

# 2009 Environmental Evaluators Networking Forum

## "Integrating Evaluation into a Program's Design"

The George Washington University  
Trachtenberg School of Public Policy and Public Administration

### Design for Evaluation:

### Gordon & Betty Moore Foundation's Andes Amazon Initiative



**Luis A. Solórzano & Jared Hardner**

Washington DC, June 8, 2009

## Overview of Andes Amazon Initiative

- ▶ Gordon & Betty Moore Foundation is a science-based, results-driven philanthropic organization. The Foundation operates proactively in three specific areas of focus: environmental conservation, science, and the San Francisco Bay Area. Distinct Initiatives have been created within these three Program areas. An Initiative employs a portfolio of grants that are expected to help achieve targeted, large-scale outcomes in a specific time frame.
- ▶ Andes Amazon Initiative (AAI) is the largest private donor for conservation in the Andes and Amazon Basin. Its goal is to maintain sufficient natural habitat to preserve climate function and biodiversity in the region. AAI is currently engaged in a refresh of its strategic plan for the coming five years, with an expected budget of approximately \$176-180 million.

## Outcome Statement: Unconstrained

- ▶ Net loss of forest cover in the Basin is reduced to zero or even reversed.
- ▶ Climatic function of the biome is secured by ensuring that 60-80% of forest cover in each ecoregion is maintained in appropriate land uses.
- ▶ Representative biodiversity at the ecoregional level is maintained by ensuring that at least 10% of each ecoregion is effectively managed as IUCN Category I-III protected areas.

## Outcome Statements: Constrained 2010-2014

Achieve the unconstrained outcomes for priority landscapes (a subset of ecoregions) within the Basin, while at the same time addressing issues that will benefit conservation across the basin over the longer term.

## Designing for Evaluation

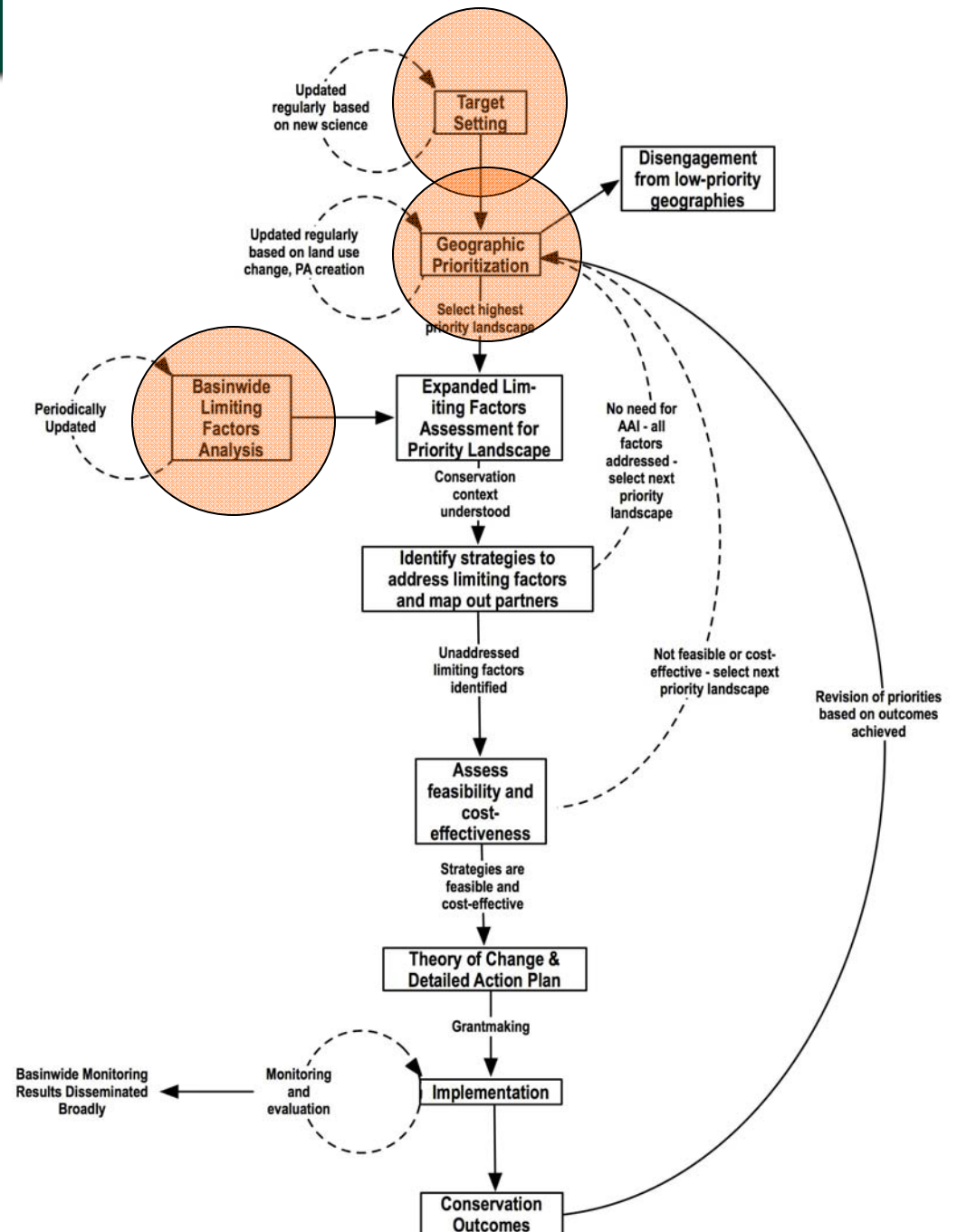
Through design, we attempt to address the most common problems we encounter in conservation programs. These are problems with design, and subsequently create problems for evaluation of performance:

- Prioritization of resource allocation
- Necessary *and* sufficient interventions
- Meaningful measures of performance
  - Concrete outcomes
  - Interim measures of progress
  - Progress against baseline & counterfactual
  - Attribution

