PUBLIC STATEMENT

Well Earned Credits: How Aviation Industry Forest Offsets Can Effectively Reduce Global Emissions

INTRODUCTION

This document is intended to address claims made in the recent Fern publication, "Unearned credit: Why aviation industry forest offsets are doomed to fail". The purpose of this response is to correct the inaccurate and misleading arguments made by Fern in respect of both how the Verified Carbon Standard (VCS) Program functions and how forest carbon projects using the VCS Program (and greenhouse gas accounting standards more broadly) are designed, implemented and verified.

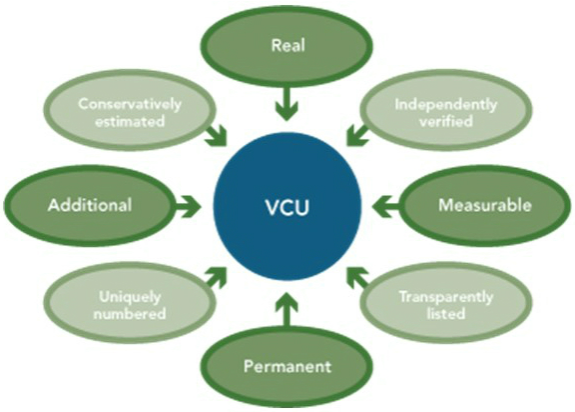
While the Fern paper authors are entitled to oppose offsetting from an ideological position, **the 'facts' and sources used to support their analysis are flawed. Fern makes an emotional appeal but does not back this up with credible evidence.** Rather, they point to old arguments about risks that made forest offsets unattractive to the EU Emissions Trading System (ETS) and the UN Clean Development Mechanism (CDM) a decade ago, without acknowledging the significant progress made since then by pioneering standards such as the VCS or by REDD+ projects that are today shining examples of how to stop deforestation and reduce emissions. Indeed, over the last decade the REDD+ sector has matured considerably, establishing itself as a well-accepted and credible approach to reducing GHG emissions while ensuring environmental integrity. Robust methods for the accounting, monitoring, reporting and independent verification of REDD+ activities have been transparently developed and effectively demonstrated around the world, and REDD+ is now a highly sought after offset type by both the public and private sectors. In fact, over recent years, forest carbon projects have become the most demanded offset type by informed corporates looking to robustly achieve their voluntary climate leadership goals.

By adhering to a standard such as the VCS, forest carbon credits are well-positioned to meet all of the UN International Civil Aviation Organization's (ICAO's) offset quality criteria and guiding principles. Looking to the future, VCS is also working to facilitate the integration of projects into emerging subnational and national REDD+ programs, incentivizing the continued engagement of local communities, indigenous land-managers, and other forest conservation stewards, along with much-needed private sector investment in REDD+.

This document first provides background on the VCS Program and then directly addresses each of the misleading claims made in the Fern paper as they relate to our program. The document then provides a summary conclusion.

VCS PROGRAM INTEGRITY

The VCS Program allows verified projects to turn their GHG emissions reductions into tradable carbon credits. The VCS Program brings a high level of quality assurance to global carbon markets by ensuring all issued Verified Carbon Units (VCUs) represent GHG emission reductions that are real, measurable, additional, permanent and independently verified. The diagram below illustrates the various requirements VCUs have to meet.



VCS cares deeply about the integrity of its program. As a non-profit standard-setting body, VCS has strong incentives to maintain the integrity of its standards for the sake of the market and the projects it vets, both of which rely on VCS Program certification as a badge of quality. Projects developed under the VCS Program must apply an approved, technically-sound GHG accounting methodology and follow a transparent and rigorous assessment process in order to be certified. All VCS projects are subject to desk and field audits by both qualified independent third-parties and VCS staff to ensure that standards are met and methodologies properly applied. The VCS registry system, the central storehouse of data on all registered projects, transparently tracks the generation, retirement and cancellation of all VCUs. VCS maintains an impartial position in the carbon market and does not hold, transact or solicit trades of VCUs.

Because of the focus on integrity and credibility the VCS Program is the world's most widely used voluntary GHG standard, both in the broader voluntary carbon market as well as the forest carbon market.

RESPONSES TO MISLEADING CLAIMS IN THE FERN PAPER

1. Additionality through Rigorous and Conservative Baselines

- Claim: Any methods used to calculate baselines (or reference levels) will always be "highly imprecise" and "improbable".
- Reality: Well-established and sophisticated methods have been developed and demonstrated to ensure realistic and credible baselines for calculating forest carbon emission reductions and removals.

VCS addresses possible baseline inflation by outlining strict criteria for baseline setting using approved methodologies and a high level of rigor in validation and verification through third-party auditing. These best-in-class methodologies are carefully developed, typically over 12-24 months, through a robust multi-stakeholder process, including expert input, public comments and vetting by two independent auditing bodies. Reference areas chosen must be demonstrably similar to the project area, including having similar drivers of deforestation and degradation and socio-economic factors, among others. The requirements also mandate that the baseline be periodically revised (every ten years) to account for changing conditions and that all data and methods be transparent and publicly available - a fundamental principle of GHG accounting.

The Fern paper also overlooks another key rule of any credible GHG standard - the use of conservative estimates. All VCS projects are required to use conservative assumptions, values and procedures to ensure emission reductions are not overstated, and furthermore to discount reductions where uncertainty remains, including when that uncertainty relates to the selection of the baseline. Due to this conservativism, it is likely that each VCU actually generates more than 1 ton CO_2e benefit to the atmosphere, rather than the opposite being true.

In addition, recent studies have shown that REDD+ project activities have been highly effective at reducing emissions compared to surrounding areas. A recent peer-reviewed study showed investments to reduce local communities' dependence on forests had a statistically significant correlation with reduced deforestation rates and conservation outcomes.[1] This supports the conclusion that project baselines are credible, and that project activities result in real changes to the drivers of deforestation.

2. Ensuring Permanence by Pooling Risk

- Claim: No forest carbon project can guarantee permanent emissions reductions.
- Reality: While projects may include a physical "buffer" zone to promote sustainable livelihoods around project areas, they also mitigate permanence risk through the use of a non-physical "pooled buffer account."

Fern demonstrates how little they understand about how the VCS Program works by conflating the term "buffer" and making the outlandish claim that the inclusion of physical "buffer zones" are the way the VCS Program ensures emission reductions are permanent. VCS utilizes the pooled buffer account for Agriculture, Forestry and Land Use (AFOLU) projects including REDD+ projects, to address the risk of non-permanent emission reductions. The buffer account is a single account that holds non-tradable buffer credits to cover the non-permanence risk associated with all AFOLU projects globally. A portion of all reductions achieved by an AFOLU project must be deposited into the buffer account based on the risk profile of the project. In order to quantify that risk, each VCS AFOLU project (including REDD+ projects) undertakes a risk analysis to assess internal, external and natural risks to then determine the portion of credits to be deposited into the pooled buffer account. The buffer account is managed to ensure any losses from individual project failures are covered. As opposed to claims made in the paper that use of a

[1] http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0190119

buffer is “hardly ever checked by auditors”, the process of calculating and depositing buffer credits is rigorously checked by third-party auditors at each verification. Since being pioneered by VCS, use of a pooled buffer to address non-permanence risk has now been accepted by many carbon markets, including California’s cap-and-trade system.

It should be noted that if there is a loss of forest in the project area, this deforestation is detected in the subsequent monitoring report and there is no issuance of VCUs for this loss. REDD+ is a payment-for-results system; therefore, if there has been no reduction in emissions nor increase in sequestration, no credits will be issued. In addition, buffer credits are cancelled from the pooled account to cover any losses - meaning all issued VCUs remain permanent and atmospheric integrity is maintained. The VCS pooled buffer account currently holds more than 22 million credits to cover such potential losses and ensure atmospheric integrity across the portfolio of projects.

The Ecuadorian project cited in the paper is not a valid example as it was never certified to any credible standard, let alone to the VCS. Poorly designed and implemented forest carbon projects using self-certification or standards with a low level of rigor unfortunately do exist. However, the fact that these low-quality projects exist is not a reason to exclude high-quality REDD+ projects from CORSIA and miss the enormous associated opportunity to drive finance to forest protection.

3. Effectively Managing Leakage

- Claim: Preventing emissions from being displaced is beyond the scope of any carbon offset project, as projects have no power beyond their own geographical area.
- Reality: This is a simplified argument and ignores what projects set out to do, which is to transform the forest economy to sustainable models, thereby removing the risk that destructive practices are simply shifted to another area. Furthermore, robust tools and methods are used for identifying, mitigating and accounting for leakage to ensure that credited forest emission reductions are real and not nullified by potential increases in emissions elsewhere.

