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RE: Comments on the May 2021 Public Consultation Report of the Taskforce on Scaling Voluntary Carbon Markets

Dear Taskforce,

Thank you for the opportunity to participate as a member of the Credit-level Integrity Working Group and for your continual openness and responsiveness to comments. I believe that the Taskforce has the potential to meaningfully improve the quality of offsets on the voluntary market by developing CCP quality standards which buyers can trust. To do this, however, several major changes are needed to the approach laid out in the Taskforce's Public Consultation Report. In drafting these comments, I am drawing from two decades of experience researching offset quality focused on the UN's Clean Development Mechanism (CDM), California's offset program, and more recently, the voluntary market.

If most projects were not over-credited and the CCPs only had to filter out a minority of poor quality projects the current approach might work. But this is not the current state of the market. Research on offset quality points to questionable quality of the majority of credits on the offset market today. Concerns have been raised about the quality of some of the project types generating large proportions of offset credits issued to date, as well as registry methods for addressing key quality factors including additionality, baselines, and leakage. Please see section *Evidence of poor-quality offset projects on the market today* below. The rules being used by the registries have not ensured that credits conservatively represent real additional emissions reductions. Still, more research is needed on the offset quality of many other offset project types.

Given this, to be an effective certifier of quality, the governance body should deem offsets guilty until proven innocent. Starting with the existing market and only filtering out some project types that existing research has shown to be of poor quality (the Taskforce's current proposal) will likely lead to a CCP market that trades predominantly in low quality credits. Instead, the CCP stamp must be reserved for projects using those methodologies it finds to be high quality through the needed analysis.

Quality analysis should be performed at the level of the methodology and not the project type. This is because quality is maintained by a methodology's eligibility criteria, which should target additional projects, and the details of how it sets the baseline and calculates emissions reductions/removals for the particular set of projects that meet the eligibility requirements, which often varies across the detailed used by different methodologies.[1] The details matter since offset quality can be significantly

[1] Lee, Carrie M., Michael Lazarus, Gordon R. Smith, Kimberly Todd, and Melissa Weitz. 2013. "A Ton Is Not Always a Ton: A Road-Test of Landfill, Manure, and Afforestation/Reforestation Offset Protocols in the U.S. Carbon Market." *Environmental Science & Policy* 33:53–62. doi: 10.1016/j.envsci.2013.05.002

affected by choices of any one of many assumptions, methods, and default values used by specific protocols.[2]

To be successful, the CCPs and governance body must address the features of offsets that in combination led to today's poor quality market – complexity; large uncertainties around assessments of additionality, the counterfactual baseline, and leakage; and an industry structured to prioritize scale above quality because all decision-makers benefit from higher volumes. The large uncertainties and complexity involved in accurately estimating emissions reductions from different project types means that assessments of quality must involve interdisciplinary, sector, and regional expertise and that assessments are inherently subjective. For example, since there is no possible experiment to test what would have happened without an offset program (how many projects would have moved forward and what baseline emissions are for those that didn't) assessments of additionality and baselines relies on expert judgement rather than objective metrics.

Quality certifiers to be successful must tackle these core challenges. This requires rigorous analysis involving disinterested parties with the necessary interdisciplinary, sectoral, and regional expertise who treat uncertainty with conservativeness.

Additionality (when credited emissions reductions/removals would not have happened without the offset income) has been a key challenge to offset quality to date. Financial additionality has been shown to be an inaccurate measure of additionality for some project types.[3] Financial additionality assessments for project types with some additional and some non-additional projects involve many assumptions about future costs and revenues. These assumptions have been able to be strategically chosen to show that a cost effective project is not cost effective. For many renewable energy reduction projects, the effect of different reasonable assumption in a financial assessment on project financial returns is greater than the effect of carbon revenues. In other words, the carbon revenues is in the noise.[4]

A remedy for the inaccuracies of project-by-project additionality testing is the use of a performance standard, or standardized approach to additionality testing. This approach defines eligibility criteria for projects that are generally not cost effective on their own but which can be cost effective with offsets taking into account monitoring and verification costs. The standardized approach allows any project to participate that meets protocol eligibility requirements (project type, location, and other characteristics). Unless the standardized approach is only used for project types where carbon offsets are the only project benefit, the standardized approach inevitably allows in some non-additional projects that meet the requisite standards. Therefore, to avoid certifying non-additional reductions the Taskforce could choose to only allow in project types that are only performed for their climate benefits (a minority of today's market). Alternatively, to allow in a wider range of project types, the

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[2] e.g. Bailis R, Wang Y, Drigo R, Ghilardi A, & Masera O. (2017). Getting the Numbers Right: Revisiting Woodfuel Sustainability in the Developing World. *Environmental Research Letters* 12(11):115002. doi: 10.1088/1748-9326/aa83ed

[3] Haya B. (2010). *Carbon Offsetting: An Efficient Way to Reduce Emissions or to Avoid Reducing Emissions? An Investigation and Analysis of Offsetting Design andPractice in India and China* (Berkeley, (Doctoral dissertation) Energy & Resources Group, University of California), Chapter 3. https://escholarship.org/content/qt7jk7v95t/qt7jk7v95t.pdf

[4] ibid

Taskforce could address the risk of non-additional crediting with an over- and under-crediting analysis[5] at a methodology level treating uncertainty conservatively.

Under an over- and under-crediting analysis a methodology is considered additional if the total amount of over-crediting, from the participation of non-additional, exaggerated baselines for some projects, and other sources of over-crediting, is counterbalanced by at least as much under-crediting from the use of conservative emissions accounting methods. Analysts carrying out this approach should be cognizant of adverse selection, whereby the most likely participants under an offset protocol are those that will over-credit since non-additional projects or projects that otherwise earn more credits for less effort have the most to gain and the least to lose from participating.

