REVITALIZING REGIONAL PARTNERSHIPS AND INNOVATION FOR AGROFORESTRY COMMODITY VALUE CHAINS IN AFRICA:

LESSONS FROM LATIN AMERICA AND EAST ASIA

DISCUSSION FORUM
GLF, NAIROBI
08-29-2018
FINDINGS AND NEXT STEPS:

WORLD BANK FUNDED STUDY, LEVERAGING AGRICULTURAL VALUE CHAINS TO ENHANCE TROPICAL TREE COVER AND SLOW DEFORESTATION (LEAVES)

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Natural climate solutions—forests, trees and soils—could provide up to 1/3 of the GHG emission reductions needed by 2030; most of this potential mitigation is in the tropics.

However...

Demand for food and feed will increase to supply a growing, more affluent population.

Most of that demand will be met in the tropical and subtropical latitudes, potentially displacing forests and woodlands.

LEAVES is a response to this challenge—to produce more food, feed and fuel while keeping more trees and forests on the landscape.
The Case Studies

- Agroforestry Shea Parklands of sub-Saharan Africa
- Coffee and Cocoa Agroforestry Systems
- Silvopastoral systems in Latin America
- Cattle in the Brazilian Amazon
- Soybeans in the Brazilian Amazon
- Palm Oil in Indonesia
Bending the Forest Transition Curve

LEAVES: Bending the Forest Transition Curve

- Slowing deforestation, degradation
- Enhancing tree cover

Percent Forest Cover Remaining

Business-As-Usual

Time
Recommendations:

Markets:

- **Corporate Zero Deforestation Pledges**: Move beyond unilateral announcements to more collaborative approaches

- **Certification**: Build on global standards and international commercial regulations to achieve regionalized, bottom-up definitions of “sustainable”

- **Public-Private**: Seek harmonization between private sector initiatives and public policies/programs

- **Ecosystem Services**: Take carbon and ecosystem service valuation to scale; “pay-for-performance” ready for replication

- **Finance**: Urgent need to increase sustainable access to finance
Farmers and Industrial Producers:

**Competitiveness**: For LEAVES to take hold, farmers and industrial producers engaged in sustainable production systems must become more competitive than those who are not; governments and buyers can help tilt the playing field to favor sustainable producers.

**Find & support innovators**: Urgent need to recognize, reward and enable innovative producers through appropriate finance, resolution of land tenure uncertainty, and technical assistance.

**Responding to markets**: Producers need support to respond to consumer demand for sustainability.

**Backlash**: to succeed, corporate “zero deforestation” pledges and NGO deforestation campaigns need to engage farmers.
Governments:

- **“Sticks” must be balanced with “carrots”;** command-and-control, regulatory measures to control deforestation can work up to a point

- **Beyond silos:** Foster collaboration and build capacity across agencies

- **Build the governmental case for forests/trees:** Translate and communicate the benefits of forest-friendly development into regional visions supported by public policies and programs
A new paradigm?

The LEAVES studies highlight some elements of an emerging paradigm shift:

• The major international “tools”—certification, REDD+, corporate deforestation pledges—are making positive contributions but, alone, are insufficient

• A critical shift in focus is needed to approach deforestation and tree enhancement from the perspective of farmers and local governments

• The shift means moving from binary, “black and white” approaches to sustainability, to nuanced, regionalized approaches that recognize and inspire long-term progress towards sustainability

• Punitive measures, restrictive regulations and market exclusion must be complemented by mechanisms for tapping into human pride: recognizing, celebrating and rewarding innovation on the ground

• This points to a new era of partnerships: corporations with farmers and communities, corporations with governments, governments with farmers
Agroforestry shea parklands of Sub-Saharan Africa

Peter Lovett and L. Denzil Phillips
Shea agroforestry parklands

As defined by Bonkoungou et al. (1994), Agroforestry Parklands “are land-use systems in which woody perennials are deliberately preserved in association with crops and/or animals in a spatially dispersed arrangement and where there is both ecological and economic interaction between the trees and other components of the system”.
Main shea study findings
Main shea study findings
Why shea?

