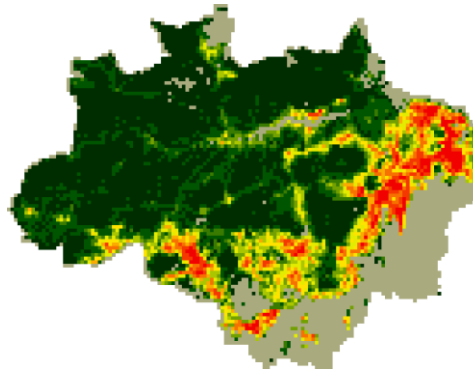


Land use change scenarios



Kasper Kok / Ana Paula Dutra de Aguiar
11 December 2013, Brussels
AMAZALERT ; EU workshop



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MINISTÉRIO DE CIÊNCIAS E TECNOLOGIA
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

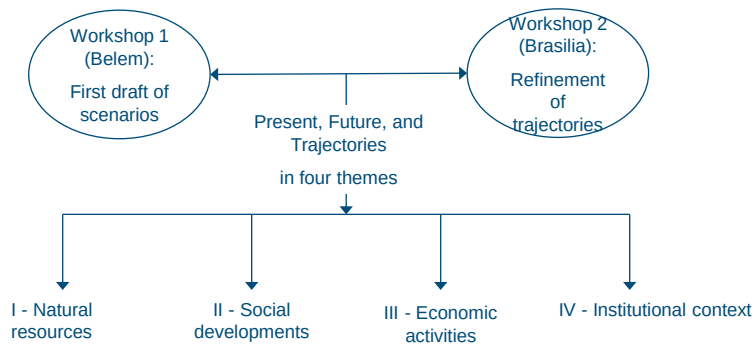
Content

- Overview of methods and results of first workshop in Belém
- Main results of CLUE modelling



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General framework of workshops



Participants:

Civic society and the productive sector (first workshop); Government and science (second workshop)

Central questions:

What could the future look like in 2050 and what would be plausible ways to reach it?

What are crucial trade-offs, differences, and necessary actions to be taken?



First stakeholder workshop - Main objective

Develop alternative scenarios for the future of the Brazilian Amazon in 2050 with representatives from different sectors of society.

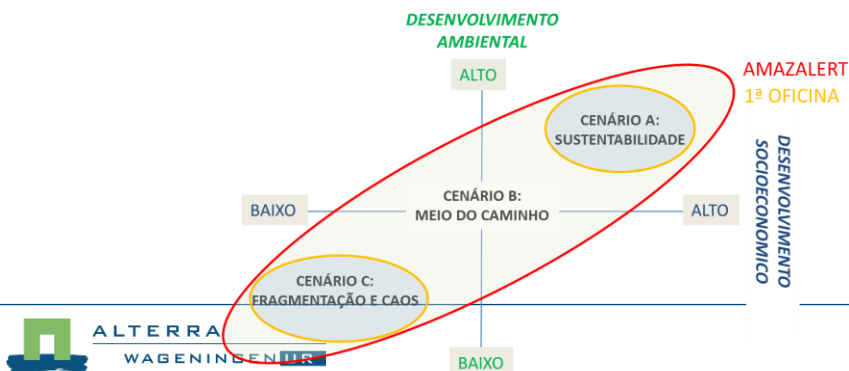
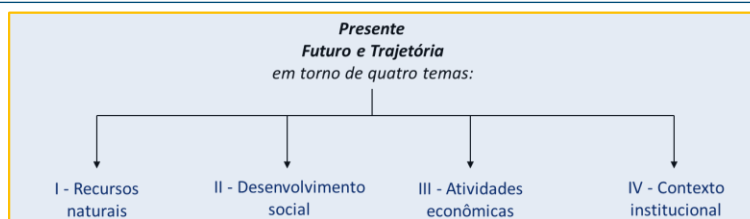