Proliferation of offset certification bodies is a wild west, all claiming to have the key to identifying high quality credits. The CCPs could be an authoritative solution if it effectively ensures quality. But it could be a part of the problem if it doesn't. Theserecommended changes to the Taskforce approach, summarized in the list below, is what I believe is needed for the CCPs to truly address the offset market's quality challenges.

Summary of overarching recommended changes to the Taskforce's proposed approach:

- Quality analysis should be performed at the level of the methodology and not the project type.
- Recognizing the high proportion of poor quality credits on today's voluntary offset market, methodologies should be considered guilty until proven innocent. The CCPs should start with certifying only a small number of methodologies that have passed an over- and under-crediting analysis, and grow the set of projects gradually. Otherwise the CCPs will be found to certify poor quality projects and will lose the trust of the market and buyers.
- The registries should not self certify their offset methodologies and projects against the CCPs even temporarily. The registries have a conflict of interest in having their projects be considered to meet the CCPs.
- Financial additionality tests should not be required or even recommended for some project types because of their limited effectiveness.
- Quality assessment should use an over- and under-crediting analysis across the portfolio of expected and past projects. If over-crediting, such as from the inevitable participation of non-additional projects, is at least counterbalanced by under-crediting from conservative methods for assessing the impacts of each participating project then credits across the portfolio of projects is considered high quality and additional.
- This requires rigorous analysis involving disinterested parties with the necessary interdisciplinary, sectoral, and regional expertise who treat uncertainty with conservativeness. It will be important for the Board of Directors to be composed only of disinterested parties.

[5] Described in: Haya B et al., Managing Uncertainty in Carbon Offsets: Insights from California's Standardized Approach, *Climate Policy*, June 29, 2020, 1–15, https://doi.org/10.1080/14693062.2020.1781035; and Bento A et al. (2016). On the importance of baseline setting in carbon offsets markets. *Climatic Change*, 137(3), 625–637. https://doi.org/10.1007/s10584-016-1685-2

Evidence of poor quality offset credits on the offset market today

In addition to the articles listed in the consultation draft and technical appendix, I recommend a few other articles be added to your literature review and taken into account in the Taskforce's recommendations on the various project types and its overall approach. Each of these articles documents significant over-crediting, or significant risk of harm:

Renewable energy project – additionality

Haya B. (2010). *Carbon Offsetting: An Efficient Way to Reduce Emissions or to Avoid Reducing Emissions? An Investigation and Analysis of Offsetting Design andPractice in India and China* (Berkeley, (Doctoral dissertation) Energy & Resources Group, University of California), https://escholarship.org/content/qt7jk7v95t/qt7jk7v95t.pdf

He G & Morse R. (2014). *Addressing Carbon Offsetters' Paradox: Lessons from Chinese Wind CDM*, Energy Policy 63: 1051–55, https://doi.org/10.1016/j.enpol.2013.09.021

REDD projects and jurisdictional REDD – Risk of harm

I include both sets of REDD offsets together, since the specific policies performed under jurisdictional REDD programs are similar to the activities performed by individual REDD projects. Here is an example of articles:

Asiyanbi AP. (2016). *A Political Ecology of REDD+:Property Rights, Militarised Protectionism, and Carbonised Exclusion in Cross River*, Geoforum 77: 146–56, https://doi.org/10.1016/j.geoforum.2016.10.016

Larson A & Ribot J. (2007). *The Poverty of ForestryPolicy: Double Standards on an Uneven Playing Field*, Sustainability Science 2, no. 2: 189–204, https://link.springer.com/article/10.1007%2Fs11625-007-0030-0

Beymer-Farris BA & Bassett TJ. (2012). *The REDD Menace: Resurgent Protectionism in Tanzania's Mangrove Forests*, Global Environmental Change 22, no. 2: 332–41, https://doi.org/10.1016/j.gloenvcha.2011.11.006

REDD projects and jurisdictional REDD – baselines

West TAP et al. (2020). *Overstated carbon emission reductions from voluntary REDD+ projects in the Brazilian Amazon*, Proceedings of the National Academy of Sciences,117, 24188-94, http://doi.org/10.1073/pnas.2004334117

IFM (Improved Forest Management) – baselines

Badgley G, Freeman J, Hamman JJ, Haya B, Trugman AT, Anderegg WRL, & Cullenward D (2021). *Systematic over-crediting in California's forest carbon offsets program* [Preprint]. Ecology. https://doi.org/10.1101/2021.04.28.44187

van Kooten GC, Bogle TN, & deVries FP. (2014). *Forest Carbon Offsets Revisited: Shedding Light on Darkwoods*. Forest Science, 61(6), 370-380. https://doi.org/10.5849/forsci.13-183

IFM (Improved Forest Management) – leakage

Haya B, (2019). *The California Air Resources Board's U.S. Forest Offset Protocol Underestimates Leakage* (University of California, Berkeley), https://gspp.berkeley.edu/faculty-and-impact/working-papers/policy-brief-arbas-us-forest-projects-offset-protocol-underestimates-leaka

Gan J, & McCarl BA. (2007). *Measuring transnational leakage of forest conservation* Ecological Economics, 64(2), 423-432.

Murray BC, McCarl BA, & Lee HC. (2004). *Estimating Leakage from Forest Carbon Sequestration Programs*. Land Economics, 80(1), 109-124

Wear DN, & Murray BC. (2004). *Federal timber restrictions, interregional spillovers, and the impact on US softwood markets*. Journal of Environmental Economics and Management, 47(2), 307-330.

Many project types – many quality elements

Cames M, et al., (2016). *How Additional Is the Clean Development Mechanism?* (Berlin), https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf