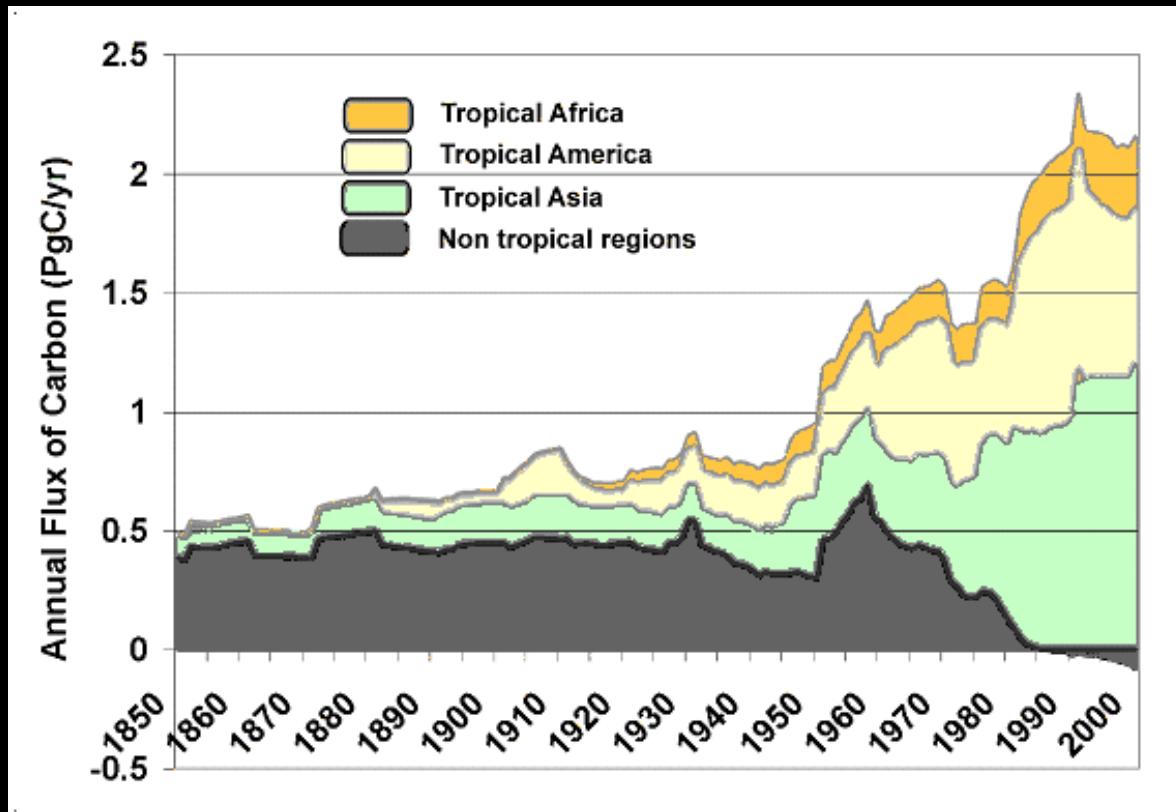


# The Emerging Nested REDD+ Architecture

Daniel Nepstad, PhD  
Director, International Program  
IPAM  
September 20, 2010

# Carbon emissions from tropical deforestation



	Tropics	Non-tropics
Long term	50%	50%
1990s	100%	0%

Houghton et al. 2005  
in Moutinho and Schwartzman, Eds.

## ***REDD+***

# **Reductions in Emissions from Deforestation and [forest] Degradation (+ Enhancement)**

- UNFCCC: Nation-wide with provisions for sub-national
- US cap-and-trade: Nation-wide with period of sub-national (Waxman-Markey, Kerry-Lieberman)
- California cap-and-trade (AB32): State-wide, projects