# Plan Structure

Understanding context

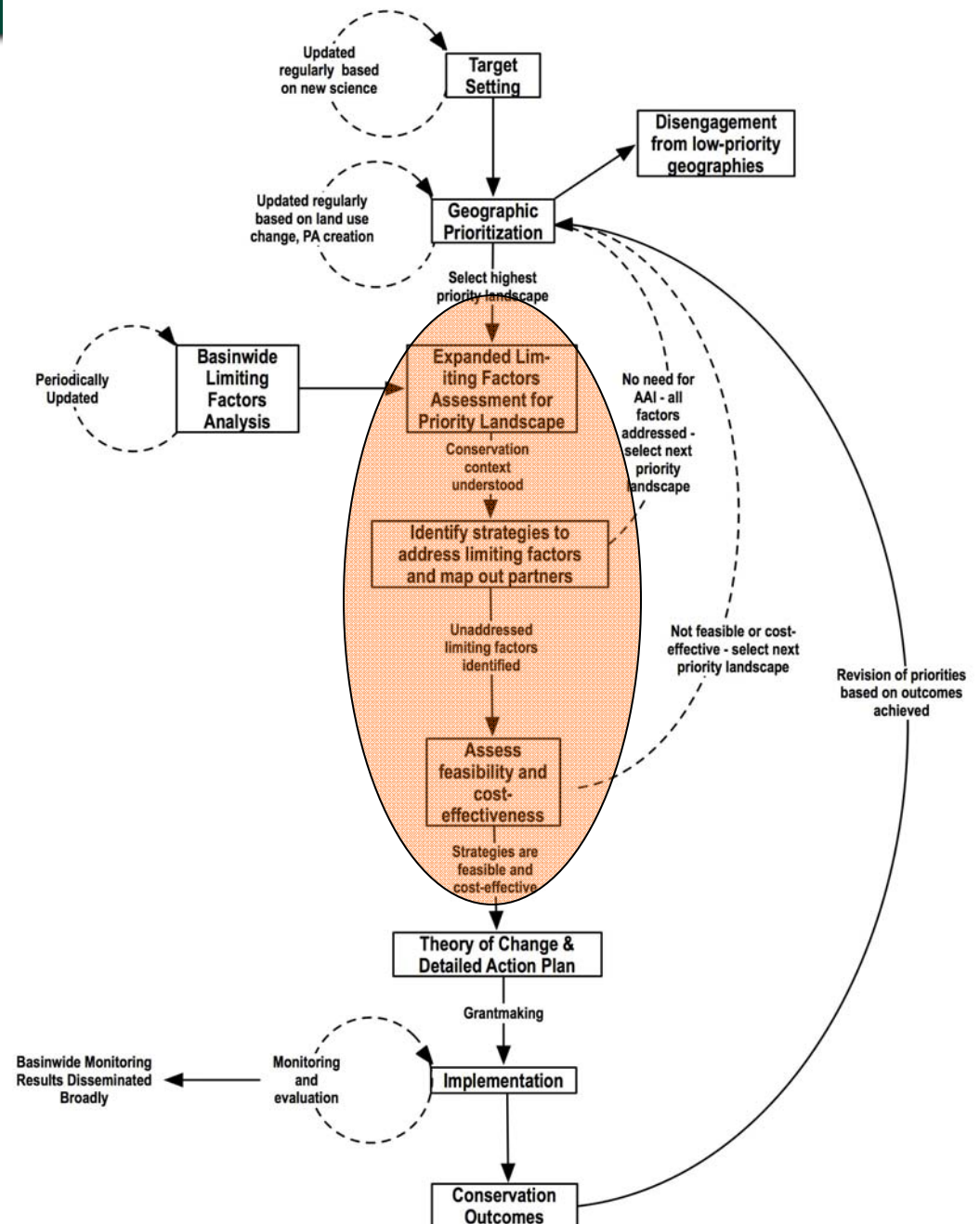
## AAI STRATEGIC PLANNING PROCESS



# Plan Structure

Detailed assessment of priority ecoregions and development of strategies

## AAI STRATEGIC PLANNING PROCESS

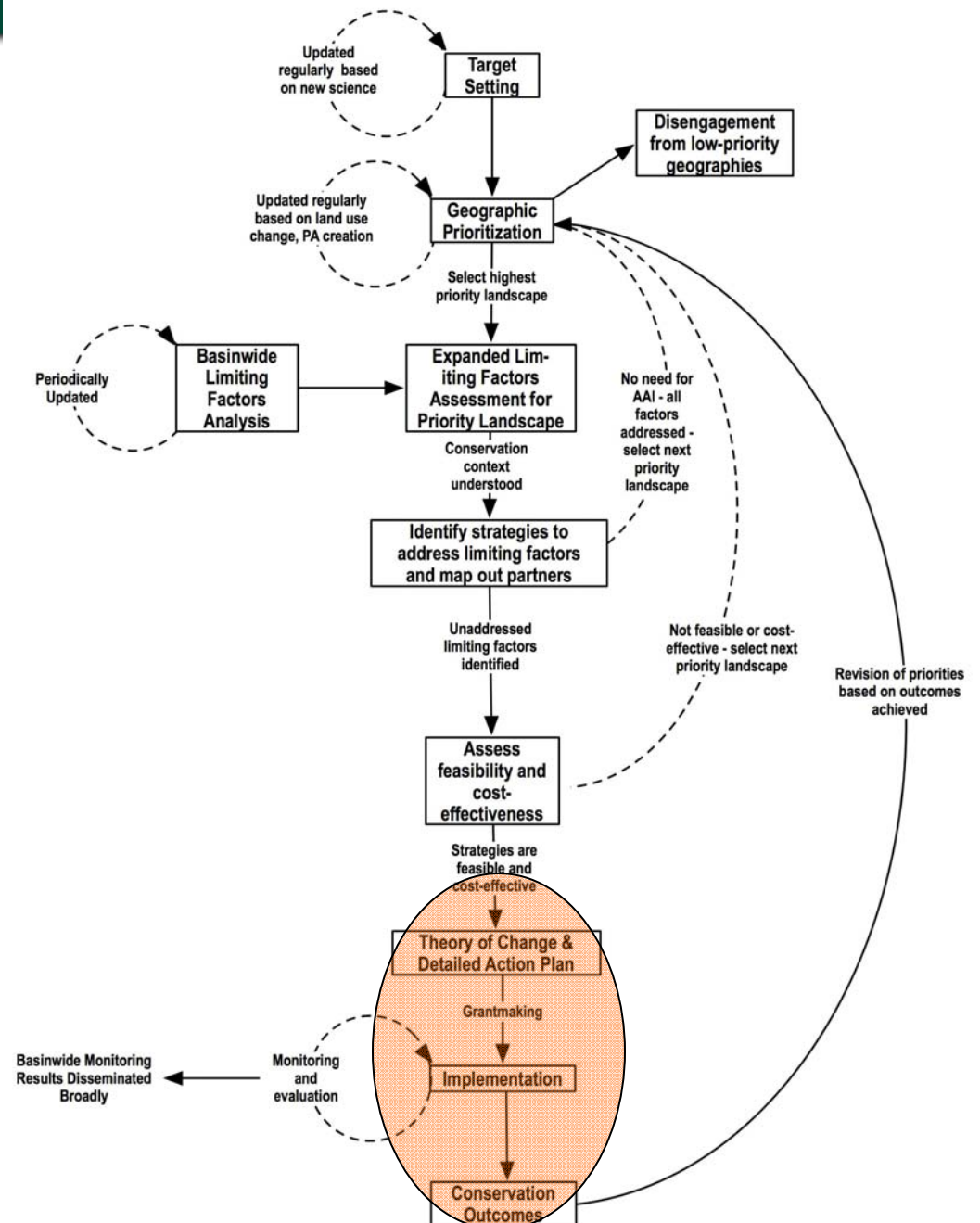




# Plan Structure

- Final selection of priority landscapes
- Theory of change
- Action plan
- Implementation

## AAI STRATEGIC PLANNING PROCESS

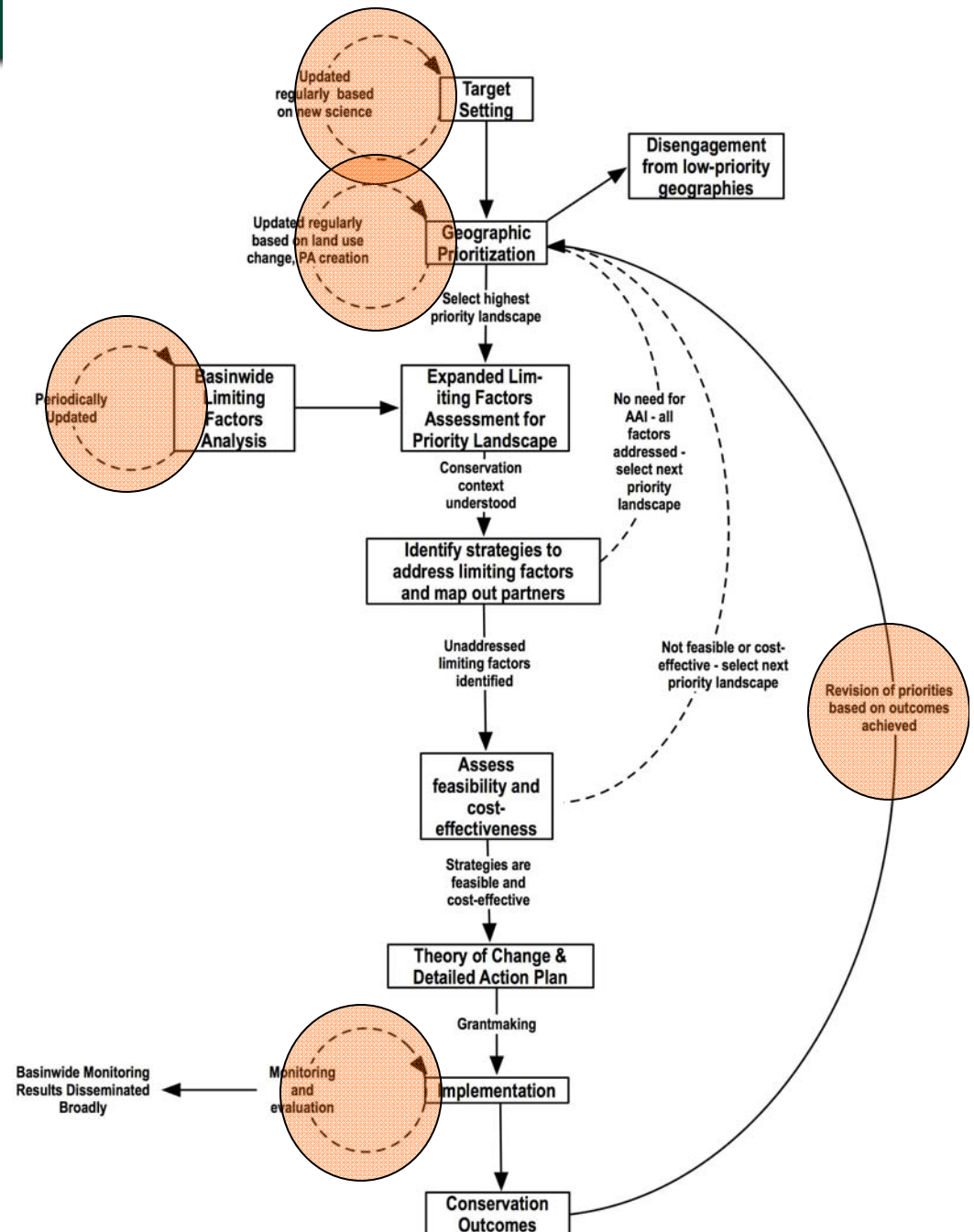




# Plan Structure

- Ongoing revision of targets
- Monitoring and evaluation
- Revise strategies as needed
- Select new geographies based on progress

