



Why Forests? Why Now?

The science, economics, and politics of
tropical forests and climate change

UNFCCC COP 20 Side Event
Center for Global Development
The Woods Hole Research Center
December 3, 2014

Roadmap

Frances Seymour – Overview

Scott Goetz – Measurement and monitoring technology

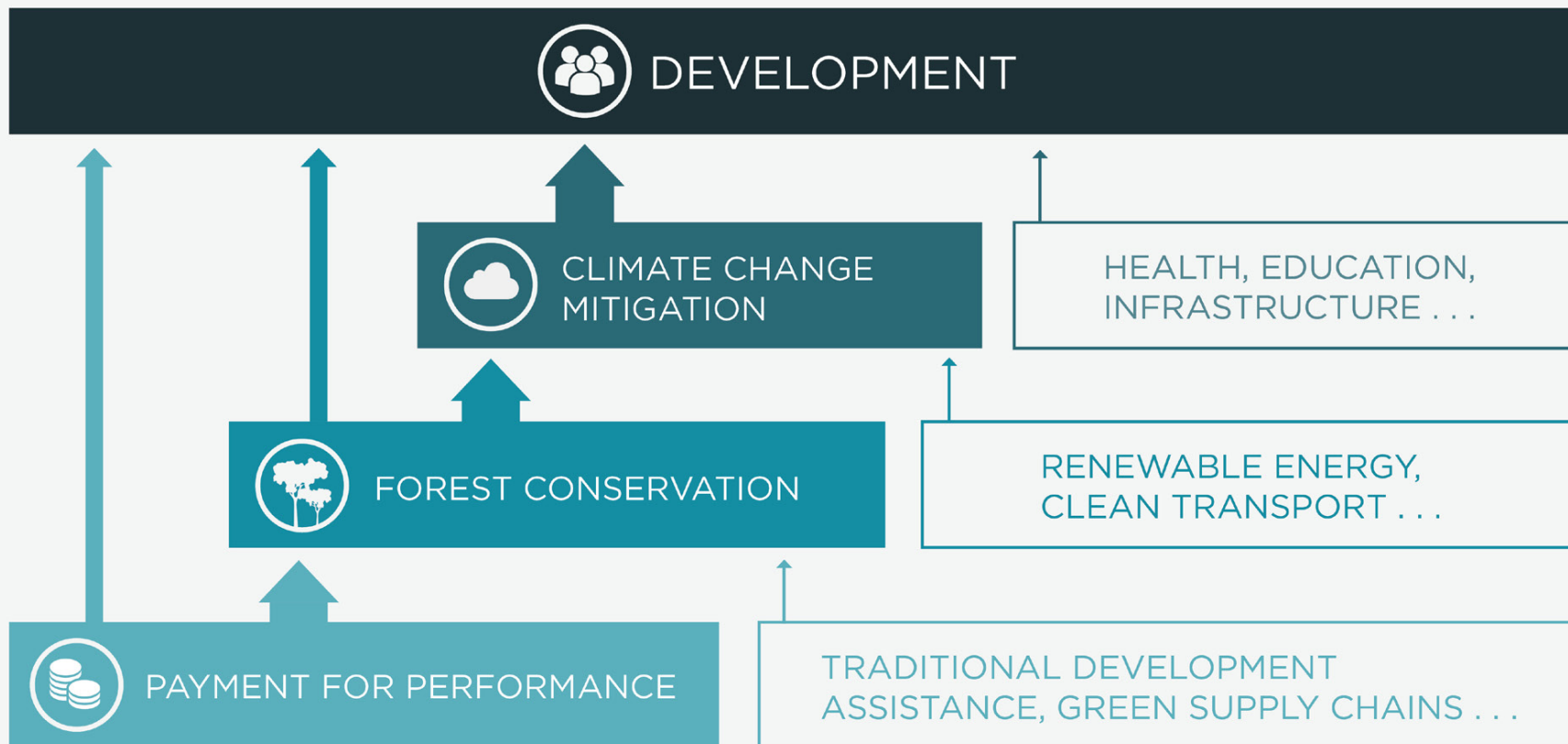
Jonah Busch – Economic analysis sampler

Tony La Viña – International politics of forests & climate

Marigold Norman – The state of REDD+ finance

Discussion

Building blocks for development: climate change mitigation, forest conservation, and payment for performance

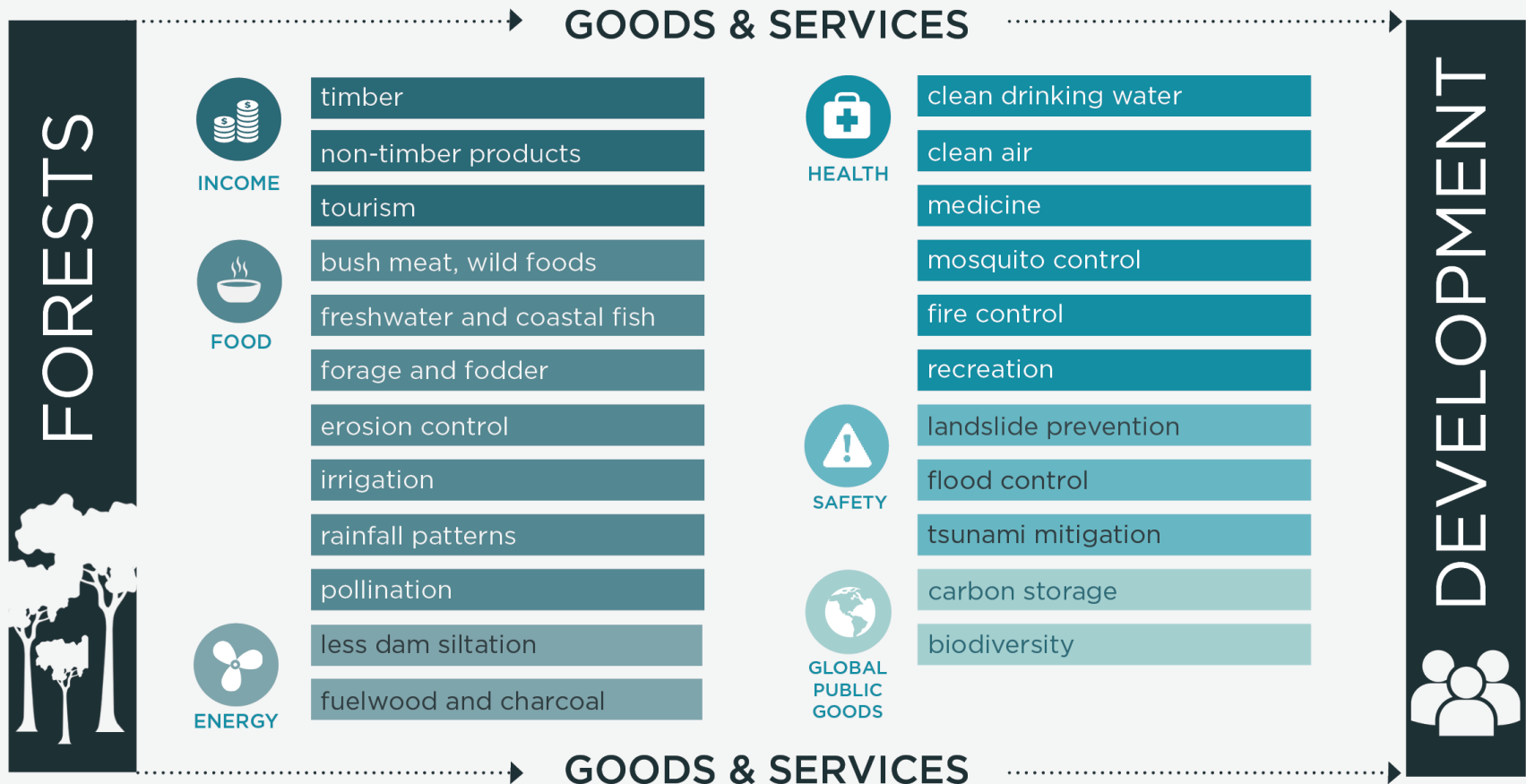


Why climate? Climate stability is essential for development



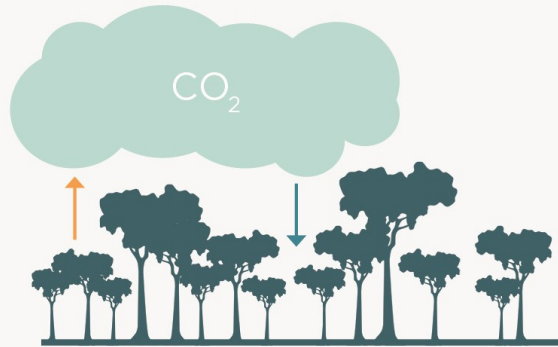
Why forests? Forests are essential for
development

Tropical forests' goods and services contribute to development

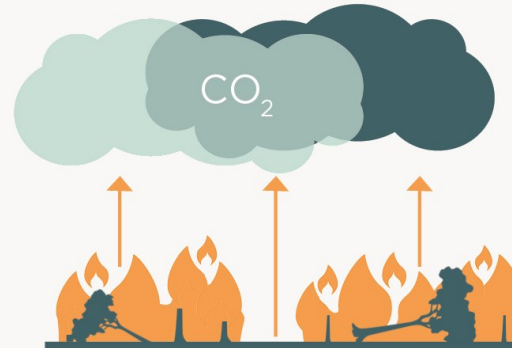


Why forests? Halting deforestation is essential for climate stability

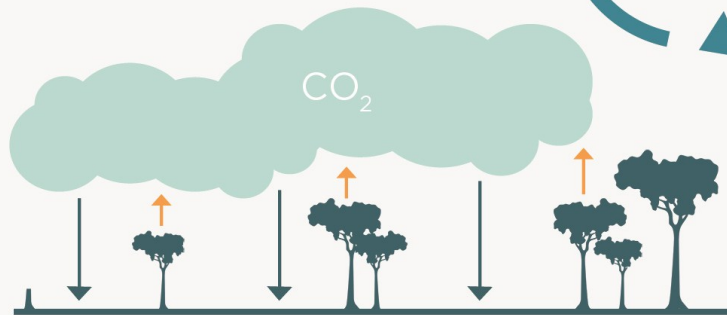
Natural forests capture CO₂; deforestation releases CO₂



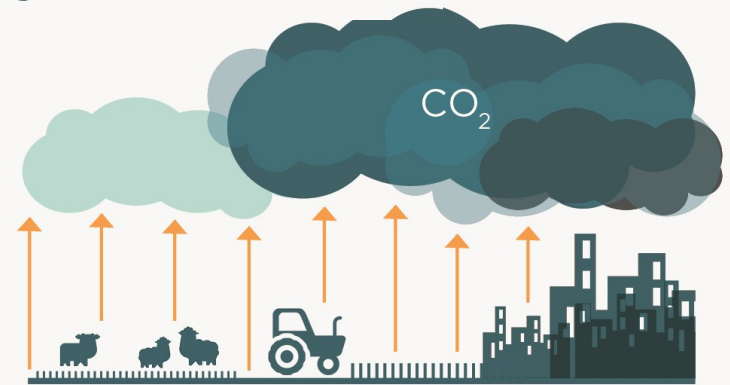
INTACT FOREST ECOSYSTEMS
capture carbon in vegetation and soil



CLEARING AND BURNING FORESTS
releases carbon that had been stored in vegetation and soil

