



Lessons learned from curbing deforestation in the Amazon

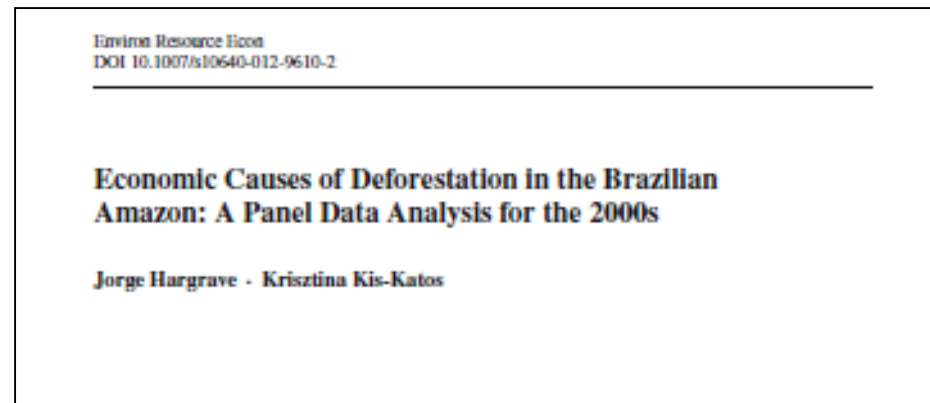
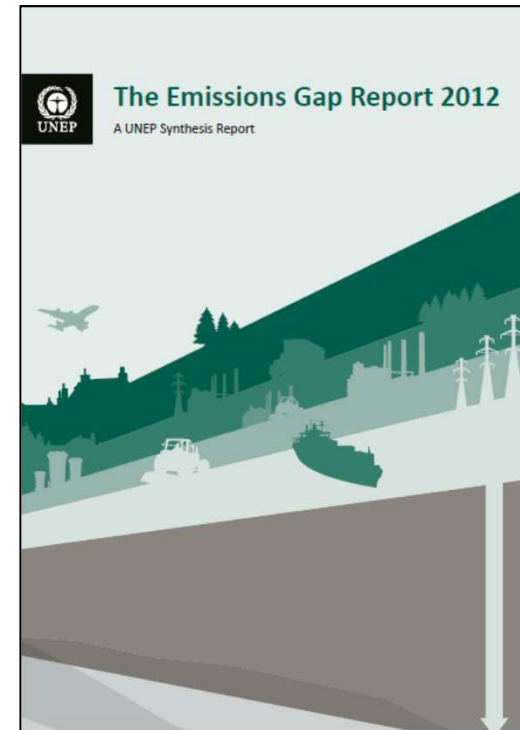
Jorge Hargrave
Doha, Dec 2012



AGENDA

- **PPCDAm's evaluation**
- Lessons learned and scope for scaling-up

DIFFERENT STUDIES IN THE SAME DIRECTION



PPCDAM IS A BUNDLE OF PROGRAMS

History

- Established in 2004 – first trial to put policies together
- Now: well structured policy bundle

Structure

- Actions from 13 ministries, 3 axis
- 37 action groups and 214 programs/activities
- Monitoring system

PROCESS AND METHODOLOGY

- Invitation from Ministry of Environment and Executive Office of the Presidency
- Evaluate PPCDAm's results (2007-2010)
- Assessment and recommendations to support PPCDAm's third phase (2012-15)

METHODOLOGICAL CHALLENGE: HOW TO EVALUATE 214 PROGRAMS?

