

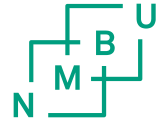
# REDD+ reference level (FREL) submissions to UNFCCC: Are they biased upwards?

**Arild Angelsen**

Professor, School of Economics and Business,  
Norwegian University of Life Sciences (UMB), Ås , Norway  
& Senior Associate, CIFOR , Bogor, Indonesia  
[arild.angelsen@nmbu.no](mailto:arild.angelsen@nmbu.no)

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# Two perspectives on numbers



(Porter, 1995)

## 1. *Rational science and planning*

- generate knowledge & objective info about real world
- basis for decisions, implementation & evaluation

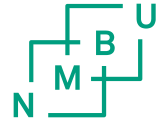
## 2. *Numbers as politics*

- value-based & subjective choices in selection of numbers, biases, presentation, interpretation, uses
- numbers as part of power and self-interest games
- Positive vs. normative
- “Evidence-based policy-making” vs. “policy-based evidence-making”
- Need both perspectives!

# Why potential biases in FRELs?

- Any system is susceptible to manipulation of numbers
- Result-based systems are particularly prone
- Emission red. (ER) = actual reductions – **Ref.level** (BAU)
  - Define payments in a result-based system
  - Define success (reputation, re-election, ...)
  - > **strong interests involved**
- Started off with a very poor information base
- Lots of money (USD 10 bn)
- Diversity of interests
- Rules & good practices made as the game is played
- FRELs are even more tricky: **a hypothetical scenario** (emissions without REDD+)

# UNFCCC guidance on FRELS



## Decision 4/CP.15, §8 (Copenhagen)

Develop FREL/FRL, “taking into account **historical data** and adjust for **national circumstances**”

## Decision 12/CP.17 (Durban)

§ 7: “[FREL/FRL] are benchmarks for assessing each country’s performance”

§9: include details on adjustment for national circumstances

§10: a stepwise approach may be useful ...

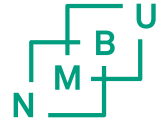
§11: subnational FREL/FRL possible as interim measure

§12: update “periodically as appropriate”

Guidelines:

- Comprehensive, complete, consistent, accurate and transparent

# ... UNFCCC guidance



## Decision 13/CP.19 (part of Warsaw framework on REDD+)

§1: “each submission ... shall be subject to a technical assessment”

§2: “ ...might be technically assessed in the context of result based payments”

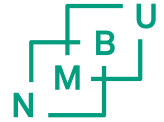
## Annex with guidelines and procedures for technical assessment

- Check if in accordance with decisions
- “To offer a facilitative, non-intrusive, technical exchange of information ...”
- §4: “refrain from making any judgement on domestic policies taken into account in the construction of FREL/FRL”

### *Observations:*

- *shift from BAU (assess performance) to FIB (basis for payments)*
- *seen as purely technical issue, although it's to be used for payments*
- *Many option; no one single recipe*
- ***FREL = historical average + national circumstances***

# Systematic biases (“gaming”)

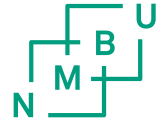


- A definition of “*gaming*”:  
“*strategic selection (cherry picking) of numbers for own benefits*”

How:

- Historical reference period
- Adjustment for national circumstances
  - Trends
  - Policies
  - Drivers, change in econ & pol situation
- Updating (frequency, formula, ...)
- Activities, scope, geographical area, pools, ...

# Res. quest. & hypotheses



- **RQ:** Do countries systematically select historical reference periods and national adjustment that increase their FRELs?
- **H1:** Countries with declining rates of deforestation tend to choose earlier starting years for historical reference period.
- **H2:** Countries with declining rates of deforestation tend *not* to adjust for national circumstances, while countries with increasing rates of deforestation tend to do so.

–Note: Change in deforestation based on UNFCCC submissions (and for the selected period)

# Submissions



- 15 countries submitted:
  - Brazil; Colombia, Ecuador, Guyana, Malaysia, Mexico; Chile, Costa Rica, DRC, Ecuador, Ethiopia, Indonesia, Paraguay, Peru, Vietnam, Zambia
- Purpose:
  - All are for result-based payment
- Activities:
  - Deforestation; >50% also degradation and/or carbon stock enhancement; few conservation & SMF
- Scale:
  - National (sub-national for Brazil & Colombia)
- Forest definition varies



# H1: Historical ref. period (to calculate historical deforestation)



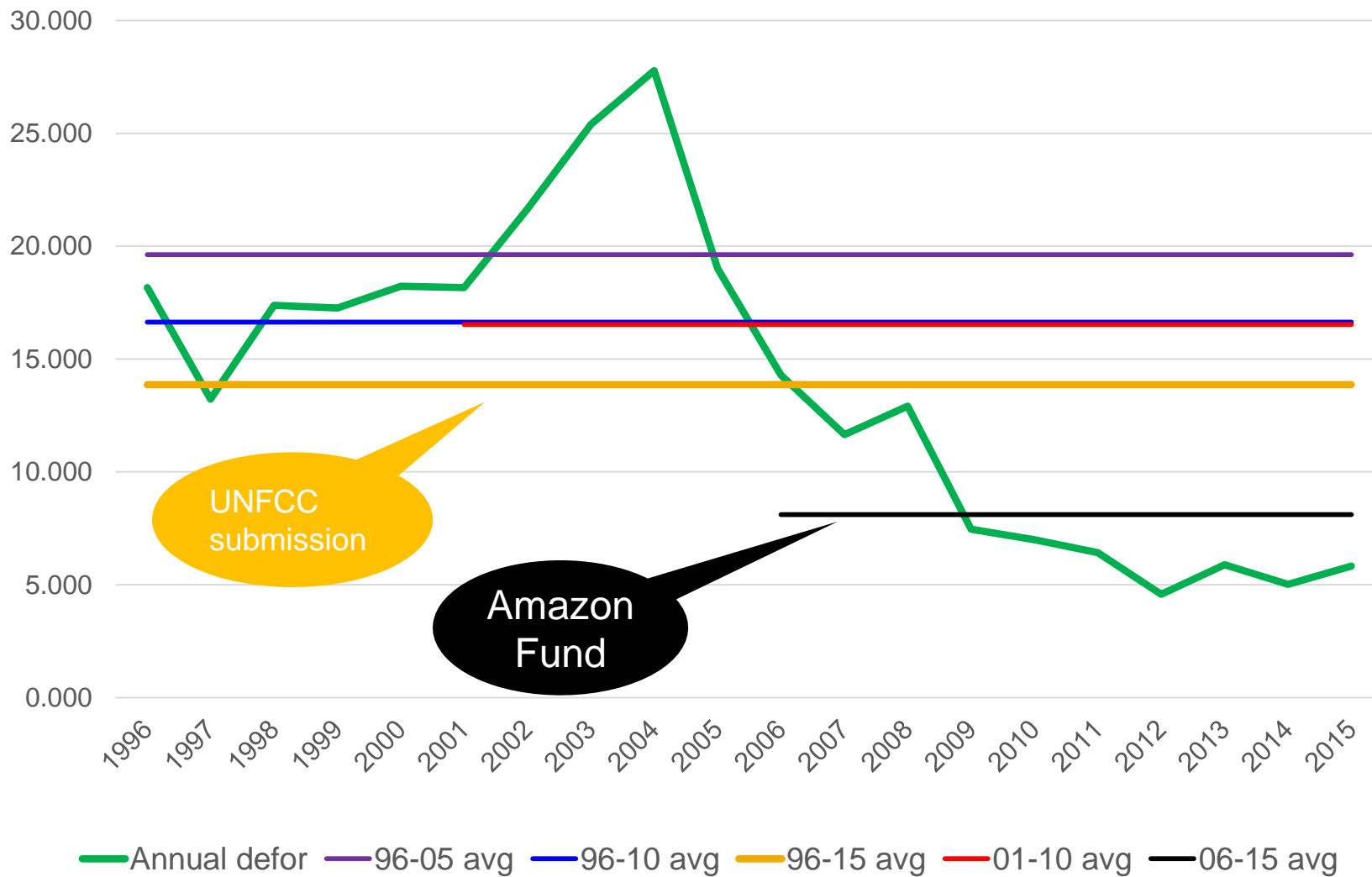
Starting year for hist. ref. period



# Gaming?

- 6 out of 7 countries that did not choose 2000/2001 as the starting years had a benefit from doing so (higher FREL)
- Among the 8 countries that report *declining* rates of deforestation, 5 chose an *earlier* starting year than 2000/2001

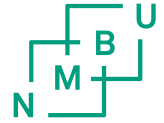
# Deforestation, Amazon (Brazil), km<sup>2</sup>



