to address difficult trade-offs by bridging the interests of landowners and external actors through compensations. Theoretical assessments praise the advantages of PES over indirect approaches, but in the tropics PES application has remained incipient. How I aim to demystify PES and clarify its scope for application as a tool for tropical conservation. I focus on the supply side of PES (i.e., how to convert PES funding into effective conservation on the ground), which until now has been widely neglected. I reviewed the PES literature for developing countries and combined these findings with observations from my own field studies in Latin America and Asia. A PES scheme, simply stated, is a voluntary, conditional agreement between at least one "seller" and one "buyer" over a well-defined environmental service—or a land use presumed to produce that service. Major obstacles to effective PES include demand-side limitations and a lack of supply-side know-how regarding implementation. The design of PES programs can be improved by explicitly outlining baselines, calculating conservation opportunity costs, customizing payment modalities, and targeting agents with credible land claims and threats to conservation. Expansion of PES can occur if schemes can demonstrate clear additionality (i.e., incremental conservation effects vis-à-vis predefined baselines), if PES recipients' livelihood dynamics are better understood, and if efficiency goals are balanced with considerations of fairness. PES are arguably best suited to scenarios of moderate conservation opportunity costs on marginal lands and in settings with emerging, not-yet realized threats. Actors who represent credible threats to the environment will more likely receive PES than those already living in harmony with nature. A PES scheme can thus benefit both buyers and sellers while improving the resource base, but it is unlikely to fully replace other conservation instruments.*

Keywords: economic incentives, integrated conservation and development projects, landowner compensation, stewardship

La Eficiencia de los Pagos por Servicios Ambientales en la Conservación Tropicos

Resumen: *Los pagos por servicio ambientales (PSA) representan una forma nueva y más directa para promover la conservación. Explícitamente reconocen la necesidad de abordar las ventajas los trade offs los intereses de los propietarios de tierra y de los actores externos mediante compensaciones. Las evaluaciones*

- Likely trade-offs between efficiency and equity

Discussions at "Forest Day" illuminated areas for consensus-building and research:

- Better data and methods
- Role of markets
- Managing trade-offs

Optimizing REDD: An opportunity for collaboration between CBD and UNFCCC


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