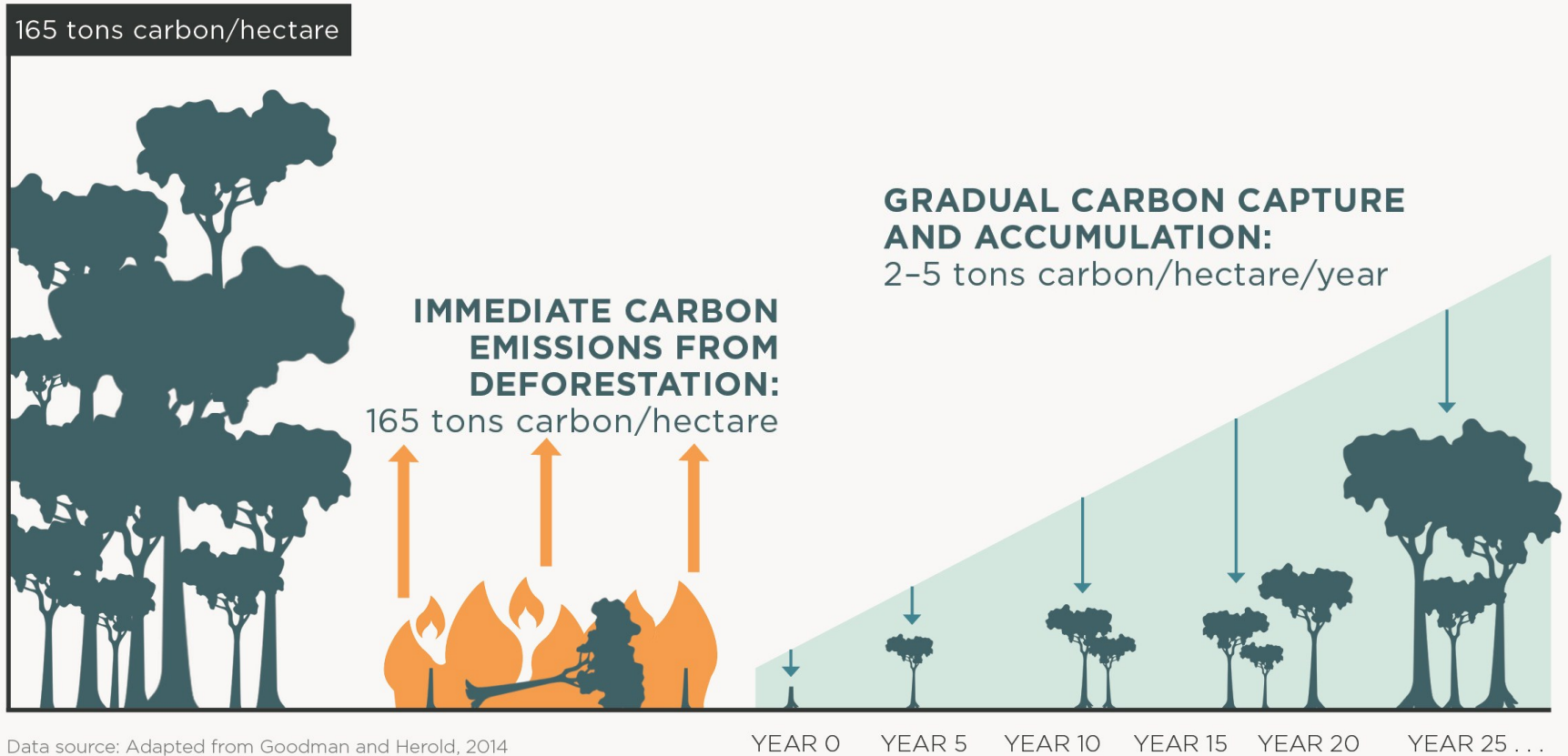


REGROWING FORESTS
capture and accumulate carbon slowly over decades



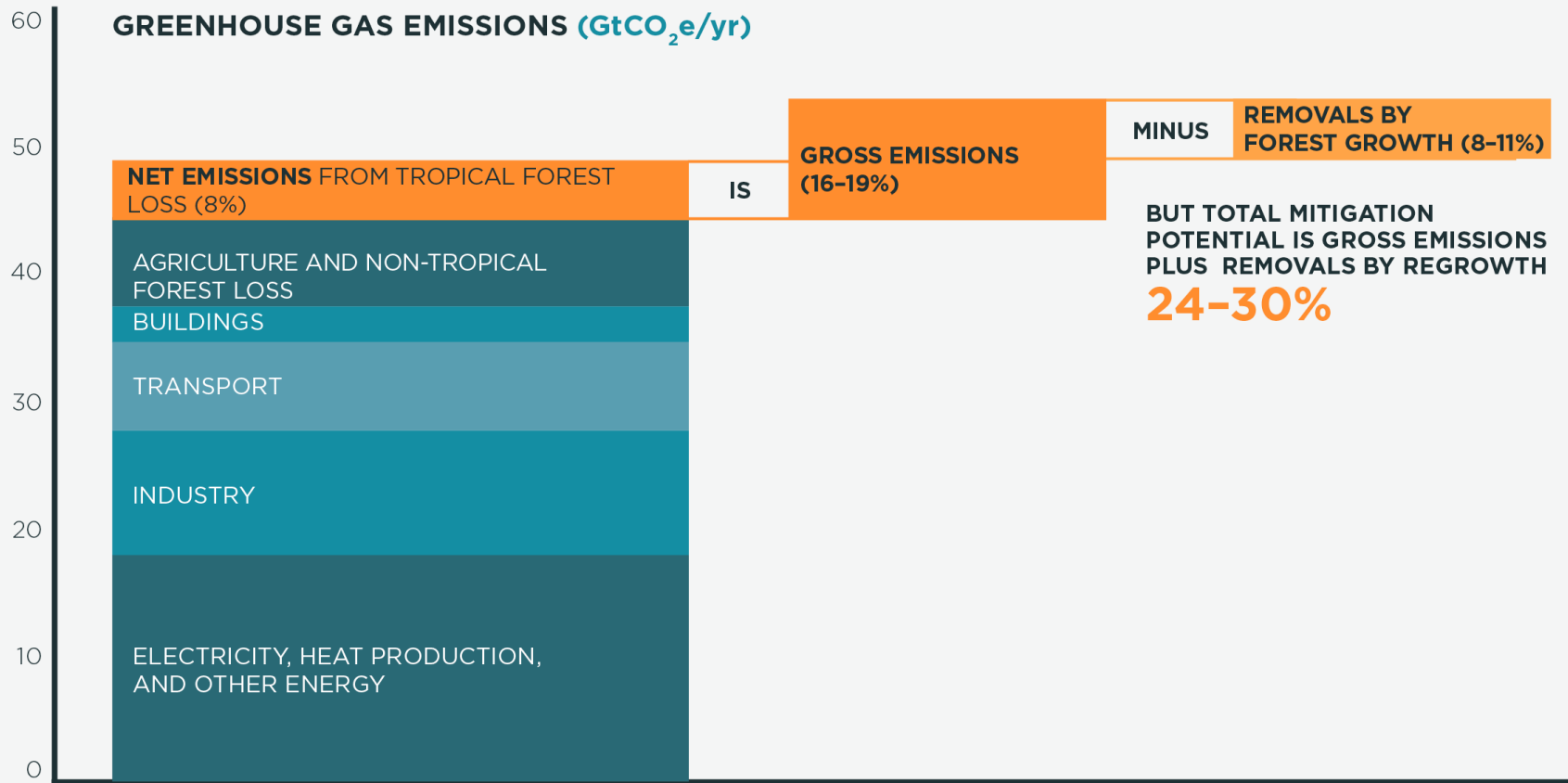
CONVERSION
to pasture, agriculture, and urban areas produces ongoing emissions

Avoiding deforestation is better for the climate than reforestation



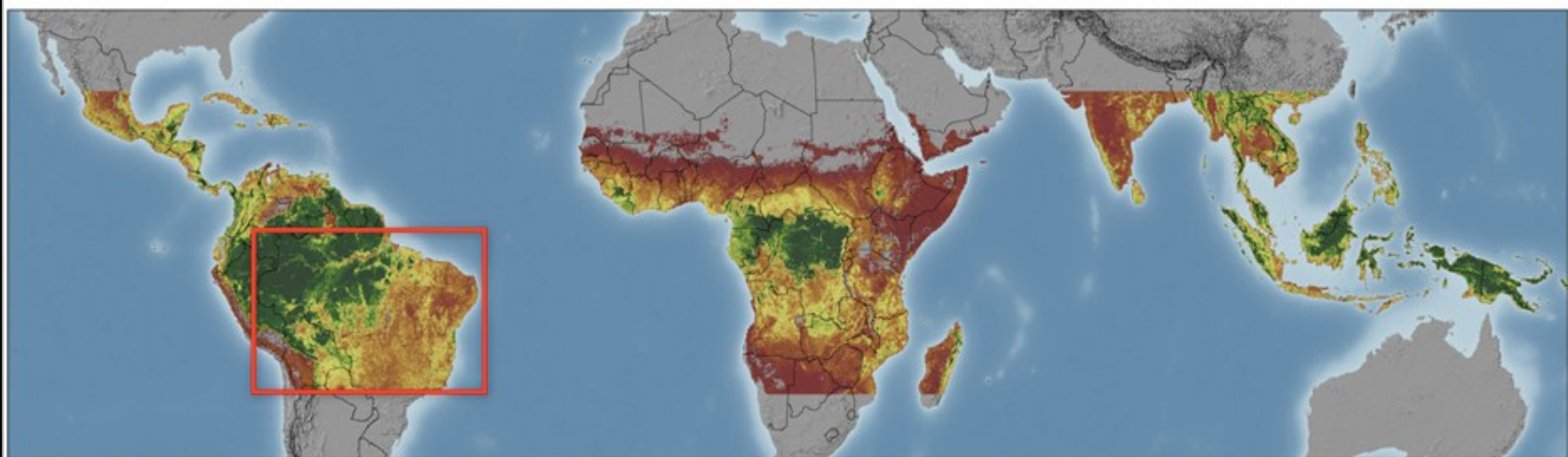
Data source: Adapted from Goodman and Herold, 2014

Tropical forests offer up to 24-30% of mitigation potential; net emissions underestimate this potential



Source: Pan et al 2009, Baccini et al 2012, IPCC WGIII

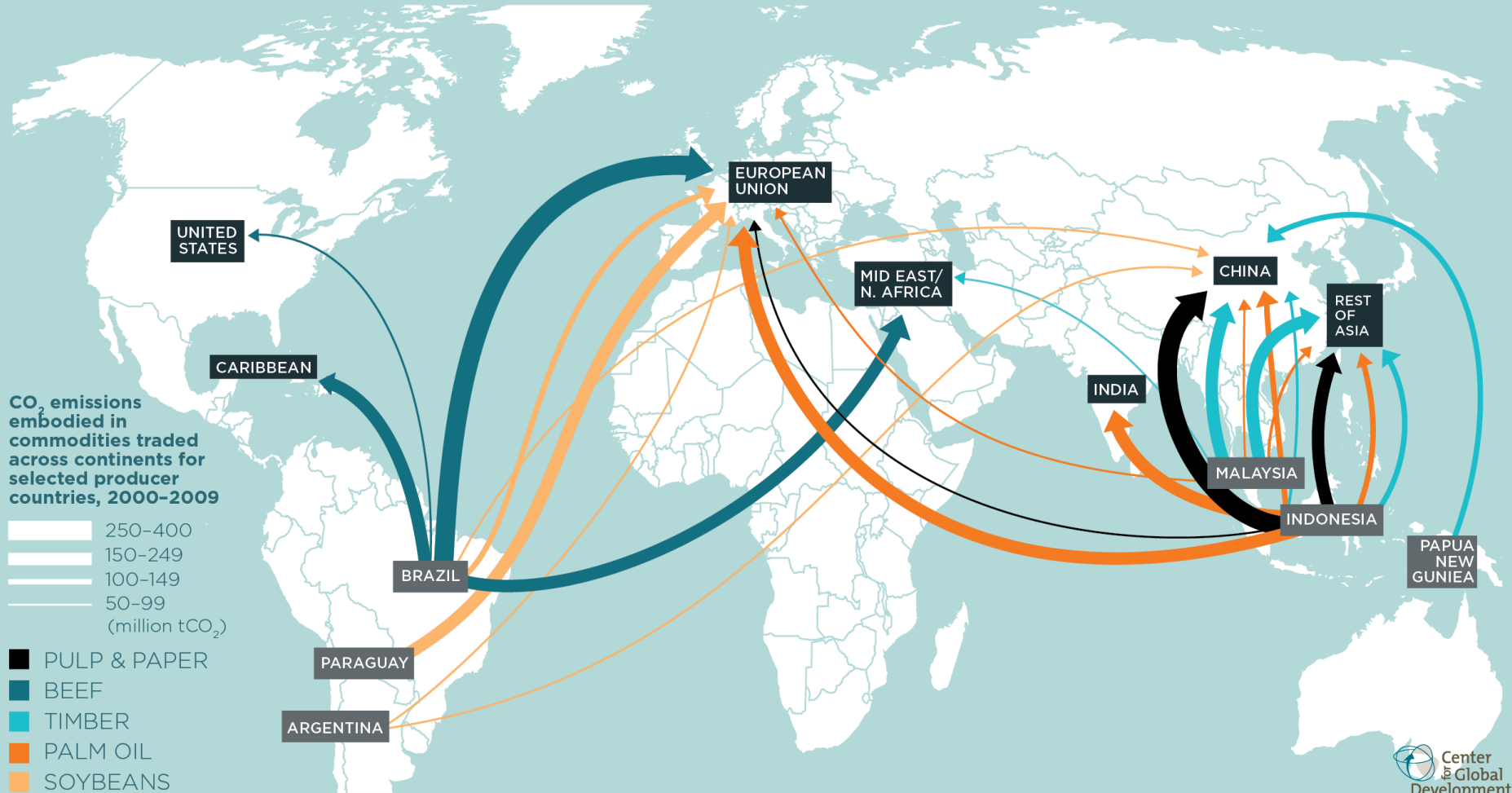
Why now? Technological capabilities support measurement and monitoring



Why forests? Rich countries share
responsibility for emissions from
deforestation