**Major food and fuel security importance** sub-Saharan Africa, 200-300 million people, 2000+ years of trade & management

- Sustainable production system for wood fuel, annual crops & tree crops
- Deciduous, fire-resistant, native, insect-pollinated, pioneer tree species
- 21 countries, 300-350 million hectares of Sahelian-Sudanian-Savannah
- 16+ Million women collect
- Local African edible use c. 2 million tons sheanuts

**Growing International Market Demand**

- Personal care products, just 10% of export crop
- Invisible 90% export crop edible use: *Cocoa Butter Alternatives* *ingredient*
- 8 West Africa nations export 300-500,000 tons shea kernel p.a.
Main shea study findings

- Shea parkland is a vast *invisible* management system, not a wild minor forest product

- Its women collectors remain among poorest people in the world

- Wrongly viewed as primarily for personal care, when 90% of exports are for cocoa butter substitution; most shea consumed locally

- Shea parkland managements systems—rotating fallows—are being lost to monoculture, herbicide and pesticide, urbanization
Main shea study recommendations

- **Rebranding needed** – not a minor “wild harvested” NTFP but nutritional, ecological-climate stabilizing commodity from a regional managed parkland

- **Address the threats** – tree removal for crop cultivation, agricultural chemicals

- **Land reform** needed to provide secure tenure

- **Female-oriented technologies** and access to finance are needed

- **Regional shea landscape event** urgently required with key stakeholders
Dual role of coffee & cocoa in deforestation and reforestation

Eduardo Somarriba  and Arlene López-Sampson
Why coffee and cocoa?

Coffee
- 11 million hectares; 60% under shade i.e. agroforestry systems
- 10 million farmers
- 9 million tons of green coffee
- 125 million people’s livelihoods.

Cocoa
- 10 million hectares; 70% under shade i.e. agroforestry systems
- 10 million cocoa farmers
- 4.5 million tons annually
- 40-50 million people’s livelihoods.

The problem and (part) of the solution
- Coffee and cocoa are drivers of both deforestation and reforestation
Transition pathways between natural forests, coffee and cocoa agroforestry systems and other land uses
Main findings

- Deforestation in West and Central Africa’s forest frontiers continues at fast rates due to the expansion of cocoa.
- Major threat is crop husbandry intensification—low shade or no-shade systems are winning the battle.
- Must increase profitability and resilience of coffee & cocoa farming (diversification, not only cocoa or coffee).
- Long way to go in improving legal, institutional, policy and financial frameworks for trees on farms (especially timber).
- Concerted actions between governments (national, jurisdictional), industry, value chain actors, farmers, financial institutions, and donors are essential.
Recommendations to reduce deforestation

- Improve the **legal, institutional, policy and financial frameworks** to increase the value of forest in private land and to enforce protection measures on conservation areas.

- Invest in the use of **modern technologies to monitor deforestation** in real time.

- Support “**zero deforestation**” and transparency in supply chain pledges by industry and other stakeholders (e.g. Mars’ Deforestation Policy).

- Support **multi-stakeholder platforms** aimed at reducing deforestation and securing a sustainable coffee and cocoa economy (e.g. Cocoa Forest Initiative).
Recommendations to increase reforestation

• Increase the **profitability and financial resilience** (e.g. diversification with timber and fruits) of coffee and cocoa farming

• **Optimize the trades-offs** between “crop husbandry intensification to increase cocoa yield” and the “reduction in shade level (tree cover) and species richness”

• **Improve the legal, institutional, policy and financial frameworks** to make trees in the shade canopy “visible” and accessible to farmers

• Support **certification standards** promoting tree planting in coffee and cocoa

• Promote, among farmers, **the vision of “timber trees as crops”**
Silvopastoral (SP) options for enhancing tree cover and productivity in livestock systems in Latin America

