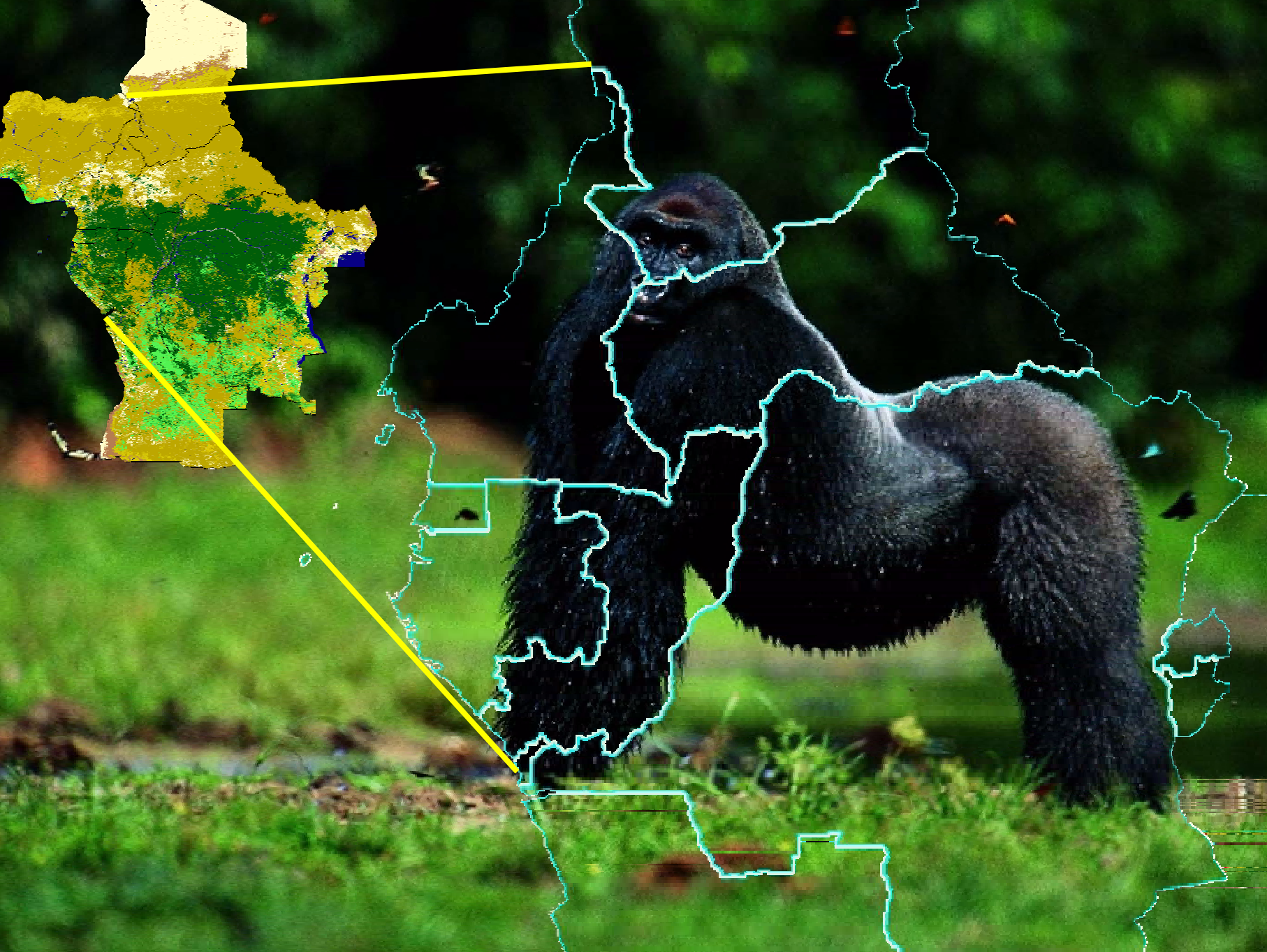
