Evaluating progress on climate change and land use commitments:

Paris Agreement and the New York Declaration on Forests

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Presentation to NASA CMS

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Our Work at Climate Focus

Providing independent advice and analysis that is relevant for today's decision-makers in the areas of:

- Climate Law and Policy
- Climate Finance
- Project Development
- Land Use
- Monitoring and Evaluation

Across sectors as diverse as renewable energy, forestry, agriculture, waste, transport, and energy efficiency.

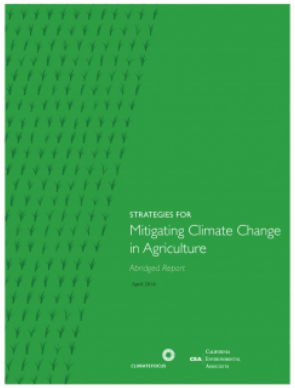
Our Work at Climate Focus

Multidisciplinary team allows us to work closely with the private sector, governments, non-governmental and multi-lateral organizations:

- World Bank
- USAID
- German Federal Ministry for the Environment Building and Nuclear Safety
- GIZ
- Packard Foundation
- Tropical Forest Alliance

To produce actionable research products on topics such as:

- Scaling up energy access programs
- Reducing GHG emissions through climate-smart agriculture
- Assessing public and private financing of low carbon development in Colombia
- Evaluating progress on the NYDF and Paris Agreement



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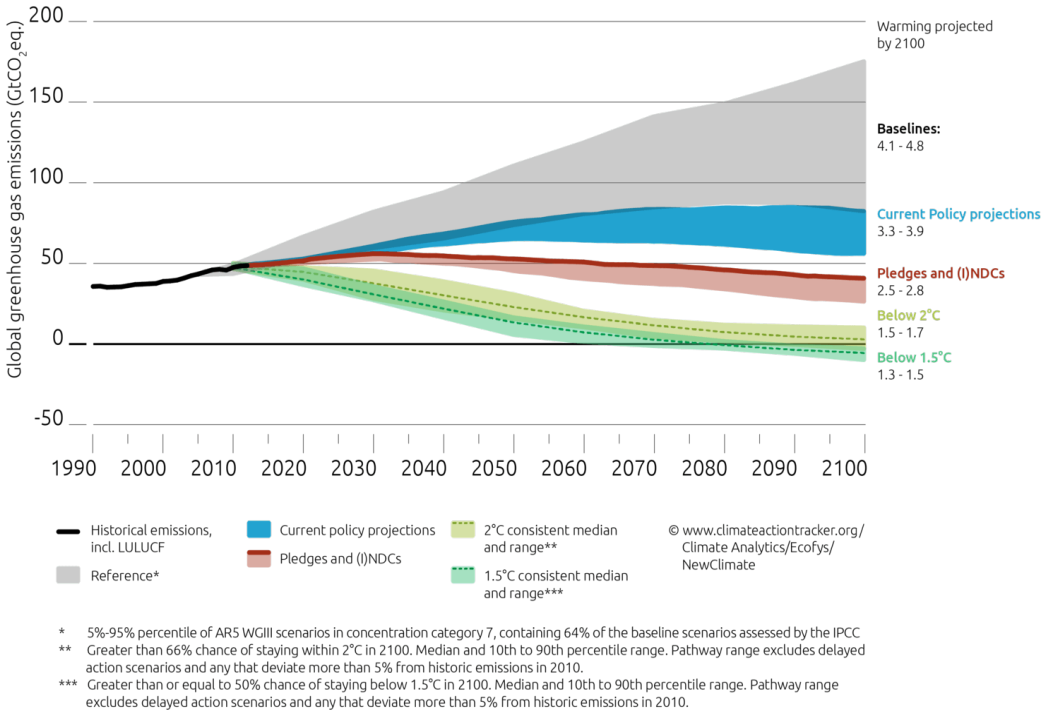
Highlighted Work 1: Contribution of the Land Sector to a 1.5 ˚C World

The Paris Agreement set global target of: "well below 2°C" and encouraging efforts to "limit increase to 1.5°C above pre-industrial levels."

Parties also committed to "reach global peaking of greenhouse gas emissions as soon as possible," and to "achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century"

Questions in study:

- What is required of the land sector (in $GtCO_2e$) through 2100 for the world to meet the long-term goal of 1.5 °C set in the Paris Agreement?
- What portfolio of strategies and technologies exist in land sector, and what is their mitigation potential and economic and political feasibility?
- What interventions should be prioritized and when and where do they need to be deployed?



