



# **Forests for climate and development What can rich countries do?**

2014 Australasian aid and international development  
policy workshop  
Australian National University  
February 14, 2014

# Propositions

- Forests are important for development and for the climate
- Reducing deforestation requires tough changes in the domestic political economy
- Results-based finance and demand-side policies from rich countries are promising approaches to support constituencies for change

**Forests are important for  
development**

**FORESTS**

- timber
- non-timber products
- tourism
- bush meat, wild foods
- fish
- forage and fodder
- erosion control
- irrigation
- rainfall patterns
- pollination
- less dam siltation
- Fuelwood & charcoal
- clean drinking water
- medicine
- mosquito control
- recreation
- landslide prevention
- tsunami mitigation

**INCOME**

**FOOD**

**ENERGY**

**HEALTH**

**SAFETY**

**MDGs**

 <p><b>1</b></p> <p>ERADICATE EXTREME POVERTY AND HUNGER</p>	 <p><b>2</b></p> <p>ACHIEVE UNIVERSAL PRIMARY EDUCATION</p>
 <p><b>3</b></p> <p>PROMOTE GENDER EQUALITY AND EMPOWER WOMEN</p>	 <p><b>4</b></p> <p>REDUCE CHILD MORTALITY</p>
 <p><b>5</b></p> <p>IMPROVE MATERNAL HEALTH</p>	 <p><b>6</b></p> <p>COMBAT HIV / AIDS, MALARIA AND OTHER DISEASES</p>
 <p><b>7</b></p> <p>ENSURE ENVIRONMENTAL SUSTAINABILITY</p>	 <p><b>8</b></p> <p>GLOBAL PARTNERSHIP FOR DEVELOPMENT</p>



# Income from forests – 21%



Source: Wunder et al, World Development Report (forthcoming)

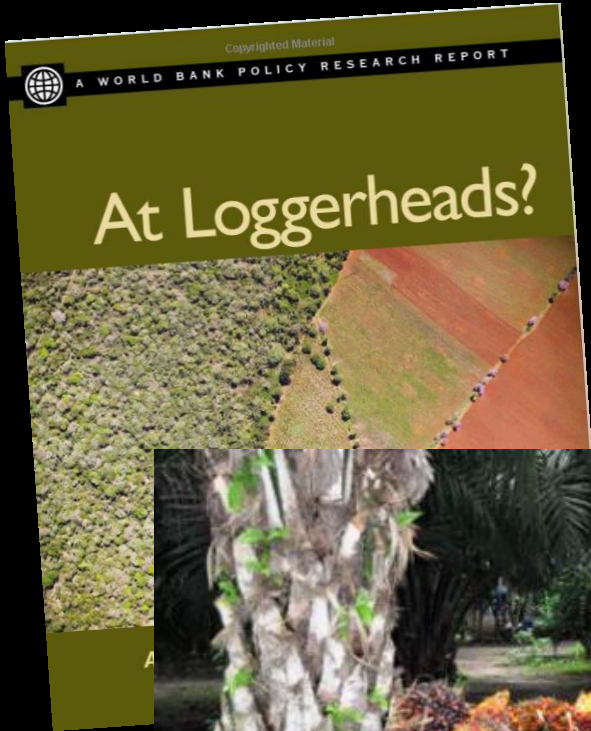


# Forest ecosystem services



**21%**

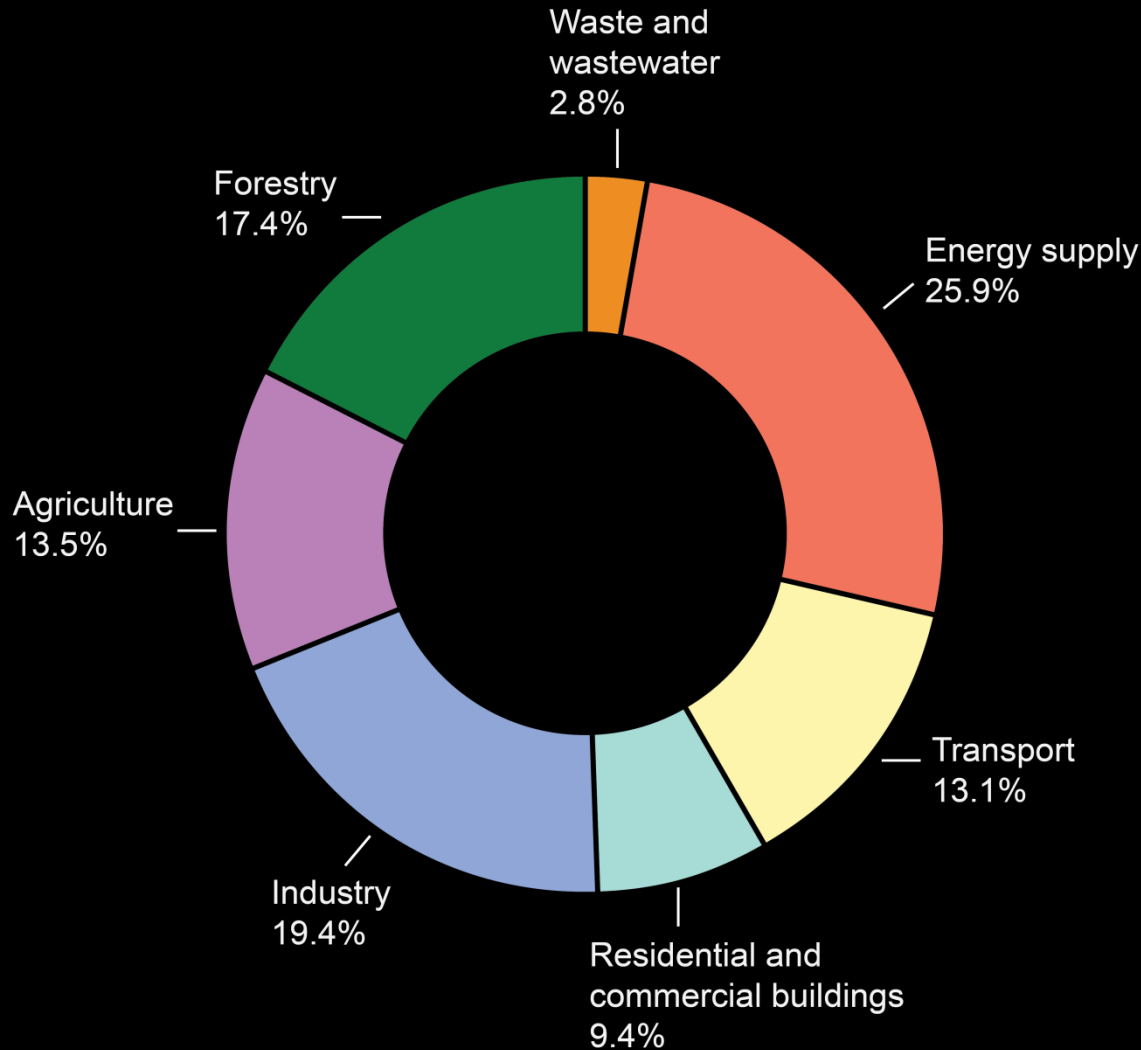
# Net impact of deforestation on development? It depends...



**Forests are important for  
climate stability**



# Emissions from deforestation are a large share of total global emissions



Data Source: IPCC, Climate Change Synthesis Report, 2007.

**Despite decades of development assistance for tropical forest protection and management, deforestation *increased* by 2101 square kilometers per year 2000-2012**



Forest Loss in Riau, Indonesia, 2000-2012. Source: Hansen, Potapov, Moore, Hancher, et al. (Science, 2013). Powered by Google Earth Engine.

