

Large-scale land holdings and deforestation pressures in the Brazilian Amazon: Searching for a balanced and enforceable land use policy



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Pressure on forest frontier and recently-created protected areas comes primarily from cattle ranching and indirectly from soy bean expansion

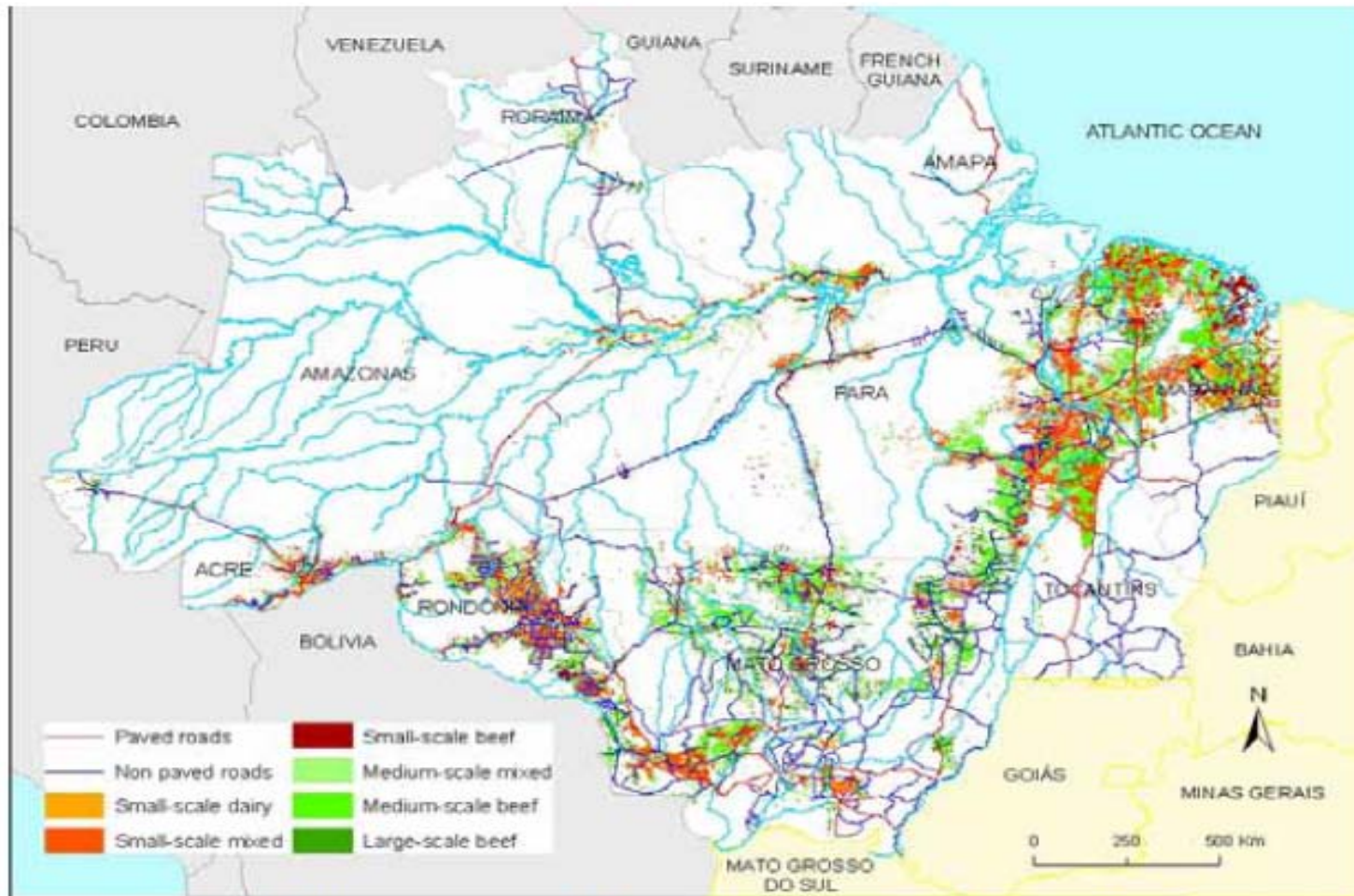
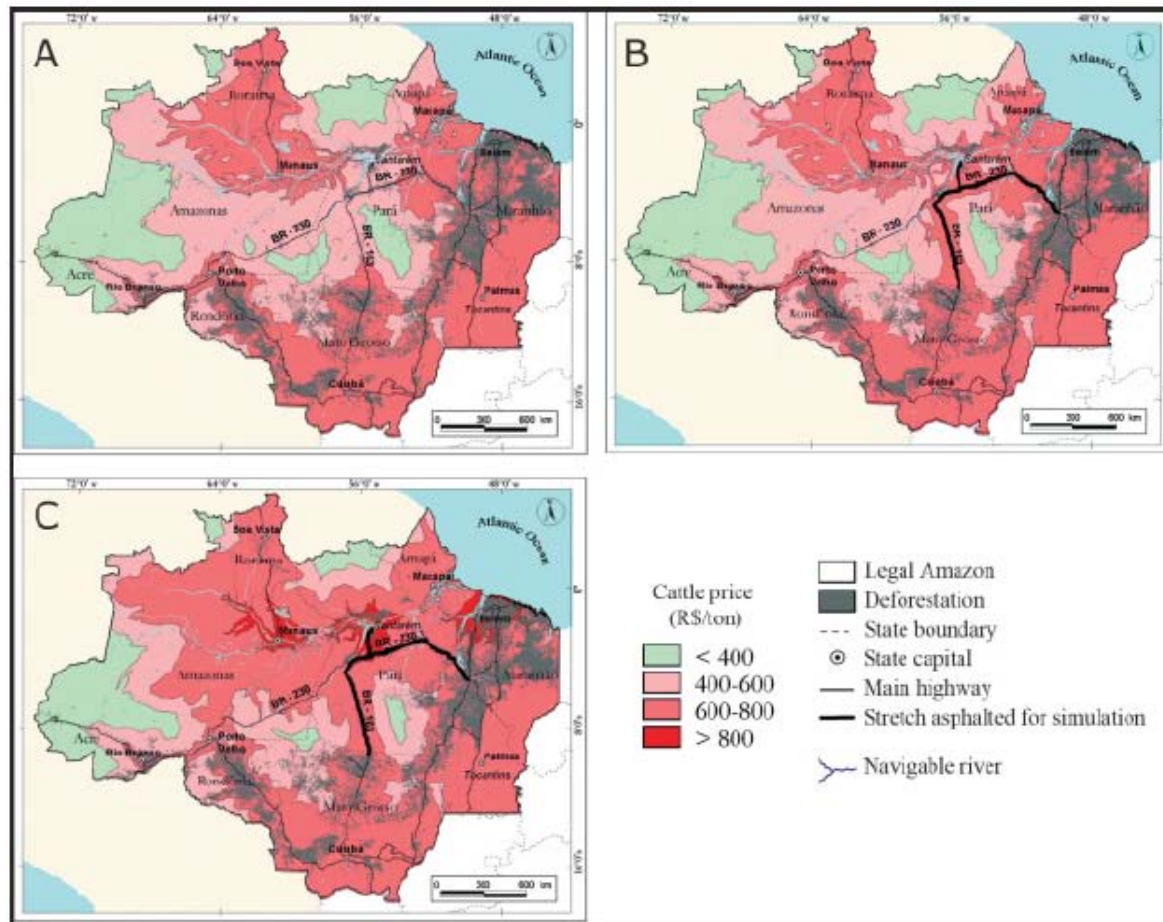


