ASB Partnership for the Tropical Forest Margins: The BenchMark Sites Experience

FTA Science Meeting on Sentinel Landscapes

December 18, Bonn, Germany

What is it?

- A **global consortium hosted by ICRAF**, of over 40 research institutions, NARS, NGOs, government agencies, universities, and community groups; with contributions from about 250 researchers; a **Millennium Assessment partner**

Goal and Outputs

"Raise productivity and income of rural households living in the tropical forest margins without increasing deforestation or undermining essential environmental services."

- **ASB1.** Site-specific results and cross-regional syntheses of tradeoffs at the tropical forest margins and options for optimizing those tradeoffs.

- **ASB2.** Results on tradeoffs and policy options are disseminated to national, regional and international stakeholders and policy fora, with particular emphasis on policy processes identified as having greatest potential for advancing the ASB goal.

- **ASB3.** An efficient, productive and member-owned research network at the national, regional and international scales.

20th Partnership for the Tropical Forest Margins ASB 1994-2014

Quick Outline

- Longterm Commitment to co-location by multiple and diverse partners
- Investments in defining and re-defining a set of landscapes
- Investment in an adaptable framework for data collection and analysis
- What impact? Success? And Challenges…

40 Partners: Core Set of Partners in last 10 years

Norad

World Agroforestry Centre

IITA
Research to Nourish Africa

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

IFPRI
INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
Supported by the CGIAR