Danilo Pezo, Muhammad Ibrahim and Ney Rios
Silvopastoral Systems in Latin America

The Problem

- Significant increase in demand for livestock products domestic and for exports in last 50 yrs
- Projections to 2050 suggest continued growth in demand
- 50-70% of pasture under traditional cattle ranching are degraded; new pastures are established at expense of forests

The Solution

- Rehabilitate degraded pasture lands in areas with potential for more intensive use, leaving others for secondary forest regeneration or reforestation
- In rehabilitated pasture lands, livestock systems must shift to more intensive SP options
Main Findings

- **SP are “win-win” options**: improve animal welfare and productivity, increase income, products diversification, enhance climate resilience, fewer GHG emissions and greater C-sequestration, increase ecosystem services.

- Different SP options for **tailoring systems** to the constraints and opportunities in different sites, as well as diverse farmer expectations and goals.

- Greater diversity of SP options in LAC found in tropical than in temperate boreal zone.

- Despite substantial evidence on the economic, ecological and social benefits of SP systems, adoption rates low.
Enabling factors to accelerate adoption of SP options

• The livestock sector is part of the Nationally Determined Contributions (NDCs) for Climate Action in different LAC countries

• Changes of production paradigms and coordinated R4D efforts on SP systems involving livestock, forestry and environment institutions

• Large-scale projects aimed at mainstreaming lessons learnt should be built on successful pilot projects that have demonstrated the potential of SP interventions

• Access to PES schemes, price premiums, and green credits under different climate change initiatives (i.e., REDD+, Green Climate Fund, 20x20 Initiative) for promoting SP innovations

• Development of the legal framework, as well as adjustments in the wood processing sector, to support the conservation and sustainable use of timber and forest products coming from SP systems
Case study: The Brazilian Soy Moratorium

Daniel Nepstad & João Shimada
Why Soybeans?

Global demand rising driven largely by economic growth and greater meat consumption in China and other emerging economies

Demand fueling tropical deforestation in South America - the Amazon, Cerrado of Brazil; the Chaco of Paraguay and Argentina

The **Brazilian Soy Moratorium (BSM)**: key experiment in removing deforestation from soy value chain in the Brazilian Amazon region

BSM: an agreement among trading companies, NGOs, retailers and banks to not purchase or finance soybeans grown in fields converted from forest after July 2006 (later changed to July 2008); effective monitoring program
Main findings: has the BSM worked?

Yes: From the perspective of corporate risk management, 99% of soy cultivation area in the Amazon forest biome was cleared prior to July 2008.

No: The contribution of the BSM to the 70% regional decline (graph) in Amazon deforestation is quite modest. The Brazilian Government’s law enforcement efforts, expansion of protected area system, and the decline in demand for new deforestation were more important.

![Graph showing deforestation data from 2002 to 2017.](https://example.com/deforestation-graph.png)
Main recommendations: linking value chain interventions with public policies through a jurisdictional approach

The BSM was never supported by the powerful farm sector: that is a problem

- BSM imposed restrictions on responsible, law-abiding soy farmers without compensation for lost value of their farms.

- Losses fairly minor in the Amazon, but more substantial in the Cerrado and Chaco

- Possible farm sector backlash could erode environmental gains—a major challenge of value chain approaches in isolation

**Jurisdictional approach** defines shared goals for production, conservation and social inclusion at the scale of entire states and provinces through multi-stakeholder processes. Example: Mato Grosso Produce, Conserve, Include Strategy (PCI):

- Zero net deforestation and 6 billion tons CO2eq avoided emissions by 2030
Case Study: Beef in the Brazilian Amazon

João Shimada and Daniel Nepstad
Why Brazilian Beef?

Cattle pasture formation is key driver of deforestation in Latin America. In the Amazon region of Brazil, **70% of cleared land under cattle pasture**

Unlike soybeans, little “market pull” for sustainably-produced beef. 80% of Brazilian production is for domestic market.