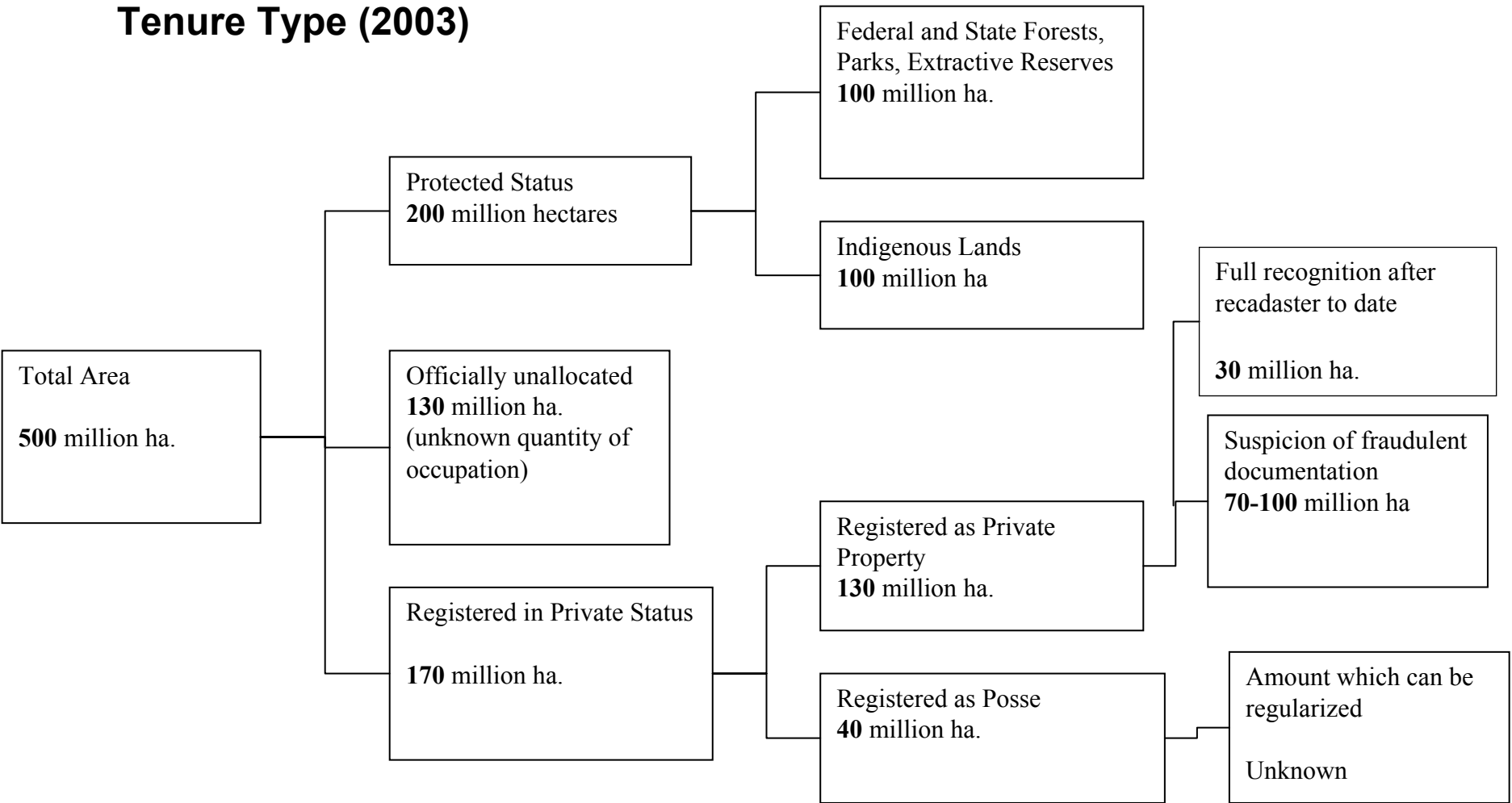
Figure 3.13. BLA: deforestation by cattle production type. Estimated by author based on data from IBGE agricultural census 1995/96 and INPE.