## AAI STRATEGIC PLANNING PROCESS

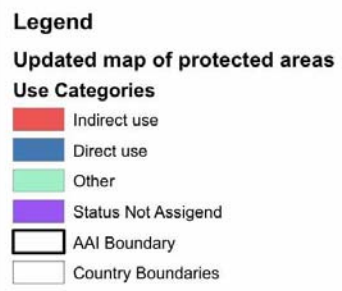
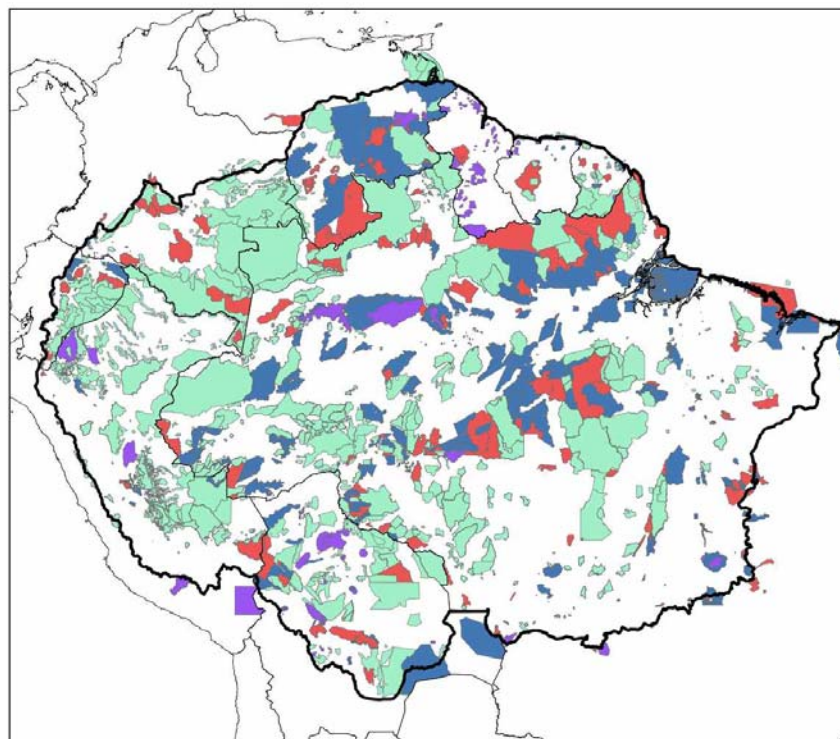


# Target Setting

- ▶ **Maintain climatic function**
  - 60-80% forest cover target (each ecoregion)
- ▶ **Maintain representative biodiversity**
  - Default target is 10% of each ecoregion in IUCN Category I-III Reserves (Convention on Biological Diversity Commitment)

# Progress towards Targets

Andes-Amazon Protected Areas



WDPA map of protected areas updated with the "Forest Resources Allocation map of Guyana" and the RAISG map of protected areas.