Well-designed REDD+ projects may have very little to no leakage because they are effective at addressing the drivers of deforestation and transforming the forest economy. Indeed, there is ample evidence that VCS REDD+ projects often result in positive leakage where areas outside of the project boundaries adopt the practices being implemented by REDD+ projects, such as the implementation of sustainable agricultural practices to grow food without the need for shifting agriculture, which contributes to deforestation. Projects use rigorous methods to estimate any leakage, and to the extent that there is negative leakage, this must be conservatively estimated and always subtracted from the total number of GHG emission reductions eligible to be issued as VCUs.

For projects with localized drivers, the potential for leakage must be identified and the project must address the socio-economic factors that drive deforestation or forest degradation, often by providing economic opportunities for communities that transform the local economy and encourage forest protection. Leakage is calculated by monitoring forested areas surrounding the project and other forested areas within the country susceptible to leakage from project activities. VCS strongly encourages projects to include leakage management zones in the overall project design, which can help to maintain livelihood

activities inside the project area, such as agroforestry on degraded land and sustainable production of non-timber forest products.

The Fern paper also claims that addressing leakage from large-scale agricultural/timber drivers is impossible for REDD+ projects. This is not the case and illustrates yet another example where Fern has misunderstood or willfully chosen to ignore VCS Program rules, which require projects to quantify leakage by directly monitoring the activities of the deforestation agent. Where such agents are driven by the demand for market commodities such as agricultural products or timber, the project must directly account for market leakage associated with the specific project activity. This is done by taking into account the supply and demand elasticities for the commodity and must be based on methods for quantifying leakage from scientific peer-reviewed sources.

4. Beyond No Net Harm - Engaged Communities at the Heart of REDD+

- Claim: Forest offset projects cause real harm through conflict and criminalization of forest peoples, who often receive no benefits at all. Furthermore, the concept of "net harm" is problematic because if harm is net, this implies that harm to one person or community can be justified by compensating a different person or community.
- Reality: VCS requires projects to identify any potential negative environmental and socio-economic impacts and mitigate them. The project must also establish mechanisms for communication with local stakeholders during project design and implementation, so concerns can be raised about any potential negative impacts, and must demonstrate to the auditor at validation and every verification that it has taken due account of all and any input received.

Positively engaged communities are the foundation of successful REDD+ projects. The vast majority of VCS AFOLU projects go above and beyond VCS requirements by also applying the Climate, Community and Biodiversity (CCB) Standards. In fact, 92% of VCS REDD projects by volume of issued VCUs apply the CCB Standards in some way. The CCB Standards, developed by leading NGOs, including CARE International, Conservation International, The Nature Conservancy, Wildlife Conservation Society and Rainforest Alliance, were designed to deliver credible, significant and net positive benefits for local communities (in addition to CCB's climate and biodiversity benefits). Relevant requirements align closely with UNFCCC safeguard requirements and include the application of Free, Prior and Informed Consent (FPIC) to guide community engagement, equitable community benefit sharing and the appropriate resolution of land tenure issues.

Multiple studies have shown that REDD+ has created a drive to promote clarity on land tenure among other community rights. A study[2] by the Rights and Resources Institute (RRI) and the World Resources Institute (WRI) found that carbon finance saves forests by promoting indigenous rights. Research[3] by the Center for Global Development also shows a strong correlation between REDD+ and rights. In the same vein, a recent book "Forest Preservation in a Changing Climate: REDD+ Indigenous and Community

[2] http://www.wri.org/securingrights
[3] http://www.cgdev.org/publication/what-drives-deforestation-and-what-stops-it-meta-analysis-spatially-explicit-econometric

Rights in Indonesia and Tanzania"[4] shows the positive impact of REDD+ projects on indigenous rights, stating that:

> "Project developers have indeed accorded significant attention to the participatory and substantive rights of local communities. This is consistent with emerging evidence on the ways in which REDD+ projects have sought to engage and empower communities around the world...It is striking that the overwhelming majority of the thirty-eight [studied] REDD+ projects have had some positive impacts on the rights of local communities and that very few appear to have engendered the sort of human rights violations that were feared by scholars and practitioners in the earlier stages of the global emergence of REDD+."

5. Independent, Objective Third-Party Auditors

- Claim: "Auditors have their own vested interest in exaggerated baseline scenarios" and "third-party auditors usually charge for their services depending on the volume of carbon credits a project generates."
- Reality: These statements are gross misrepresentations of the fact that auditors may charge more for large AFOLU projects due to needing to spend longer in the field to conduct rigorous audit work on a larger area. There is no incentive for auditors to see projects issue higher volumes of carbon credits.

