

**Virtual Expert Forum – Session 1:  
Ecosystem extent and condition – 23-24 June**

# **Crosswalking IUCN Ecosystem Functional Groups with Brazil's national classifications**

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## MAIN PURPOSE

Perform a preliminary crosswalk between local data on vegetation, land cover and land use produced by IBGE and the Ecosystem Functional Group (EFG) developed by the IUCN.

# METHODS

Guidelines proposed in the article by Bogaart and Schenau (2020) and other papers presented in the webinar entitle entitle “Testing of SEEA-EEA ecosystem type classification”, that took place on April 20th and 22<sup>nd</sup>.

# METHODS

## Inputs

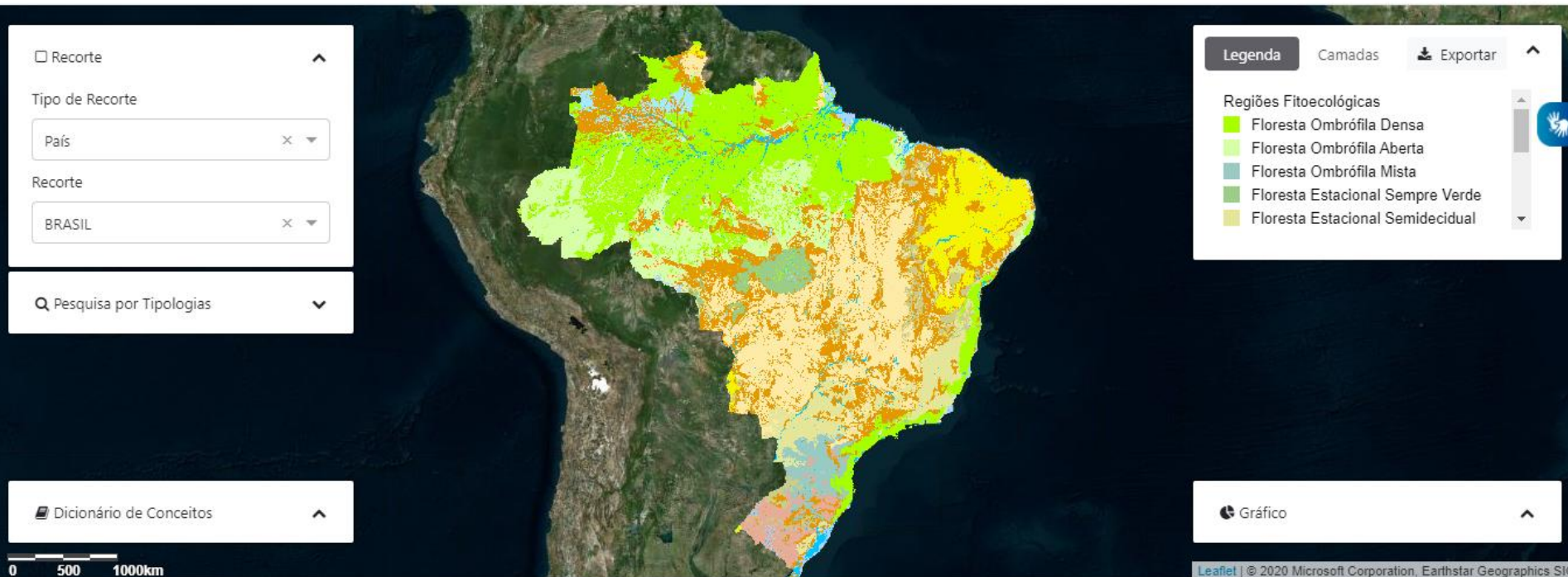