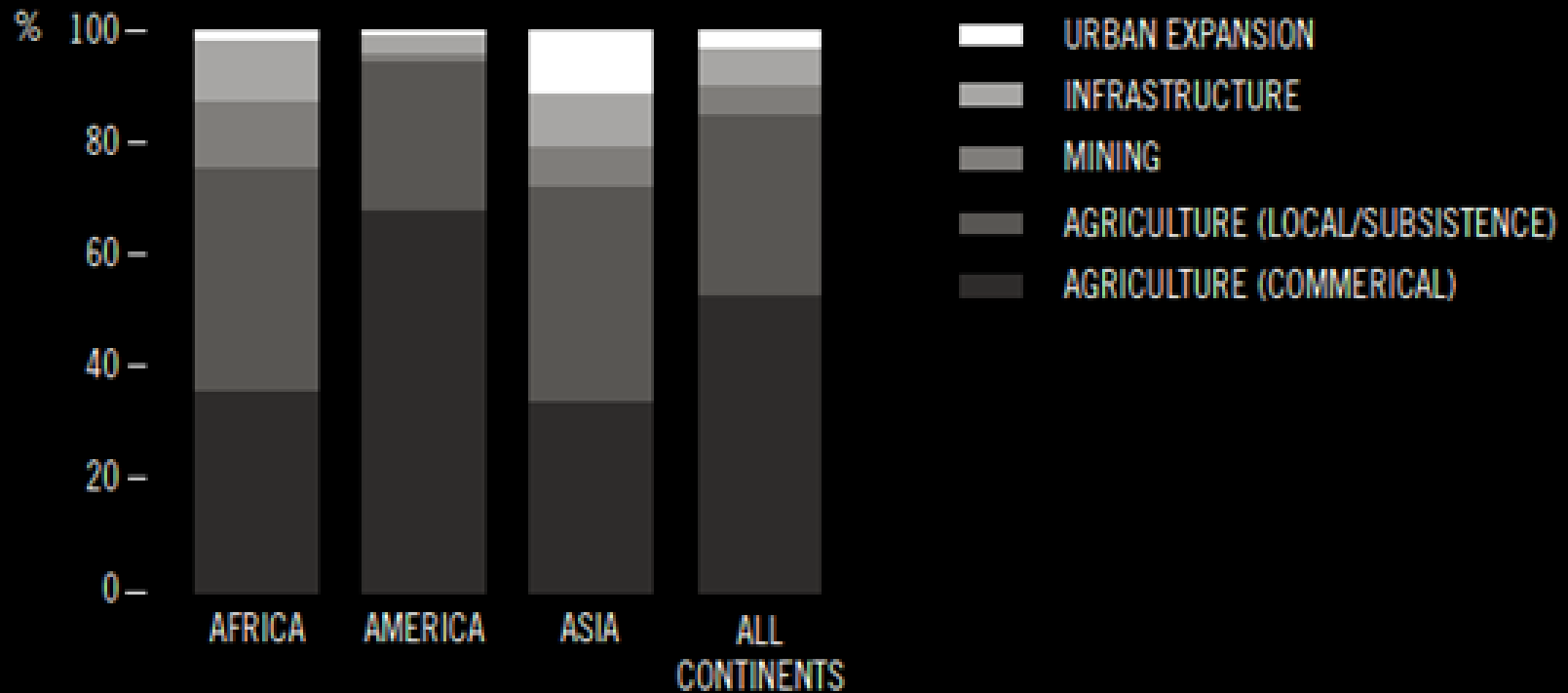
To view animation of deforestation in Riau 2000-2012, go to:  
<http://mongabay-images.s3.amazonaws.com/13/deforestation-in-riau-600.gif>



**Reducing deforestation is tough,  
but possible**

# Conversion to agriculture – mostly commercial and often illegal – drives deforestation

## DEFORESTATION



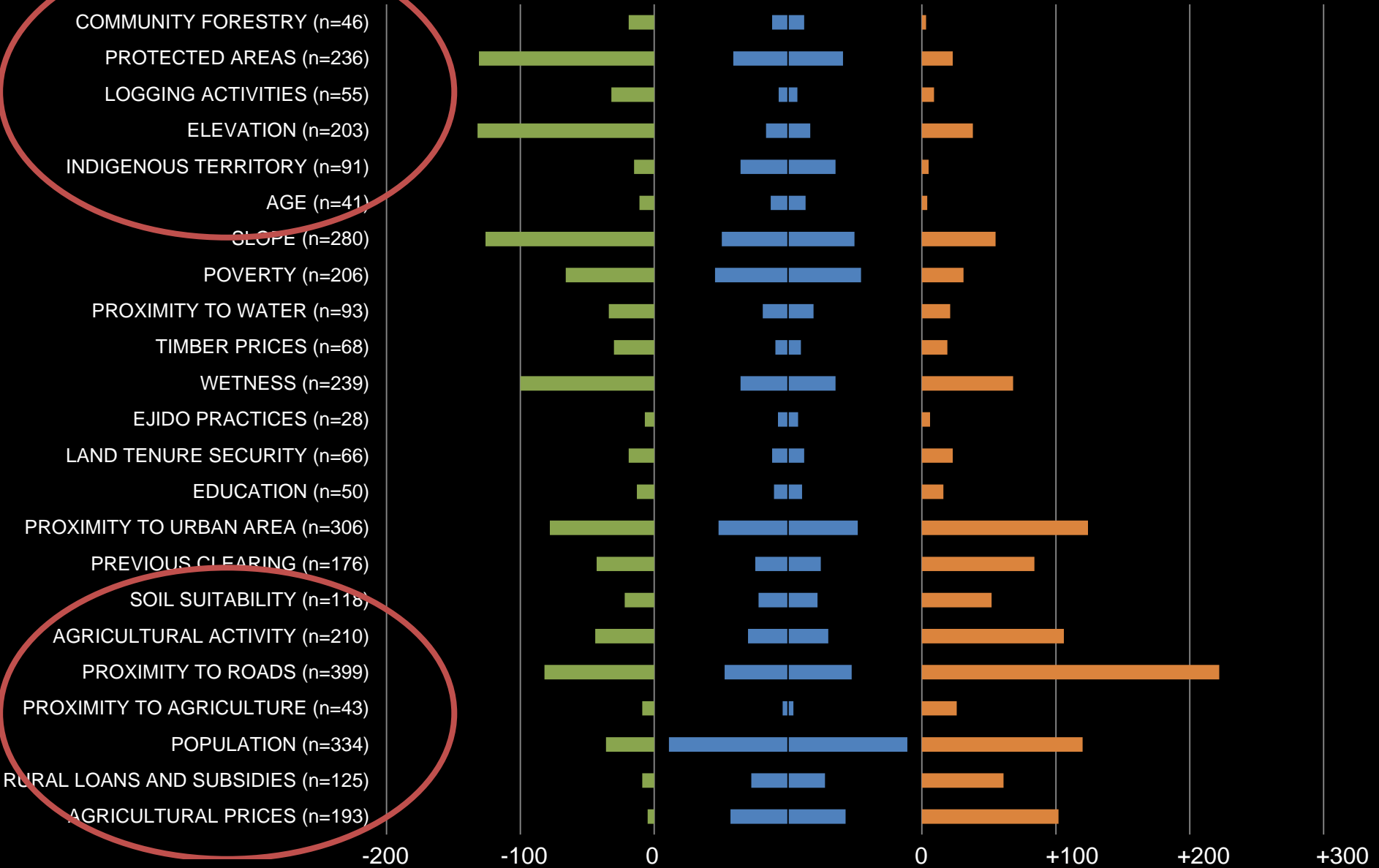
Source: Global Canopy Programme, 2013, based on Hosunuma et al 2012