Study analyzed the **Brazilian Cattle Agreement (BCA):** experiment in removing deforestation from the beef value chain, Brazilian Amazon.

Triggered by Public Prosecutor’s actions against illegal cattle sourcing by meat-processors.

BCA, agreement among largest meat processing companies (JBS, Minerva, Marfrig, Bertin) and NGOs to **end the purchase of cattle from farms deforested after October 2009,** indigenous territories or reserves encroachment, labor infractions.
Main findings: has the BCA worked?

**Mild Yes**: From the perspective of **corporate risk management**, reduced deforestation on farms and ranches selling directly to meat processors.

**No**: Indirect suppliers, laundering, self-monitoring (~80% of target)

- Transparency/verification of self-monitoring by processors; JBS & “Carne Fria”

Challenge: **Limits of “negative” approaches to deforestation**

- Missing carrots for responsible, law-abiding producers
- Cattle intensification is reducing demand for new deforestation
- Financial gap
Main recommendations

**Improve BCA**: Better monitoring of indirect suppliers with public instruments (CAR, GTA), e.g. “VISIPEC”

**Beef Institute of Mato Grosso**: transform cattle sector by addressing quality, sanitation, sustainability demands of key markets
- Standardization, technical support, clear benefits to producer

**Attract necessary investment to Mato Grosso PCI Strategy**
- Goal of increasing cattle productivity on smaller area of pasture, soybean expansion without deforestation, reforestation; industrial tree farms

**Beef substitution with low-carbon protein**

**Dialogue with cattle sector urgent**: growing wave of populist backlash
Oil palm in Indonesia

John Watts and Silvia Irawan
Why oil palm?

• Oil palm (*Elaeis guineensis*) is one of the more visible, and profitable, agricultural commodities driving the expansion of industrial and small-scale plantations into forest areas, especially in Southeast Asia.

• Between 2000 and 2010, around 4.5 to 7 million hectares of Indonesia deforestation, around 20 per cent of which occurred in oil palm plantations.

• Sustainably produced palm oil, free from deforestation and social conflicts, has become the aspired goal for many consumers, buyers and governments, reinforced through zero-deforestation commodity supply chain pledges.

• The most effective path for achieving this goal remains elusive.
Main findings

- **RSPO certification** has both the instruments for reducing deforestation and global legitimacy but effectiveness constrained by scale, market demand, and costs.

- **The Indonesia Sustainable Palm Oil (ISPO) system** is based on existing laws and regulations and is mandatory, however, perceived as a weaker system by NGOs.

- **Corporate zero deforestation commitments** met with resistance by the government--disproportionate impact on smallholders.

- The Indonesian government issued **laws and regulations** for reducing deforestation and environmental degradation, focusing on peatland degradation and fires using strict regulatory approaches, not positive incentives.

- Addressing **yield gap** between small-scale and industrial oil palm growers could reduce agricultural expansion into forests and peatland--more systematic efforts are required.

- **Jurisdictional approaches**, in particular jurisdictional certification initiatives represent a hybrid approach with potential to overcome challenges faced by other initiatives.
Recommendations

• **Small-scale production models**: Find incentives and financially viable models of small-scale, sustainable palm oil production; identify obstacles to broad-scale adoption

• **Land and supply chain taxation**: Investigate appropriate mechanisms for taxing plantation, other estate land and palm oil supply chain that adequately reflects its value and environmental and social effects

• **Environmental and social safeguards**: Find acceptable compromise among government methodologies and HCV/HCS and FPIC

• **Legal framework of jurisdictional certification and sourcing**: Investigate the legal barriers to jurisdictional certification and source both in terms of national laws and bi-lateral and multi-lateral trade agreements

• **Preferential jurisdictional sourcing**: Find cost-effective ways for companies to source from sustainable jurisdictions

• **Mechanisms for financing low emission development**: How to best channel financial resources to local governments to enable jurisdictional sustainability
Thank you!

LEAVES Team