IRAD

VAFS
VIETNAMESE ACADEMY OF FOREST SCIENCES

IAARD

Embrapa Florestas

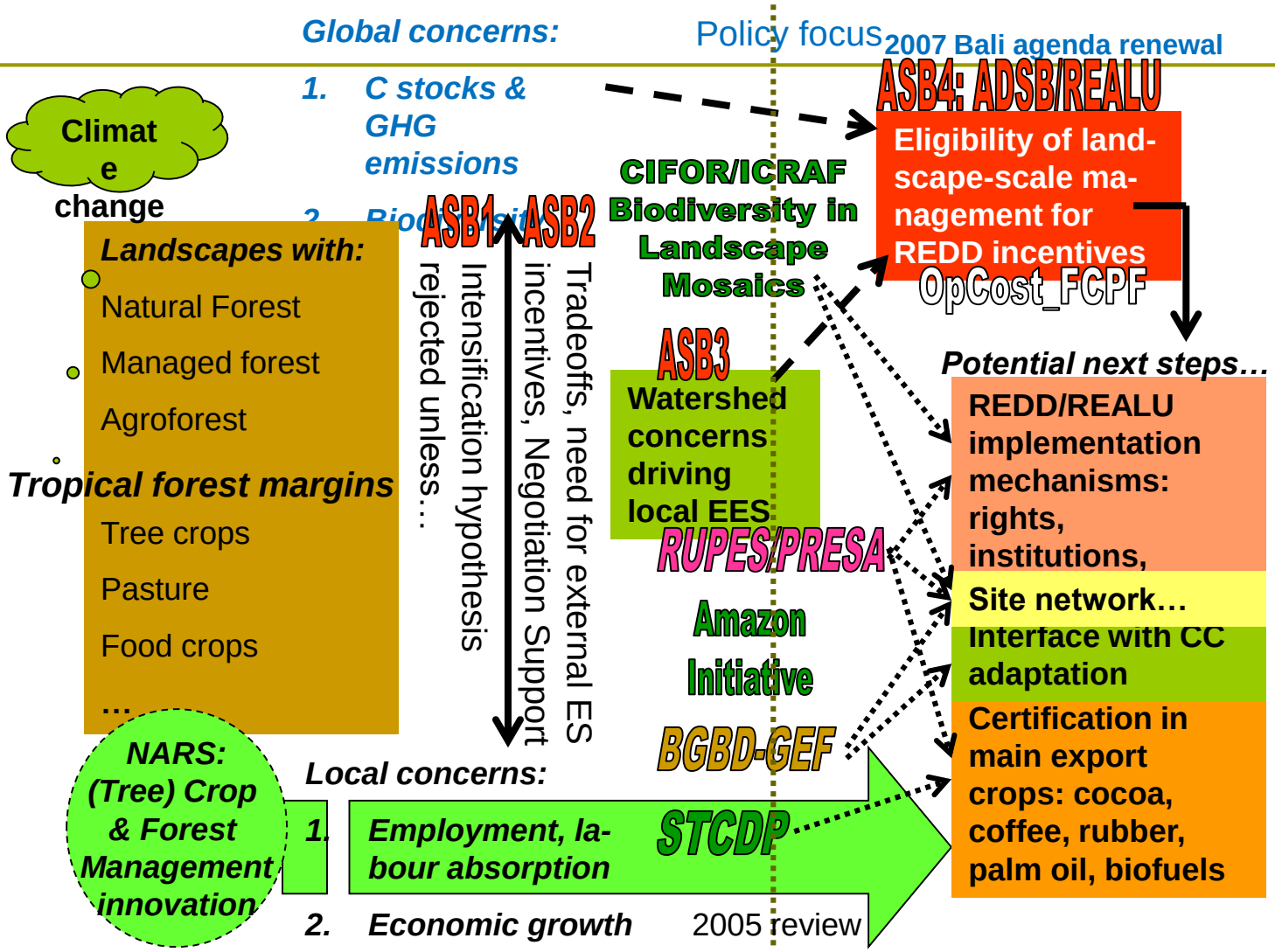
inia

PCAARD

The James Hutton Institute

20th ASB Partnership for the Tropical Forest Margins
1994-2014

20th ASB Partnership for the Tropical Forest Margins
1994-2014

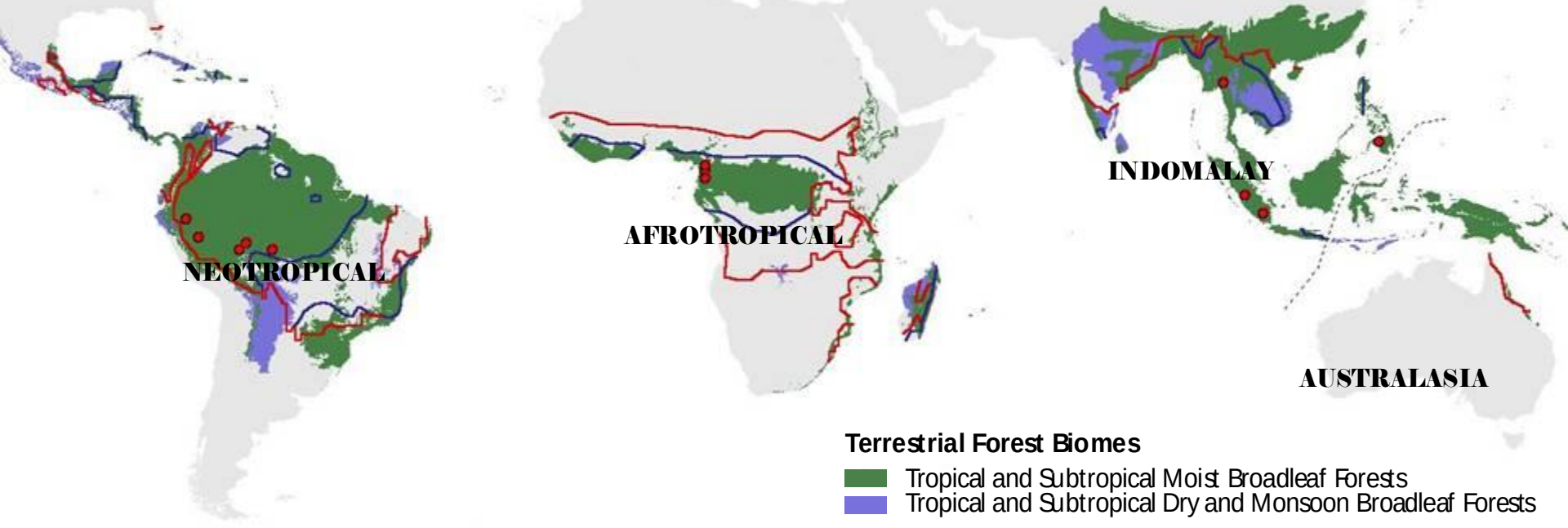


Alternatives to Slash-&-Burn (ASB)