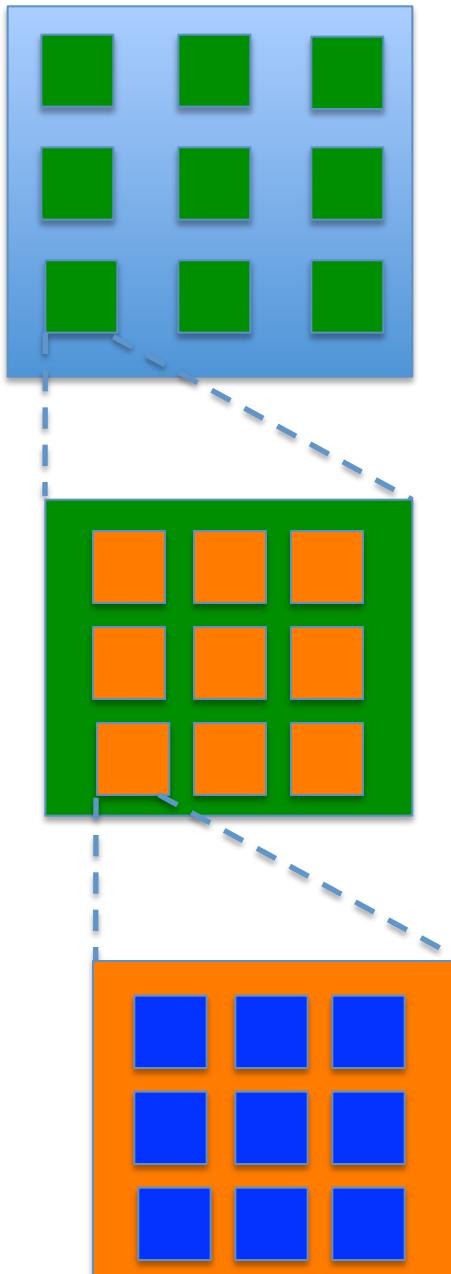
# The Advantages of Forest Carbon Projects

- Clear boundaries
- Manageable risk
- Independence of government

# The Disadvantages of Forest Carbon Projects

- Baseline, leakage
- Do not address underlying causes through policy reform
- Difficult to achieve scale
- “Measles” syndrome

