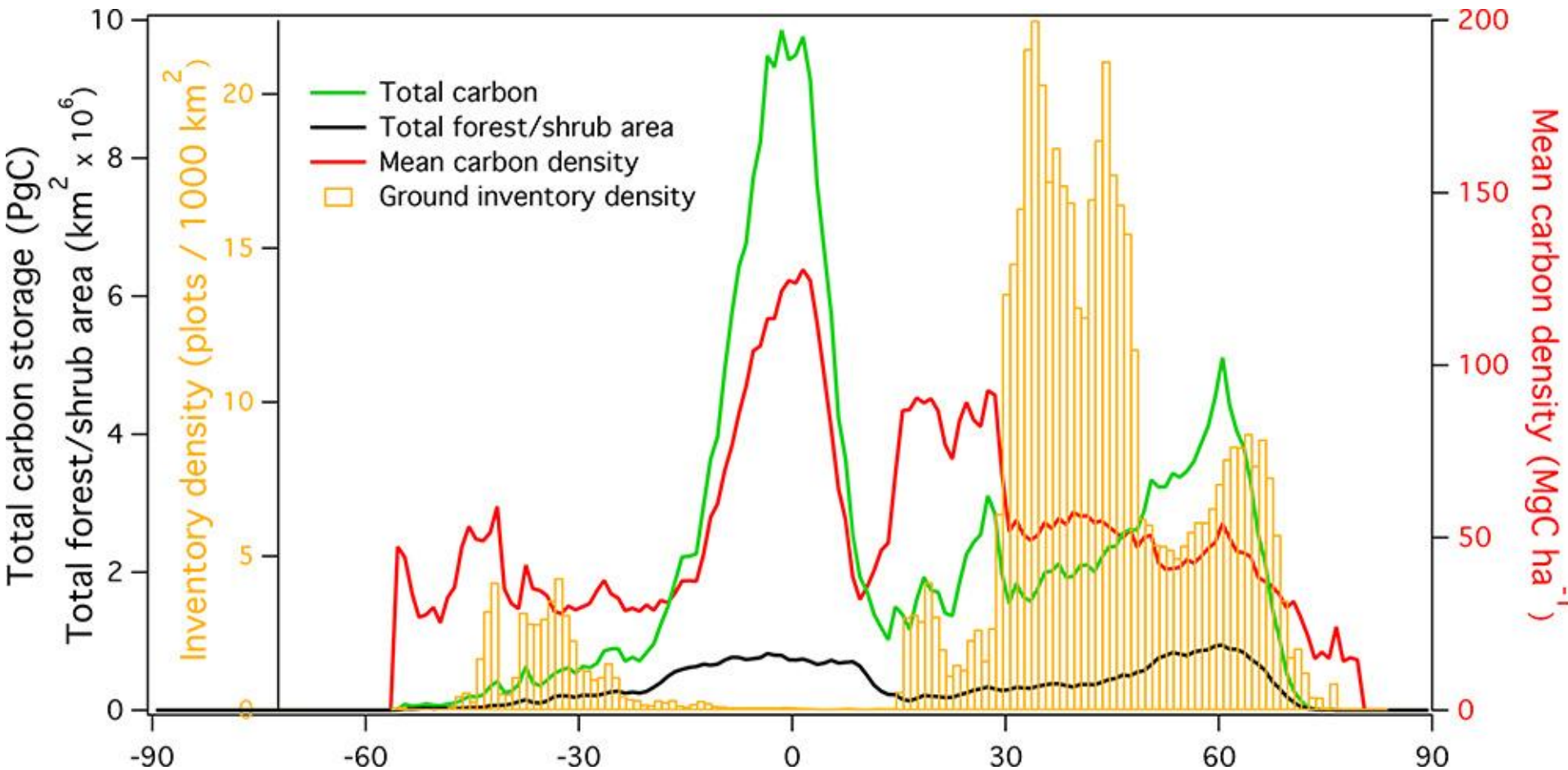


The GlobBiomass Algorithm Technical Basis Document (ATBD) - Introduction

Editors: Shaun Quegan & Joao Carreiras, University of Sheffield
& Yrjö Rauste, VTT Technical Research Centre of Finland
Inputs from the whole team

State of Carbon and Inventory of Global Forests



Background

- › GlobBiomass will produce regional and global maps of biomass, together with associated products (some also in map form) indicating the accuracy of these maps.
- › The **regional** maps are produced independently by the regional teams, and represent the best biomass estimates they can make using whatever data are available.
- › The **global** biomass map will be produced in a consistent way from existing global datasets of relevant variables, and will also have associated estimates of accuracy. It aims to be better than any of the existing continental scale maps.
- › Regional maps should in principle allow testing of the global map, and possible cross-fertilisation of methods

Purpose of the ATBD

- › **Concise** description of the data and methods used to produce the various maps and accuracy products;
- › Contains enough detail to allow **replication**;
- › Provides **reasons** for selecting these data and methods (and not selecting others). This is the Design Justification built into the ATBD.