Benchmark Sites span the humid tropics

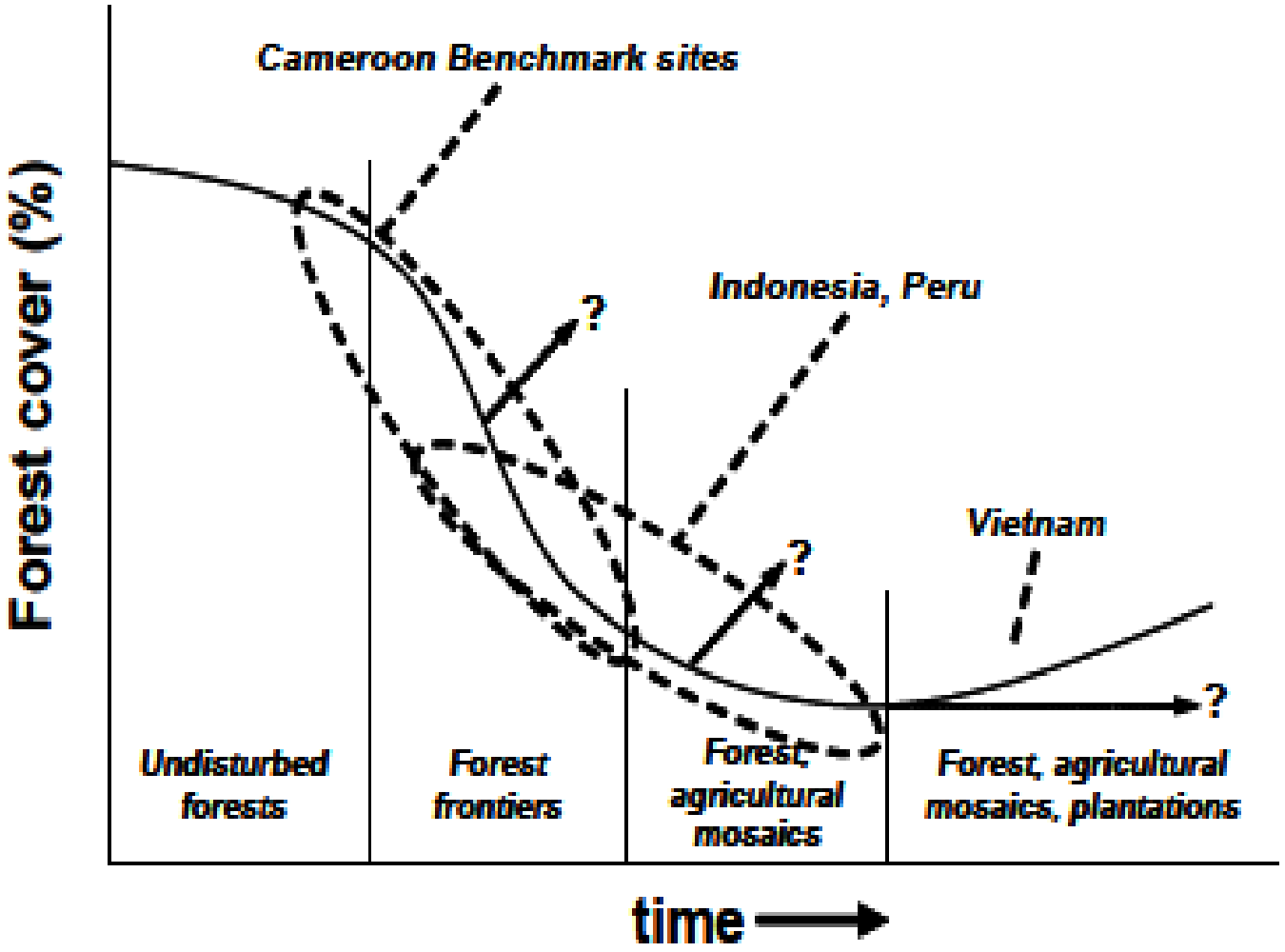
Tropical & Subtropical Moist Broadleaf Forest Biome