* 5%-95% percentile of AR5 WGIII scenarios in concentration category 7, containing 64% of the baseline scenarios assessed by the IPCC
** Greater than 66% chance of staying within 2°C in 2100. Median and 10th to 90th percentile range. Pathway range excludes delayed action scenarios and any that deviate more than 5% from historic emissions in 2010.
*** Greater than or equal to 50% chance of staying below 1.5°C in 2100. Median and 10th to 90th percentile range. Pathway range excludes delayed action scenarios and any that deviate more than 5% from historic emissions in 2010.

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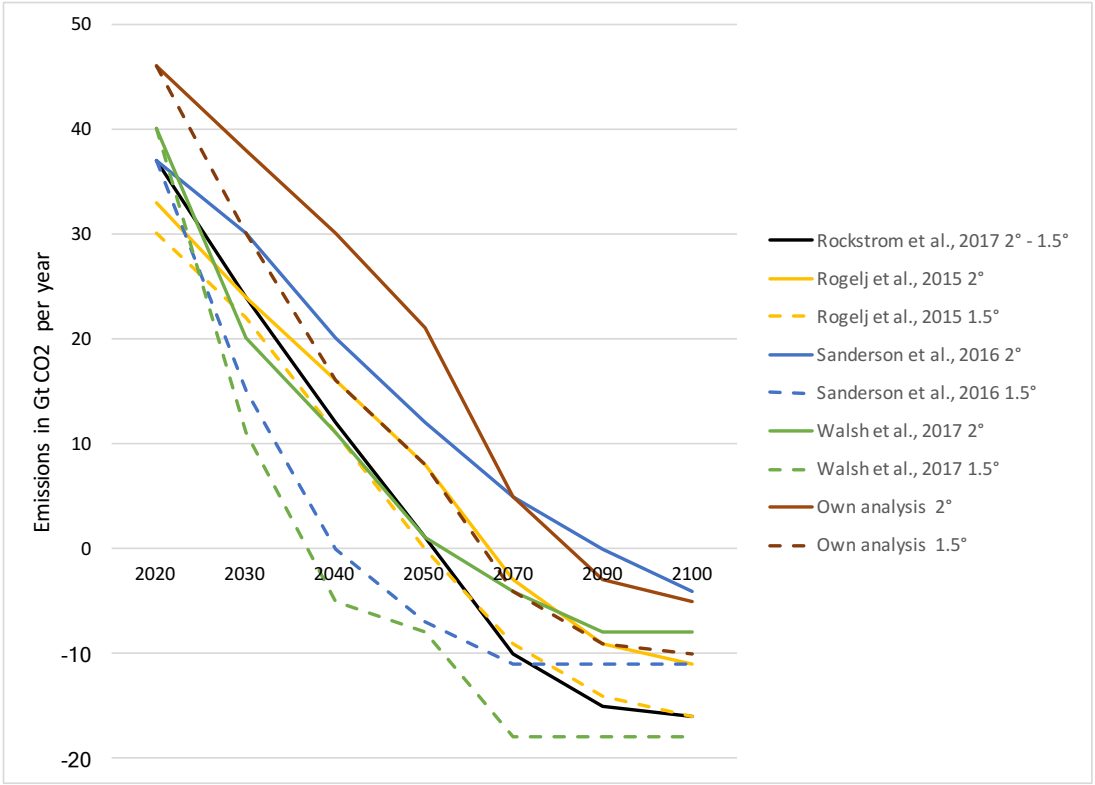

Roe et al., in prep

1.5˚C and 2˚C scenario assessment

- Both pathways require emissions to peak and decline around 2020 with net negative emissions occurring between 2040 and 2070 (for 1.5°C and 2°C respectively).
- 1.5°C scenarios require much earlier and pronounced action (net zero 10-25 yrs before).
- 1.5°C scenarios rely on 10-50% more carbon removal annually from NETs compared to 2°C scenarios
- Much fewer emissions pathways for 1.5°C than 2°C by 2030