# Nesting REDD+ Architecture



National REDD+ Program

State REDD+ Programs;  
National policies

Projects;  
State-wide Policies

## Goals

1. Scale neutral
2. Incentives on the ground
3. Full system participation

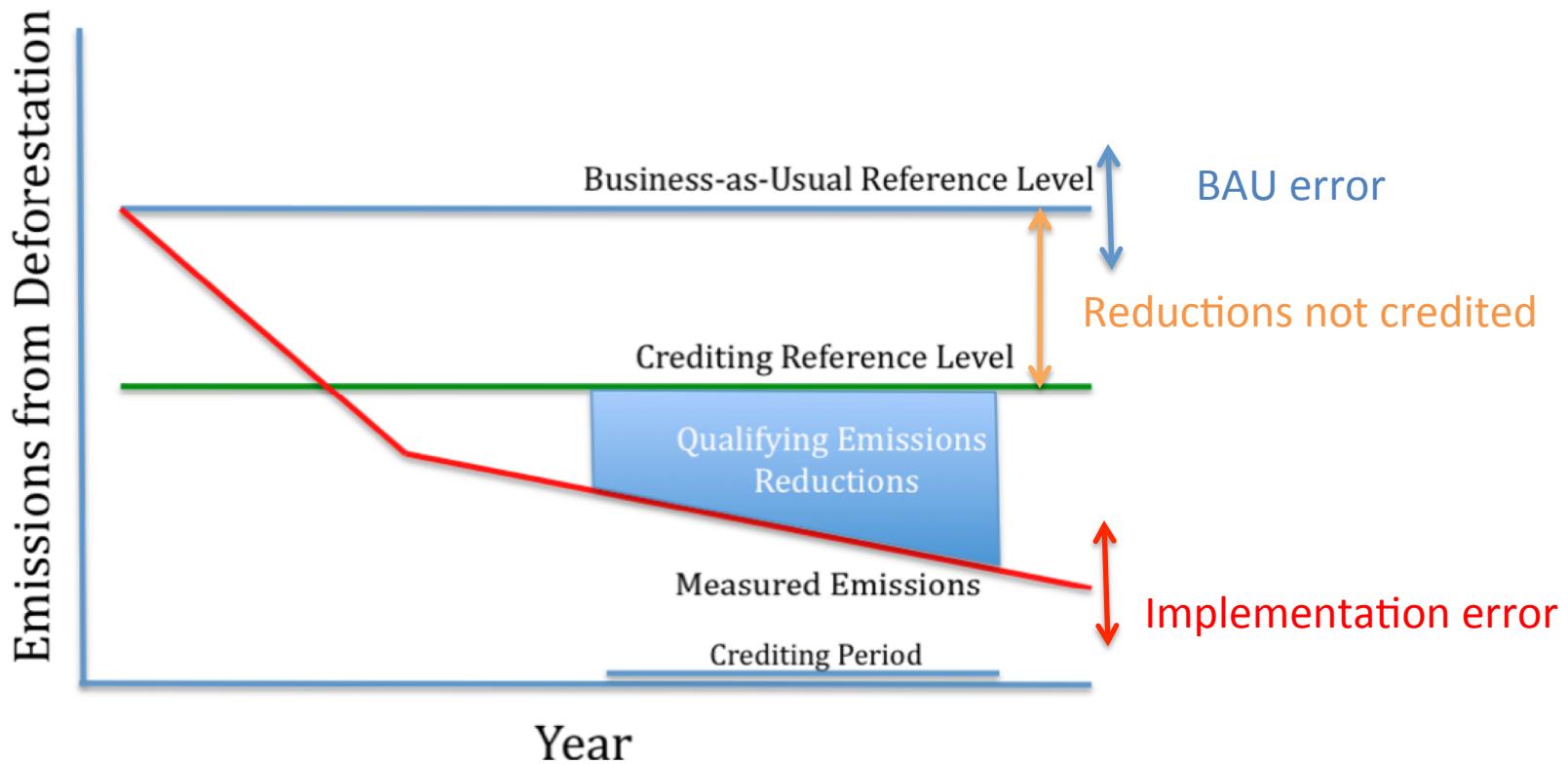
## Advantages:

1. Policy-project integration at different jurisdictional levels
2. Potential for large-scale emissions reductions

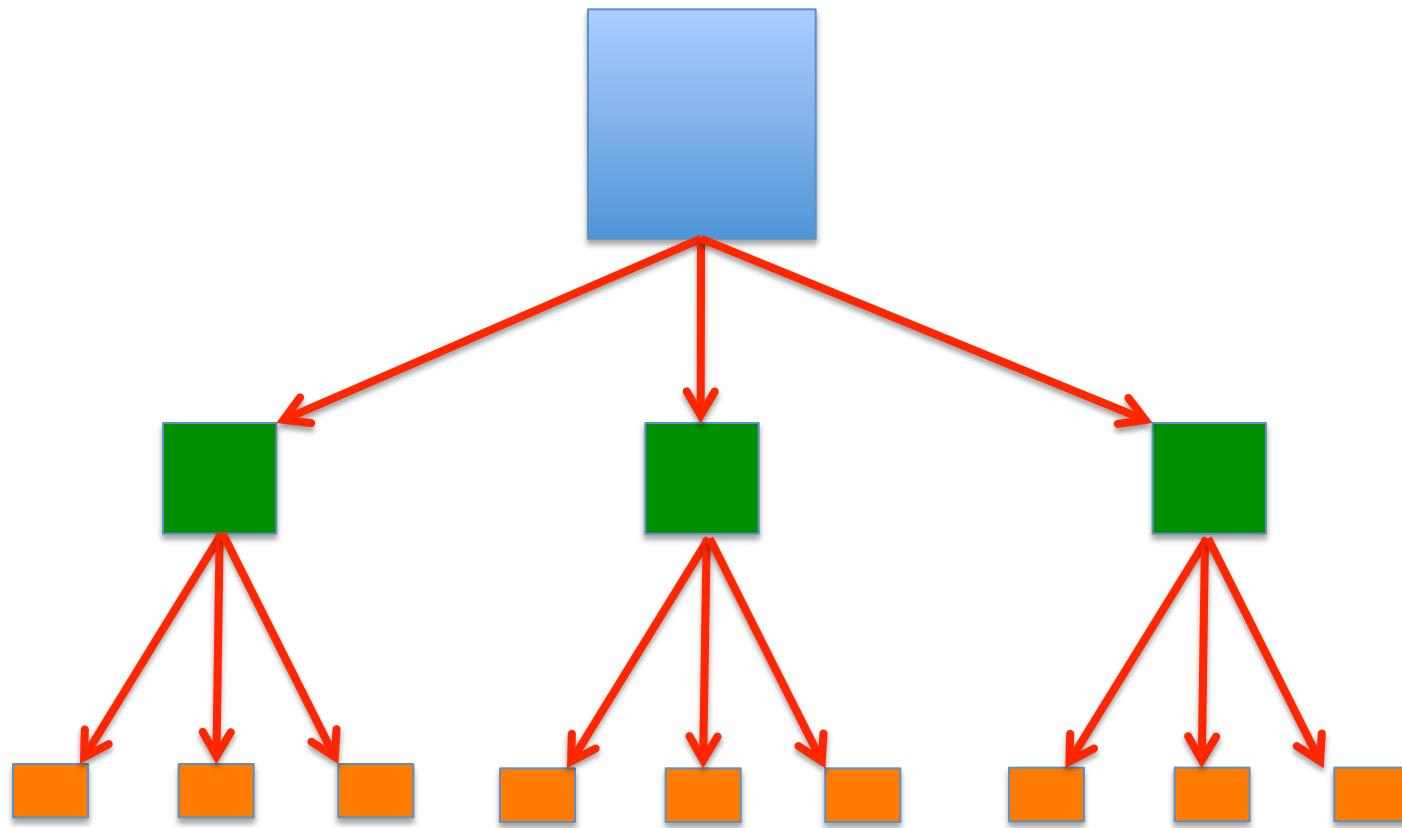
## Challenges:

1. Baseline error propagation
2. Top down? Bottom up?
3. Scale inter-dependencies

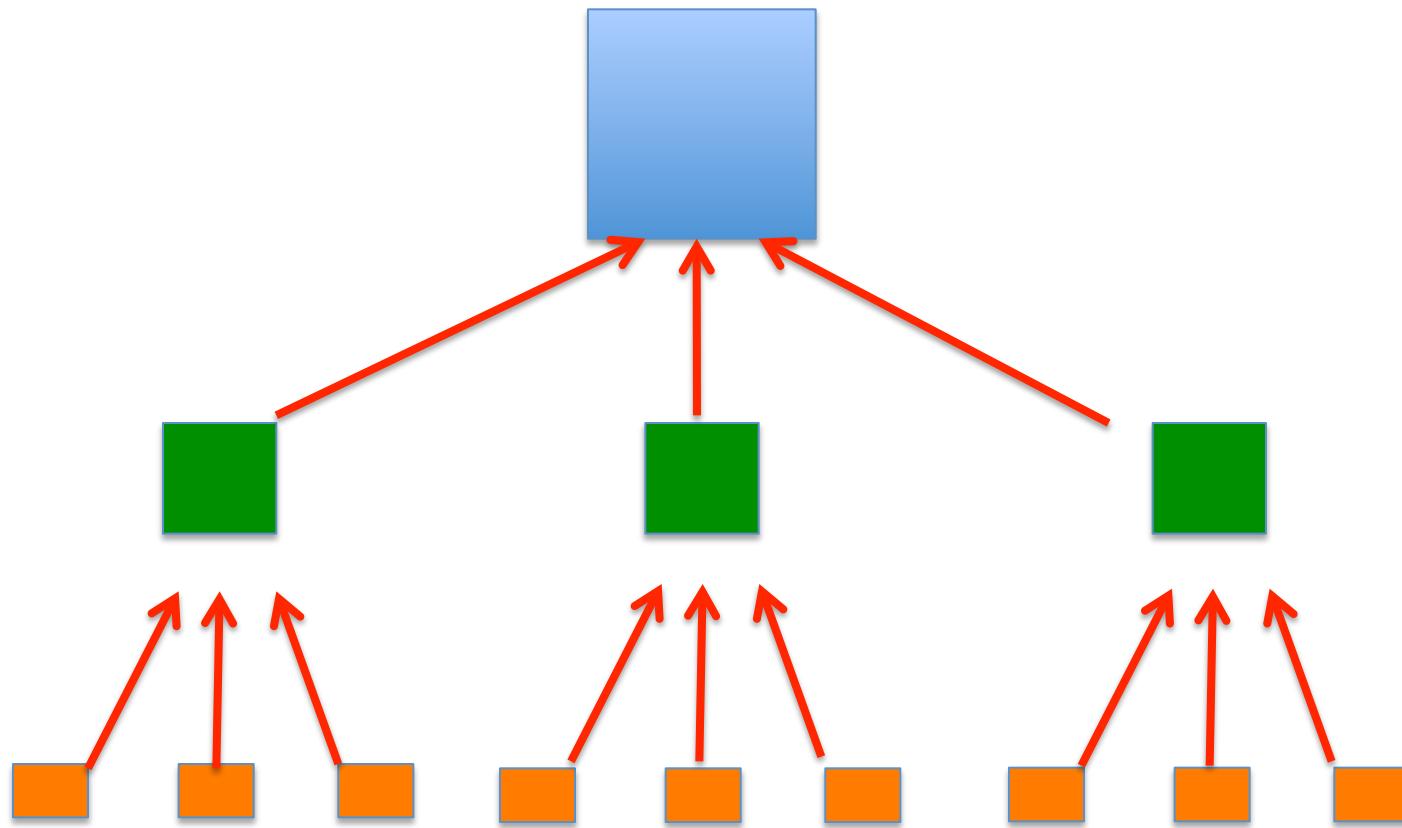
# Challenge 1. Estimation errors.



## Challenge 2: **Top-down**, bottom-up, hybrid?



## Challenge 2: Top-down, bottom-up, hybrid?



**Challenge 3: Scale inter-dependency. If the nation fails to perform, are all states and projects disqualified?**

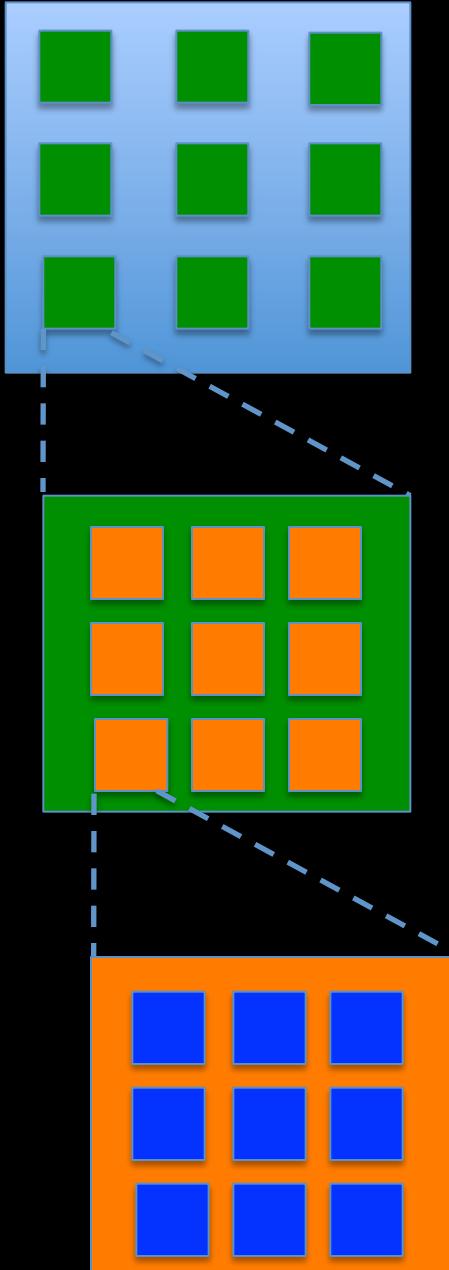
## The way forward.