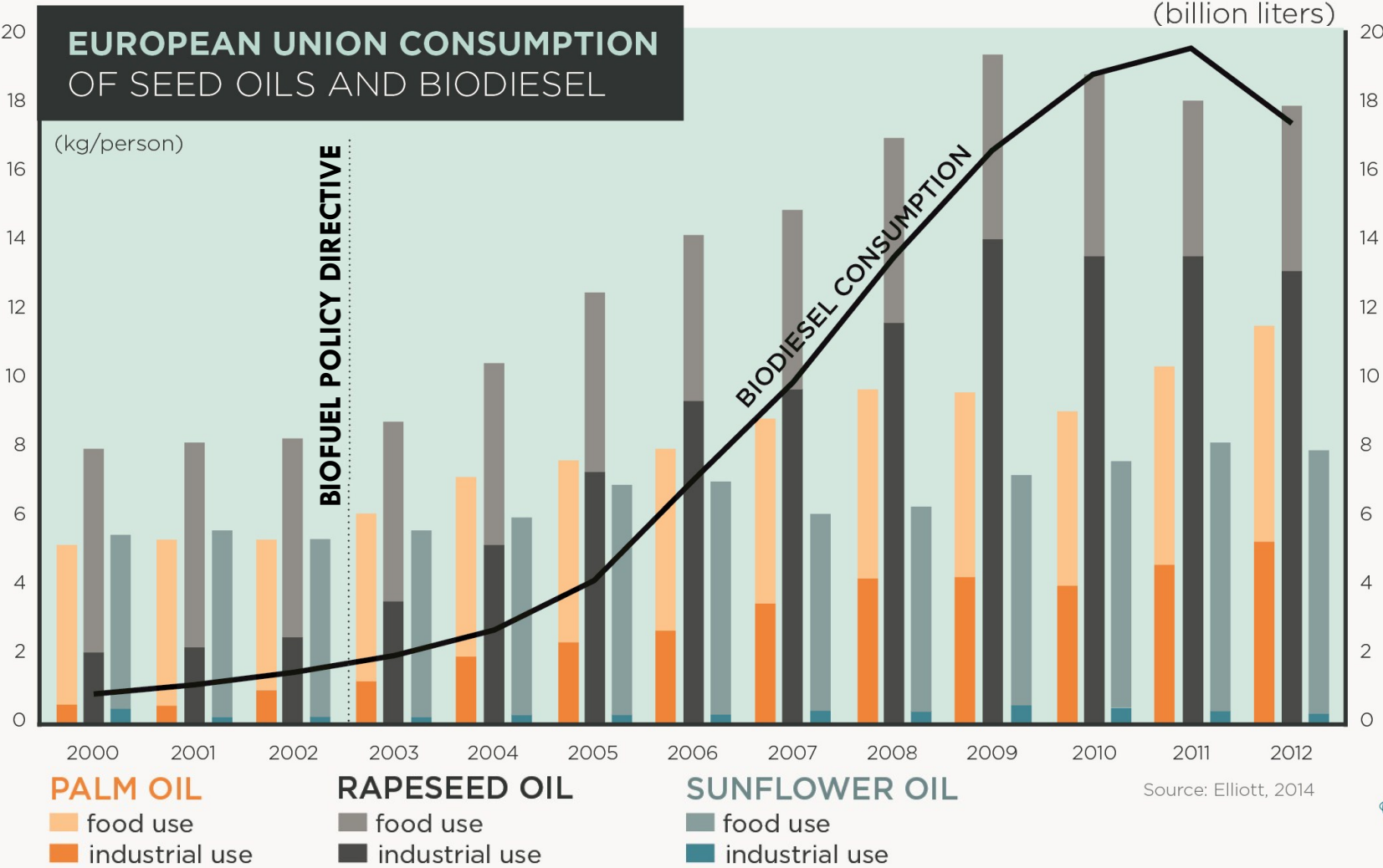


Consuming countries share responsibility for emissions from deforestation



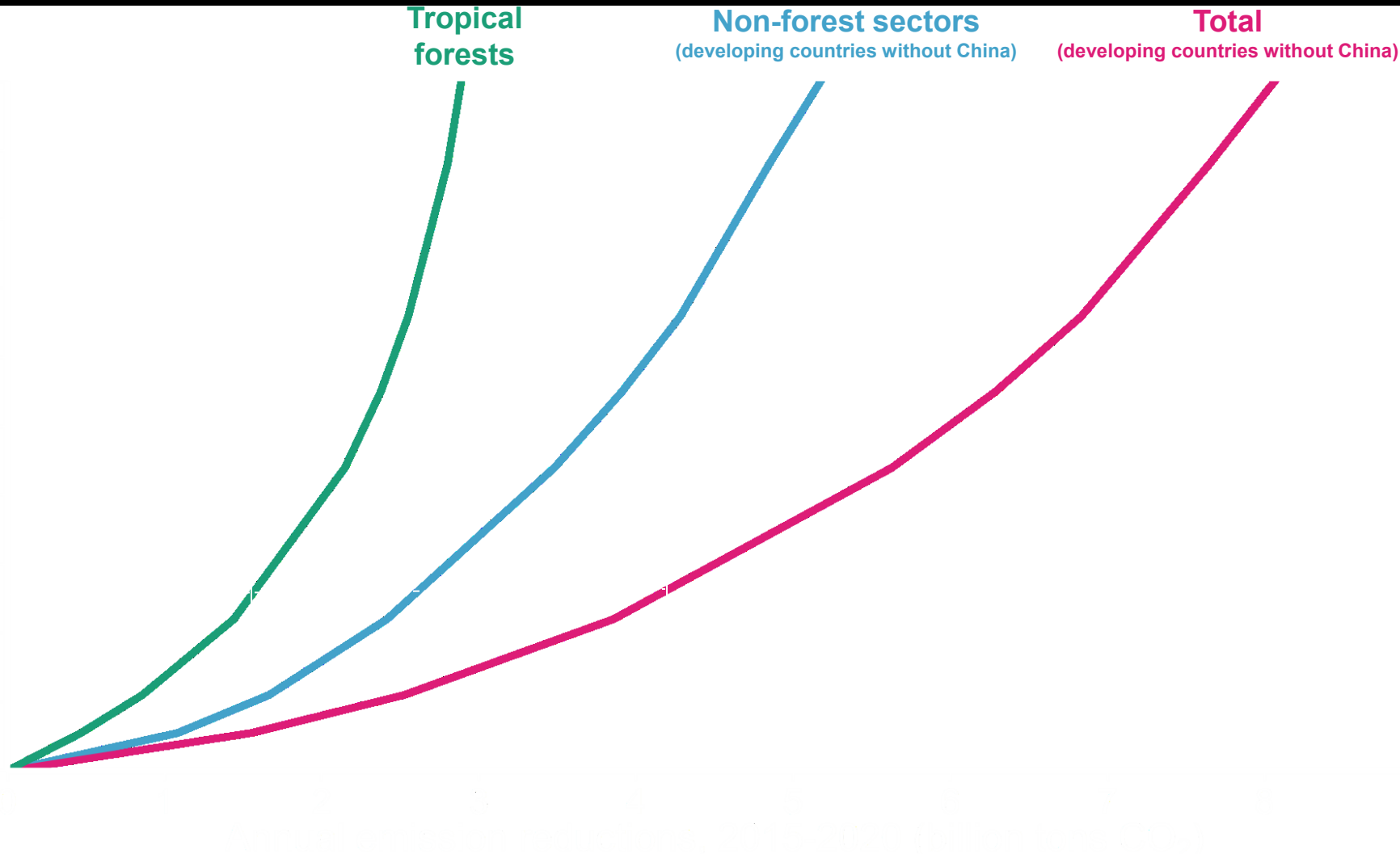
Source: Persson et al. (2014)

European Union Biofuel Policy increased demand for palm oil, a driver of deforestation



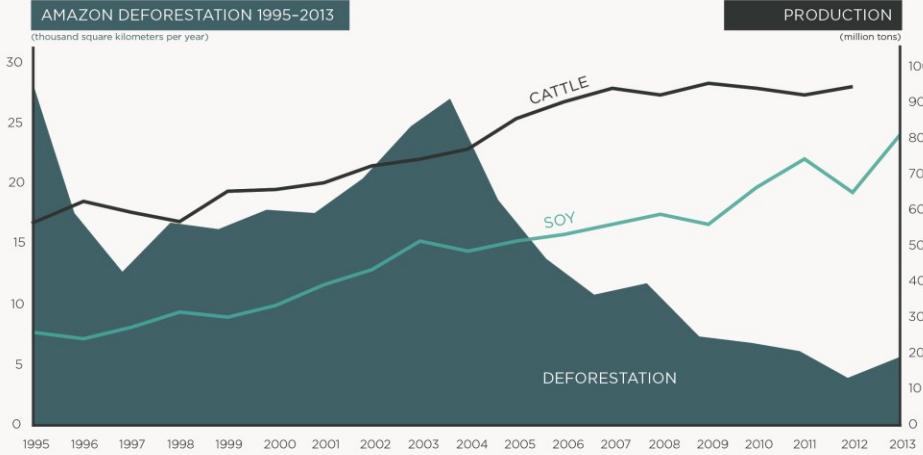
Why forests? Forests offer more,
cheaper, faster emission reductions

Tropical forests offer more than one-third of developing countries' low-cost mitigation potential

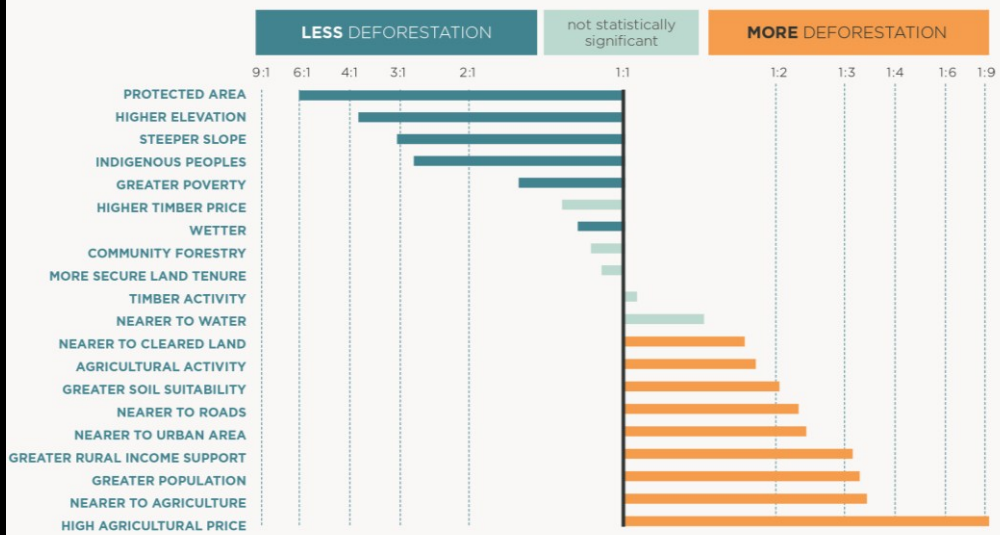


Why now? Brazil has shown that it can
be done

Brazil saved forests and increased food production at the same time



Research reveals what drives and stops deforestation



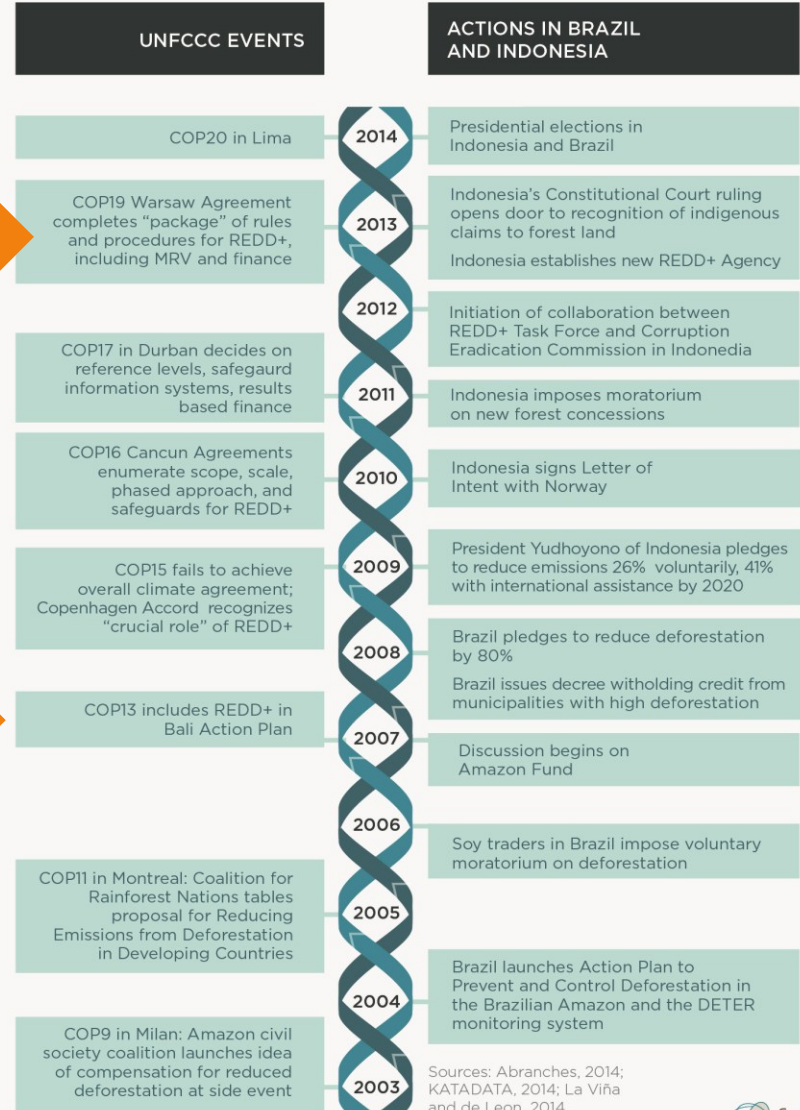
Why forests? The politics are aligned

International

International negotiations and national actions to reduce deforestation are mutually reinforcing



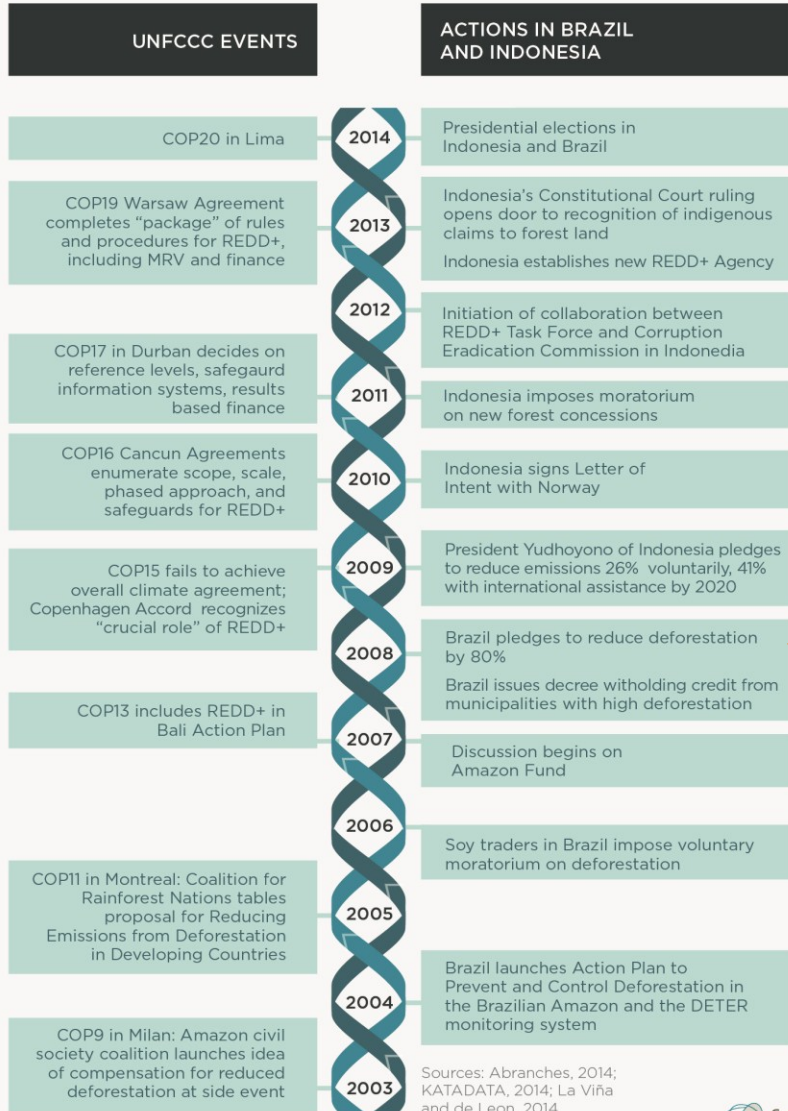
REDD+



Sources: Abranches, 2014; KATADATA, 2014; La Viña and de Leon, 2014

International negotiations and national actions to reduce deforestation are mutually reinforcing

In forest-rich countries



Sources: Abranches, 2014; KATADATA, 2014; La Viña and de Leon, 2014

Links to indigenous rights agenda

Links to anti-corruption agenda

Links to international finance

National commitments to emission reductions

In industrialized countries

Challenges

Budget austerity affects ODA finance overall

Risk aversion of aid institutions

Difficulty harmonizing objectives of multiple agencies

Opportunities

Attractiveness of lower-cost emission reductions and results-based finance

Recognition that traditional forestry sector aid has had limited effectiveness

Support from new private sector constituencies

In industrialized countries

Challenges

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Support from new private sector constituencies

Why now? Private sector commitments
create a new constituency for change



CLIMATE SUMMIT 2014
CATALYZING ACTION

Action Statement

This document summarizes the wealth of announcements on forests at the UN Secretary-General's Climate Summit, including the New York Declaration on Forests, its associated voluntary Action Agenda, and a large number of supportive concrete action announcements.