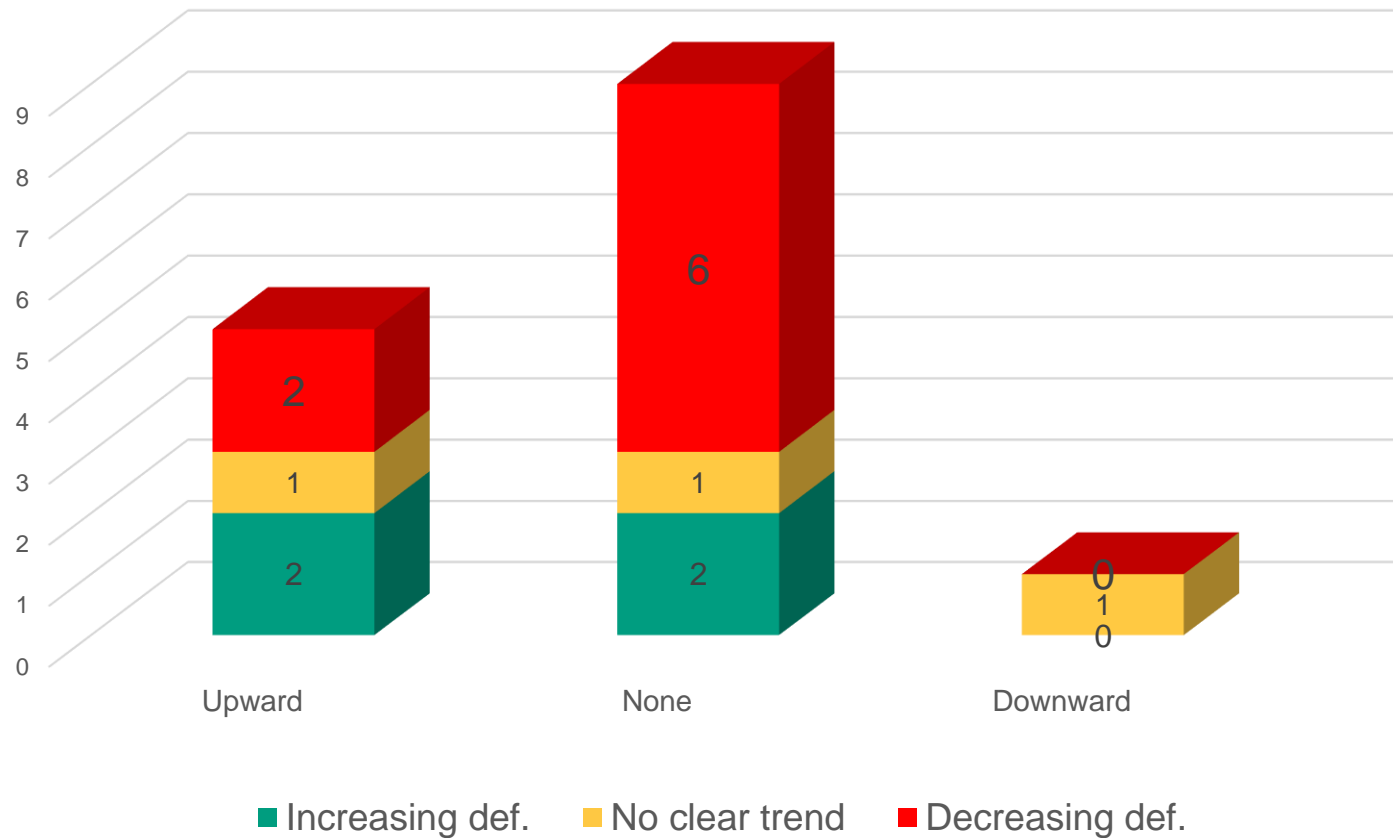
# Some observations

- Use 1996 as starting point (not 1990)
  - Average 1990-1995: 16 233 km<sup>2</sup>
  - Average 1996-2005: 19 625 km<sup>2</sup>
- Chose 1996 as starting year, extend the end year
  - Not last 10 years as for Amazon Fund
  - Minor difference for 1996-2010 (16 638) vs. 2001-2010 (16 531)
  - Major difference for 1996-2015 (13 864) vs. 2006-2015 (8 103)
  - With 100C/ha & USD 5/tCO<sub>2</sub>, the difference is **USD 1.056 billion per year** (from 2016) in a result-based payment system

# H2: Adj. for nat. circumstances



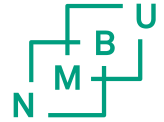
Adjustments of FRELs  
(by deforestation trend)



# Gaming?

- 8 that had *declining* deforestation:
  - 0 chose a downward adjustment
  - 2 chose upward
- 4 that had *increasing* deforestation:
  - 2 chose upward adjustment due to nat. circumstances
  - 1 announced that will do so
  - 1 chose a more recent starting point
- PS: Vietnam, with no clear trend (for chosen period), chose *downward* adjustment due to policies implemented

# Example: Nat. circumstances



- Colombia
  - qualitative analysis of drivers
  - post-conflict scenario: 5-year-transition (deforestation above historical average)
  - conservative +10%
- Guyana
  - all drivers
  - use combined national and global historical deforestation (0.44%)
  - same approach as in MoU with Norway

