
WHY FORESTS?
WHY NOW
MORE THAN
EVER?
WORLD
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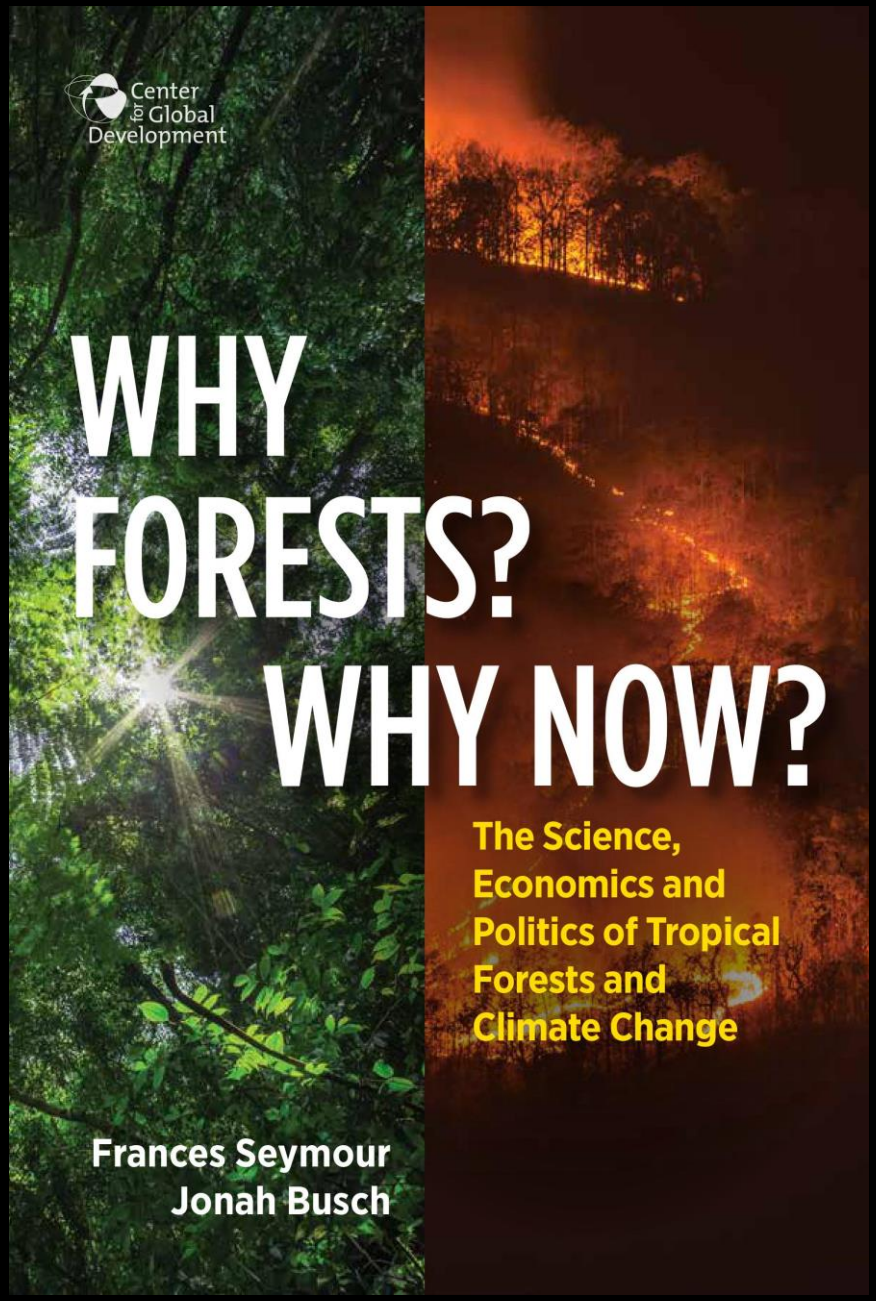
INSTITUTE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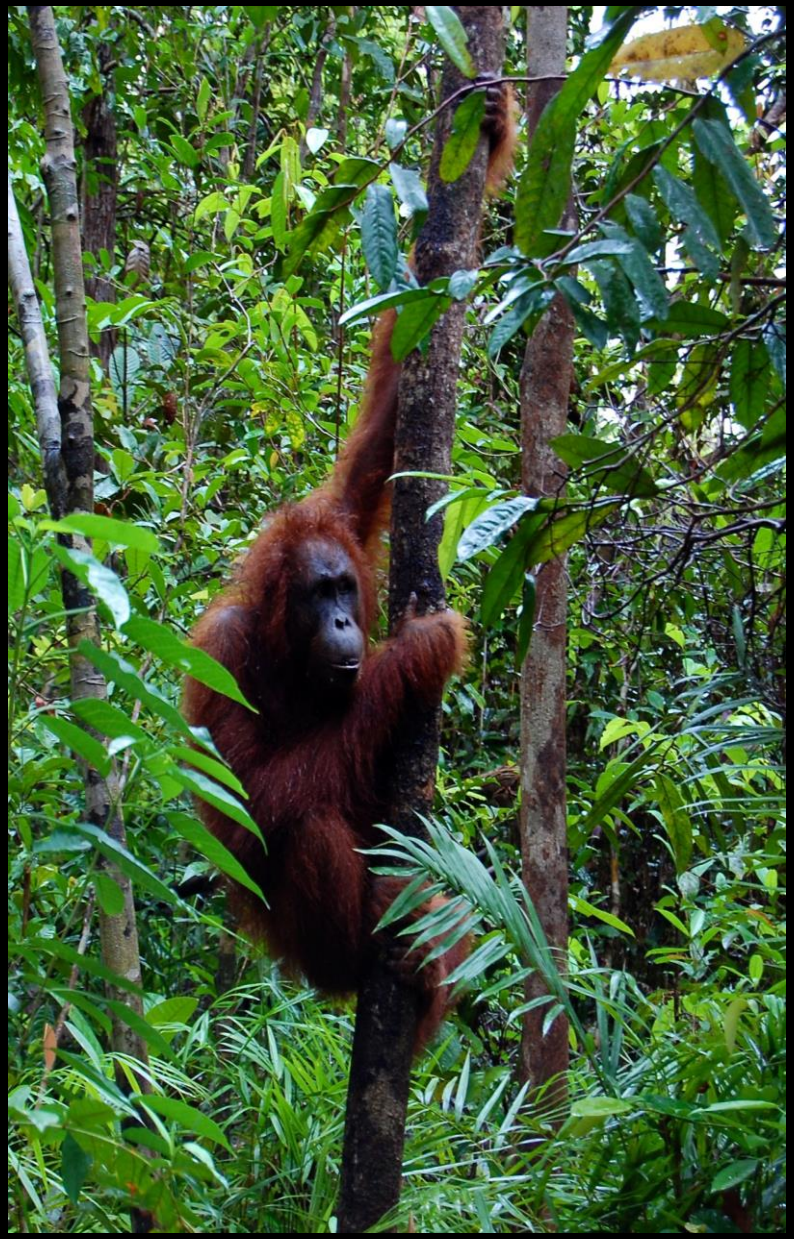
WHY FORESTS? WHY NOW?
The Science, Economics and Politics of Tropical Forests and Climate Change
Frances Seymour
Jonah Busch

Photo: CIFOR



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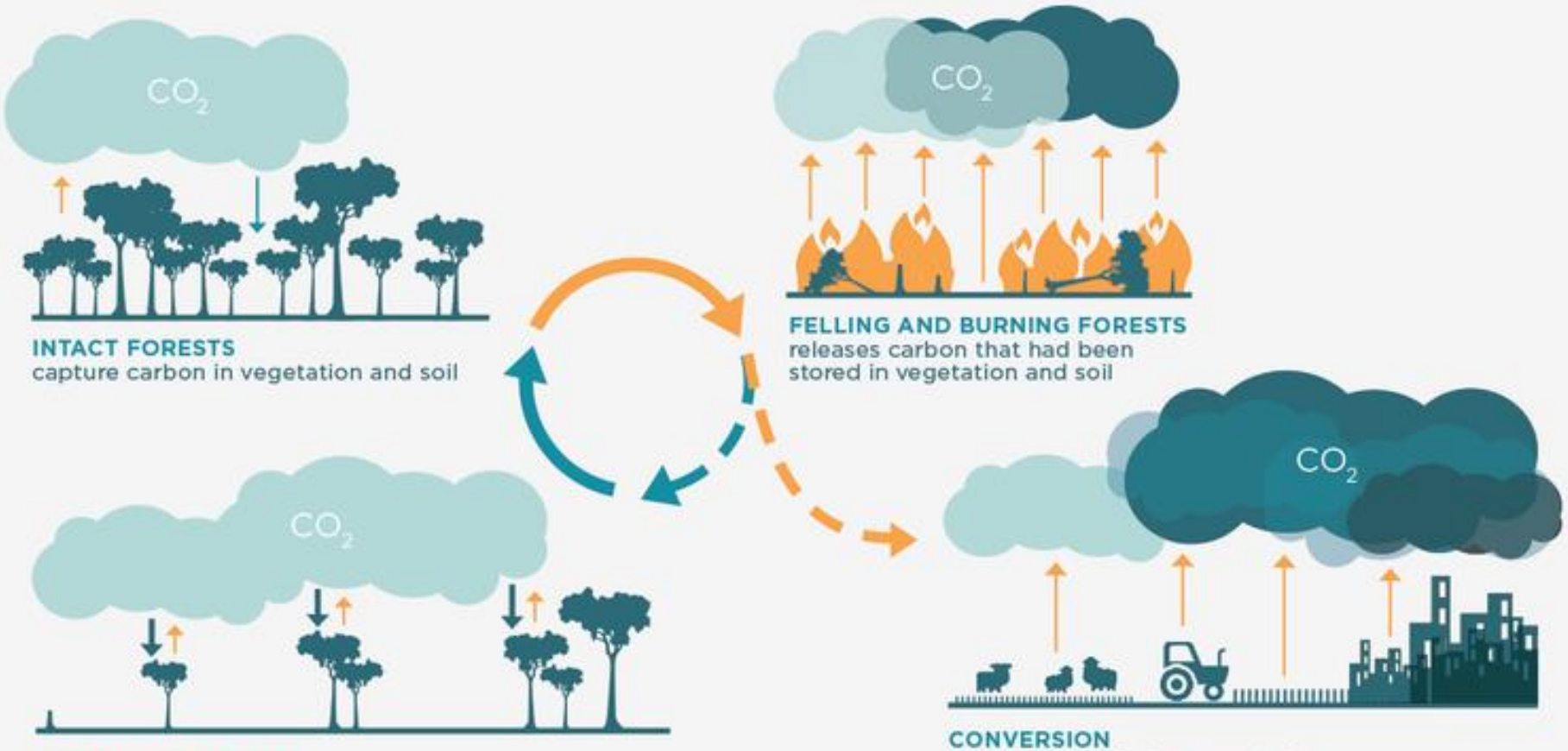
WHY FORESTS? KEY POINTS:

- Tropical deforestation is a major contributor to current global climate emissions; forest protection and restoration are an even larger part of the climate solution
- Forests provide many other development benefits in addition to global climate stability
- Rich countries are part of the problem, and can contribute to the solution

Natural forests capture CO_2; deforestation releases CO_2



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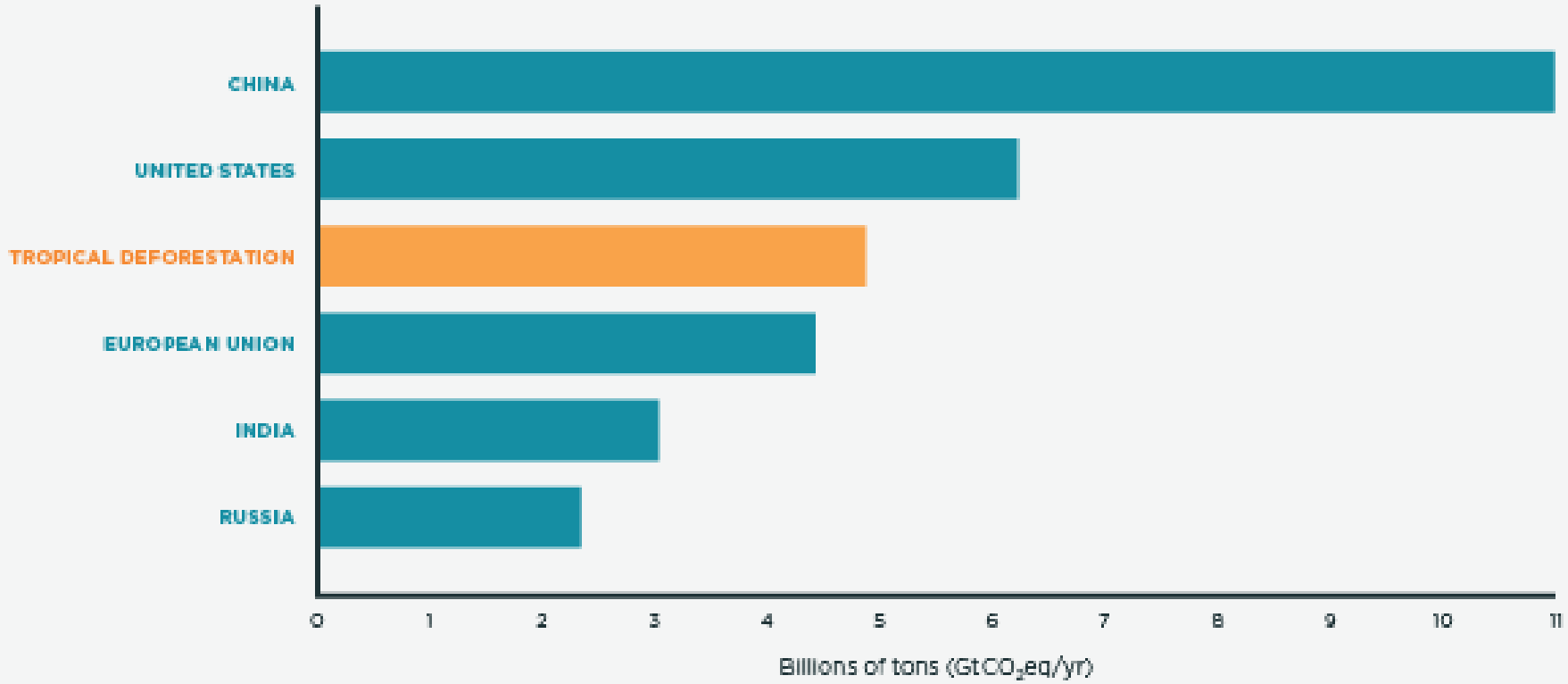
If tropical deforestation were a country, its emissions would be greater than those of the European Union

ANNUAL GREENHOUSE GAS EMISSIONS, 2012



Source: CAIT v2.0 (2012); Busch and Engelmann (2015).

Emissions from deforestation refers to gross emissions from tropical forest cover loss and peat conversion

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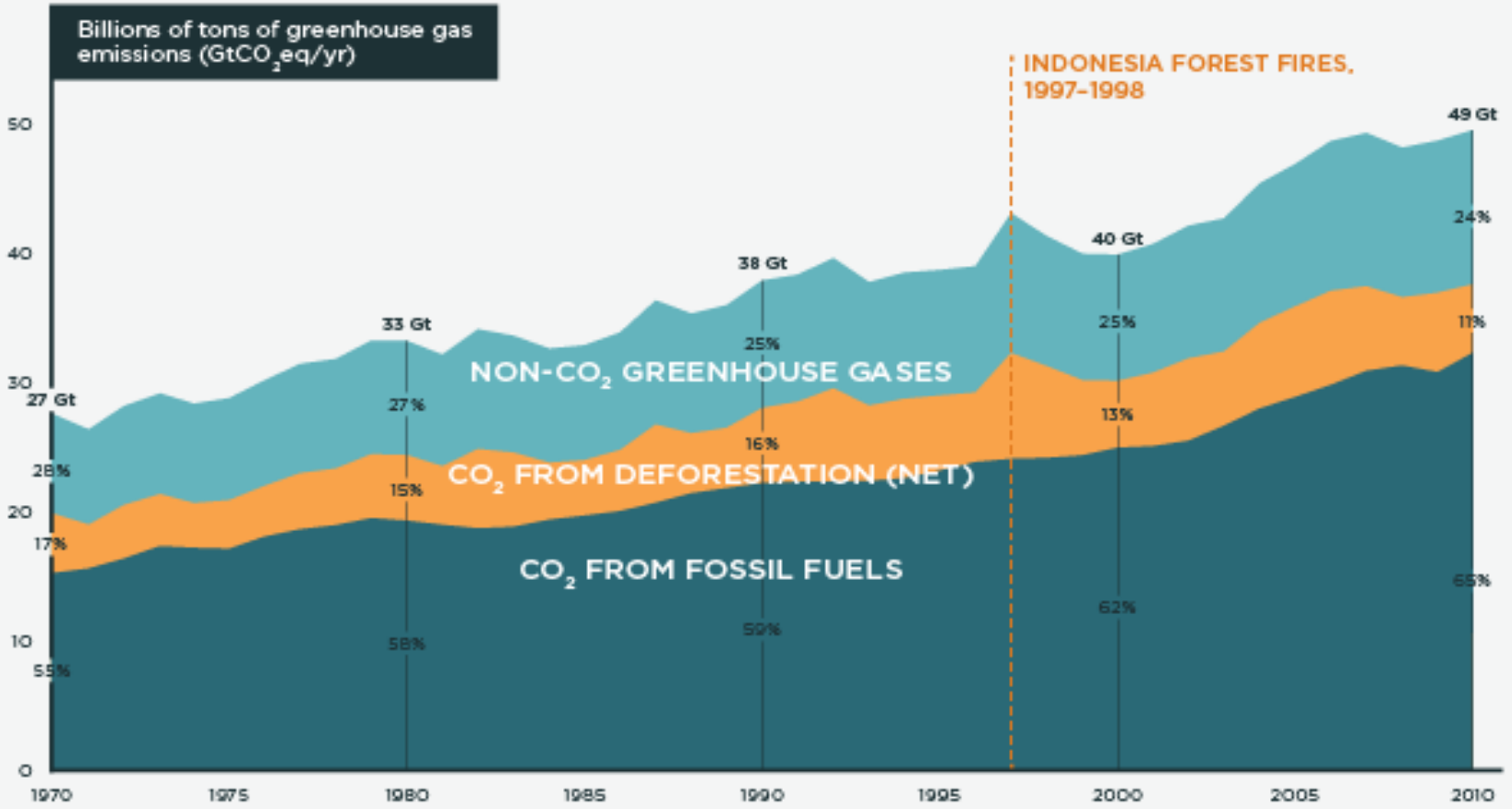
Deforestation remains a significant contributor to climate change even as emissions from other sectors have grown faster

Total annual greenhouse gas emissions 1970–2010



Source: Edenhofer et al. (2014)

Deforestation represents net emissions from gross forest cover loss and degradation less removals by forest regrowth.

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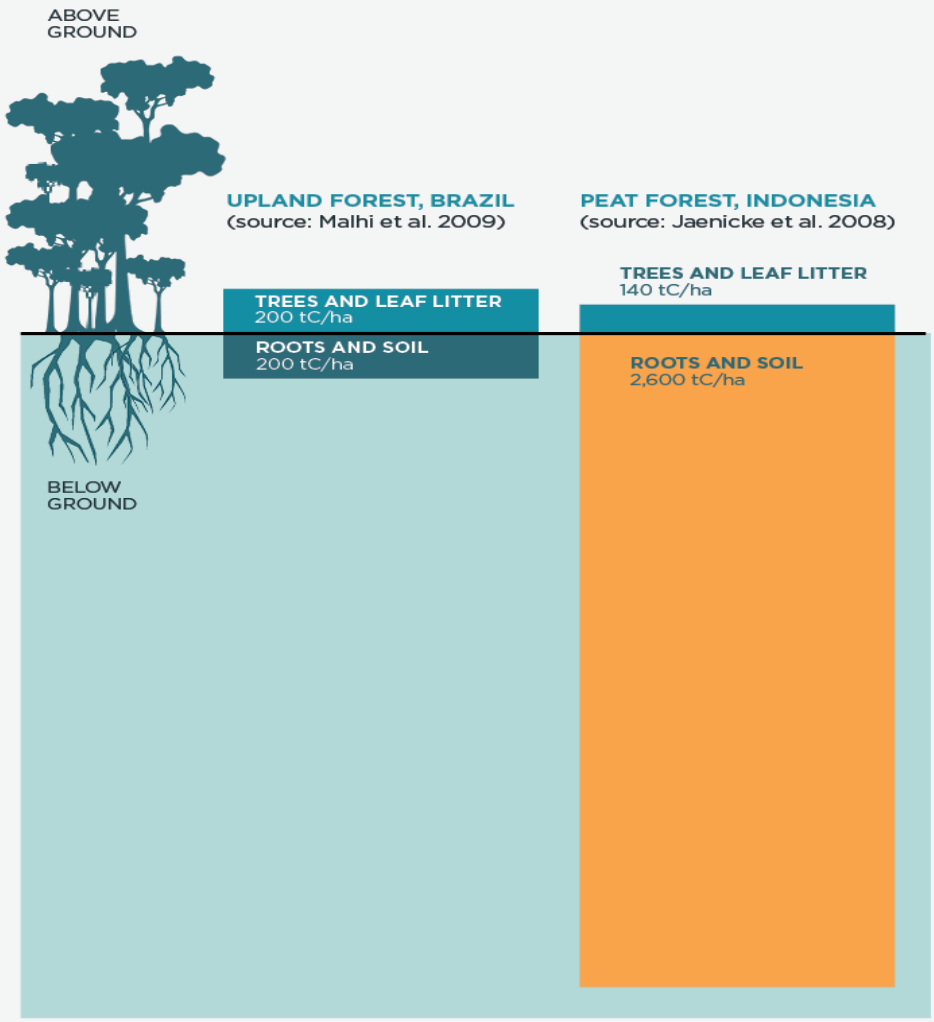
Conversion of peat forests releases large volumes of carbon from belowground



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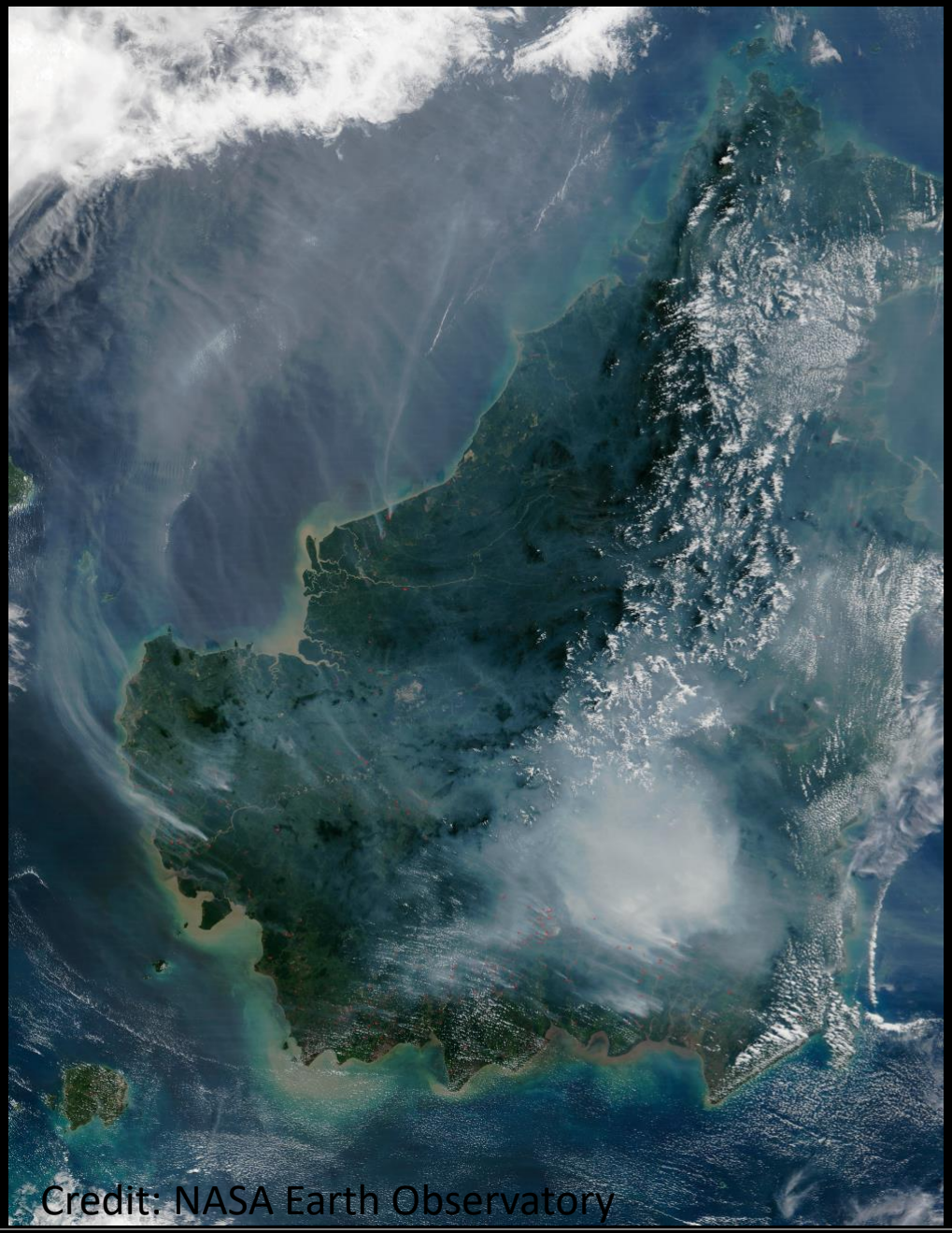
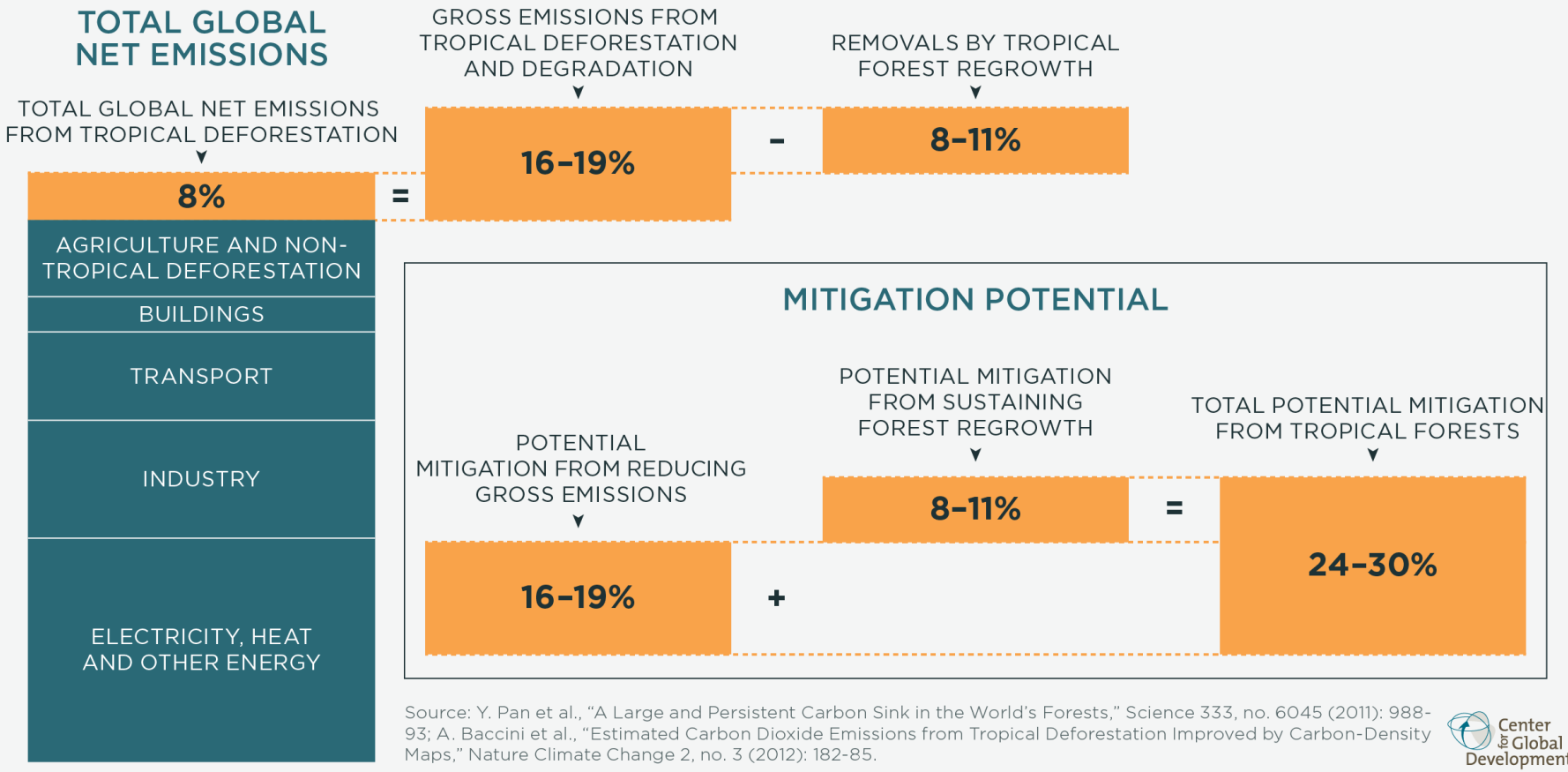


Credit: NASA Earth Observatory

Net tropical deforestation produces 8 percent of net emissions, but halting and reversing tropical deforestation could reduce total net emissions by up to 30 percent



Source: Y. Pan et al., "A Large and Persistent Carbon Sink in the World's Forests," Science 333, no. 6045 (2011): 988-93; A. Baccini et al., "Estimated Carbon Dioxide Emissions from Tropical Deforestation Improved by Carbon-Density Maps," Nature Climate Change 2, no. 3 (2012): 182-85.

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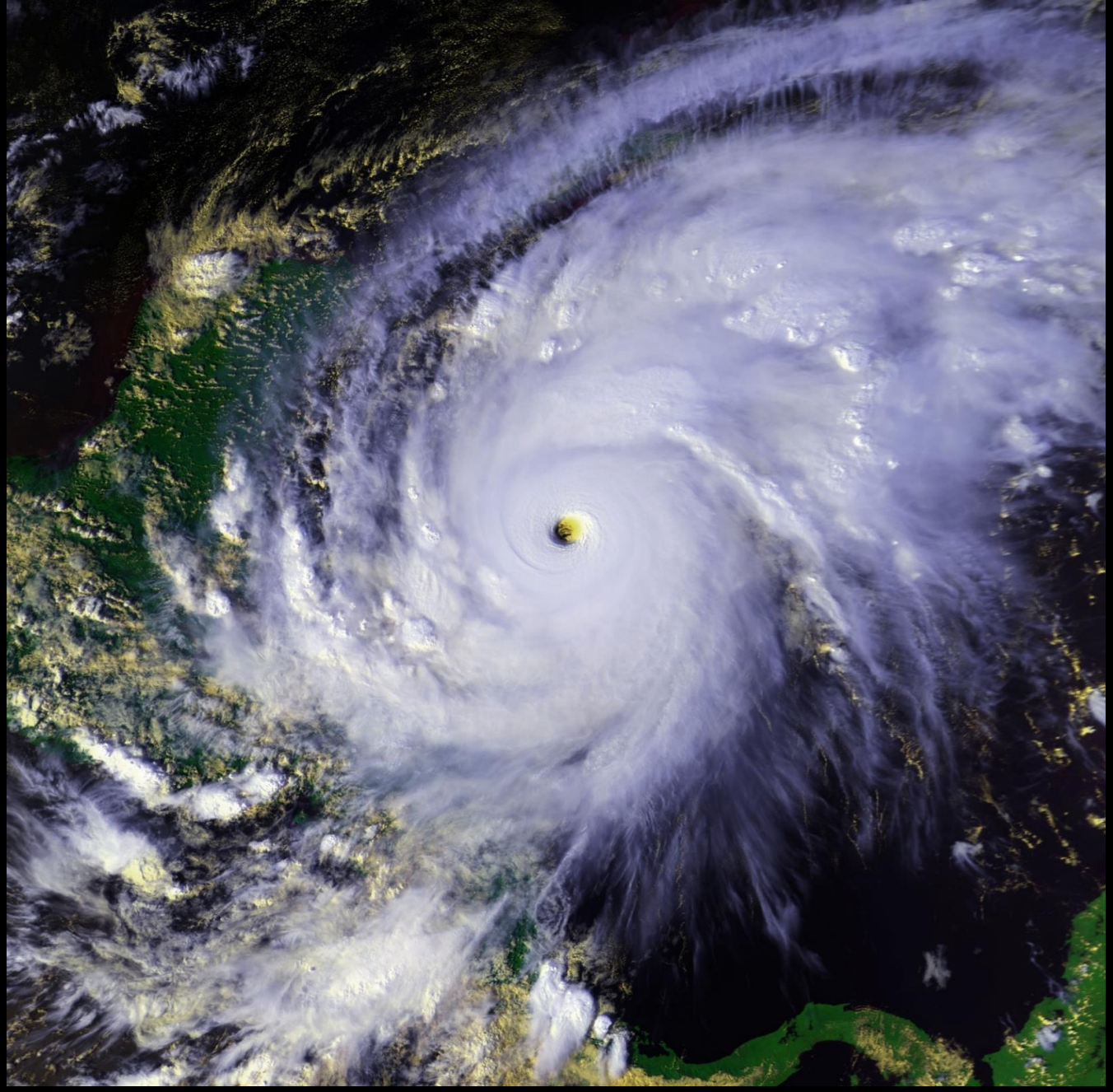
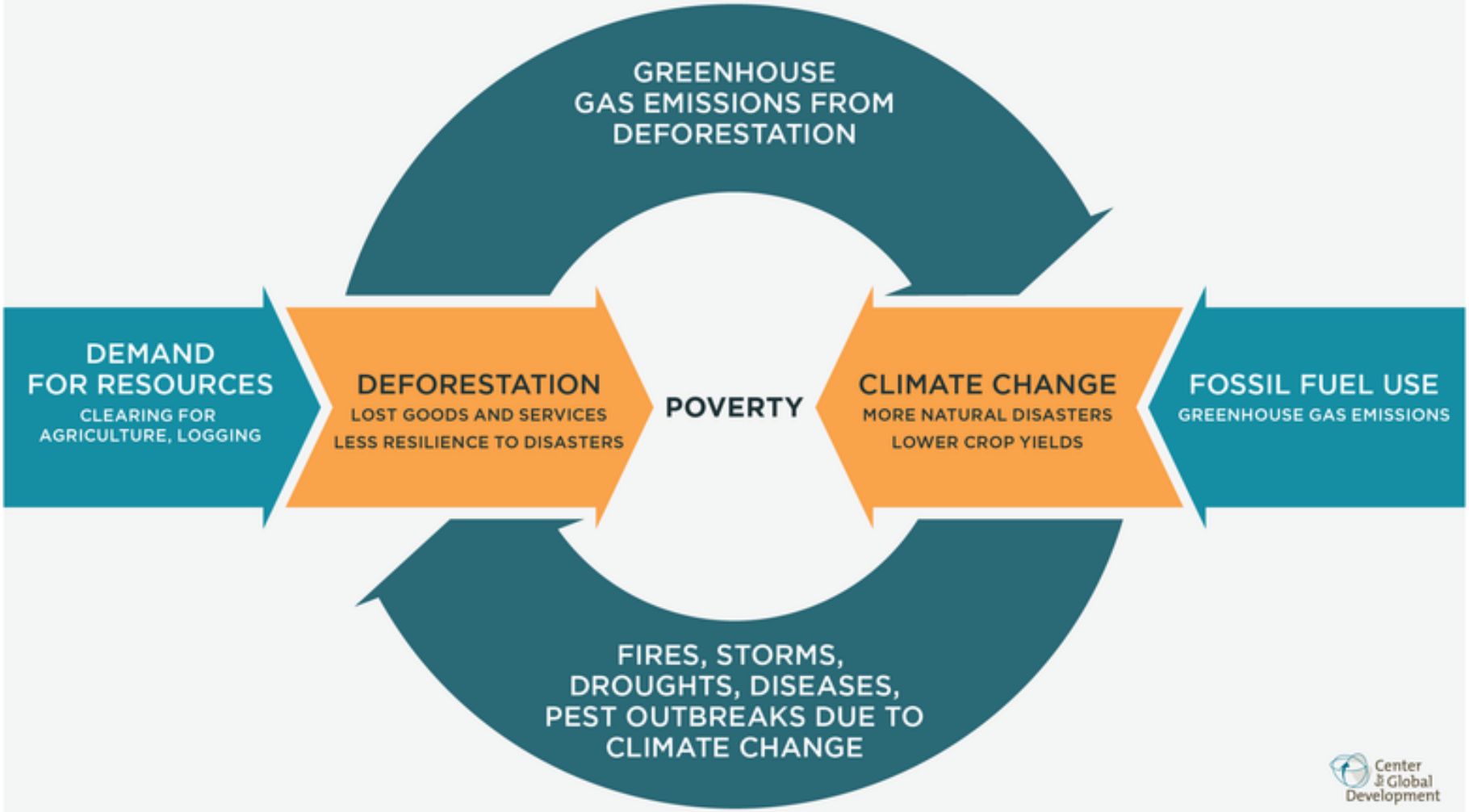
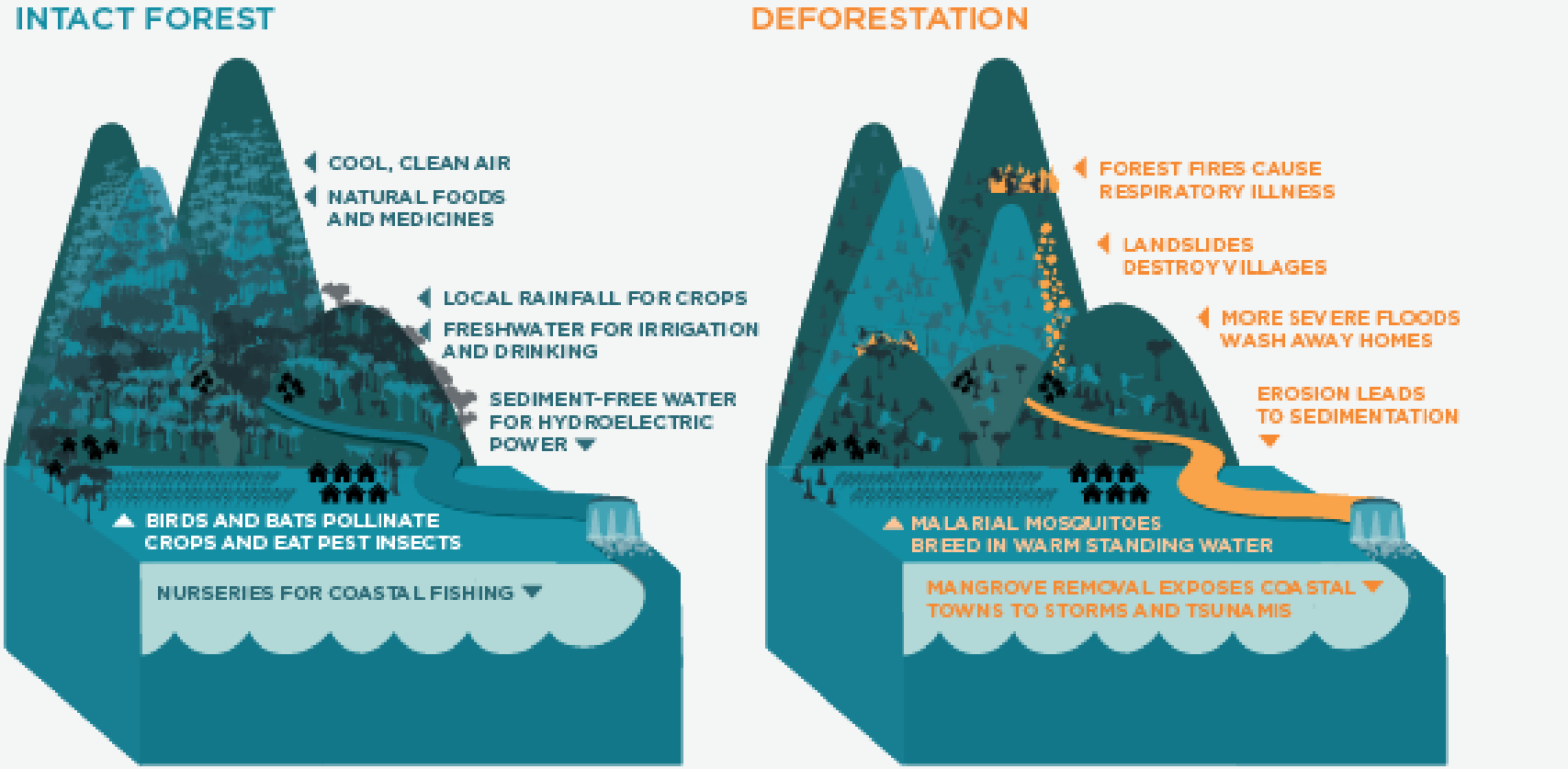


Credit: NOAA/Wikimedia Commons

Deforestation and climate change drive a vicious cycle that exacerbates poverty



Forested landscapes provide services; deforestation puts lives at risk



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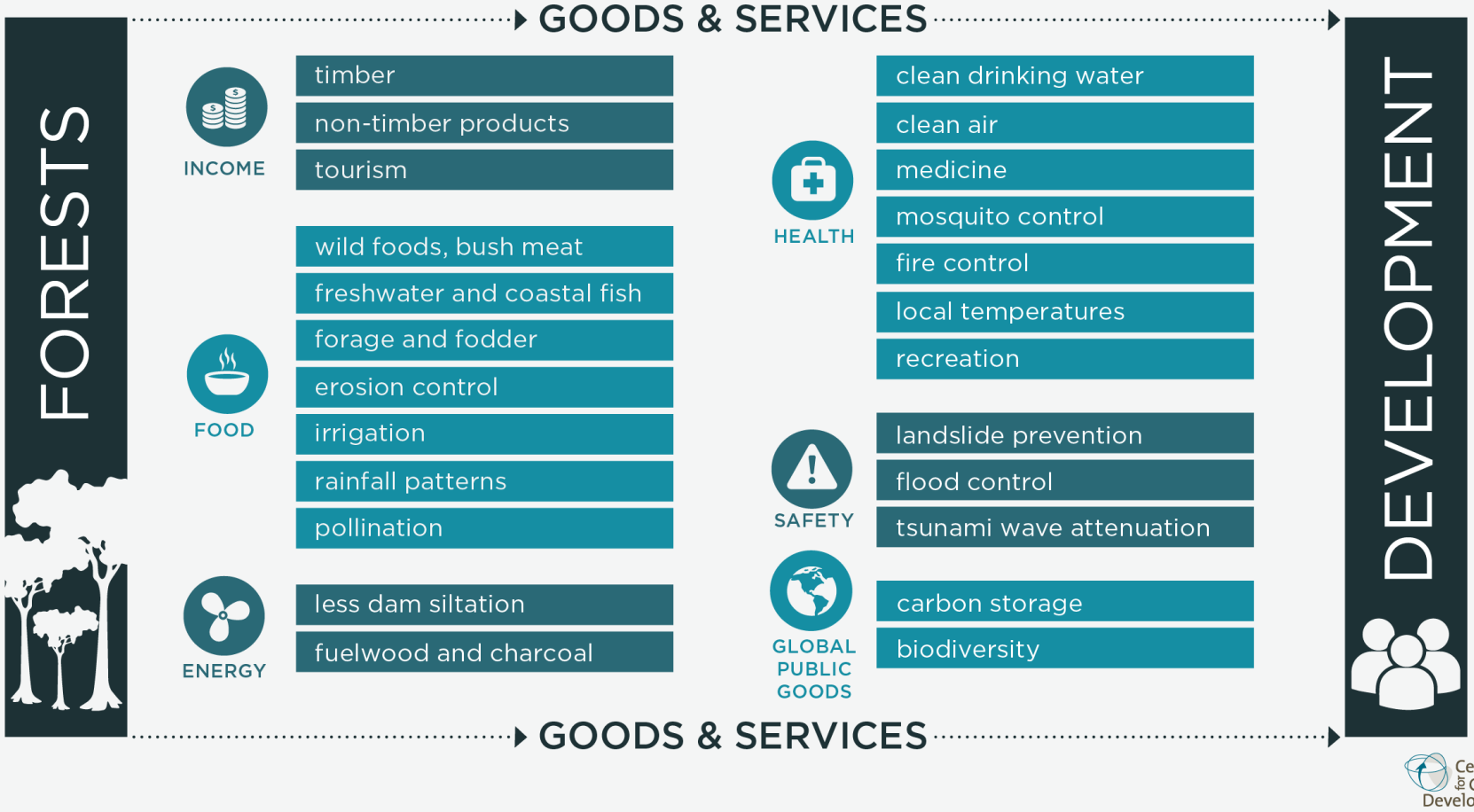
Tropical forests' goods and services contribute to development



