

The implementation of the System of Environmental-Economic Accounting (SEEA) in Brazil

New York, June 2013

Environmental-Economic Accounting (SEEA) in Brazil – initiatives and actions implemented Water

- **International Seminar on Environmental Accounting held in September 21st to 25th 2009**
- . **Institutional arrangement: signature of Interministerial Agreement by the Ministry of Planning, Budget and Management / IBGE, the Ministry of Environment / Water National Agency – ANA, and the Secretary of Water Resources and Urban Environment – SRHU (May 2012)**

Brazil – initiatives and actions implemented Water

- **June 2012 – IBGE hosts the UNCEEAA meeting**
- **September 2012 – Preliminary Technical Meeting at IBGE (Rio de Janeiro)**
- **October 2012 – Institution of the High Level Committee Meeting – Brasília**
- **October 2012 – Seminar in Brasília**

Environmental-Economic Accounting (SEEA) in Brazil – initiatives and actions implemented Water

- **March 2013 – Kangaré**
- **June 2013 – Workshop on Environmental-Economic Accounting – UNSD Expert – Rio de Janeiro**
- **Establishment of a working plan, adjusted following the June 2013 Workshop results**

Road-map and future actions

2013

- **Structuring the matrix of resources and uses of water for the SNA.**
- **Elaborating the Assets table**
- **Elaborating the matrix test of coefficients for industrial activity**
- **Planning the reformulation of the Industrial Activity Survey – incorporating information of water use in the industrial activity**

2014

- **Producing the draft with the preliminary results of Assets**

Data Base

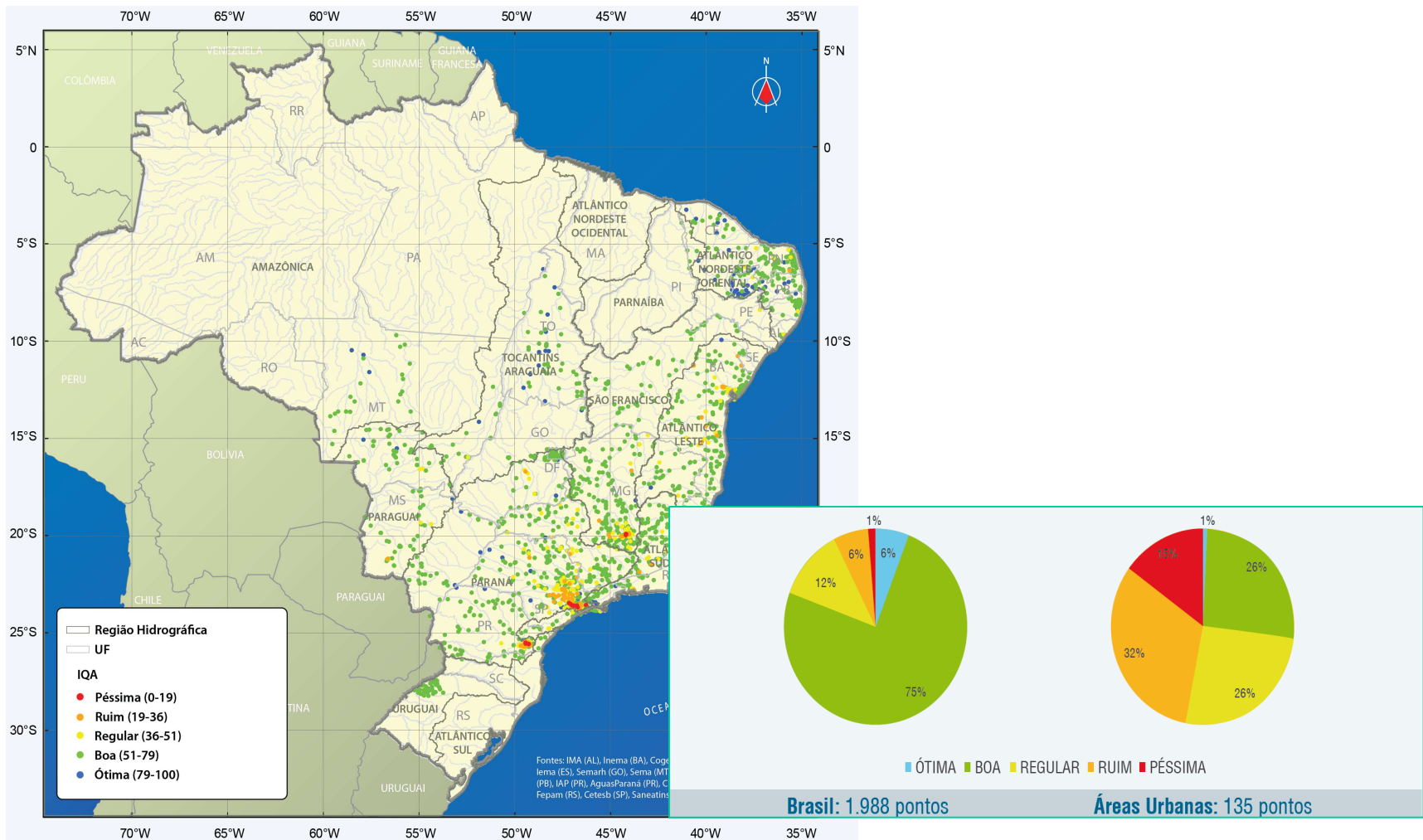
Interface of Environmental Accounting and the Conjuncture Report – National Water Agency

