The governance of mitigation in agriculture and forest landscapes

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Climate Change, Agriculture and Food Security (CCAFS) research program of the CGIAR

- Adaptation, risk management and mitigation
- 15 Centers of the CGIAR + Future Earth

Regional approach
E and W, Africa, S. Asia,
SE Asia, Latin America
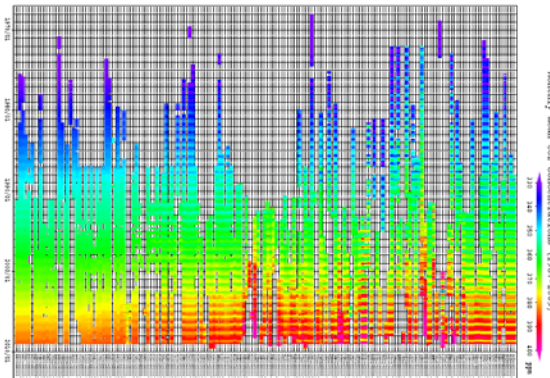
CCAFS Theme III: Pro Poor Mitigation

Mainstream mitigation into agricultural development

Support agricultural finance, agribusiness and policy to lower climate impacts. Emphasis on sustainable intensification.

Innovative mechanisms

Develop and assess innovative institutions and incentives that enable mitigation and ensure benefits to poor (e.g. carbon payments, large scale adoption)

Data and methods for smallholder systems

Produce data and standards for national inventories, IPCC, carbon markets - *focus on whole farm and landscape*

Peter Newton
   Tropical forest ecology, conservation and development
   Fieldwork in Brazilian Amazonia, Vietnam and Central Kalimantan

Arun Agrawal

   Political science; community-based natural resource management
   Coordinator of the IFRI research network

International Forestry Resources and Institutions

...exploring how people shape the world's forests

The challenge

Land-use decisions in tropical forest-agriculture landscapes:

Forests: ecosystem services (carbon), biodiversity, forest-dependent people

Agriculture: food security, changing diets, 9 billion people & 70% more food by 2050

Agricultural intensification

Necessary…

Green revolution (1961 to 2005) avoided ~161 Gt C emissions or 3.7 Gt C/year (Burney et al. 2010)
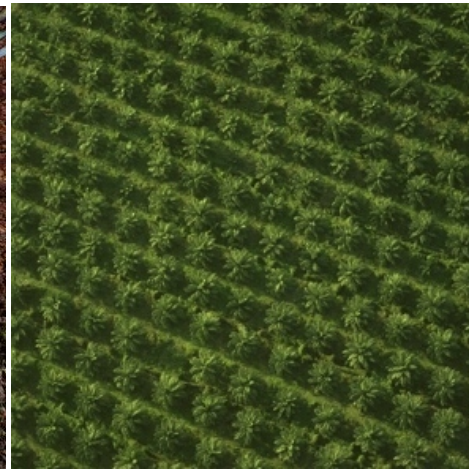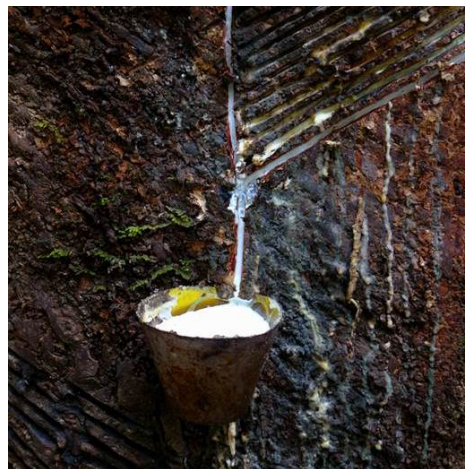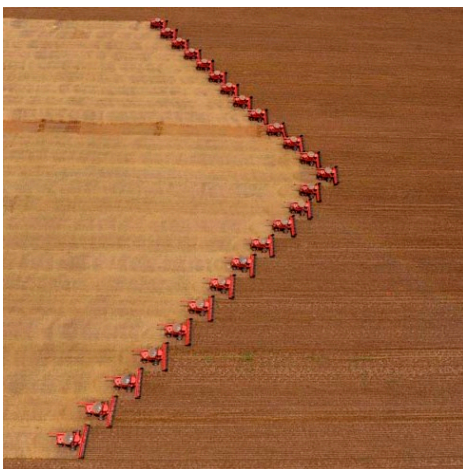
…but not sufficient

Intensification often leads to expansion or increases emissions in long run

Institutions

Are critical to support the governance of intensification and land-use decisions

How do institutional arrangements affect environmental, economic and social outcomes in tropical forest landscapes where commodity agriculture is a key driver of forest loss?