- Systematic review of baseline and implementation estimation
- Broad participation
- Buffer against national non-performance
- *Ex ante* benefits to forest stakeholders

**In the long run, project-level baselines used primarily to inform REDD program design at state level?**

# Today's REDD+ investors... not enough

National REDD  
Program  
  
State REDD  
Program  
  
Projects and  
Programs



Interim REDD+ Finance  
(\$4 billion through 2012);  
Norway (Amazon Fund)

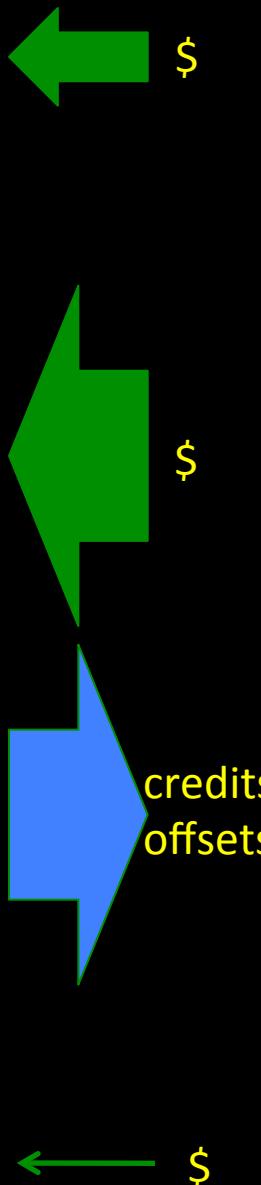
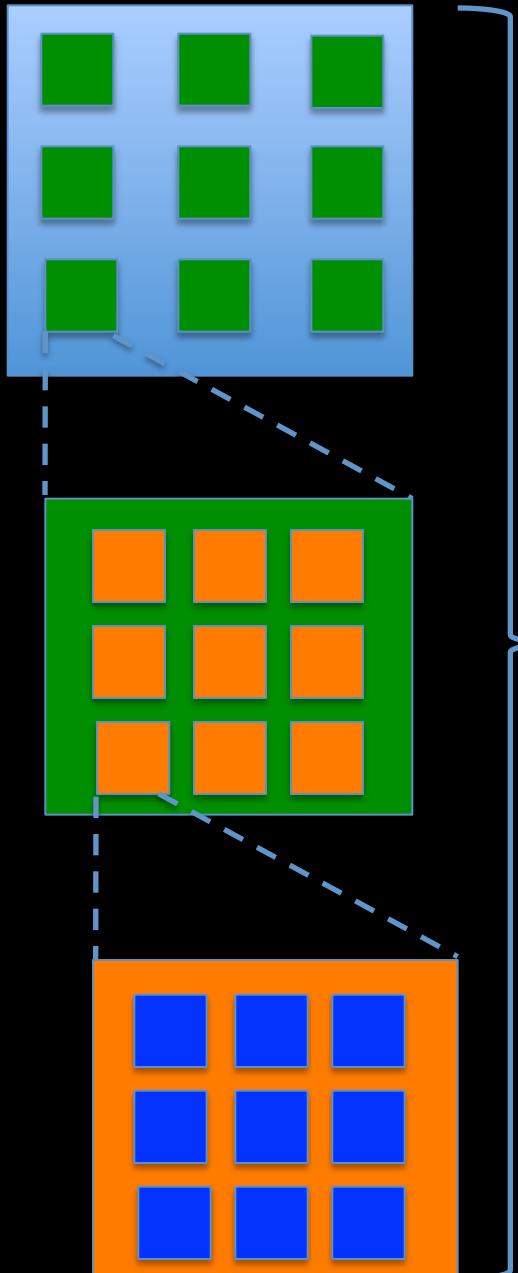
Project-Level Voluntary  
Investments

