Harnessing the role of productive forests as an effective strategy for REDD+

How to reconcile the need for protecting our climate with the with the demands for food, fuel and fibre of rapidly growing populations

Gerhard Dieterle

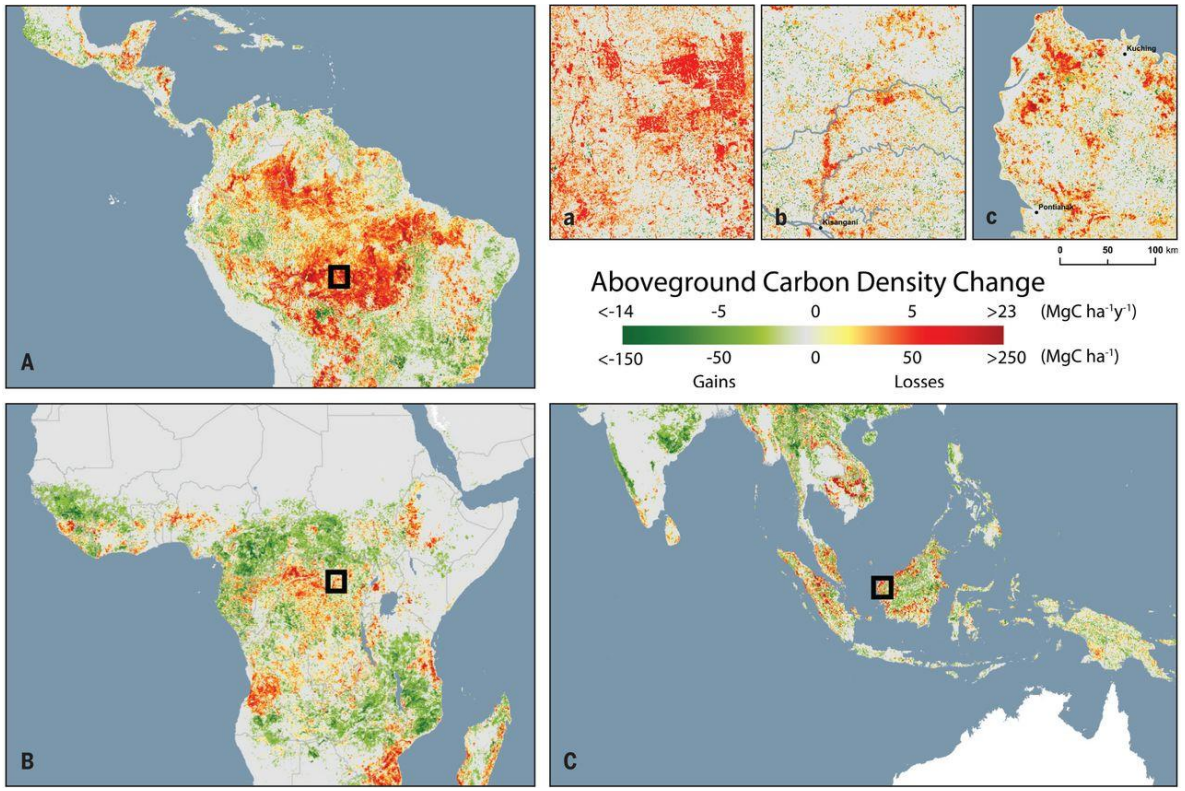
How far have we reached ?
Overview the history of REDD+ and explore opportunities

6 February 2019, Tokyo, Japan

INTERNATIONAL TROPICAL TIMBER ORGANIZATION (ITTO)

Tropical forest degradation: geography of carbon density change

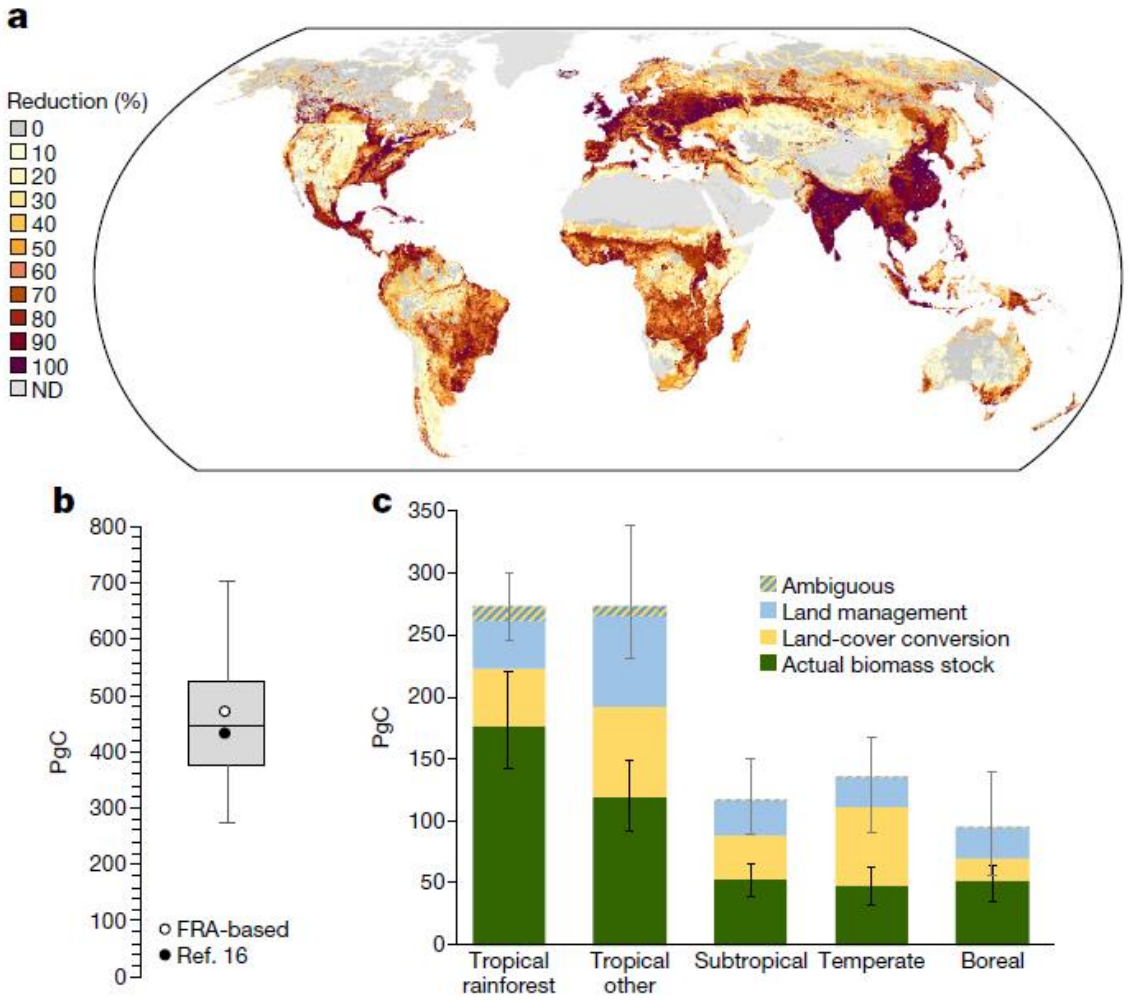
- **Tropical forests are a net release of carbon of 425.2 ± 92.0 Tg C yr–1** (losses of 861.7 ± 80.2 Tg C yr–1 and gains of 436.5 ± 31.0 Tg C yr–1 from forest growth)
- **Losses result from (i) deforestation and (ii) reductions in carbon density within standing forests (degradation) accounting for 68.9% of overall losses**