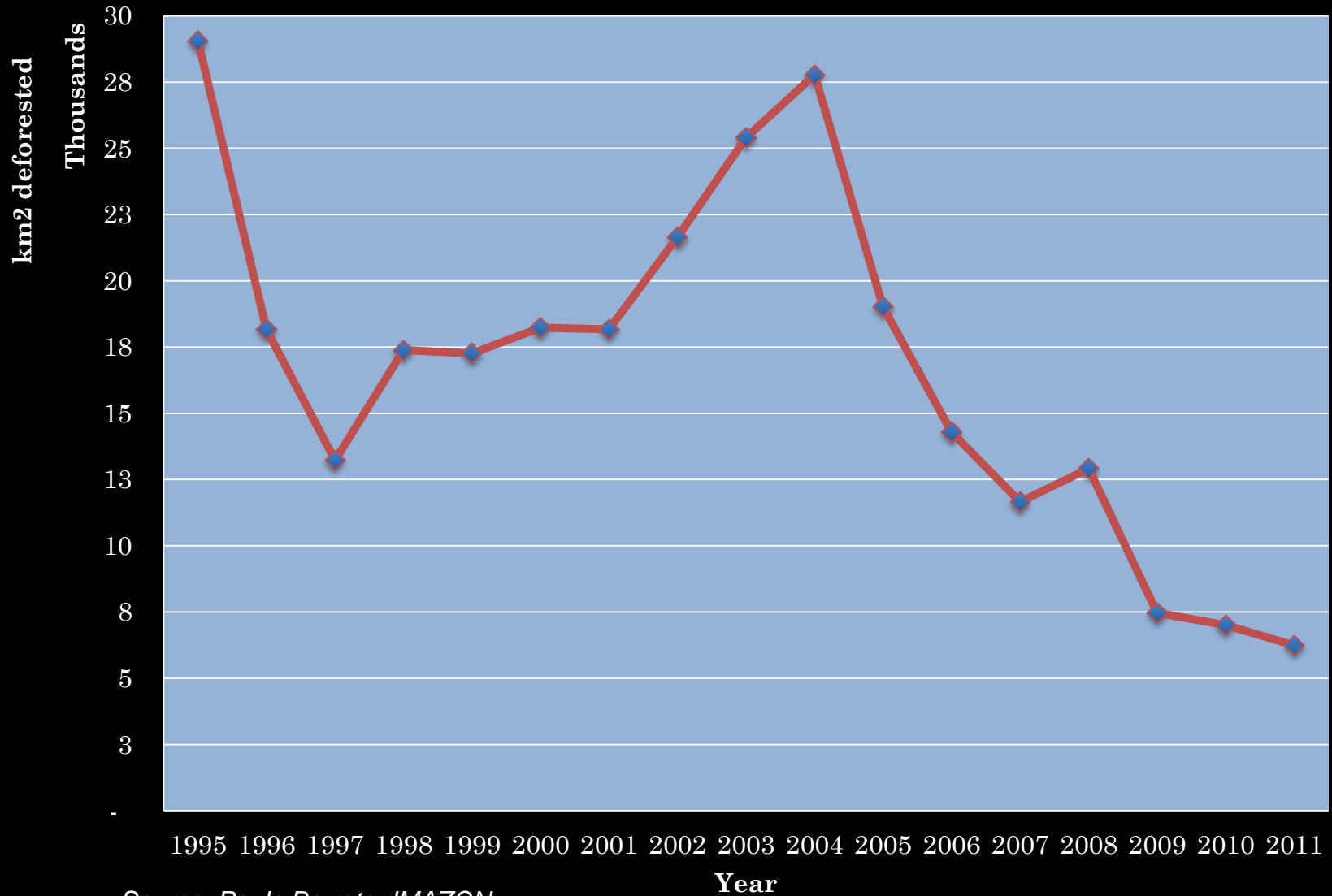
# Regression coefficients (n~6500)

■ Negative and Significant   ■ Not Significant   ■ Positive and Significant



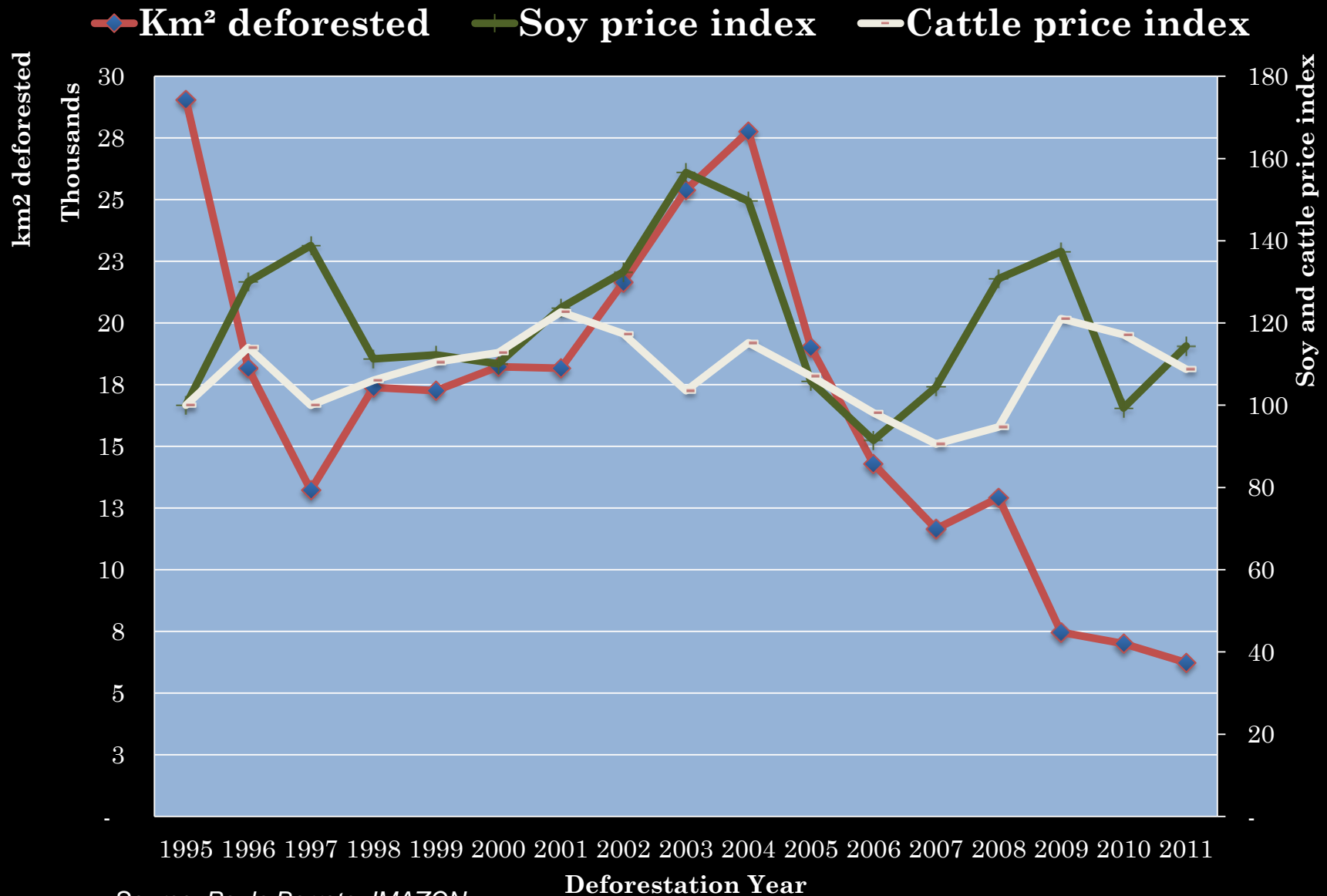
Source: Ferretti-Gallon and Busch, in prep.