# REDD+ investors needed in 2015

National REDD  
Program

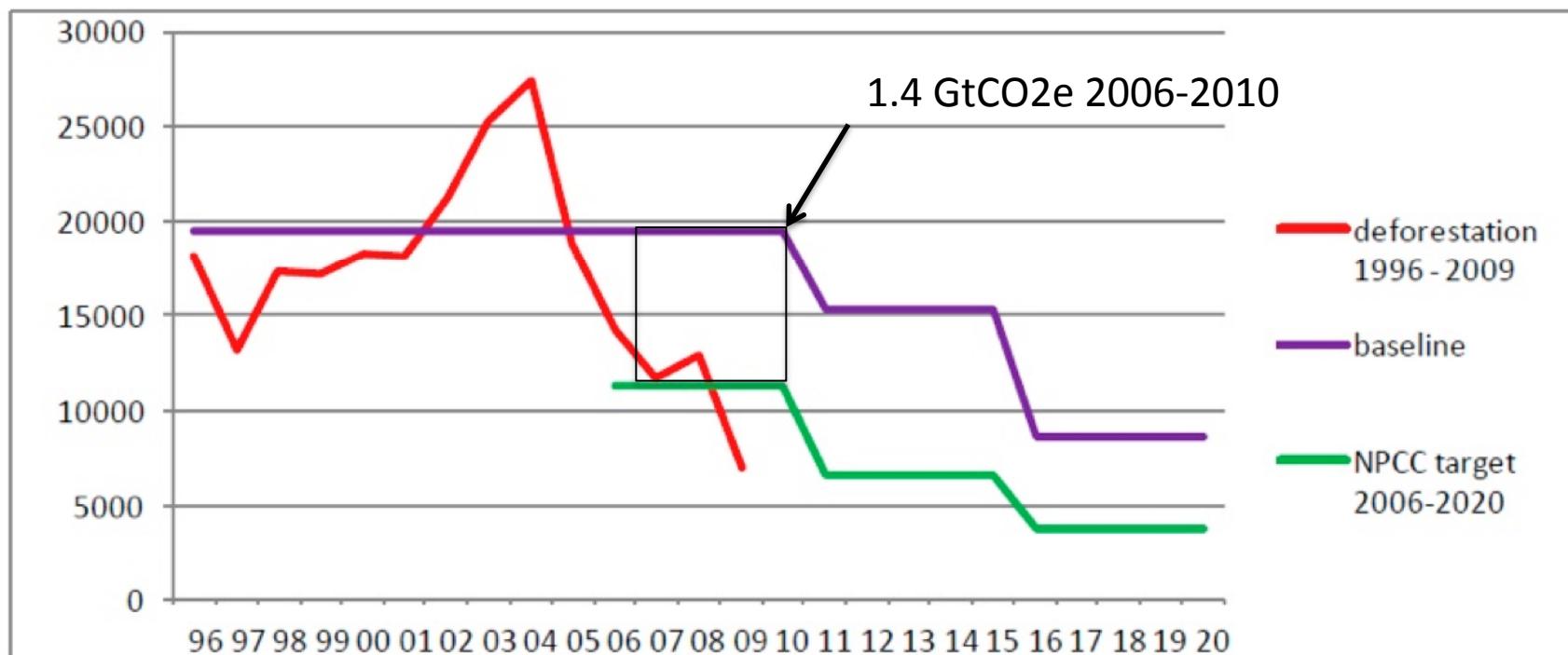
State REDD  
Program

Projects and  
Programs



# Brazil REDD: Deforestation reduction target has been exceeded, and could continue to decline through National Policy on Climate Change