A. Baccini et al. Science 2017;science.aam5962

Large impact of forest management and grazing on global vegetation biomass

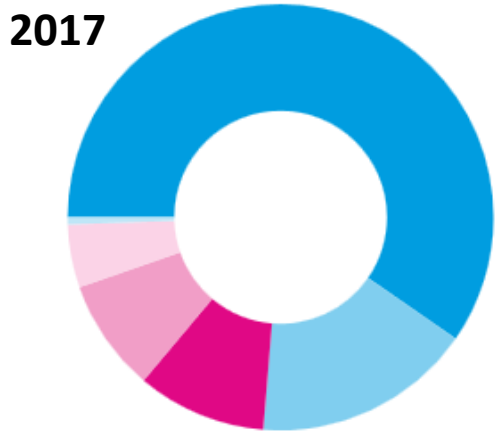
- Land management effects (forest management and grazing) contribute **42-47 % to the reduction of C stocks**
- On-site preservation of carbon stocks on **managed forests** and raising the **contribution of biomass** to raw material and energy supply for CC mitigation



ERB et al. 1/2018, NATURE, VOL 553: 10/1038/nature 25138

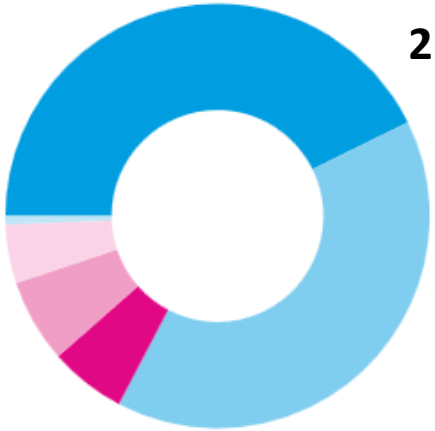
Africa: hungry for food, fuel, fiber and wood

Global population by region



Global population
7.55 billion

- Asia
  4 504 million (59.66%)
- Africa
  1 256 million (16.64%)
- Europe
  742 million (9.83%)
- Latin America /Caribbean
  646 million (8.55%)
- North America
  361 million (4.78 %)
- Oceania
  41 million (0.54 %)



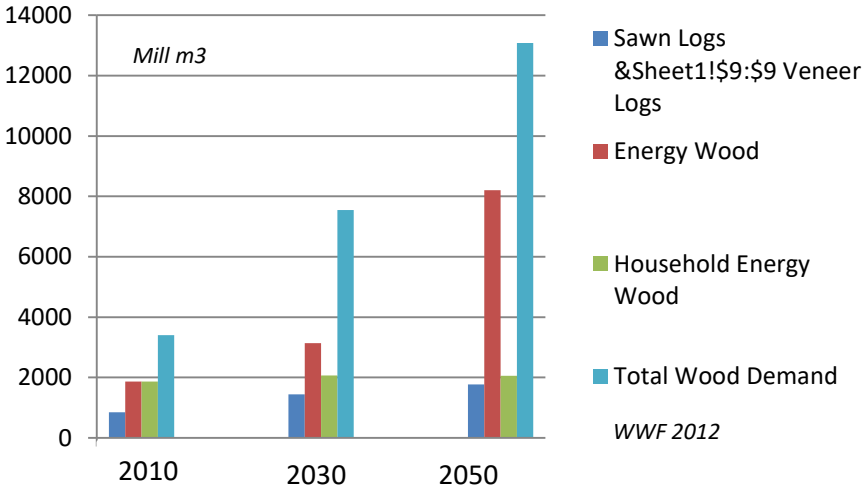
Global population
11.18 billion

- Asia
  4 780 million (42.74%)
- Africa
  4 468 million (39.95%)
- Europe
  653 million (5.84%)
- Latin America /Caribbean
  712 million (6.37%)
- North America
  499 million (4.46%)
- Oceania
  72 million (0.64 %)

Grafik: Deutsche Stiftung Weltbevölkerung (DSW)
Quelle: Vereinte Nationen, World Population Prospects: The 2017 Revision

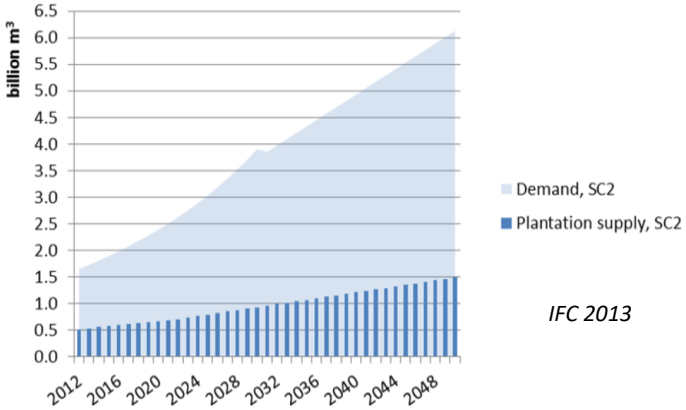
Increasing global wood demand

Increasing global demand for wood



WWF 2012

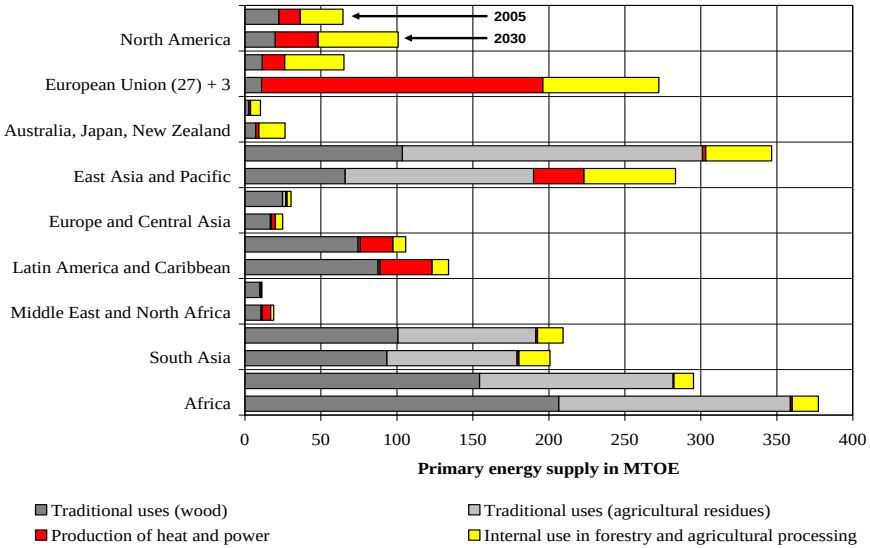
Increasing Gap for Industrial Roundwood



IFC 2013

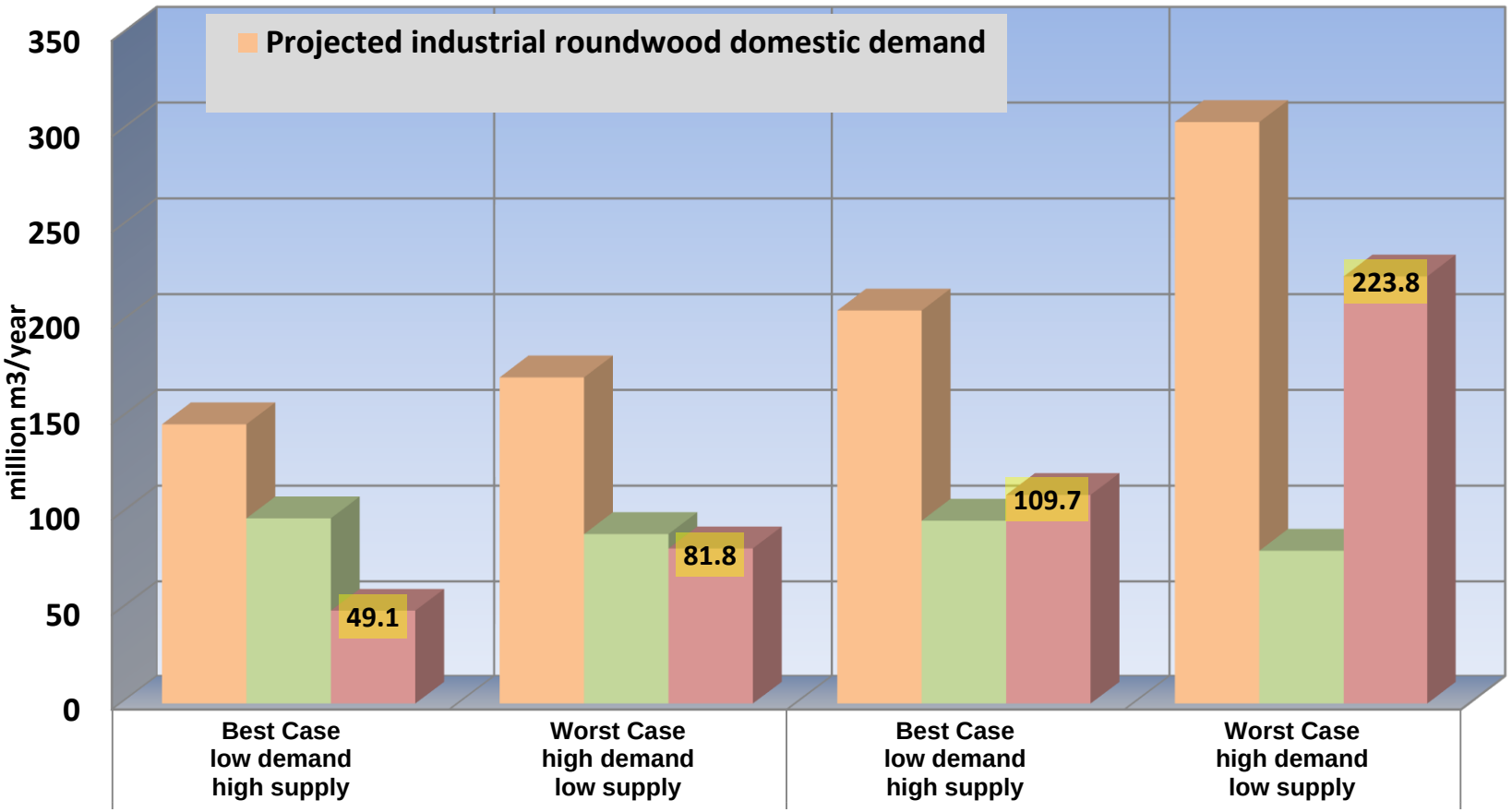
Demand in woodfuel and charcoal continues to increase