# Peru

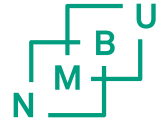
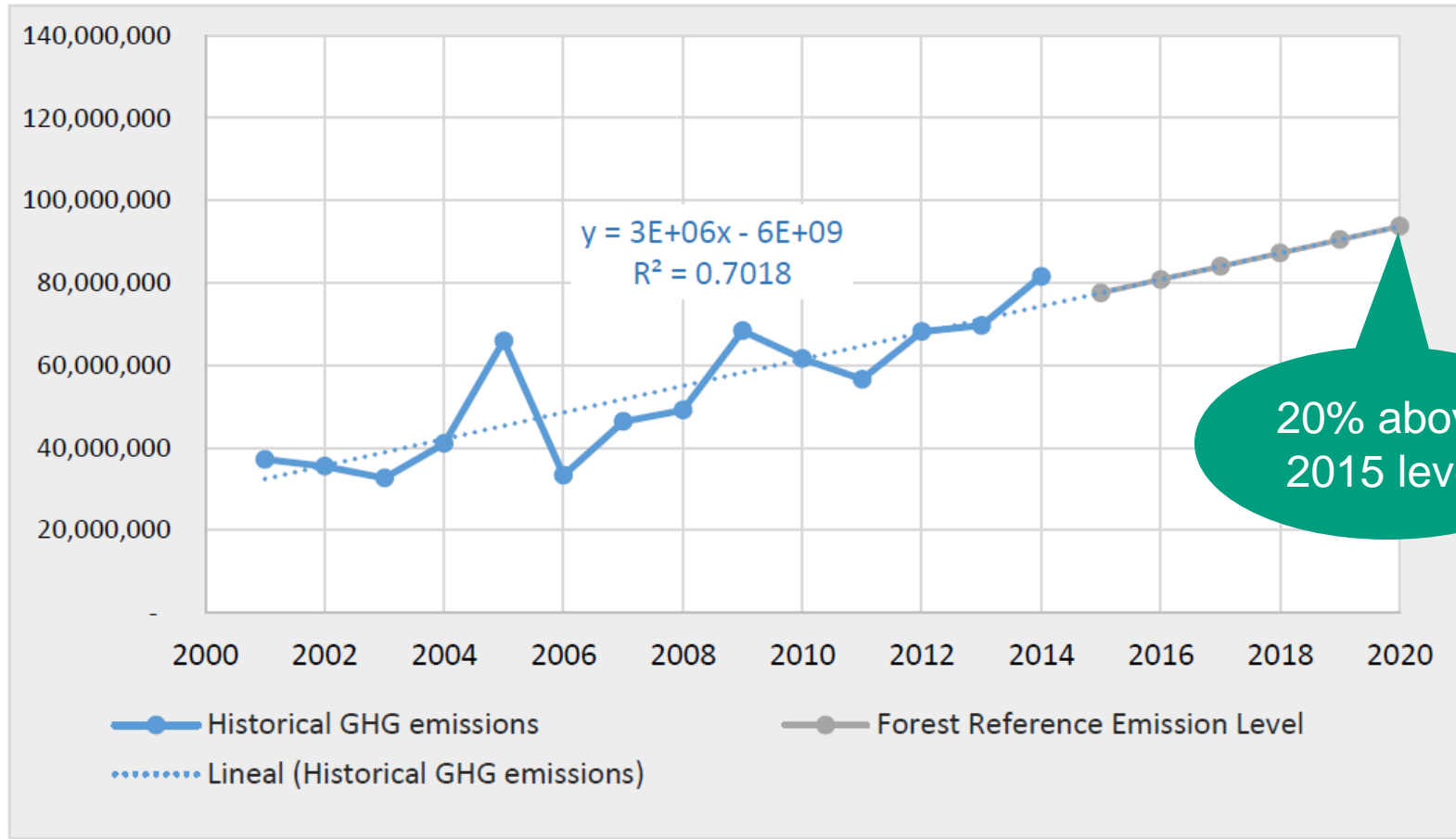
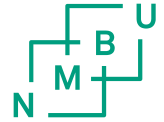


Figure 8. Historical emissions from anthropogenic gross deforestation and proposed forest reference emission level for the Peruvian Amazon (in tCO<sub>2</sub>-e).





# Conclusions



*“A reference level is a benchmark set so low that success is guaranteed.”  
(Unknown)*

- No “naming and shaming”: countries may have good reasons for doing what they do
- Yet, a clear pattern emerges, and suggests systematic choices based on own interests
- Ignoring that possibility makes highly unrealistic assumptions about human and political behaviour
- The UNFCCC rules & process:
  - “Please suggest from what point you would like to get paid!”
  - No strong review process; independent scrutiny needed
- At stake: effectiveness (additionality) & credibility of system



# Thanks

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