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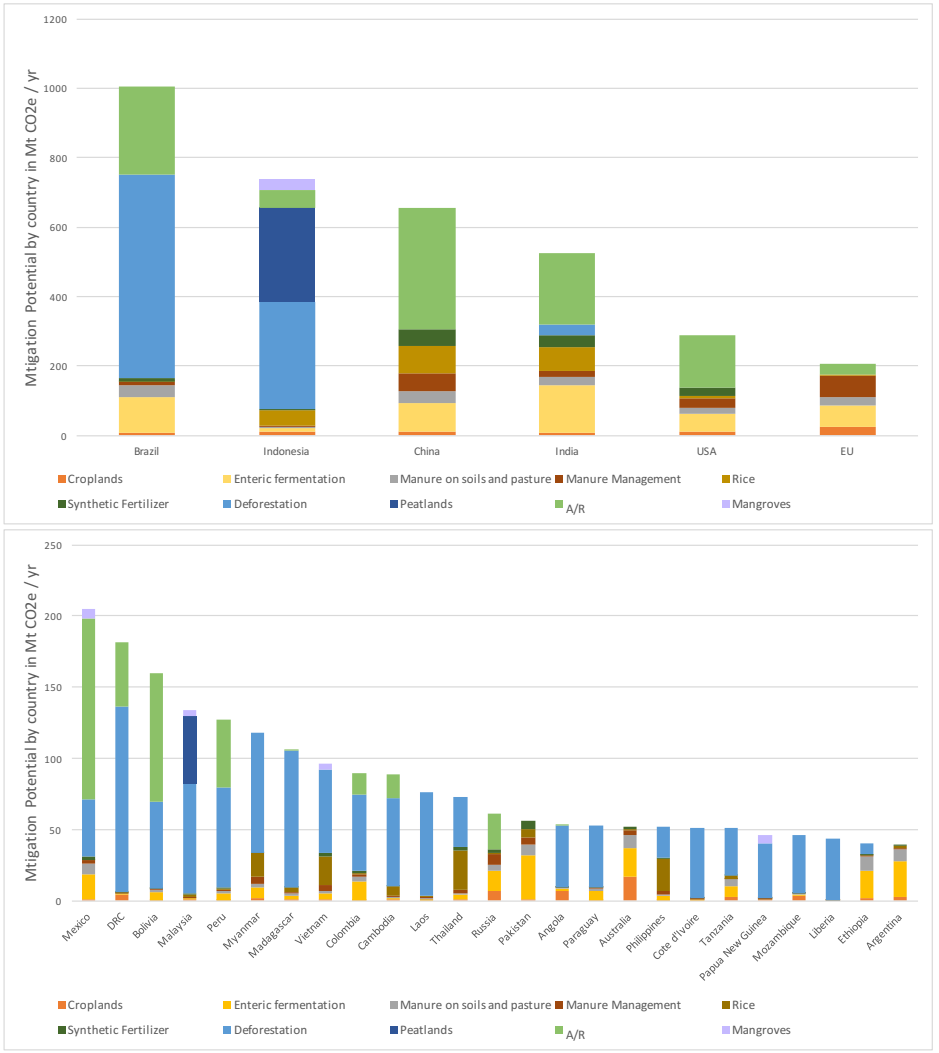
Highlighted Work 1: Contribution of the Land Sector to a 1.5 ˚C World

MITIGATION ACTIVITIES	Technical mitigation potential
SUPPLY SIDE	
Land use change (deforestation + wetlands + savannas)	1.4 – 6.8
Carbon sink enhancement (A/R + agricultural soils + biochar)	6.64 – 16.14
Agriculture (all categories - soils)	2.1 – 3.9
Biofuels (cleaner woodfuel)	0.1 – 0.16
DEMAND SIDE	
Waste and losses (reducing food & agricultural waste)	0.38 – 4.5
Diets (shifting to healthy diets)	2.15 – 5.8
Wood products (increase demand)	0.32 – 0.47