# Deforestation in Brazil...



Source: Paulo Barreto, IMAZON

# ...decoupled from agricultural prices

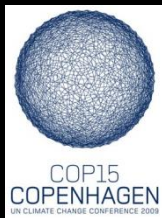
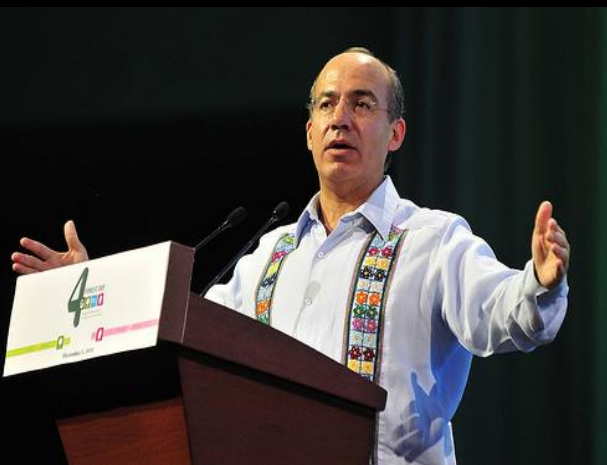




# Policy options to reduce deforestation (or, how did Brazil do it?)

- ✓ Increase forest area given formal protection
- ✓ Increase transparency of land cover change
- ✓ Increase law enforcement effort against illegal forest conversion
- ✓ Remove subsidies that incentivize forest conversion (e.g., access to credit)
- ✓ Recognize and strengthen indigenous and customary forest management systems

**Results-based finance – a  
promising approach?**

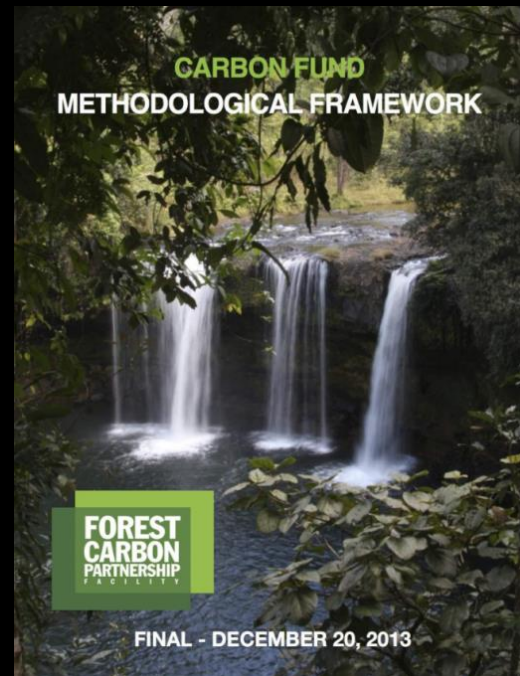


2013

REDD

2009

2007



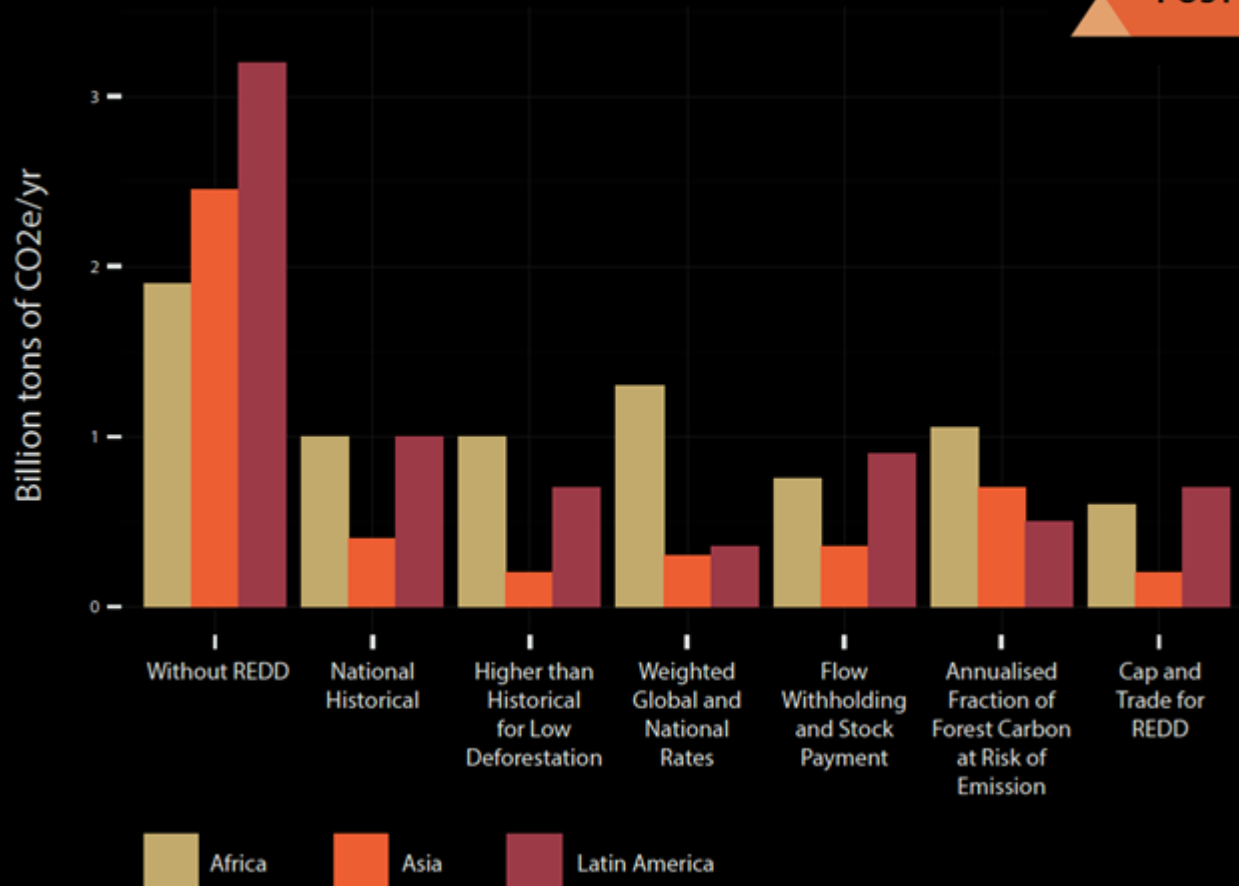
*Launch of Australian Global Forests and Climate Initiative*



