



Forest Carbon Partnership Facility

4g. Emerging questions on ER-PD development

Update to RLs (improving accuracy and precision)

Sixteenth Meeting of the Carbon Fund (CF16)

Paris, France

June 19-22, 2017

Process so far and Background

- Proposal for guidance on updates to RLs after ERPA signature was presented and discussed at CF14
(<https://www.forestcarbonpartnership.org/sites/fcp/files/2016/May/FMT%20note%20CF-2016-3%20Draft%20guidance%20on%20RL.pdf>)
- The guidance discussed four types of changes:
 1. Updates to Activity Data and Emission Factors that improve accuracy and quality of the Reference Level → allowed
 2. Updates to include additional Carbon Pools or greenhouse gases to improve accuracy and completeness of the Reference Level → allowed
 3. Updates that change the REDD+ Activities associated with the Reference Level → Not allowed
 4. Changes to Reference Levels that have been adjusted upward in accordance with Indicator 13.3 → Allowed
- The guidance was not adopted at CF14

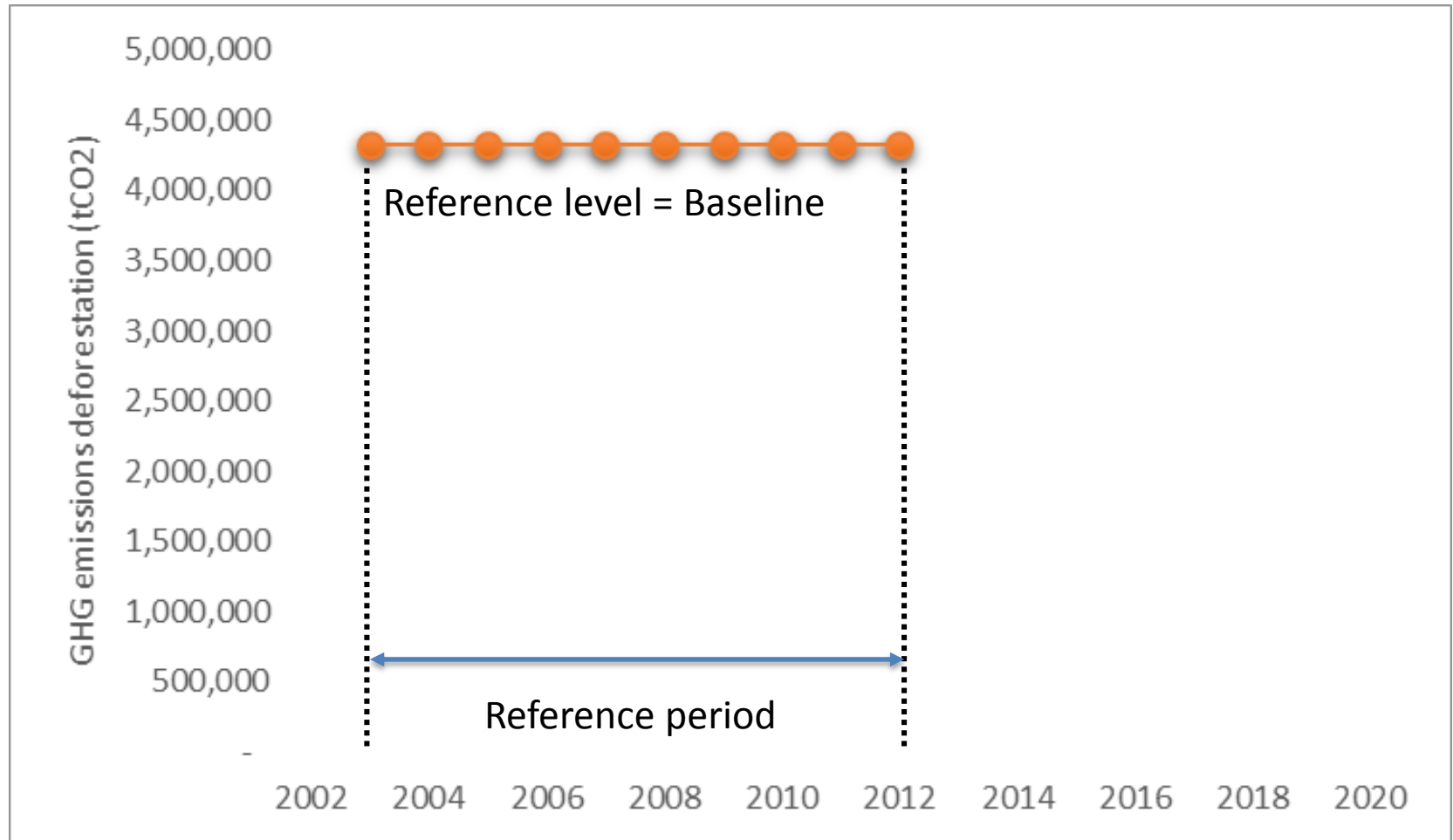
New developments since CF14

- **CF15:** Mexico's ER program is provisionally included and Mexico is encouraged to make technical corrections to the RL:

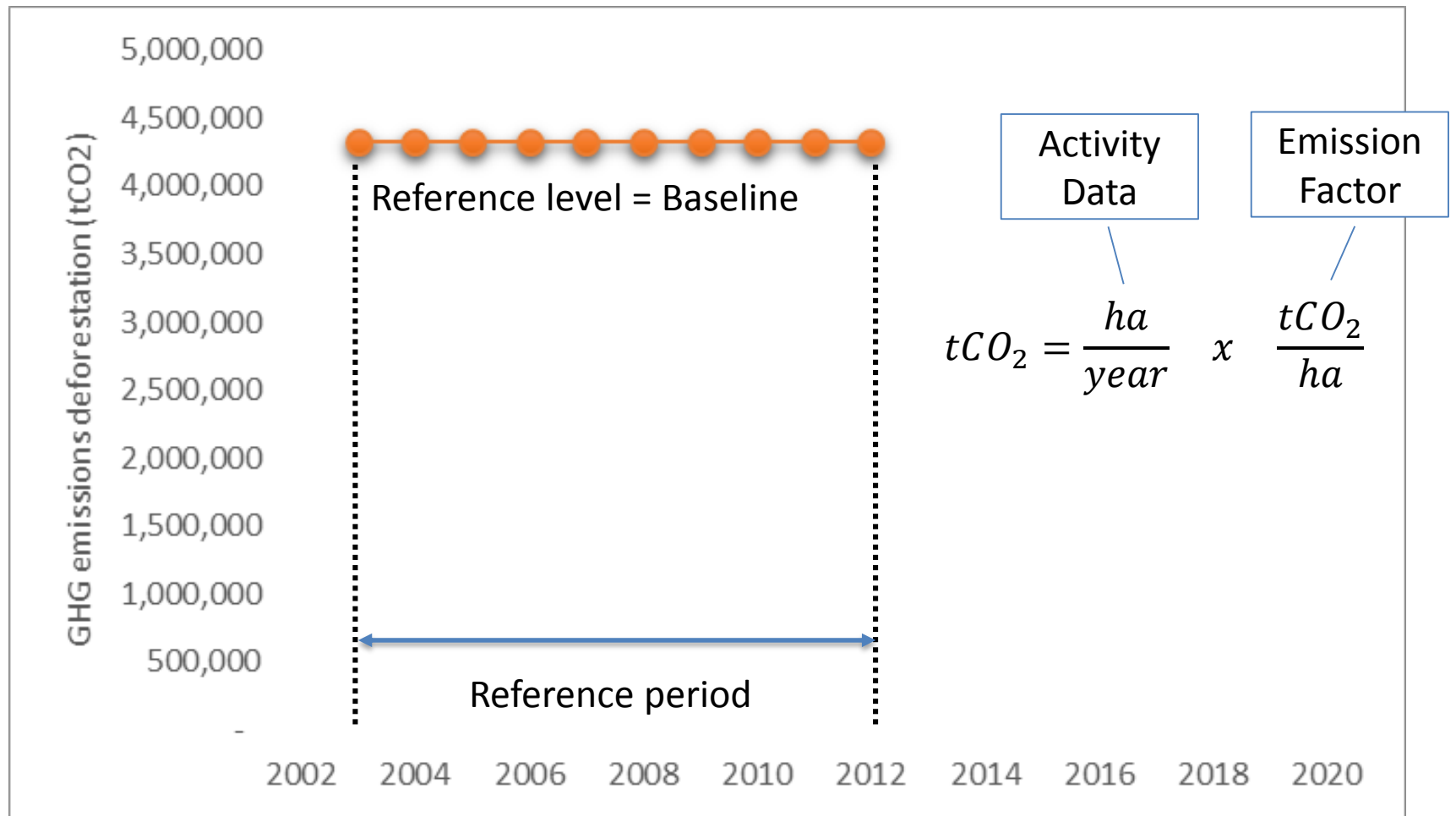
Noting that the MadMex system will enter into use in the coming years, make technical corrections to the RL, if necessary; update estimation for 2001; ensure consistency with the monitoring system, including applying IPCC methods for ensuring time-series consistency; and report to CFPs on how these corrections were made. Reporting to the CFPs on these technical corrections should be completed before the first monitoring event.

- **April 2017.** As part of the workshop on lessons learned participants indicated that the CF should “*explore approaches for allowing countries to update their RL by incorporating new, demonstrably better quality data*”
- ER programs are facing some issues with regard to the statistical uncertainty of the RLs presented to the CF

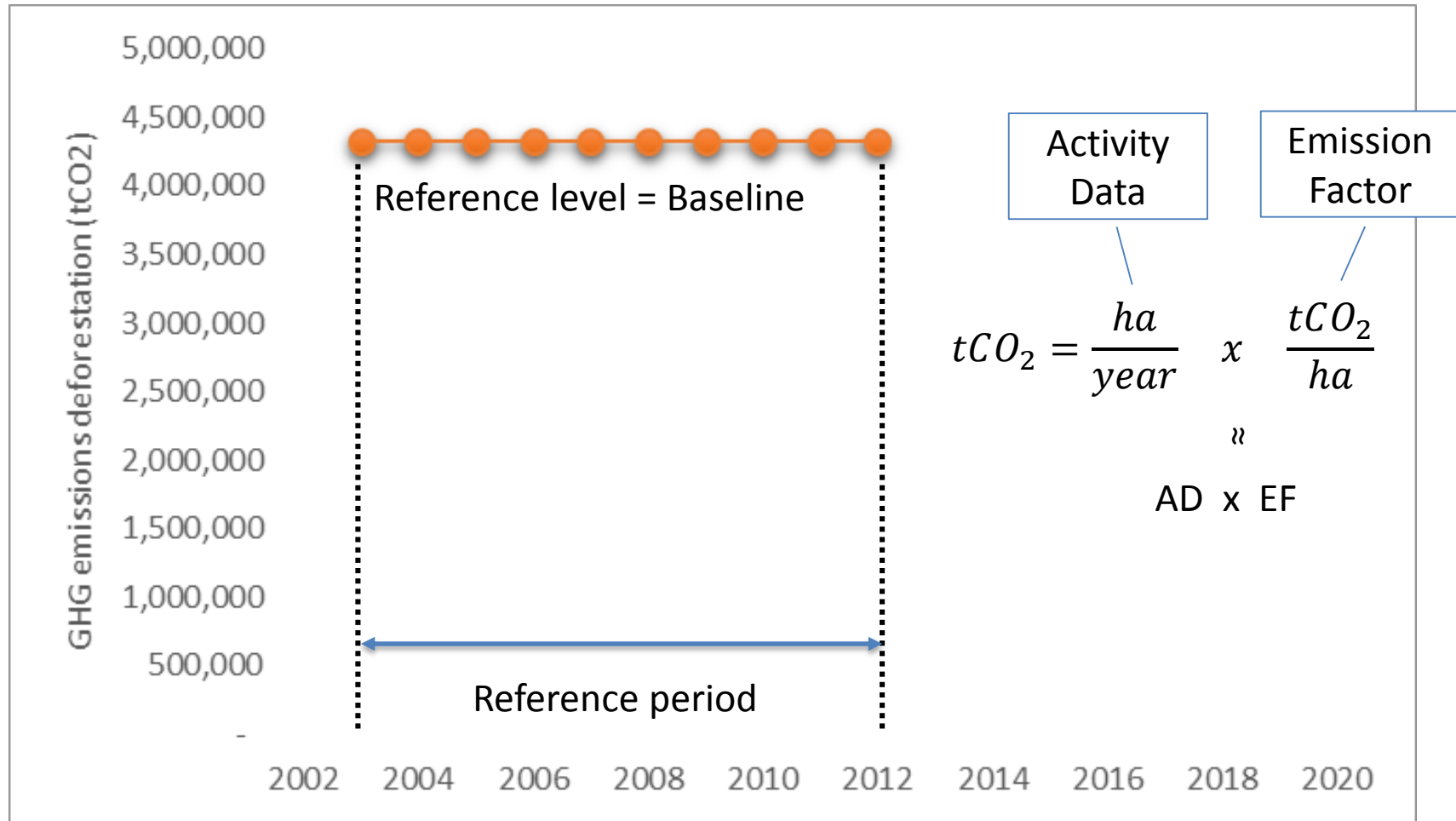
Importance of AD in the estimation of ER