**Deforestation in the Brazilian Amazon: historical rates, baseline, and target**  
(thousands of square kilometers)

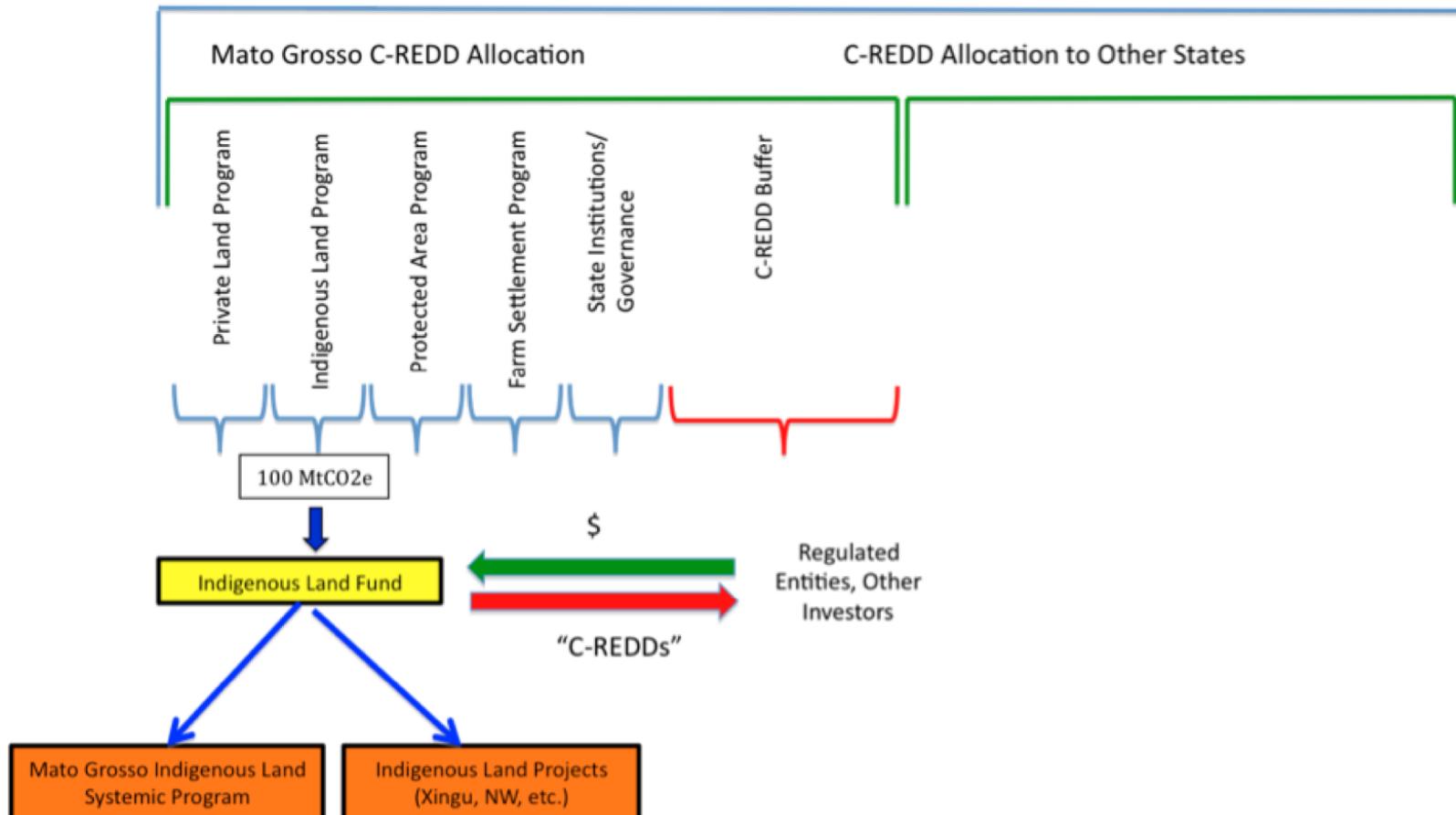


# The Governors' Climate & Forest task force, launched by California, has united Governors to pressure federal governments in Brazil and Indonesia



# Mato Grosso: REDD Architecture under development

C-REDDs Allocated to Amazon States



# Conclusions:

- Era of isolated, stand-alone projects is ending; credits will flow to nested projects and programs
- Special attention needed: baselines, implementation, broad participation, *ex ante* benefits,
- Public funding could cover costs of achieving crediting baseline; lower risk to private investors
- Brazil has achieved 1.4 GtCO<sub>2</sub>e reductions; effect of NAMA on provision of credits unclear