The New York Declaration on Forests (Section 1) is a non-legally binding political declaration that grew out of dialogue among governments, companies and civil society, spurred by the Secretary-General's Climate Summit. For the first time, world leaders endorse a global timeline to **cut natural forest loss in half by 2020, and strive to end it by 2030**. It also calls for restoring forests and croplands of an area larger than India. Meeting these goals would cut between 4.5 and 8.8 billion tons of carbon pollution every year – about as much as the current emissions of the United States. The Declaration is endorsed by dozens of governments, [30] of the world's biggest companies, and [more than 50] influential civil society and indigenous organizations.

The associated voluntary Action Agenda (section 2) serves as a guide to governments, companies and organizations regarding the diverse set of actions that can achieve these goals. It is not meant to be comprehensive.



Why payment for performance? A
better model of development
cooperation

Cash On Delivery

A new approach to foreign aid

Nancy Birdsall and William D. Savedoff
with Ayah Mahgoub and Katherine Vyborny

Revised Edition with a New Preface

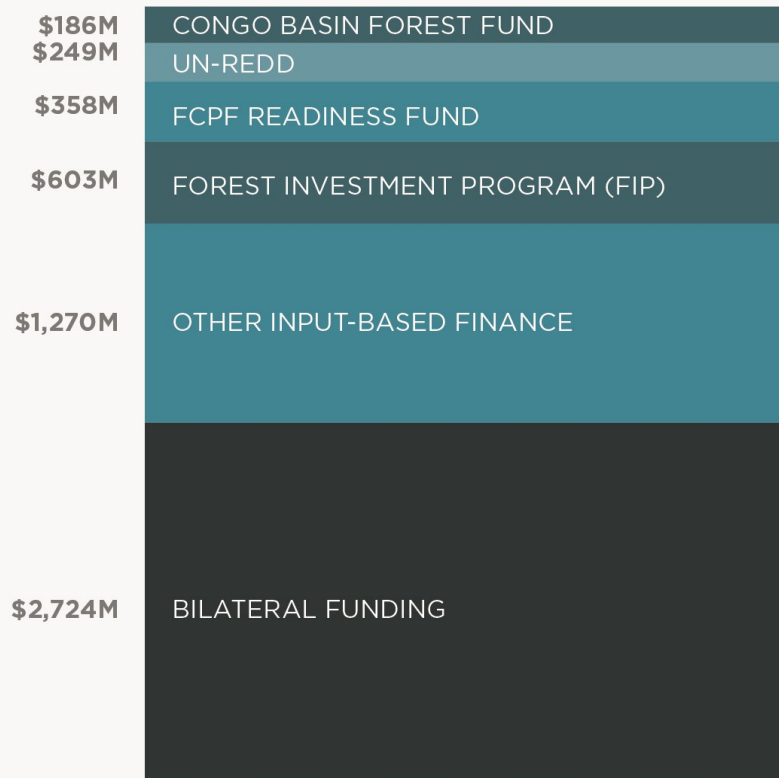


With an application
to primary schooling

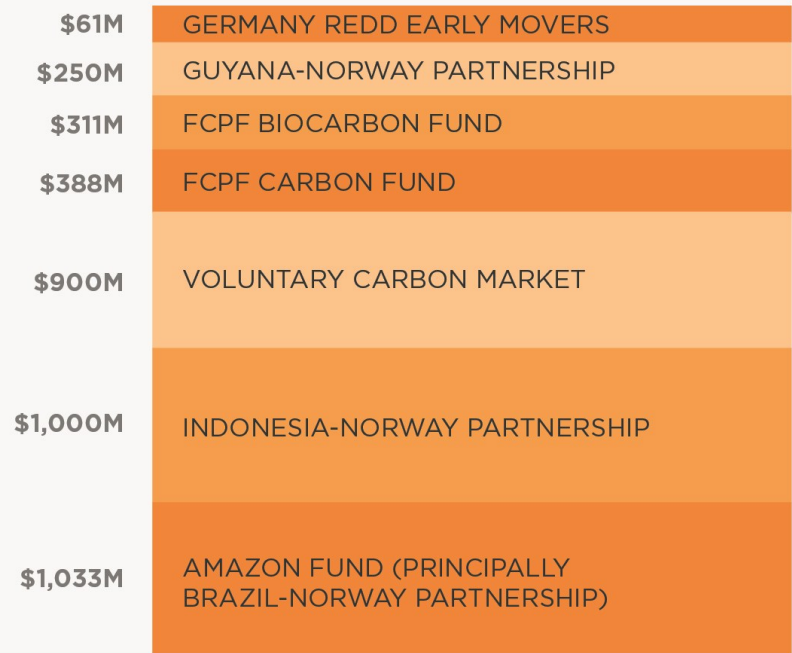


Performance-based finance remains the smaller share of REDD+ finance

INPUT-BASED FINANCE **\$5.4 BILLION**



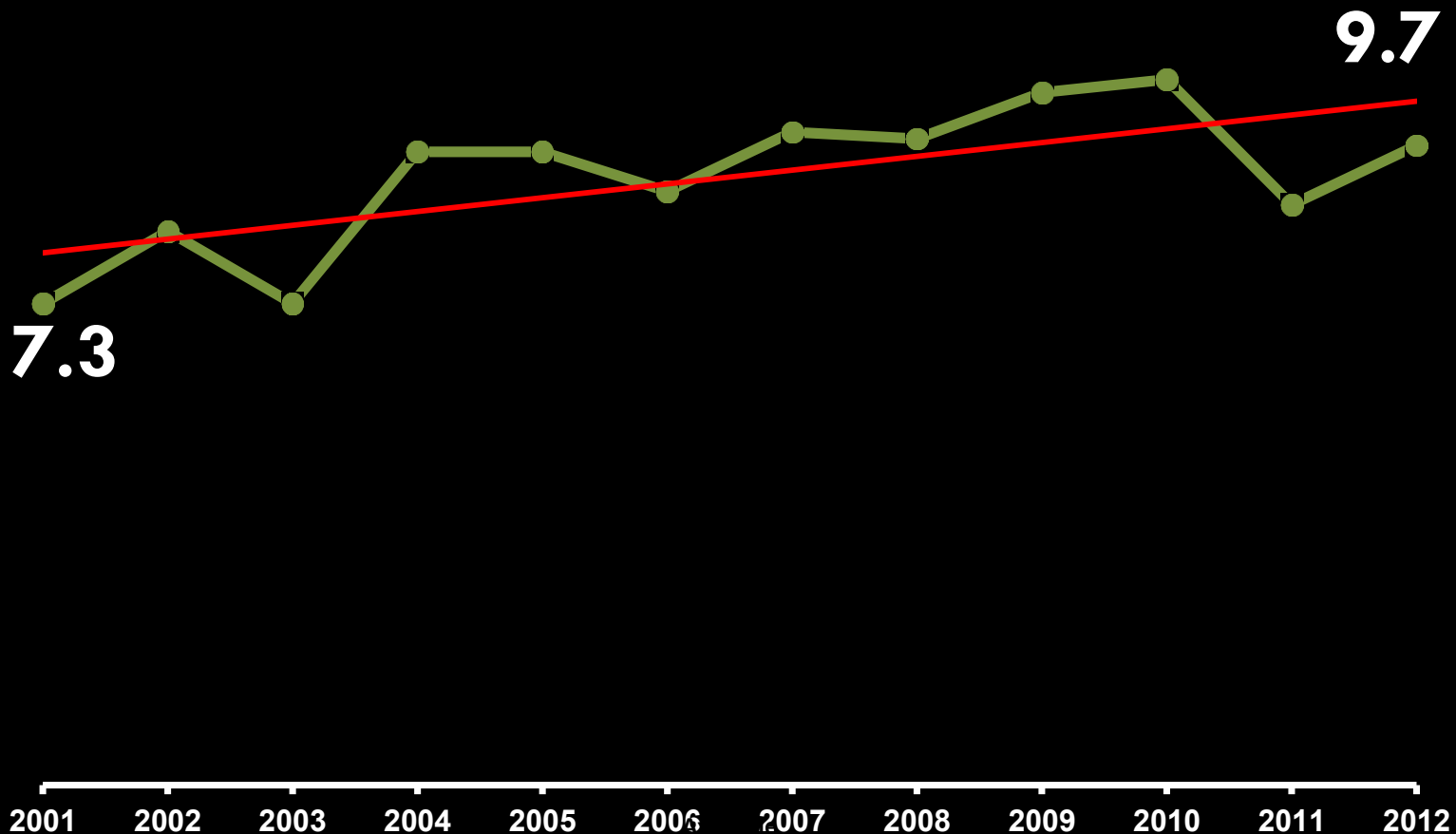
PERFORMANCE-BASED FINANCE **\$3.9 BILLION**



Why now? The window of opportunity
is closing

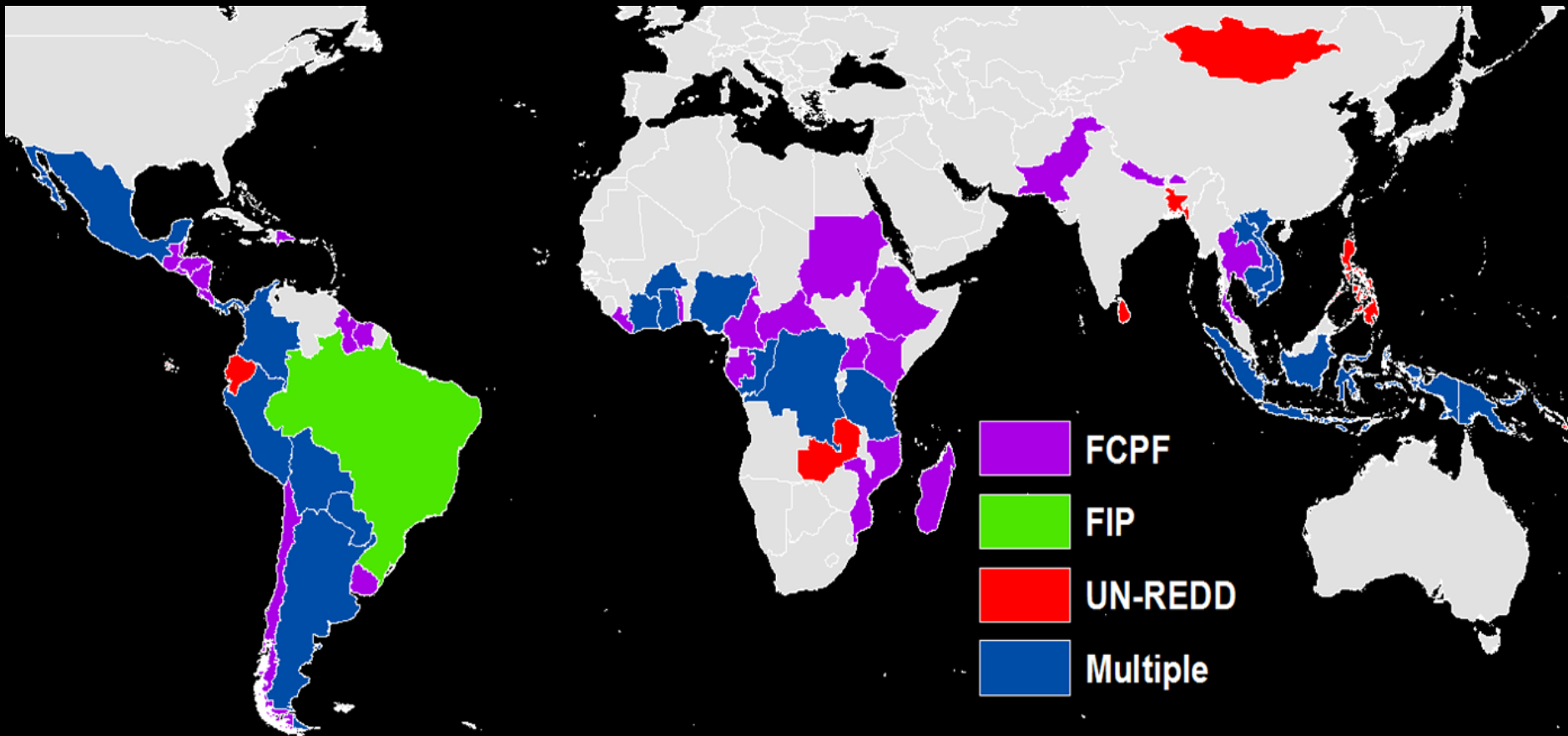
Tropical deforestation has been increasing