- 2.8 billion people will depend on traditional fuels in 2030
- Massive increase in demand for energy wood in industrialized countries



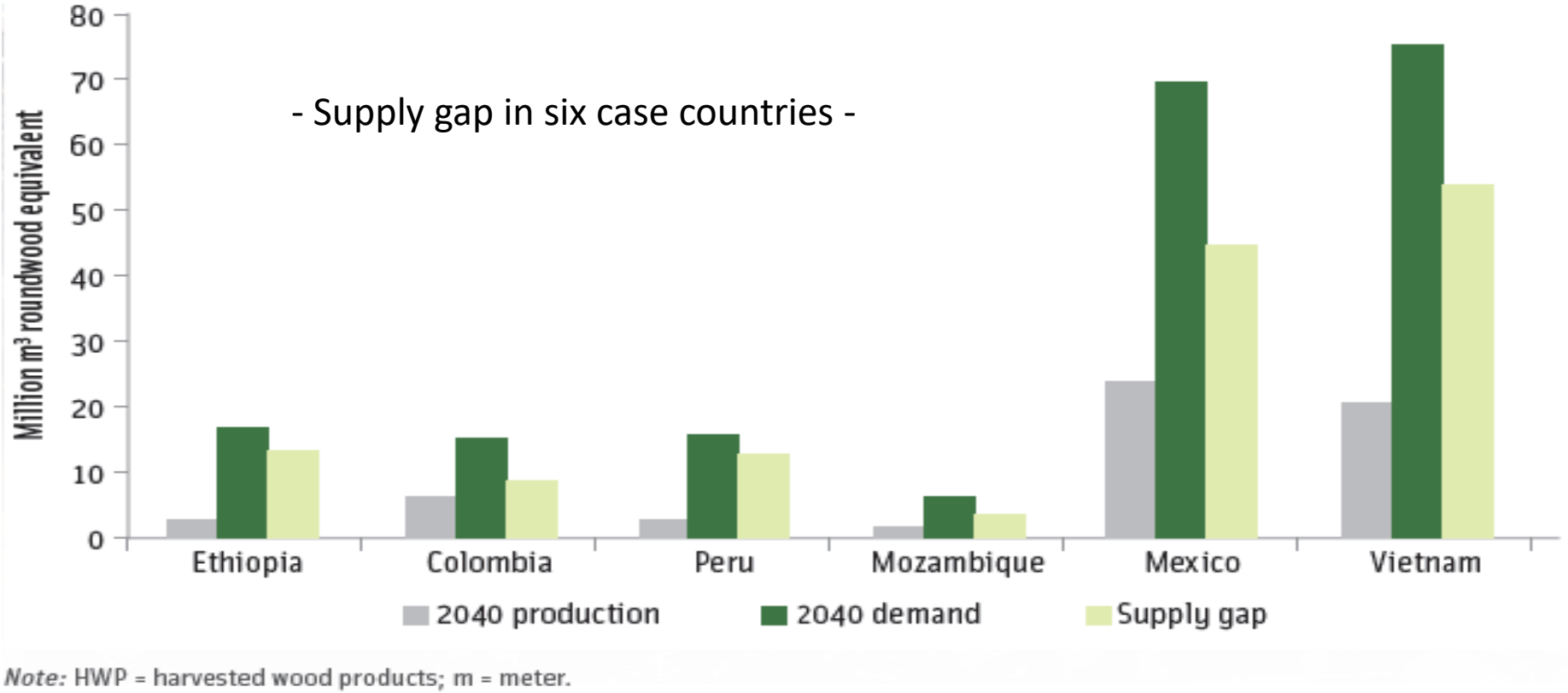
IFC/Dieterle et al. 2015

Projected effect of green economy measures on timber supply and demand balance in Africa



M. Grieg-Gran, S. Bass, F. Booker, M. Day, The role of forests in a green economy transformation in Africa; UNEP/UN-REDD, IIED, August 2015

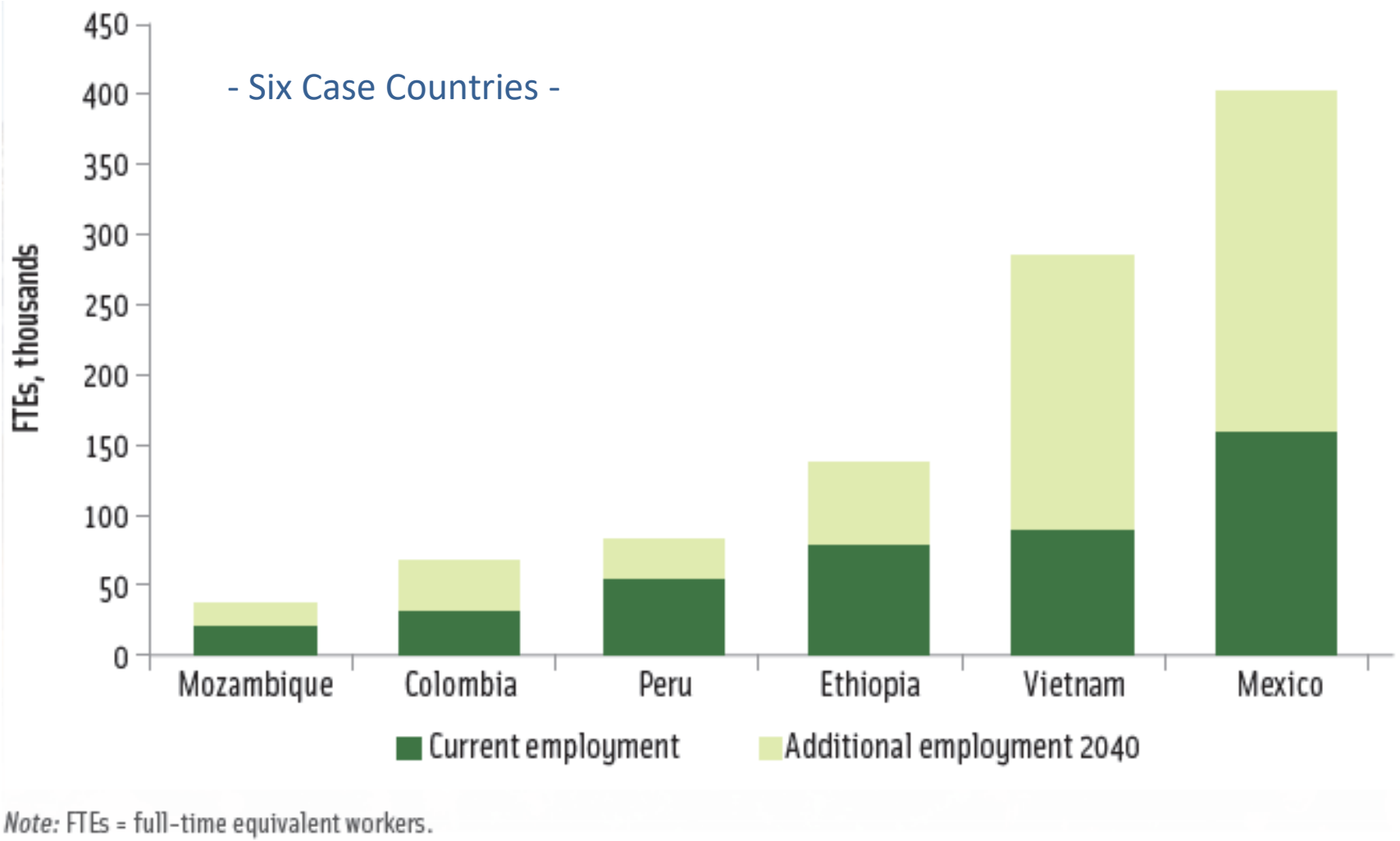
Projected HWP supply gap in 2040 under current conditions



Note: HWP = harvested wood products; m = meter.

World Bank, 2015

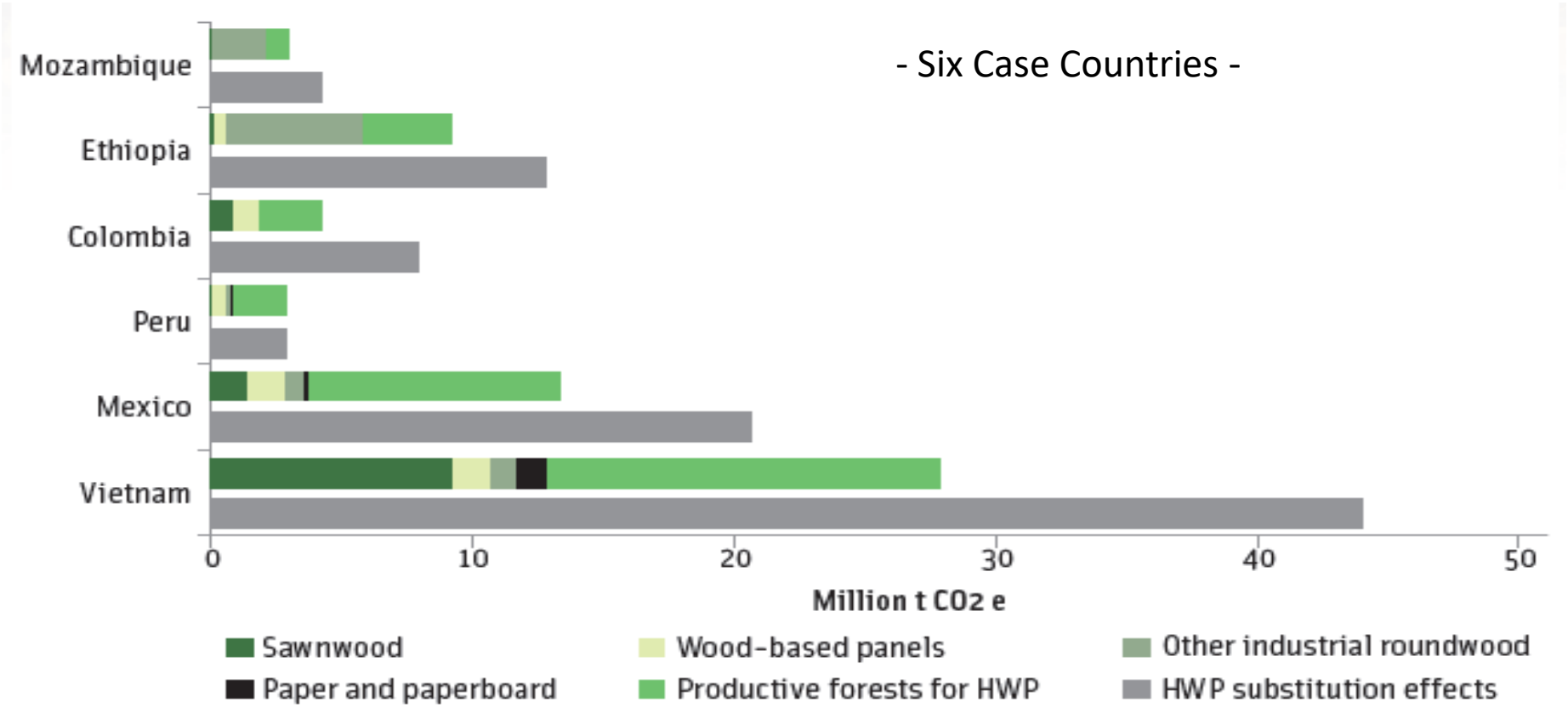
Employment benefits of the Green Growth Scenario



Note: FTEs = full-time equivalent workers.

