OBSERVATIONS IN RELATION TO CATEGORY ASSESSMENT

AFFORESTATION, REFORESTATION AND REVEGETATION – PART I

DECEMBER 2024

1. Purpose of these observations

The Governing Board (the Board) of the Integrity Council for the Voluntary Carbon Market (ICVCM), when considering the assessment of methodologies related to Afforestation, Reforestation, and Revegetation (ARR) identified that it would be beneficial to make available the ICVCM's observations for the purpose of supporting the future development of methodologies in this Category.

These observations are non-binding and do not impact or form any part of the Assessment Framework, Assessment Procedure, or any Decision (as defined under the Assessment Framework) and are published by the ICVCM for the purpose of information only.

The ICVCM may, from time to time, publish other observations for other Categories where it considers this may be useful for CCP-Eligible Programs and other stakeholders, and may update and revise its observations from time to time based on further assessment processes or information. Observations are not an exhaustive set of views of the ICVCM, and not all aspects addressed in assessment processes are included. No reliance may be placed on observations, as they are for the purpose of information only, and observations published are without prejudice to other ongoing assessments.

The Governing Board would like to express its gratitude to the experts and other stakeholders engaged in the assessment process who provided input to the ICVCM regarding this Category.

2. Observations relating to ARR methodologies

The Governing Board's observations regarding the assessment of ARR methodologies against the ICVCM Assessment Framework and its Core Carbon Principles generally relate to robust quantification and additionality.

The methodology within this Category considered by the Board at its December 11, 2024, meeting and to which these observations relate is VM0047 - Afforestation, Reforestation, and Revegetation version 1.0. The remaining methodologies in this Category remain under assessment by the ICVCM.

The Board welcomes recent novel approaches to increase integrity and recognises that further research and empirical testing of such approaches in methodologies may identify new risks, and it will be attentive to these as part of general ICVCM ongoing assurance and oversight.

3. Robust Quantification

VM0047 provides two different approaches that are aimed at two distinct types of ARR mitigation activity:

- The area-based approach, which is aimed at larger scale (>1hectare) ARR mitigation activities and leverages remote sensing tools and technology, and;
- The census-based approach, which relies on a full census of plantings and is aimed at small scale mitigation activities not involving land use change (e.g. agroforestry and other revegetation activities that do not meet the definition of a forest).

The methodology prescribes different additionality and quantification procedures that pertain to these approaches. The area-based approach relies on a dynamic performance benchmark involving remote sensing to demonstrate additionality and determine the crediting baseline at every verification. In summary, this approach compares the project's performance with matching baseline control plots that have been objectively determined to represent baseline conditions. The ICVCM assessment process identified the novel nature of this approach and noted that it has been designed to increase robustness. The assessment process also acknowledged that empirical testing of this method has not yet been conducted. In particular, it was noted that remote sensing data can sometimes become overloaded, especially when full canopy cover is achieved. However, future improvements in technology might solve this problem.

It is common for ARR methodologies to have guardrails against potential perverse incentives to deforest an area with the intent to regrow it for the purposes of obtaining carbon revenues. The assessment process noted that the census-based approach has a specific requirement (i.e., no deforestation within ten years of the start date of the mitigation activity) expressly included in VM0047. In contrast, the guardrail for area-based mitigation activities under this methodology is specified in the VCS general program rules (currently VCS Standard v4.7)[1], which require that if ecosystem degradation has occurred within 10 years prior to the start date of the mitigation activity, validated evidence must confirm that this degradation did not occur due to the mitigation activity. The ICVCM assessment process considered this issue and confirmed that deforestation falls within the scope of the definition of "ecosystem degradation" under the VCS program documents noted above. The ICVCM notes that the implementation of this aspect of the methodology may benefit from additional VCS VVB oversight processes, as per 4.1 of the Assessment Framework, to ensure the proper application of these provisions.

Allometric equations allow the use of simple measurements (e.g. the diameter of a tree trunk) to express more complex properties, such as the volume of a tree, and so are a common component of most ARR methodologies. Allometry can vary by species of tree, age and even site location. Not all trees have been sufficiently studied to allow perfect allometric relationships to be equally known across all regions of the world, so approximations are

[1] https://verra.org/wp-content/uploads/2024/04/VCS-Standard-v4.7-FINAL-4.15.24.pdf

frequently used. Regarding the use of allometric equations, the methodology requires such to have been previously published before use in the field. In addition, per the requirements of the methodology, the selection of the equation is by the following order of preference: i) equations specific to the forest type/tree species within the same ecoregion as the mitigation activity, ii) global equations specific to the forest type/tree species. The assessment process noted that the chosen equations will undergo independent assessment by a validation and verification body, as well as being subject to VCS VVB oversight processes, demonstrating sufficient review to confirm appropriateness for the context.

The ICVCM assessment process highlighted that the methodology allows the use of a conservative global default value for the carbon fraction of dry biomass in the absence of specific data for the dominant biomass in the region. The methodology provides that the global default value is derived from 2006 IPCC Guidelines for National Greenhouse Gas Inventories, as confirmed by the 2019 Refinement to the 2006 IPCC Guidelines. The Governing Board notes that this parameter is an average that may be redefined in the future and that the use of more specific data should be subject to oversight by the carbon-crediting program to ensure appropriateness. The Governing Board considers that the Continuous Improvement Working Group on validation and verification bodies (CIWP 8) could consider how VVBs address optionality within methodologies, in a manner that, as appropriate, ensures the most conservative approaches are selected.

4. Additionality

Emission reductions under an ARR mitigation activity are additional if the activity sequesters carbon dioxide at higher levels than would have occurred in its absence.

The assessment process highlighted that there are potential additionality risks for large-scale commercial ARR mitigation activities which would also comprise monoculture plantations, including those using non-native species. Such large-scale mitigation activities will fall under VM0047's novel area-based approach, which includes dynamic performance testing, as described earlier in this document. The Governing Board notes that implementation of additionality tests may vary, and that Programs should provide adequate oversight of VVBs to ensure additionality tests are uniformly applied. The Governing Board notes that the Continuous Improvement Working Group on validation and verification bodies (CIWP 8) could consider how VVB training and performance monitoring are handled for novel methodology approaches.

5. Environmental and Social Safeguards

The Board underlines the importance of compliance with social and environmental safeguards throughout ARR projects, and notes that robust oversight mechanisms are important components of effective social and environmental protections in ARR, particularly in large-scale commercial plantations involving non-native species in high-biodiversity areas.