Institutional arrangements exist, but there are gaps in knowledge

- **What's happening**
  - Documentation of innovations and outcomes
  - Institutional analysis
  - Comparison and generalizable lessons across innovations, countries and commodities
- **Framing the problem**
  - Supply chain focus
  - Linking agriculture and forests
  - Impacts on multiple outcomes

Governing mitigation trade-offs in forest–agriculture landscapes

University of Michigan, CCAFS, + partners

To improve governance for sustainable agricultural commodities

- Agricultural productivity and sustainability
- Carbon sequestration and reduced GHGs
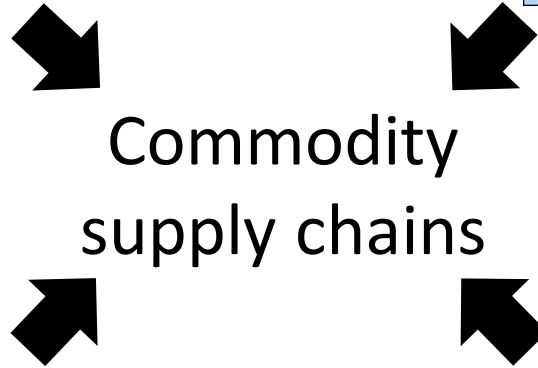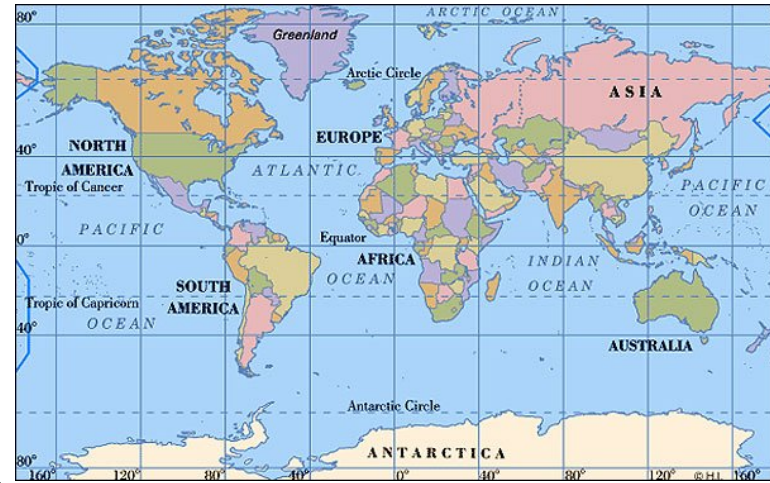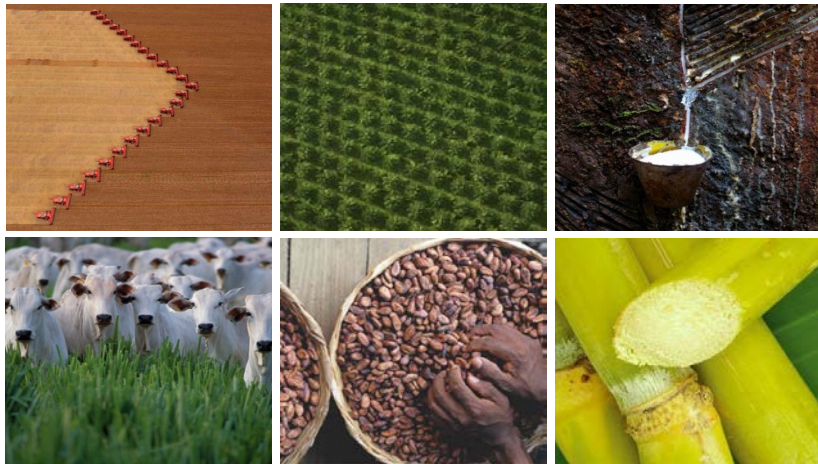- Livelihoods