Opportunity cost of inaction is likely high, as economic development of region is ready to accelerate, pushing the race for property rights.



Who Owns the Amazon?

Approximate Landholding by Tenure Type (2003)



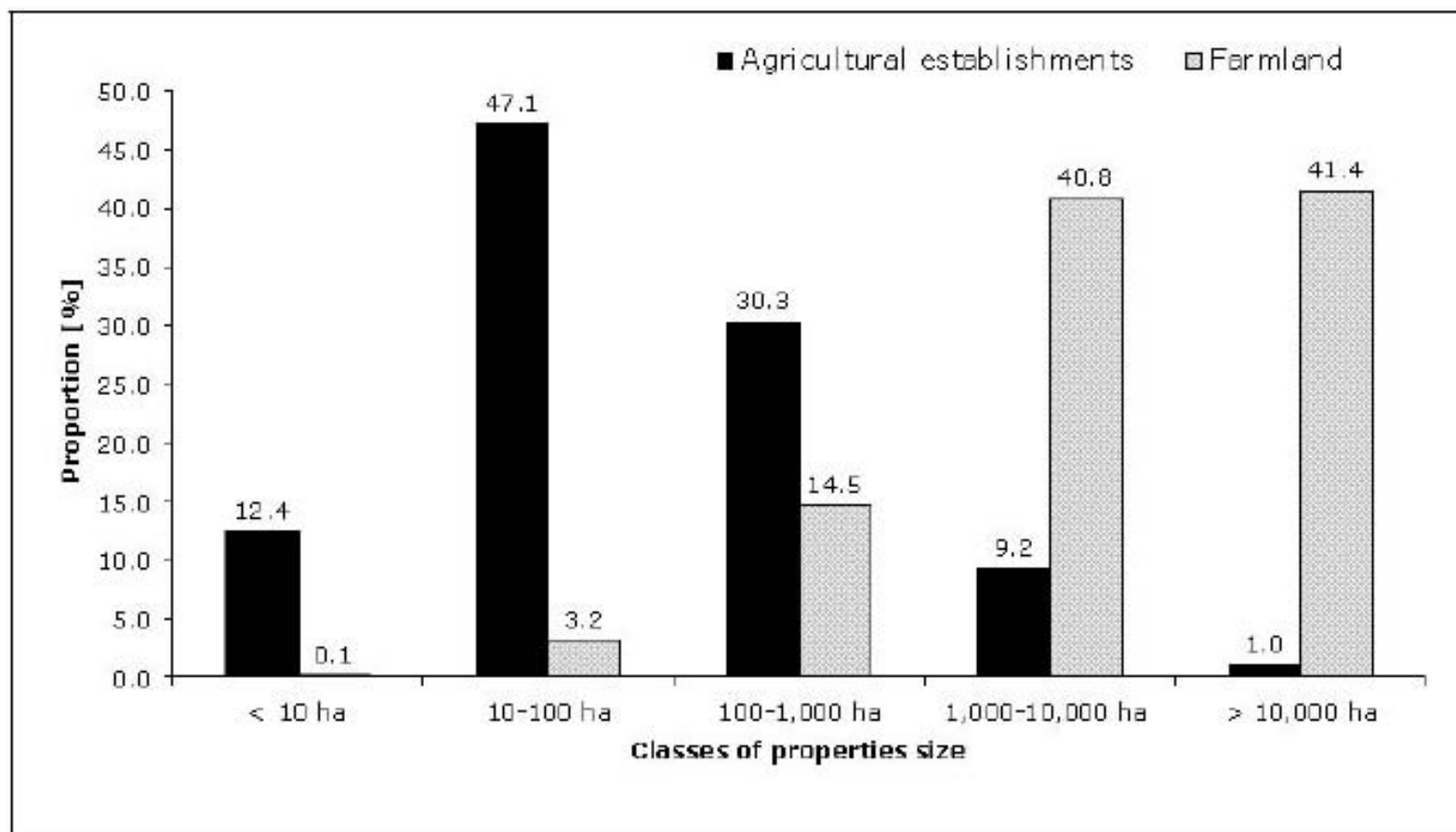
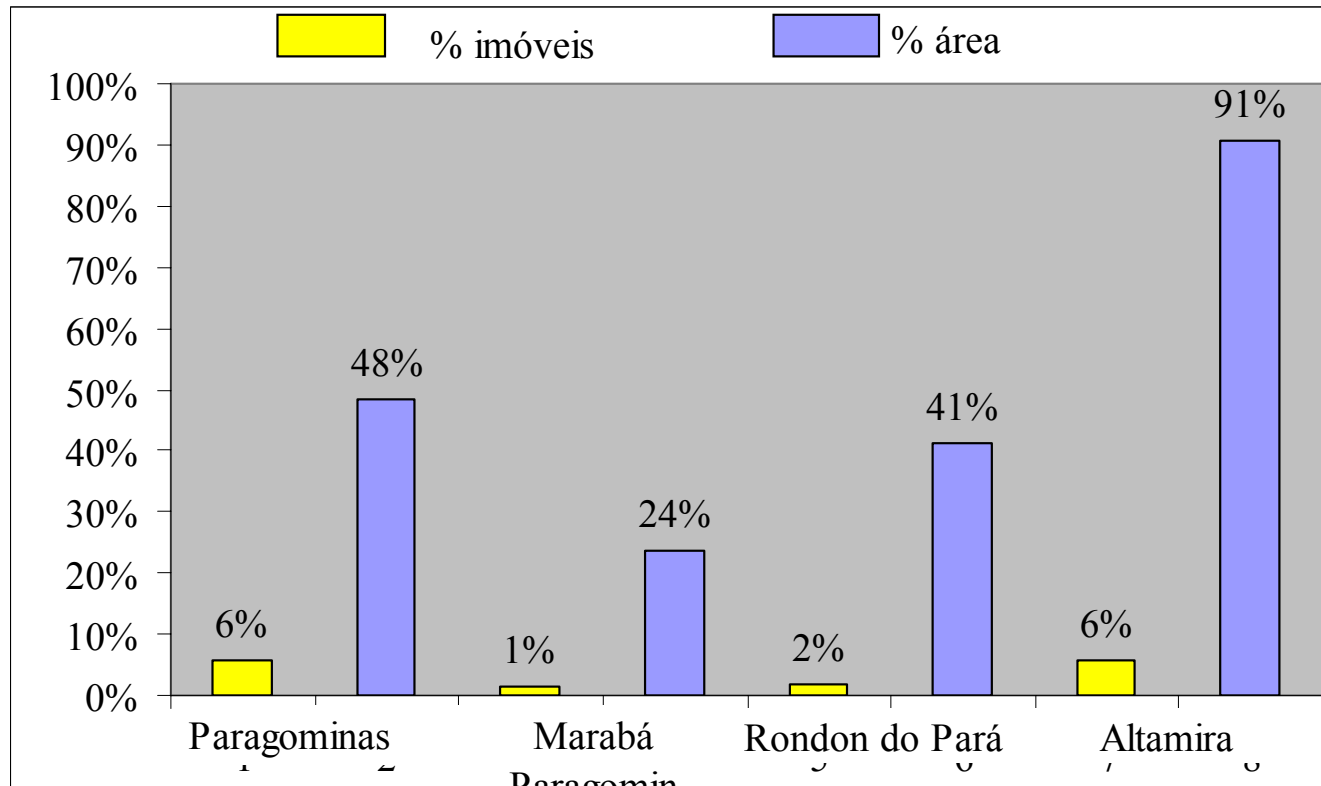