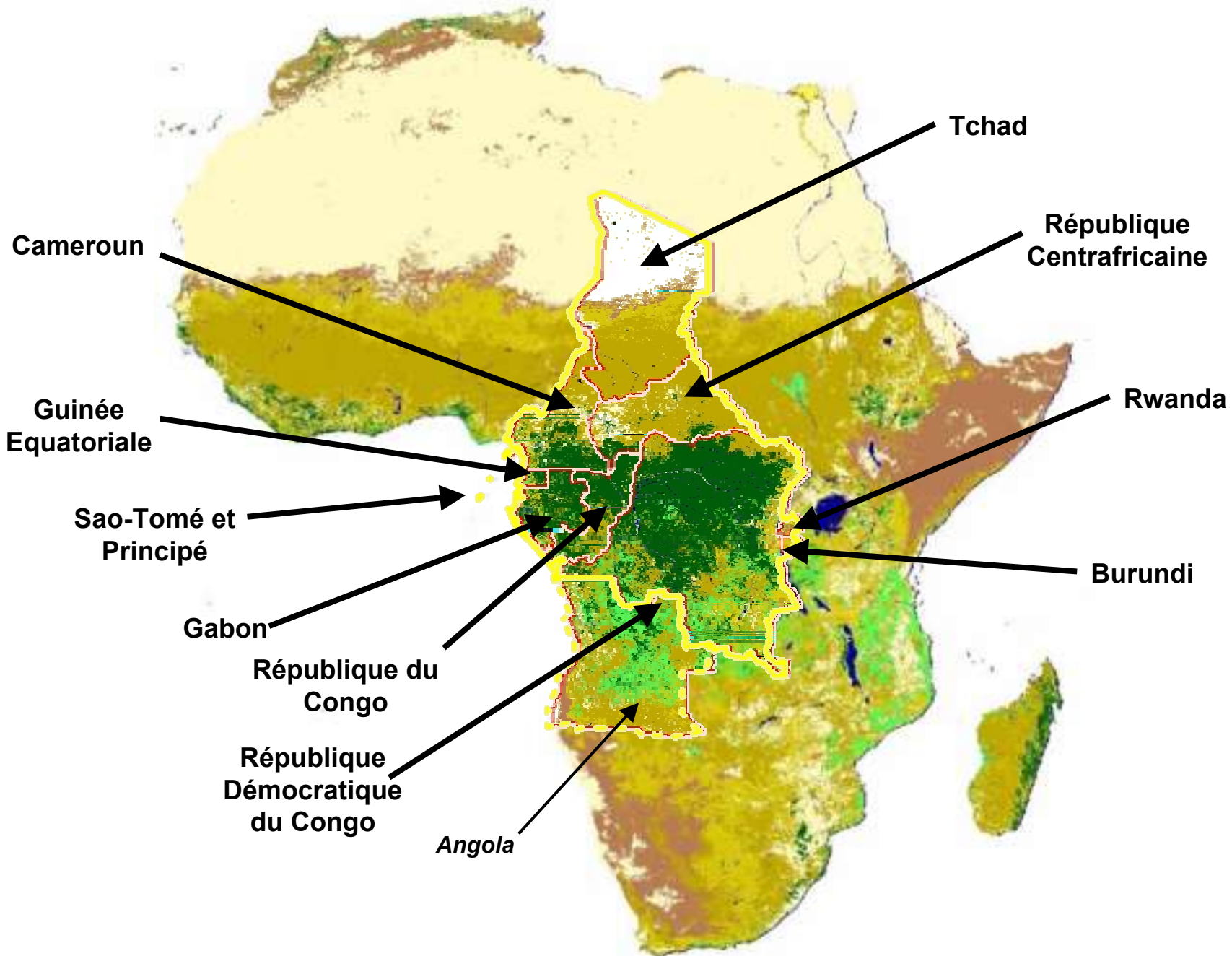


The context of REDD in Central Africa



- What future for the Congo Basin?





Tchad

République
Centrafricaine

Rwanda

Burundi

Angola

République
Démocratique
du Congo

République du
Congo

Gabon

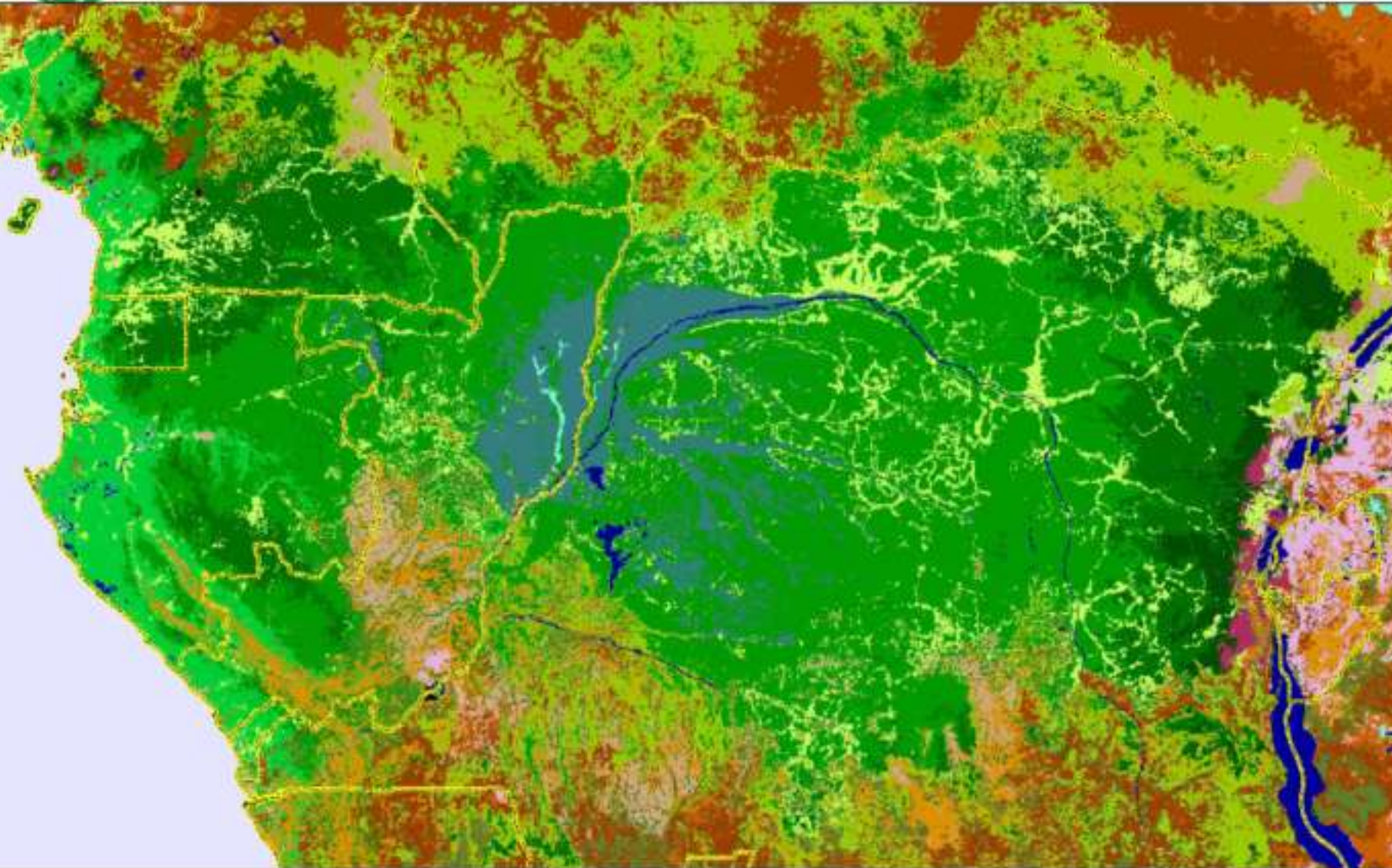
Sao-Tomé et
Principé

Guinée
Equatoriale

Cameroun



Forests of Central Africa

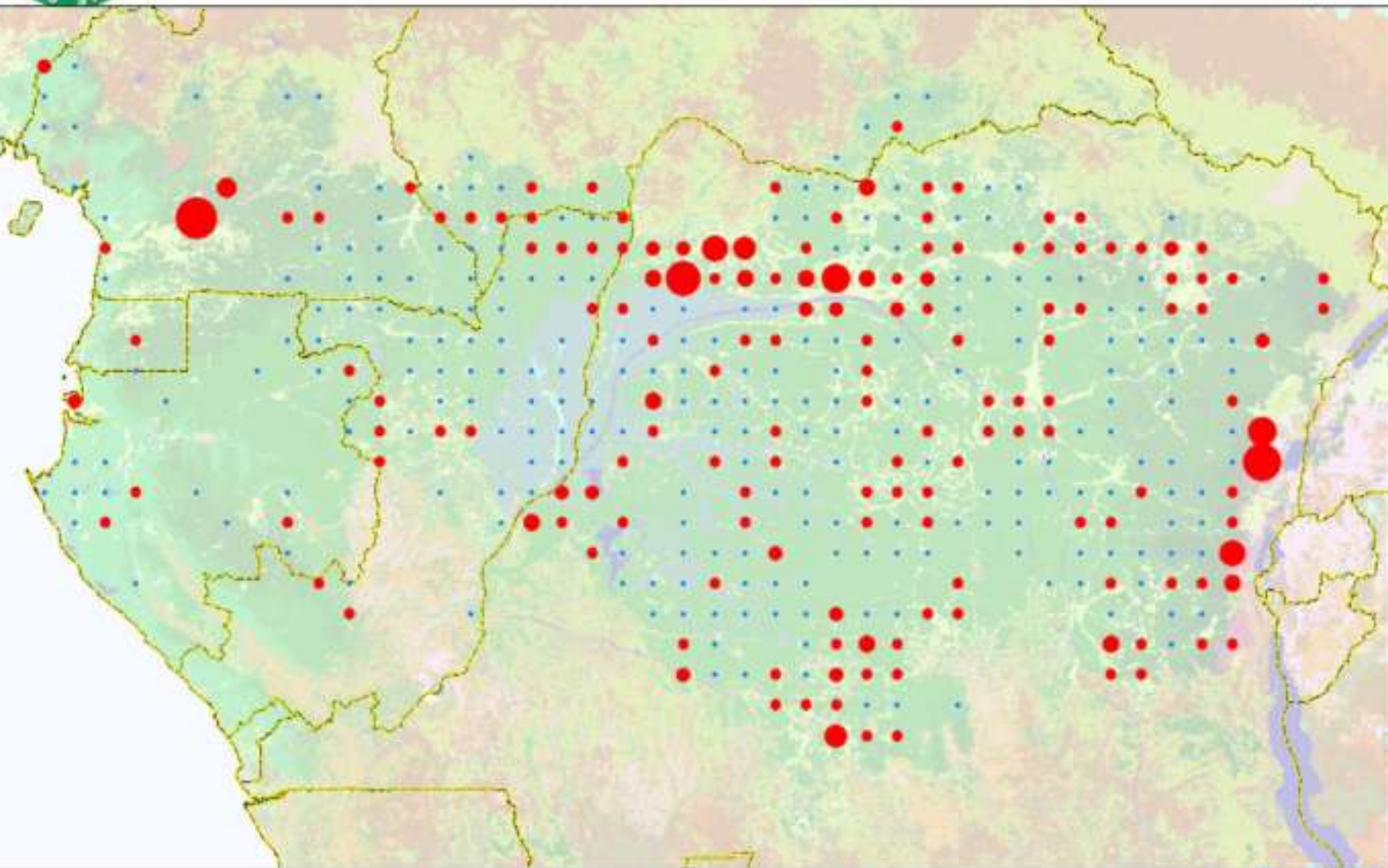


227.61 MILLIONS ha (FAO, 2005)



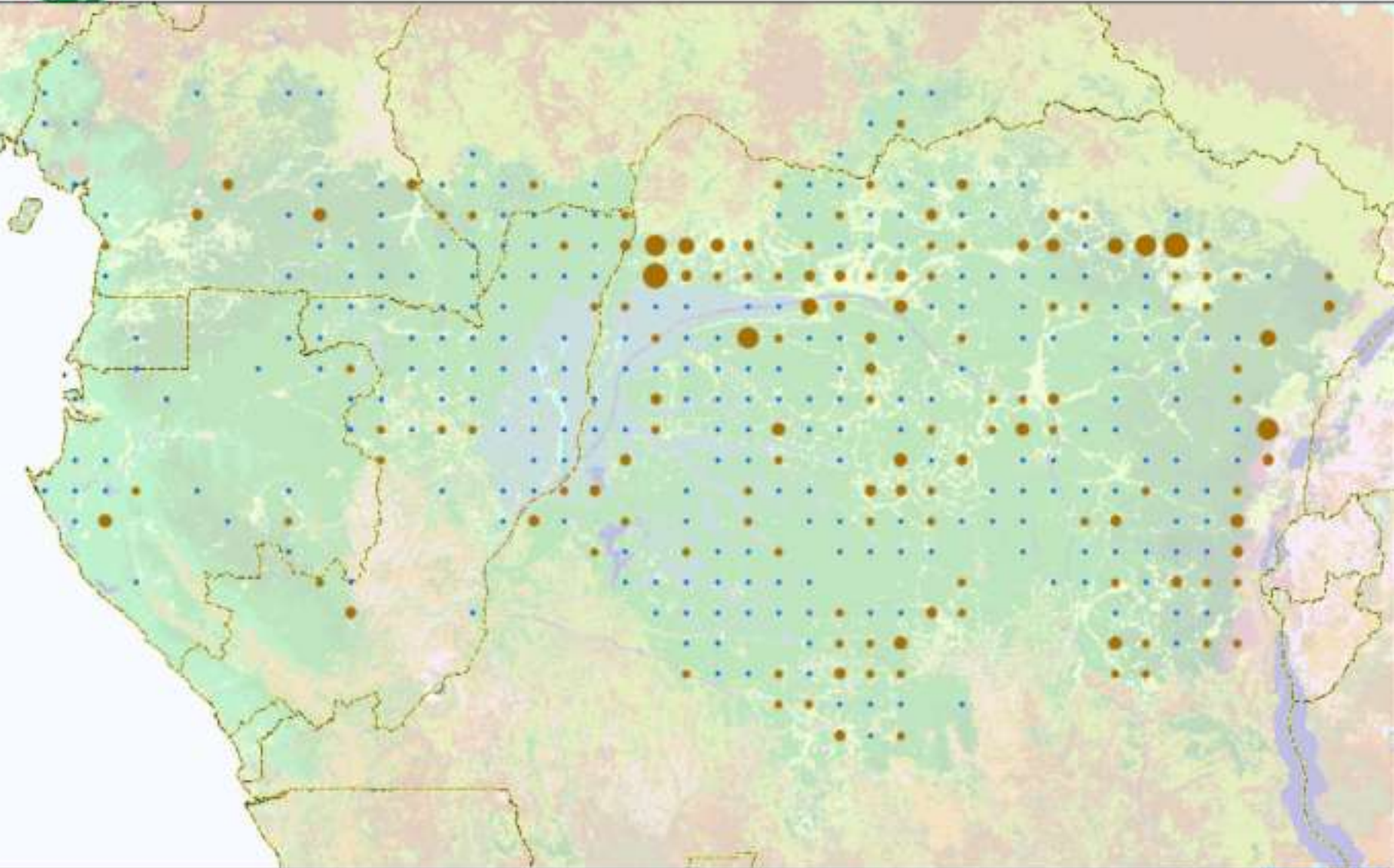


Deforestation



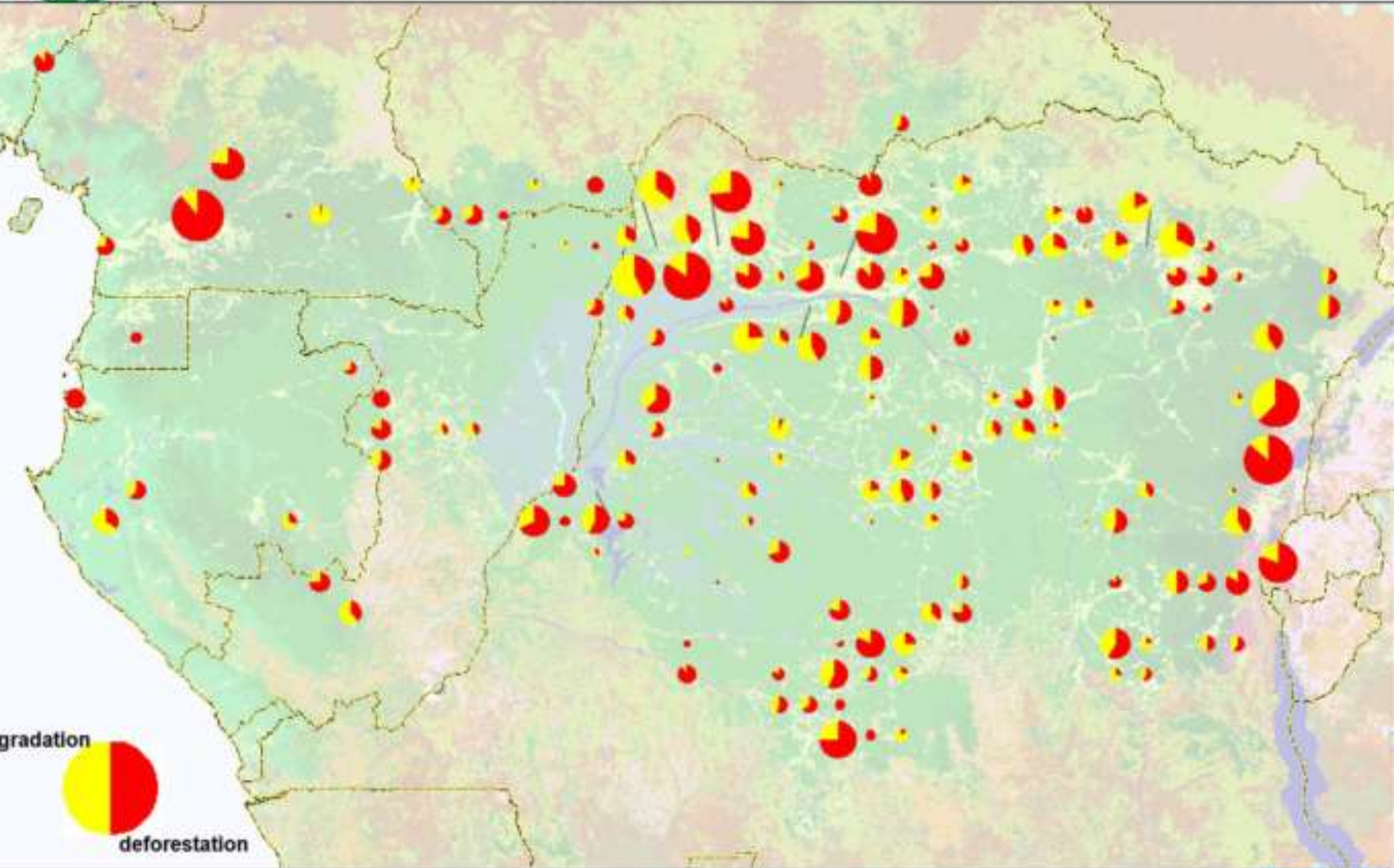


Degradation





Deforestation vs degradation





National estimates



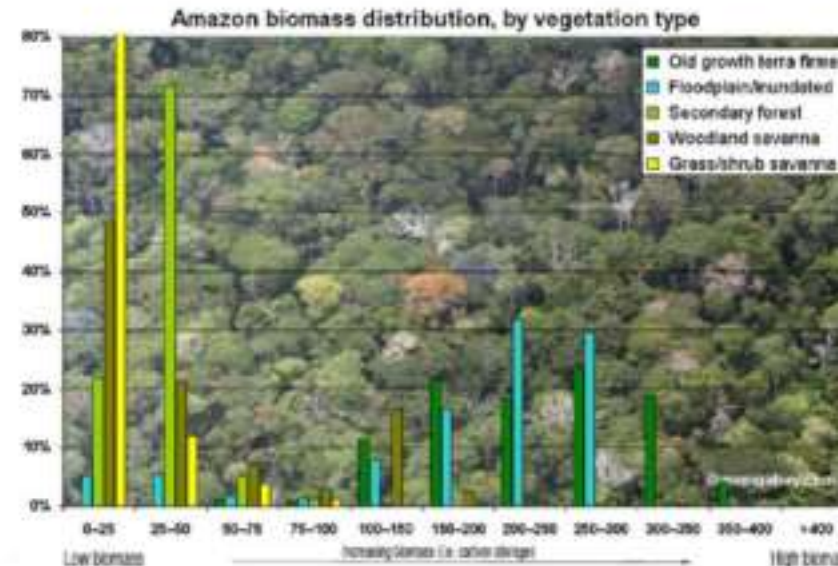
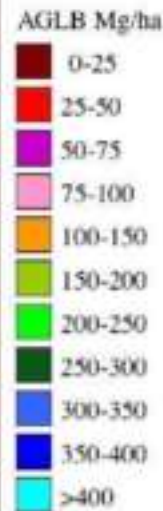
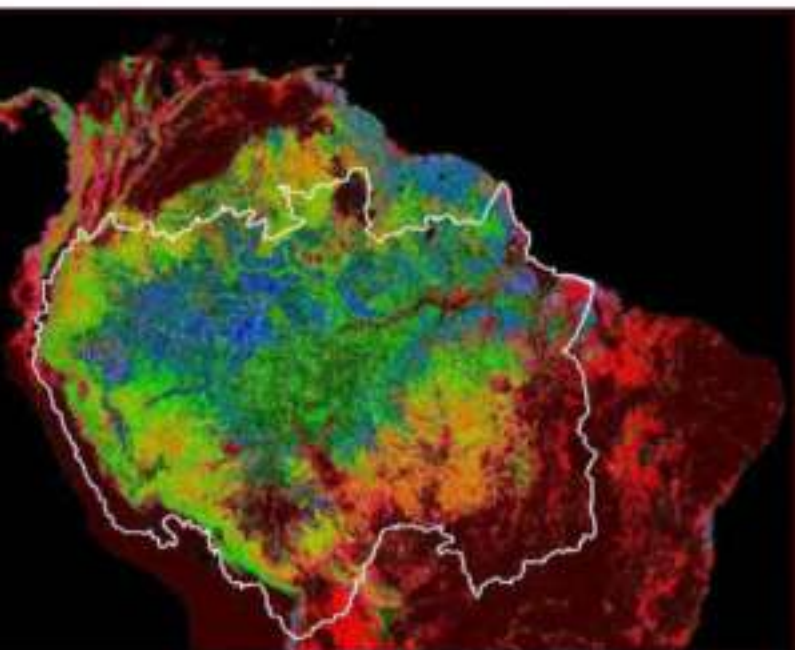
	Cameroon *	CAR	D.R. Congo	Equat. Guinea	Congo	Gabon *	Central Africa