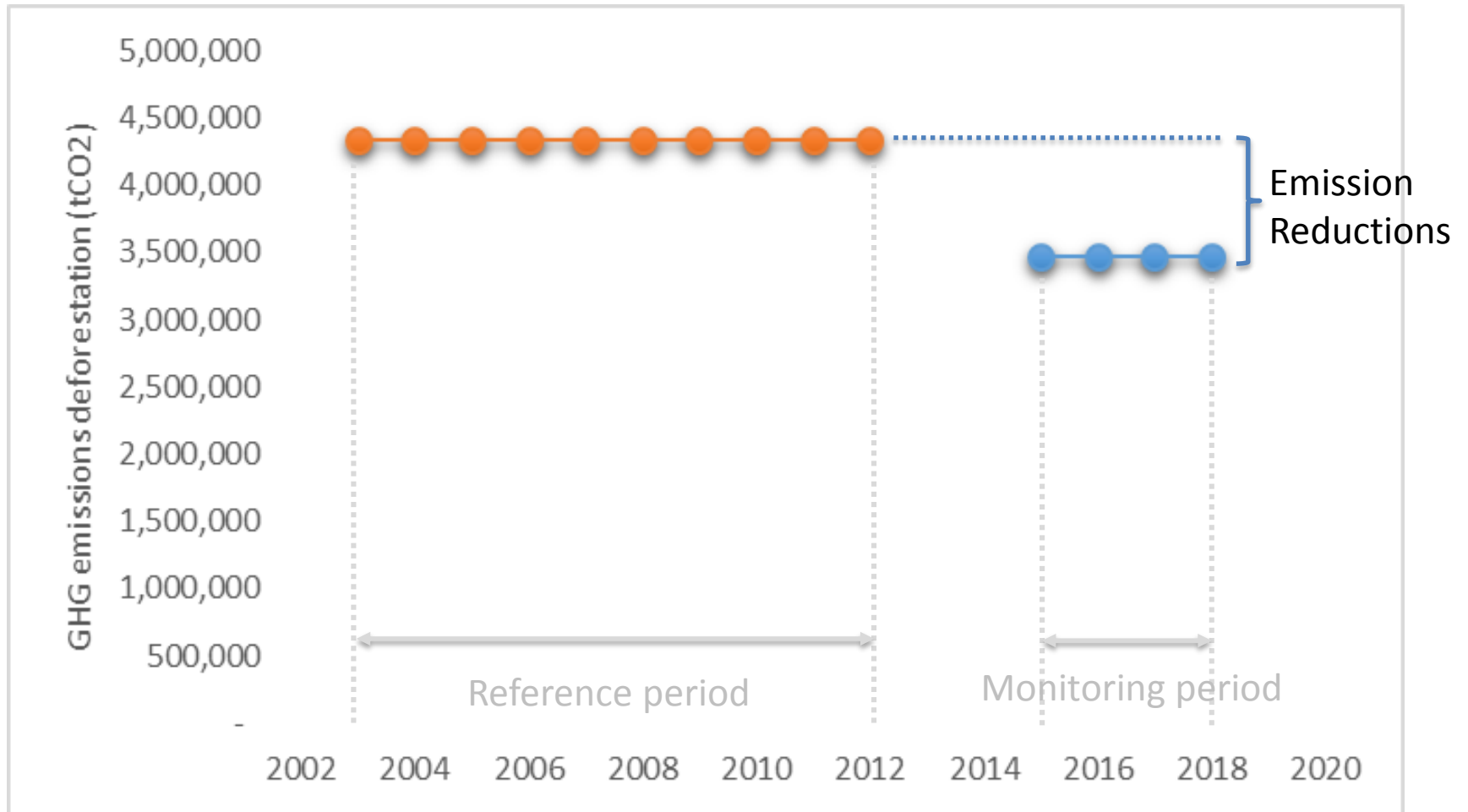
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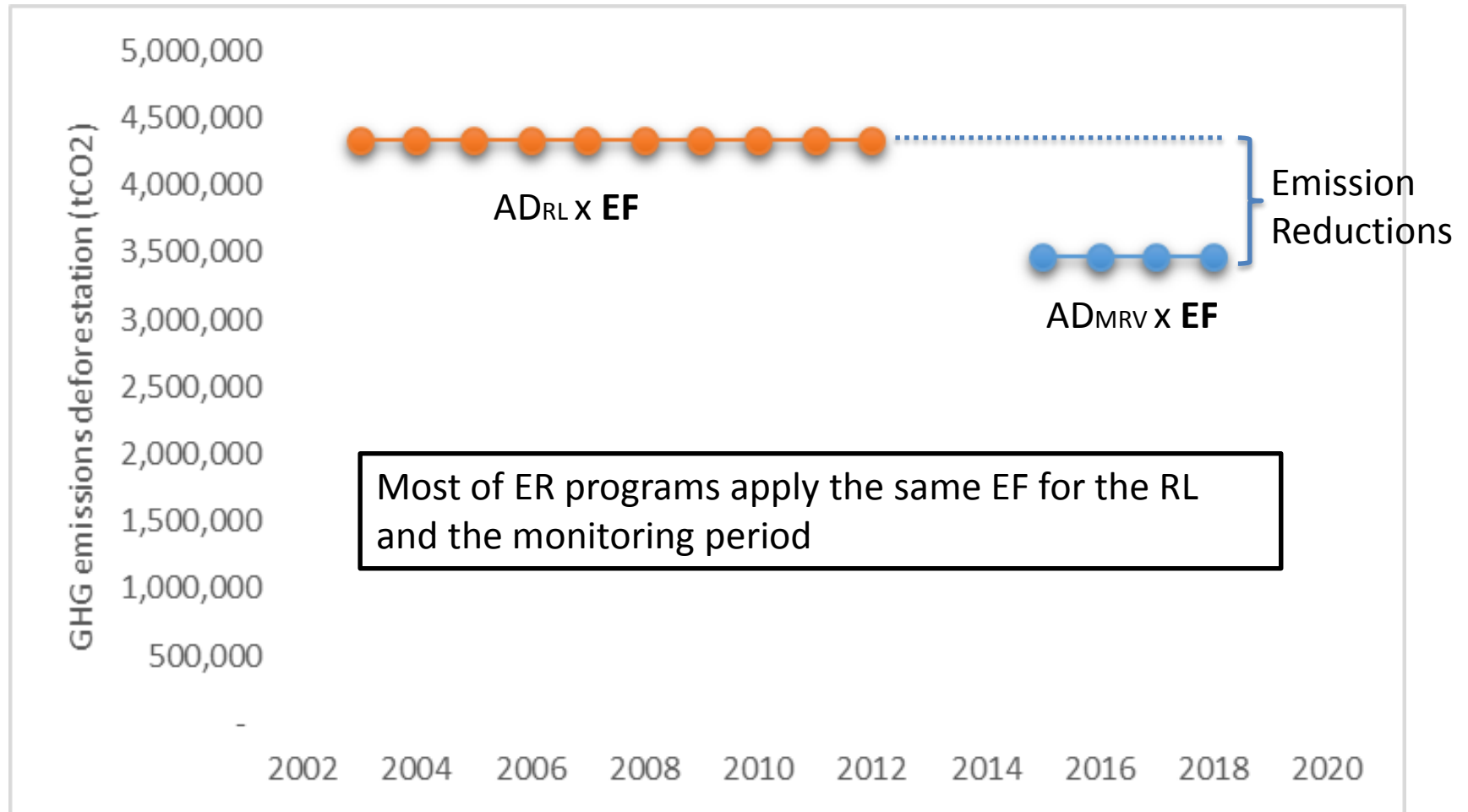
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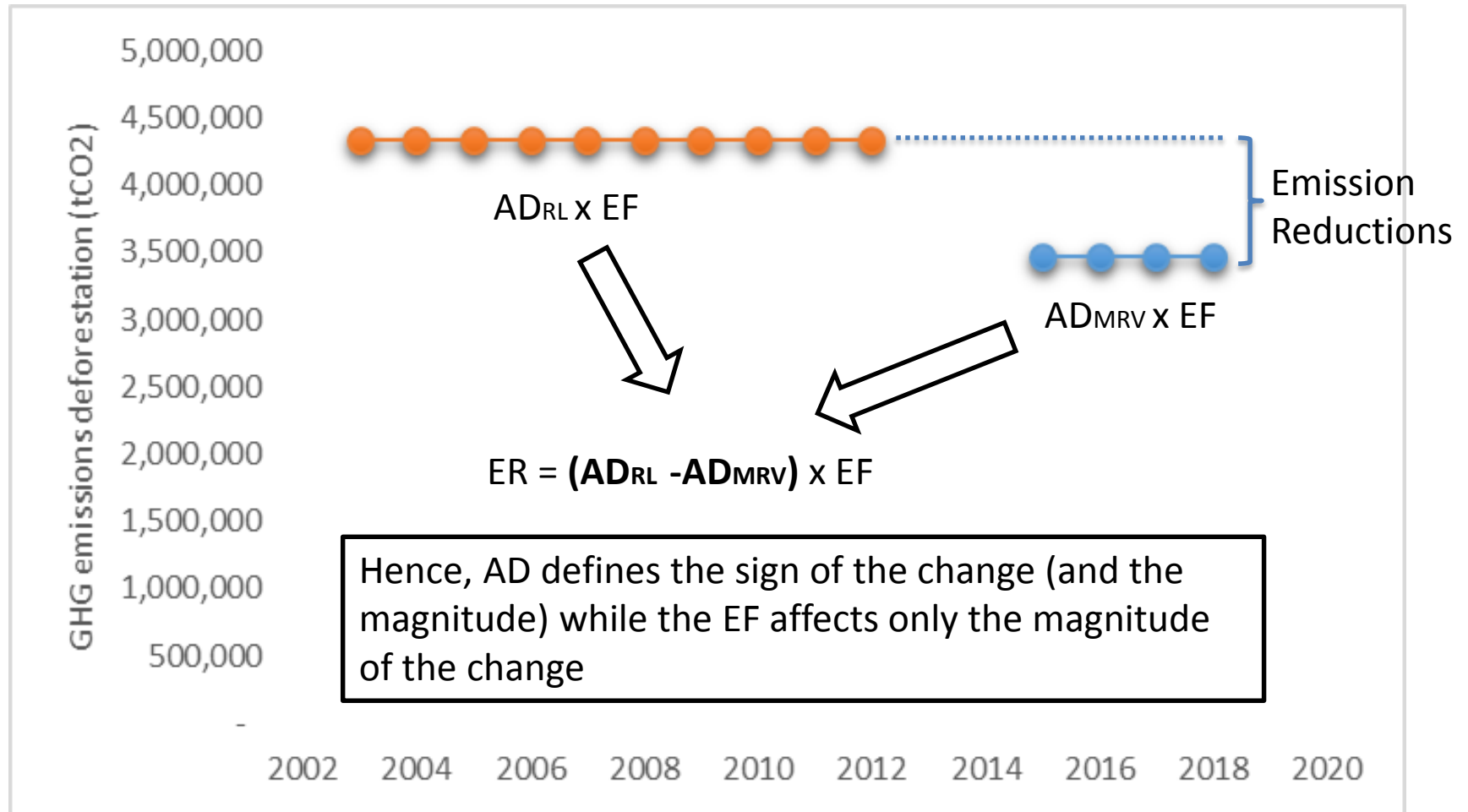
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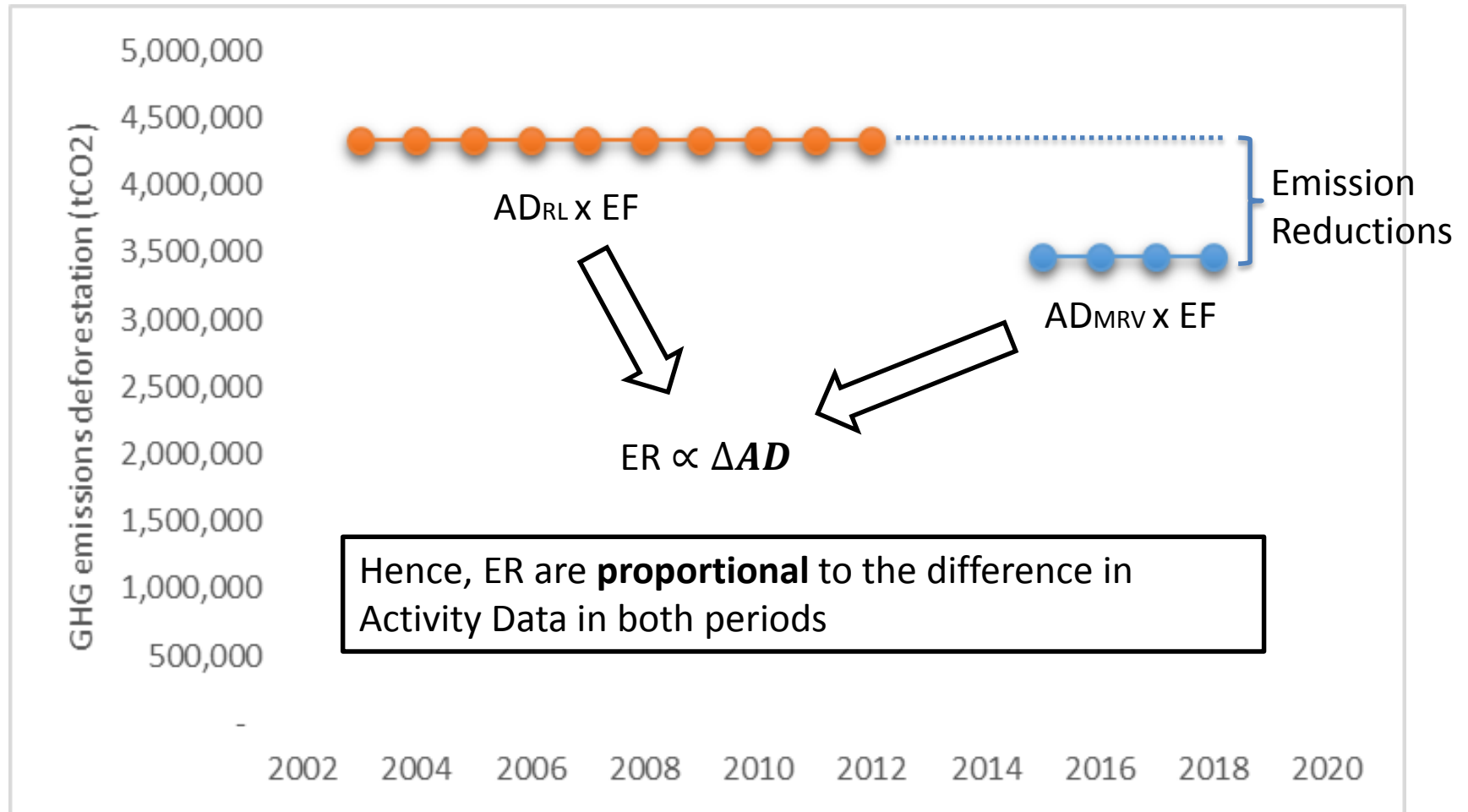
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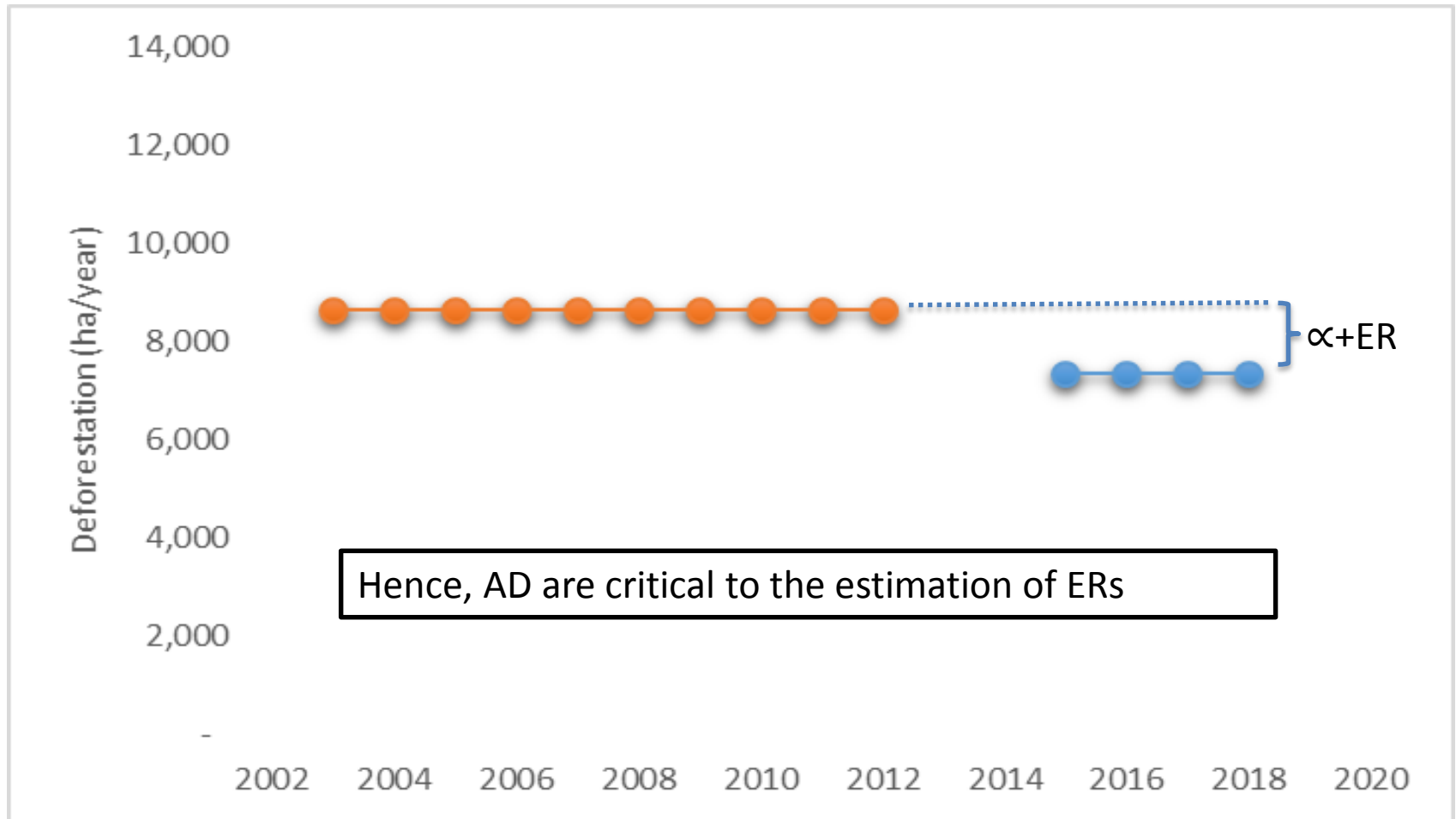
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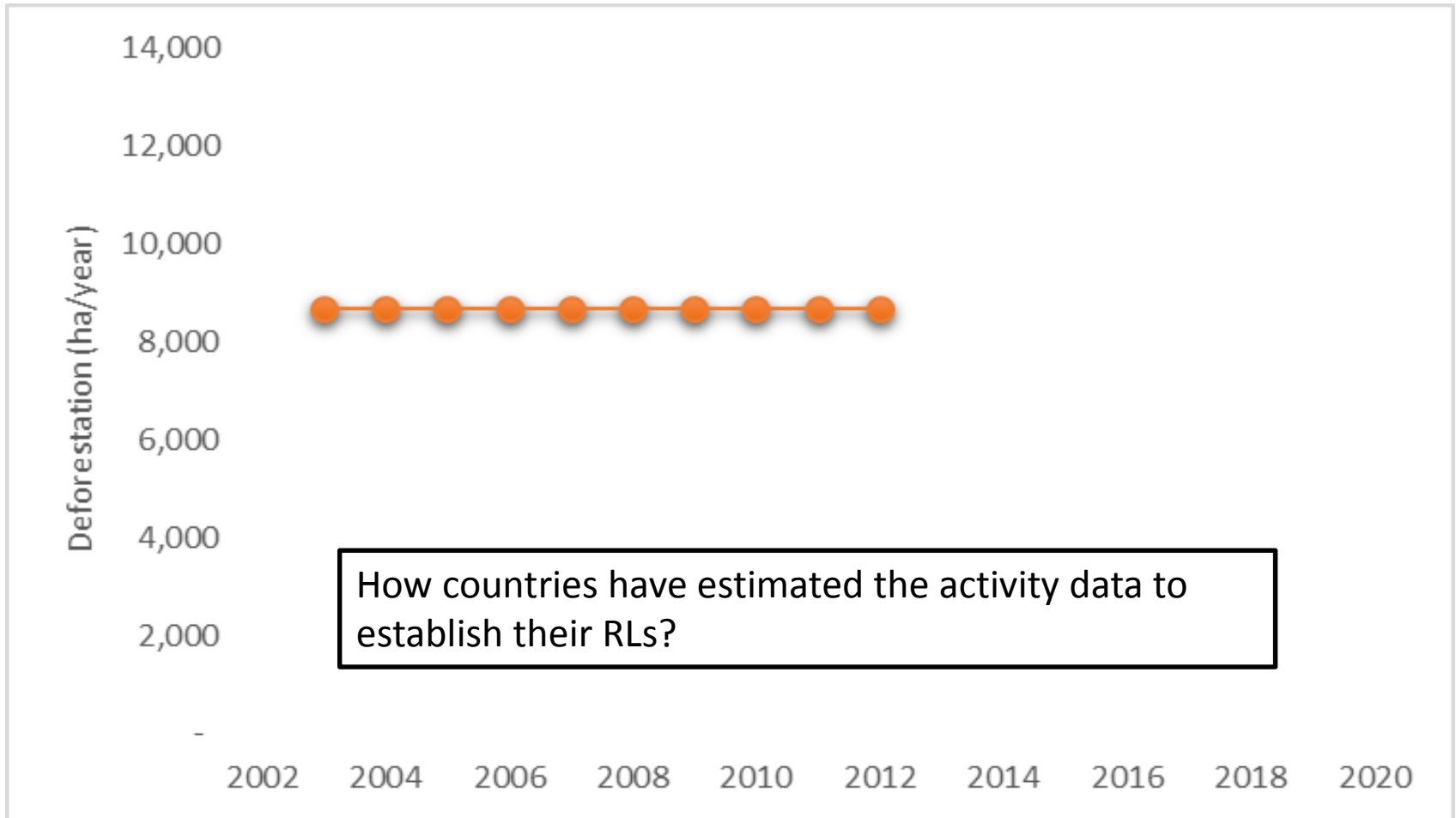
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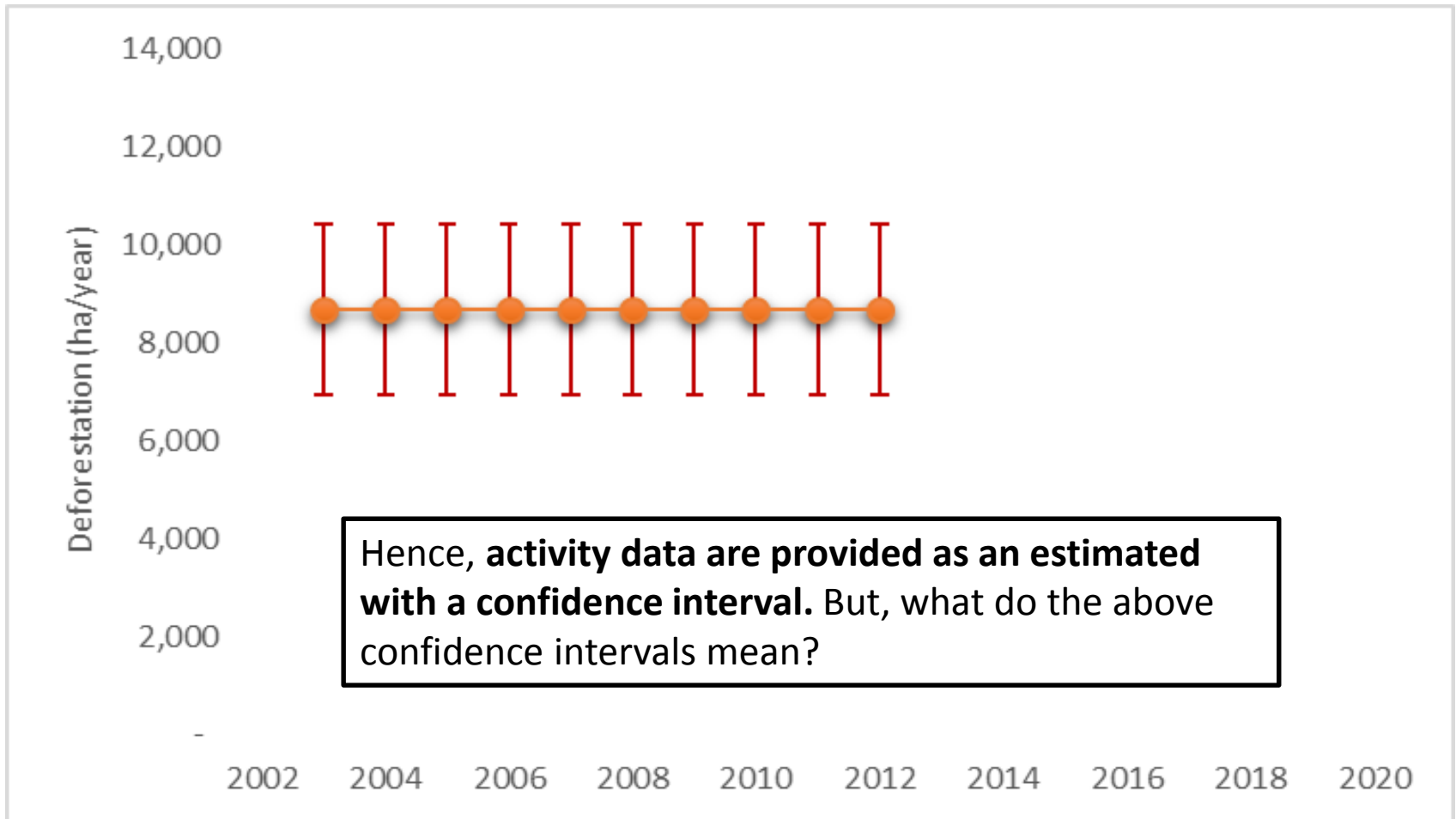
Uncertainty of AD



Uncertainty of AD

- **Five out of seven** ER programs submitted so far to the CF have estimated their activity data through **sampling**
- Countries have been following the guidance from Olofsson et al. (2014) (<https://doi.org/10.1016/j.rse.2014.02.015>) and the guidance provided by the GFOI MGD (<https://www.reddcompass.org>)
- The method consists in using the forest cover change maps as strata, and obtaining samples of forest cover change using higher-than-map quality data
- The sampling approach **provides estimates** and **confidence intervals**

Uncertainty of AD

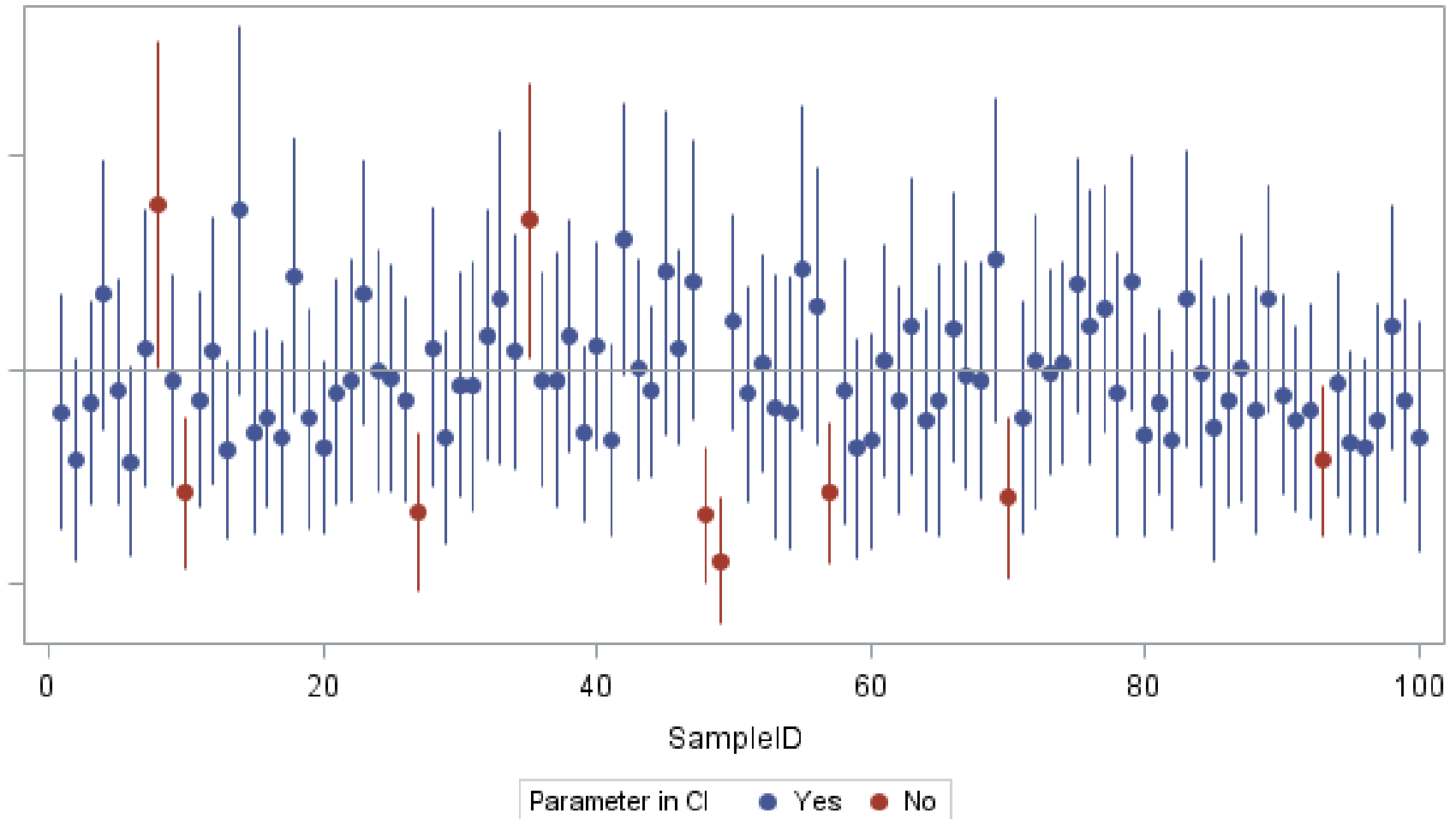


Uncertainty of AD

95% confidence interval means that if we apply the same sampling design 100 times and we build confidence intervals, 95 times the interval will contain the true value

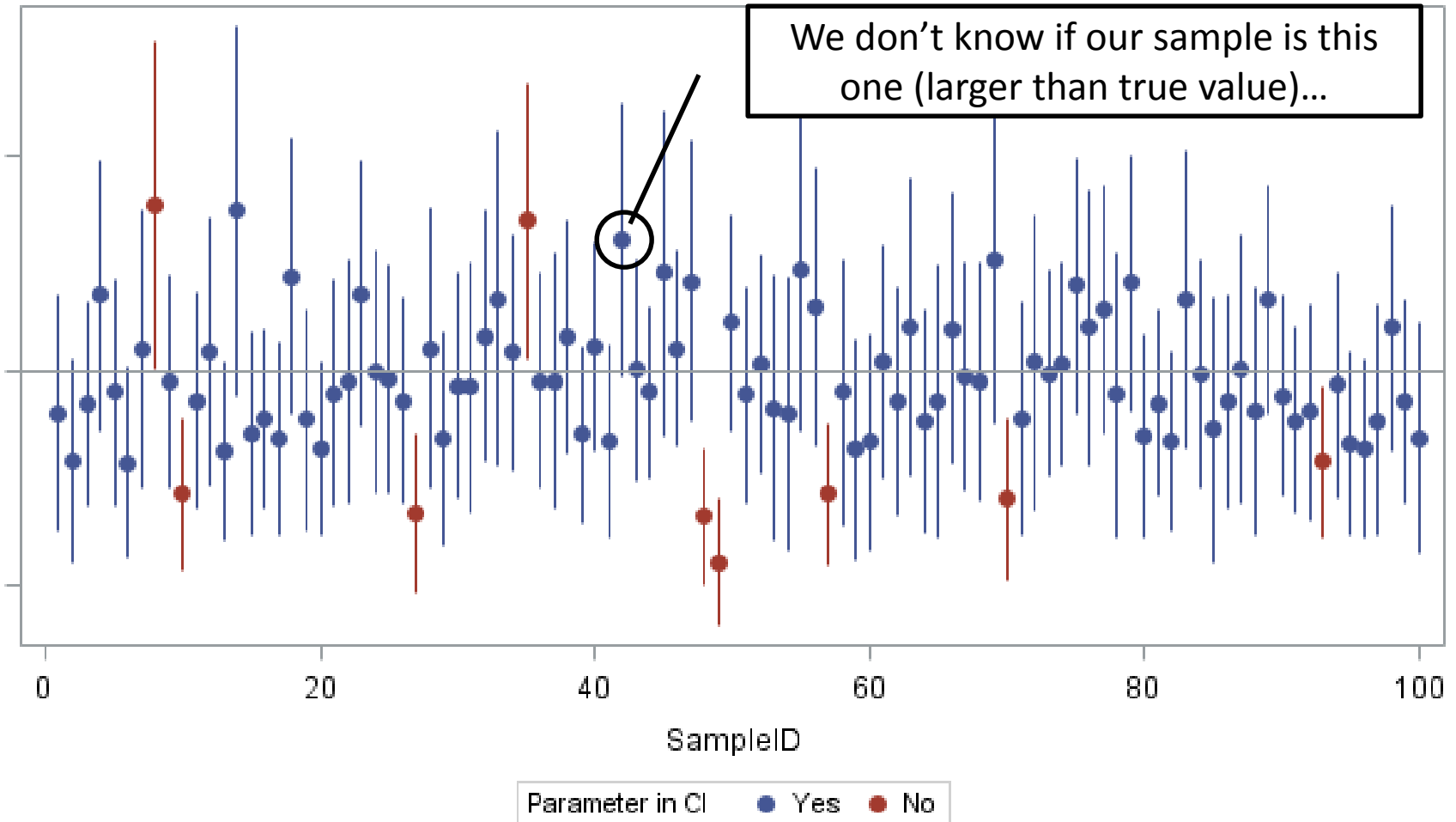
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95% Confidence Intervals for the Mean



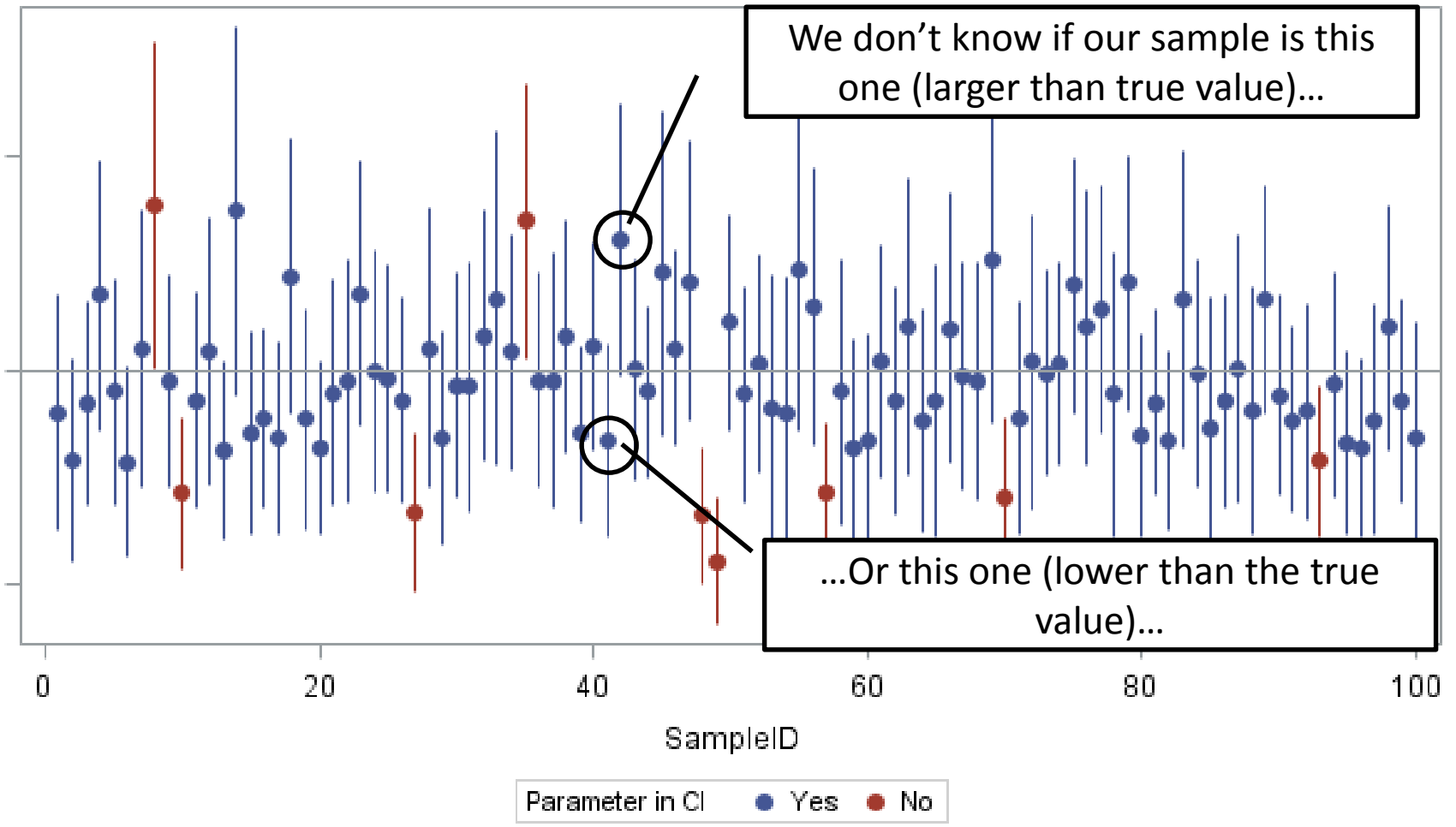
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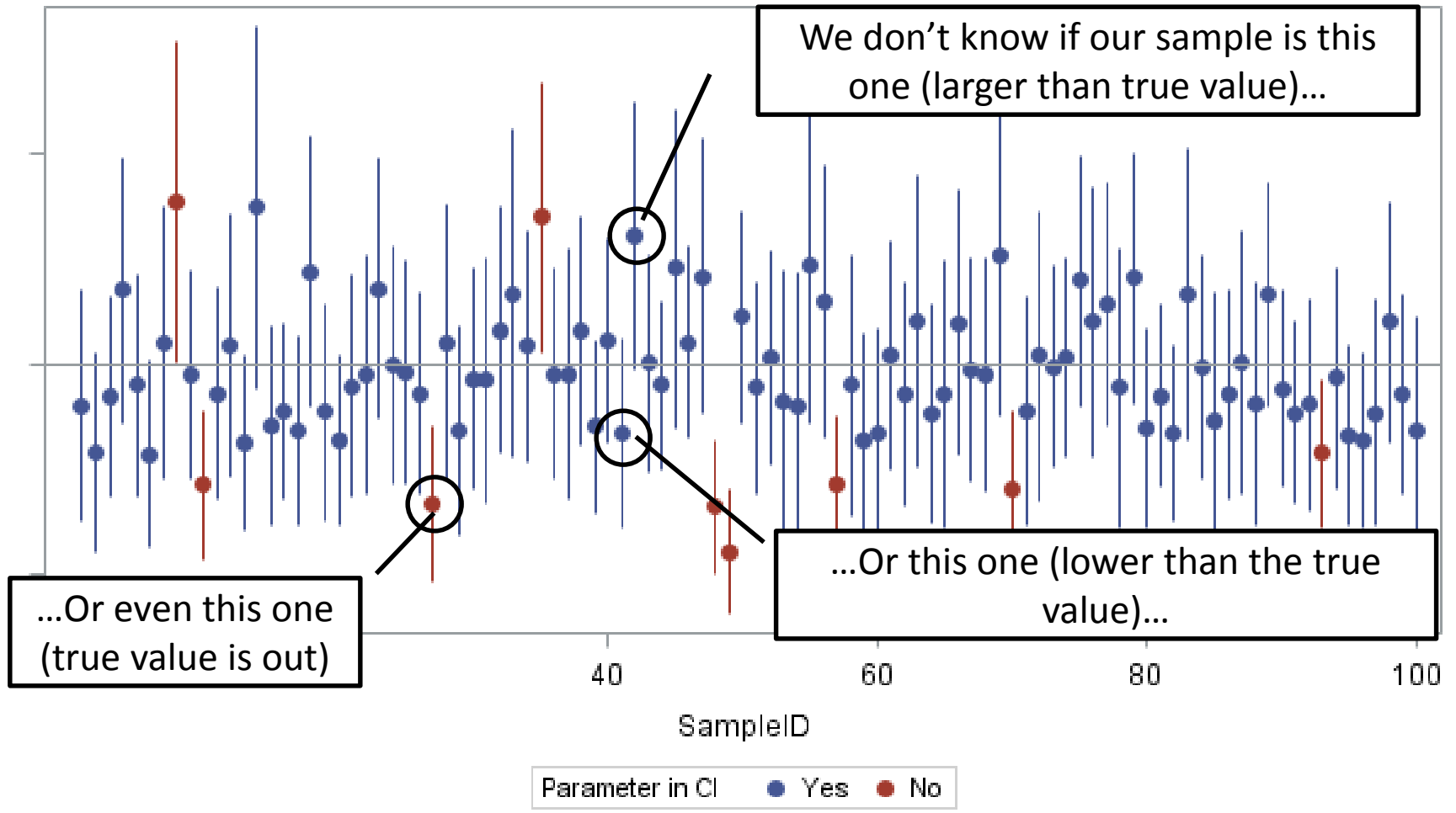
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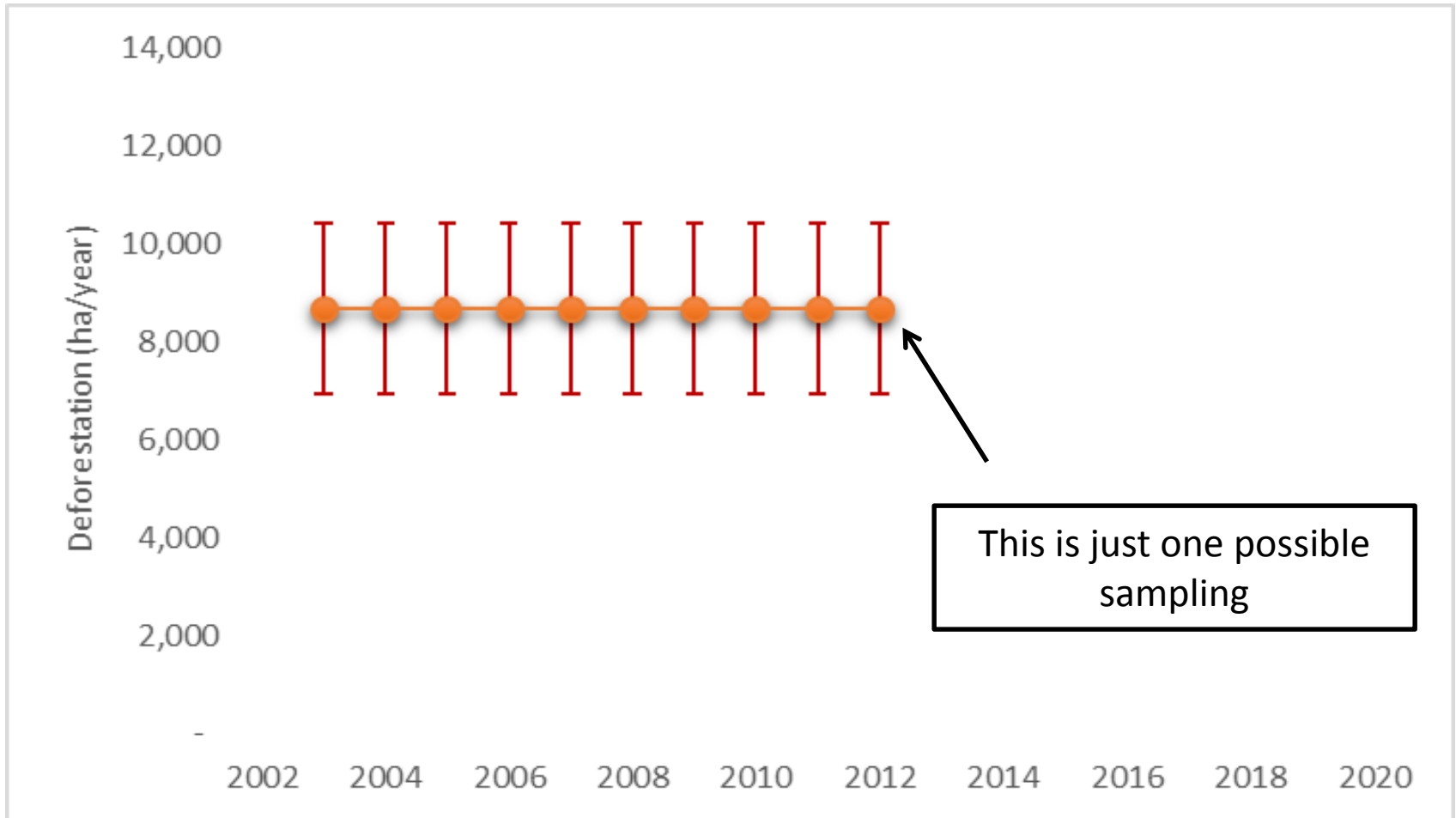


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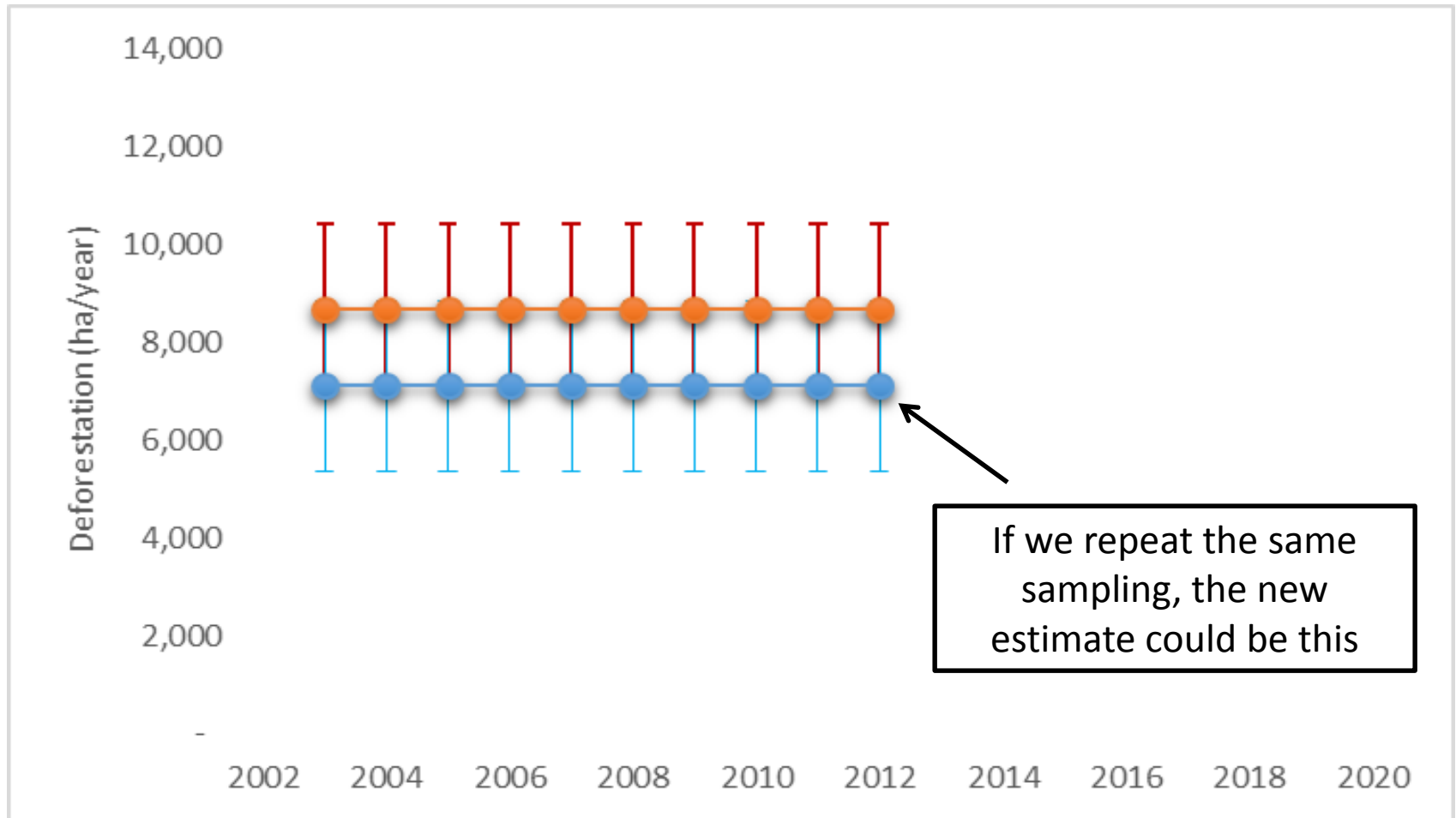
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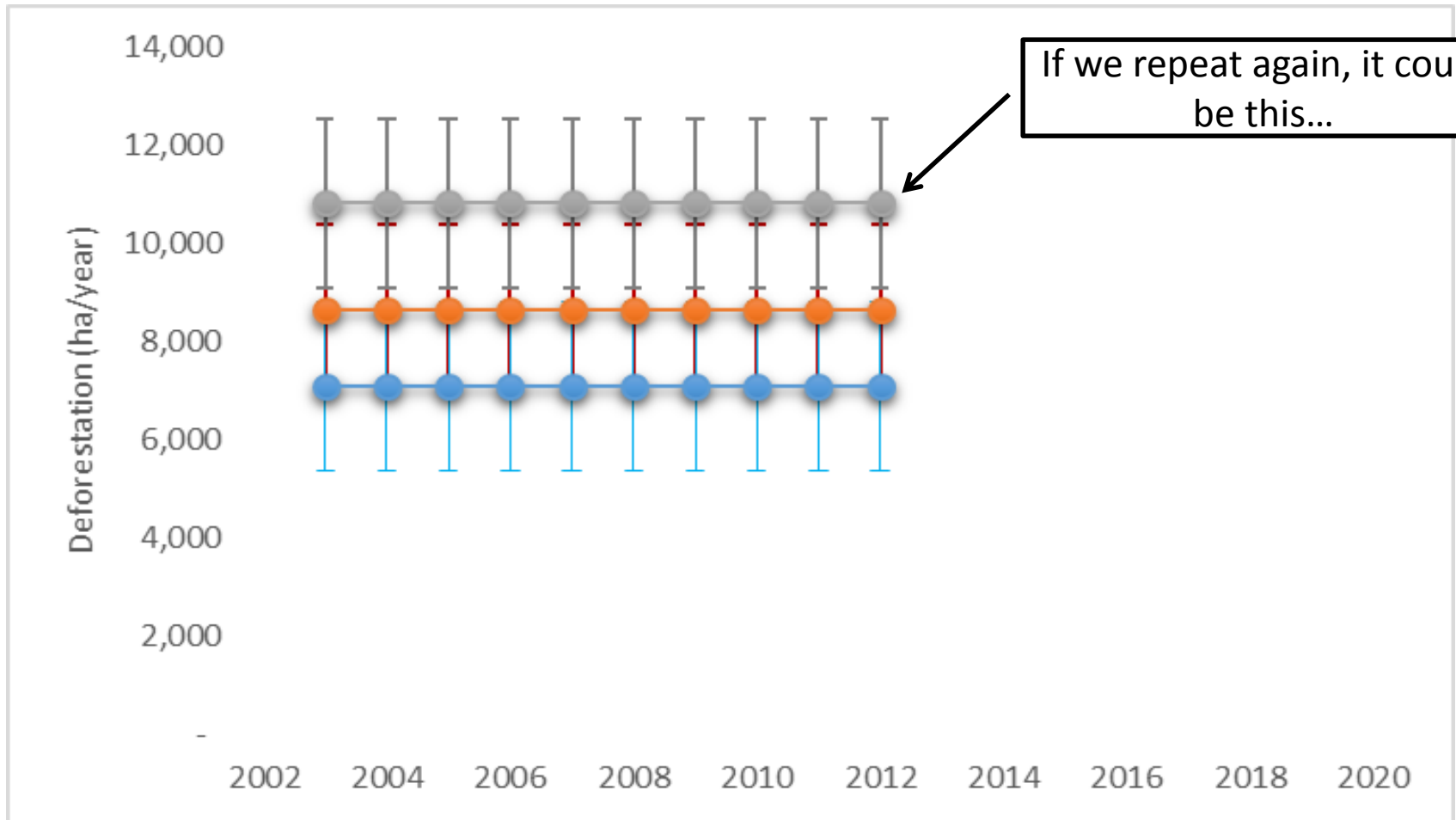
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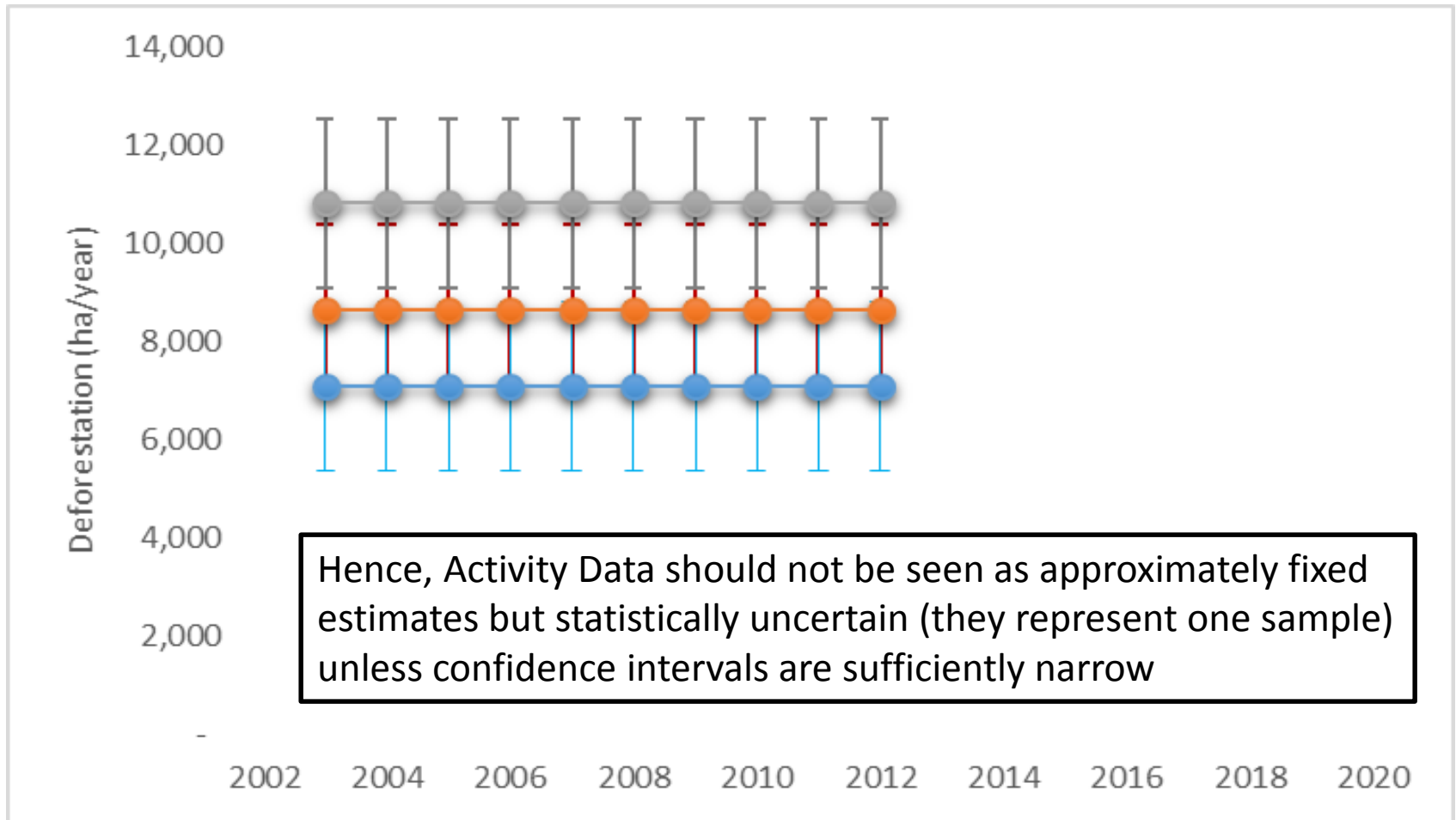
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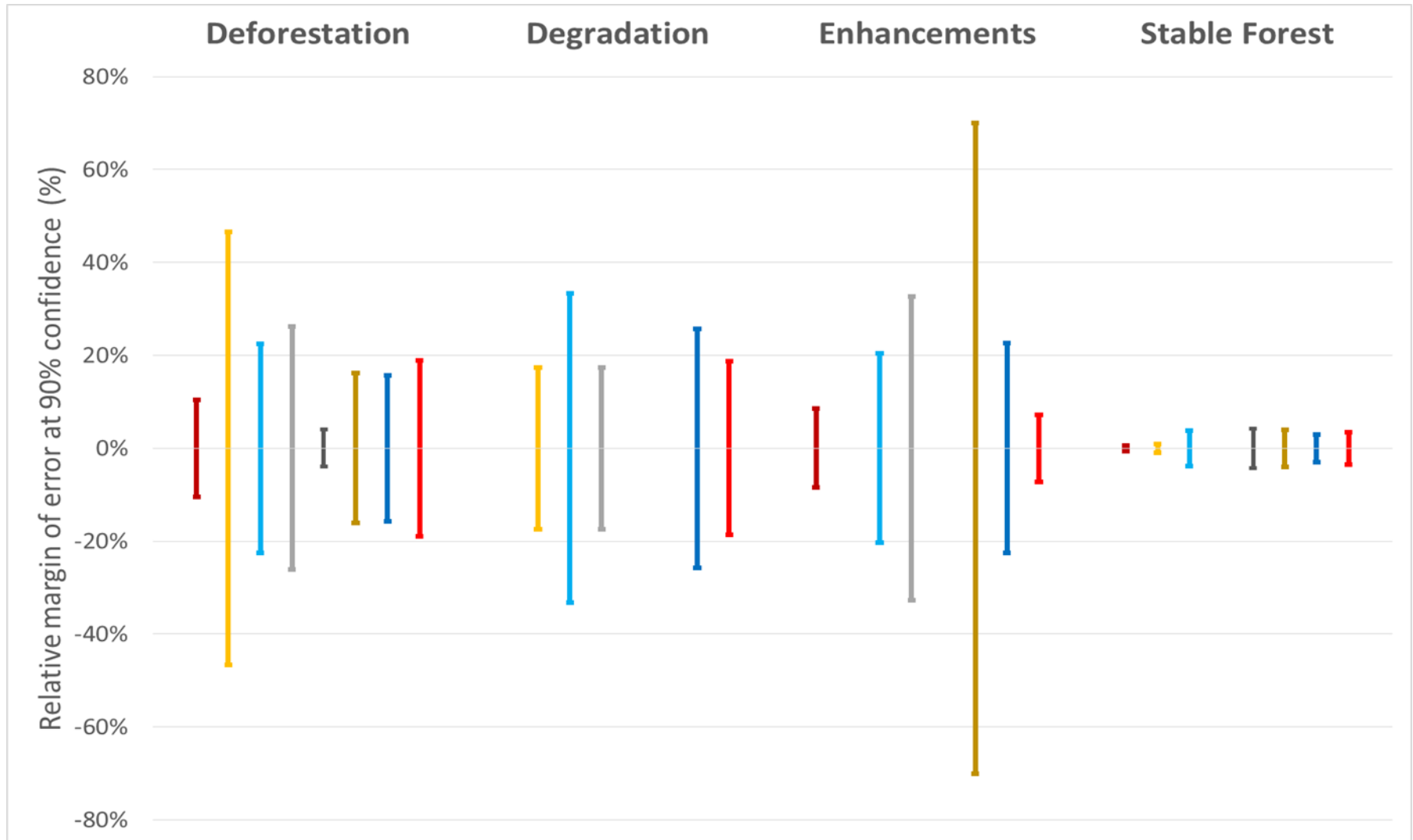
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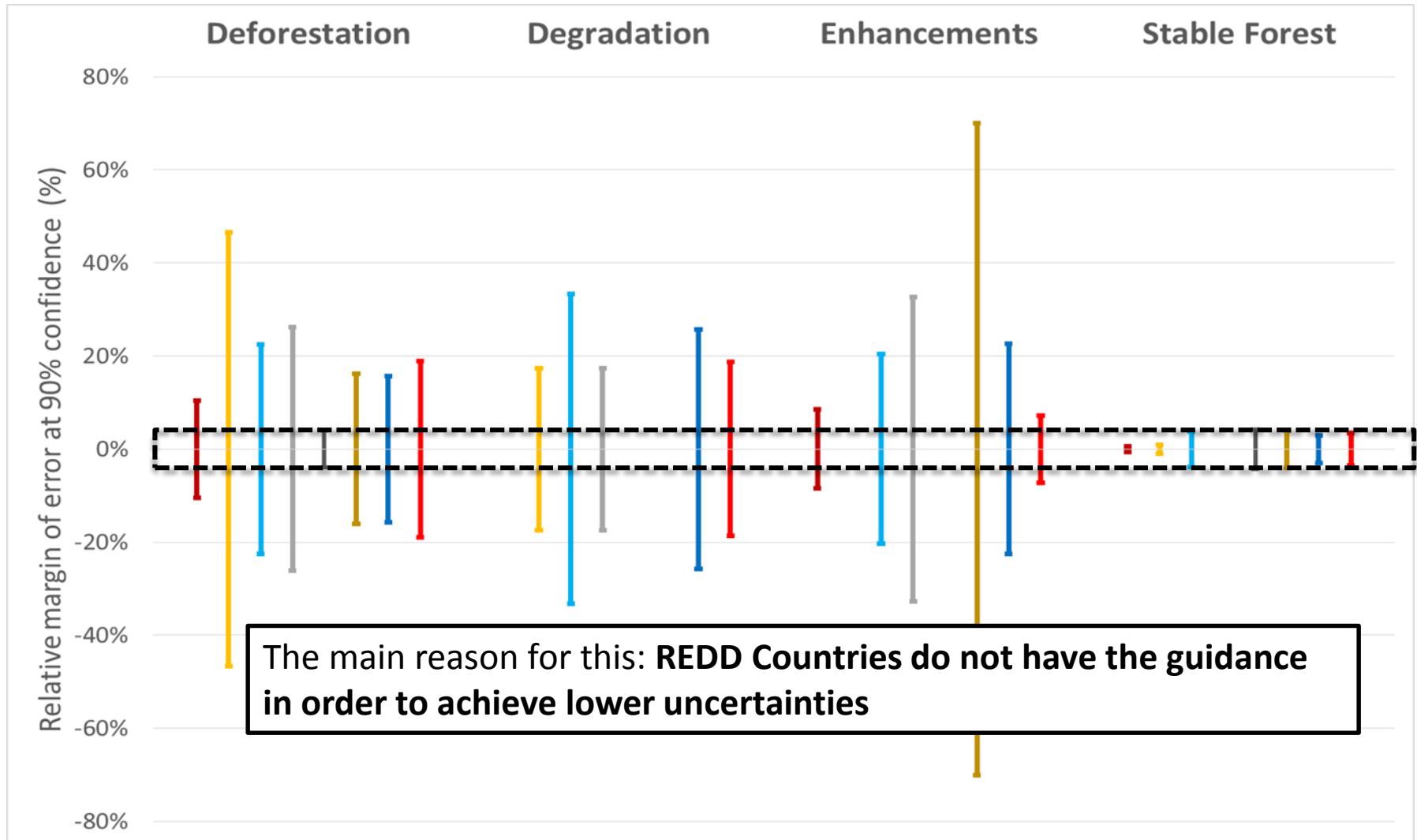
What is the experience under the CF

