

Expert workshop on using global datasets for national REDD+ measuring and monitoring



Organized by:
Global Forest Observation Initiative,
GOFC-GOLD Land Cover Project Office &
Wageningen University (WU), The Netherlands

a. Difference in capacities between 2005 and 2010



b. Difference in capacities between 2010 and 2015



Increase in forest area change monitoring capacities for FAO FRA 2015
(Source: Romijn et al. 2015, *Forest Ecology & Management*)

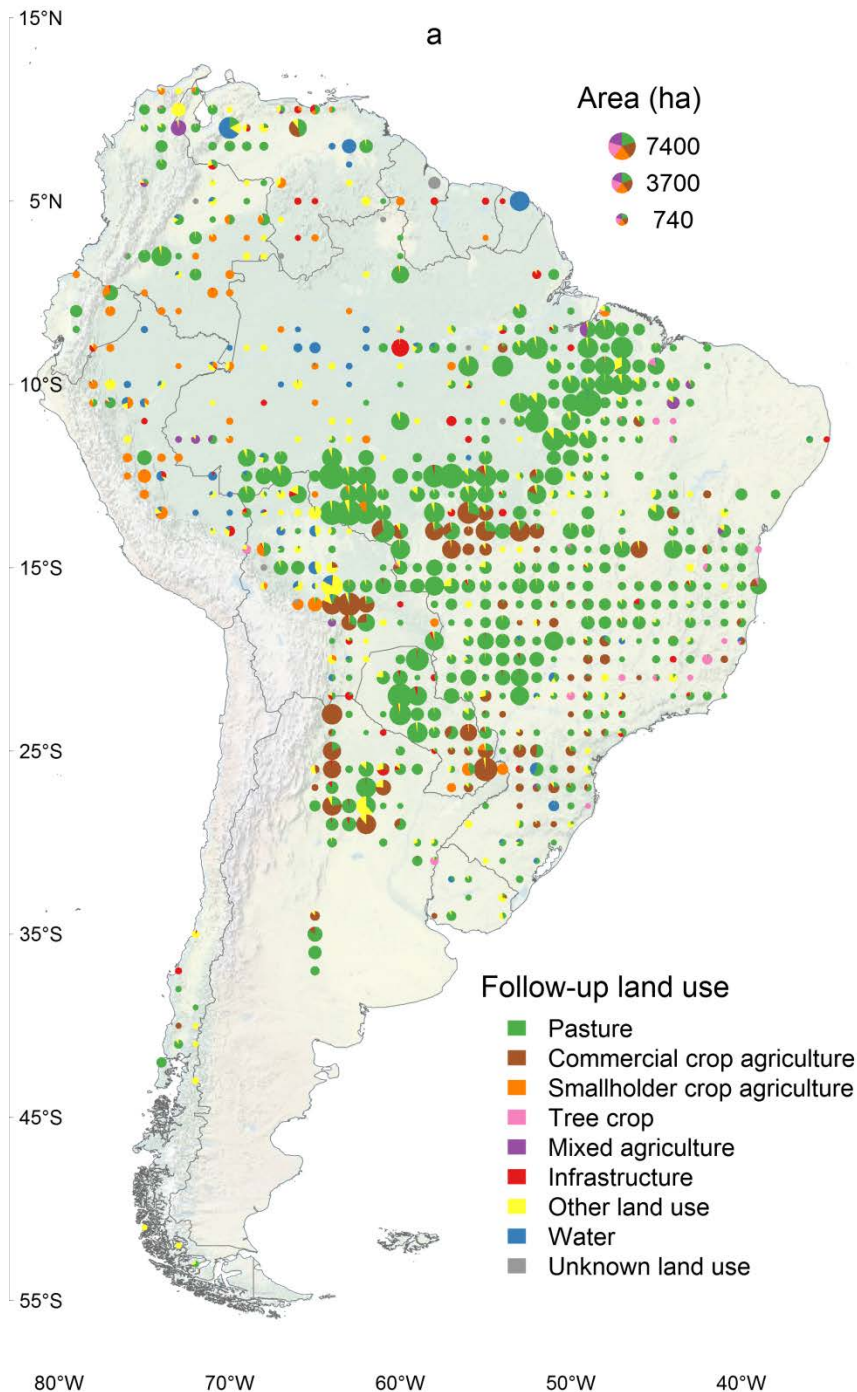
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Workshop Objectives:

1. Present and collect current experiences on the use of global data products related to national forest monitoring systems (NFMS)
2. Identify gaps, inconsistencies, uncertainties and other obstacles for the useful integration of global monitoring efforts with those of forest monitoring efforts at national level
3. Discuss and document the impact of these experiences and provide better guidance to countries based on expert consensus



Assessing land use following deforestation as part of the global forest remote sensing survey (1990-2005)



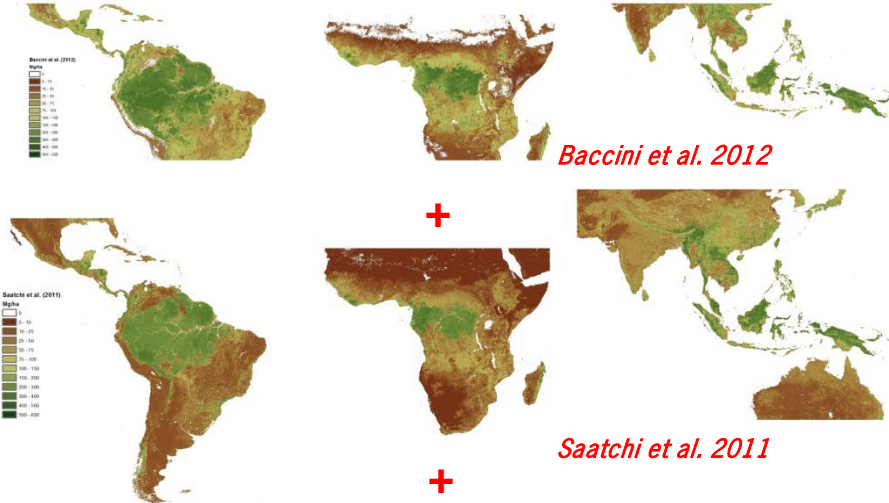
Follow-up land use	Area (10 ³ ha)	%
Mixed agriculture	505	0.8
Smallholder crop agriculture	1557	2.4
Commercial crop agriculture	8448	13.2
Tree crops	263	0.4
Pasture	46347	72.1
Agriculture	57121	88.9
Infrastructure	1029	1.6
Other land use	4168	6.5
Water	1802	2.8
Unknown	124	0.2
Other	7123	11.1
Total	64243	100

Source: Niki de Sy, CIFOR-GCS/WU

Multiple data sources for analysing, validating and integrating biomass maps

Avitabile V. ⁽¹⁾, Herold M. ⁽¹⁾, Lewis S.L. ⁽²⁾, Phillips O.L. ⁽²⁾, Asner G. P. ⁽³⁾, Bayol N. ⁽⁴⁾, de Jong B. ⁽⁵⁾, Kearsley E. ⁽⁶⁾, Lin X. ⁽⁷⁾, Lindsell J. ⁽⁸⁾, Lopez-Gonzalez G. ⁽³⁾, Lucas R. ⁽⁹⁾, Malhi Y. ⁽¹⁰⁾, Morel A. ⁽¹⁰⁾, Mitchard E. ⁽¹¹⁾, Piao S. ⁽¹²⁾, Ryan C. ⁽¹¹⁾, Vaglio Laurin G. ⁽¹³⁾, Valentini R. ⁽¹⁴⁾, Verbeeck H. ⁽⁶⁾, Wijaya A. ⁽¹⁵⁾, Willcock S. ⁽¹⁶⁾