### Vegetation Mapping

- Scale 1:250,000
- Published in 2017

**BDiA** Banco de Dados de Informações Ambientais

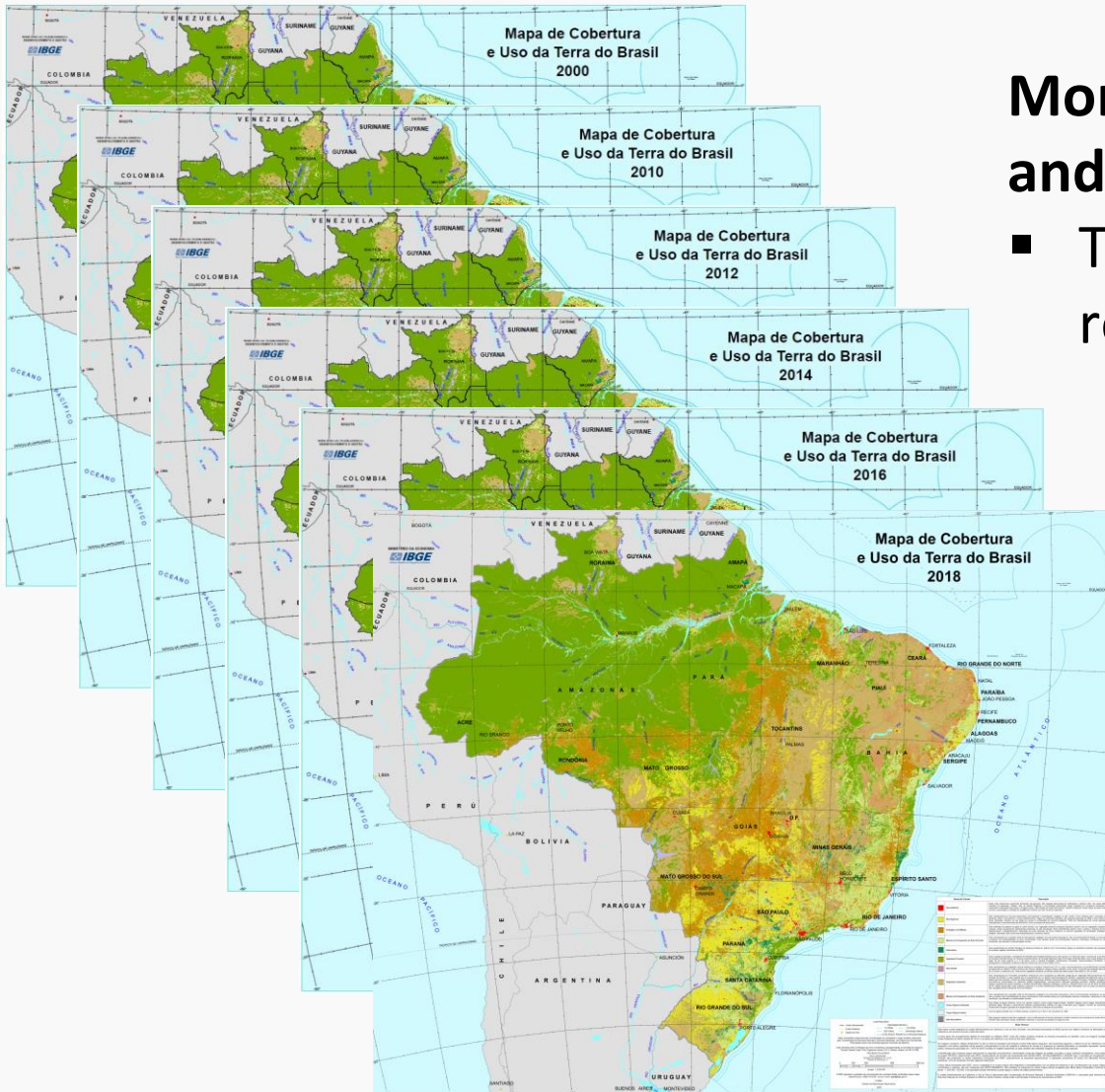
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# METHODS

## Inputs



## Monitoring of Land Cover and Land Use 2000-2018

- The latest publication: results of the year 2018

# RESULTS

## General

- National units with total equivalence to a single EFG: **71%**
- National units with partial equivalence: **29%**
- Mean maximum membership (national units – EFGs): **0.83**

# RESULTS

## Land cover and land use

- Artificial areas (includes pit mines) -> Urban and infrastructure.
- Barren land (includes dune fields) -> Sandy shores/Rocky pavements, screws and lava flows.