Structure of the ATBD

1. Regional biomass maps
 - a. General description of regions
 - b. Datasets (for Input, Training, Validation, Accuracy assessment)
 - c. Methods (Pre-processing, Biomass estimation, Training, Assigning accuracy, Testing accuracy)
 - d. Products
2. Commonalities and differences between the regional approaches
3. Global biomass map: same reporting structure as regional
4. Relation of regional methods and maps to global product
5. Conclusions

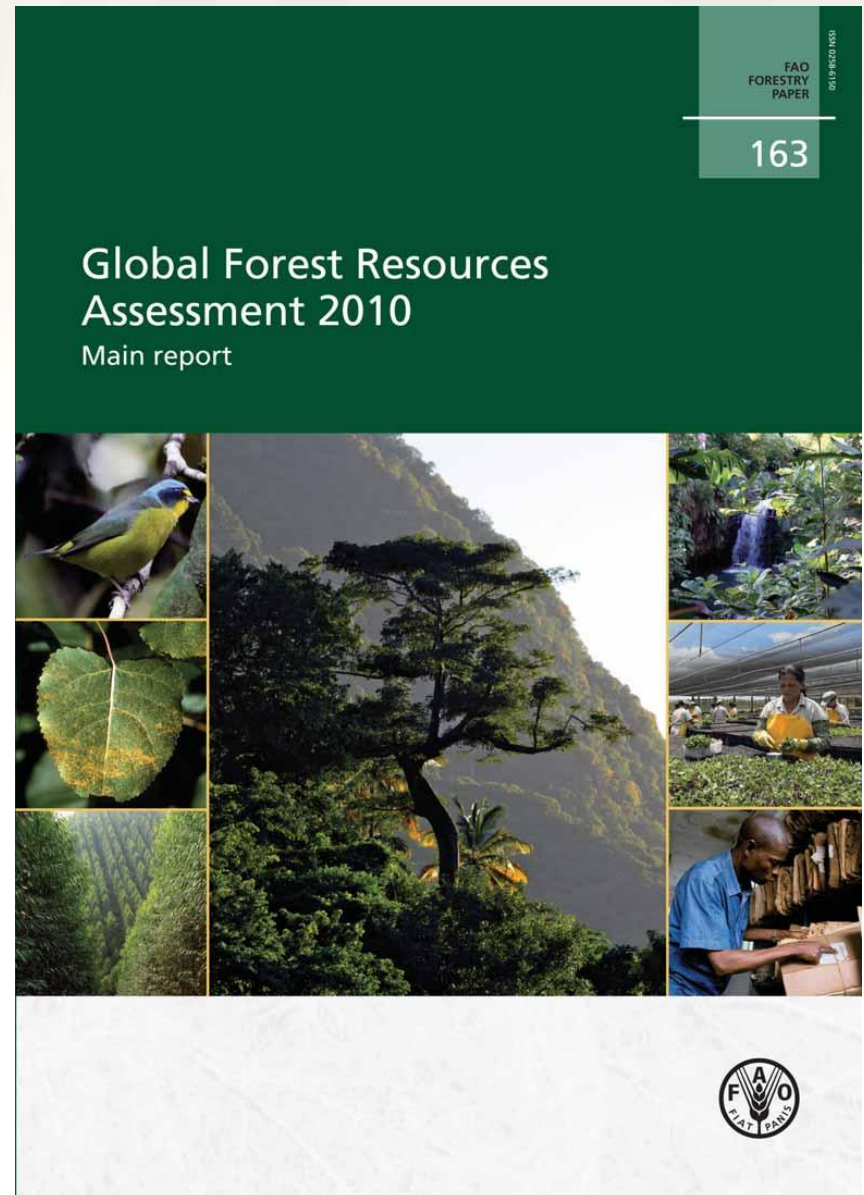
Is the FAO the right place for a forest biomass Centre ?

› UN Global Forest Resources Assessment

- Main source of information on global forest carbon stocks
- Issued every 5 years
- Based on national statistics
- 1 value of biomass per country

Driver for in situ biomass:
MRV systems for REDD+

GEO Global Forest
Observations Initiative.