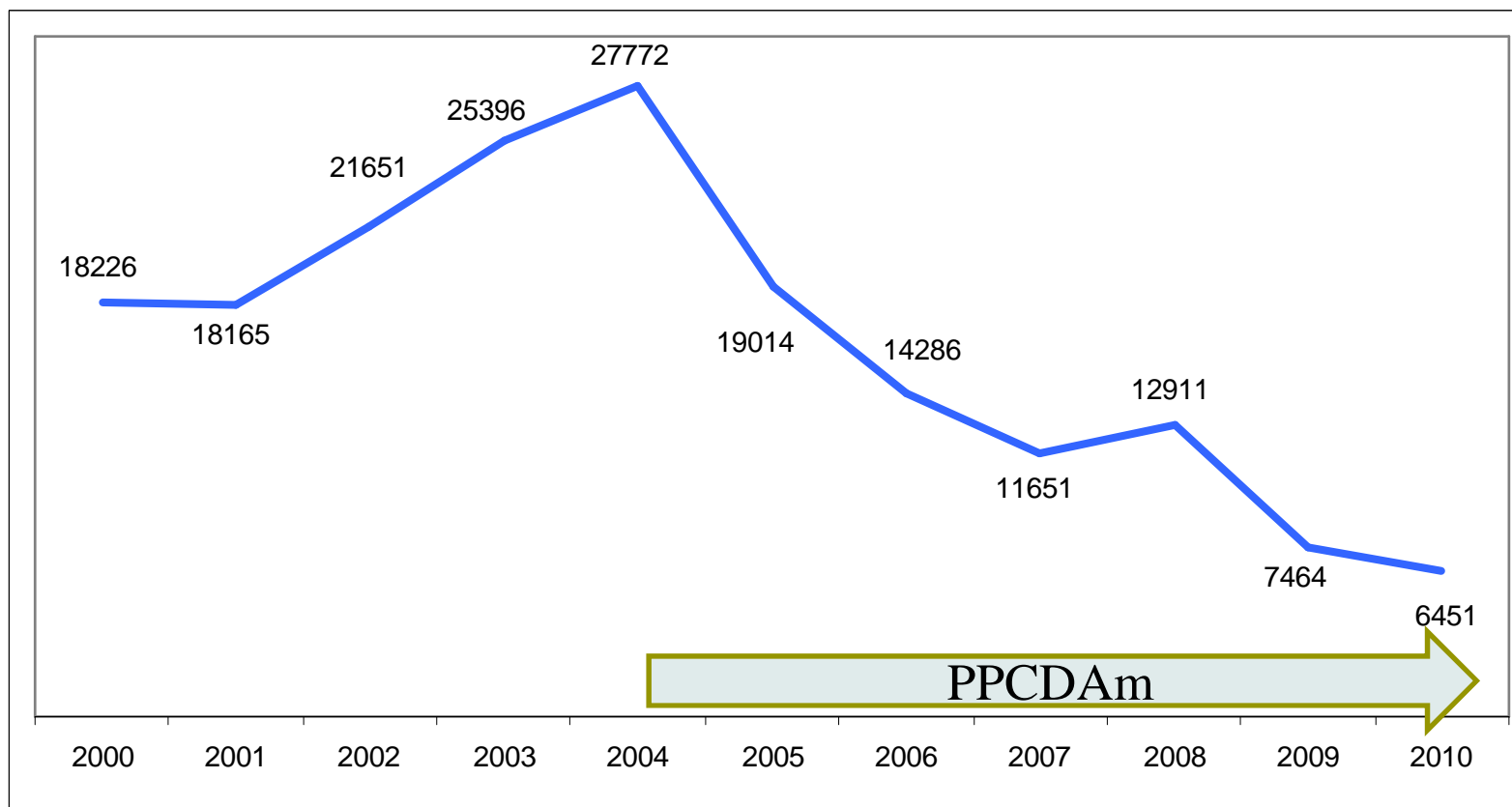
- Inspired on OECD “Country environmental performance review” (> 60 reviews since 1992)



- Learning experience, exchange with peers

MAIN IMPACT INDICATOR

Amazon annual deforestation rate (km²)