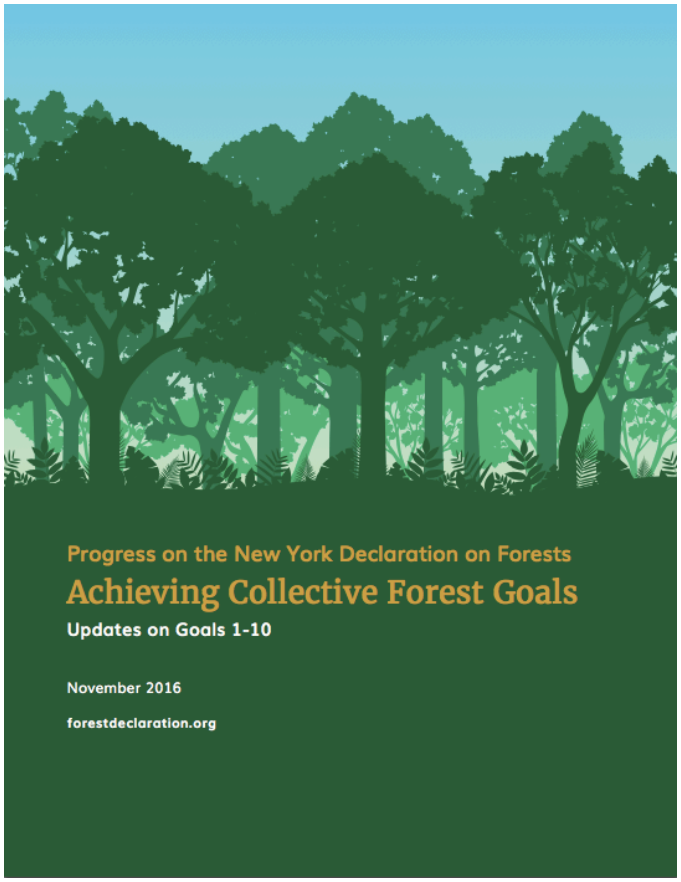
Roe et al., in prep



Roe et al., in prep

Highlighted Work 2: The New York Declaration on Forests (NYDF)

- **A voluntary and non-binding international declaration to take action to halt global deforestation.**
- **It was first endorsed at the United Nations Climate Summit in September 2014.**
- **By September 2016 the NYDF supporters grew to include over 190 endorsers:**
  - 40 governments
  - 20 sub-national governments
  - 57 multi-national companies
  - 16 groups representing indigenous communities
  - 57 non-government organizations
- **These endorsers have committed to doing their part to achieve the NYDF's ten goals and action agenda.**



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Highlighted Work 2: The New York Declaration on Forests (NYDF)

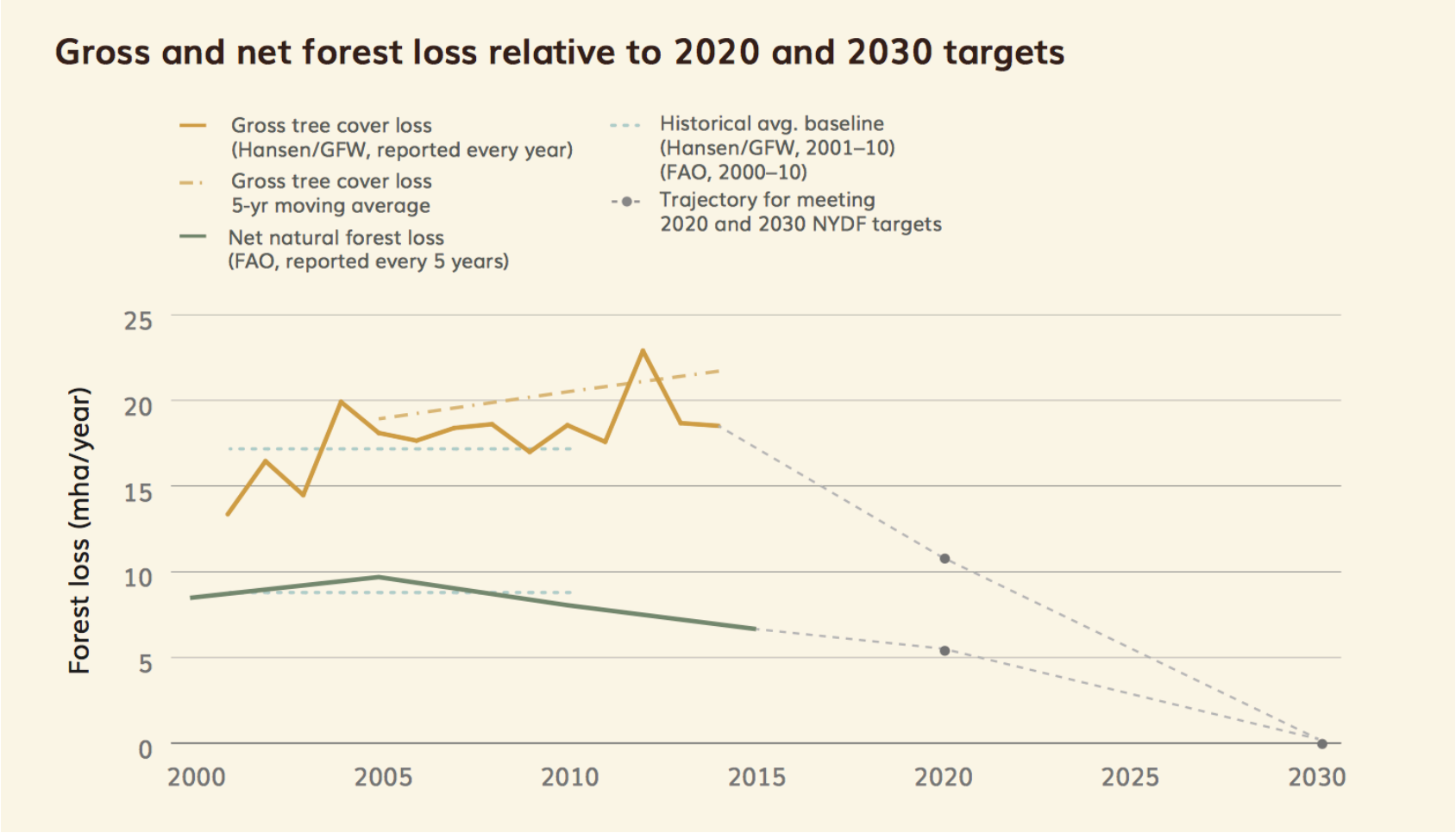
1	At least halve the rate of loss of natural forests globally by 2020 and strive to end natural forest loss by 2030
2	Support and help meet the private-sector goal of eliminating deforestation from the production of agricultural commodities such as palm oil, soy, paper, and beef products by no later than 2020, recognizing that many companies have even more ambitious targets
3	Significantly reduce deforestation derived from other economic sectors by 2020
4	Support alternatives to deforestation driven by basic needs (such as subsistence farming and reliance on fuel wood for energy) in ways that alleviate poverty and promote sustainable and equitable development
5	Restore 150 million hectares of degraded landscapes and forestlands by 2020 and significantly increase the rate of global restoration thereafter, which would restore at least an additional 200 million hectares by 2030
6	Include ambitious, quantitative forest conservation and restoration targets for 2030 in the post-2015 global development framework, as part of new international sustainable development goals
7	Agree in 2015 to reduce emissions from deforestation and forest degradation as part of a post-2020 global climate agreement, in accordance with internationally agreed rules and consistent with the goal of not exceeding 2°C warming
8	Provide support for the development and implementation of strategies to reduce forest emissions
9	Reward countries and jurisdictions that, by taking action, reduce forest emissions —particularly through public policies to scale-up payments for verified emission reductions and private-sector sourcing of commodities
10	Strengthen forest governance, transparency, and the rule of law, while also empowering communities and recognizing the rights of indigenous peoples, especially those pertaining to their lands and resources