Figure 1: Land concentration in Mato Grosso (IBGE 1998)

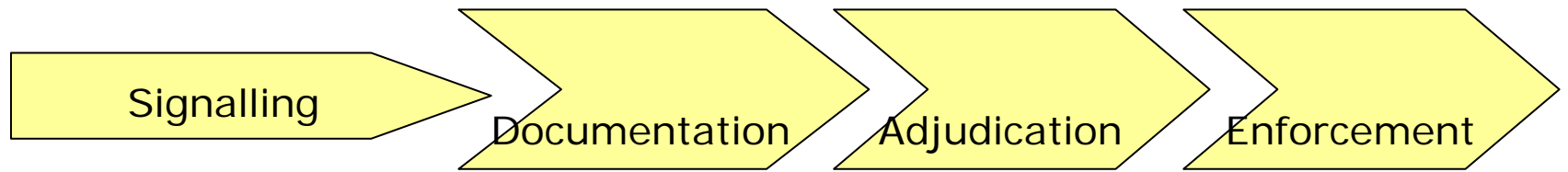
Concentration of landholding

% of properties greater than 5.000 ha – 1998

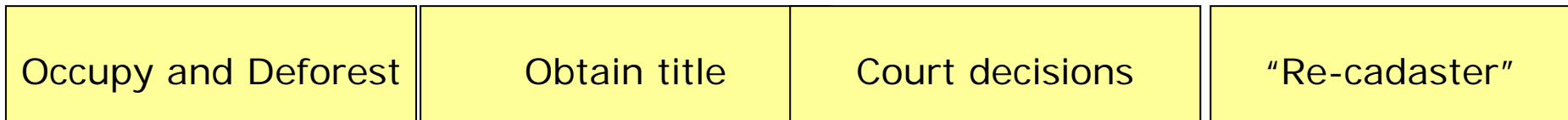


Fonte: estimado com dados do Cadastro Rural do Incri de 1998

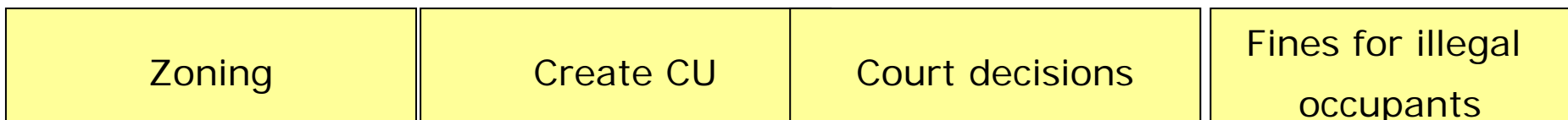
How it currently works—separate private and public regimes without legal clarity about pre-existing occupation



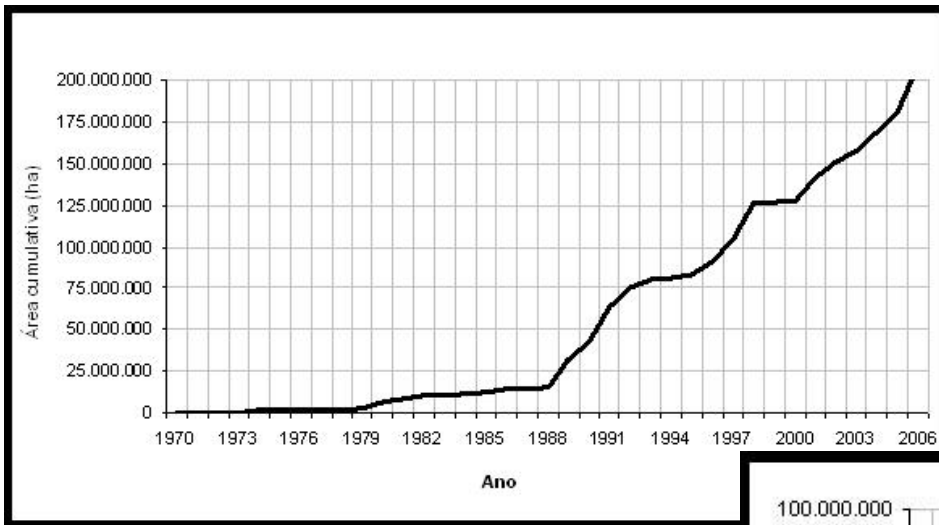
Propriedade privada



Propriedade pública



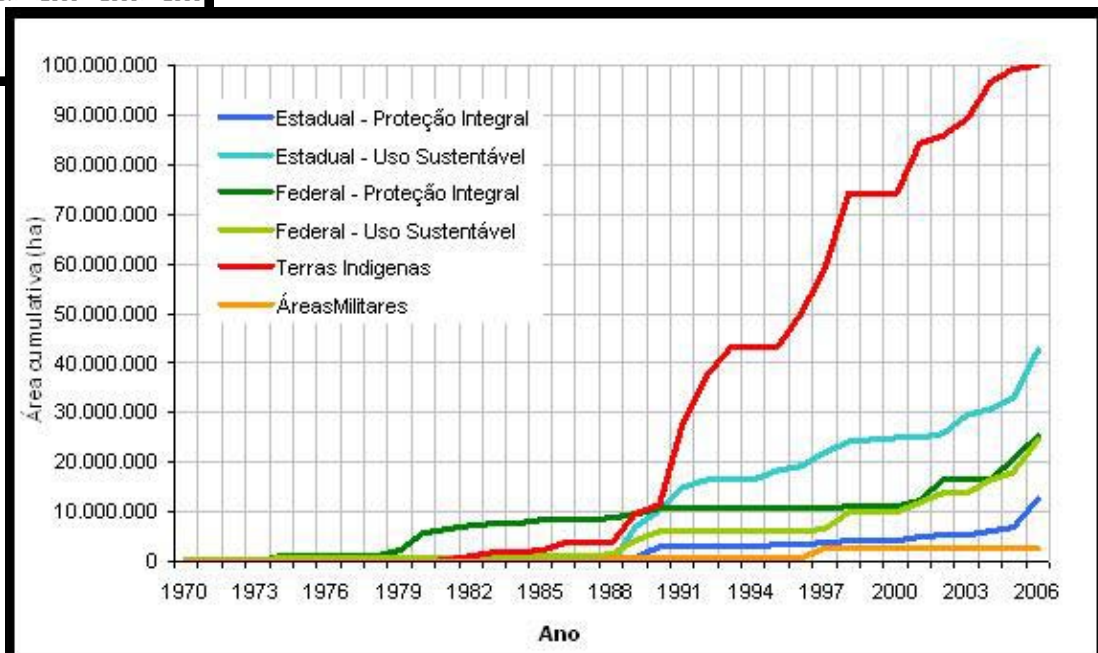
Creation of Protected Areas in Legal Amazon (1970 a 2006)



