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To: Supervisory-Body <Supervisory-Body@unfccc.int>

Cc: Mary Grady <mgrady@winrock.org>; ACR <ACR@winrock.org>

Subject: Call for Input - activities involving removals under the Article 6.4 mechanism of the Paris Agreement

Dear Supervisory Body,

Attached please find comments from ACR in regard to “Recommendations for activities involving removals under the Article 6.4 Mechanism”. We appreciate the chance to provide public comment and hope these help to shape the draft recommendations. Please reach out if you have any questions.

Thanks,

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To the Article 6.4 Mechanism Supervisory Board,

Thank you for the opportunity to comment on the draft recommendations for activities involving removals under the Article 6.4 mechanism. American Carbon Registry (ACR) has decades of carbon market experience and firmly believes in the importance of ensuring the integrity of crediting systems to build confidence and scale the global carbon market to significantly contribute to Paris Agreement goals.

We are supportive of and encourage initiatives that increase rigor and transparency in the carbon market. However, we are concerned the draft recommendations are too specific in prescribing novel approaches (e.g., 'tonne-year' crediting, equivalency ratios, discounting, etc.) across such a broad market context. Many of the recommendations are not common practice in the existing AFOLU carbon market today and warrant further review, comment, and 'road' testing before prescribing as an approved method under article 6.4. More specific comments regarding the in-meeting working document and Annex 5 and 6 of the annotated agenda are below.

Definitions

In the working group document, the definition of 'removal activities' has 3 options, two of which specifically exclude natural CO₂ uptake. We would like to clarify and confirm that option 2 involving natural CO₂ uptake (option 2) will be a workable pathway for nature-based solutions such as forestry to generate 'removals' offset credits under 6.4.

Other definitions, especially those in Annex 6 related to permanence (e.g., holding period, time horizon, permanence period) are extremely important and should be revisited for clarity and intent (section 4.5.2.3., for example, reads awkwardly in this regard). 'Ex situ' stocks should also be defined/clarified.

Monitoring and reporting

We agree that simplified monitoring and reporting should be allowed when the purpose of monitoring is to ensure continued existences of stocks, as opposed to seeking verification and new issuance.

Crediting period

All three documents specify a crediting period of no more than 15 years, renewable only twice. We suggest that maximum renewal shouldn't be set at 2, but rather should be based on demonstration of continued additionality and confirmation of the baseline.

Requiring permanence monitoring beyond the project term for 'tonne-based' crediting is not standard practice and would significantly reduce participation in many sectors of the carbon market (annex 5 section 1.4). We suggest broader stakeholder input is sought prior to prescribing such an approach.

'Tonne-year' crediting, radiative forcing, and discounting

The draft text contains an emphasis on 'tonne-year' crediting, radiative forcing, and credit discounting in relation to permanence. Tables 3 and 4 of annex 6 contain many generalizations as to the acceptance

and benefits of the ‘tonne-year’ approach. Similarly, Annex 6 contains numerous pages detailing radiative forcing and discounting in relation to credit ‘equivalency’.

While we understand the desire to draw equivalence between temporary carbon storage and permanent mitigation, we have concerns that these concepts do not align with physical realities and known actions needed to achieve near and long-term temperature goals like 1.5 and 2° C. Climate policy under article 6.4 should incentivize actions that promote permanence over timeframes that align with meaningful decarbonization goals (such as decadal or multi-decadal commitments).

We are especially surprised with the inclusion of ‘tonne-year’ crediting and radiative forcing in the draft text, given strong stakeholder divergence on the subject. An [excellent summary of this divergence](#) was generated when Verra recently held public comment in consideration of adopting ‘tonne-year’ crediting in their program earlier this year. Ultimately, the divergence of opinion was such that Verra decided not to move forward with ‘tonne-year’ crediting in their program (see linked public comment pages 45 to 97). Although the concepts were developed more than 20 years ago, they have not been adopted to date by any of the major independent crediting standards approved by ICAO outside a few low volume initiatives.

Furthermore, the extent of the ‘tonne-year’ crediting concept as stands is has been academic and hotly debated^{1,2,3,4}. While it has been suggested by some, there is also a strong body of literature questioning the approach and cautioning that its validity is highly dependent upon the specific assessment method and assumptions therein (e.g., equivalence timeframes, discount rates, asymptotic decay of CO₂, etc.). These concerns are not trivial, as recent work shows choice of these variables can affect crediting outcomes vary as much as 10-fold⁵.

We agree that choice of project ‘time horizon’ (i.e., duration of permanence) is a policy decision rather than based on scientific consensus or physical reality. We disagree with the usage of equivalency ratios in determining credit impact, and the overwhelming impact discounting has upon the equivalency of a given credit (magnitude presented in Table 2 Annex 6) is indication of how important of a policy decision this is. We strongly advise further public consultation is solicited specific to ‘tonne-year’ crediting, radiative forcing, discounting, and credit equivalency ratios before broadly prescribing the approaches in article 6.4.