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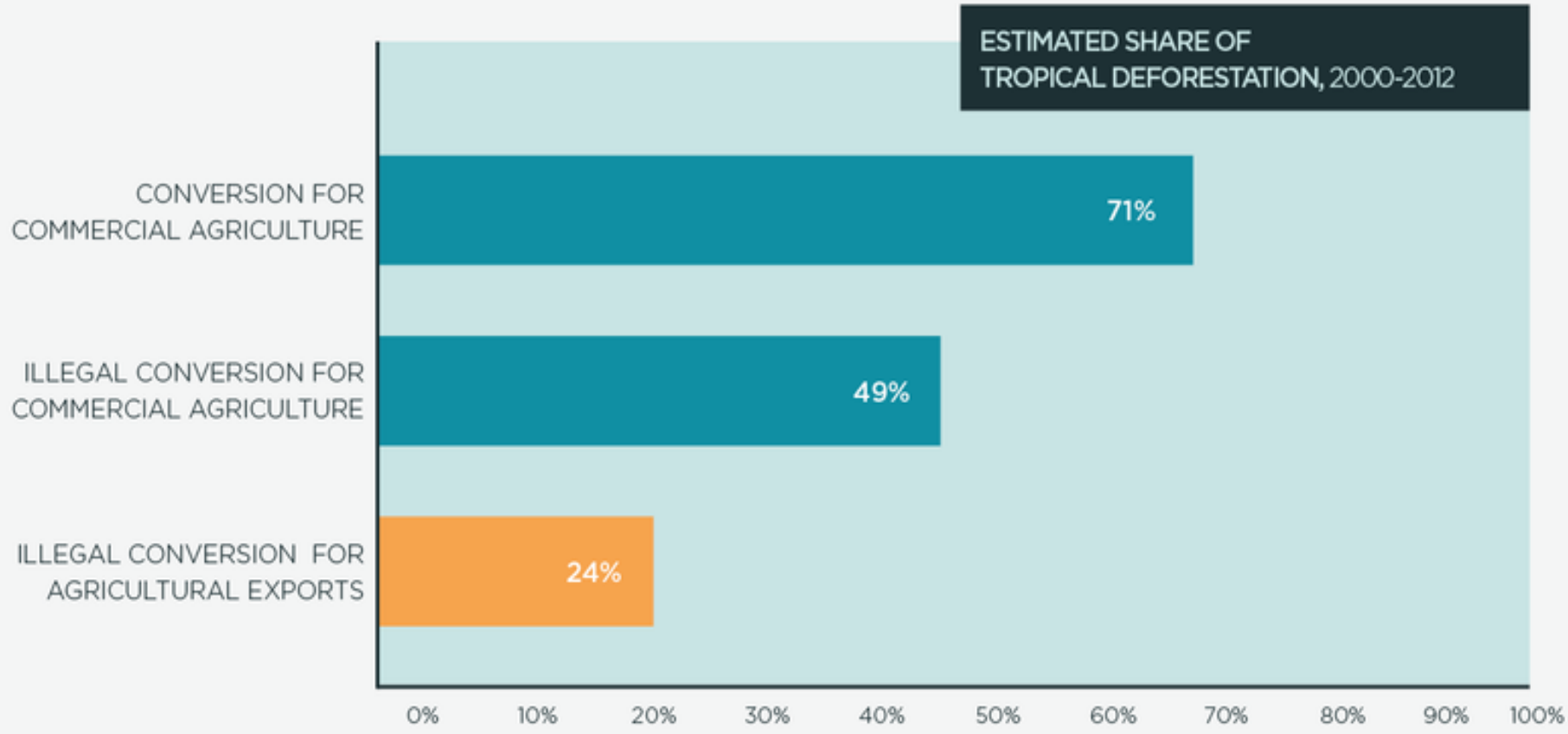
Illegal conversion of forests to produce agricultural exports accounted for almost one-quarter of recent tropical deforestation



Source: Adapted from Lawson, 2014, using gross forest canopy loss greater than 51% based on satellite data (Hansen et al, 2013)

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Emissions from deforestation are embodied in globally traded commodities

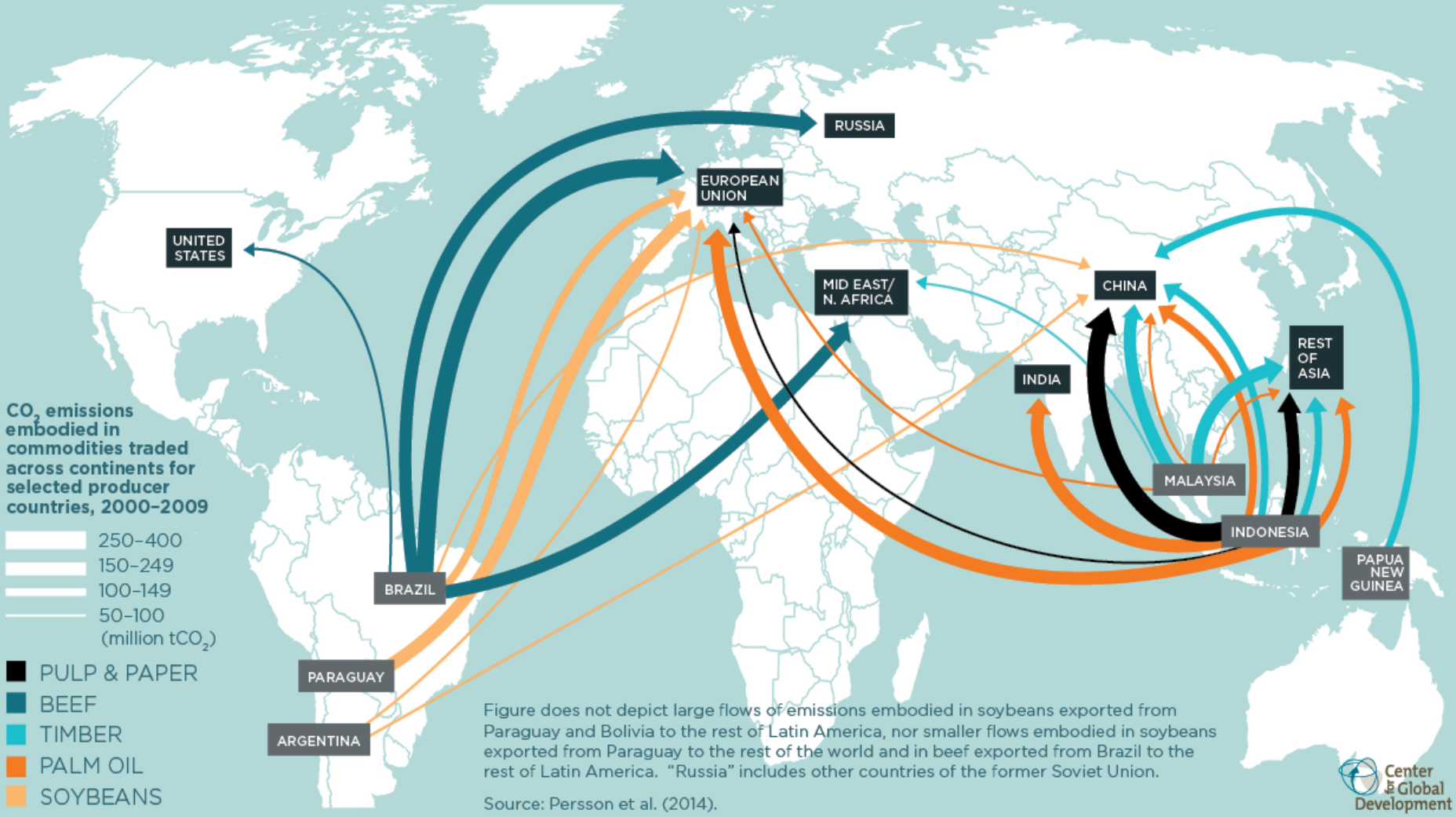

Figure does not depict large flows of emissions embodied in soybeans exported from Paraguay and Bolivia to the rest of Latin America, nor smaller flows embodied in soybeans exported from Paraguay to the rest of the world and in beef exported from Brazil to the rest of Latin America. "Russia" includes other countries of the former Soviet Union.

Source: Persson et al. (2014).

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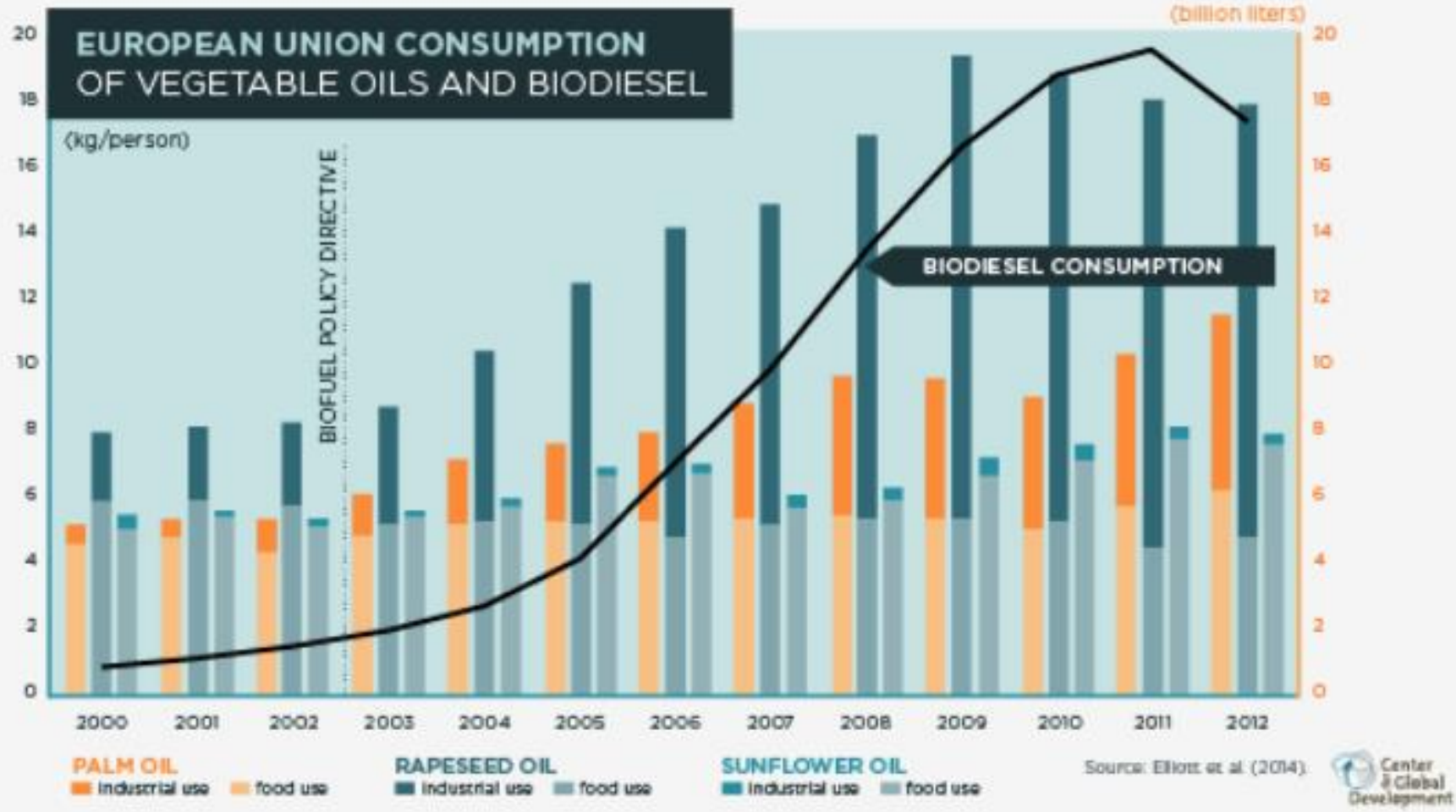
European Union biofuel policy increased demand for palm oil, a driver of deforestation