Workshop participants

	Instituição (Abreviação)	Instituição (Nome completo)	Site	Nome do(s) representante(s) na oficina
1	ABC	Associação Brasileira de Criadores	www.abccriadores.org.br	Helio Madalena Jr
2	ABIOVE	Associação Brasileira da Indústria de Óleos Vegetais	www.abiove.org.br	Bernardo Pires
3	ABRAFRIGO*	Associação Brasileira dos Frigoríficos	www.abrafrigo.org.br	Gil Reis
4	AIMEX	Associação da Indústria dos Exportadores de Madeira do Pará	www.aimex.org.br	Gilberto Carvalho
5	ALCOA	Alcoa Aluminios S.A.	www.alcoa.com.br	Milene Maués
6	CIMI*	Conselho Indigenista Missionário	www.cimi.org.br	Marcos Borges ou Claudemir Monteiro
7	CNS	Conselho Nacional da Populações extrativistas	-	Manoel Silva da Cunha
8	CPT*	Comissão Pastoral da Terra	www.cpt.org.br	Padre Paulinho
9	CTA e CCM	Centro de Trabalhadores da Amazônia e Comitê Chico Mendes	www.cta.org.br	Julia Feitosa da Silva Dias e Marcos Jorge Dias
10	FAEPA*	Federação de Agricultura e Pecuária do Pará	www.faepa.org.br	Dr. Carlos Xavie
11	FASE	FASE – Educação e Solidariedade	www.fase.org.br	Graça Costa
12	FNB*	Fórum Nacional de Atividades de Base Florestal	www.forumflorestal.org.br	Guilherme Carvalho
13	FSC/IFT	Instituto Floresta Tropical	www.ift.org.br	Marcos Lentini
14	FVPP	Fundação Viver Produzir e Preservar	www.fvpp.org.br	Diego Luiz do Nascimento
15	GREENPEACE	Greenpeace	www.greenpeace.org	Edwin Keiser
16	IEB	Instituto Internacional de Educação do Brasil	www.ieb.org.br	Manuel Amaral
17	ISA	Instituto Socio Ambiental	www.isa.org.br	Renata Alves
18	TNC	The Nature Conservancy	www.tnc.org	Iam Thompson
19	SAE	Secretaria de Assuntos Estratégicos	www.sae.gov.br	Arnaldo Carneiro
20	VALE	Vale S.A.	www.vale.com	Leonardo Neves ou Francinaldo Magno

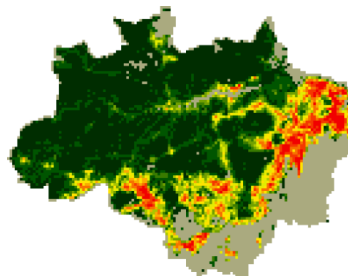
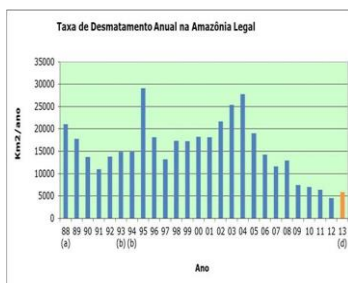


Present and future scenarios





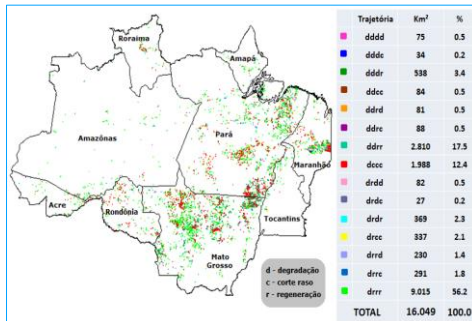
Current situation - natural resources



- Deforestation declining(?)
- 18% of pristine rainforest converted
- High percentage of degraded forest
- Many extreme events

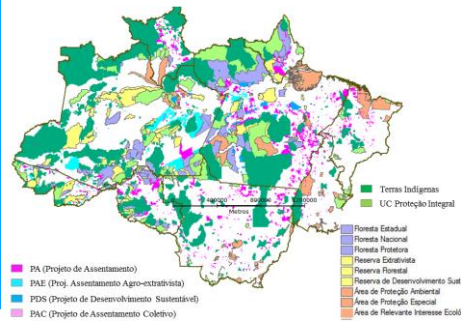
Current situation - natural resources

Degree of degradation



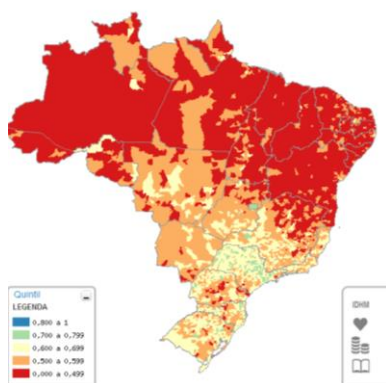
Conservation Units

Mosaic of Territory Units: Protected Areas and Settlements in 2010

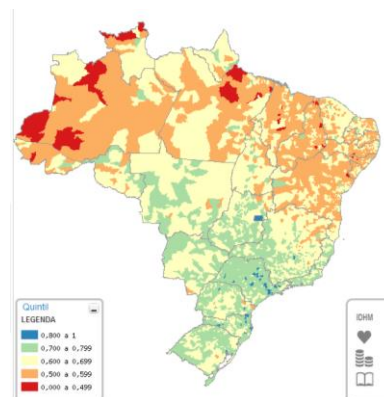


Current situation - social

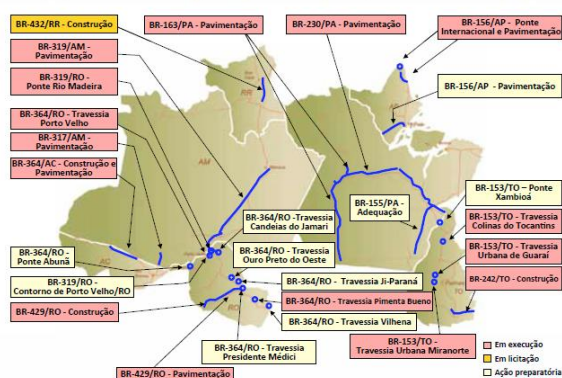
Human development index 2000



HDI 2010



Current situation - infrastructure



Future scenarios - natural and social

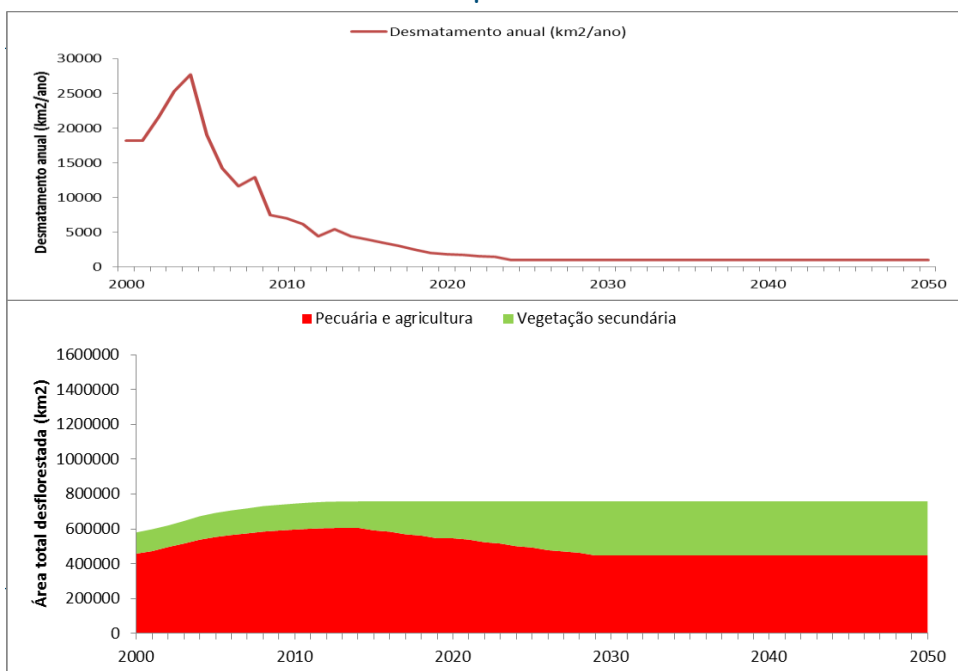
THEME	CURRENT SITUATION	SUSTAINABILITY	FRAGMENTATION
Natural Resources	Deforestation declining, but number of new openings remains constant Displacement of deforestation fronts to the Tapajos region, for example (soy, infrastructure, and zoning).	Legal and illegal clear-cut cutting zero. 80% forest cover remaining everywhere.	In 2050, the total deforested area will reach 30-40%. Degraded forest remnants without biological corridors with deteriorated ecological functions.
Social development	Widespread urban and rural violence	Settlements with structured management, relocated to peri-urban areas in order to meet demand for food in the cities	Increase in land conflicts and increasing slums of big cities.



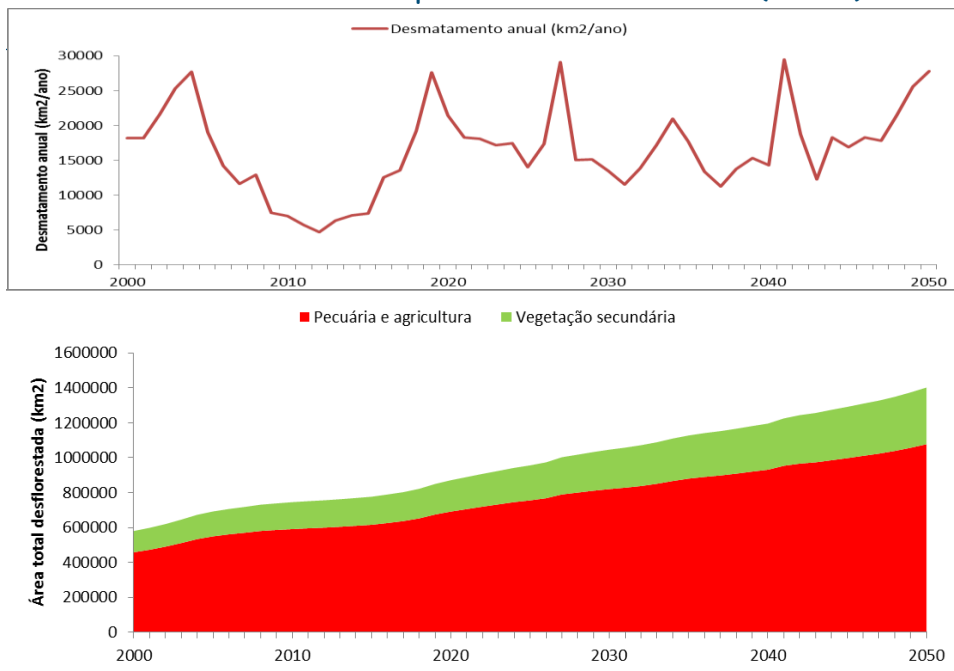
Future scenarios - economic and institutional

THEME	CURRENT SITUATION	SUSTAINABILITY	FRAGMENTATION
Economic activities	There is an invisible economy which hides poverty and number of employed people.	Low-carbon agriculture widely practised Sustainable forest management using native species	Wood demand will be satisfied mostly by reforestation. Economy oriented to international markets
Political and institutional context	Weakening of environmental legislation to facilitate large projects (pressure of the productive sector). Trend toward increasing awareness of the environment, the place where one lives, including by the companies.	Land tenure documented and complete environmental control with fully operational systems. Centres of education and research for local people, focusing on the use of natural resources	Breakdown of regulatory frameworks favouring economic interests only. Internationalization of the Amazon, but with fragmentation of states and consequent pressure on forest areas.

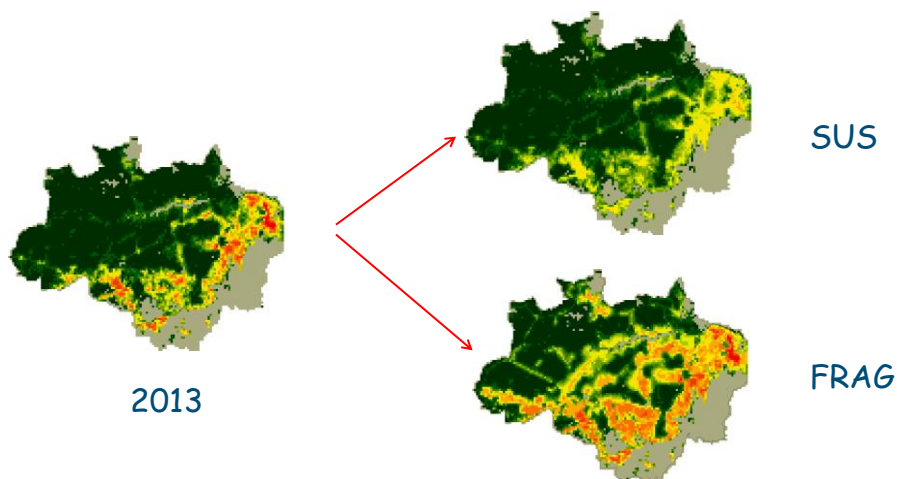
Future scenarios - input for land use model



Future scenarios - input for land use model (FRAG)



Future scenarios - output land use change model



Future scenarios - impacts