# Potential forest emission reductions

## Emissions from deforestation

POST-2015 |

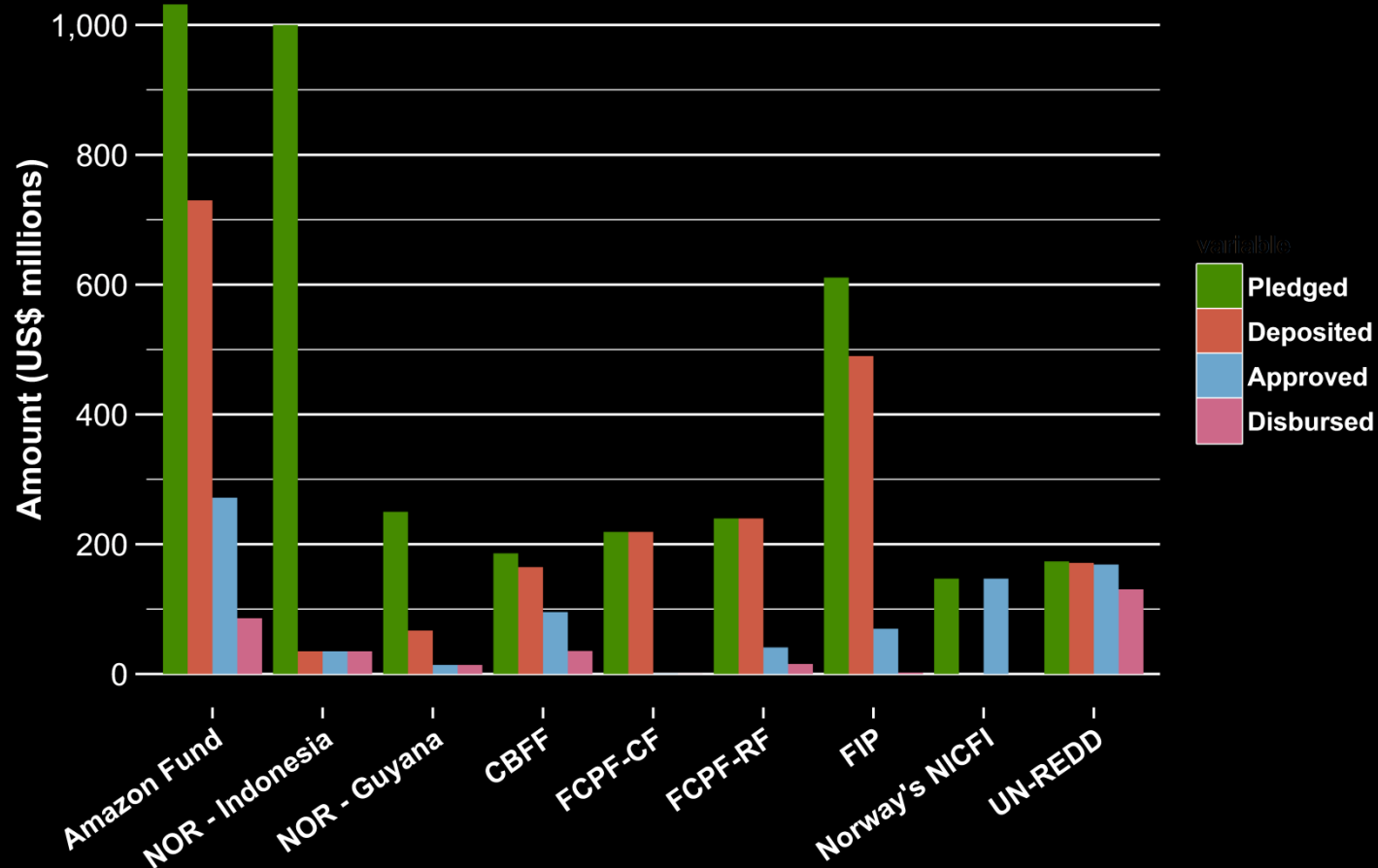


60. Busch, Jonah, et. al. Environmental Research Letters, author calculations (October-December 2009). Available at <http://iop-science.iop.org/1748-9326/4/4/044006/fulltext/>.

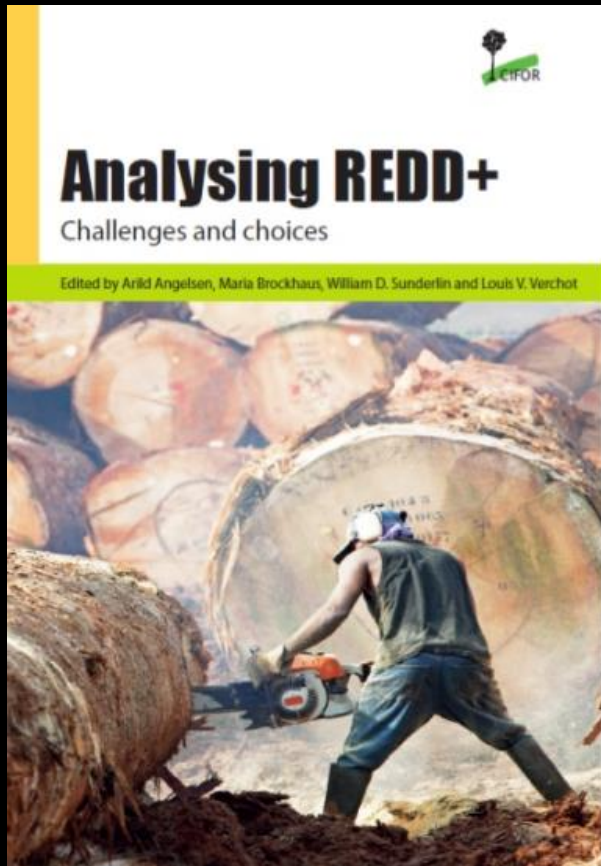
Source: Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, 2013

# Funding falls short of need

## Dedicated REDD+ funds and initiatives - 2006 to 2013



Data source: Climate Funds Update, 2014, modified by CGD staff



+



**But does it work?**

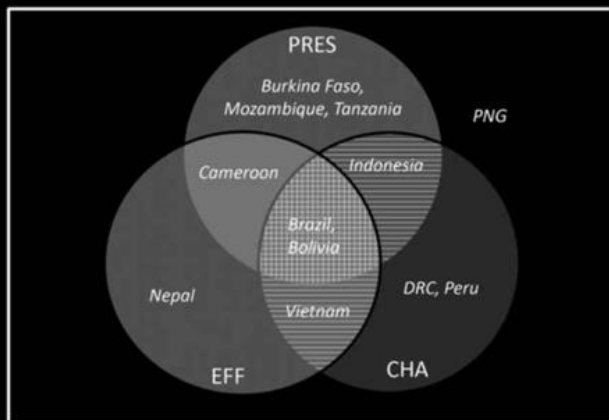
# Conditions favoring REDD+ transformational policy reform

## Enabling institutional conditions

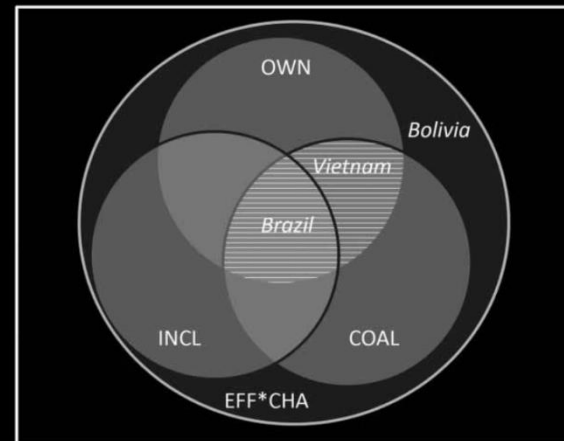
- Deforestation rate (PRES)
- Legal framework (EFF)
- **Change initiated (CHA)**

## Policy Arena

- **National ownership (OWN)**
  - **Coalitions (COAL)**
  - Inclusiveness (INCL)