UPDATES

- 2016 and 2017 were record years for global forest loss
  - Drop in loss of Indonesia's peatlands rare good news

- More evidence has accumulated on the importance of forests for climate and development
  - Global mitigation potential
  - Non-carbon impacts on climate stability across scales

- Global production and consumption of forest-risk commodities continue to increase
  - In 2018, the EU agreed to phase out palm oil-based biofuel by 2030

Photo: CIFOR

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Koushik Majumdar, CIFOR Photo Competition

WHY NOW MORE THAN EVER? KEY POINTS:

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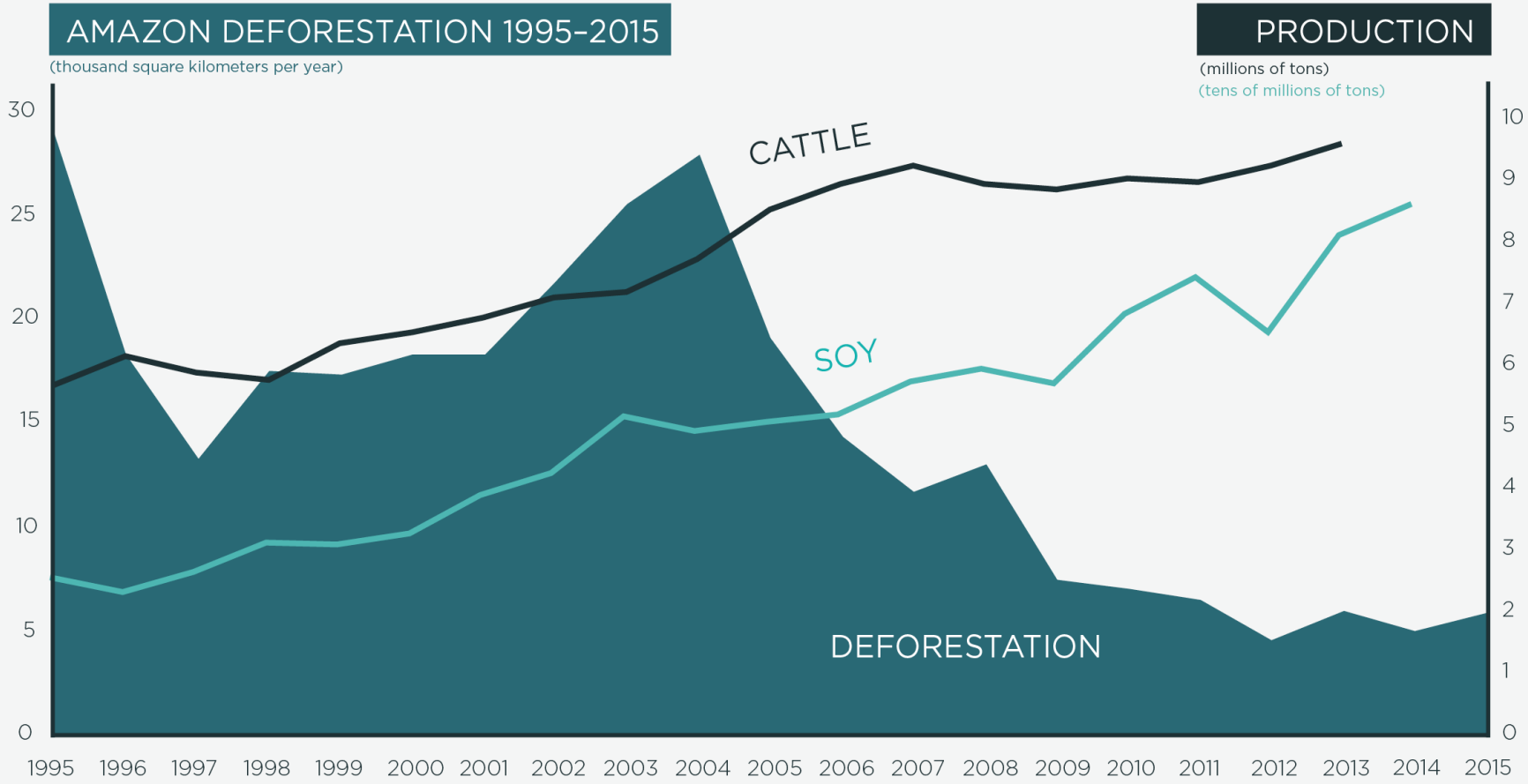
- New tools are enabling transparency and accountability
- Global norms are shifting in ways favorable to forest protection
- We have achieved global consensus on REDD+, but finance remains the missing piece

Brazil reduced deforestation and increased agricultural production at the same time



Source: Food and Agriculture Organization of the United Nations (FAO), Statistics Division, "Production quantities by country," updated 2015, http://faostat3.fao.org/browse/Q/*/E; National Institute for Space Research (INPE), "Projeto Prodes: Monitoramento da Floresta Amazônica Brazileria Por Satélite," updated 2016, http://www.obt.inpe.br/prodes/index.php

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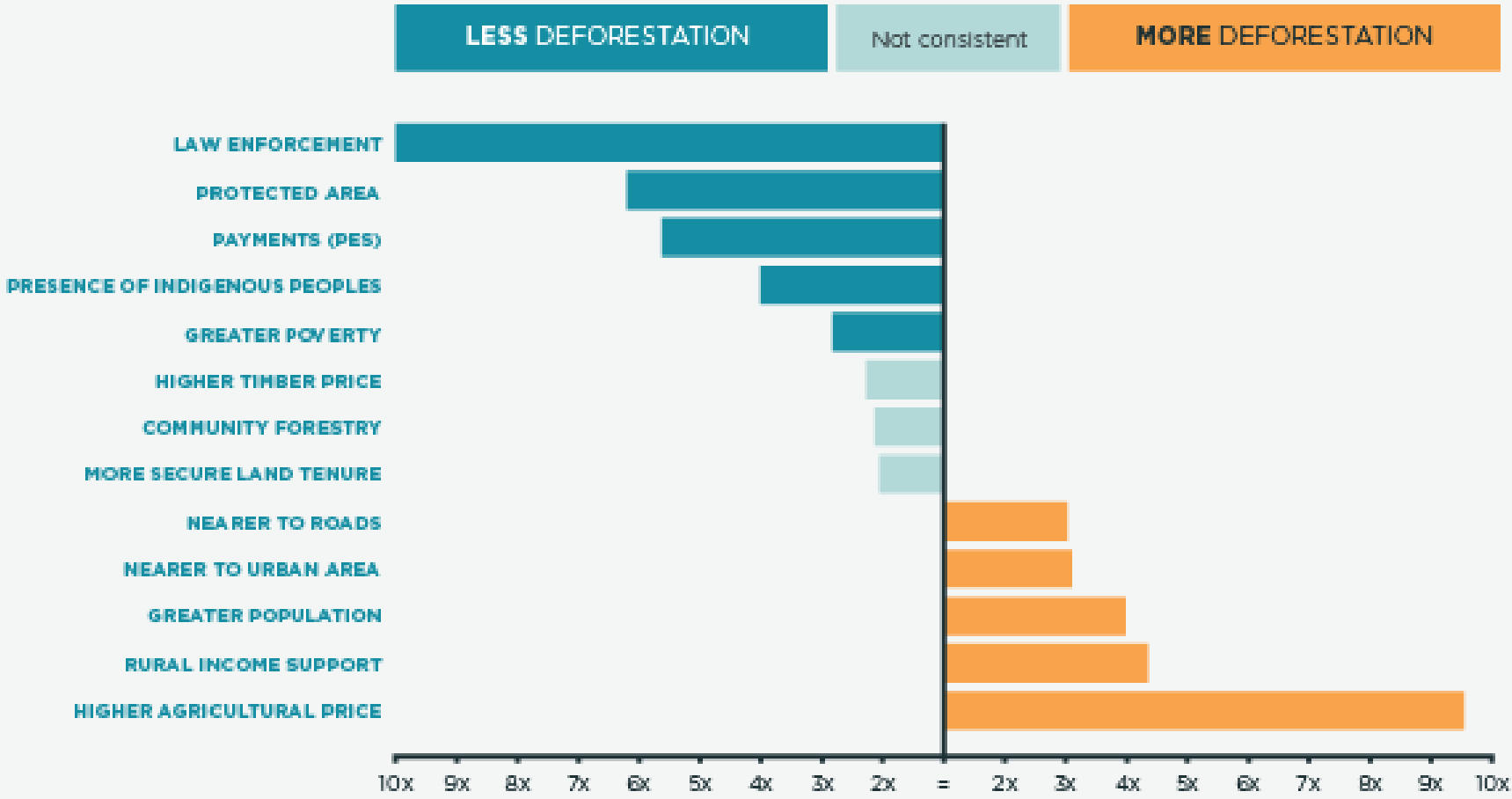
Various factors were consistently associated with less or more deforestation



Source: Busch and Ferretti-Gallon (2014).
For example, a ratio of 4x indicates that a variable is associated with less deforestation four times as often as it is associated with more deforestation.