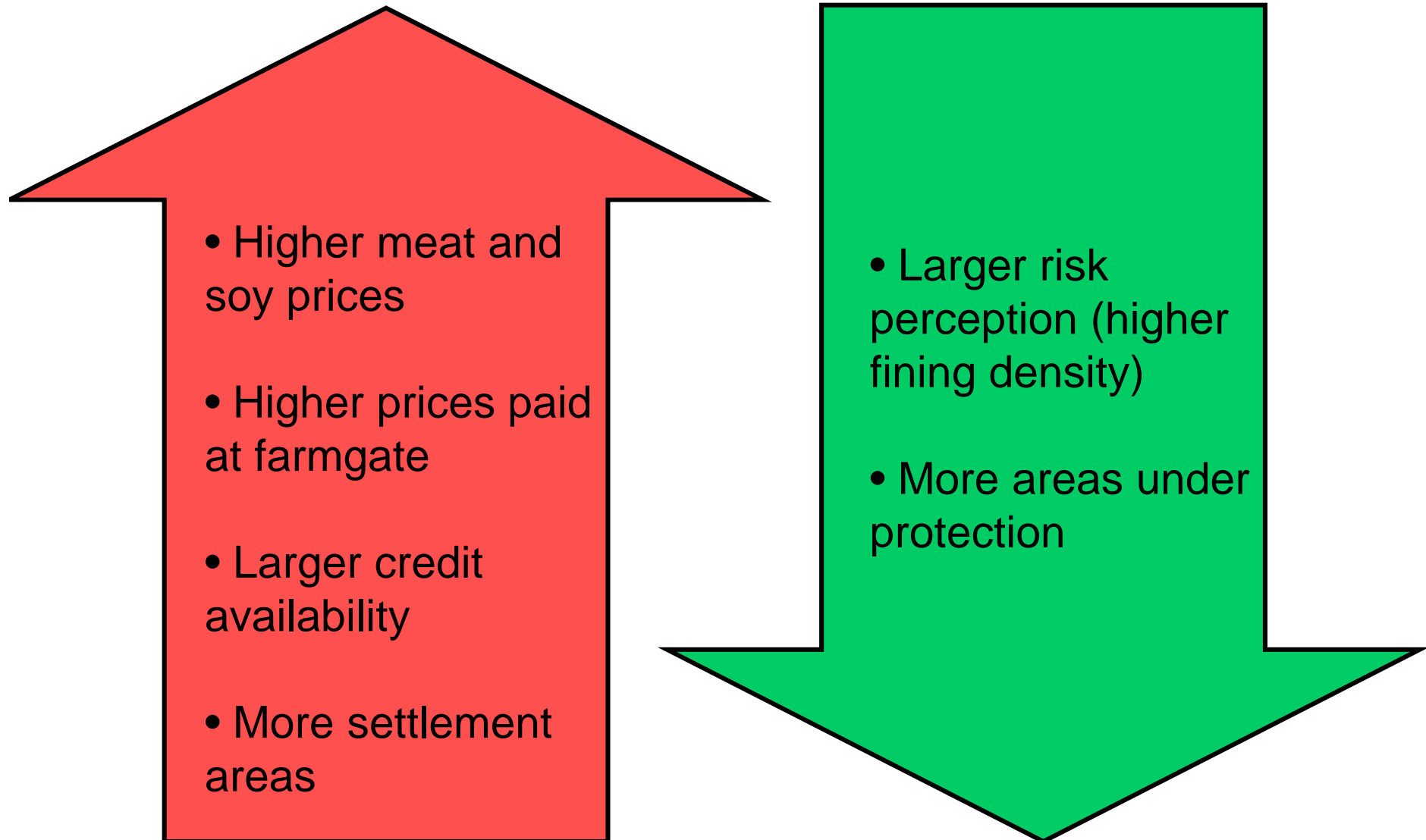
MAIN POSITIVE ASPECTS

- Deforestation became a main item in agenda
- Higher impact actions:
 - Command and control
 - Protected areas (2004-08)
- Promoted cooperation among ministries
- Focus on main municipalities was good strategy (36 with 50%) (targeting)