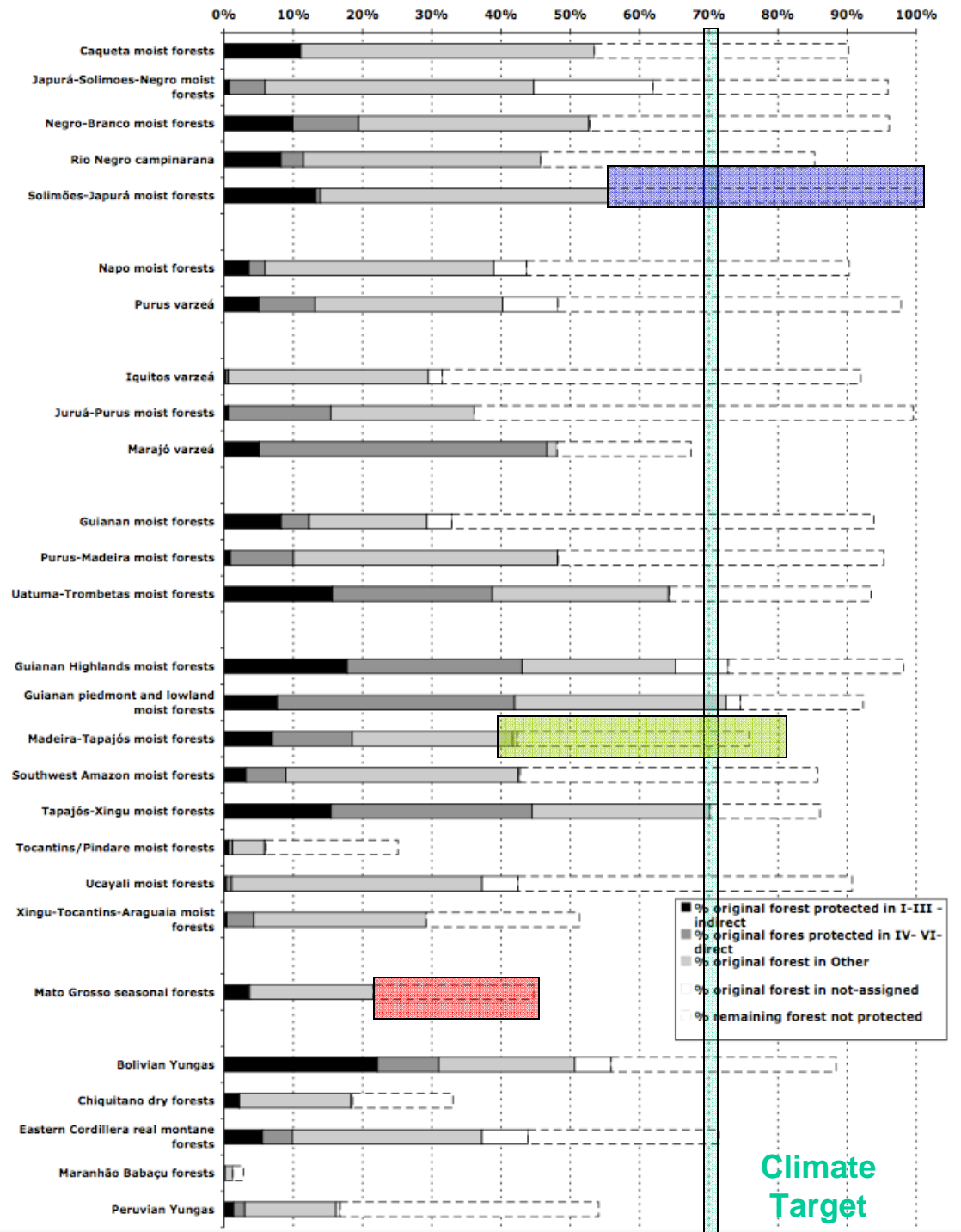
# Progress Towards Climate Targets

Many Options

Options for achieving targets differ drastically among ecoregions

Few Options

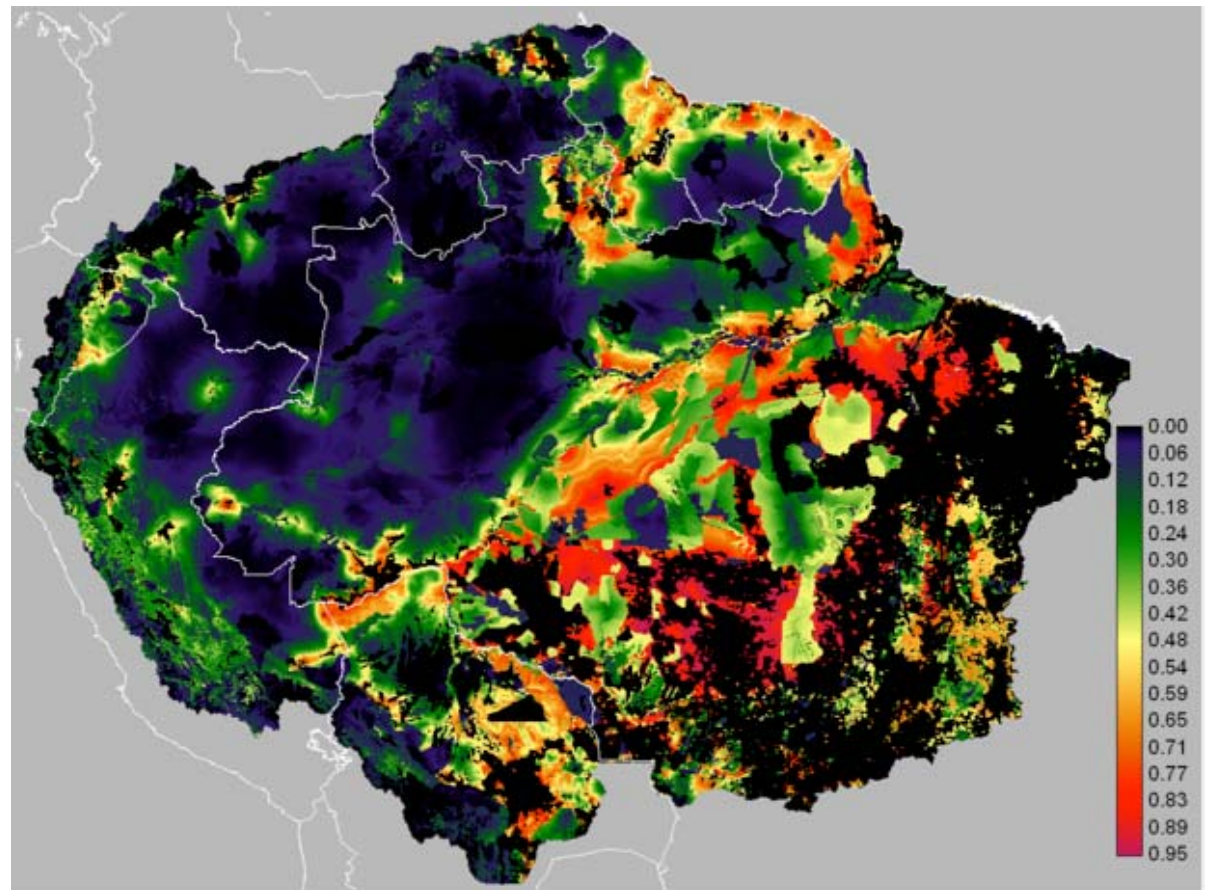
No Options  
(Without Restoration)



# Vulnerability to Deforestation

0

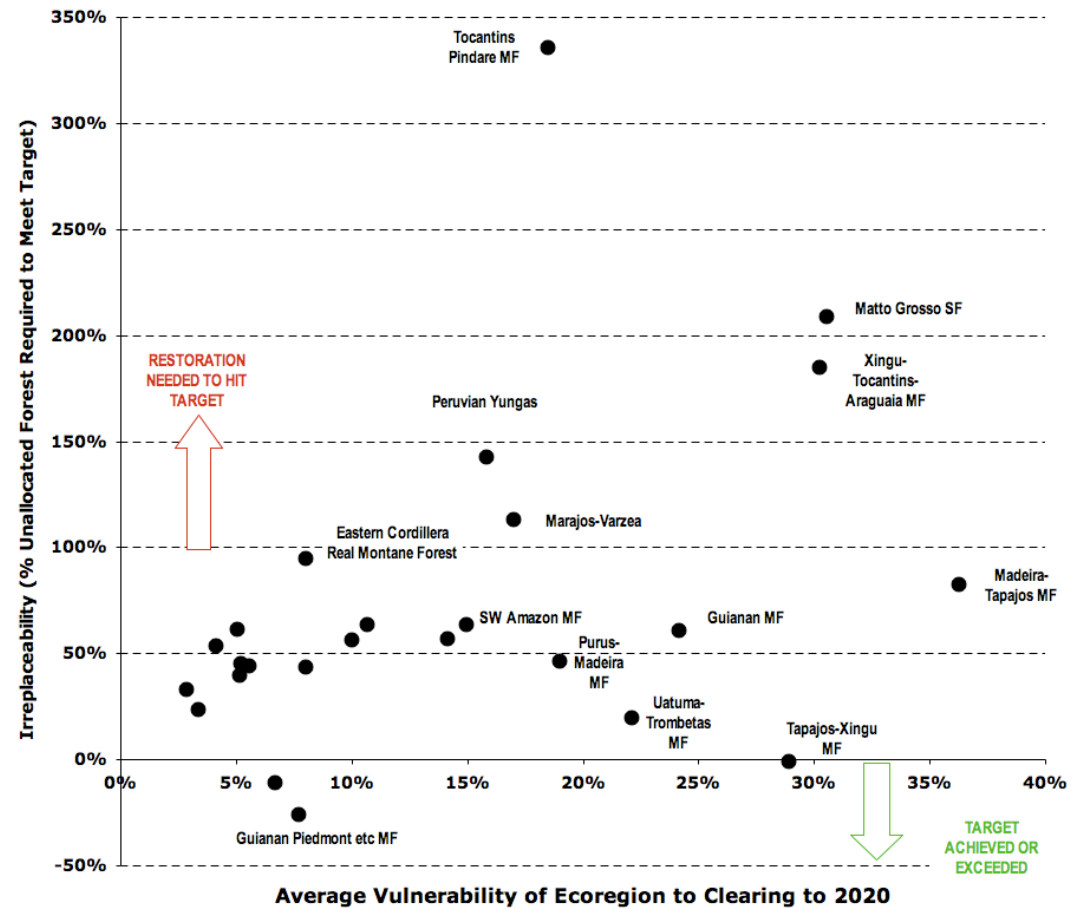
Deforestation risk  
varies across  
basin