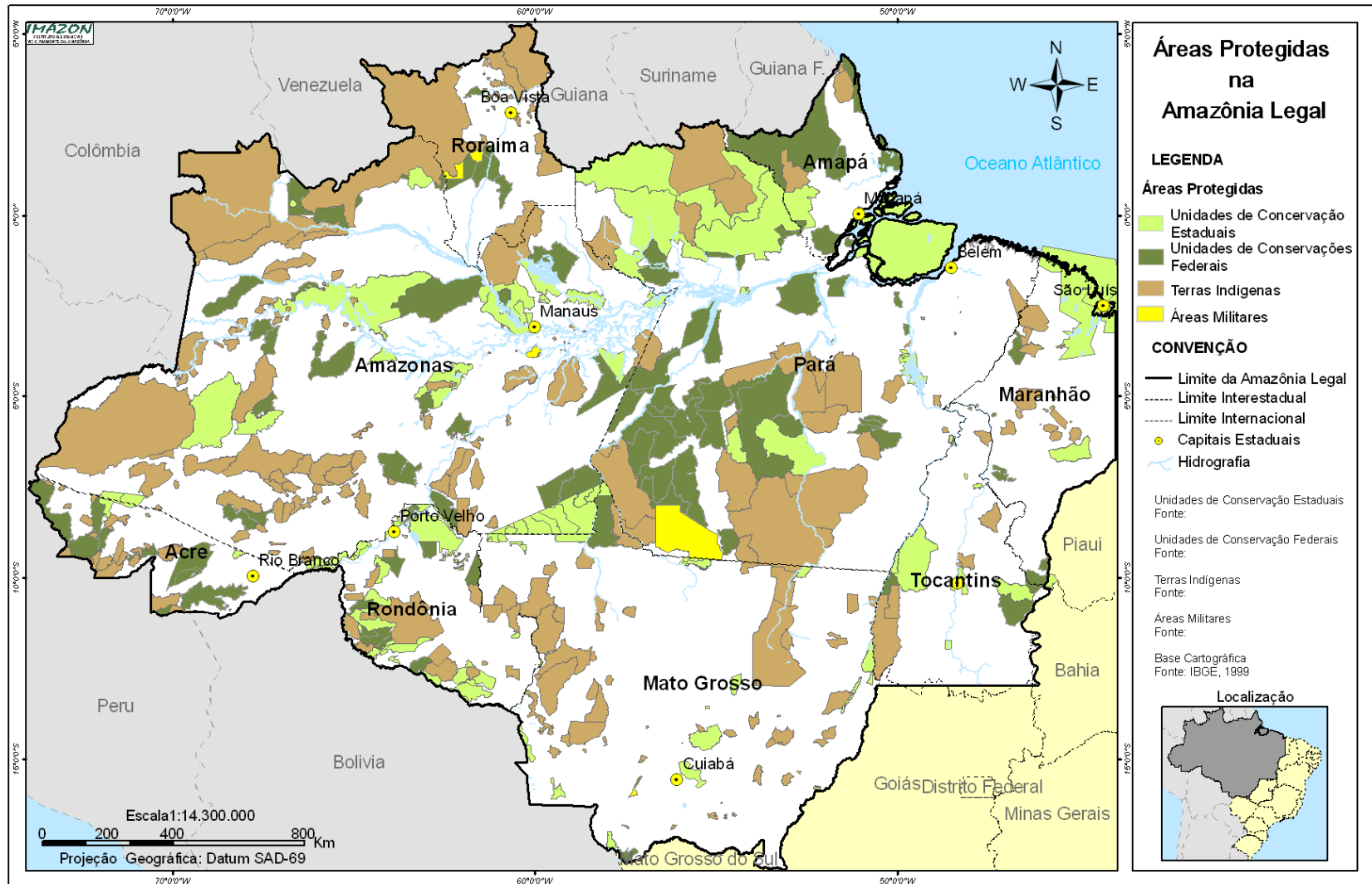
Total

~ 40% of territory

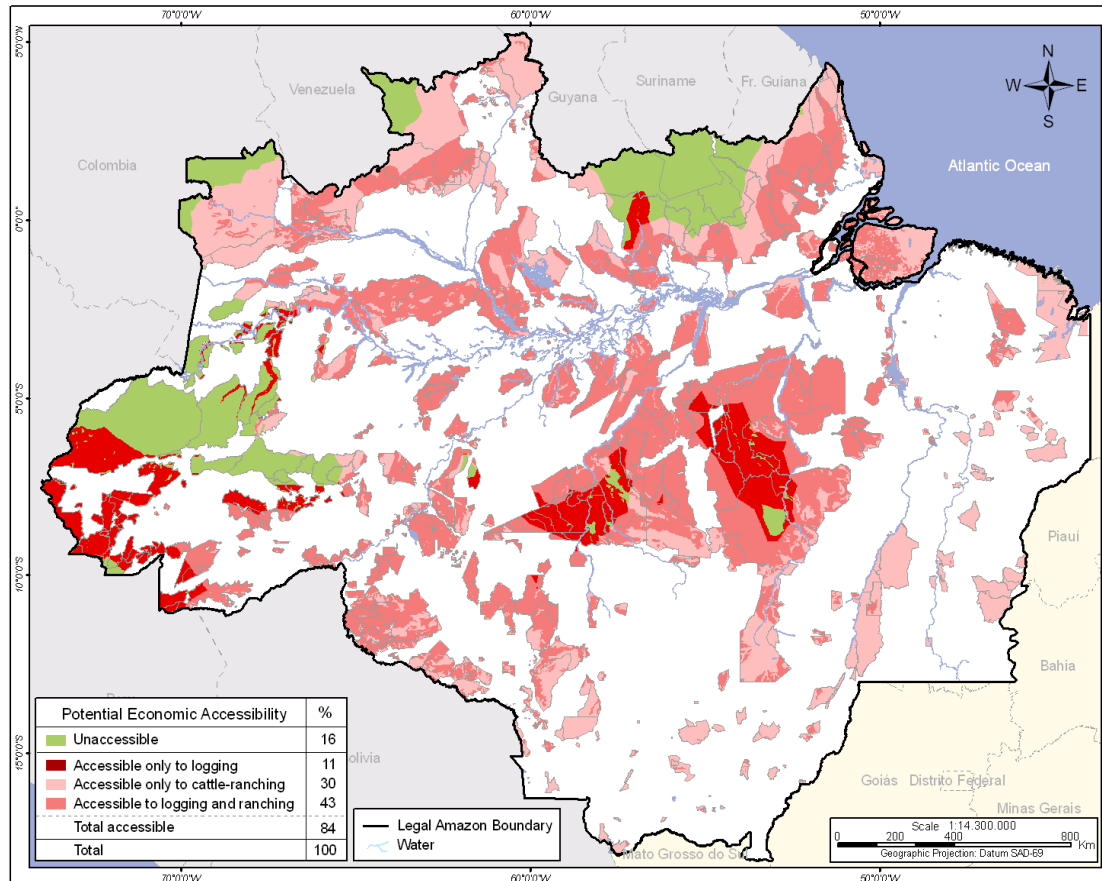
By type



~ 40% of Territory in Protected Areas



Economic accessibility for cattle ranching and logging within protected areas in the Brazilian Amazon¹¹







Histórico da Situação Fundiária na Região de Novo Progresso 2005-2006

CONVENÇÃO

-  Limite da Área de Estudo
-  Limite Municipal
-  Hidrografia
-  Desmatamento até 2005
-  Desmatamento 2006 até Julho
-  Criação de Novos Assentamentos
-  Assentamento Rural
-  Terra Indígena
-  Área Militar
-  Plano de Manejo 2005

Unidade de Conservação

-  Uso Sustentável - APA
-  Uso Sustentável - FLONA
-  Proteção Integral
-  Estradas Oficiais
-  Estradas não Oficiais
-  Garimpo
-  Sede Municipal