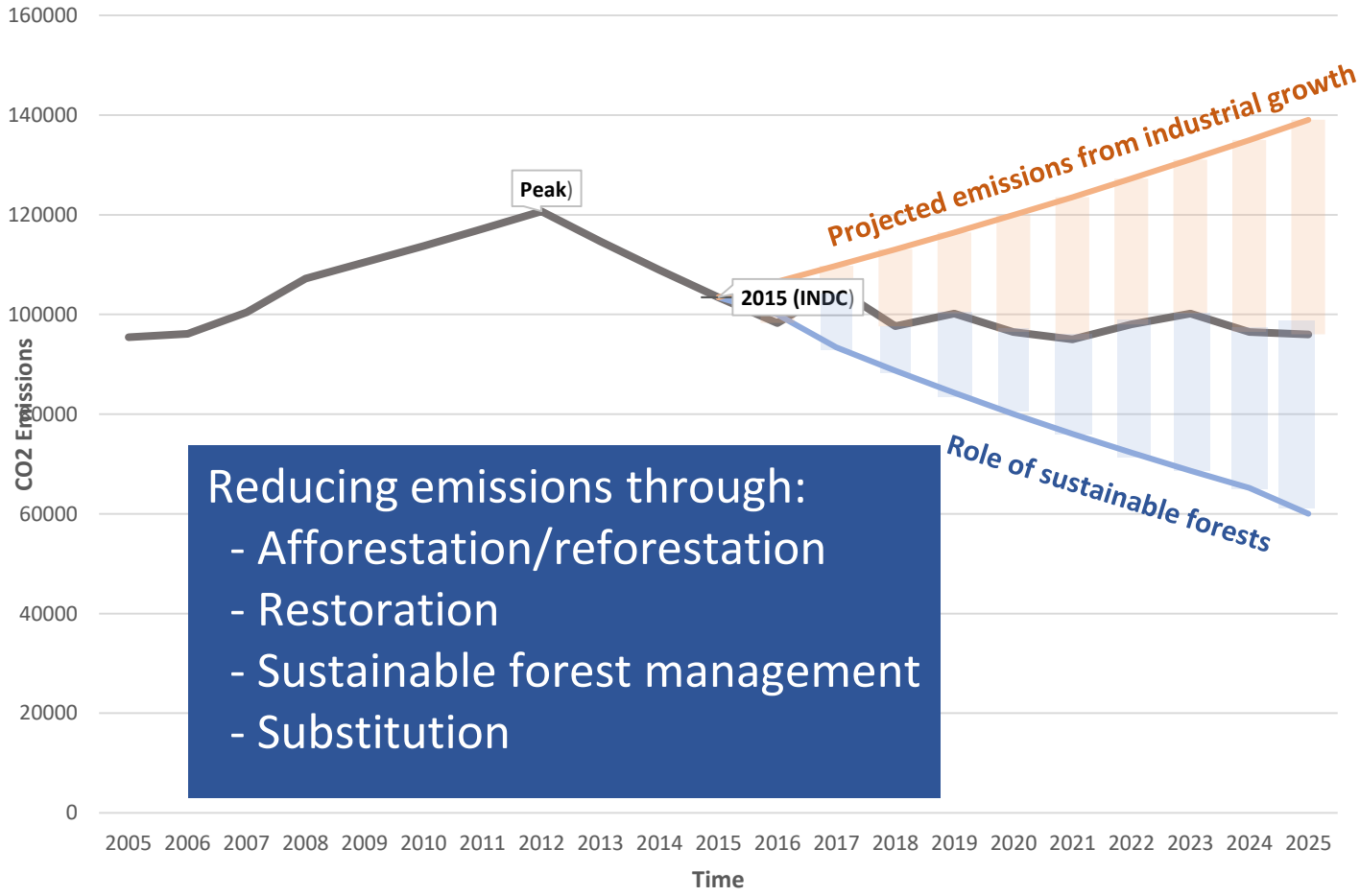
Mitigation potential of Green Growth/Bio-economy Scenario

- Six Case Countries -

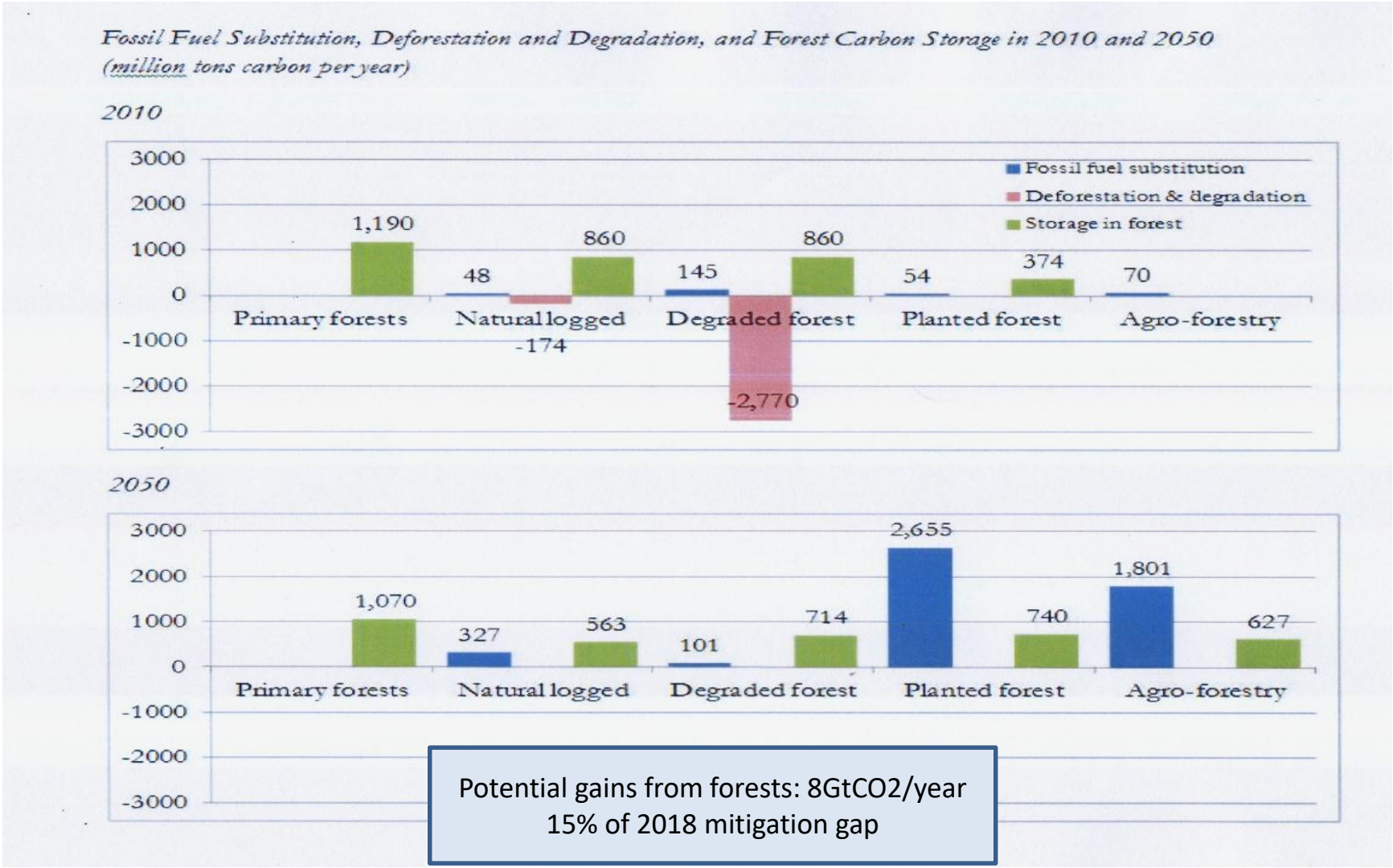


Note: HWP = harvested wood products; t CO2 e = tons of carbon dioxide equivalent.

Potential of forest for achieving NDCs – important for transition countries–



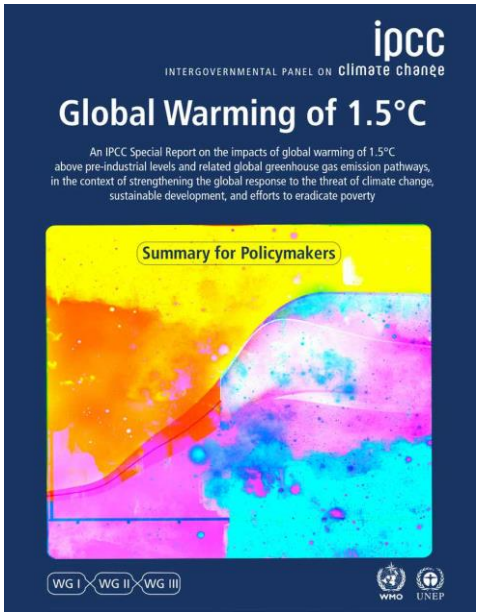
The forgotten component in REDD+:
Subsitution



Potential gains from forests: 8GtCO2/year
15% of 2018 mitigation gap

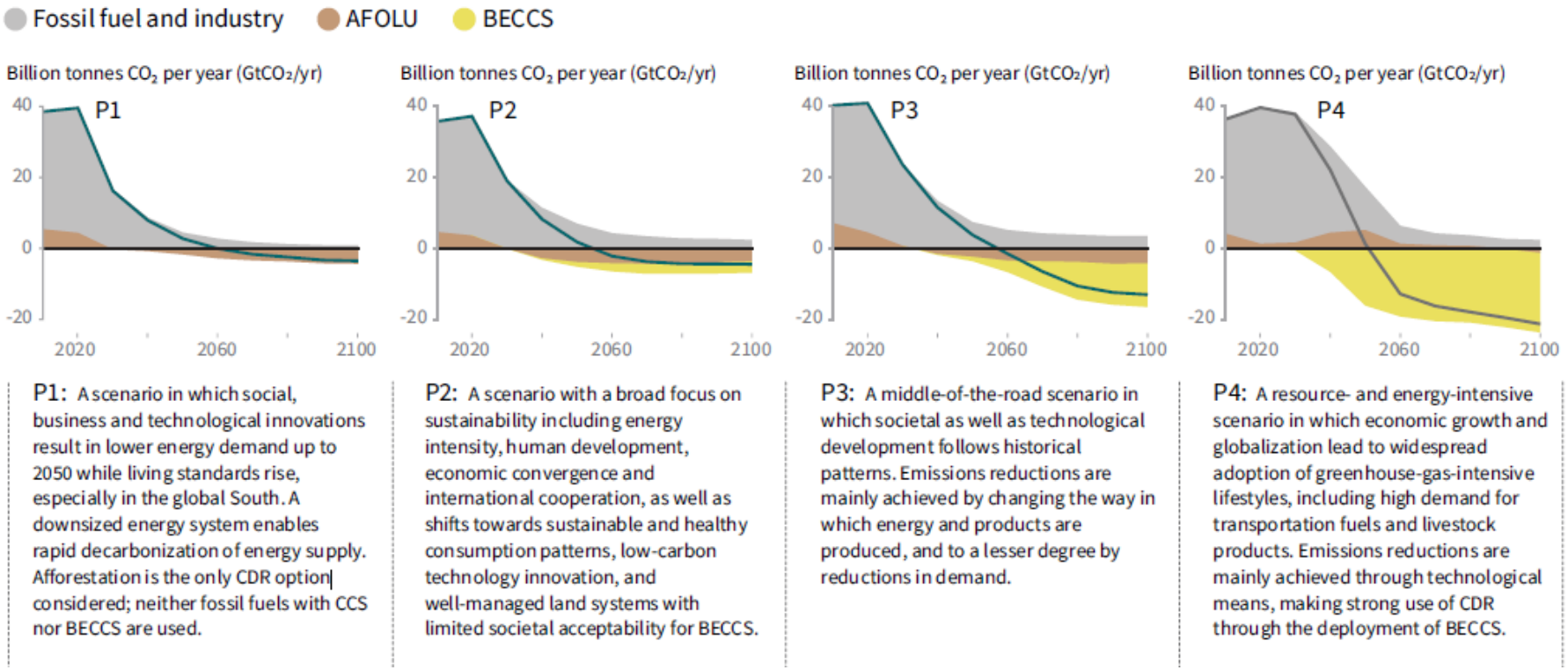
Forest and forest products are essential for mitigating climate change

- Special report by the Intergovernmental Panel on Climate Change (published in October 2018):
  - Massive investments in forestry (afforestation, restoration and rehabilitation) along with
  - Further use of wood-based products and bioenergy



Essential for keeping the global temperature increase within the target of 1.5°C

Contributions to global carbon emissions under various pathways



P1: A scenario in which social, business and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A downsized energy system enables rapid decarbonization of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

P4: A resource- and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas-intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

AFOU: Removals in the agriculture, forestry and other land uses
BECCS: Bioenergy with carbon capture and storage

Source: IPPC Special report, summary for policy markers, October 2018

Multiple wins from sustainable forest supply chains

- Economic growth
- Poverty reduction
- “Wood security”
- Additional climate mitigation benefits: Emission reduction + CO_2 removals+ substitution + storage:

  Potential is up to 8GtCO_2/year, however accounting of substitution benefits unclear
- Increased environmental/biodiversity benefits
- Global water regime: *Rivers in the Sky*

Working with partners:
SW4SW Initiative: FAO, ITTO, WB, WWF

http://www.fao.org/forestry/sustainable-wood/en/

What if?
Why legal and sustainable supply chain initiatives are important

Developments in Consumer countries

- Foreign investment by progressive wood industry will **focus on "low-risk countries" and avoiding smallholders** to ensure legality and sustainability.
- Consumer countries will become increasingly **self-sufficient:** increasing North-South trade
- Market share **of chemically & mechanically modified softwood** (e.g. Kebony, acetylated wood, compressed softwood) eroding the demand and market share for tropical hardwood will decrease.
- **Eroding public and political acceptance** of tropical timber
- **Demand for verification of legality and sustainability will become the "norm"** in an increasing number of countries.
- **Global climate goals/REDD+ approach cannot succeed without pivotal role of productive forests:** meeting demand of growing population, biodiversity, water, bio-economy

Implications for Tropical timber producing countries

- **Without addressing emerging domestic supply gaps of timber** and wood-based energy many tropical countries will
  - Depend increasingly on non-renewable materials (steel, concrete, fuels)
  - Risk of increased deforestation/degradation
  - Loss of biodiversity/primary forests and protected areas
  - Face trade deficits and loss of jobs/income from increasing dependence on wood imports
- **No investments without reducing risks and improving governance** is essential for attracting foreign investment
- **Legal and sustainable supply chains do not work without incentives for investments and capacity building**
- **Risk of losing global market access** for tropical timber if not produced legally and sustainably;

The Role of ITTO

Promote sustainable production & consumption of wood as a contribution towards a bio-based economy and meeting demands of a growing global population

The Specific Role of ITTO

Promote sustainable production & consumption of wood as a contribution towards a circular economy

Intervention Area	ITTO Service Offer as part of the CPF SW4SW Initiative
Policies	Creating awareness across international forest regime; policy processes, bio-economy: ***Poverty alleviation, economic/rural development, climate, biodiversity, social***
Incentives	Urgent need for **fiscal and taxation incentives** as stimulants for massive investments in sustainable tropical forest landscape restoration and production *Country case studies on incentive mechanisms for increased investments in FLR and supply chains; supply-demand analysis; bio-economy potential etc.*
Global Green Supply Chain Platform	Promote/facilitate **conversion towards universal criteria** for legal and sustainable supply chains; **reduce complexity** for producers and consumers. Support to Information and Business Exchange facilitation
Information and capacity building	Support and assist with information, data and skills throughout supply chains: producers and consumer government, traders, processors, market; Building **user associations** among SMEs and informal Supporting including verification/certification systems
Tracking and verification systems	Piloting **innovative tracking and verification technology; state-of-the-art wood identification technology (genetic fingerprinting etc.).**
Assist private sector initiatives	**Encouraging/promoting/piloting private sector initiatives** for green supply chains (from legality to sustainability); company-commodity certification is not sufficient – avoid supply chain apartheid. What to do with informal sector?

The raising attention to landscape restoration globally

- 16 international organizations (incl. 11 CPF members) with major program on (forest) landscape restoration
- At least 10 global initiatives and 3 regional FLR initiatives started and implemented
- 8 major FLR guidelines / guidance developed
- At least 7 FLR tools designed and made available

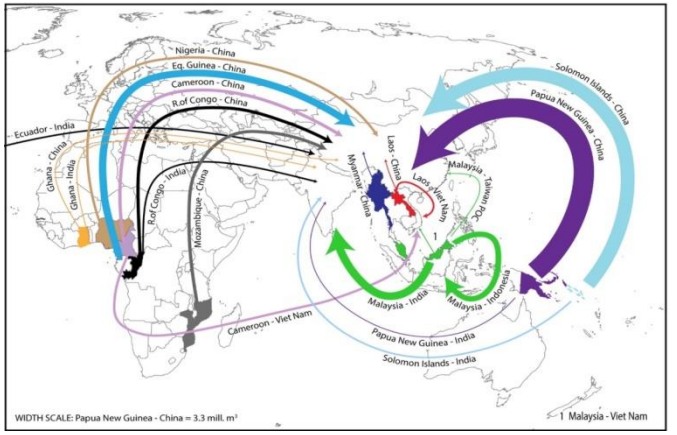
→so far, focus on carbon, carbon storage, biodiversity, community development

→need to look at entire supply chains, form market to the forest, private sector to unlock full SDG benefits

Towards as Global Green Supply Chain Platform

Chinese Private Sector Initiative (GGSC) - Beijing, June 2018

- **GGSC members:** Currently 14 progressive Chinese wood importing and processing enterprises.
  Trade volume ~US$ 14 billion
- **GGSC secretariat**: CINFT / NFGA (National Forest and Grassland Administration, previously SFA).
- **GGSC promotion committee:** GGSC secretariat, ITTO, China timber and wood products distribution association, Green carbon foundation, (open for enterprises to join).
- **GGSC expert group**: ITTO TAG, CINFT.
- **External stakeholders / supporters:** MOFCOM, GIZ Forest Policy Facility, TNC, DfID etc.



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