HIGH EXTRAPOLATION POTENTIAL: PANTROPIC PROBLEM DOMAIN

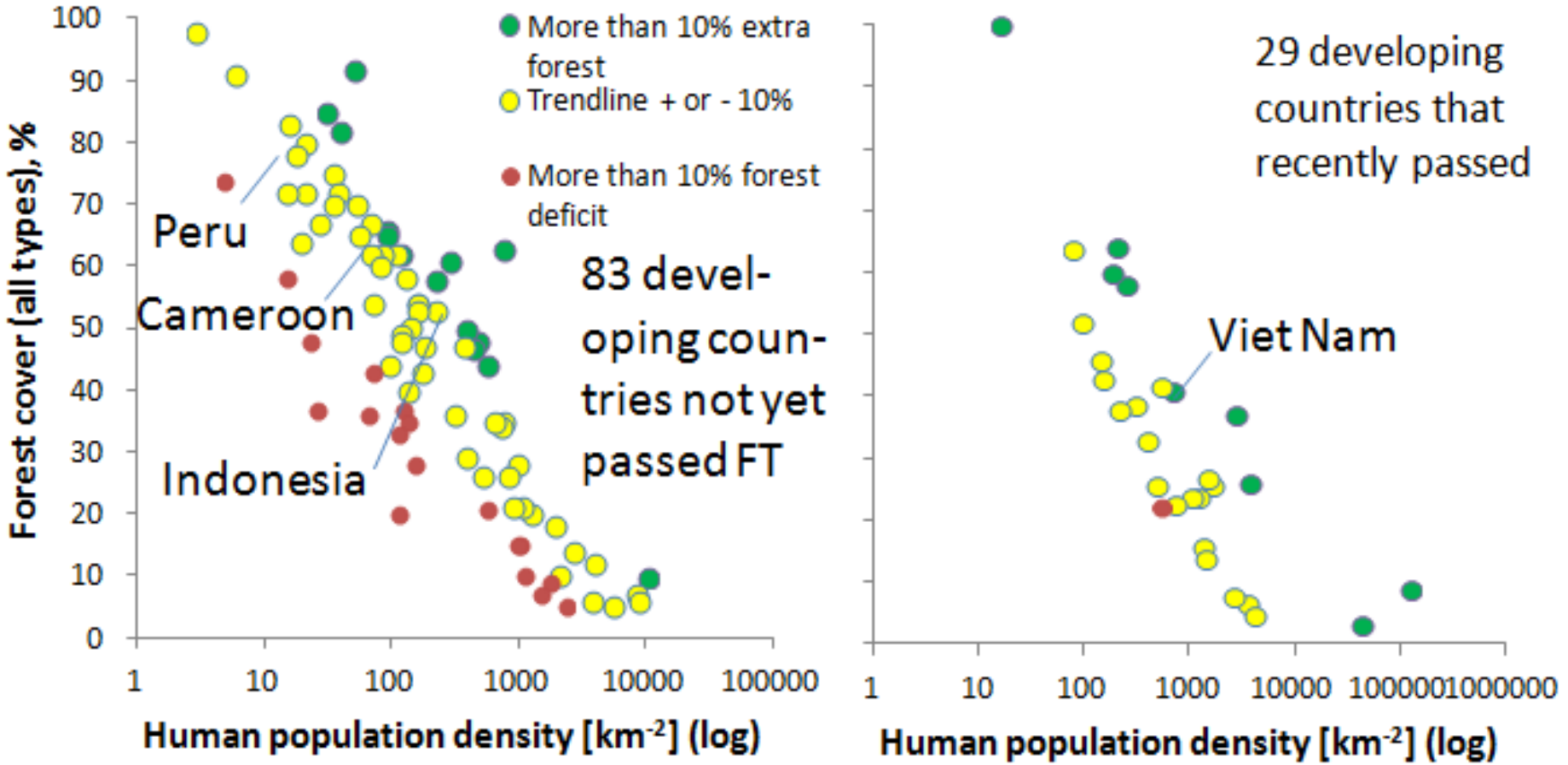


Source: WWF Global 200 Ecoregions (WWF 2001).
Notes: The Biomes displayed are only forest biomes that are present in the warm humid and subhumid tropics.