**Figure 1** Observed configuration of the three remote conditions

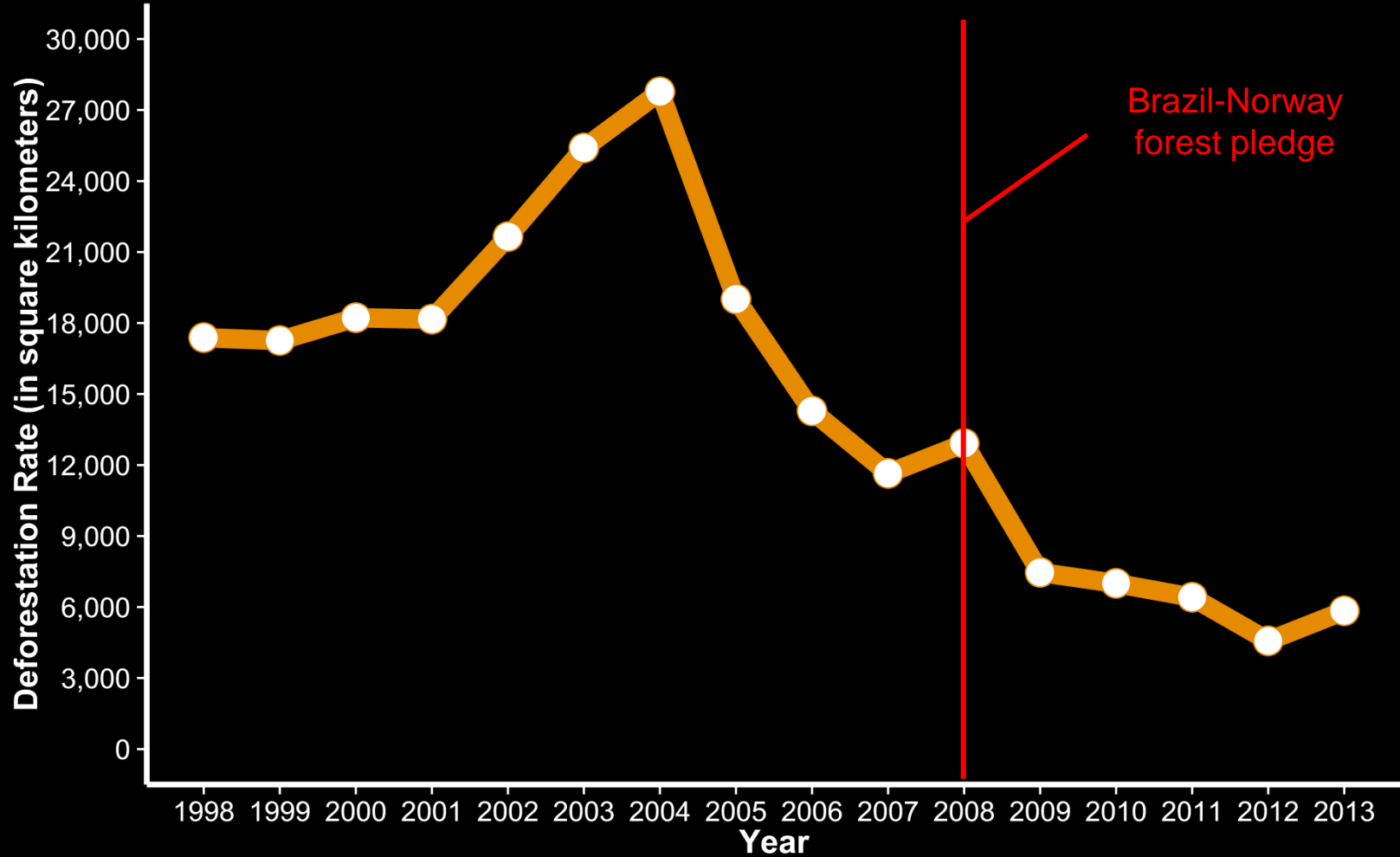


**Figure 2** Observed configuration for EFF\*CHA and the three proximate conditions

## Quantitative comparative analysis of 12 countries

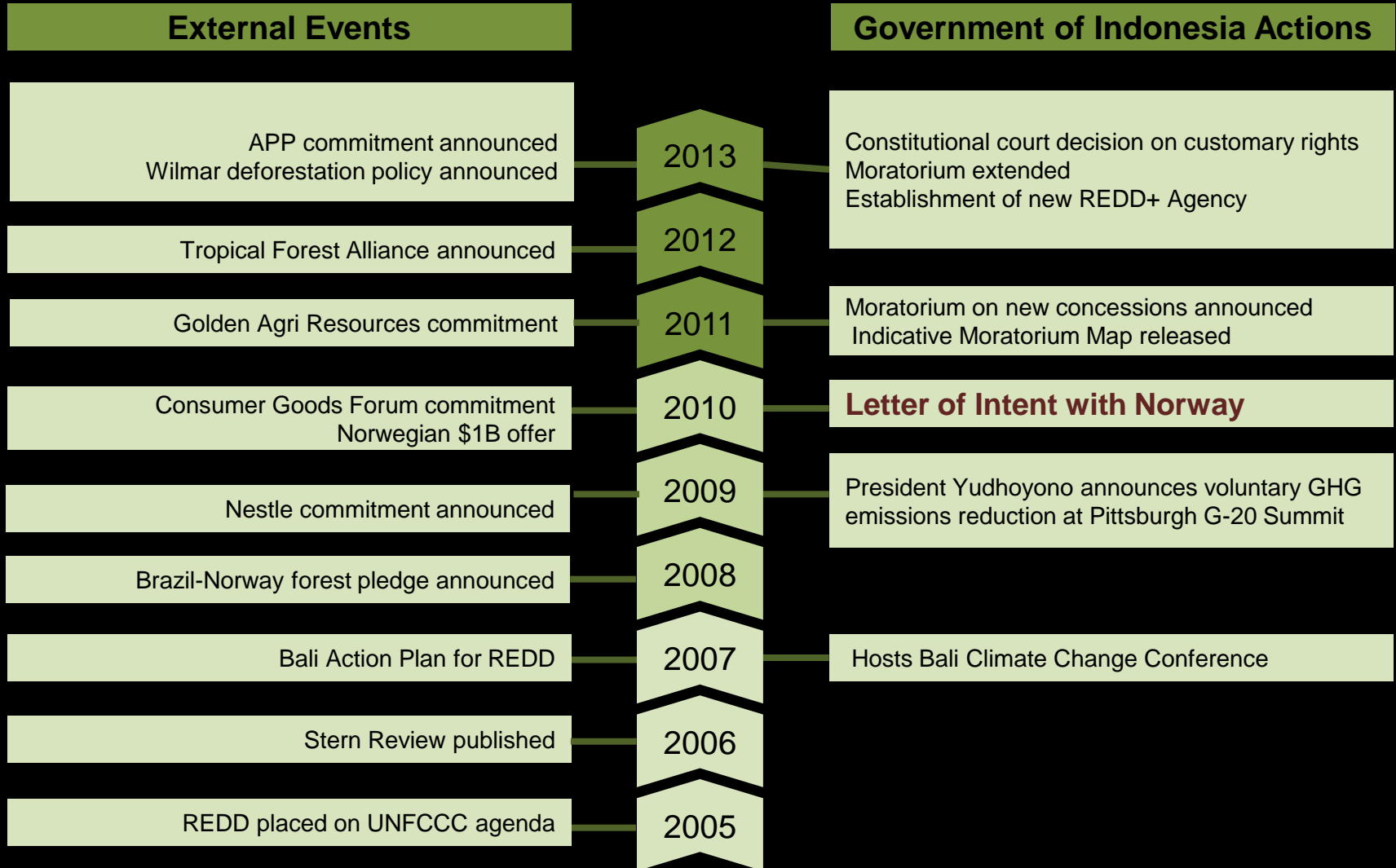


## Annual Deforestation in the Brazilian Amazon - 1998 to 2012



Data Source: Earth Observation General Coordination-OBT, Projeta Prodes, 2013.

# Indonesia Timeline

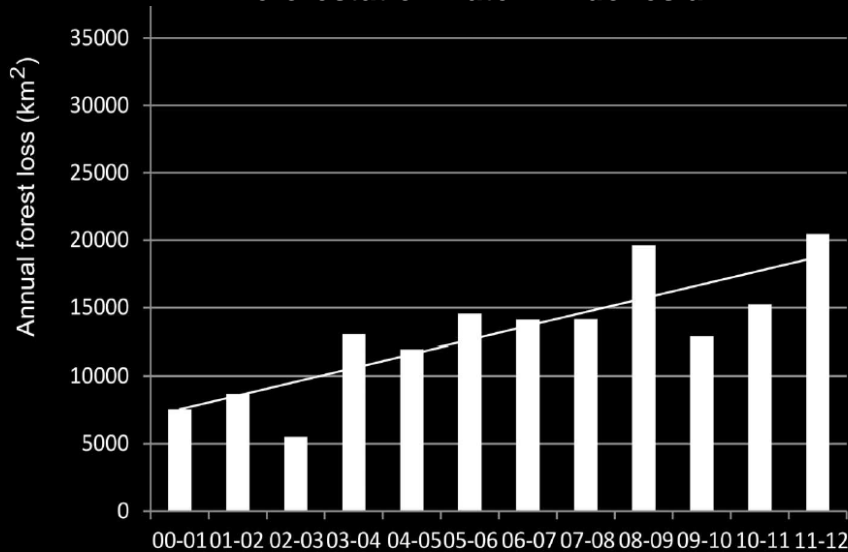




**Demand-side strategies – a promising approach?**

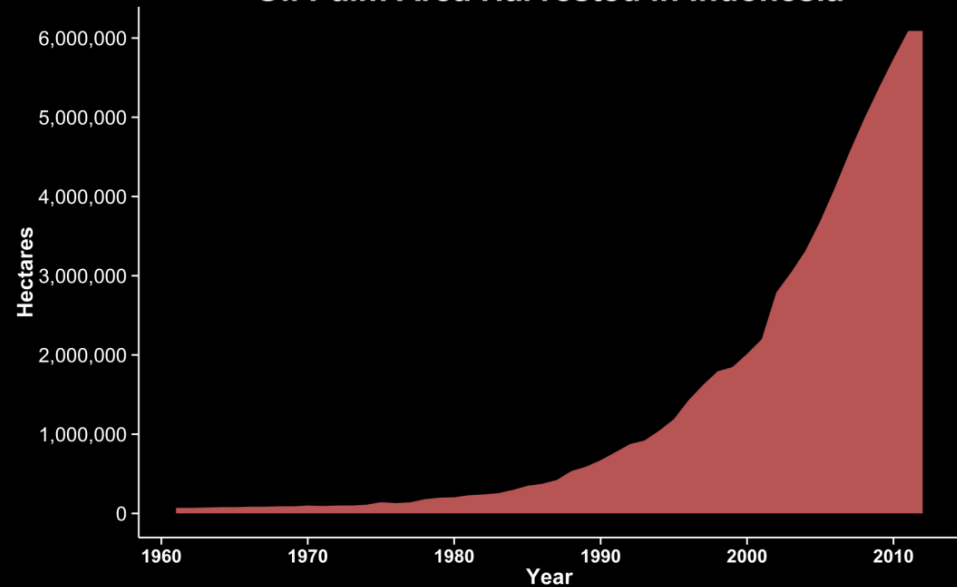
# Globally-traded commodities drive deforestation

### Deforestation Rate in Indonesia



Source: Hansen et al, SCIENCE, 2013.