Million hectares

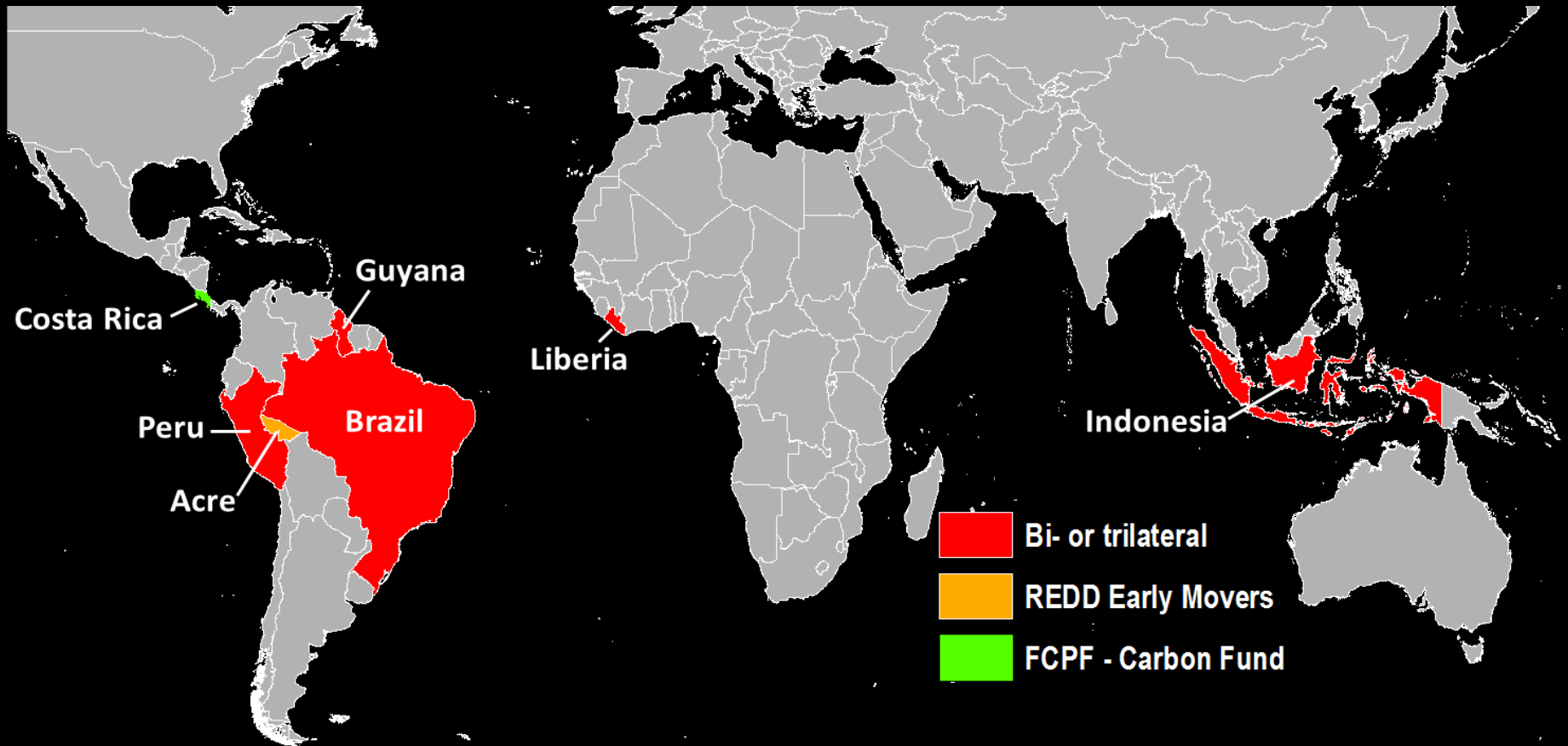


Source: Hansen *et al.*, 2013

Some 50 countries participating in REDD+



Only 7 commitments to performance-based finance at scale



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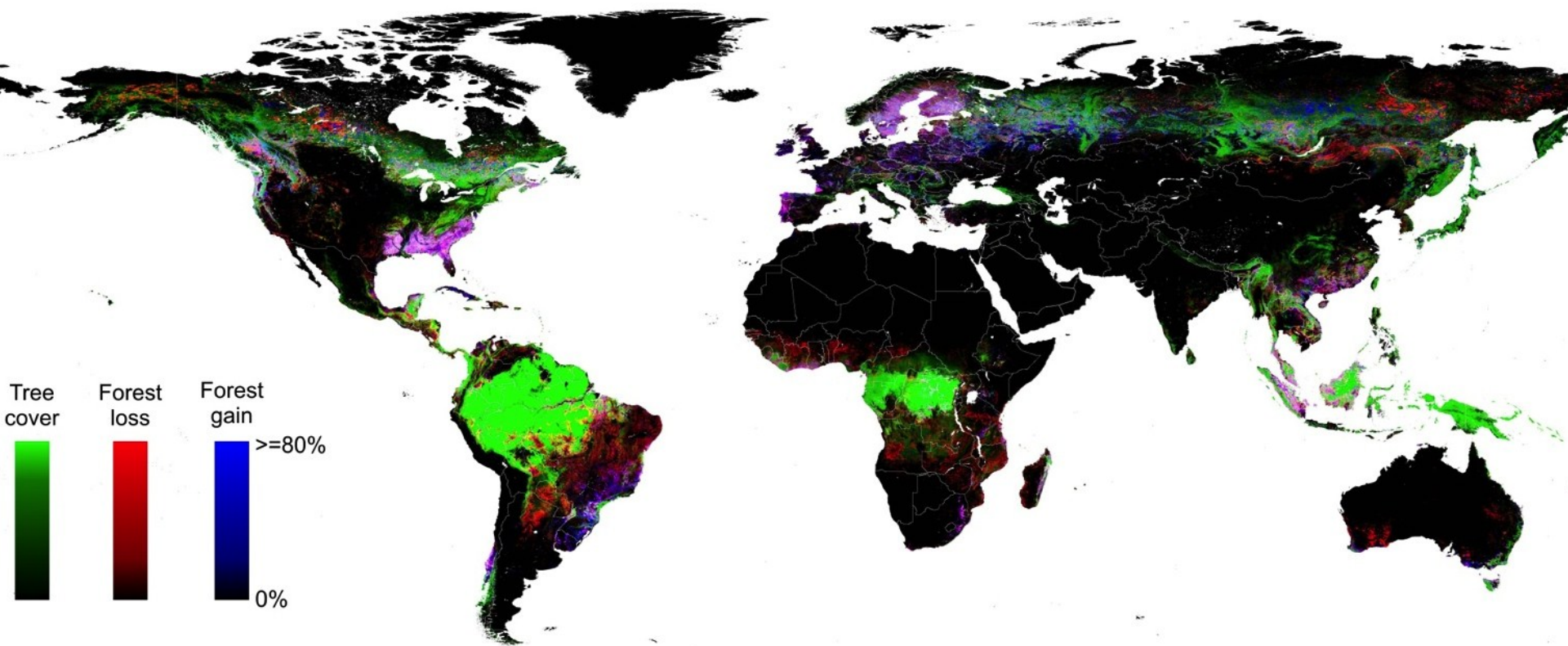


[@FrancesJSeymour](https://twitter.com/FrancesJSeymour)

[@jonahbusch](https://twitter.com/jonahbusch)

[@MicheledeNevers](https://twitter.com/MicheledeNevers)

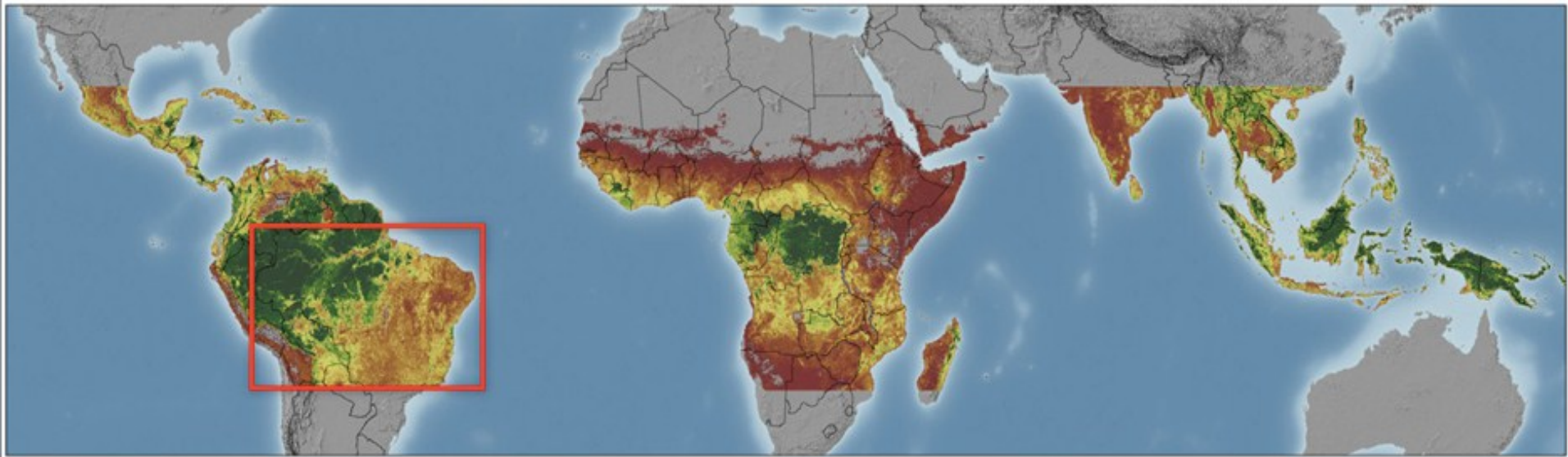
Satellite – derived map of Global Tree Cover and annual Forest Losses & Gains 2000 - 2012



LULUCF Emissions = “Activity Data” x “Emission factors”

Hansen et al. 2014, *Science*

Satellite – derived map of Vegetation Carbon Stocks (aboveground biomass)



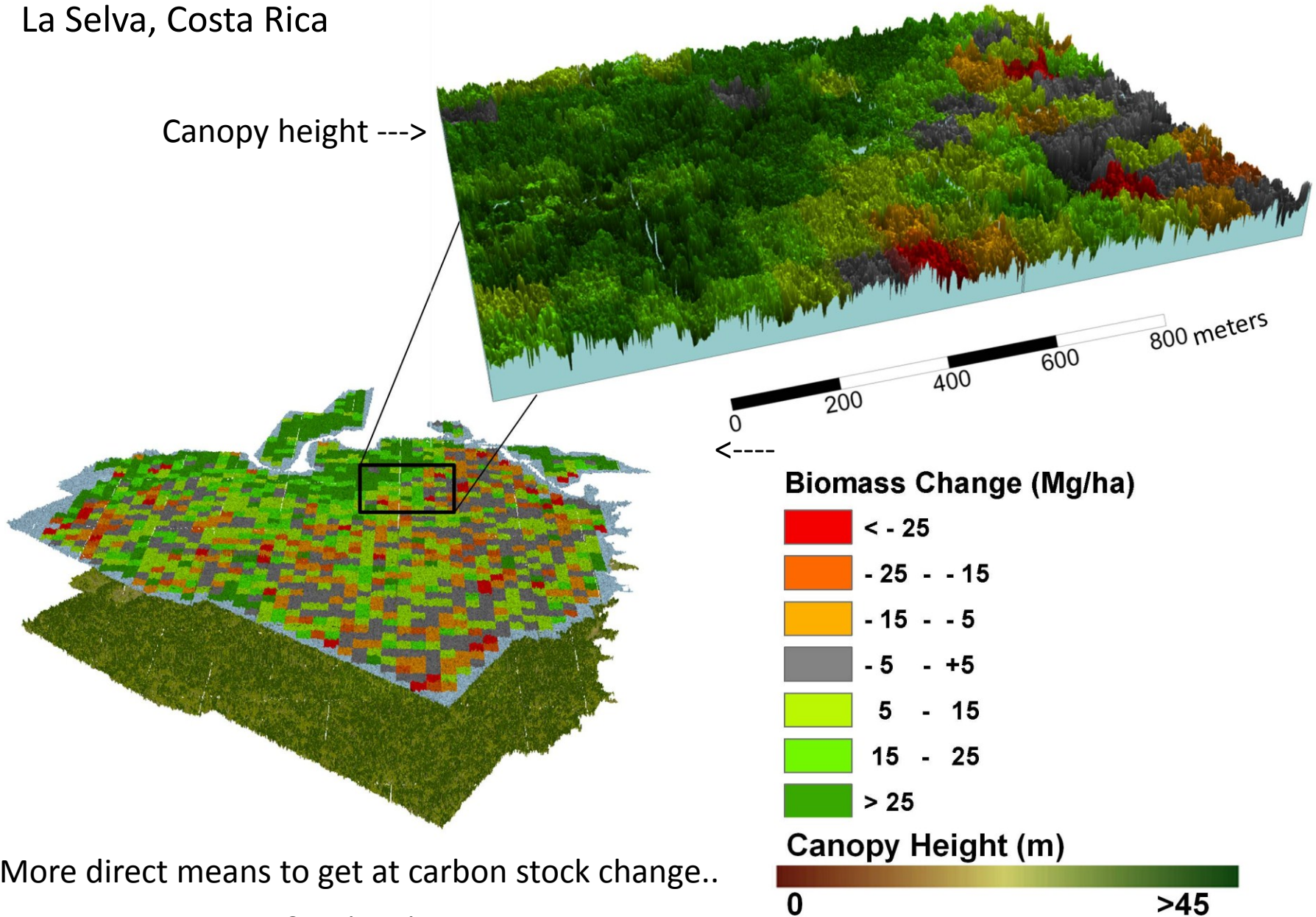
“Emission Factors”