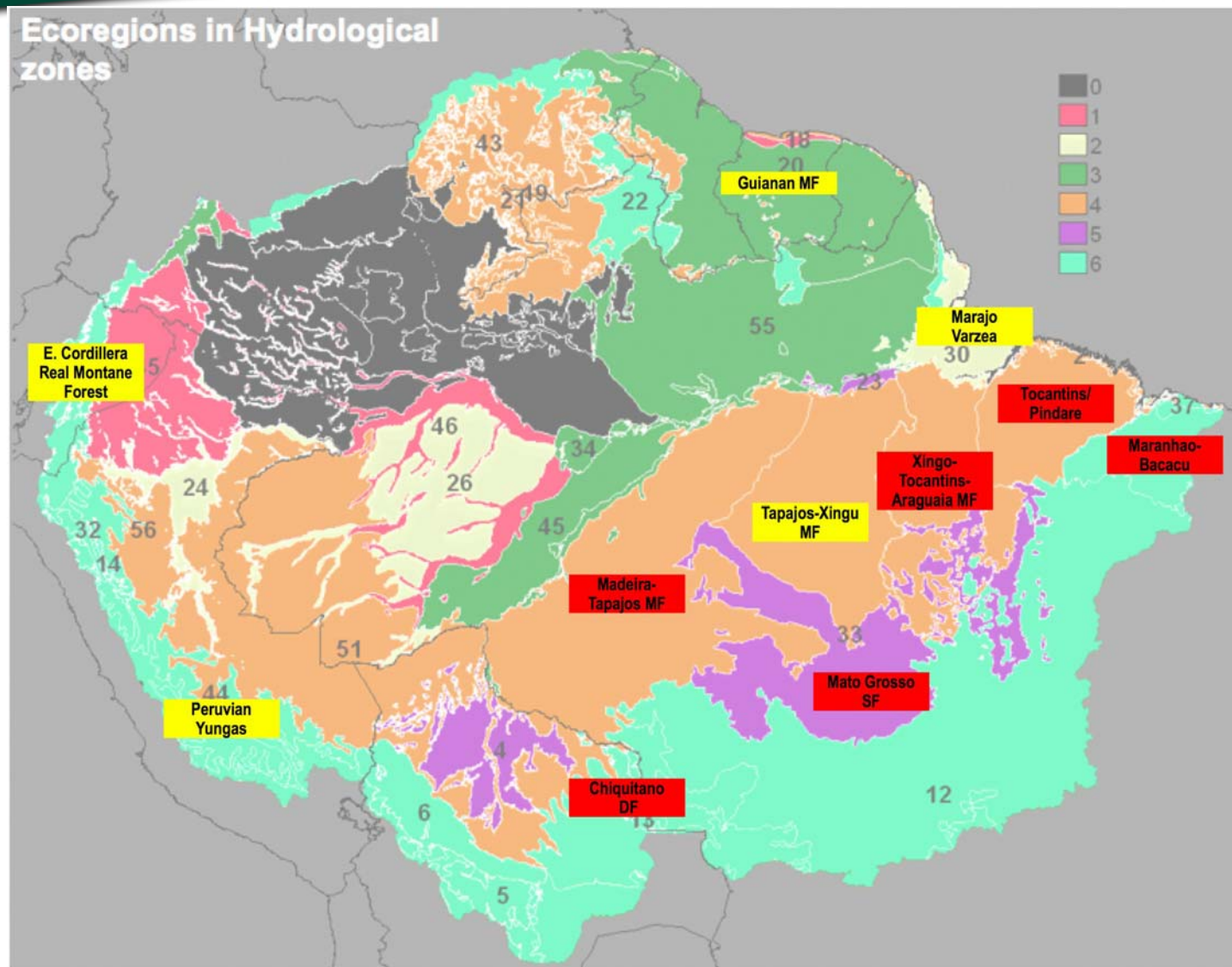


# Prioritization

Irreplaceability	High	Few Options Lots of Time	*Few Options Little Time*
	Low	Many Options Lots of Time	Many Options Little Time
		Low	High
		Vulnerability	



# Top Ten Ecoregions





## Limiting Factors

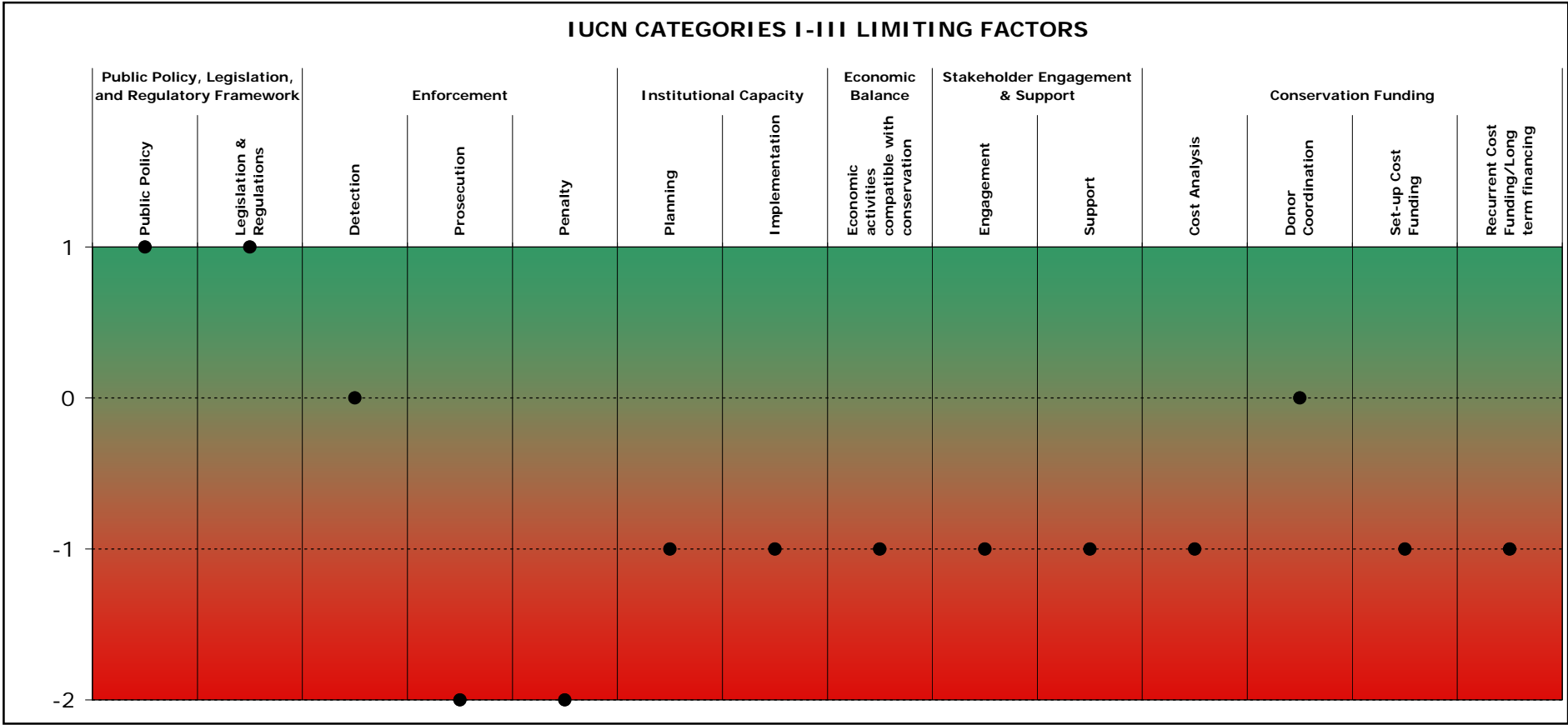
- ▶ **Measures presence/absence of factors that threaten conservation, but vary according to geography**
  - Examples
    - Economic: Agro-industry expansion, logging
    - Public Policy: IIRSA (roads, dams)
  
- ▶ **Identifies and measures criteria *necessary* and *sufficient* to achieve conservation**
  - Example
    - Strategy to address logging exclusively via Forestry Certification may miss essential complementary issues such as enforcement of environmental laws for those not persuaded by market incentives
  
- ▶ **Provides common basis to measure progress towards longer term outcomes, such as reduced deforestation**

# Limiting Factors

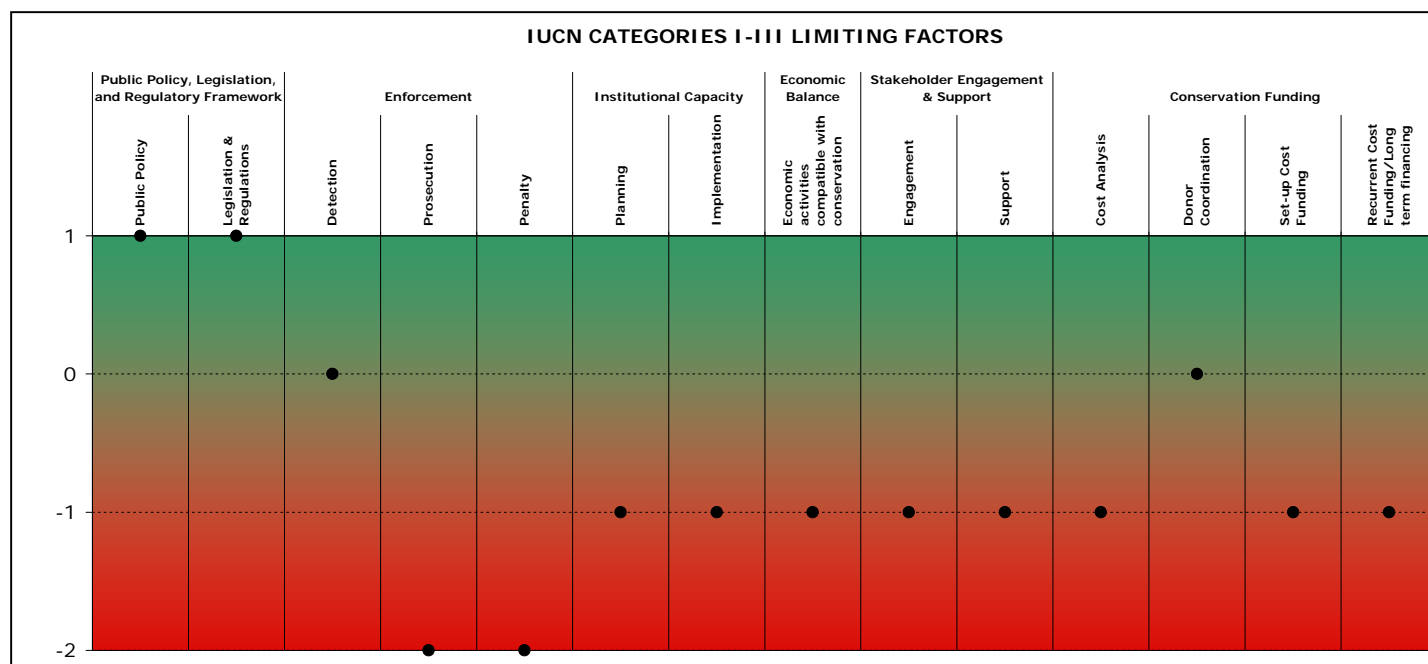
Example of limiting factor scoring...