Gridded forest maps ca 2008

Silva Fennica 42(3), 2008

research articles

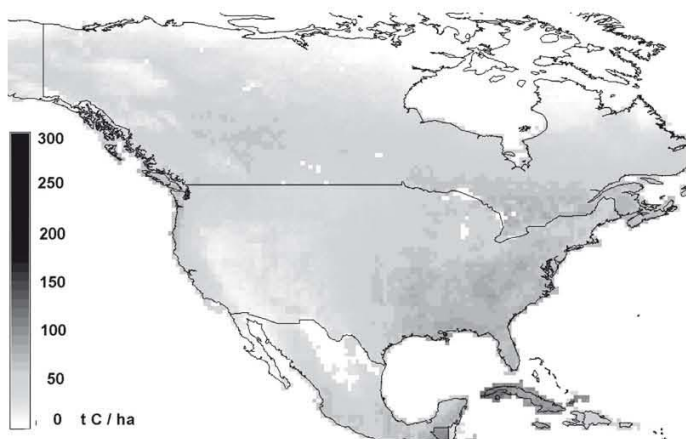


Fig. 4. Above ground Carbon Map – US (tC/ha in forests).

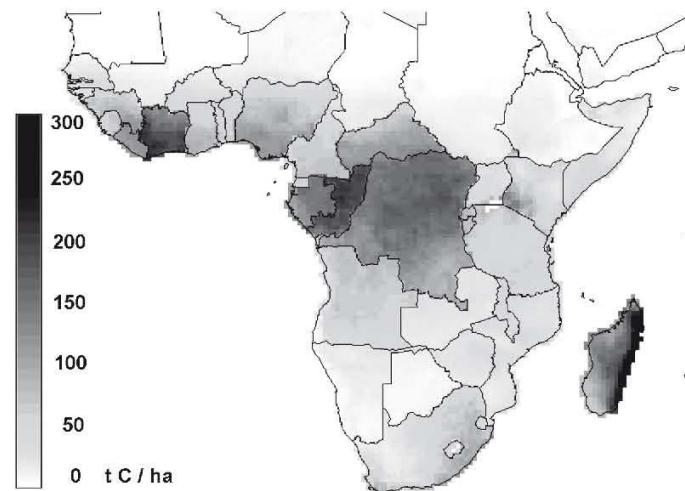


Fig. 5. Above ground Carbon Map – Central Africa (tC/ha in forests).

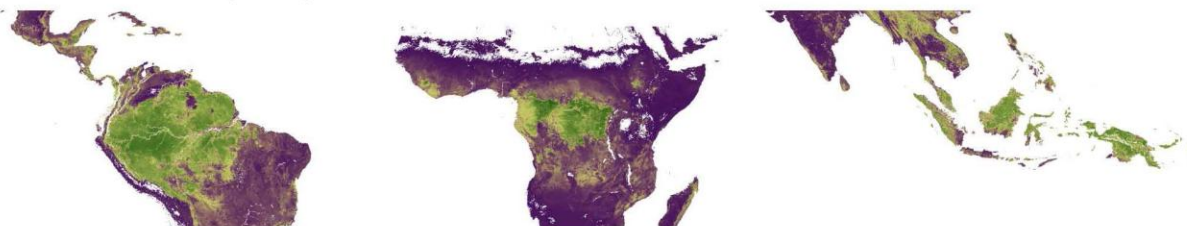
Kindermann et al.: A Global Forest Growing Stock, Biomass and Carbon Map Based on FAO Statistics



Pan-tropical biomass maps based essentially on IceSAT lidar height

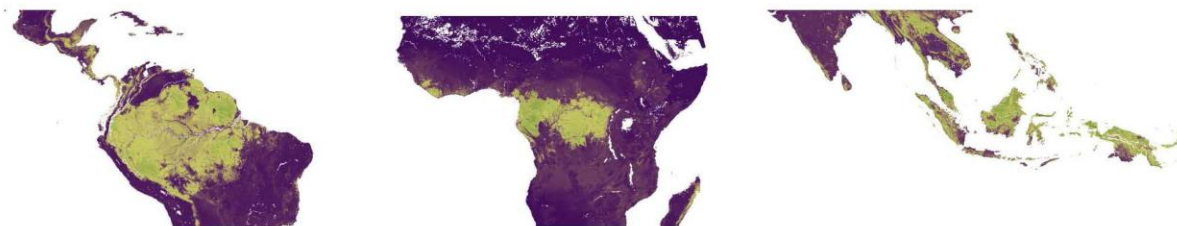
Comparison, same scale, 5km res

Baccini et al. (2012)