In other words- countries fit along forest transition



Applied to four countries

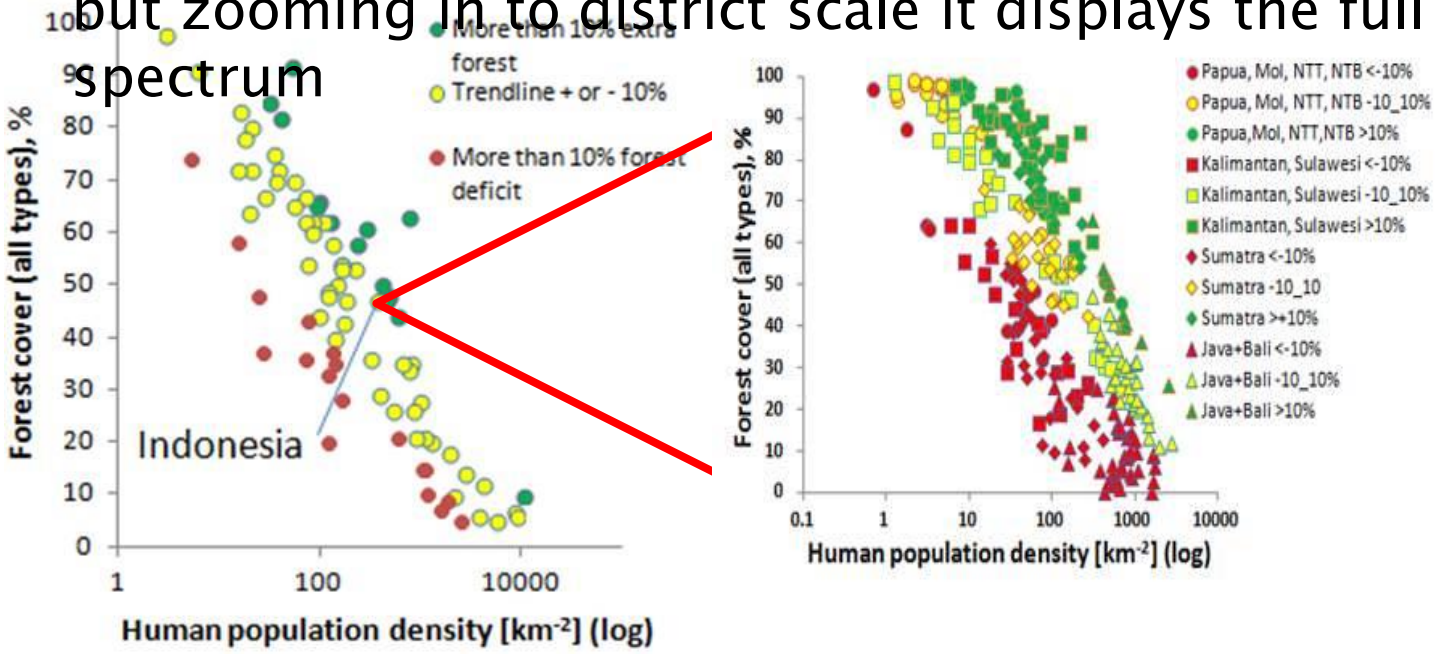


Partnership for the Tropical Forest Margins
ASB
1994-2014

Theory of Place depends on scale, e.g.