Limiting Factor	-2=Prevents	-1=Limiting	0=Not Limiting	1=Enabling
Enforcement -Penalty	$p\text{Detection} \times p\text{Prosecution} \times \text{Penalty} = 0$ -- no deterrence on illegal behavior violations occur with high frequency	$p\text{Detection} \times p\text{Prosecution} \times \text{Penalty} < \text{Benefits of illegal activities}$ -- insufficient as deterrent and violations occur with moderate frequency, limiting conservation	$p\text{Detection} \times p\text{Prosecution} \times \text{Penalty} > \text{Benefits of illegal activities}$ -- sufficient as deterrent and violations occur with low frequency, not limiting conservation	$p\text{Detection} \times p\text{Prosecution} \times \text{Penalty} > \text{Benefits of illegal activities}$ -- sufficient as deterrent and violations do <i>not</i> occur, enabling conservation

## Limiting Factors Scores



# Which Strategies are Needed?



SE Amazon

## Local Strategies:

- ▶ Planning
- ▶ Implementation
- ▶ Stakeholder Engagement
- ▶ Stakeholder Support
- ▶ Cost Analysis
- ▶ Set up Costs

## National Strategies:

- ▶ Prosecution
- ▶ Penalty

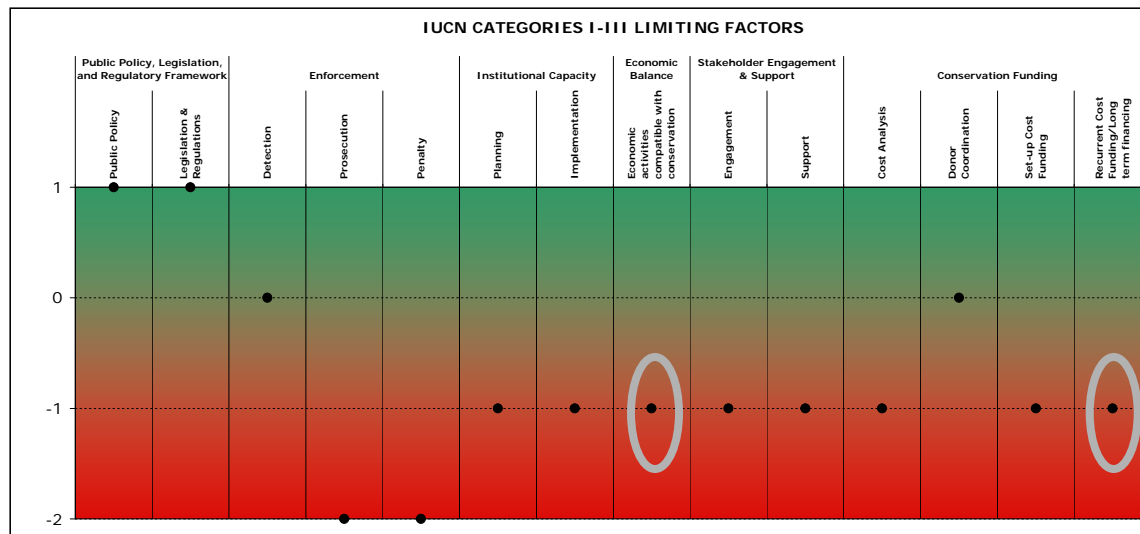
## Global Strategies:

- ▶ Economic incentives
- ▶ Long-term funding

## Which Strategies are Needed?

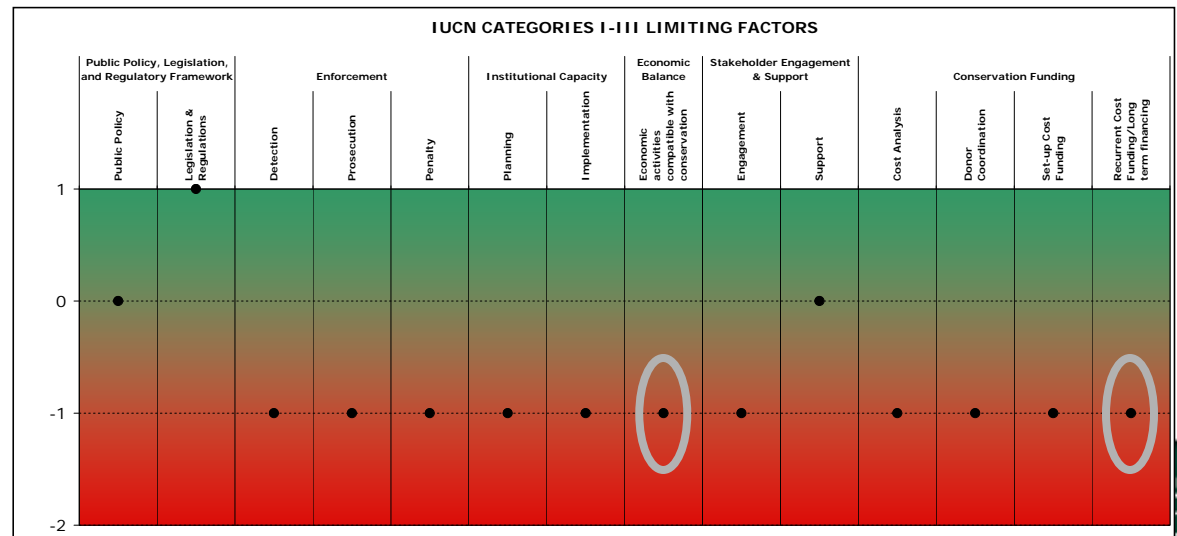


# What Strategies are Needed?



SE Amazon

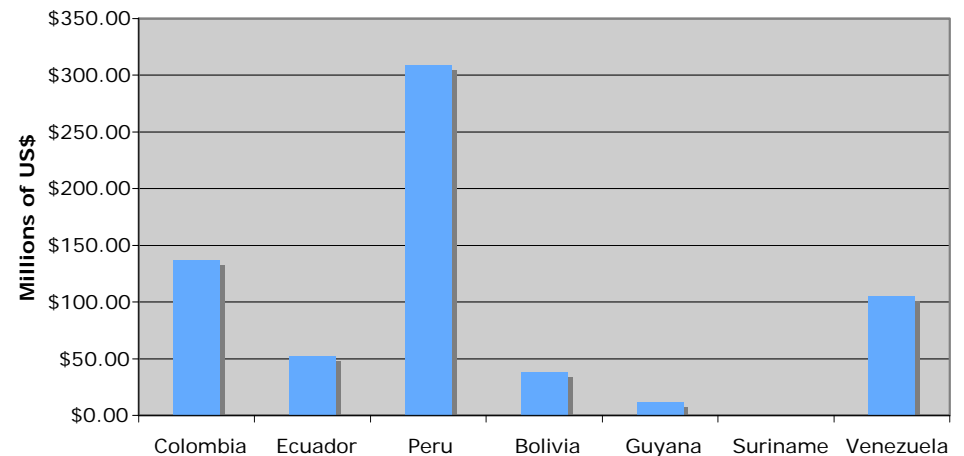
Amazon Basin



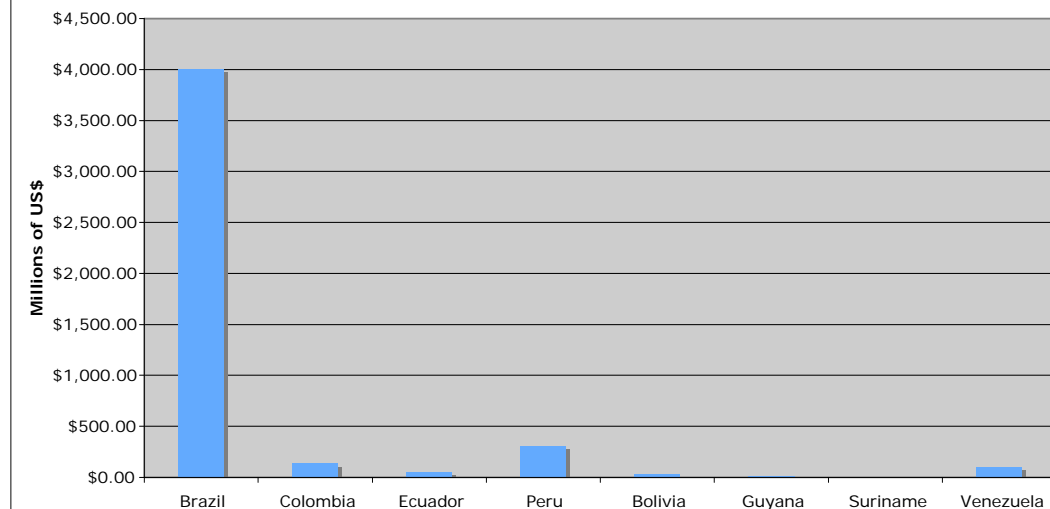
# Who Funds Strategies?