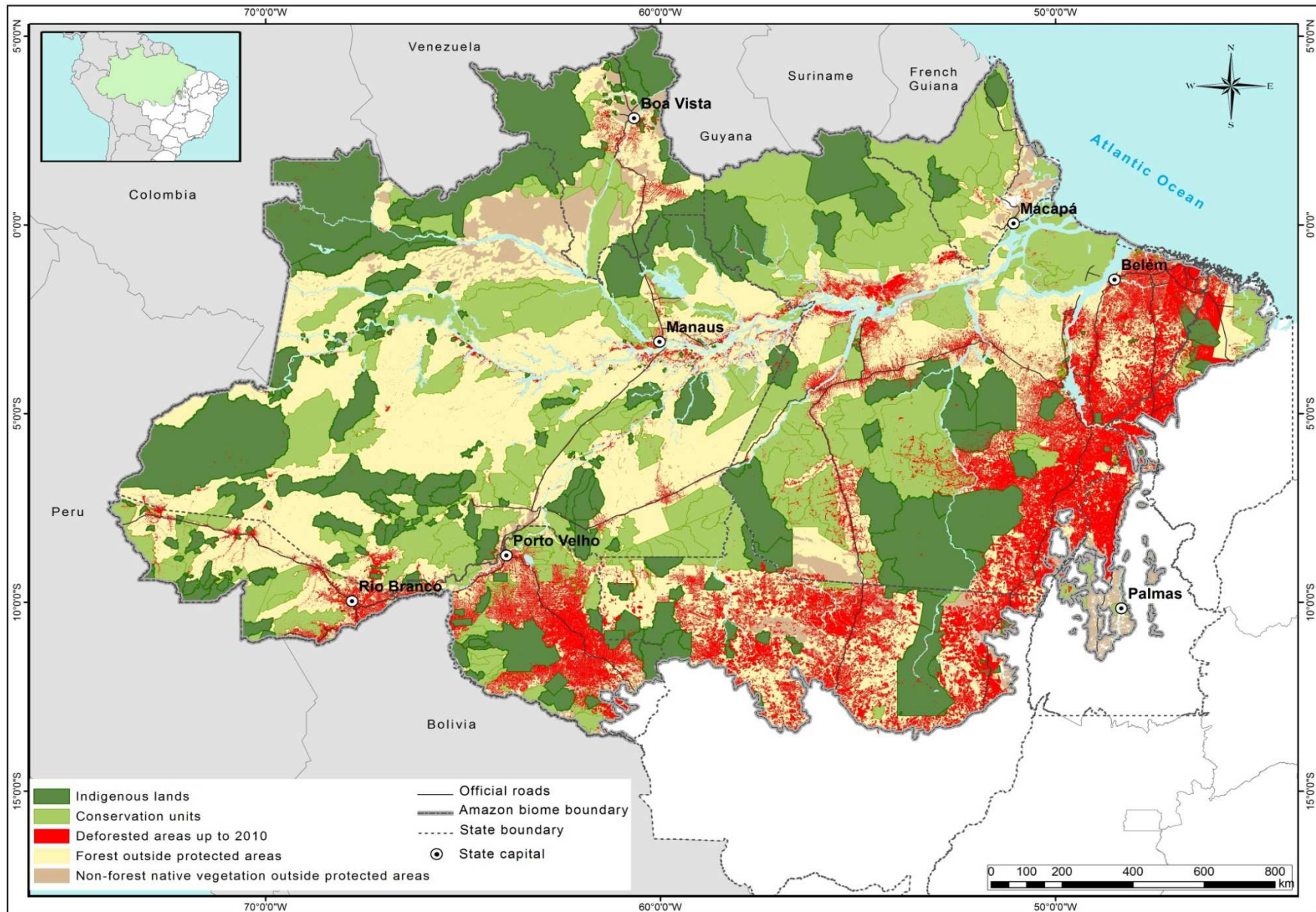
EMPIRICAL EVIDENCE OF RESULTS

- Municipality data, 2002-2009
- OLS panel data with FE
 - Differences in time within municipalities
 - Controls for constant non-observables
- Exclude areas with $<10\%$ of forest
- Control for spatial autocorrelation