Highlighted Work 2: The New York Declaration on Forests (NYDF)

- Climate Focus leads the NYDF Assessment, and supports the coordination of a network of civil society groups and research institutions that annually evaluate the progress toward the NYDF's ten goals.

- Currently in the process of drafting the third assessment report measuring progress toward Goals 8 and 9 and is set to be released in late 2017

Highlighted Work 2: NYDF Goal 1



Climate Focus, 2016 NYDF Assessment

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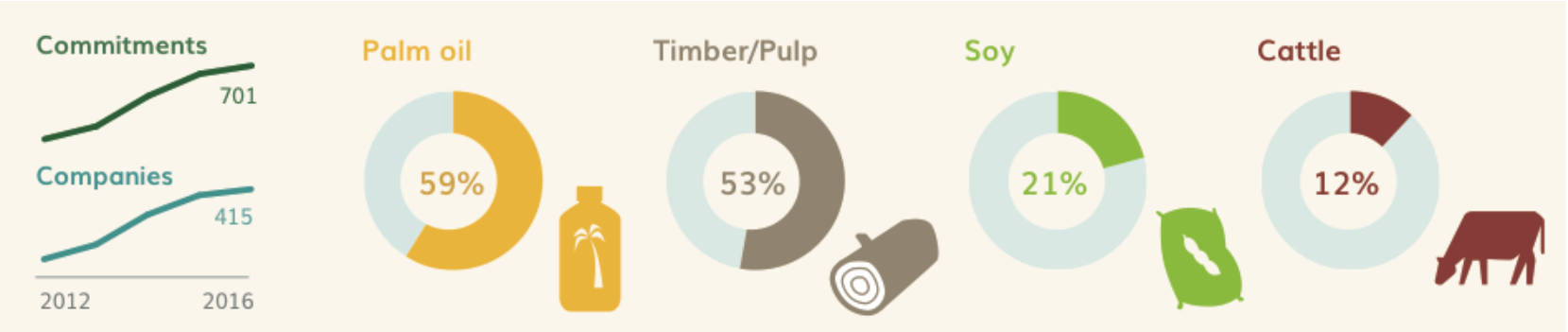
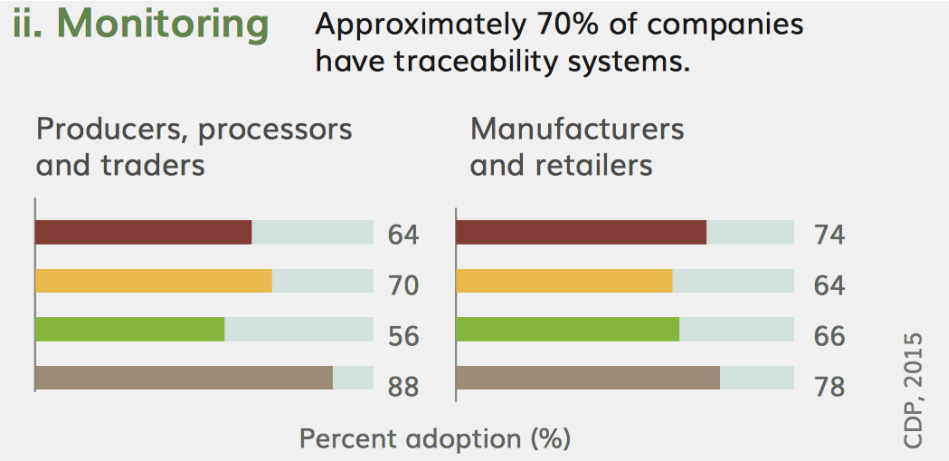
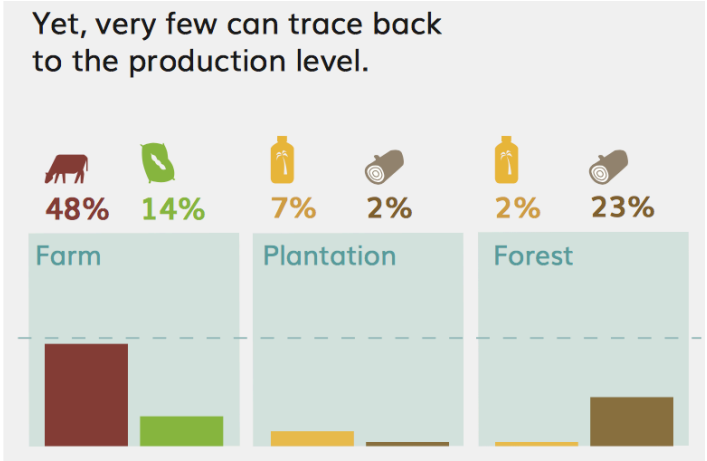
Highlighted Work 2: NYDF Goal 2

Private-sector commitments to deforestation-free commodities are increasing



Implementation of private-sector forest commitments still needs improvement





Climate Focus, 2016 NYDF Assessment

Impact on deforestation

There is currently no information available to assess whether whether company efforts are translating into measurable impact.

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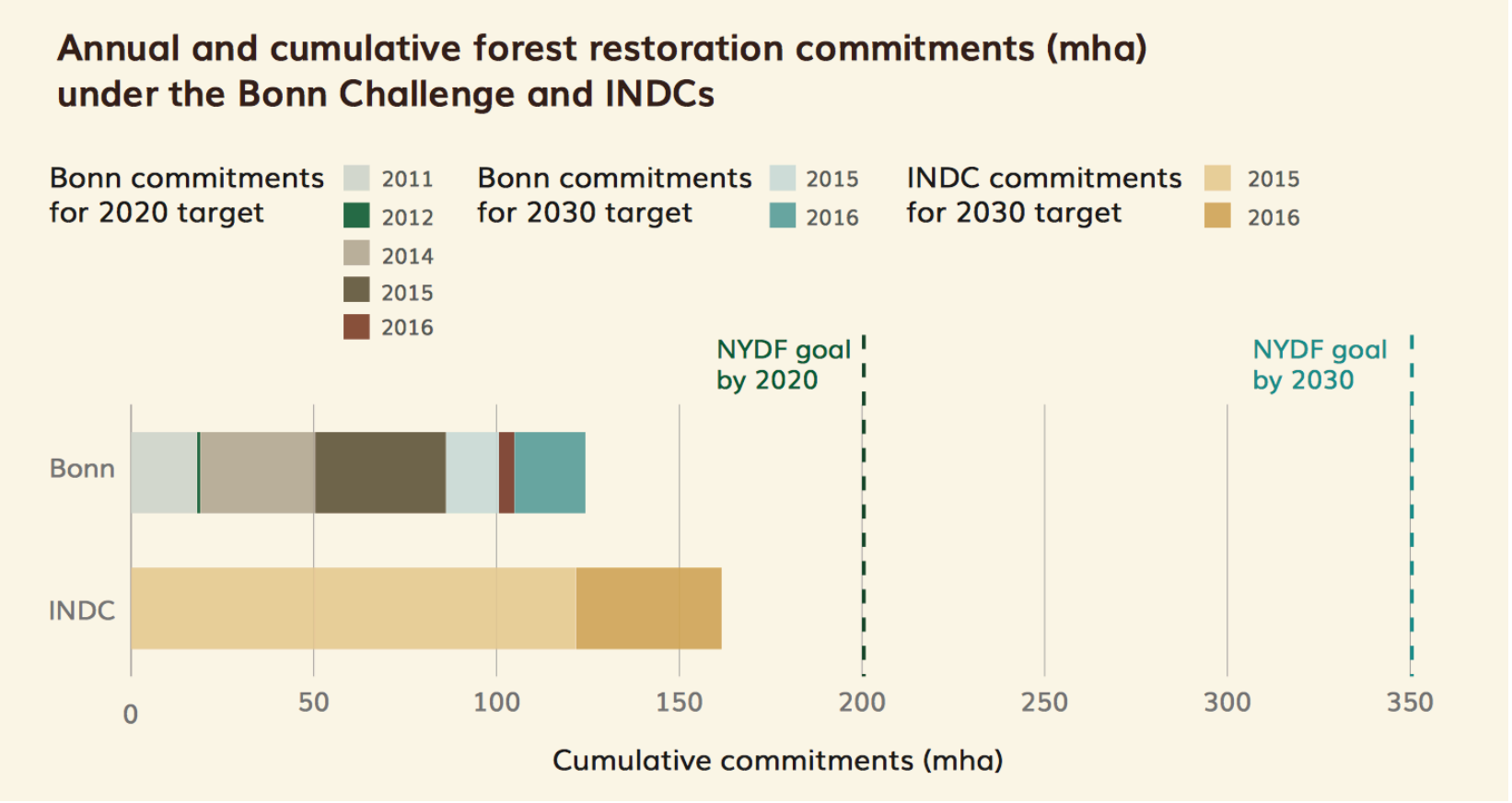
Highlighted Work 2: Goal 5



Climate Focus, 2016 NYDF Assessment

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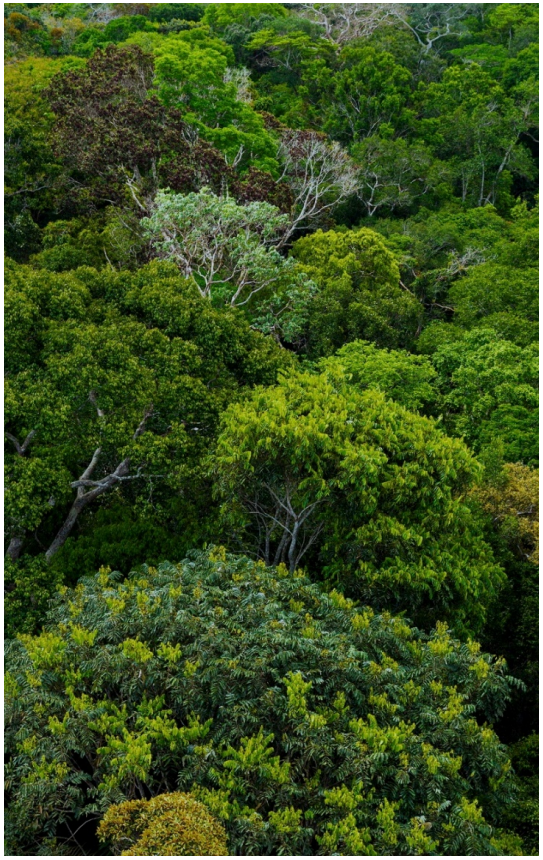
Highlighted Work 3: Tropical Forest Alliance 2020

Climate Focus is supporting the Tropical Forest Alliance 2020 through assistance in drafting a *Commodities and Forests Agenda 2020.*

The *Agenda* identifies 10 priority interventions in commodity supply chains that can greatly reduce their impacts on tropical deforestation:

- Elimination of illegality from supply chains
- Growth and strengthening of palm oil certification
- Scaling up of pilot programmes of sustainable intensification of cattle grazing
- Sustainably increasing smallholder yields in palm oil and cocoa
- Achieving sustainable soy production
- Accelerating the implementation of jurisdictional programmes
- Addressing land conflicts, tenure security and land rights
- Mobilizing demand for deforestation-free commodities in emerging markets
- Re-directing finance toward deforestation-free supply chains
- Improving the quality and availability of deforestation and supply chain data