Baccini et al. 2011, *Nature Climate Change*

Aircraft lidar-derived maps of Canopy Height and change in Carbon Stocks

La Selva, Costa Rica

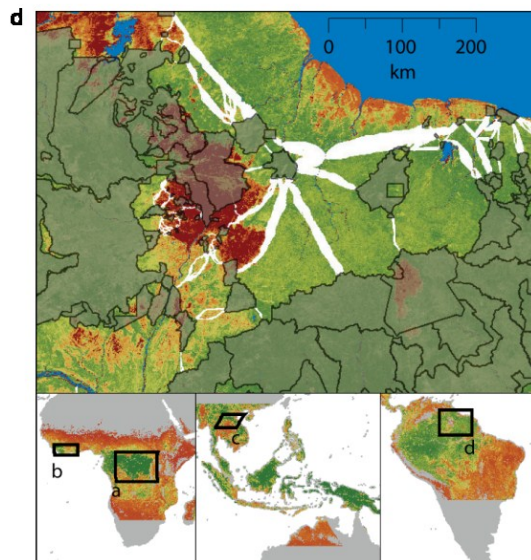
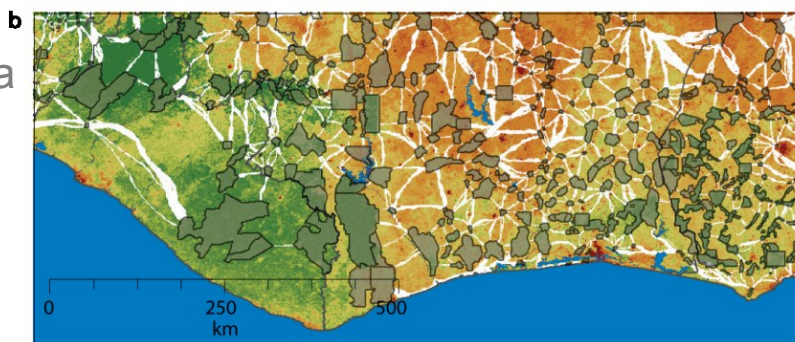
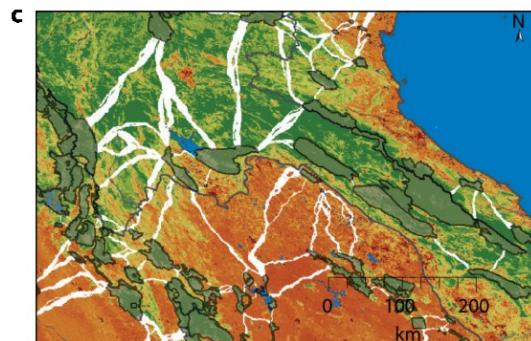
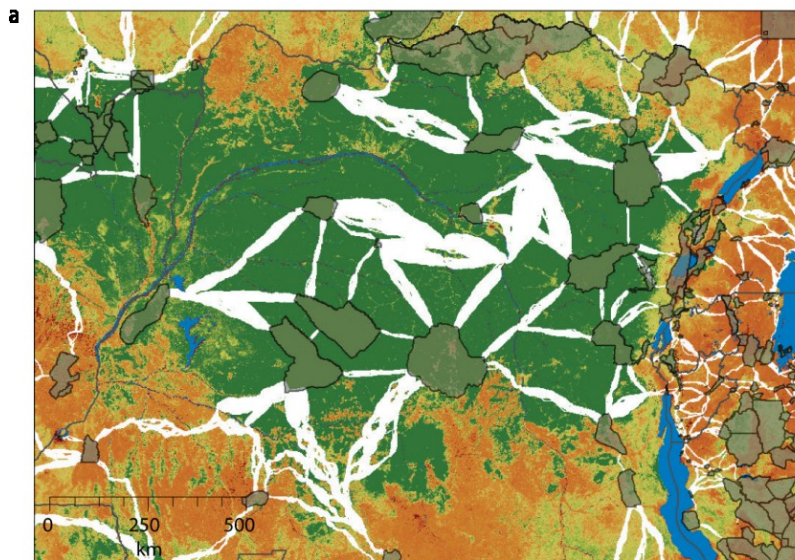


More direct means to get at carbon stock change..

Goetz & Dubayah 2010

Safeguards on Biodiversity

Parks & Protected Areas can be connected via high carbon stock corridors to achieve multiple co-benefits

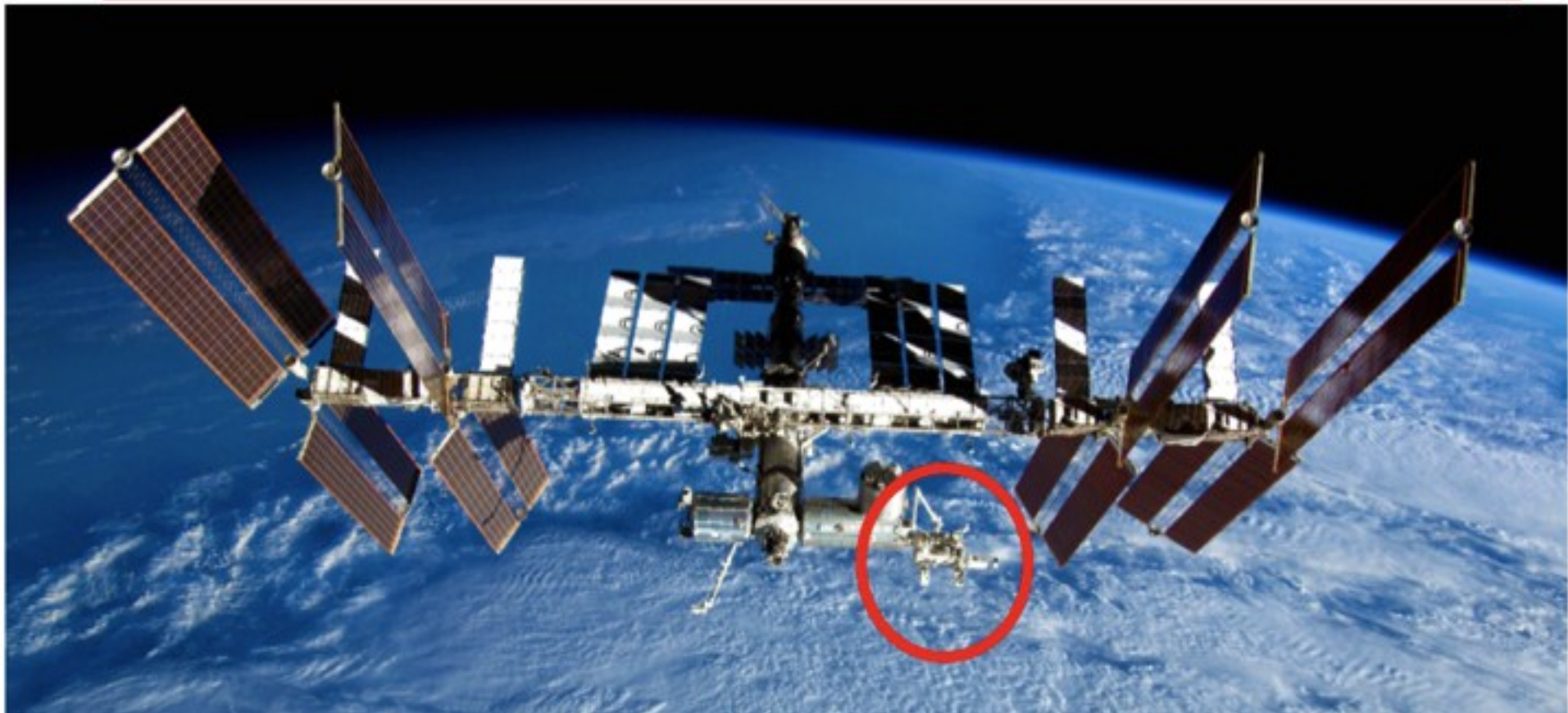


Corridor conservation can be prioritized using multiple criteria

Jantz et al. 2014, *Nature Climate Change*

Emerging Trends and Big Next Steps

Lidar on the International Space Station



“This is backed by twenty years of preparation on the part of the diverse group of contributors. Numerous scientific workshops and strategic plans (NRC Decadal Survey, NASA Objectives, CEOS) have endorsed the goal and the waveform lidar technical approach. No existing mission will provide anything like this data. “

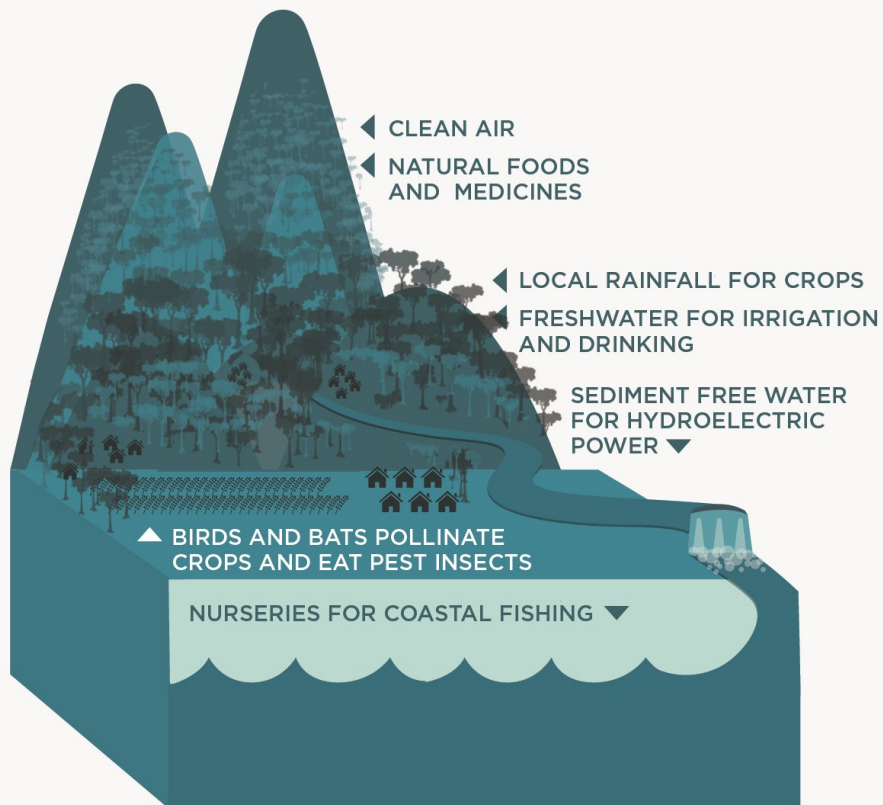
An aerial photograph showing a large forest fire. A thick plume of white smoke rises from a cleared area in the center of the frame. The surrounding forest is dark green, and the ground in the foreground is charred and covered in ash. A dirt road is visible in the lower right corner.

Why Forests? Why Now? The Economics

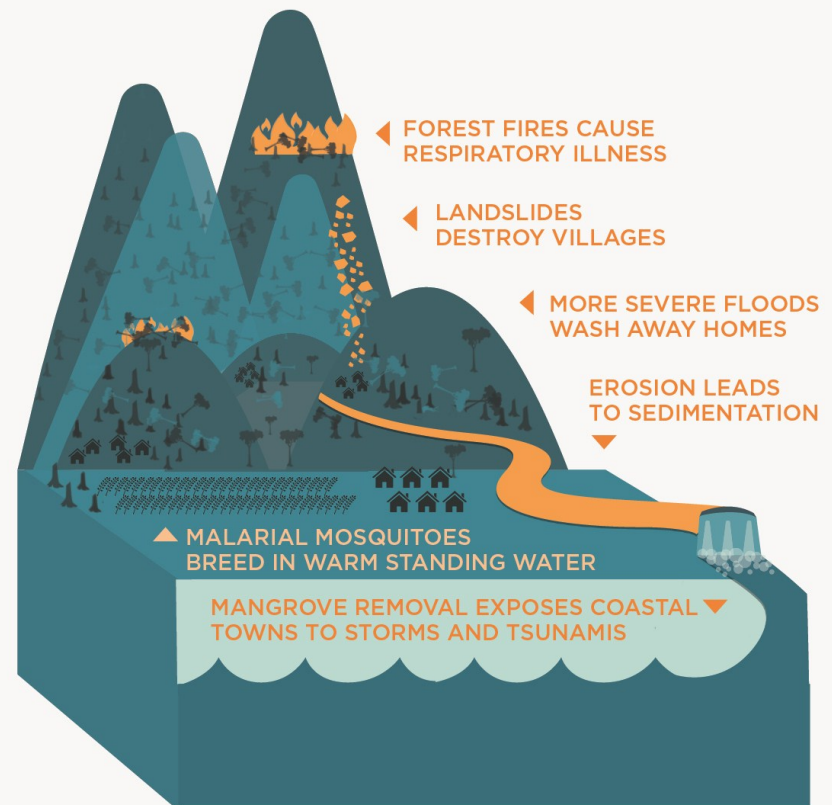
Jonah Busch
Center for Global Development