Finally, we would like to reiterate that ‘tonne-year’ crediting (especially in the absence of a minimum crediting period) has implications for other aspects of project quality, including additionality. Short-term

¹ Korhonen, R., Pingoud, K., Savolainen, I., Matthews, R. 2002. The role of carbon sequestration and the tonne-year approach in fulfilling the objective of climate convention. *Environmental Science & Policy* 5(6):429-441.

² Kirschbaum, M. 2006. Temporary carbon sequestration cannot prevent climate change. *Mitigation and Adaptation Strategies for Global Change* 11:1151-1164.

³ Levasseur, A., Brandão, M., Lesage, P., Margni, M., Pennington, D., Clift, R., Samson, R. 2012. Valuing temporary carbon storage. *Nature Climate Change* 2:6-8.

⁴ Jorgensen, S., Hauschild, M. 2012. Need for relevant timescales when crediting temporary carbon storage. *The International Journal of Life Cycle Assessment* 18:747-754.

⁵ Chay, F., Badgley, G., Martin, K., Freeman, J., Hamman, J., Cullenward, D. 2022. “Unpacking ton-year accounting”. *Carbon Plan* <https://carbonplan.org/research/ton-year-explainer>

commitments force the assumption that project actions (such as deferred timber harvest) would occur in a specific year. In reality, natural systems such as forests are managed on decadal and multi-decadal timescales. The case for additionality is bolstered when carbon sequestration commitments coincide with the long-term timeframes in which natural systems are managed. This is one reason that independent carbon crediting standards traditionally require commitment periods ranging from 20-40 years for implementing such projects. While we may not be completely certain about the additionality of a management change in any given year, over a 30+ year timeframe we have significantly more confidence in the counterfactual scenario proposed by the project proponent. Thus, while ‘tonne-year’ crediting is a tool to quantify sequestration over a shorter commitment period, it does nothing to tell us whether that climate benefit was additional.

As will result from tonne-year accounting, shorter time commitments for projects also have direct impacts on how leakage should be viewed. As mentioned, forest management and harvest yields are planned for across decades. Leakage literature suggests that any short-term reduction in harvest volumes is easily made up for by local or regional wood consumers⁶. With shorter commitments (even year-to-year), leakage may be nearly 100%. Clearly, the implications of ‘tonne-year’ crediting go beyond just permanence and should be considered in a fuller context.

‘Tonne-based’ crediting

‘Tonne-based’ crediting is the predominant credit issuance mechanism employed in the carbon market to date. However, the text (see 4.5.3.3) contains several inaccuracies regarding the approach.

First, ‘tonne-based’ crediting is not ex ante crediting. Rather, ‘tonne-based’ credits are only issued ex-post after a mitigation/sequestration activity occurs and has been verified. Robust risk mitigation mechanisms allow the realized climate impact to be credited and transacted in the market as fungible with permanent credits.

Secondly, it is not commonplace in the market for credits to be discounted by a factor equal to the number of years left until the end of the crediting period. It is also not commonplace to require permanence monitoring beyond the project term/end date. We suggest broader stakeholder comment is sought prior to prescribing such approaches.

Additionality

We suggest that the approach to financial additionality be reconsidered such that financial additionality isn’t underpinned by a specific requirement that carbon finance must singularly “shift” project economics from negative to positive. Not only has this approach been widely gamed in the past, it is very often the case that carbon revenues by themselves (especially at current pricing) often are not fully capable of shifting these circumstances. Rather, they are used as a revenue supplement, or are part of a blended finance mechanism that allows the project to occur. We suggest the approach is revised to

⁶ Murray, B., McCarl, B., Lee, H. Estimating leakage from forest carbon sequestration programs. 2004. Land Economics 80(1):109-124.



acknowledge forgone revenues and opportunity costs associated with project enrollment and continued monitoring and verification.

Leakage

We agree that carbon offsets should be credited net of leakage. However, leakage often cannot be directly quantified and deducted and the language should not be so specific in this regard. Instead, we suggest that leakage shall be 'mitigated'. We agree with the conservative leakage 'adjustment factor' approach.

Double Counting

Should a Party to the Paris Agreement host an Article 6.4 land-based removal activity in an area covered by an activity under jurisdictional approaches to enhance forest carbon stocks, per line 87, we agree that this type of double counting must be mitigated by (a) NOT issuing credits for that area and activity at the jurisdictional level. We do not agree with the concept of avoiding double counting under (b) if the area is a "non-activity level" for the jurisdictional approach as this would not incentivize complete accounting at the jurisdictional level, but rather would encourage cherry-picking of activities and areas for crediting.