Gross Deforestation	-0,28%	-0,15%	-0,33%	-	-0,12%	-0,16%	-0,27%
Net Deforestation	-0,19%	-0,07%	-0,26%	-	-0,03%	-0,12%	-0,19%
Net Degradation	-0,02%	-0,02%	-0,15%	-	-0,01%	-0,09%	-0,10%
FAO Deforestation	-0,90%	-0,10%	-0,40%	-0,60%	-0,10%	0,05%	-0,36%

* Unreliable due to missing samples (cloud-cover)

Studies underway

- Sassan Saatchi, Danae Maniatis, Lee White, Marte Mapangou, Florence Palla, Miguel Leal, Chris Wilks private sector forestry companies (par ex. Leroy Gabon, Rougier, CEB, CBG, Bordamur, etc.) *et al.*
- *Carbon map of Gabon in 2007 (ALOS , permanent plots, forestry inventories, measures of wood density of principal species, development of allometric equations for Central Africa*
- *Evaluation of carbon balance 1997-2007 (JERS – ALOS, ground truthing)*
- *Extrapolation to the regional level (images, plots, inventories, ground-truthing)*

DISTRIBUTION OF ABOVEGROUND BIOMASS IN THE AMAZON BASIN



Forest Type	Area Km ²	AGLB PgC	AGDB PgC	BGB PgC	TB PgC	Mean Biomass MgC/ha
Terra firme	5135200	63.02	5.67	13.24	81.93	159.54
Floodplain	328825	3.25	0.29	0.68	4.22	128.33
Secondary forest	5464025	66.27	5.96	13.92	86.15	157.66
Woodland savanna		59.19-73.34	1.32-12.27	8.62-17.23	69.13-102.84	140.81-174.49

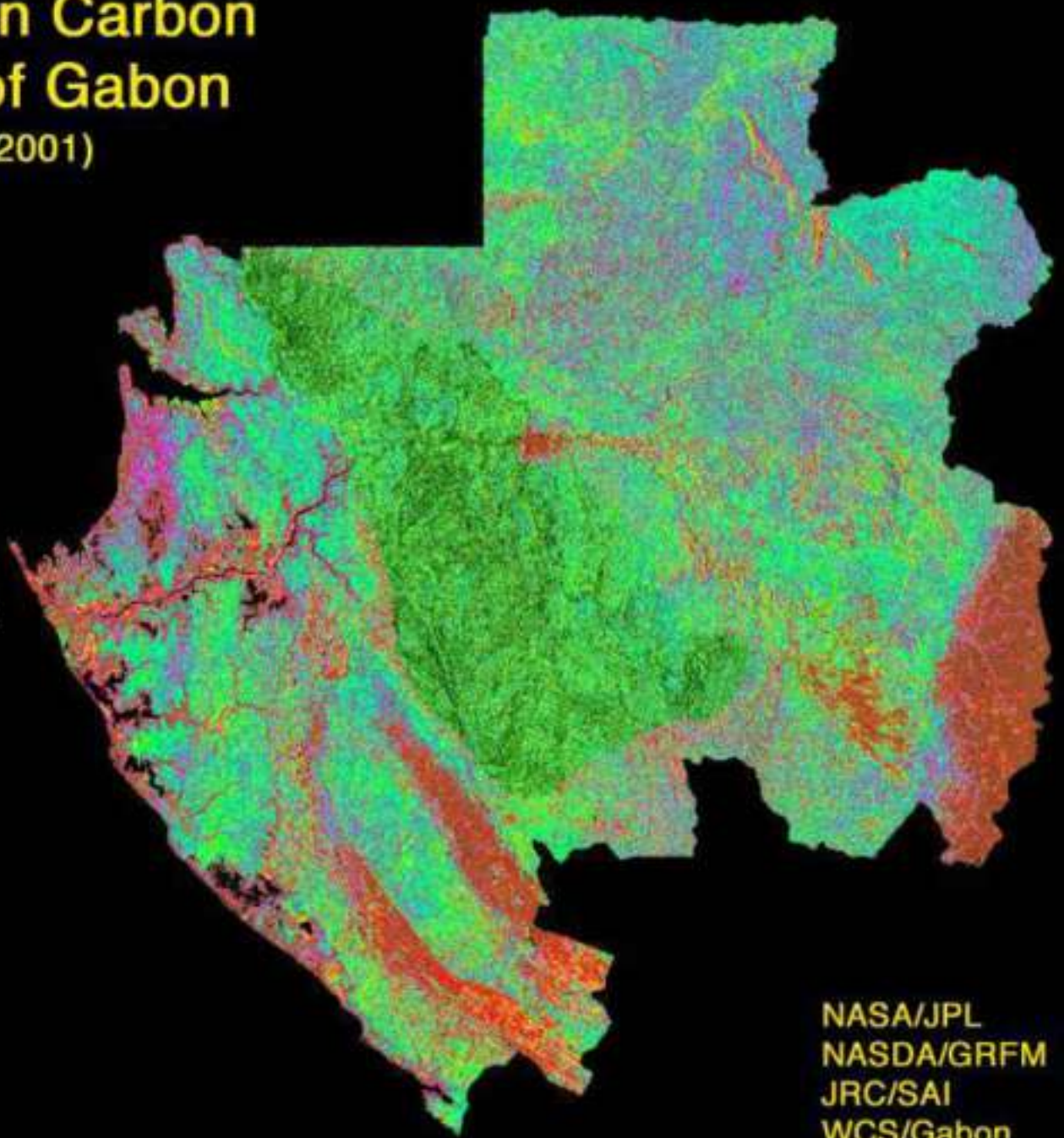
Maatchi, Houghton, Alvala, Soares, and Yu
Global Change Biology, 2007

Total biomass of Amazon basin is around 86 petagrams (86 billion metric tons) of carbon--for comparison, 7.9 billion metric tons of carbon dioxide were emitted in 2005. This means that Amazon locks up at least 11 years of recent carbon dioxide emissions.

Vegetation Carbon Content of Gabon

(Saatchi et al. 2001)

Carbon tons/ha



NASA/JPL
NASDA/GRFM
JRC/SAI
WCS/Gabon



Studies underway

- Simon Lewis Lee White, Marte Mapangou, Florence Palla, *et al.*
- *Dynamic of carbon in mature forest (cf. studies in the Amazon by Philips, Lewis & Baker) – estimations of biomass / carbon balance in repeat measures on 'Afrित्रon' (African TRopical Observation Network) of 79 permanent plots. Preliminary analysis suggests mature forests in Central Africa fix c. 1.5T CO₂ / ha / yr, as do Amazonina Forests (eg. Philips et al., 2008)*