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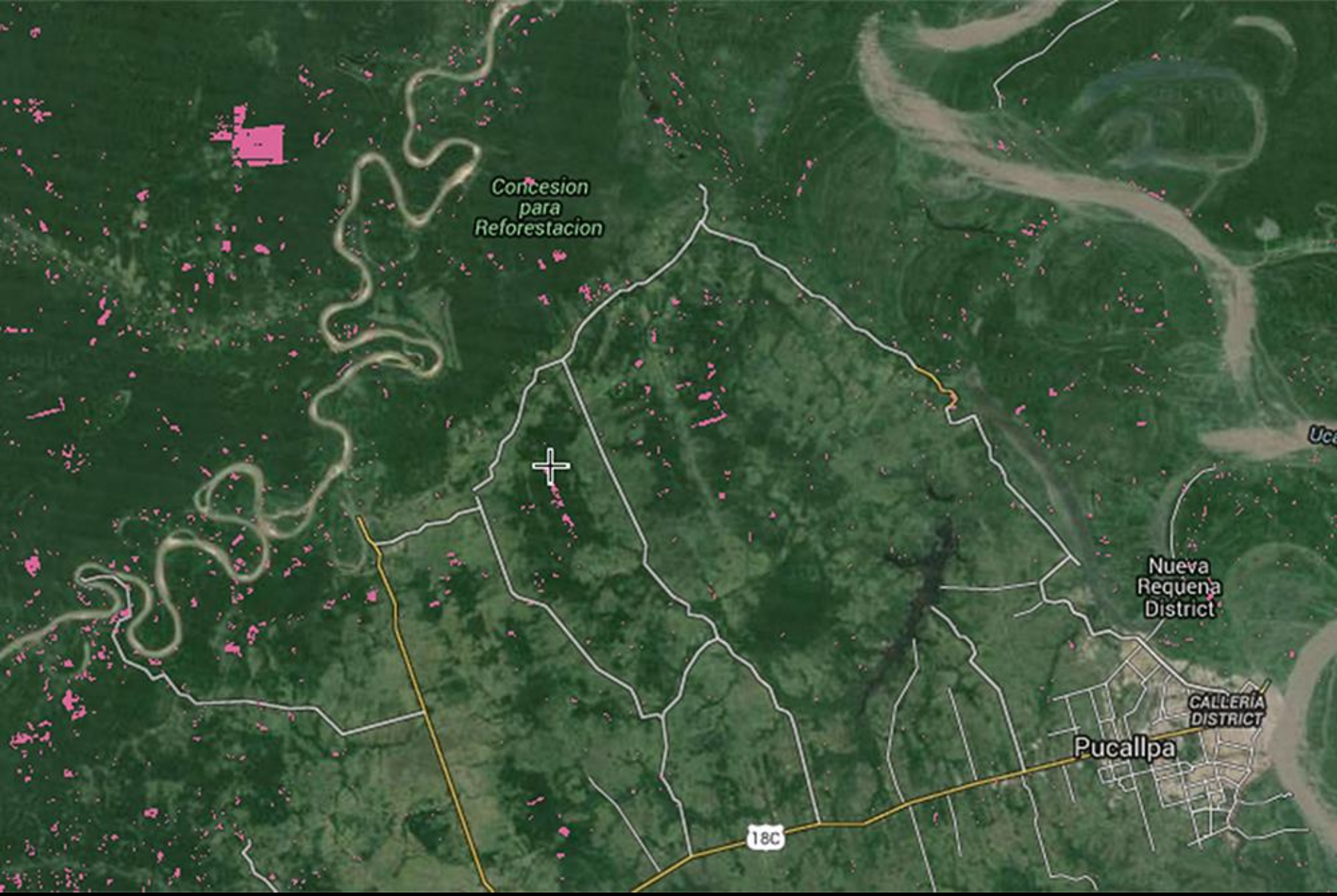
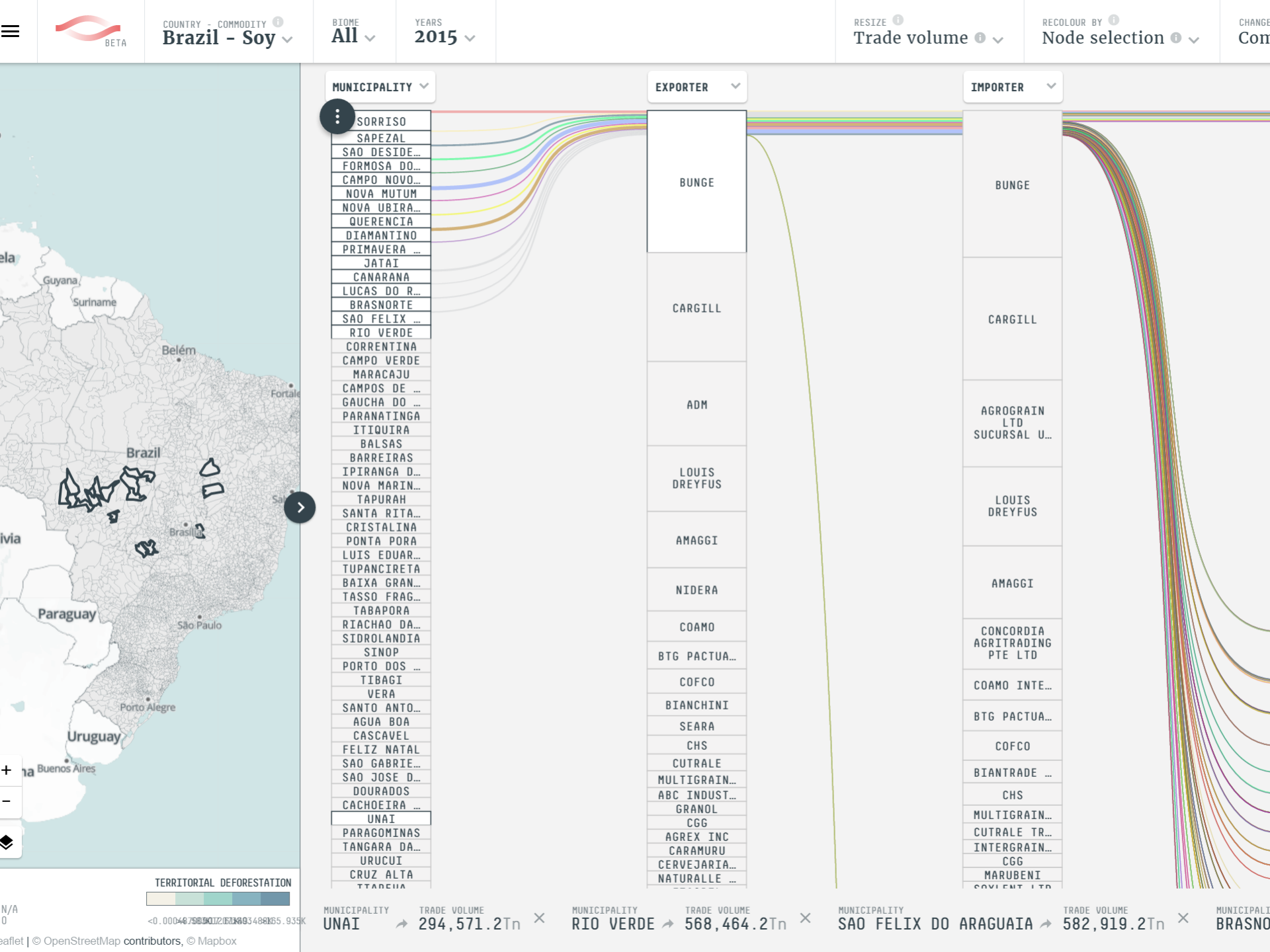


Image: Landsat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DECREASING TOLERANCE FOR ILLEGAL LOGGING AND CRIME

INCREASED EXPECTATIONS FOR CORPORATE RESPONSIBILITY

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Mondelēz International

APP

Unilever

L'ORÉAL

Nestlé

The Consumer Goods FORUM
The Global Network Serving Shopper & Consumer Needs

Cargill

golden agri resources
agribusiness and food

INCREASING RECOGNITION OF INDIGENOUS PEOPLES' RIGHTS

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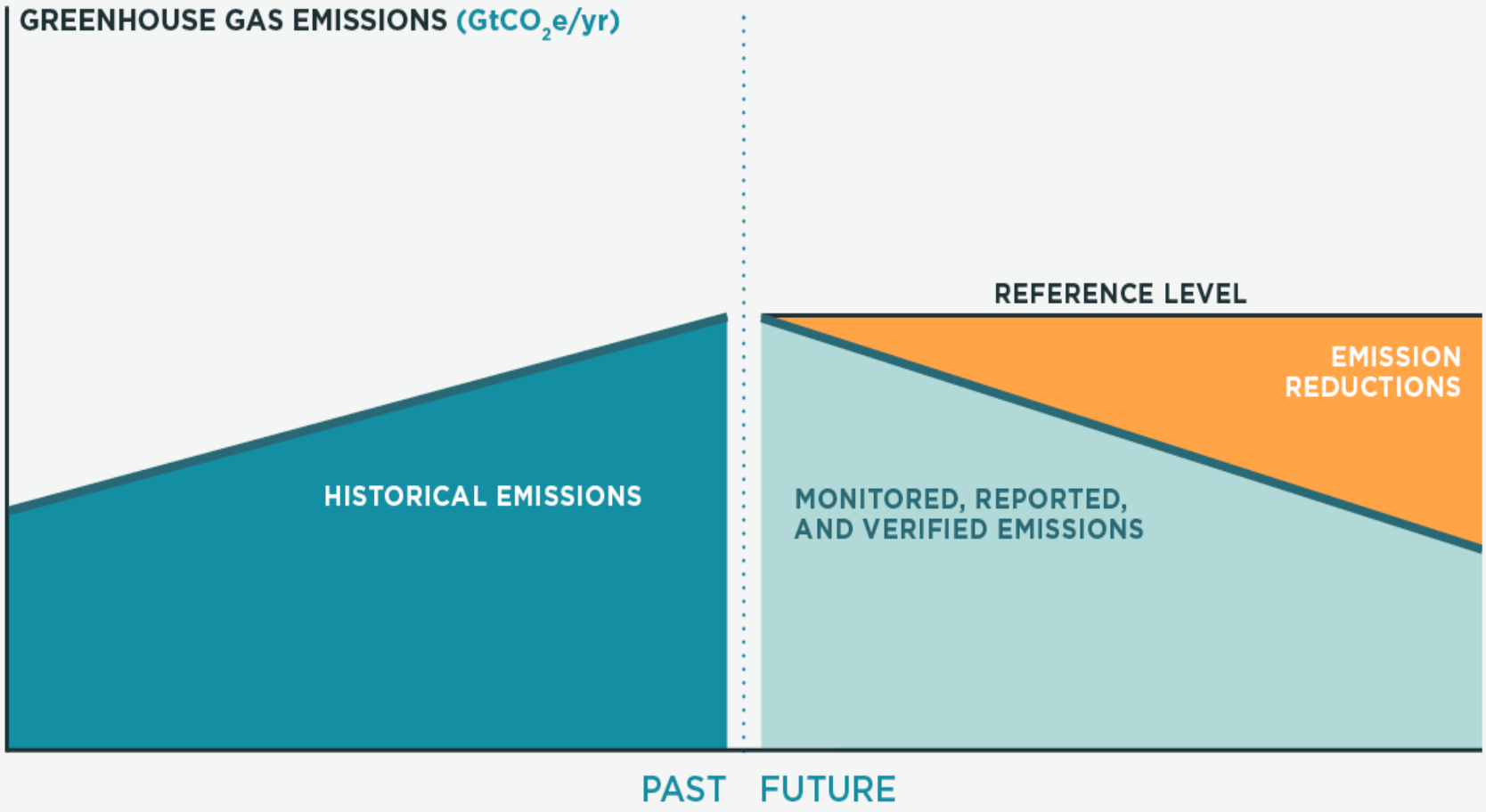
REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION: REDD+



Note: Reference level depicted is an illustrative example; reference levels could be above, equal to, or below historical emissions.