Indonesia as a country is a point in the centre of the curve,

but zooming in to district scale it displays the full spectrum

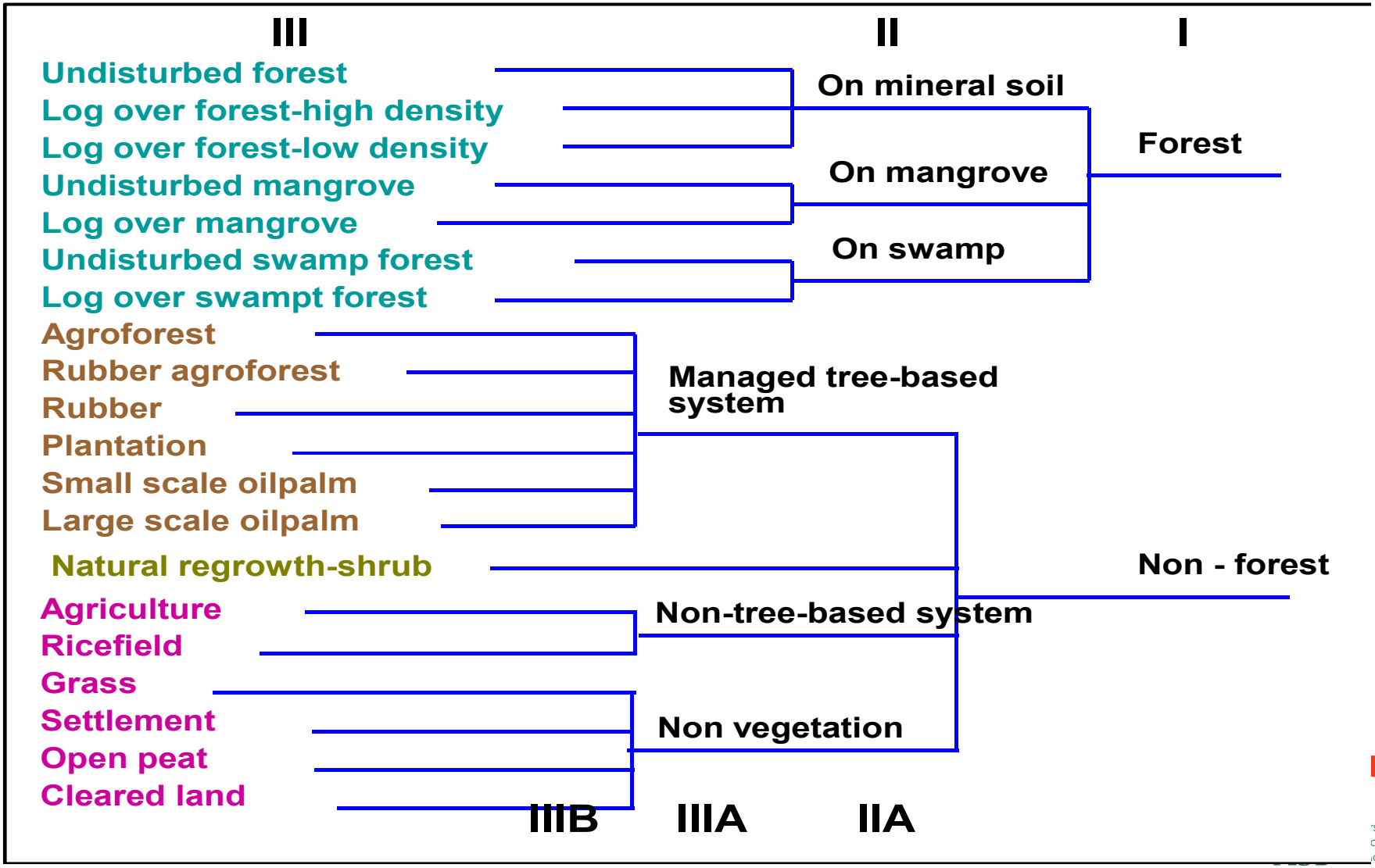


van Noordwijk, M. and G.B. Villamor. 2014. Tree cover transitions in tropical landscapes: hypotheses and cross-continental synthesis. GLPnews, 10: 33-37. (Open

The ASB Matrix

ASB Summary Matrix: Forest Margins of Sumatra						
Land-use	**Global environment**		**Agronomic sustainability**	**National policymakers' concerns**		**Adoptability by smallholders**
	Carbon sequestration	**Biodiversity**	**Plot-level production sustainability**	**Potential profitability (at social prices)**	**Employment**	**Production incentives (at private prices)**
Description	Aboveground, TIme-averaged (tonnes/ha)	Aboveground, Plant species/ standard plot	Overall rating	Returns to land (US$/ha)	Average labour input (days/ha/yr)	Returns to labour (US$/day)
Natural forest	306	120	1	0	0	0
Community-based forest management	136	100	1	11	0.2	4.77
Commercial logging	93	90	0.5	1080	31	0.78
Rubber agroforest	89	90	0.5	506	111	2.86
Oil palm monoculture	54	25	0.5	1653	108	4.74
Upland rice/bush fallow rotation	7	45	0.5	(117)	25	1.23
Continuous cassava degrading to *Imperata*	2	15	0	28	98	1.78

Cascaded Land Use Classification- Elastic and adaptable



Generation of IPGs and Impacts

- 1200 Publicatons
- Slash-and-Burn Agriculture: The Search for Alternatives volume by Palm CA, SA Vosti, PA Sanchez, PJ Ericksen (Eds.):

FAO's State of Food and Agriculture for 2007

Lead article in the World Agroforestry Centre Annual Report for 2006.

