## A Cheaper, Simpler Pathway to Large-Scale Agricultural Sustainability?

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#### Food Price Increases: Here to Stay? ↑Demand > ↑Supply



Most of the increase in food production in the next 20 years will take place in the tropics and subtropics, led by Latin America

### **Connections between Climate Change, Deforestation, and Food Production**



Nepstad et al. 2013a Phil Trans Roy Society; 2013b Carbon Mgt

#### **Deforestation in the Brazilian Amazon: A 70% Decline**



CO2 Emissions Reductions 2008-2010 and Associated Financial Transactions: Deforestation in the Brazilian Amazon and European Union ETS



Source: Nepstad, Boyd, et al. 2013 Phil Trans Roy Soc

Brazil's national transition to lowdeforestation rural development is within reach

## Intensification of beef production is opening up land for crop expansion

Forthcoming: Earth Innovation and Agrolcone report on Brazil's transition to Zero deforestation, high production

## Sustainable Agriculture=

- Food Security
- Environmental Conservation
- Climate Change Mitigation
- Poverty Alleviation

## How are we doing?

<u>Sustainable supply chain initiatives</u> are having a hard time achieving market transformation

- High cost of farm-by-farm, mill-by-mill certification
- Low demand for certified production
- Ambitious company commitments to sustainable sourcing are difficult to meet

## How are we doing?

 Likelihood of a near-term <u>global climate treaty</u> with "teeth" and finance at scale is low

- Binding commitments within UNFCCC postponed to 2020
- REDD+ has advanced far, but lacking financial mechanism

## How are we doing?

• <u>Domestic policy</u> support for transition to sustainable agriculture limited

- Low political will
- Low institutional capacity

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#### Strengths and Weaknesses

	Sustainable Supply Chains	International Finance (REDD+)	Domestic Policy/Financ e
Private Sector Engagement	High	Low	High
Achieving large-scale impacts?	?	?	Varied
Benefits to sustainable farmers	Low	Low	Low



Nepstad et al. 2013 Carbon Management

### Can we link the three approaches?

# A "jurisdictional" or "territorial" performance approach

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Nepstad et al. 2013 Carbon Management

#### Today: Isolated Farmers, Few Positive Incentives



#### Farmers in "Green" Counties



## Key Elements of a "Territorial Performance System"

- •<u>Consensus</u> on step-wise pathway to large-scale sustainability
- •<u>Incentives</u> to support this transition at farm level
- •<u>Monitoring platform</u> for measuring and reporting progress
- •<u>Pilots</u> for testing and refining

## **Potential Advantages**

- •Simpler
- •Cheaper
- •Embeds sustainability in public policy
- •Less dependent on reputational risk
- •Potential for large-scale impact

## Possible Consensus on Incremental Pathway to Zero Net Deforestation in Brazilian Amazon

**BRAZILIAN LEGAL AMAZON** 



Data source: PRODES (deforestation) and IBGE (soybean and cattle production)

Language/Idioma Portuguese

#### PLATAFORMA DE DESEMPENHO TERRITORIAL Meio Ambiente Florestas/Savannas Biomas Grafico Gases Efeito Estufa Historia de Desmatamento P Tabela Social Fogo Pacto Desmatamento 2020 Mapa Agua Produção Conectividade/Fragmentação UNIDADE Quilometros quadrados 🗌 % da floresta remanescente Municipios Area de "Baixo Desmatamento" Região 🕨 Brasil TO. Estado Amazonia > Município Cerrado Area Nova

#### **Deforestation (2013)**



#### Forced Labor Incidences (2010 - 2013)



## Integrating Processes: Compliance with Forest Code & Deforestation



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Fonte: R. Nussbaum, ProForest

### The Brazilian Territorial Performance Process

APROSOJA	ABIOVE	ADM	BUNGE	CARGILL	AMAGGI
ABIEC	JBS	MARFRIG	MINERVA	BR FOODS	IDH
EMBRAPA	UERJ	SEMA	IMC	PMV	MIN. DA FAZENDA
DOW	MONSANTO	SYNGENTA	UNILEVER	MARS	NORWAY
				EOREST	
PROFOREST	SOLIDARIDAD	TERRA	IPAM	TRENDS	NWF
PROFOREST	SOLIDARIDAD	TERRA	IPAM ICV	TRENDS	NWF EDF
PROFOREST EII BV RIO	SOLIDARIDAD WWF SANTANDER	TERRA TNC RABOBANK	IPAM ICV WORLD BANK	ISA CERT ID	NWF EDF CONTROL UNION

## Conclusions:

Latin America critical to food security, climate change mitigation, conservation
Potential to align incentives and regulations in support of transition to large-scale sustainability developed through "bottom-up" consensus

•Could strengthen existing initiatives