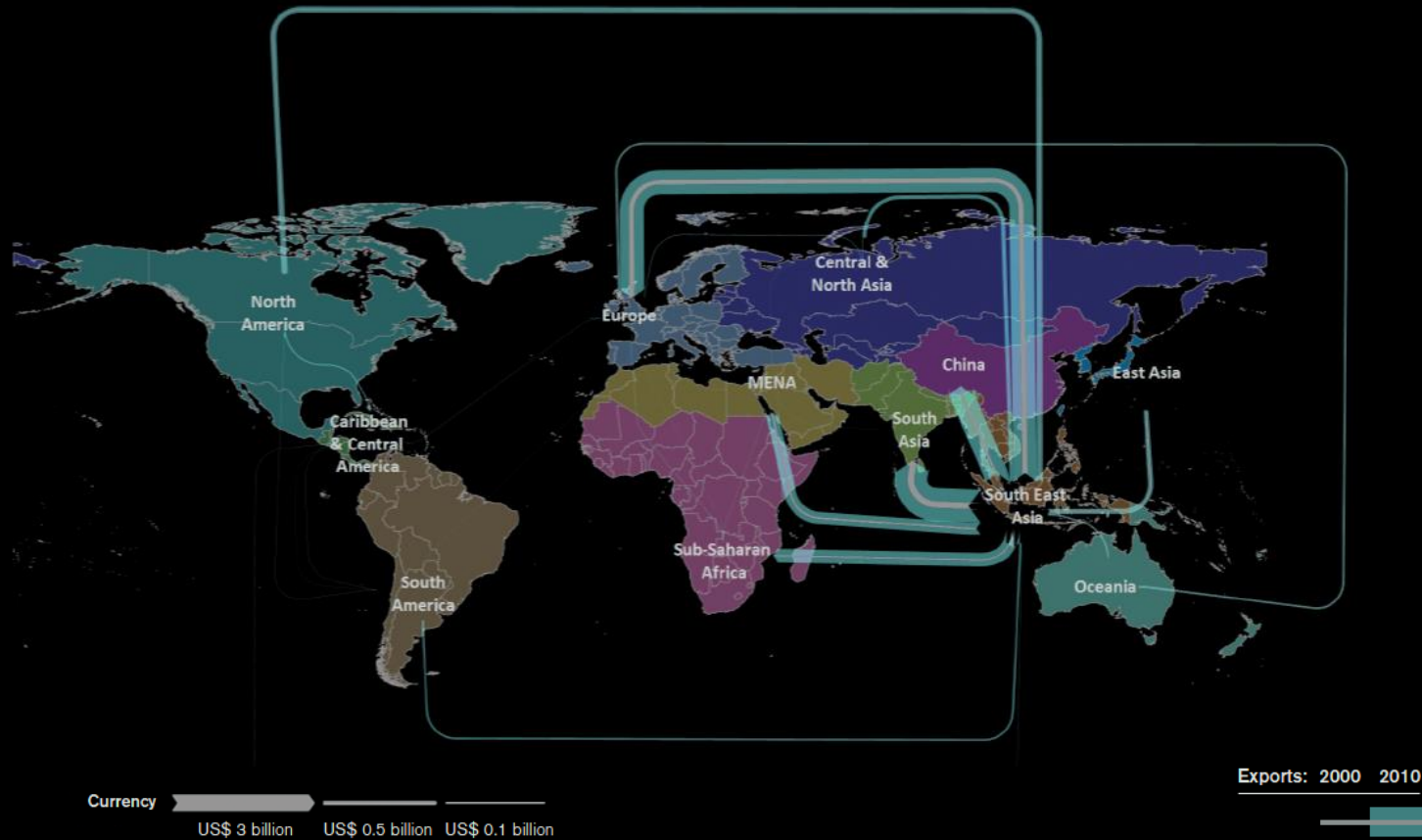
### Oil Palm Area Harvested in Indonesia



Data Source: FAO, FAOSTAT, 2012.



# Deforestation is embodied in exports...

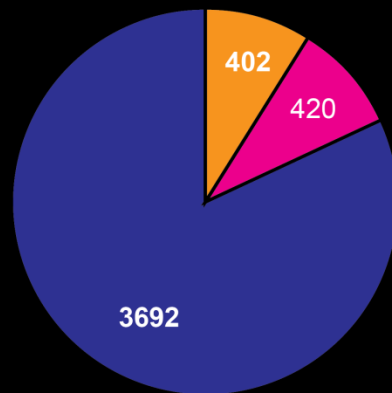


Source: Brack and Bailey (2013) based on Chatham House Resource Trade Database, BACI, COMTRADE.

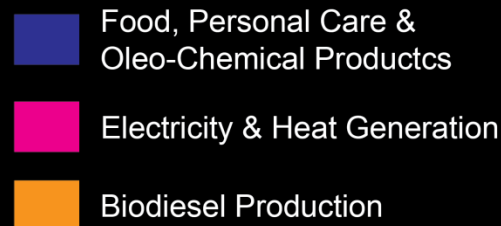
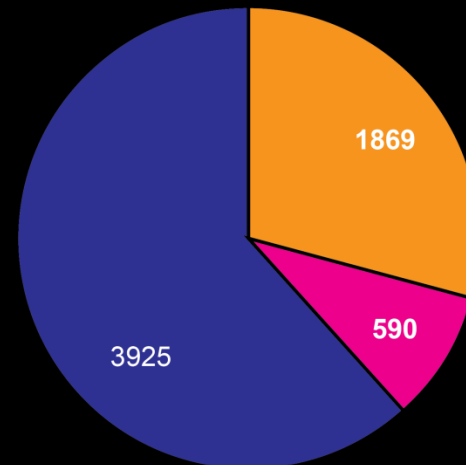
# ...often subsidized by rich countries

## End Uses of Palm Oil in the EU-27 in 2006 & 2012, Thousand Metric Tons

2006 - Total: 4514



2012 - Total: 6384



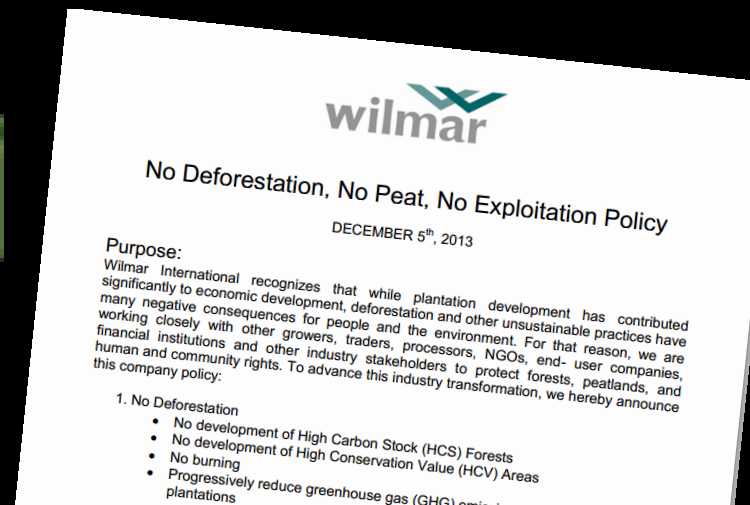
Data Source: Gerasimchuk and Koh, *International Institute for Sustainable Development*, 2013.

