Oct 26, 2018

TO: Clerk of the Board California Air Resources Board

Dear California Air Resources Board,

I previously represented the United States in climate change negotiations, while working for the US Department of State. Through this experience, I became deeply aware of the responsibility we have, as a country, to both reduce our emissions *and* help others to do the same. Not only because we negatively impact the world with our emissions, but because if we do not help others to reduce emissions, we put our own country at greater risk. I applaud California for moving forward on climate action, in spite of federal government headwinds. It is also encouraging that the state has both deepened its targets while considering how it may support emission reductions from reducing deforestation in tropical forest countries. Both are necessary to meet Paris Agreement goals and this concept reflects the spirit of Article 6 of the agreement.

Furthermore, keeping forests standing not only provides the immediate benefit of avoiding emissions from forests (around 10% of global emissions)—it also ensures the continuous sequestration that such forests provide. In other words, while a covered entity may emit a carbon ton today in exchange for keeping a carbon ton of forest standing, the world gains more from such "offsetting"—as science tells us that the standing forest will continue to sequester carbon well into the future (this is particularly true of the tropics). In other words, we not only gain the 'avoided forest emission' – we also get the benefit of the otherwise foregone sequestration. This second benefit is often not "accounted" and is further reason why such a concept holds promise.

Therefore, I am supportive of the concept that California is putting forward and its leadership in developing a draft Tropical Forest Standard. However, I would like to provide several technical considerations regarding the current draft:

1. Overall level of guidance: The standard does not provide much detail on a range of issues that, if not provided, could result in eroding the environmental integrity of units entering into the CA trading system—for example, rules on leakage, permanence and uncertainty could usefully be expanded, as well as verification requirements. The standard mentions "consistency with IPCC guidelines" but is unclear on what this means and how such a requirement would be applied.

2. Lack of clarity on enhanced sequestration: The TFS refers to this, but the standard appears to be developed largely for emissions (not removals). See the following paper (link below, that I recently co-authored) for more information on the "challenges" of applying, e.g. the same baseline methods (historical average) to sequestration.

http://www.climateandlandusealliance.org/reports/plus-in-redd/

3. Why just tropical? This would exclude a number of developing country regions that have important forest-related mitigation potential.

4. Use of "gross" emissions from deforestation: This would seem to overestimate emission reductions, e.g. if regrowth of the replacing land use is not 'netted' out of the estimation in both the reference period and crediting period, i.e. the difference of two larger numbers (i.e. gross emissions) is larger than the different of two smaller numbers (i.e. net emissions, including at least a Tier 1 estimate of C stock in the post-deforestation landscape).

5. Reference period of 10 years: In some cases, this may not be optimal and/or the best proxy for BAU emissions. Historical averages are often used in forest-related GHG baselines due to interannual variability. In some cases, this length of a reference period may not be necessary – and a shorter reference period may better reflect 'near-term expected future emissions'. This is particularly true in contexts where deforestation is either rising or falling (i.e. shorter historical periods may better reflect BAU during the crediting period) and where there is less variation in the data (this could be due to how data is collected and/or where anthropogenic drivers overwhelm disturbances from, e.g. El Nino or other reasons why there is variability).

6. Flexibility on activity data and uncertainty calculations: In some cases, statistical samples may generate more accurate estimates of land cover change compared to spatially explicit data. There are also multiple potential sources of error; requiring a methodology that calculates *any* error may be overly stringent (perhaps just sources of significant or 'material' errors), as is requesting to do this annually – at large scales, data collection may be every 2 to 5 years.

7. Definition of "subnational" suggests any political subdivision of a country may participate. Use of administrative boundaries is useful—as accounting requires clear spatial delineation. However, this provision may be reconsidered to ensure significant scale based on, e.g. a minimum amount of forested area and percentage of forest-related emissions and/or a nominal amount of emissions.

8. Finally, with regard to nesting, the standard states that project should use "project-level, historical average baseline". Such an approach would seem to have the potential, unintended consequences of driving projects to areas of low threat, or gaming project boundaries in beneficial ways. Instead, other means to develop project baselines that "nest" within jurisdictional accounting approaches (e.g. that use historical average baselines) should be developed, e.g. through development of risk maps or other means to ensure that project performance is aligned—to the extent possible and within the risk appetite of a jurisdiction—with larger scale accounting.

I would be happy to respond to any further questions you may have about my comments. Thank you again for California's leadership on climate action.

Best regards,

Donna Lee