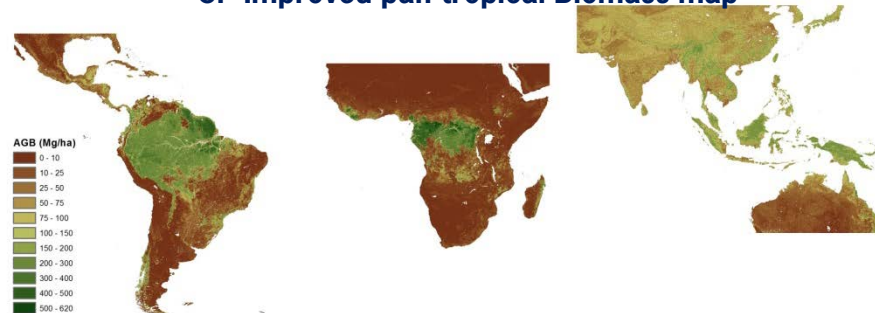
1. Pan-tropical Biomass maps



2. A new Biomass reference dataset for the Tropics

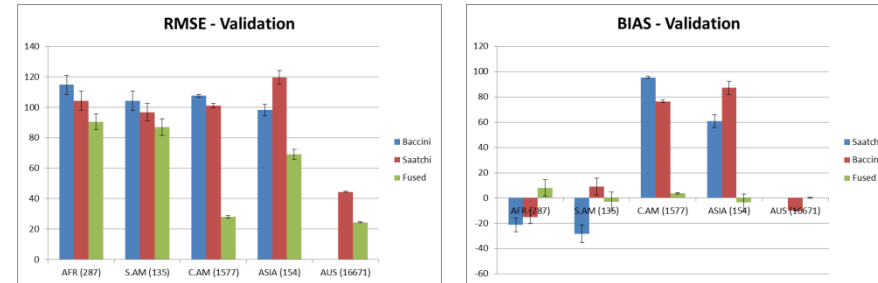


3. Improved pan-tropical Biomass map



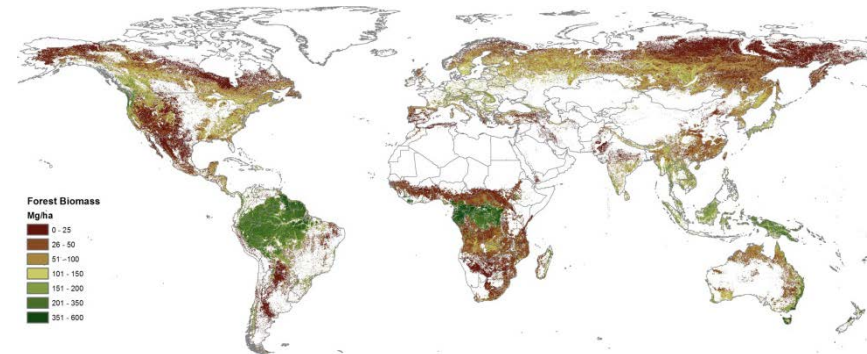
3. A Fusion approach and validation

Bias removal and weighted average by continent and strata



4. Global forest biomass map

Integration with the Boreal map of Thurner et al. (2014)



Examples of global datasets potentially relevant

1. Activity data and land use change
2. Forest biomass and emission factors
3. Fire and biomass burning
4. Peatlands and related emissions
5.

Stakeholder survey (N=598)

DATASETS		OVERALL SCORE AND OPPORTUNITY SCORE BY STAKEHOLDER GROUP																					
No.	Key author, Year, Name	Governmental Annex I		European Government		Governmental Non-Annex I		Local Stakeholder		NGOs		Company - Data users		Company - Data users and producers		Research institutes and universities		Research institutes and universities in tropical Non-Annex		Other (Donor agencies / Journalism / media / other..)		AVERAGE BY DATASET	
		%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity	%	Opportunity
Forest area change dataset																							
1	Kim et al., 2014.	60%	++	59%	--	61%	++	66%	N/A	58%	++	64%	-	57%	--	60%	+	57%	++	56%	--	60%	+/-
2	Hansen et al., 2013.	86%	++	85%	++	89%	++	91%	N/A	88%	+	87%	-	86%	+/-	86%	+/-	86%	++	87%	++	87%	+
3	INPE, 2014. PRODES	60%	++	63%	++	66%	++	63%	N/A	65%	++	69%	--	66%	--	65%	++	64%	+	67%	++	65%	+
Forest biomass change and EF datasets																							
4	A Baccini et al., 2012.	54%	++	55%	N/A	64%	++	53%	N/A	62%	++	69%	++	62%	N/A	61%	++	60%	++	63%	++	60%	++
5	S. Saatchi et al., 2011.	58%	++	57%	++	62%	++	53%	N/A	62%	++	68%	+/-	62%	N/A	60%	++	58%	++	62%	++	60%	++
6	N. L. Harris et al., 2012.	51%	++	49%	N/A	53%	++	59%	N/A	56%	++	57%	++	49%	N/A	53%	++	52%	++	54%	++	53%	++
GHG AFOLU datasets																							
7	R. A. Houghton, 2008.	58%	++	59%	++	56%	N/A	64%	N/A	59%	++	60%	N/A	62%	N/A	61%	++	58%	++	57%	--	59%	++
8	FAO, 2012. FAOSTAT	65%	+/-	65%	-	69%	++	70%	N/A	65%	++	74%	-	69%	-	67%	++	65%	++	66%	++	68%	+
9	JRC, 2011. EDGAR	65%	--	67%	--	61%	N/A	71%	N/A	67%	++	75%	N/A	67%	N/A	66%	++	65%	++	64%	--	67%	+
Average per stakeholder group		62%		62%		65%		66%		65%		69%		64%		64%		63%		64%			
		Overall score										Opportunity score											
		very good (91-100%)										++ very good opportunity (>= 101%)											
		good (81-90%)										+ good opportunity (91-100%)											
		intermediate (71-80%)										+/- intermediate opportunity (81-90%)											
		limited (61-70%)										- limited opportunity (71-80%)											
		low (<= 60%)										-- low opportunity (<= 70%)											

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Improved guidance:

1. From GFOI (methods and guidance document) and GOFC-GOLD (Sourcebook and training materials)
2. Capacity building efforts for national forest monitoring systems (UN-REDD, WB-FCPF, Silvacarbon)
3. Communication of global data product analyses and results
4. Research needs and opportunities (links to the GFOI R&D component)