- ▶ **Donor mapping**
  - Donor database(s)
- ▶ **Donor collaboration**
  - Formal vs Informal

Current Grants/Loans Active in Basin - no Brazil (Order of Magn

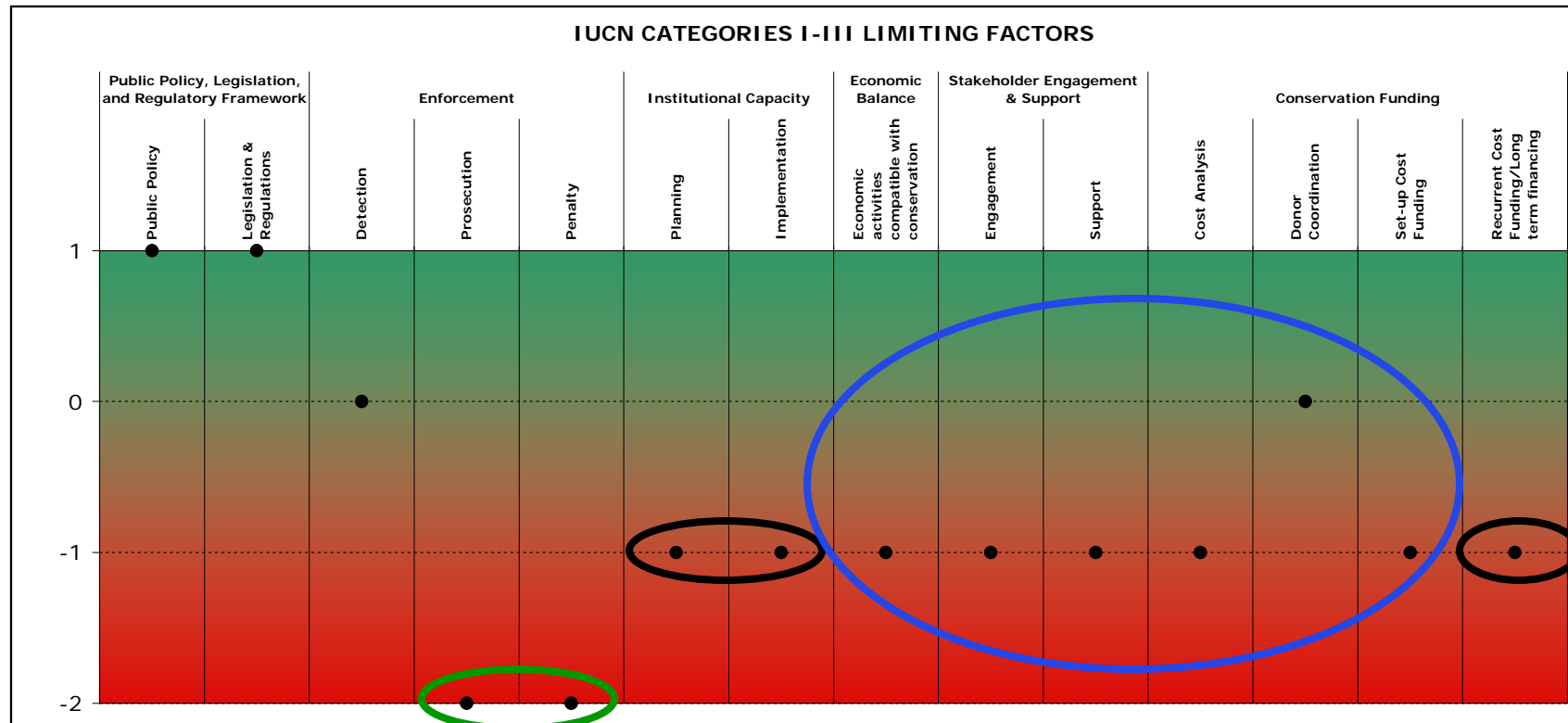


Current Grants/Loans Active in Basin at Present (Order of Magnitude)





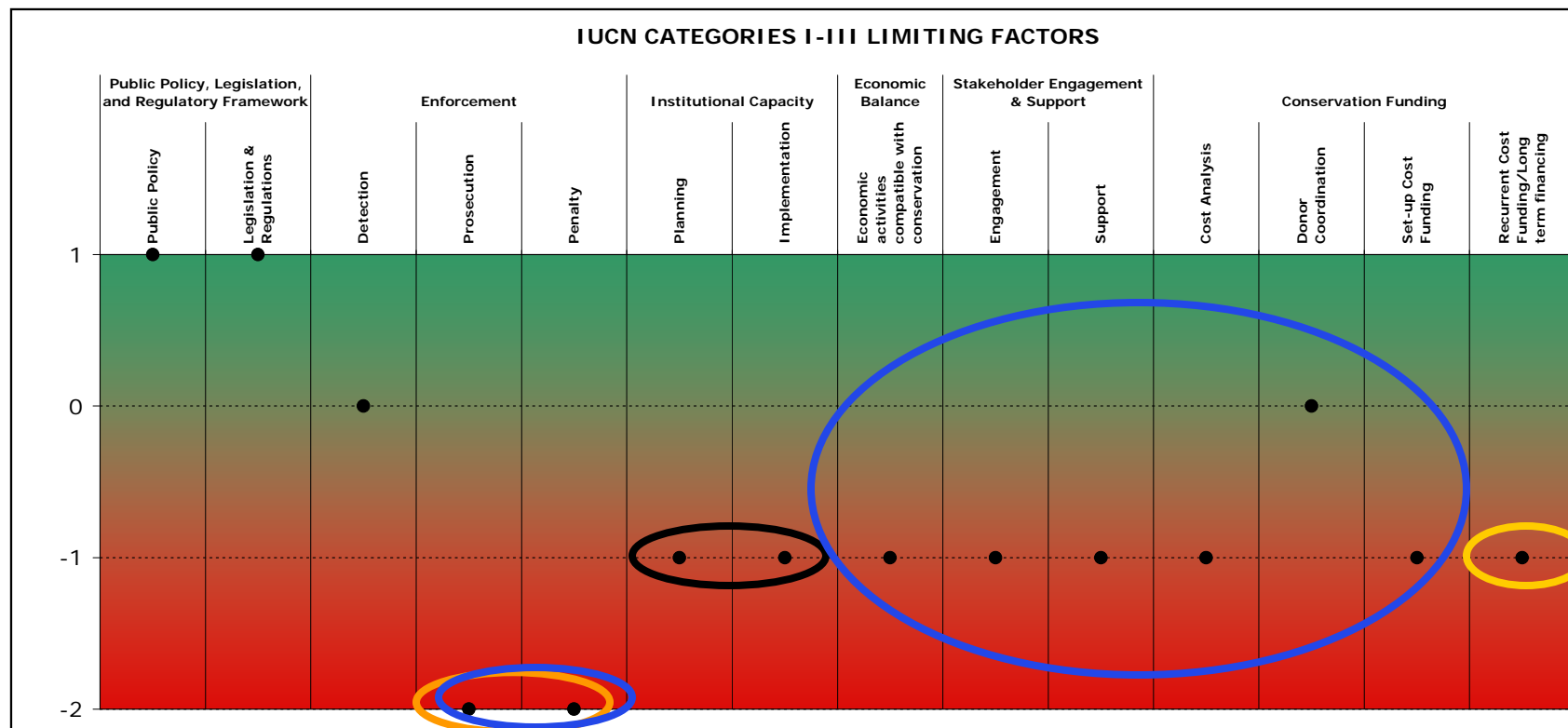
# Who Funds Strategies?



## ► Donor mapping & collaboration

- Addressed by others (World Bank & Gov't of Norway)
- Addressed by Moore & others
- Unaddressed

# Who Implements Strategies?



## Donor mapping & collaboration

- State Government
- Federal Government
- NGO 1... n

# Theory of Change

- ▶ **For each priority geography, an explanation of:**
  - How selected strategies address **all** relevant limiting factors
  - How strategies are funded
  - Who implements strategies

# Monitoring & Evaluation

## ► Outcome Metrics

- Net deforestation (target = 0%)
- % forest cover (target = 60-80%)
- % natural habitat in IUCN Cat I-III (target = 10%)

## ► Interim Metrics

- Change in *limiting factors* (target = TBD by region, nation, basin)

## ► Metrics include 4 elements

- Baseline (via land use analysis, LF analysis)
- Counterfactual (via land use change models, LF analysis)
- Current status (via land use analysis, LF analysis)
- Attribution (via donor mapping and systematic collaboration)

# Monitoring & Evaluation

Baseline  
(2009)

Interim Metrics:  
Change in *limiting factors*

Counterfactual  
(2014)

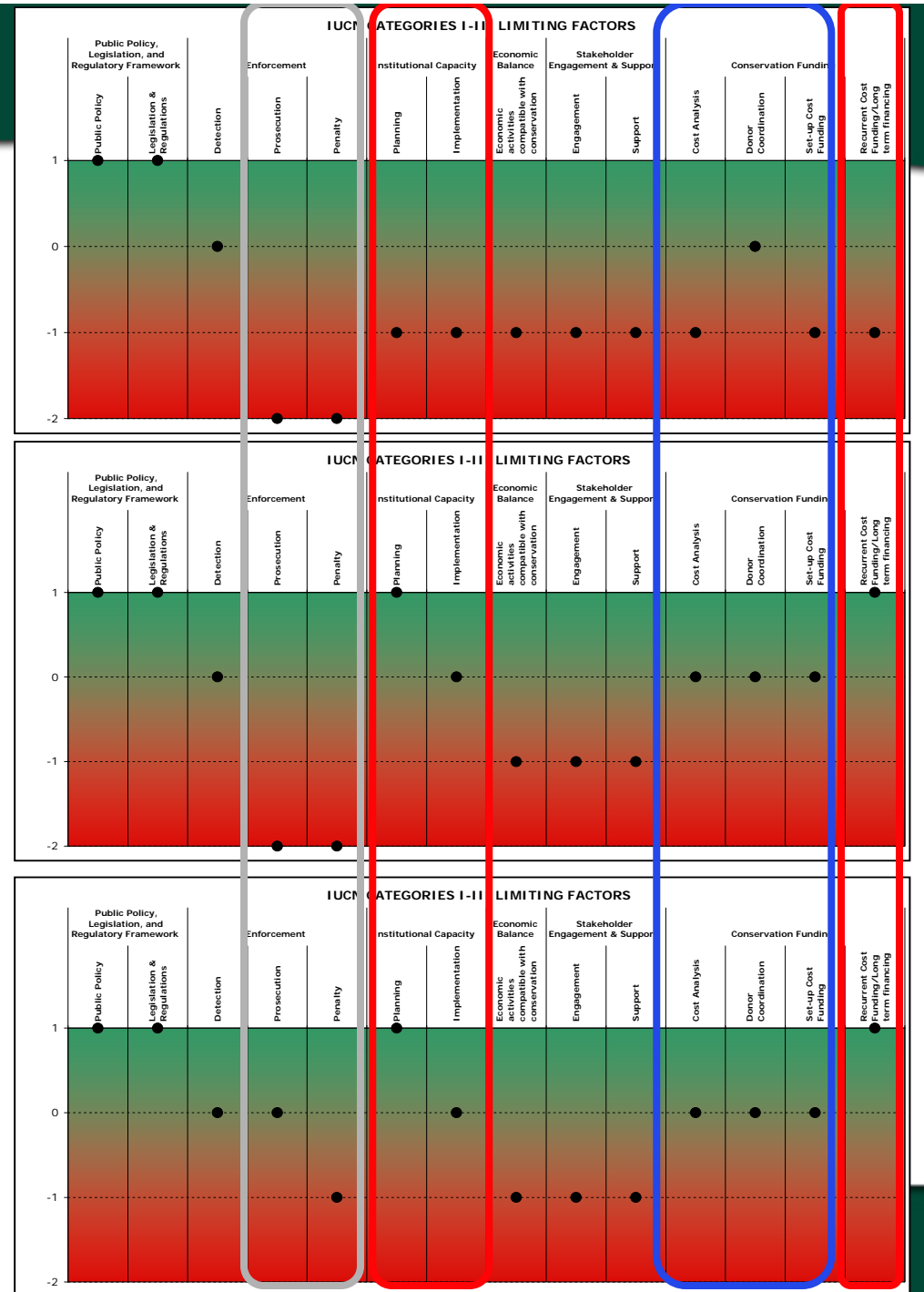
Attribution:

Major Role

Partial Role

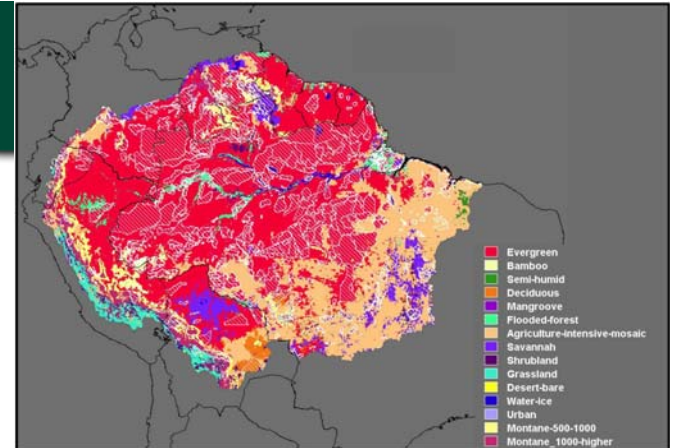
No Role

Actual  
(2014)



# Monitoring & Evaluation

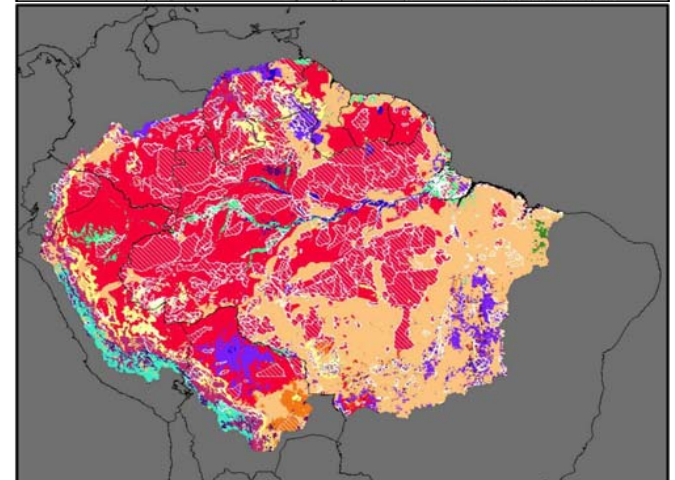
Baseline  
(2009)



## Outcome Metrics:

- ▶ Forest cover maintained (all land categories)
- ▶ Habitat conserved (IUCN Cat I-III)

Counterfactual  
(2014)  
Land use change modeling



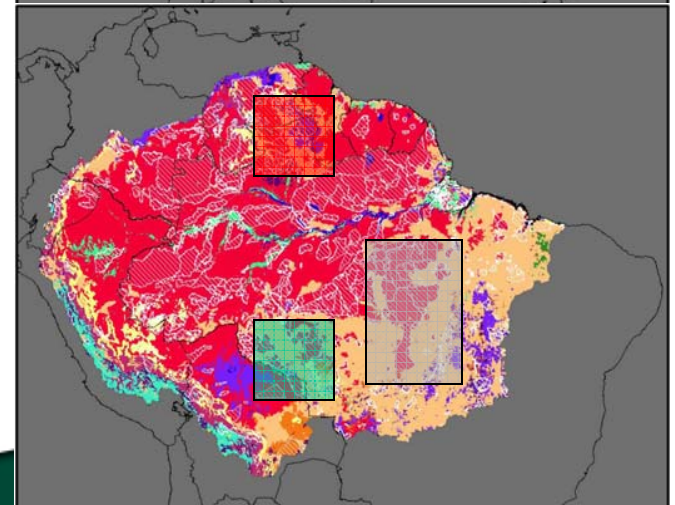
## Attribution:

Major Role

Partial Role

No Role

Actual  
(2014)



## Concluding Remarks, Questions, Suggestions...