FACTORS INFLUENCING DEFORESTATION



PROTECTED AREAS



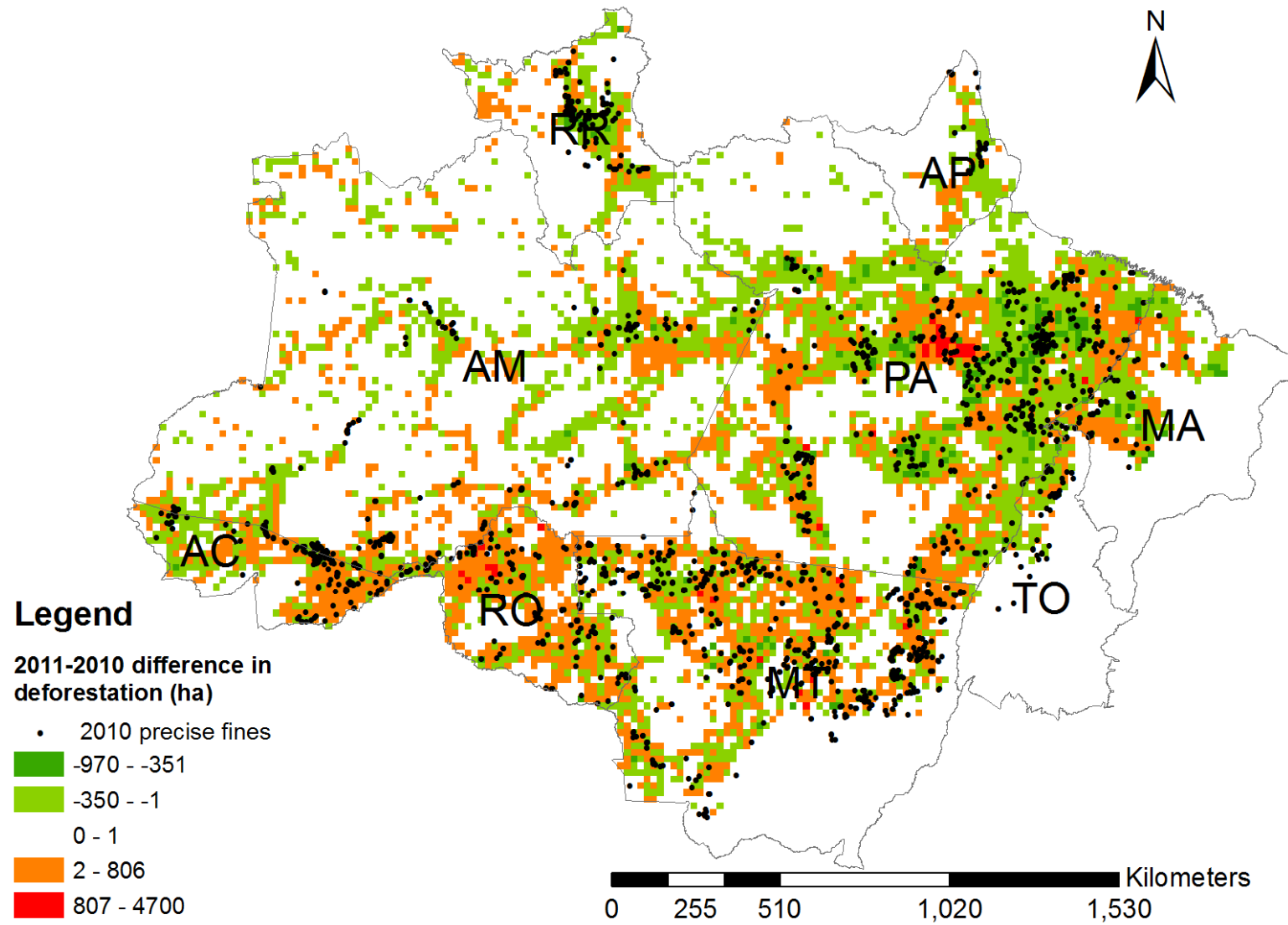
INNOVATIVE COMMAND AND CONTROL



Consulta Pública de Áreas
Embargadas

Pesquisa por Estado ou Município	
Estado: -- selecione --	Município: -- vazio --
Pesquisa por Nome ou CPF/CNPJ:	
Nome ou Razão Social:	
Nome do Imóvel:	
CPF ou CNPJ:	
Consultar	Nova Consulta

IBAMA FINES IN THE AMAZON



COMMAND AND CONTROL EFFECTIVENESS

- Statistically significant deterrence effects of fines
- Additional fine reduces deforestation by 10-20% in the subsequent year
- Effects vary across states
- Evidence of “avoidance behavior”

MACRO CHALLENGES AND RECOMENDATIONS

- Deforestation decrease perennial?
- Lack of land tenure is largest problem and bottle neck
- Unbalanced execution and effectiveness

- Keep high level of policy importance
- Land planning axis should be top priority
- Reformulate promotion axis

MACRO CHALLENGES AND RECOMENDATIONS

- Perverse economic incentive structure remains
- C&C generated demand for legalization
- Lack of prioritization and logic among actions

- Change economic incentives
- Structure sustainable production chains
- Reduce bureaucracy, make legalization easier
- Prioritize actions