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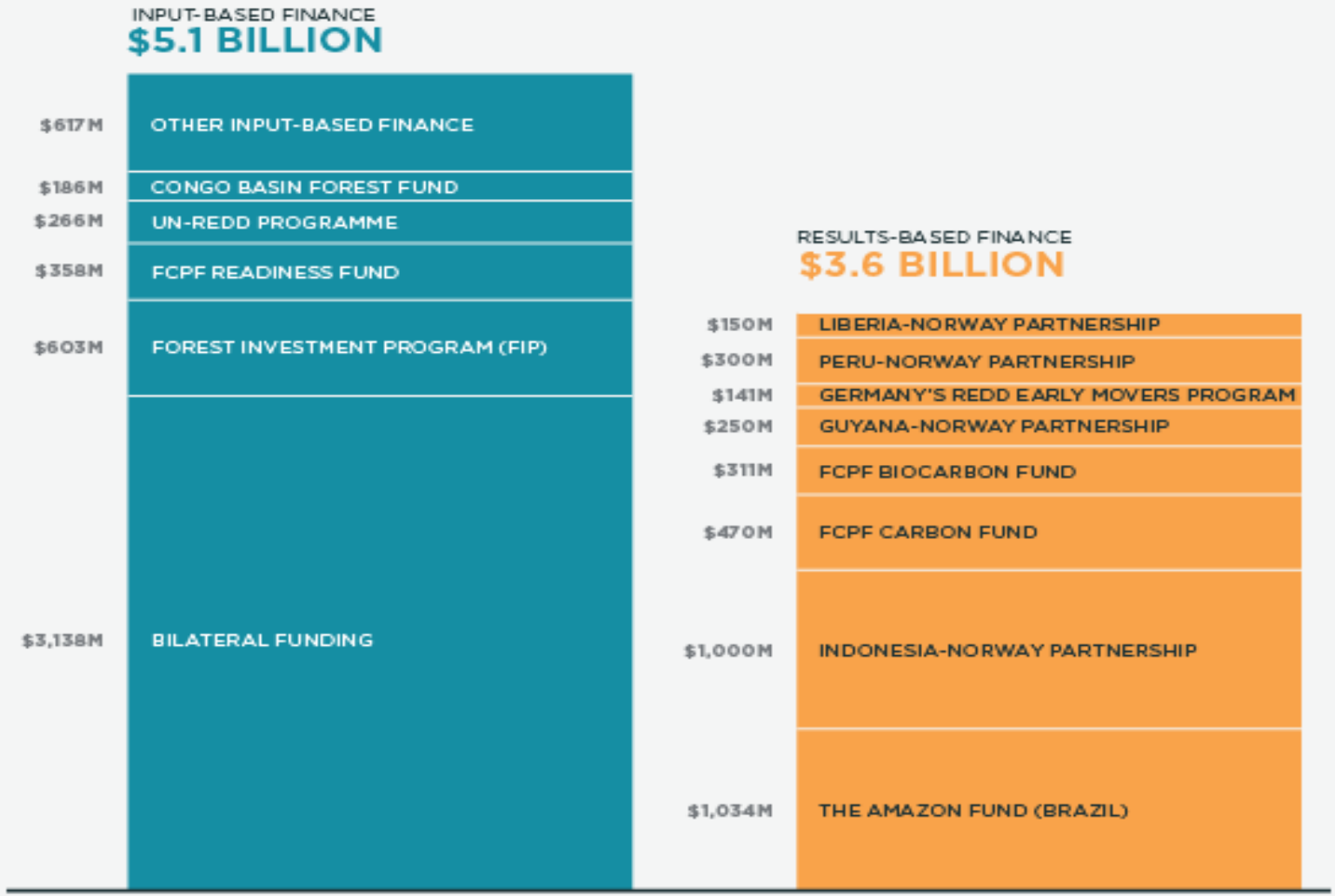
Less than half of pledged finance for REDD+ is results-based



Source: Compilation of reported public sector data from the REDD+ Partnership Voluntary REDD+ Database and ODI HBF Climate Funds Update, covering REDD+ financial commitments for 2006–2014.
Private foundation data from Forest Trends' REDDX initiative data, as of December 2014.
Adapted from Norman and Nakhooda (2015).

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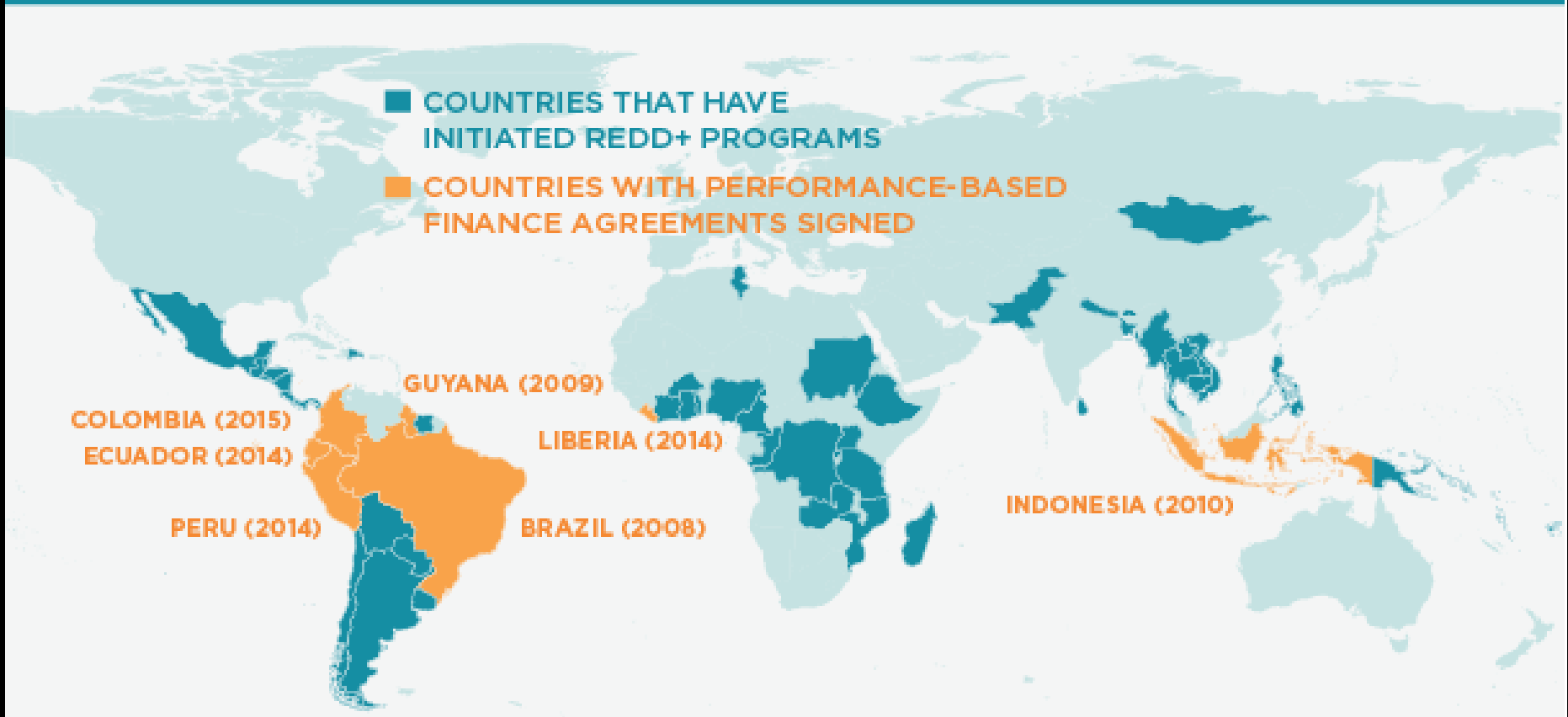
More than 50 countries have initiated REDD+ programs, but only a few have access to performance-based finance with international funding



"Countries that have initiated REDD+ programs with international funding" refers to countries that have signed a Preparation Grant with the World Bank Forest Carbon Partnership Facility, have active, closed or pipeline national programs with the UN-REDD Program, and/or participate in the Forest Investment Program, but did not yet have a payment-for-performance agreement in place as of December 2015. "Countries with performance-based finance" refers to countries that had a payment-for-performance agreement in place as of December 2015.

Sources: Forest Carbon Partnership Facility (2016); Forest Investment Program (2016); United Nations Programme on Reducing Emissions from Deforestation and Forest Degration (2016).

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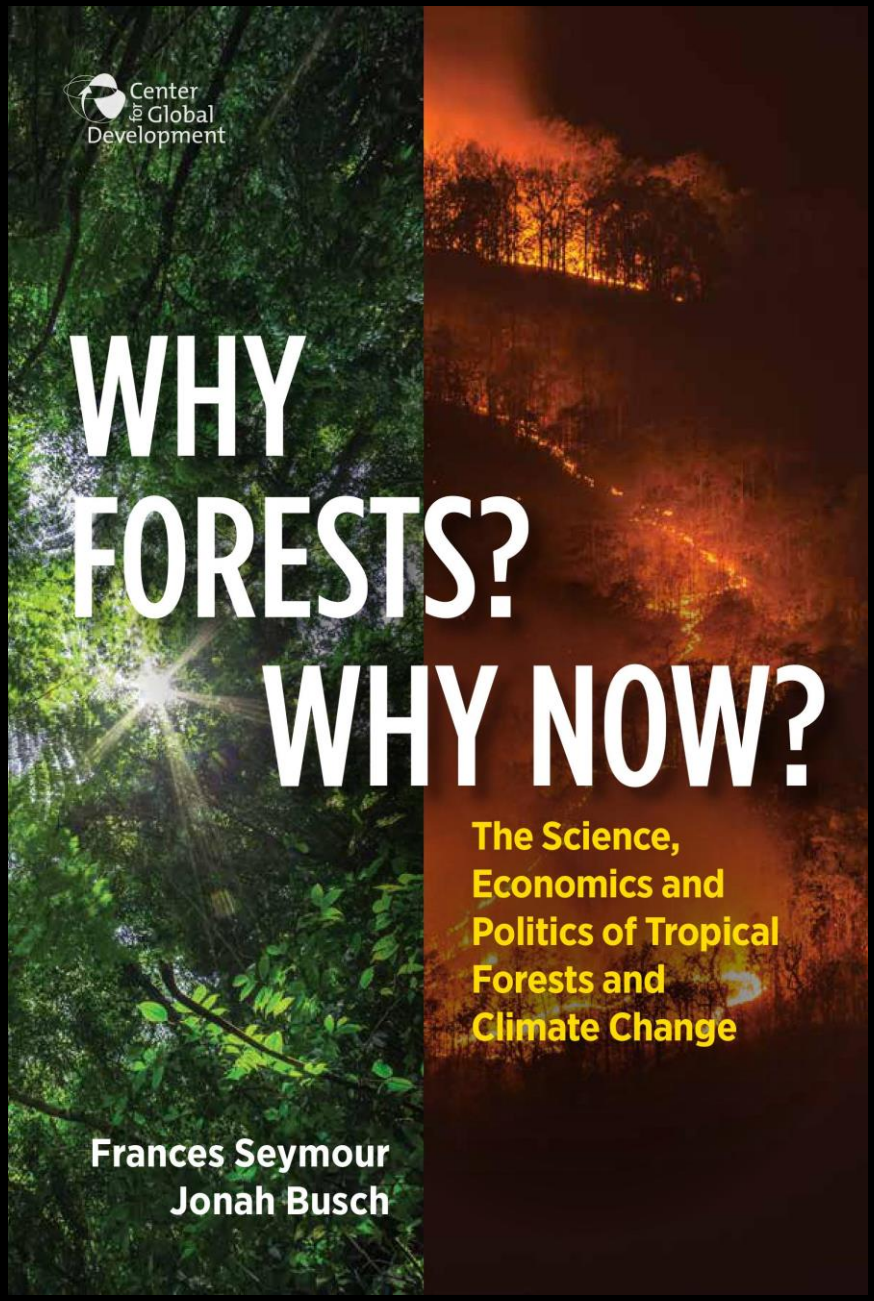
UPDATES

- The deforestation rate in Brazil has ticked up; concern regarding the implications of Bolsonaro's policies
- Approaching 2020 deadline for corporate "no deforestation" commitments is prompting action
- Increasing interest in the "jurisdictional approach" to low emissions development at the sub-national level
- Current and prospective REDD+ financing mechanisms have inched forward: FCPF Carbon Fund; Green Climate Fund; ICAO CORSIA; California; Article 6



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