What is the uncertainty in the AD used by CF ER programs so far?

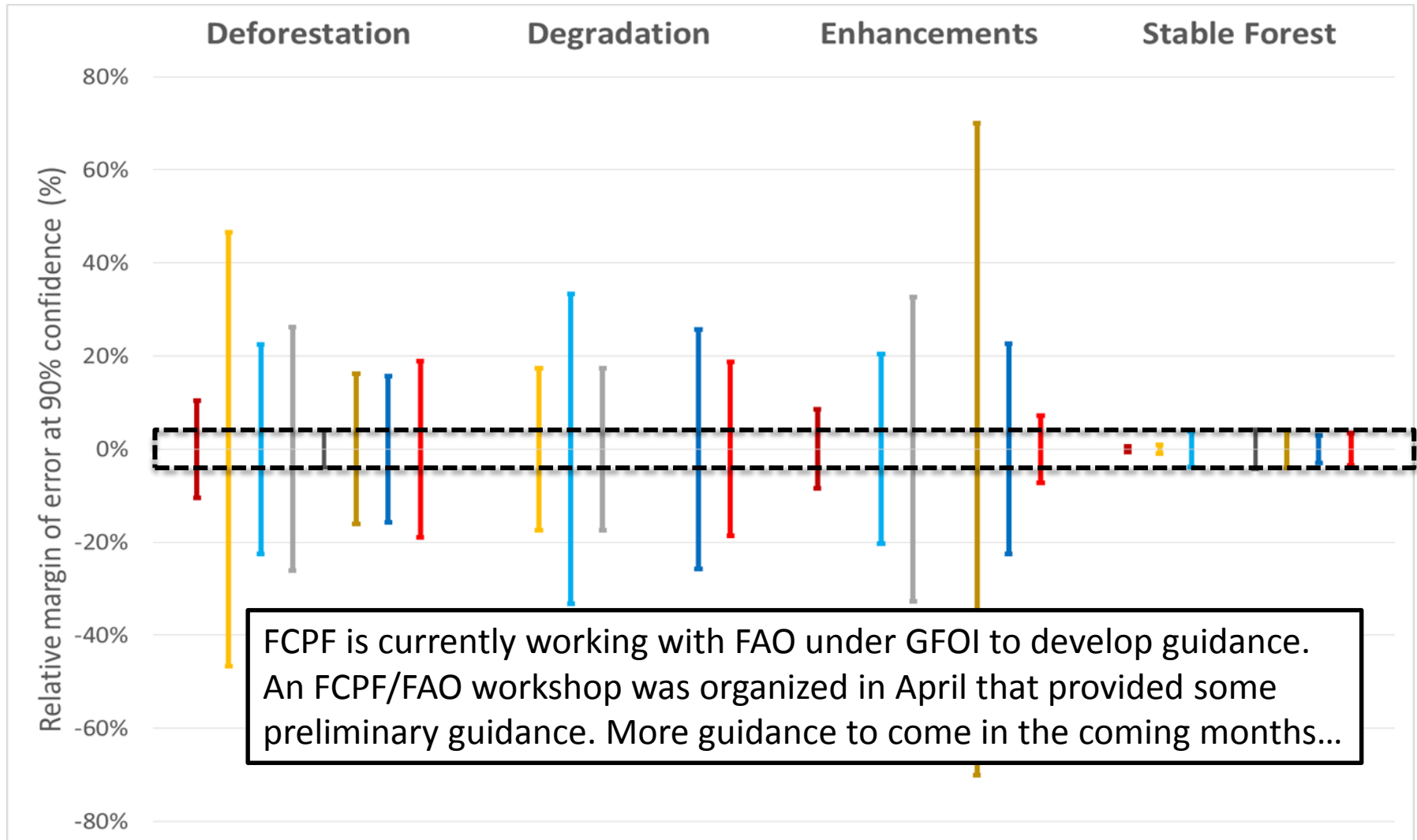
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What is the experience under the CF



Uncertainty of RLs vs uncertainty of ERs

- The interest of the Carbon Fund is to have accurate and statistically precise ERs
- The MF and CF buffer guidelines include mechanisms in order to improve the statistical uncertainty of Emission Reductions
- The CF buffer guidelines allow ER programs **to improve their MRV systems**, such that Uncertainty of Total ERs is reduced (§7.1) and the **estimates** of prior reporting periods **are updated** (§7.2)
- However, a RL with high statistical uncertainty could constrain the improvement in the uncertainty of ERs...
- ...and any future incentive to improvement in MRV systems → New know-how on estimation of activity data could not be incorporated to the RL

Conclusions

- Activity Data is critical to measure performance
- The activity data used by ER programs to establish their RLs have high statistically uncertainty, due mainly to the lack of guidance on how to reduce uncertainties
- The FMT is working closely with the GFOI partners in order to produce guidance for Countries:
 - 1st technical workshop: FCPF/FAO organized technical workshop to provide initial guidance on how to reduce uncertainty
 - 2nd technical workshop: GFOI is organizing a second technical workshop 26-28 June that is expected to provide further guidance
 - GFOI Methodology and Guidance Document: A new guidance module expected to be produced by end 2017/beginning 2018
- Lack of possibilities to include this new guidance for RLs, would mean limited possibilities for improvement in uncertainty

Conclusions



- FMT seeks guidance on the steps needed to address the issue.

Possible options:

- a) Allow revisions in a case by case basis (status-quo);
- b) Guidance on the MF (definition in Annex);
- c) Modifications of the MF (definition in Annex);



Thank you!

Annex - Options to consider relevant lessons from the application of the MF

- **Modifications of the MF:**
 - Applicable for necessary and well-justified modifications that supplement, change or deviate from the current MF
 - Modifications incorporated into a revised version of the MF and agreed through a new resolution
 - Mandatory for programs that have not signed the ERPA, voluntary for programs that have
- **Guidance on the MF:**
 - Clarifies or specifies issues already addressed in the MF
 - Captured in the Carbon Fund's Chair Summary (for decisions made at meetings) and separate guidance documents
 - The FMT to create a "guidance" section on the FCPF website, containing a series of such guidance documents as they are endorsed by the CFPs
 - Voluntary application by ER Programs