Major type	List of national or regional units	Functional group	T3.4 Rocky pavements, screes and lava flows	T7.1 Croplands	T7.2 Sown pastures and old fields	T7.3 Plantations	T7.4 Urban and infrastructure lands	TF1.1 Tropical flooded forests and peat forests	TF1.3 Permanent marshes	TF1.4 Seasonal floodplain marshes	F 1.2 Permanent lowland rivers	F3.1 Large reservoirs	FM 1.3 Intermittently closed coastal lagoons	MT1.3 Sandy Shores	Tally check	max	#candidate EFGs	lower bound membership value (0-1)	upper bound membership value (0-1)	best estimate membership value (0-1)	confidence value (0-100)
Land cover and land	Artificial surfaces						1								1	1	1	1	1	1	100
Land cover and land	Cropland			0,8		0,2									1	0,8	2	0,7	1	0,8	90
Land cover and land	Managed pasture				1										1	1	1	1	1	1	100
Land cover and land	Silviculture					1									1	1	1	1	1	1	100
Land cover and land	Inland water bodies										0,6	0,2	0,2		1	0,6	3	0,6	0,9	0,6	90
Land cover and land	Wetland							0,2	0,6	0,2					1	0,6	3	0,6	0,9	0,6	90
Land cover and land	Barren land		0,3											0,7	1	0,7	2	0,5	0,8	0,7	80



# RESULTS

## Vegetation

- Vegetation refugges -> Tropical alpine meadows and shrublands.
- Steep-like savanna (*Caatinga*) -> Tropical/Subtropical dry forests and scrubs; Seasonally dry tropical shrublands; Pyric tussock savannas; Thorny deserts and semi-deserts; Seasonal floodplain marshes.

Major type	map	List of national or regional units	Functional group	Functional group							Tally check	max	#candi date EFGs	lower bound membership value (0-1)	upper bound membership value (0-1)	best estimate membership value (0-1)	confidence value (0-100)	
				T1.2 Tropical/Subtropical dry forests and scrubs	T3.1 Seasonally dry tropical shrublands	T4.2 Pyric tussock savannas	T5.2 Thorny deserts and semi-deserts	T6.5 Tropical alpine meadows and shrublands	TF1.4 Seasonal floodplain marshes									
Steppe-like savanna	Tds	Forested steppe-like savanna without palms		1								1	1	1	1	1	100	
Steppe-like savanna	Tdp	Forested steppe-like savanna with palms		1								1	1	1	1	1	100	
Steppe-like savanna	Tas	Tree steppe-like savanna without palms and without riparian forest		0,4	0,15	0,15	0,3					1	0,4	4	0,1	0,5	0,4	50
Steppe-like savanna	Tap	Tree steppe-like savanna with palms		0,4	0,15	0,15	0,3					1	0,4	4	0,1	0,5	0,4	50
Steppe-like savanna	Taf	Tree steppe-like savanna with riparian forest		0,4	0,15	0,15	0,3					1	0,4	4	0,1	0,5	0,4	50
Steppe-like savanna	Tps	Park steppe-like savanna without palms and without riparian forest			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Steppe-like savanna	Tpp	Park steppe-like savanna with palms			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Steppe-like savanna	Tpf	Park steppe-like savanna with riparian forest			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Steppe-like savanna	Tgs	Grassy-woody steppe-like savanna without palms and without riparian forest			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Steppe-like savanna	Tgp	Grassy-woody steppe-like savanna with palms			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Steppe-like savanna	Tgf	Grassy-woody steppe-like savanna with riparian forest			0,3	0,3	0,3		0,1			1	0,3	4	0,1	0,5	0,3	50
Vegetation refuge	rl	High-montane vegetation refuge							0,5			0,5	0,5	1	0,1	0,6	0,5	50
Vegetation refuge	rm	Montane vegetation refuge							0,5			0,5	0,5	1	0,1	0,6	0,5	50
Vegetation refuge	rs	Sub-montane vegetation refuge							0,5			0,5	0,5	1	0,1	0,6	0,5	50



# CONCLUSION

- In general, the classification proposed by the IUCN proved to be useful and comprehensive.
- Great possibility to be used in the ecosystems classification of large countries.

**THANK YOU**

**GRACIAS**

**MERCI**

**OBRIGADO**