At Loggerheads by Ken Chomitz, World Bank

Righelato and Spracklen, 2007. "Carbon Mitigation by Biofuels or by Saving and Restoring Forests?" *Science.* 17 AUGUST 2007 VOL 317:902.

Stern Report on the Economics of Climate Change, chpt 26

GEO-Global Environmental Outlook 4 (UNEP 2007, p.91).

Taking this approach to National Level-IPGs

http://dx.doi.org/10.1080/14693062.2014.905822

climate policy

synthesis article

REDD+ Readiness progress across countries: time for reconsideration

PETER AKONG MINANG[1*], MEINE VAN NOORDWIJK[2], LALISA A DUGUMA[1], DIEUDONNE ALEMAGI[3], TRONG HOAN DO[4], FLORENCE BERNARD[1], PUTRA AGUNG[2], VALENTINA ROBIGLIO[5], DELIA CATACUTAN[4], SUYANTO SUYANTO[2], ANGEL ARMAS[5], CLAUDIA SILVA AGUAD[5], MIREILLE FEUDJIO[3], GAMMA GALUDRA[2], RETNO MARYANI[2], DOUGLAS WHITE[6], ATIEK WIDAYATI[2], ELIZABETH KAHURANI[1], SARA NAMIREMBE[1], BERIA LEIMONA[2]

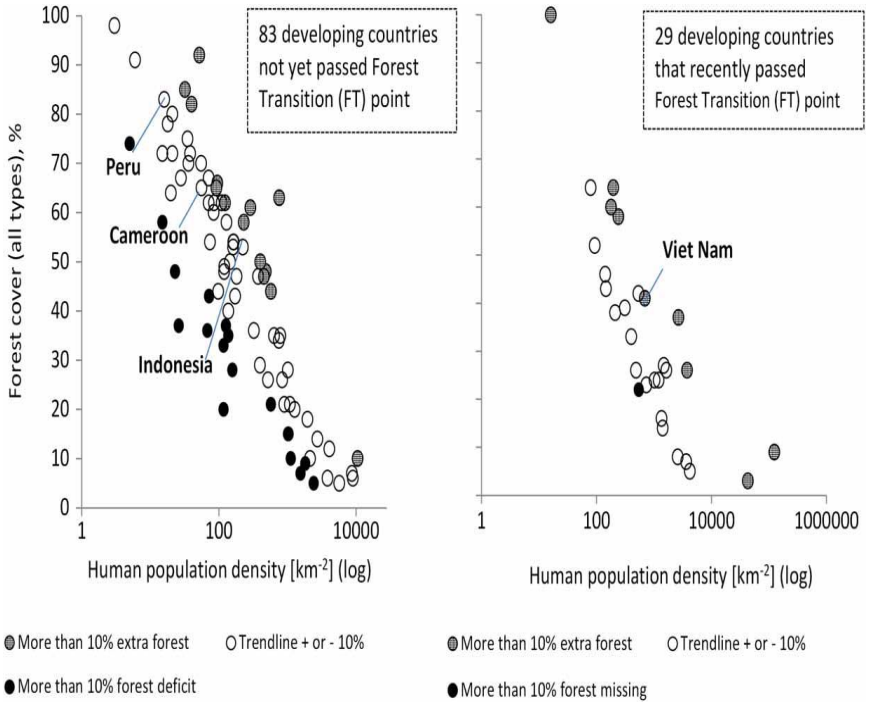


Figure 2 Location of case-study countries along the forest transition (FT) as represented by forest cover versus human population density

Source: Köthke, Leischner, & Elsasser (2013).

20th ASB Partnership for the Tropical Forest Margins 1994-2014

THANK YOU


Norad


World
Agroforestry
Centre


IITA
Research to Nourish Africa


CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture


IFPRI
INTERNATIONAL FOOD
POLICY RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
Supported by the CGIAR


IRAD


VIETNAMESE ACADEMY OF FOREST SCIENCES
VAFS


IAARD


Embrapa
Florestas


inia


PCAARD


The James
Hutton
Institute


20th
ASB
Partnership for the
Tropical Forest
Margins
1994-2014


20th
ASB
Partnership for the
Tropical Forest
Margins
1994-2014