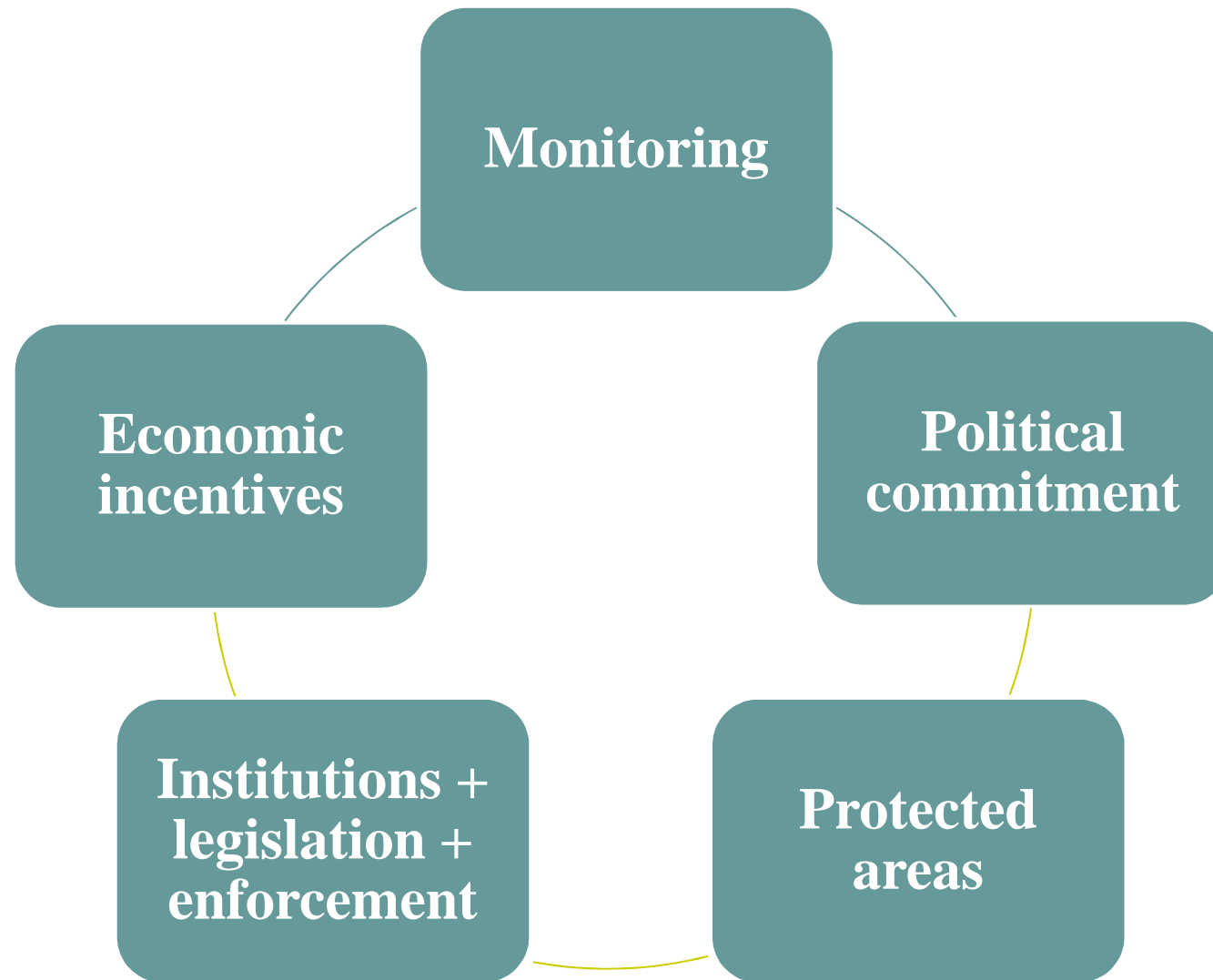
AGENDA

- PPCDAm's evaluation
- **Lessons learned and scope for scaling-up**

GENERAL LESSONS LEARNED

- Cross-sector policy coordination involving multiple stakeholders
- Policy mix of incentives, disincentives, and appropriate enabling policies
- Look also outside forest sector – prices and other policies

SPECIFIC LESSONS LEARNED



Thank you!

If you want the pdfs or have further comments, questions:

jorge.hargrave@ipea.gov.br