Projects must contract an approved validation/verification body (VVB) to confirm that the project design meets VCS criteria and that all GHG emission reductions are quantified according to VCS requirements. Both VCS and accreditation bodies (i.e., members of the International Accreditation Forum and UNFCCC Designated Operational Entities, DOEs) oversee the work of auditing firms to assess their performance, which often requires corrective action on the part of the auditor. Obviously auditors have a strong incentive not to lose their accreditation and subsequently all of their business. VCS-approved auditing firms must understand the underlying requirements of the program they are auditing against and adhere to strict conflict of interest requirements in order to maintain their accreditation. These requirements work to ensure the integrity of the system.

6. Unique and Transparent VCUs

- Claim: Credits from REDD+ projects have not been deducted from host country national GHG inventories; therefore they undermine environmental integrity and should not be accepted by CORSIA.
- Reality: This misleading claim is based on a misunderstanding of how double counting will be prevented in the context of the Paris Agreement. While the Fern paper correctly points out that double counting needs to be addressed, the authors conveniently ignore the fact that comprehensive rules to prevent double counting under the Paris Agreement have not yet been

[4] http://www.cambridge.org/gb/academic/subjects/law/environmental-law/forest-preservation-changing-climate-redd-and-indigenous-and-community-rights-indonesia-and-tanzania?format=HB#A6aAP8pSvd3769lo.97

developed by the UNFCCC, which makes it impossible for any credit from any GHG crediting program, VCS or otherwise, to comply with these rules.

The UNFCCC is currently in the process of developing rules to address double counting as part of Articles 6.2 and 6.4 of the Paris Agreement. Their goal is to have draft rules this spring and final rules by COP 24 in December of 2018. If the UNFCCC is successful in developing such rules, then countries will need to put in place procedures to enable compliance with the rules. At the same time, GHG programs (like VCS) who are interested in issuing credits that can be used for international compliance in schemes such as CORSIA will need to develop requirements that projects can follow to meet these rules. It should be noted as well that these rules will need to apply to all project types, not just REDD+. VCS is closely following the UNFCCC discussions and plans to update its rules when any new requirements are issued internationally to prevent double counting and thus ensure the integrity of carbon trading.

The broader point raised by the Fern paper relates to the need for having a transparent registry to track all units issued by a GHG crediting program, particularly if those units will be used across borders to meet compliance obligations, such as those created under CORSIA. To address this requirement, VCS projects must register with a VCS registry operator to ensure each issued VCU is assigned a unique serial number and is transparently listed on the VCS Project Database. Any time VCUs are verified, issued or retired, the information is publicly available. Further, key safeguards are in place to prevent the double counting of emissions reductions across different GHG programs.

CONCLUSION - REDD+ IS ROBUST AND EFFECTIVE

REDD+ is a proven, efficient and effective way to achieve emission reductions as well as to provide additional benefits for local communities and the environment. It is in line with all of the goals and principles of CORSIA, and a supply of robust and cost-effective REDD+ offsets can play a key role in filling the emissions gap and supporting the aviation sector to meet its climate goals, while supporting developing countries, indigenous peoples and other land stewards in conserving their native forests.

Fern has a clear ideological stance against offsetting. Sources listed in its paper, such as REDD Monitor, have a well-established anti-REDD+ agenda and therefore should not be used as legitimate, independent, objective and peer-reviewed sources of information. Fern states upfront that the only purpose of carbon credits is to enable corporates to continue to pollute as they have in the past, ignoring the fact that the purpose of carbon crediting is to enable greater ambition while reducing compliance costs and providing a tool to companies with a carbon footprint to transition to low-carbon technologies. Such transitions can be costly and disruptive, particularly when investments in technology are long lived, such as the case with airplanes which last for 20+ years. Carbon credits can help smooth that transition while driving finance to sectors and project activities that can reduce emissions, such as REDD+. Beyond that, offsetting can bring critical funding to “non-productive” activities, including tropical forest conservation and restoration, that otherwise would find few incentives to be undertaken.

For the last two decades, REDD+ projects have targeted high-threat areas preventing millions of hectares from being deforested. These projects are delivering emission reductions while working successfully with

local communities to protect forests, and increasingly with governments to ensure project alignment and integration with emerging subnational and national REDD+ programs. REDD+ is the best available tool to attract urgently needed private sector finance to reduce global deforestation. The aviation sector's commitment to curb its emissions is an enormous opportunity to slow climate change, and to the extent it accepts REDD+ credits, help maintain the world's remaining intact ecosystems and improve the livelihoods of forest-dependent people.