Intact forests provide services; deforestation puts lives at risk

INTACT FOREST

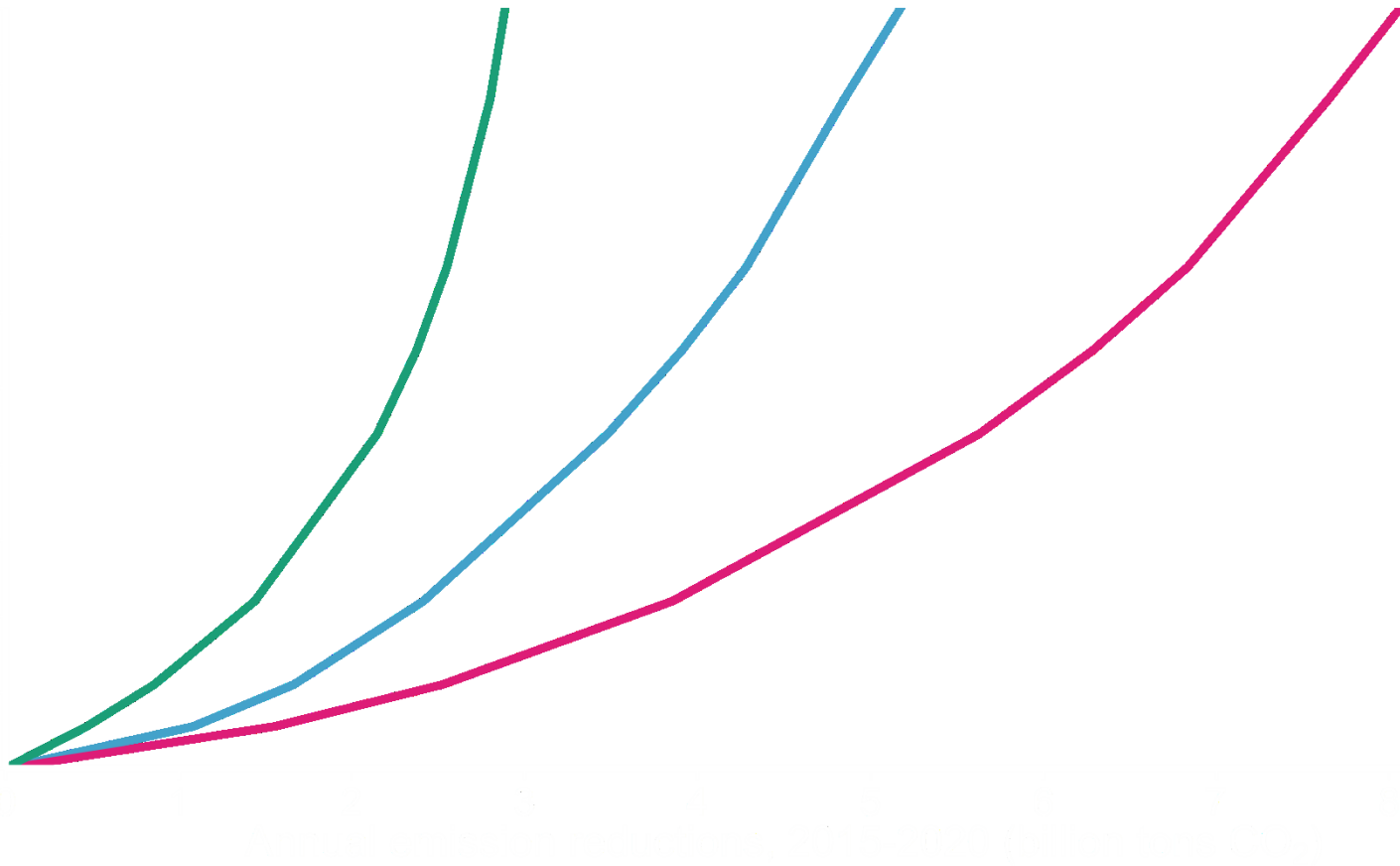


DEFORESTATION



Tropical forests offer more than one-third of low-cost climate abatement (non-Annex I excl. China)

Non-forest sectors

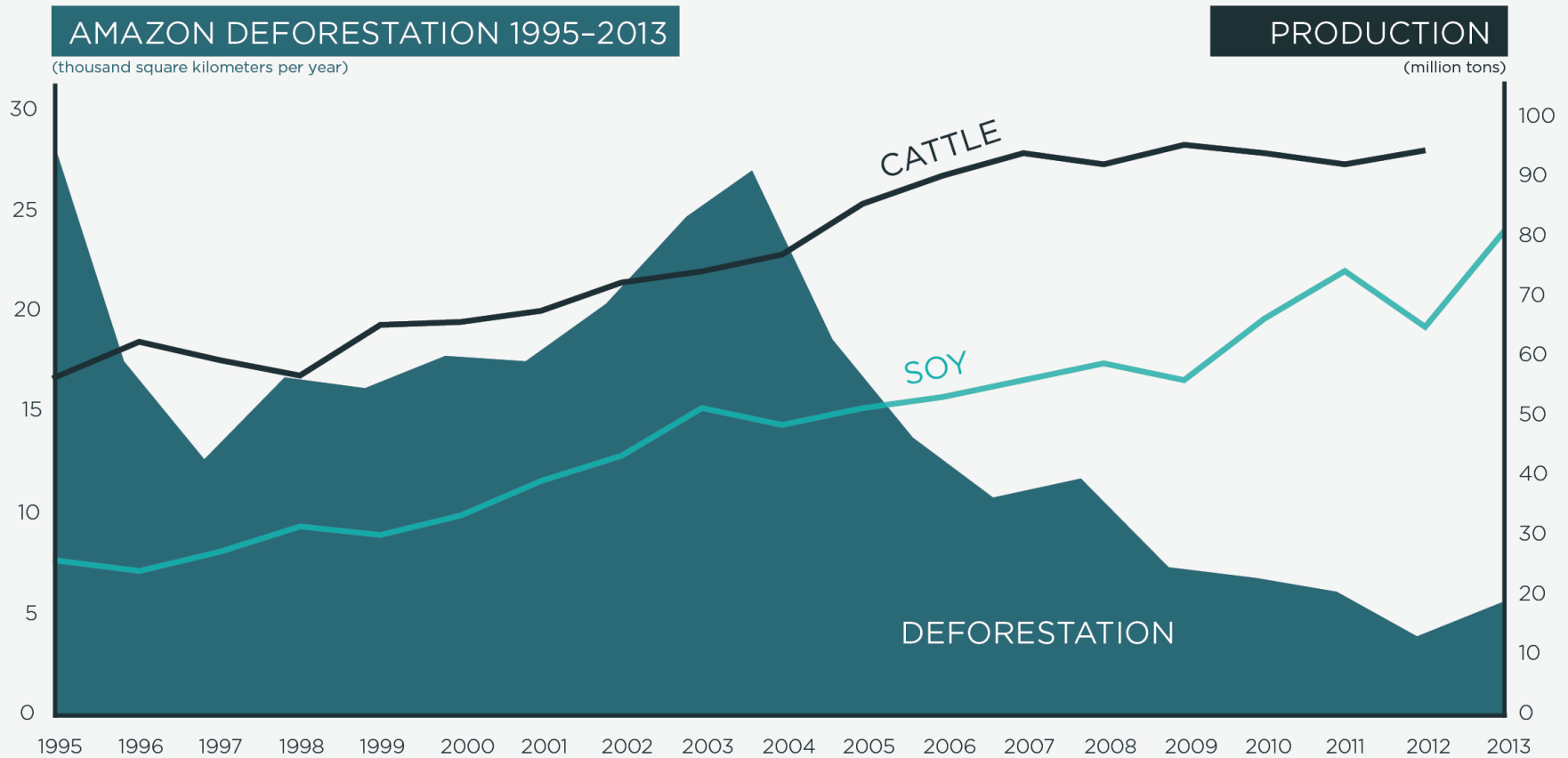


Decades of research explain what drives deforestation and what stops it



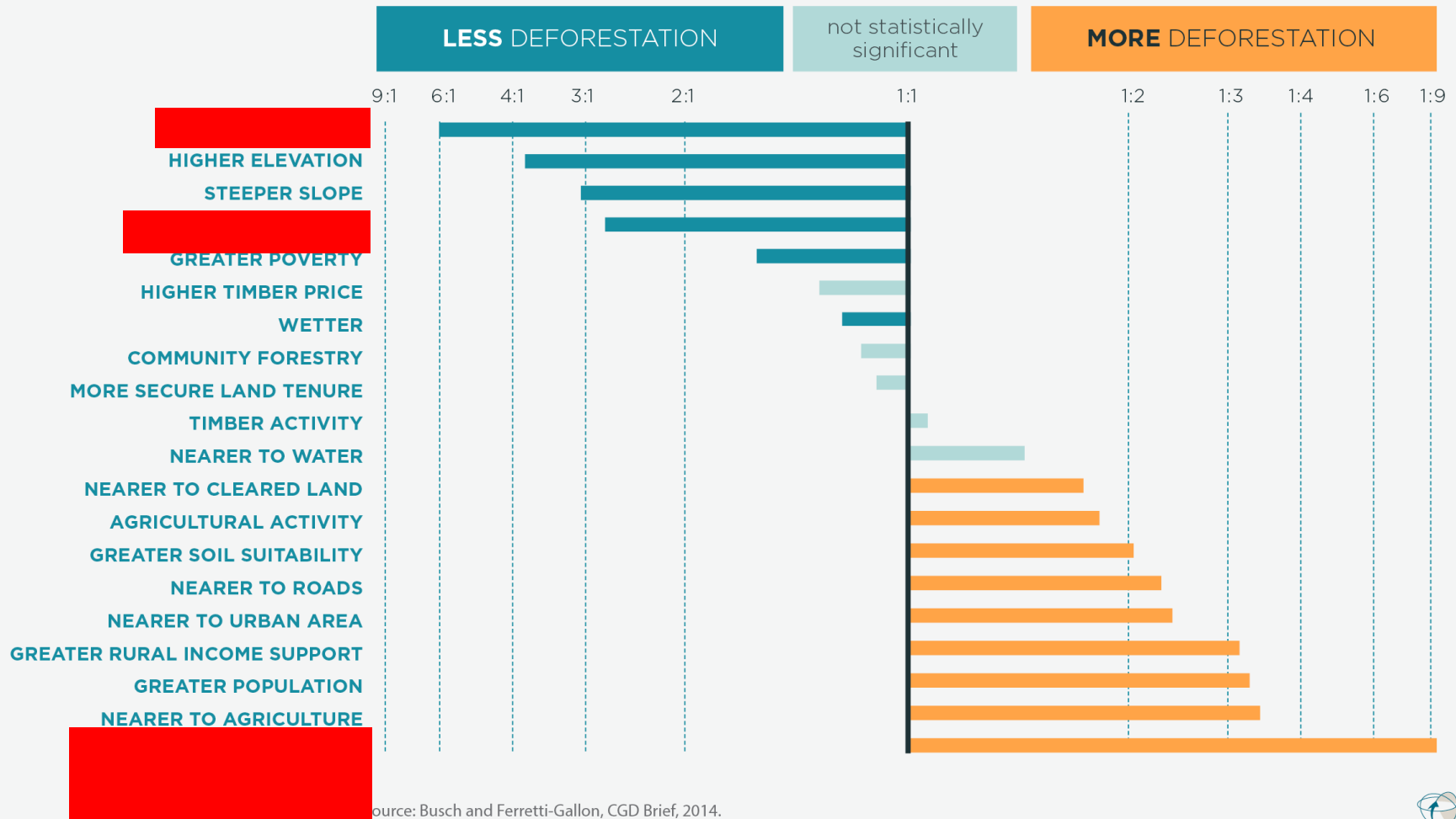
Source: Busch and Ferretti-Gallon, CGD Brief, 2014.

Brazil reduced deforestation and increased food production at the same time



Source: PRODES, FAOSTAT.

Brazil cut deforestation using a basket of policy interventions



Source: Busch and Ferretti-Gallon, CGD Brief, 2014.

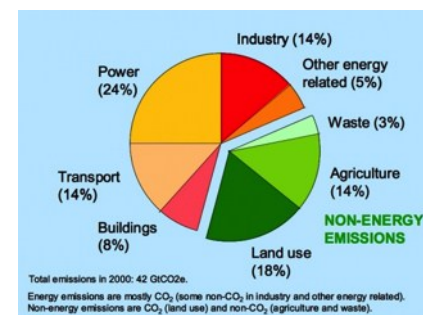
Two Global Challenges, One Solution: International Cooperation to Combat Climate Change and Tropical Deforestation

Antonio G.M. La Viña and Alaya de Leon

3 December 2014

REDD+ negotiation milestones

- Exclusion of avoided deforestation from Kyoto Protocol
- Introduction of “RED” in Montreal
- Stern Review and IPCC Fourth Assessment Report
- Bali Road Map
- From Bali to Doha
- Warsaw Framework on REDD+



Overcoming key issues



MRV

Market vs. non-market finance

Safeguards

Prospects for the future

- REDD+ implementation and finance
- Land use in new climate agreement



- What donor countries need to do
- What REDD+ countries need to do

Thank you!



Shaping policy for development

odi.org.uk



The State of REDD+ Finance

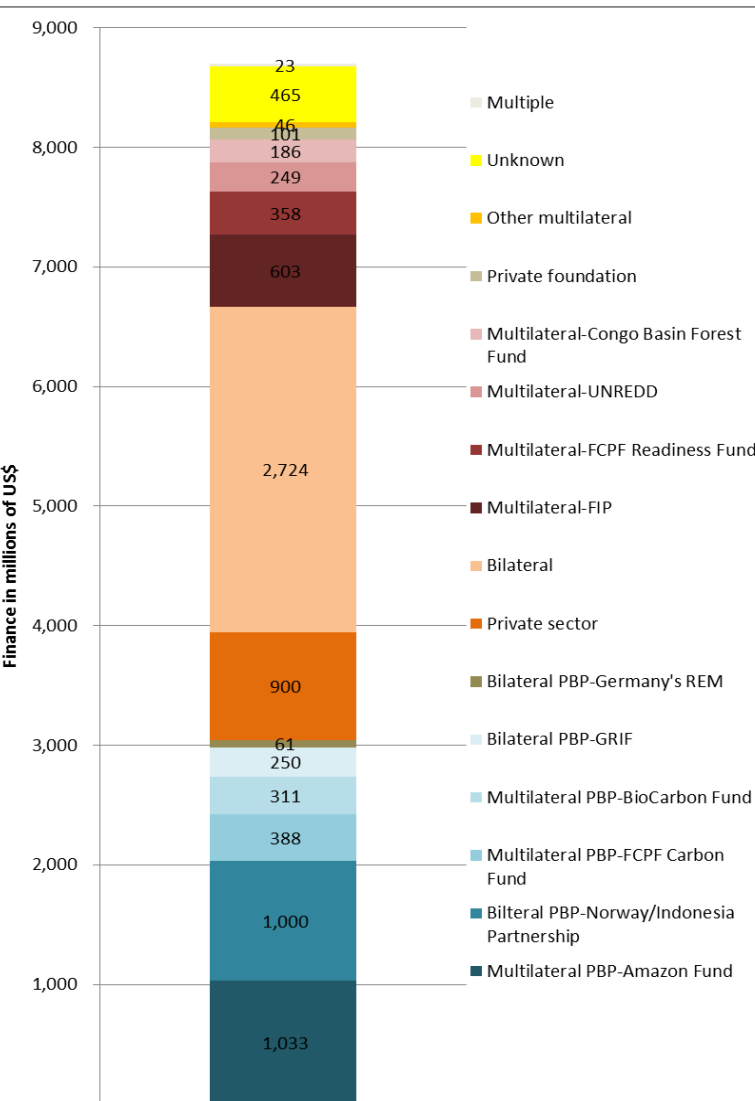
Marigold Norman and Smita Nakhooda

Why Forests? Why Now?

Center for Global Development side event, Lima Peru
3 December 2014



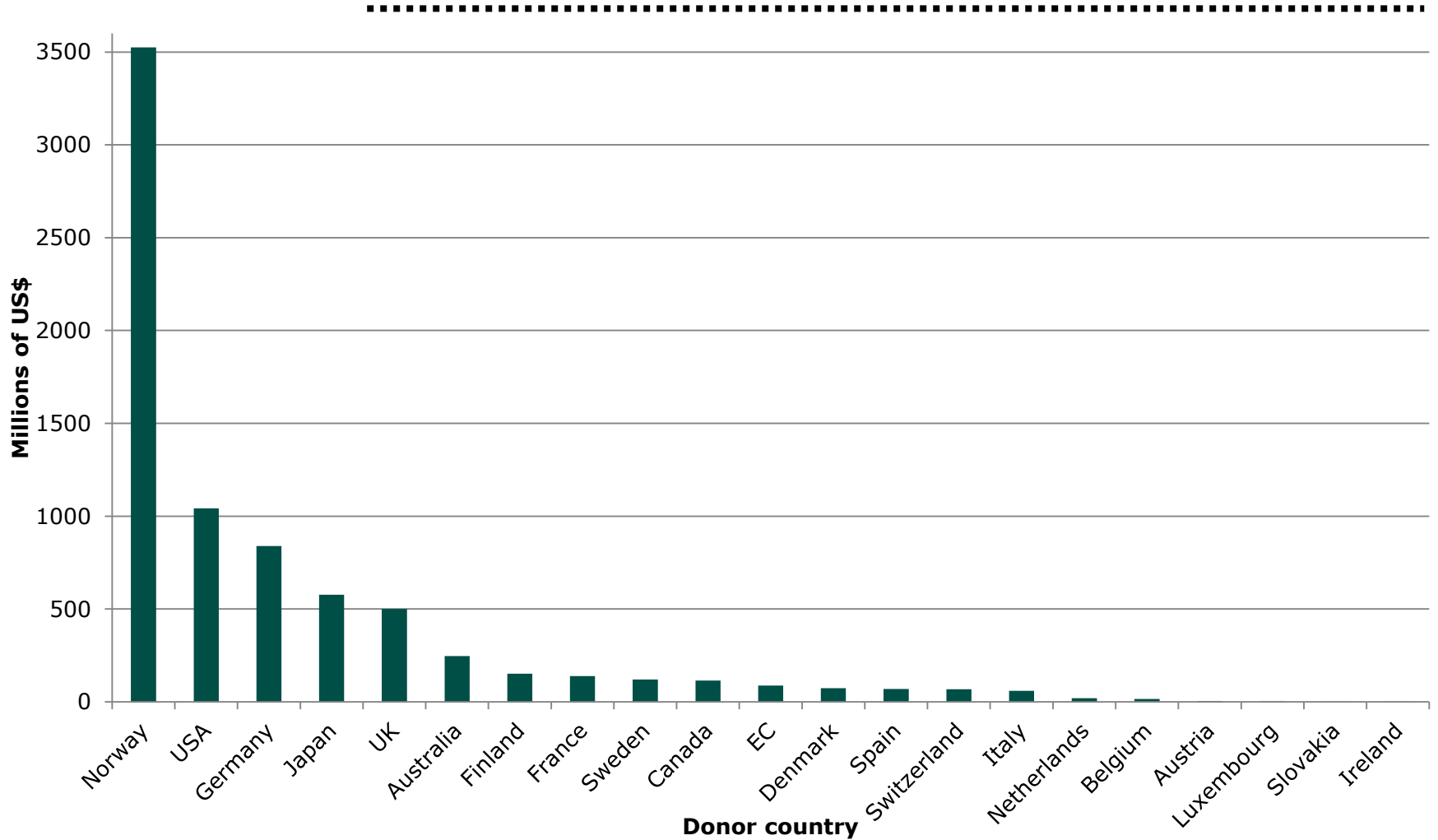
How global REDD+ finance stacks up?



Type of funding/donor	Scope of Data	Data Tracking Institution/source	Total financial pledge/investment reported in millions US\$
Bilateral	21 donor countries	Detailed assessment and compilation using: ODI FSF data 2010-2012 Voluntary REDD+ Database (VRD) of the REDD+ Partnership (2006-2013)	4,035
Multilateral	6 multilateral REDD+/forest focused funds	ODI HBI CFU tracking (2008-March 2014)	3,142
Multiple channels	21 donors and 6 multilateral REDD+/forest focused funds	Detailed assessment and compilation using: ODI FSF data 2010-2012 Voluntary REDD+ Database (VRD) of the REDD+ Partnership (2006-2013)	23
Unknown	21 donors and 6 multilateral REDD+/forest focused funds	Detailed assessment and compilation using: ODI FSF data 2010-2012 Voluntary REDD+ Database (VRD) of the REDD+ Partnership (2006-2013)	465
Private Foundations	10 REDD+ countries	Forest Trends' REDDX March 2014	101
Private sector	162 projects	Ecosystem Marketplace 2013	900
Total			8,666

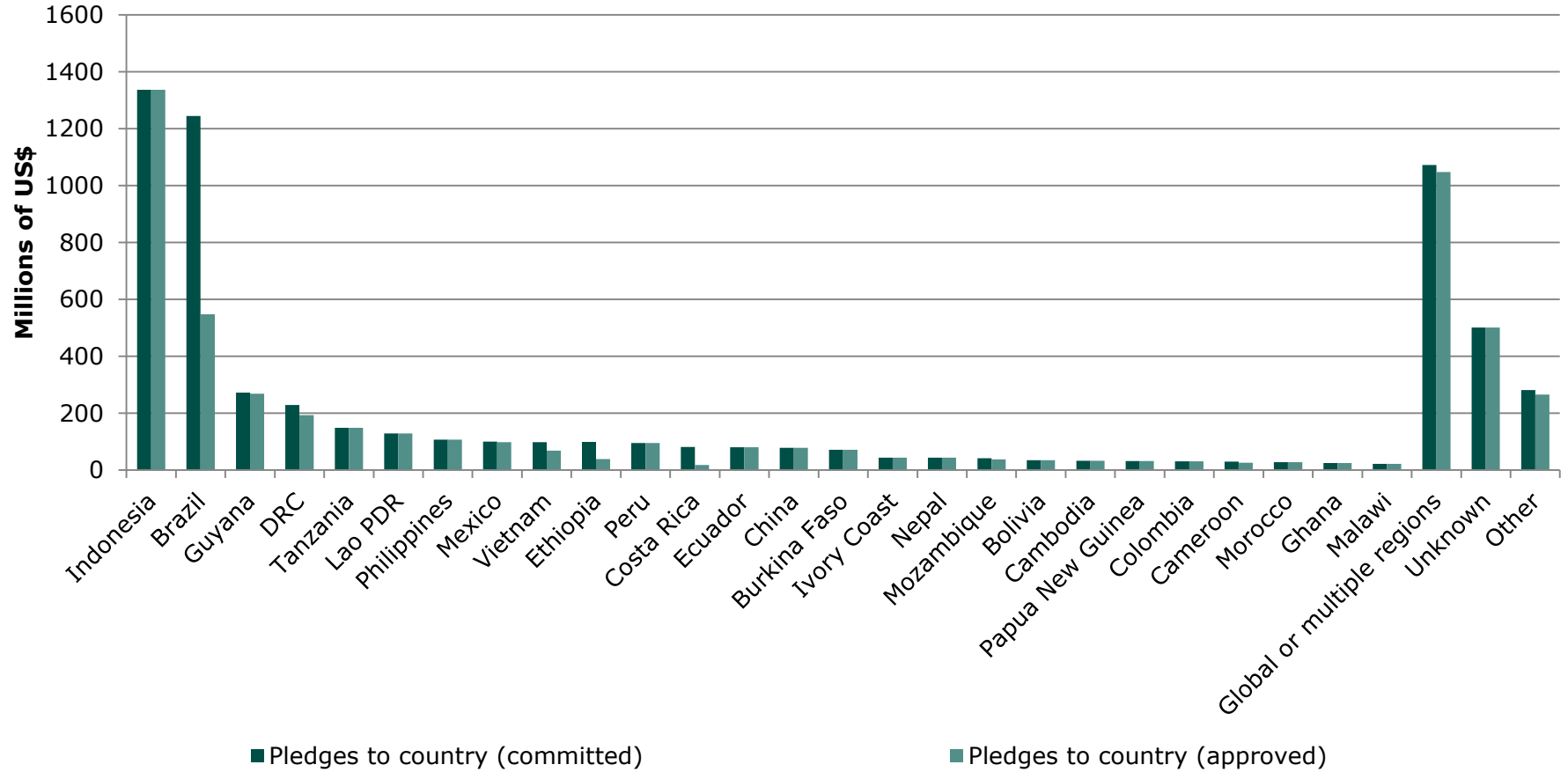


Who are the main funders of REDD+?





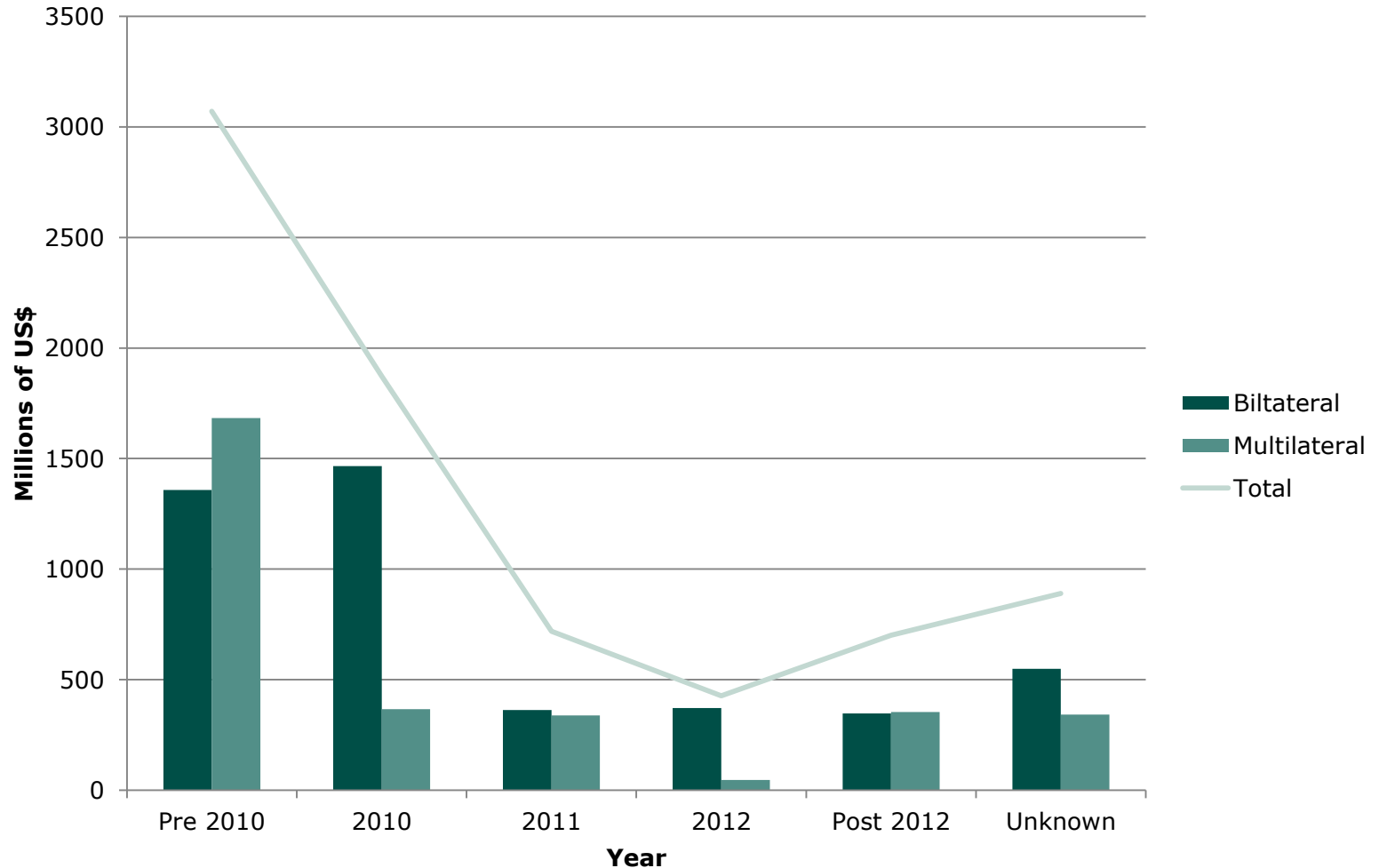
Who is receiving the REDD+ finance?





Is REDD+ finance maintaining momentum?

Public sector pledges for REDD+ 2006-March 2014





<http://www.climatefundsupdate.org>

Comprehensive information on the
objectives and scope of dedicated
public climate finance: