



PROPOSED ABACUS LABEL PRE-CONSULTATION CONCEPTS

7 July 2022

1 INTRODUCTION

The proposed ABACUS Verified Carbon Unit (VCU) label is intended to catalyze the growth of a market for high-quality nature-based greenhouse gas emission removal credits. In addition to climate benefits, the label – especially in its focus on sustainable intensification and food security – has the potential to enhance sustainable development values, including ‘zero hunger,’ ‘climate action,’ and ‘life on land.’ A VCU label indicates that a unit meets the requirements of other (non-VCS) standards programs or is eligible to be traded in specific markets. The label stays with a given unit through its retirement.

Embedding ABACUS innovations in a label allows continuous development of their performance and workability in the expectation that some of the label’s innovations will be incorporated into the core requirements of the VCS Program in the future.

This label was proposed by the ABACUS Working Group.¹ Verra is hosting this pre-consultation on the ABACUS label as part of our [process to vet market label proposals](#). The ABACUS Working Group seeks feedback to refine the concepts of the proposed label prior to consultation on the full label requirements.

1.1 ABACUS Label Overview

To qualify for the label, VCUs must be generated by projects validated and verified to Verra’s [forthcoming afforestation, reforestation, and revegetation \(ARR\) methodology](#). The ABACUS Working Group selected a focus on reforestation and agroforestry due to its potential for realizing significant, high-confidence climate benefits and generating local social and environmental benefits.

¹ ABACUS Working Group members include Bronson Griscom (Senior Director of Natural Climate Solutions, Conservation International), Barbara Haya (Director, Carbon Trading Project, University of California, Berkeley), Kyle Hemes (Research Scientist, Amazon Sustainability Science & Innovation), Ruben Lubowski (Associate VP Climate & Forests, Environmental Defense Fund), Campbell Moore (Carbon Markets Lead, The Nature Conservancy), Jamey Mulligan (Senior Scientist, Amazon Sustainability Science & Innovation), Connor Nolan (Postdoctoral Scholar, Stanford Woods Institute for the Environment), Christie Pollet-Young (Managing Director, SCS Global Services), Matthew Potts (Chief Science Officer, Carbon Direct; Professor, University of California, Berkeley), David Shoch (Director of Forestry, TerraCarbon), and Carlos Silva (Forest Carbon Scientist, Pachama). Participation in the working group does not reflect endorsement by members’ organizations.

This proposed label focuses on greenhouse gas quantification procedures; the label does not replace the due diligence and stakeholder engagement through which project proponents, investors, and buyers should ensure social and local environmental benefits.

The ABACUS label, along with the forthcoming Verra ARR methodology, has the potential to unlock finance for high-quality and trusted carbon removal via ARR activities at a crucial moment in the race to net zero.

1.2 Consultation Process and Timeline

The planned timeline for the ABACUS label is set out in Table 1 below.

Table 1. Tentative Timeline

Tentative Date(s)	Activity
7 Jul – 7 Aug 2022	Pre-consultation on general ABACUS concepts
1 – 31 Oct	Full consultation on specific ABACUS requirements
30 Nov	ABACUS WG reviews comments and finalize proposal
18 Jan 2023	Decision by Verra
TBD	ABACUS label ready for use with VCUs

Responses to the questions below and any other feedback may be submitted using [this form](#) by 7 August 2022. The ABACUS Working Group will use the feedback received to finalize the label requirements.

We look forward to your feedback. If you have any questions about this consultation, please email programupdates@verra.org.

2 KEY ABACUS CONCEPTS

2.1 Additionality & Baseline

Projects must use a dynamic baseline that tracks carbon stock change in statistically matched controls over the course of the project’s lifetime. Conventional methodologies establish additionality and a baseline at the time of project inception but do not employ an evidence-based approach to assure continued additionality over the project’s crediting period. ABACUS projects must use a ‘treatment-control’ approach to evaluate proportional additionality, establishing a dynamic baseline that annually and remotely tracks change in a proxy for carbon stocks in ‘control’ plots that closely match the project area prior to implementation of the project activity. The project ‘treatment’ will only be credited for carbon sequestration above and beyond that in ‘untreated’ control plots.

Projects must also pass a conventional implementation barriers test and demonstrate an expectation for carbon credits prior to the start of the mitigation activity as an added measure to ensure additionality.

ABACUS crediting periods are limited to 30 years on the premise that the financial value of credits beyond this period are immaterial to investment decisions today—provided that projects may extend partial crediting beyond 30 years if it can be demonstrated that continued crediting would lead to additional GHG benefits.

Monoculture plantations are excluded from ABACUS on the premise that these projects are less likely to be additional where forests are harvested for commercial purposes. Systems that naturally exist in extensive single-species stands (e.g., bamboo) may qualify for the label.

2.2 Leakage

Projects must eliminate leakage. Carbon removal projects that displace agricultural cultivation result in indirect land use change and associated loss of carbon. These carbon leakage effects are difficult to quantify reliably; conventional leakage methodologies rely on sparse and potentially outdated economic literature to roughly approximate carbon leakage rates when agricultural production is displaced. The risk of underestimation in these approaches is borne by the atmosphere and global food security. Carbon removal must not come at the expense of food production.

ABACUS takes a food-forward approach to leakage accounting by effectively requiring projects to maintain or enhance agricultural production within a defined accounting area in the surrounding landscape. This approach enlists carbon projects as engines for food security while avoiding a persistent source of uncertainty in carbon accounting.

2.3 Measurement

Projects must establish a network of inventory plots that includes permanent plots in which carbon stock change or net fluxes are measured through time in situ and with which a model, if utilized, is calibrated and validated. Credits will not be issued solely on carbon stock changes estimated from default, regional, or national emission factors. Inventory data must be publicly available to promote transparency, reproducibility, and scientific research.

2.4 Permanence

We will explore the potential for compensating reversals in ABACUS projects by first canceling other ABACUS credits from the VCS AFOLU buffer pool. Pooled buffer accounts managed for long-term solvency in light of geographically specific climate and disturbance risks can provide effective permanence for nature-based solutions — provided the credits in the buffer are properly quantified. Verra may also work with ABACUS projects to test innovative strategies to sharpen risk characterization and incentivize risk management, which may affect withholding requirements in the future to ensure the solvency of the buffer.

Projects must regularly monitor the entire extent of the project area for loss events and compensate for losses upon detection. Once established, all projects will be required to operate under Verra's forthcoming automated long-term monitoring system for reversals up to 100 years beyond the crediting period.

Projects must be ecologically appropriate. Projects that establish vegetation shall be located in areas that, historically, naturally sustained similar vegetation. Species introduced must be well-adapted to the project area.

3 QUESTIONS FOR FEEDBACK

Please submit your responses to the questions below and any other feedback on the proposed key concepts of the ABACUS label using [this form](#) by 7 August 2022.

- 1) **Carbon stock proxy metric.** The dynamic baseline approach requires a proxy for carbon stocking that can be remotely observed cost-effectively through time at a population of control plots. It is used in the pre-project period to match control plots, and in the project period to measure proportional additionality (though the metric for pre- and post-project need not be the same). There is no single remotely sensed metric or index that accurately represents carbon stocks in all geographies and ecosystems, through time. How can we define minimum quality thresholds for the carbon stock proxy, while allowing for new sensors, remote sensing products, and innovations as they emerge?
- 2) **Sampling design.** ABACUS envisions matching project virtual plots (which may be different than project plots inventoried for carbon removal) with a population of the most closely matched control plots from a specified donor pool area. How should the label specify the quantity, density, and spatial size of project virtual plots and the quantity and spatial size of control plots matched to each, given the need to minimize uncertainty and computational loads?
- 3) **Performance evaluation.** What metrics should projects use to evaluate and report the goodness of match between each project virtual plot and its population of control plots? Does weighing each control plot by the similarity to the project virtual plot suffice?
- 4) **Adverse selection.** The dynamic baseline represents the without-intervention counterfactual scenario in the project area, if project plots and control plots have a similar propensity to reforest without carbon market incentives. However, plots with a higher propensity to reforest may be more likely to enroll in carbon market projects, leaving a donor pool of control plots that have a lower propensity to reforest. How can the label reasonably manage this risk of adverse selection?
- 5) **Implementation barriers test.** In addition to requiring a dynamic baseline, the label will require projects to pass an implementation barriers test. What prescriptions will allow for a meaningful implementation barriers test?
- 6) **Demonstration of expectation of carbon credits.** What objective and verifiable evidence can be provided that demonstrates an expectation for carbon credits prior to project start?

- 7) **Monocultures.** Are there situations in which monoculture plantations, planted for commercial harvest, could effectively demonstrate additionality? How should the label define monoculture plantation for the purposes of exclusion on additionality grounds? Is an exemption for systems that naturally exist in extensive single-species stands appropriate? How should this exemption be defined?
- 8) **Leakage.** ABACUS intends to require projects to eliminate leakage by mitigating any displacement of agricultural or silvicultural production with productivity enhancements elsewhere within the surrounding landscape. Should projects be able to compensate for displacement of one commodity by enhancing production of another commodity? Should the area within which projects can compensate for displaced production be constrained, and how? Are there particular productivity enhancement practices that should be excluded?
- 9) **Well-adapted.** Carbon in natural systems is more durable when established vegetation is well-adapted to the project area. Given rapidly changing climatic conditions, how should the label quantitatively define and verify that introduced species are 'well-adapted'?