Área Militar
Fonte: ISA, 1999

Assentamento Rural
Fonte: INCRA, 2004

Desmatamento
Fonte: INPE-PRODES, 2005
INPE-DETER, 2006

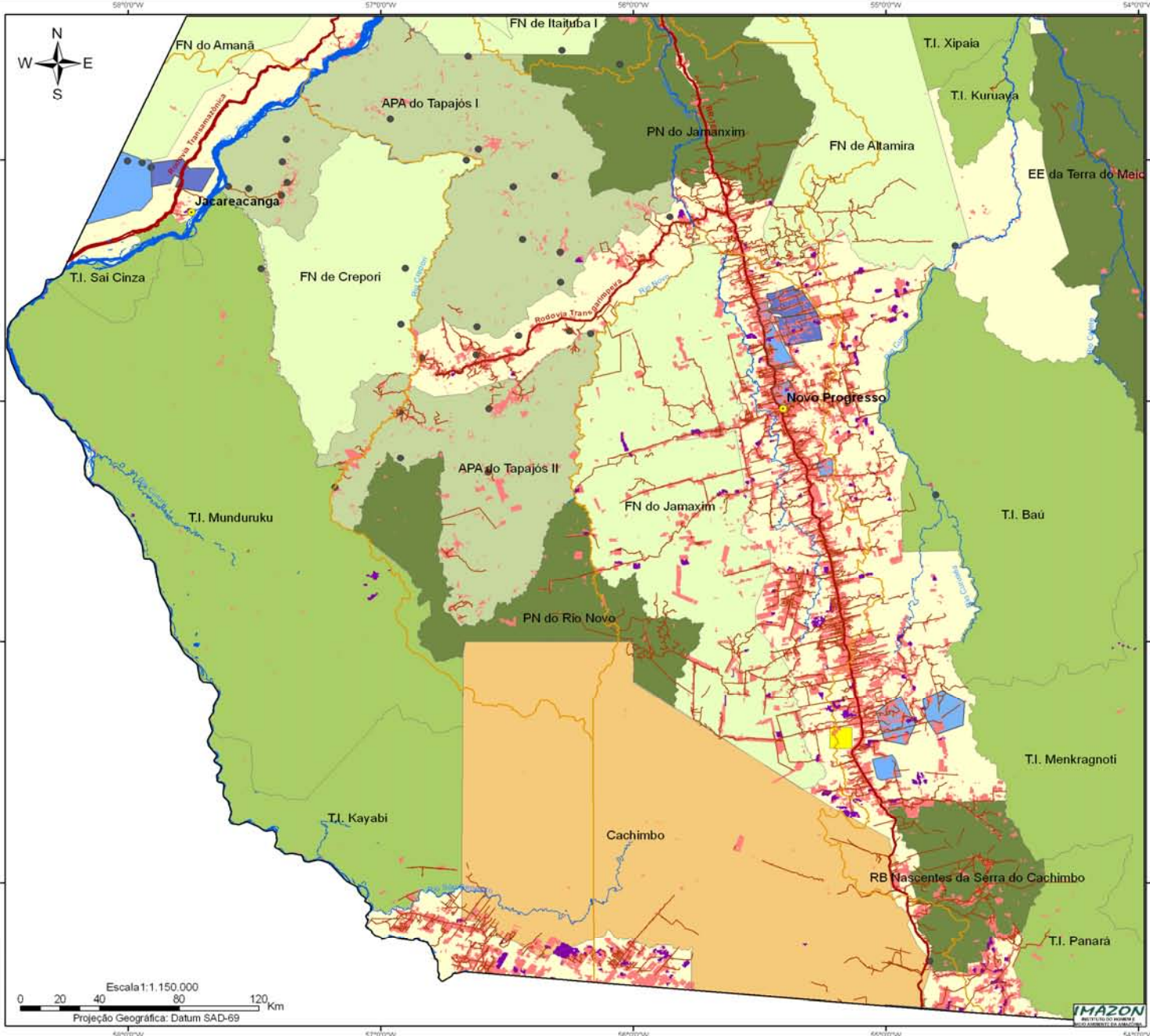
Estradas
Fonte: IMAZON, 2006

Terras Indígenas
Fonte: ISA, 2004

Unidades de Conservação
Fonte: IBAMA, 2006

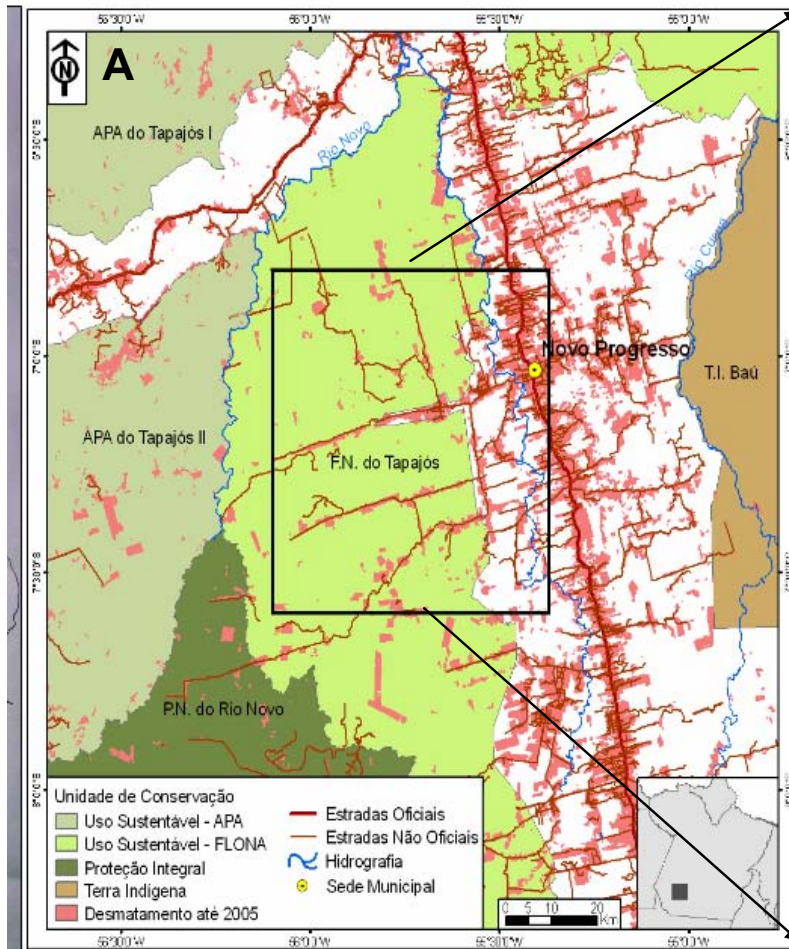
Plano de Manejo
Fonte: IBAMA, 2005

Garimpo
Fonte: IBGE, 2004



Escala 1:1.150.000
0 20 40 80 120 Km
Projeção Geográfica: Datum SAD-69





How it might work under new proposals:

1. Zoning establishes land use priority and protected areas;
2. Land regularization gives ownership or use rights to existing small and medium holders (up to 2,500 ha.) with environmental licensing required; focus is on intensification of land use—states and Federal level work together;
3. Larger landholdings are re-nationalized; remaining public and unallocated lands go into protection regime; large-scale operations only possible under zoning approval
4. Payments for avoided deforestation and monitoring/enforcement change incentives to cycle of occupation and deforestation.
5. Large-scale agriculture perceives incentives for certifying “forest friendly” production (e.g. Greenpeace and McDonald’s soy certification program)