Institutions and policies

Incentives

Photo: Wunder *et al*. 2005

Information

Photo: Proforest

Commodity supply chains

SUPPLY-CHAIN (MARKET) ACTORS

Producers

Processors

Retailers

Consumers

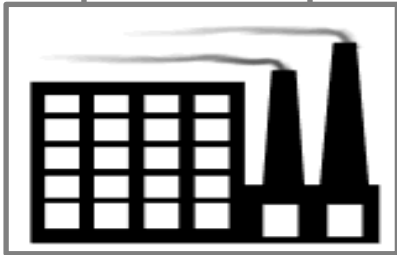demand

supply

SUPPLY-CHAIN (MARKET) ACTORS
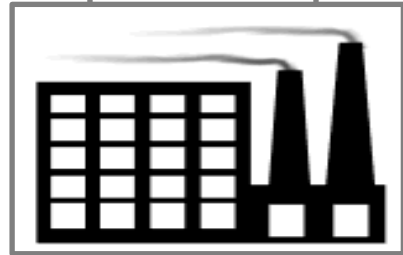
PERIPHERAL ACTORS

State (government)

Civil society
(NGO, research,
roundtables)

SUPPLY-CHAIN (MARKET) ACTORS

INTERVENTIONS

PERIPHERAL ACTORS

Enhancing sustainability of commodity agriculture in forest areas

Do innovations lead to more improved outcomes if they:

- Include policy at multiple scales?

- Are composites of information, incentives and institutions?

- Harness existing enabling conditions?
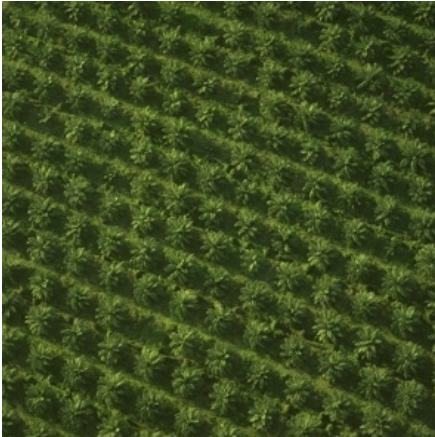
- Target consumers or producers?

Objectives

1. Characterize institutional arrangements of (successful) innovations

2. Analyze impacts of institutional arrangements on deforestation, GHG emissions and livelihoods.

3. Facilitate collaborative learning to improve outcomes

What and where?

Focal countries and commodities

Indonesia: oil palm

Brazil: cattle

Innovations

- RSPO certification
- Project POTICO's suitability mapper
- GAR's Forest Conservation Policy
- Kalimantan Forest Carbon Partnership
- Katingan Project's Ecological Restoration Concession (REDD+)
- Sustainable Agriculture Network's cattle certification

How? Institutional analysis

Descriptive

- Map actors, organizations, rules and norms
- Identify institutional functions and gaps
  e.g. clear and secure rights, distribution of benefits, enforcement

Analytical

- How do institutions affect pressures of forest conversion?
- How do institutions affect outcomes?

Sources of information

- **Institutions**
  - Surveys, interviews
  - Document and policy review

- **Outcomes**
  - Project data (What exists? What is planned?)
  - Third party project assessments (organized by project)

Relevance

- **Improve innovations (existing and new)**
  - Project-specific opportunities
  - Exchange and learning across innovations
  - Generalizable lessons

- **Provide attribution (e.g. for funders)**   --
  - Demonstrate links between interventions and outcomes

Next steps

- Partner input on framework
- Expressions of interest
- Levels of engagement
  - Characterization of innovation case (surveys)
  - Detailed institutional analysis (primary data on institutions)
  - Relationship of institutions and outcomes (outcome data) "single snap shot"
  - Partner-driven, repeated snap shots

Acknowledgements