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Highlighted Work 3: Tropical Forest Alliance 2020

We have data on the drivers:

- Palm oil cultivation causes an average loss of 300 thousand ha/yr of tropical forest
- Land dedicated to soy production caused a loss of 29 million ha of natural landscape between 1990-2010 just in the Brazilian Cerrado
- Beef production caused more than 2 million ha in deforestation in 2011 – more than soy, palm, timber, pulp and paper combined

But we also know that part of the solution lies in capturing more data

5,950,000

Number of hectares of avoided deforestation from 2007-2011 due to deployment of the Real-Time System for Detection of Deforestation (DETER) in Brazil

Highlighted Work 4: Reducing Deforestation in Cocoa

- Increased sensitivity of the deforestation caused by cocoa combined with awareness of productivity impacts of climate change and livelihood considerations for smallholder farmers has led cocoa companies to be more active in supply chain sustainability

- Climate Focus, in collaboration with the **BioCarbon Fund, Forest Carbon Partnership Facility, and the World Cocoa Foundation**, released a report earlier this year on *Eliminating Deforestation from the Cocoa Supply Chain*

- The report describes a vision of zero deforestation cocoa with key principles:
  - Protection of natural primary and secondary forests
  - Legality
  - Transparency
  - Increased productivity

Highlighted Work 4: Reducing Deforestation in Cocoa

- Climate Focus' work on cocoa continues with a current project for the World Bank that will provide recommendations for directing innovative financial and technical assistance solutions to smallholder farmers in West Africa
- 60% of cocoa is grown in Ghana and Côte d'Ivoire with the majority of trees featuring low productivity due to age, disease, and climate change
- Financing directed towards improved productivity could spare hundreds of thousands of hectares of tropical forest
- Increased transparency related to sustainably sourced cocoa can help drive financing from the public and private sectors to realize the needed productivity gains

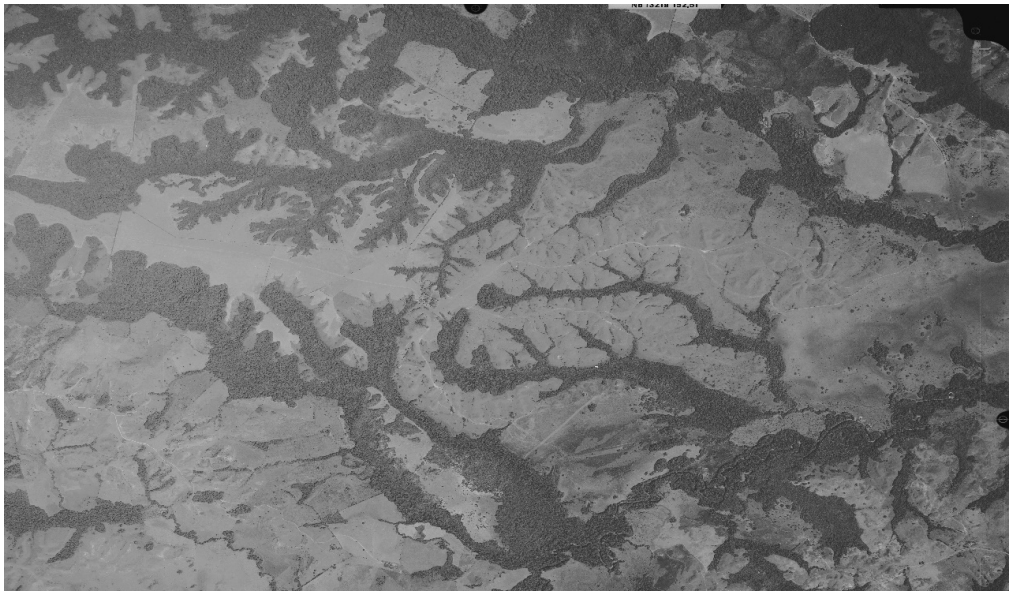
Photo credit: Rodney Quarcoo/World Bank

We Cannot Change What We Cannot Measure

Transparency and traceability are two crucial requirements to be able to monitor progress toward mitigation goals, especially where mitigation requires measurements of land use change and deforestation

GAPS/ Research needs:

- Quantifying restoration/ regeneration
- Supply chain attribution of land use impact
- Soil carbon



View of farms in Orinoquia Region, Colombia

Thank You

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