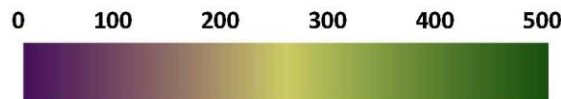


Baccini et al, 2012

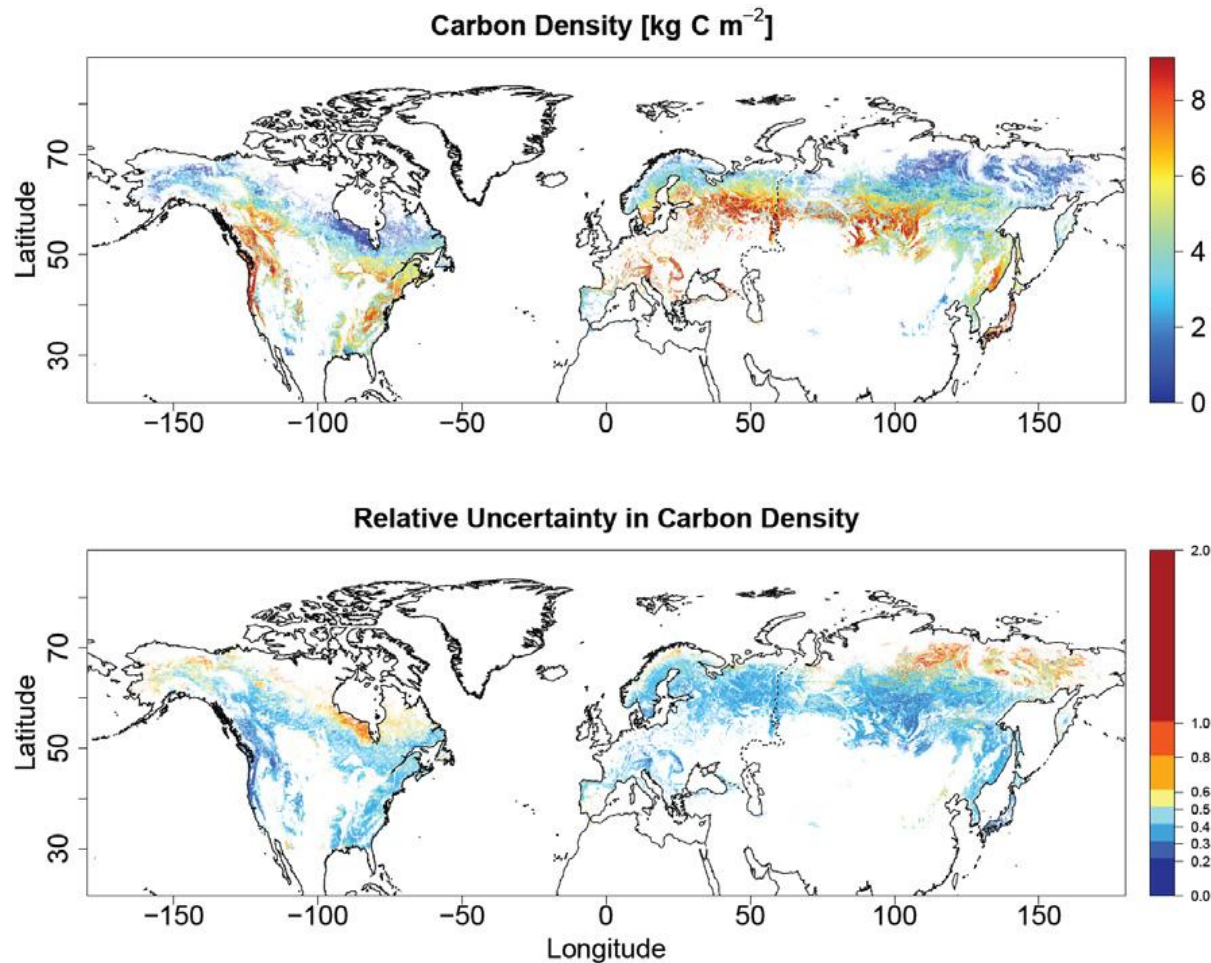
Saatchi et al. (2011)



Saatchi et al, 2012



**Spatial distribution of total forest carbon density in NH
boreal and temperate forests and its relative uncertainty
(1 = 100% uncertainty).**



Thurner et al., 2013