# Demand-side policy options:

- ✓ Remove subsidies for unsustainable biofuels
- ✓ Enforce domestic legislation to control import of illegally-produced commodities
- ✓ “Green” government procurement standards
- ✓ Incorporate forest protection provisions into trade agreements and investment decisions
- ✓ Support voluntary private sector commitments to responsible sourcing



# Paul Polman Recipient Of 2014 Commitment to Development Award







Consumers

Reputational pressure

Manufacturers

Commercial pressure

Producers

Constituencies for improved policy and regulation

NGO Advocacy

Commitments  
Retailers

Commitments  
Traders

Governments





Consumers

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Governments



REDD



# Politics in forest countries



VS.



South China Morning Post 南華早報

Indonesia works to clean up its corrupt forestry sector

Thursday, 02 January, 2014, 9:27pm  
News > Asia INDONESIA

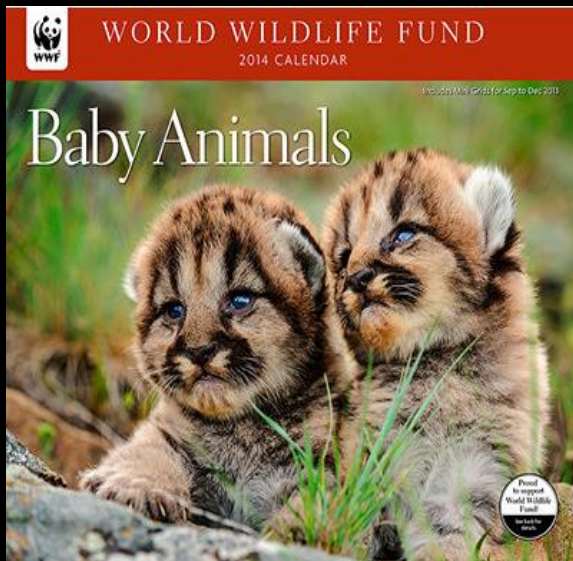
Agence France-Presse in Berau

*The government is trying to stop illegal logging and fix the mismanaged industry*

BAU

Reform

# Politics in donor countries



**Office DEPOT.**

## Illegal Logging Prohibition Act 2012

No. 166, 2012

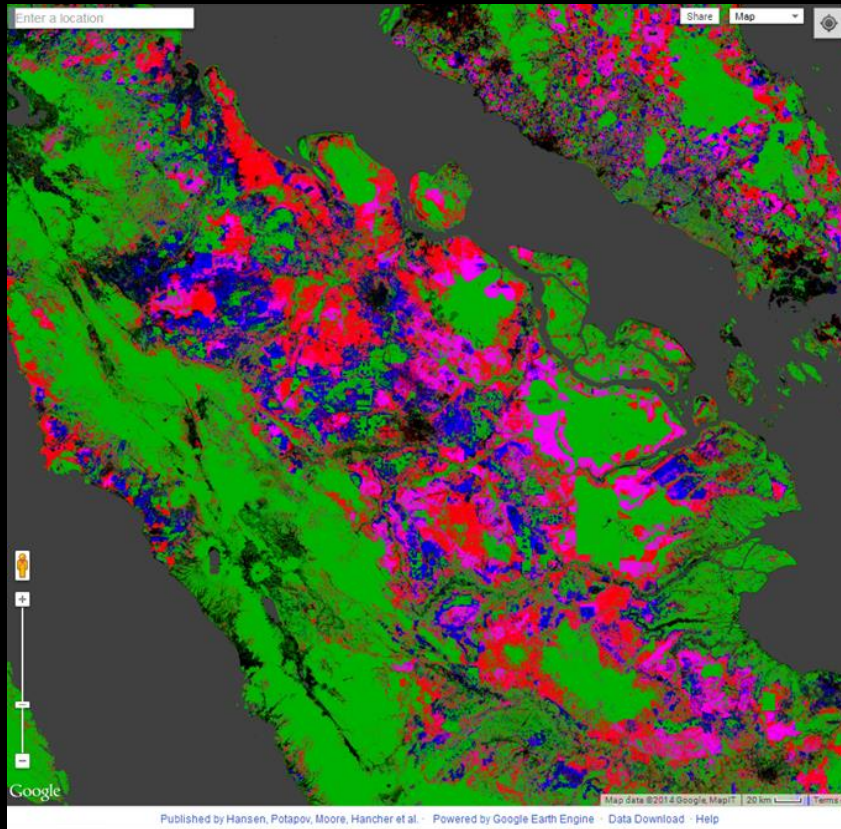


An Act to combat illegal logging, and for related purposes

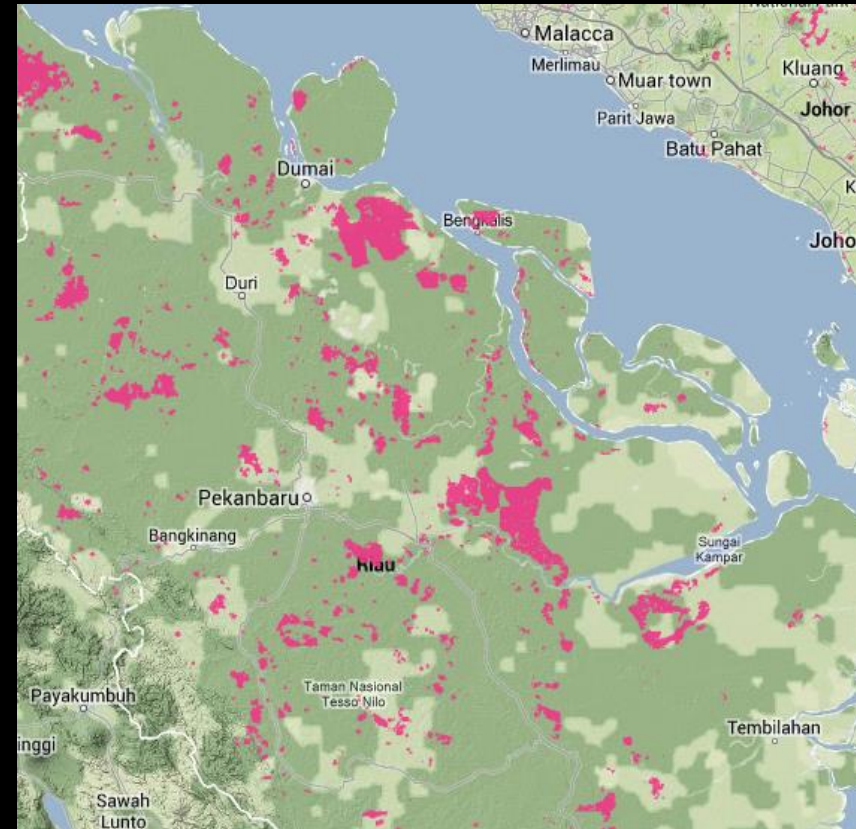


**Why now?**

# Technological advances make it possible



accurate annual  
measurement of deforestation  
for results-based finance



real-time monitoring of  
conversion for demand-  
side commitments

# Need to bridge the gap to 2020



Political  
consensus on  
REDD+

Large-scale  
finance

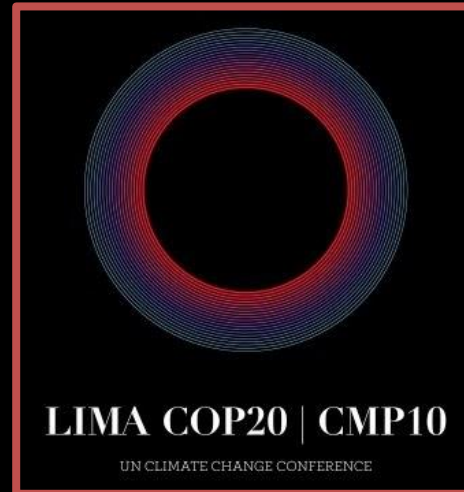
(mindful of elections in the meantime)

Global calendar  
provides a window  
of opportunity

Preparing for the  
Development  
Agenda  
beyond 2015



2015



2014





**Forest Loss in Riau, Indonesia, 2000-2012.** Source: Hansen, Potapov, Moore, Hancher, et al. (Science, 2013). Powered by Google Earth Engine



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