Table IV.1 – Physical data items for inland water stocks

	Brazil
A. Inland Water Stocks -	Water volumen (x 10⁶ m³/year)
A.1.Surface water stocks	
A.1.1. In artificial reservoirs	689.420
A.1.2. In lakes	n.a.
A.1.3. In rivers and streams	5.661.216,6
A.1.4. In wetlands	n.a.
A.1.5. In snow, ice and glaciers	0
A.2. Groundwater stocks	645.643
A.2.i. Renewable	645.643
A.2.i.1. Exploitable reserve	129.127,3
A.2.ii. Non-renewable	n.a.

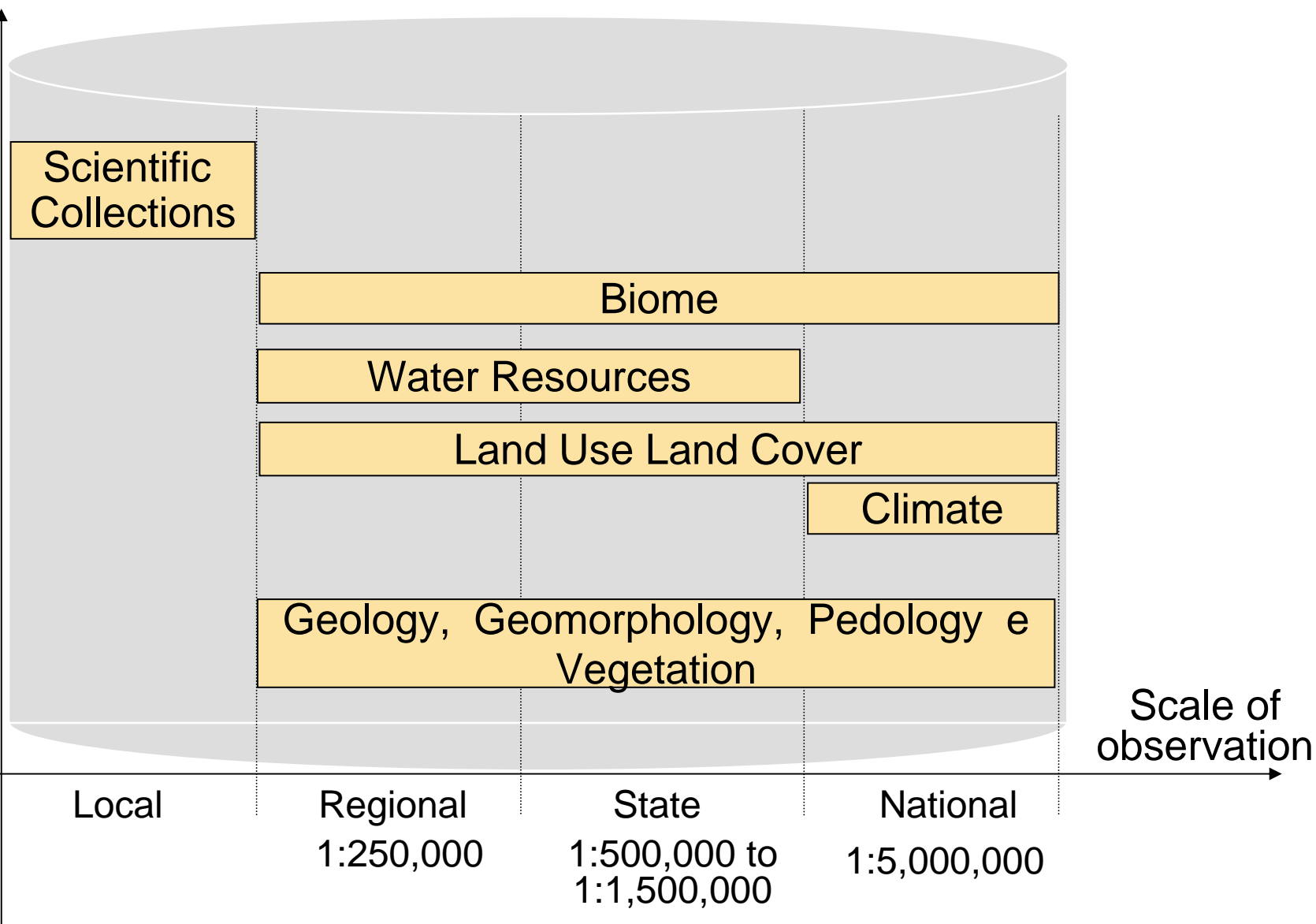
Data Base

Example of information found in reports of Water Conjuncture - ANA



Scale of Data Collection

Themes



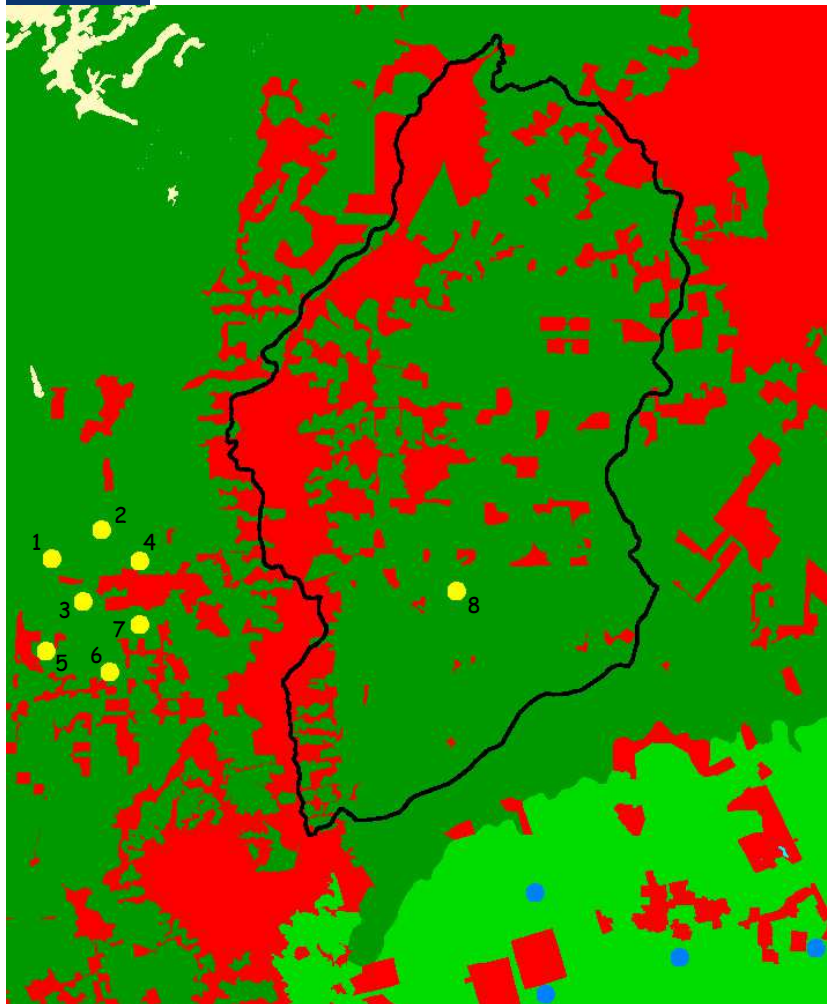
Local

Regional
1:250,000

State
1:500,000 to
1:1,500,000

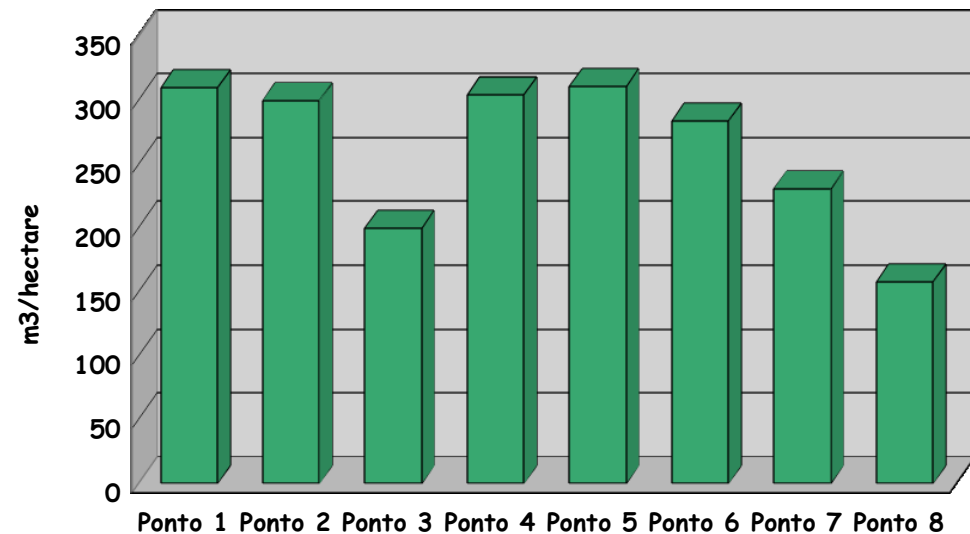
National
1:5,000,000

Scale of observation

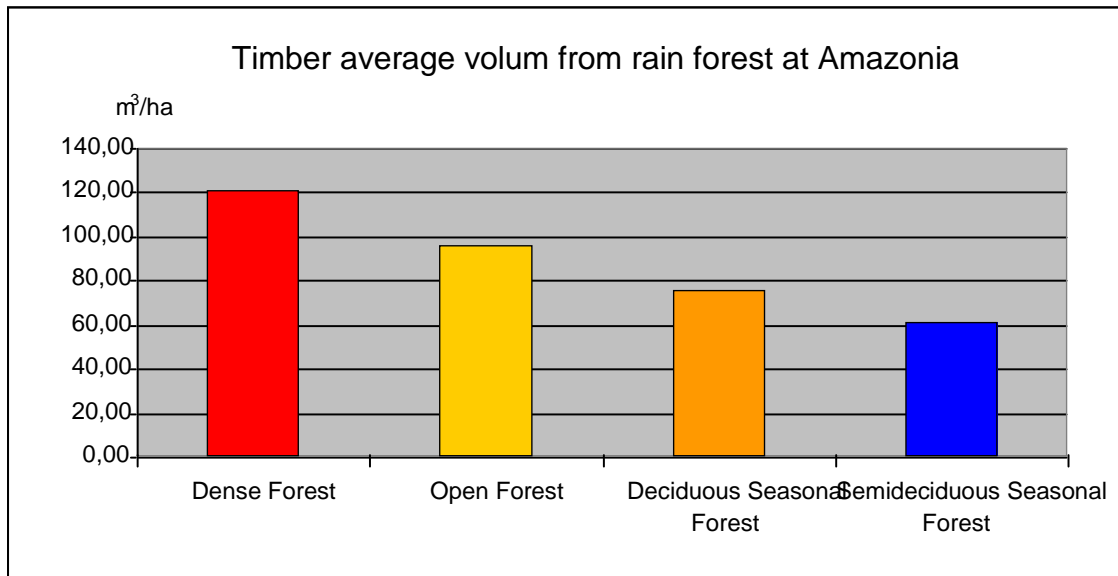


- Db - Broadleaf Evergreen Forest (Lowlands)
- Ds - Broadleaf Evergreen Forest
- Shrub (Campinarana)
- Degraded area (Antropic)
- Spots of forest inventory in areas of Db
- Spots of forest inventory in areas of Ds

Volume of wood in the spots of Db areas

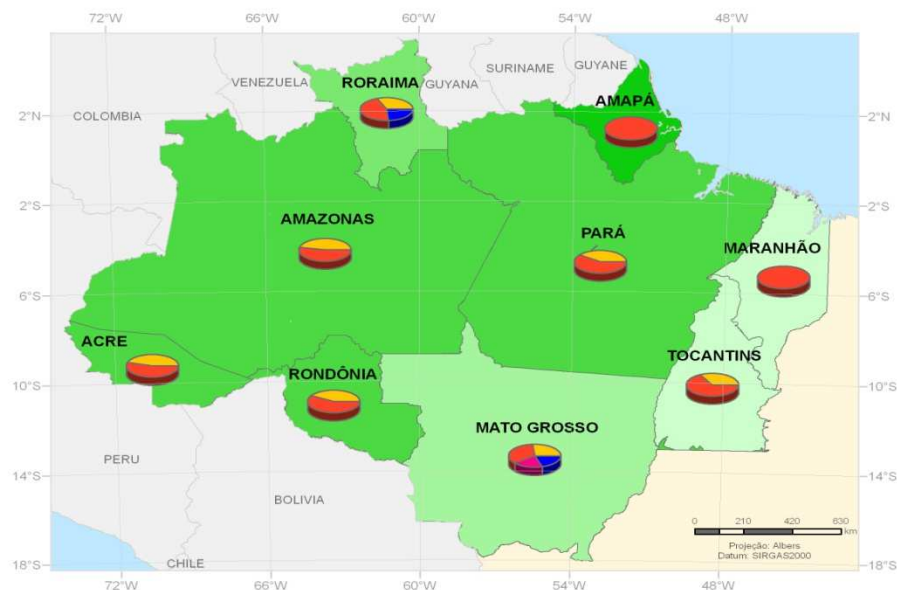


Average, considering the 8 spots:
262.37 m³/ha



Timber Volum

Gráfico 5.5.3 - Volume méd



LAND COVER - LAND USE CHANGE IN BRAZIL 2000 - 2010

- **Which progress have we achieved?**
- **What are we doing?**
- **What do we still need to do?**

Monitoring land cover / land use changes for the entire Brazilian territory, in regular time intervals, through systematic mapping, using a Territorial Grid for statistical purposes, in which spatial and statistical data will be integrated.

METHODOLOGY

MODIS IMAGES ACQUISITION

DIGITAL PROCESSING

AUTOMATIC CLASSIFICATION

ASSOCIATION TO PRE-DEFINED CLASSES

FIELD WORK

AUXILIARY DATA INCORPORATION

TECHNICAL REVIEW

VECTOR DATA EXPORTATION

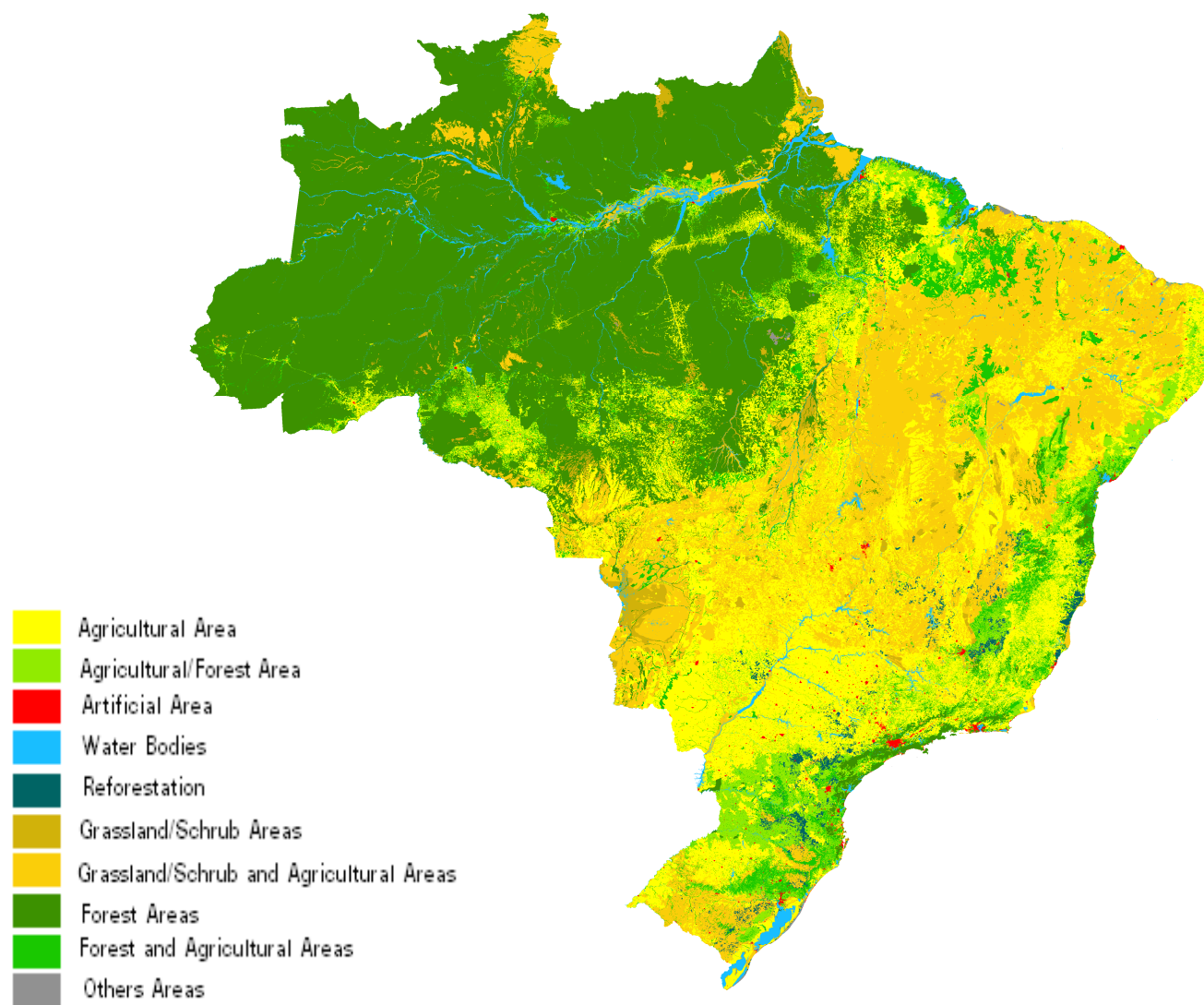
DATA INCORPORATION TO THE TERRITORIAL GRID

PRODUCTS GENERATION FOR MULTIPLE PURPOSES

Land Cover / Land Use - Brazil - 2000



Land Cover / Land Use - Brazil - 2010

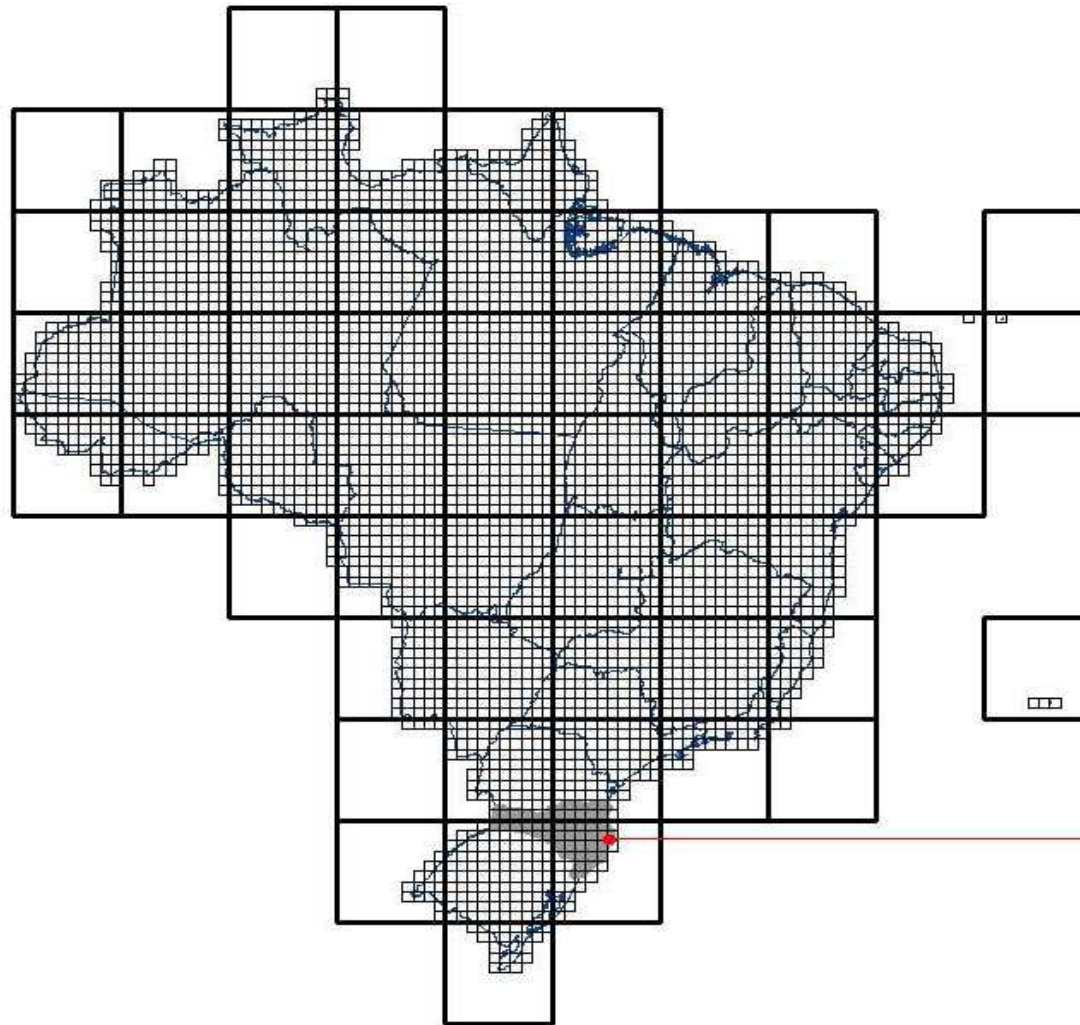


Land Cover / Land Use Change Matrix Brazil, 2000 – 2010 (x 1000 Km²)

MUDANÇAS NA COBERTURA E USO DA TERRA 2000 - 2010 BRASIL – mil Km ²												
Classes*		2000										Total 2010 mil Km ²
		Área Urb.	Outras Áreas	Veg. Florestal	Veg. Campestre	Área Agrícola	Veg. Florestal Agrícola	Veg. Campestre Agrícola	Área Agrícola Florestal	Corpo D'água	Reforestament o	
2 0 1 0	Área Urb.	31,4	0,0	0,2	0,0	2,5	0,4	0,8	0,8	0,0	0,0	36,2
	Outras Áreas	0,0	7,9	0,3	0,0	0,0	0,0	0,1	0,0	0,0	0,0	8,3
	Veg. Florestal	0,0	0,0	3.342,3	0,0	0,0	0,1	0,0	0,1	0,0	0,0	3.342,4
	Veg. Campestre	0,0	0,0	0,0	115,5	0,0	0,0	0,0	0,0	0,0	0,0	115,5
	Área Agrícola	0,0	0,0	94,7	2,1	1.504,1	44,3	182,3	100,3	0,0	3,4	1.931,2
	Veg. Florestal Agrícola	0,0	0,0	73,3	0,0	0,0	344,9	0,0	0,1	0,0	0,4	418,7
	Veg. Campestre Agrícola	0,0	0,0	0,0	21,8	0,0	0,0	1.854,7	0,0	0,0	0,5	1.877,1
	Área Agrícola Florestal	0,0	0,0	58,2	0,0	0,1	39,4	0,0	442,9	0,0	4,9	545,6
	Corpo D'água	0,0	0,0	0,3	0,0	0,0	0,0	0,3	0,0	177,1	0,0	177,7
	Reforestamento	0,0	0,0	0,2	0,0	6,3	1,9	6,9	7,9	0,0	39,7	63,0
Total 2000 mil Km²		31,4	7,9	3.569,6	139,5	1.513,1	431,0	2.045,2	552,0	177,1	48,9	8.515,7

*Nota Explicativa: Área por classe em 2010 é composta pela área na célula em azul (área comum em 2007 a 2010) mais as áreas de outras classes de 2000

Territorial Grid for Statistical Purposes



Legenda

-  GRE500KM
-  GRE50KM
-  GRE1KM
-  UF



500 1.000 1.500 Quilômetros

PostGIS databank, built by
IBGE/DGC/CCAR