

## Technical Note on Avoided Planned Deforestation (APD)

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### Introduction

Amid the debate on the need for integrity in the carbon credit market, certain technical nuances need to be evaluated with due rigor and attention. Beyond socio-environmental safeguard aspects, discussions about application methods and emissions accounting have taken up a significant space on the agenda but are often addressed in a superficial or incomplete manner.

Forest carbon projects are broadly divided into two main streams: conservation and restoration. The main category of conservation projects is those implementing Avoided Deforestation activities, also known as REDD+ (Reducing Emissions from Deforestation and Forest Degradation).

In general, many discussions are directed, or biased, toward a generic construction of the REDD+ concept, related to reducing deforestation overall. However, not all deforestation (or risk of deforestation) is the same. There is both legal and illegal deforestation.

Carbon credit generation methodologies refer to the project approach for illegal deforestation as “Avoided Unplanned Deforestation” (AUD). Meanwhile, legal deforestation is referred to as “Avoided Planned Deforestation” (APD). In this way, the Planned and Unplanned scopes can be complementary when considered within a macro strategy to reduce deforestation.

In this technical note, we will discuss what lies behind these concepts, their implications for Brazil, as well as some of the challenges and alternatives for achieving high-integrity principles in this market, enabling real and consistent incentives for various forest conservation activities.

### Approaches to Avoided Deforestation

The REDD+ AUD approach refers to preventing deforestation and degradation in forest areas subject to practices such as illegal logging, unregulated agricultural expansion, or uncontrolled and irregular land occupation activities. In other words, these activities aim to reduce greenhouse gas (GHG) emissions by halting unauthorized deforestation and/or forest degradation.

In Brazil, AUD conservation activities are mostly applicable in the Amazon region, as it is the only Brazilian biome with vast expanses of remaining tropical forests that are highly vulnerable to irregular or unplanned pressures. Additionally, since the AUD approach is based on risks posed by illegal activities, **it can technically be applied in any land category**, from private properties to settlements, indigenous territories, and various categories of conservation units.

On the other hand, the APD approach includes activities aimed at reducing or avoiding GHG emissions resulting from the legally authorized conversion of native vegetation. Thus, the APD approach can be applied on private lands where the landowner, upon authorization,

can permanently convert part of the natural vegetation to implement or expand agricultural activities.

The APD approach thereby enables the financing, via the carbon market, of forest conservation on private lands pressured by specific economic activities. This application is restricted to private properties; however, it is not limited to the Amazon, as it essentially requires that the landowner having a considerable area of native vegetation on their property that could be legally cleared and chooses to protect the area instead. In this sense, this model is especially important for biomes like the Cerrado, which has larger areas subject to legal deforestation. In 2023, the Cerrado was the most deforested biome, with an upward trend in deforestation rates.

By developing projects in this category, **private agents have the option to commit to long-term forest conservation, even when they have legal permission not to do so**, in exchange for trading environmental assets in the form of carbon credits.

### Integrity in REDD+ accounting

The REDD+ approach is broadly based on a **counterfactual assumption that a certain event will not happen, though it could have**. As these are conservation projects, it is assumed that there is a deforestation risk to the forest that would not be prevented if the project did not exist. Consequently, the demonstrated risk level directly determines the number of carbon credits the project can generate. This level of risk, in “carbon market language”, is called the Baseline.



Illustration of the REDD+ concept (Ambipar Environment)

Both REDD+ approaches have faced criticism regarding the actual level of deforestation risk suggested by projects in their baselines and how this risk impacts the accounting of Reduced or Removed Emissions (ERR)<sup>1</sup>. This is due to the fact that the project proponent, following certification requirements, is responsible for demonstrating the degree of risk to the forest through calculations, studies, and documentation. The project must undergo an audit

<sup>1</sup> The carbon credits correspond to the net reduced or removed emissions, meaning after applying the discounts provided by the certification.

by an independent certifier accredited by the Certification Standard. However, the proof of baseline additionality<sup>2</sup> is subject to interpretations and the influence of the proponent, which understandably generates market skepticism regarding the quality and feasibility of ERR accounting. This is at the core of the discussion on the integrity of the REDD+ market regarding accounting.

For the most part, the solution to this issue is likely to be achieved soon for the AUD approach through the use of jurisdictional baselines assigned by the certification standard itself, which will standardize the accounting method. Jurisdictional baselines are, in theory, a method of calculating ERR potential at a specific administrative level (Country, State, or Municipality). Certification standards like **VCS (ii)** and **Trees (iii)** offer methods for jurisdictional REDD+ application, and this is being proposed at the state level in Brazil. **It's important to note that, technically, jurisdictional application does not need to be political, or state-run.** The most important thing is to have a technical consensus on accounting so that the baselines of projects and jurisdictions are aligned. This process is essential to avoid double counting of credits and reduce market distrust concerning ERR accounting integrity.

However, despite this progress for the AUD approach, **the discussion around the application of the APD approach has remained on the sidelines.** Several factors can explain, in part, why APD is not receiving the same level of attention.

### **Specificities of the APD approach**

Certification standards have prioritized defining jurisdictional application methods for REDD+ AUD, as it currently poses, in theory, a greater technical challenge and holds a larger market share due to its broader applicability. The VCS Standard, managed by Verra, aims to release the first jurisdictional data for the new VM0048 methodology (iv) in the fourth quarter of this year. Its APD module is scheduled for release in 2025. The **Trees Standard**, limited to government systems and adopted by most Brazilian governments, **does not differentiate types of deforestation, treating planned and unplanned deforestation in a unified manner.**

Moreover, there has been some negligence regarding the APD approach in Brazil, which could weaken the mechanism. One reason may be that the ART Trees jurisdictional program does not differentiate legal from illegal deforestation. Additionally, as explained, the AUD approach is the only one applicable in publicly managed territories, so it is strategic for governments to prioritize REDD+ AUD projects that can secure resources for managing these territories. Another reason is that, beyond a general misunderstanding of the technical differences between AUD and APD, there is also the challenge of educating public authorities on the importance and necessity of supporting REDD+ projects on private lands.

There are also unique economic and regulatory contexts in each country that certification standards need to consider when defining APD methodologies. In other words, **methodologies should not be applied uniformly worldwide.** Observing the Brazilian perspective, we can say with certainty that certification standards are not taking these

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<sup>2</sup> Additionality is the term used to define that the project's activity, which results in emission reductions, would not occur or would not be economically attractive without the existence of the additional incentives provided by the carbon market.

specificities into account. Current VCS Standard APD methodologies are being updated to clarify the need to prove the existence of legal authorization and the economic feasibility of native vegetation conversion. However, **it is essential for the Standard to guide auditors on how to handle local context specifics**, such as interpreting laws and understanding processes with government agencies.

Regarding the legal authorization requirement, known in Brazil as the Authorization for Vegetation Suppression (ASV), certain aspects must be considered, and if not properly assessed, they may result in risks as listed below:

- An increase in APD projects could trigger a flood of licensing requests to regulatory bodies, which may lack the administrative capacity to process such a high volume of applications or determine the best way to handle the situation. This is concerning, as insufficient state attention to this issue could hinder the progress of APD initiatives due to administrative constraints, or, if progressed, it could proceed inadequately.
- Inadequate advancement in this matter implies a risk that public bodies might issue authorizations for purposes beyond the intended carbon project development.
- The slow pace of license issuance creates a perverse incentive for landowners to deforest without authorization - even in cases where they meet the legal requirements for obtaining an ASV.
- Finally, an increase in license approvals could raise the risk of project non-permanence, as the authorization could be exercised if the landowner decides to abandon the project.

For these reasons, it is argued that **requiring vegetation suppression authorization, in addition to not ensuring project additionality on its own, could introduce serious risks**. This is why it is essential that Certification Standards do not overlook local realities in applying their methodologies.

### **Achieving Integrity in APD Projects**

Since REDD+ implementation in general relies on counterfactual demonstration of avoided deforestation, in theory, defining APD risk would be simpler, as it relates to the native vegetation area on the property that the landowner could legally deforest. Furthermore, determining this area is not subject to interpretation, as it is based on current regulations, in Brazil's case, the 'Forest Code.' (v)

The challenge with this line of reasoning lies in the additionality concept discussed earlier. **The mere existence of native vegetation legally eligible for clearing does not demonstrate additionality**, as the conversion process must be economically viable, backed by documentation of a feasible forest exploitation plan and land-use conversion plan. This document should present a quantitative and descriptive survey of the existing vegetation and outline the planned land use after clearing.

Thus, the argument that many APD projects present questionable additionality centers on the feasibility and validity of the deforestation plan. Market agents fear that a significant

portion of APD projects may be issuing unbacked carbon credits, oversupplying the market and undermining other high-integrity initiatives.

It remains unclear what specific innovations the APD module of the VM0048 methodology will bring to address these concerns or how APD jurisdictional data will complement AUD data. It is expected that the module will introduce more objective criteria for project implementation, **however, it is not yet known to what extent the Standard will provide specific guidance to developers and auditors tailored to the local reality.** There is still time to incorporate these considerations.

**The requirement for a vegetation suppression authorization alone is not a definitive means to demonstrate additionality in Brazil.** Other methods exist to verify the feasibility and intention of deforestation that, given the Brazilian context, could mitigate the previously mentioned risks. In contradiction to the concept of APD described here, there is a high incidence of planned deforestation in Brazil that is carried out illegally, without authorization. This means that many private agents choose to undertake deforestation, assuming the risk of fines, because they know that the licensing process is bureaucratic and costly.

Historical data on the issuance of suppression permits do not accurately reflect planned deforestation activity. According to MapBiomass analysis (i), in 2023, 67.4% of all deforestation in Brazil occurred on private land; however, only 26.8% showed signs of compliance, and just 4% of the deforested area over the past five years exhibited no indications of illegality or irregularity. In the case of the Amazon, where Brazil's REDD+ projects are concentrated, this contrast is even greater. MapBiomass (2021) data show that only 0.4% of deforestation events in the Brazilian Amazon are legally authorized by ASVs. Thus, **requiring an authorization does not reflect typical practices and does not logically determine the feasibility of applying the APD approach.**

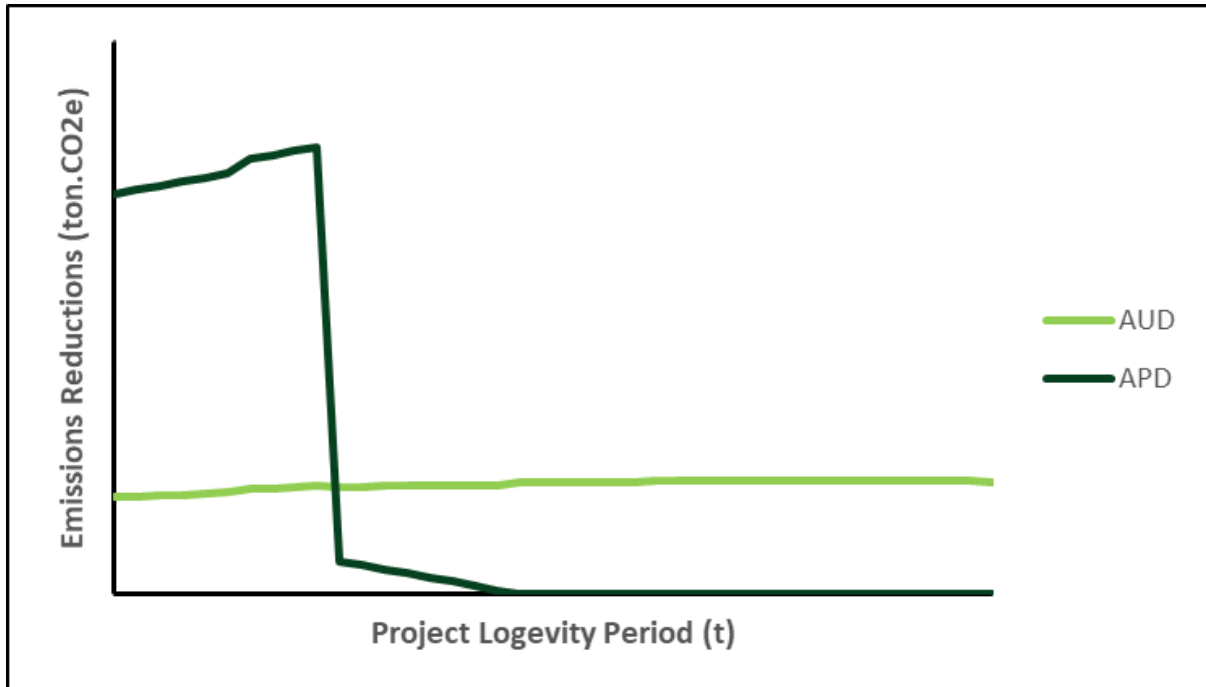
Since Verra has yet to specify the baseline application method, a practical recommendation is proposed. To ensure that the viability and applicability of the project do not depend solely on the proponent's proof or an authorization issuance, the definition can be corroborated with regional data based on opportunity cost variables of the land. Thus, the higher the opportunity cost, the greater the conversion rate of forests would be, and vice versa. In this logic, regions with a zero opportunity cost would not be considered additional, and the project would be automatically rejected. To correct any flaws in the opportunity cost data, the project could resort to a method of selecting control areas, which would consequently be used to refine the jurisdictional data. In other words, to obtain certification, in addition to presenting a feasible suppression plan, the project should calibrate the risk rate based on the jurisdictional data of the land's opportunity cost.

Beyond additionality, permanence<sup>3</sup> is an essential factor for demonstrating integrity. All forest carbon projects must ensure permanence through contractual mechanisms. AUD projects, as they have their baseline associated with the deforestation rate in the region where they are located, can generate credits throughout their entire duration. On the other hand, in APD projects, the baseline is derived from a forest suppression plan or comparison with proxy

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<sup>3</sup> The concept means that reductions or removals of GHG emissions must be permanent or, where there is a risk of losses, there must be measures to address these risks or compensate the losses.

areas, which tends to allow total credit generation over a short period, with zero generation for most of the remaining duration of the project. These aspects directly influence the risk of non-permanence, as, after generating credits, landowners could choose to abandon the project and engage in deforestation before completing the 40-year period.



Comparative illustration of the dynamics of credit generation in the AUD and APD approaches.

Concerns about the risk of non-permanence are legitimate. In this regard, the VCS Standard has been enhancing its risk mitigation tools through the structuring of a buffer account for reversal compensation, which retains a percentage of project credits and functions as market insurance. The tool that determines the contribution rate should ideally reflect the project's risk context. There is still room for improvement, but an established mechanism already exists for compensating non-permanence risks.

### The role of state governments

From the governments' perspective, there is a concern that ERRs recorded by APD activities may conflict with the states' jurisdictional accounting, given that APD credit volumes tend to be higher than AUD activities in the short term. This is because Unplanned Deforestation tends to be gradual, while Planned Deforestation occurs much faster. However, this conflict should not exist.

According to guidance from the VCS Standard's Jurisdictional and Nested REDD+ Framework (vi), for example, differentiating planned and unplanned activities is considered good practice, as their historical deforestation rates may differ. In other words, the baseline accounting for AUD and APD activities, whether jurisdictional or not, should be separated both quantitatively and geographically, thus avoiding any risk of double-counting. **It is concerning that governments are not being adequately guided in building their jurisdictional systems, and these technical aspects are not being considered.**

Another important aspect to mention is that the application of the APD approach depends significantly on the involvement of government institutions responsible for environmental licensing. Currently, the VCS Standard requires proof of legal permission for deforestation, which can only be obtained through the relevant environmental authority. There is ongoing debate about the need to present suppression authorization for APD project approval, as the Standard does not clearly define the exact “legal permission” that meets the methodology’s requirements for demonstrating intent to deforest. While the ideal scenario for demonstrating applicability would be presenting the ASV, this requirement, as noted, could lead to various impacts.

Therefore, the best approach would be a more objective definition from the Standard, providing guidance to the auditors on APD application, including demonstrating suitability through the Forest Exploitation Plan without the need for deforestation permission requests or approvals. In this process, **effective dialogue and collaboration between project developers, auditors, and government institutions is essential.**

### Final considerations

The trend indicates that **the REDD+ market will evolve towards a jurisdictional model, ideally with the involvement and endorsement of state governments.** This does not mean “nationalizing” the market but rather establishing effective regulations so that accounting is unified and transparent, thus allowing the market to proceed with greater fluidity and less uncertainty for all the stakeholders.

Aiming to strategically consider forest conservation at a territorial scale, **it is essential that the private sector be included in this process.** This sector can be an important partner for governments in implementing Jurisdictional Systems, either as investors and operators of concessions on public lands or benefiting from private commitments via AUD and APD practices. If all these initiatives are properly incentivized and coordinated, everyone wins.

Progress has been made in this direction, with Jurisdictional System structures in some states, such as Acre, Mato Grosso, and Amazonas. Recently, the state of Amazonas released a broad call for REDD+ concession within conservation units. With this approach, Amazonas, for instance, advances on two fronts—top-down, with jurisdictional regulation, and bottom-up, by forming partnerships for private investment in projects.

Additionally, governments should maintain a broad perspective on the REDD+ mechanism. **Strategically considering the APD approach is fully aligned with the pragmatic vision of eliminating illegal deforestation and fully implementing the Forest Code,** through environmental regularization of rural properties and diverse channels for economic incentives to conserve private forest remnants.

The REDD+ agenda is broad, with important nuances that need to be properly explored so that the integrity debate is qualified, fair, and focused not only on criticism but also on finding solutions. These solutions are emerging through various ways—from the market, through rating agencies and initiatives such as [IC-VCM](#) and its [Core Carbon Principles](#)<sup>4</sup>; through the

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<sup>4</sup> The Integrity Council for the Voluntary Carbon Market: ICVCM

accelerated evolution of Standards; and through the essential involvement of governments and the private sector.

The evolution and improvement of REDD+ tends to make it more robust and integral. What few realize is that, despite the criticisms, **the REDD+ mechanism is quite mature in the context of the voluntary carbon market and is ahead of other Nature-Based Solutions.** Restoration practices are undoubtedly important, but financing conservation in the short term is crucial since, among other reasons, the cost is lower, and in many cases, biodiversity loss is challenging to fully recover. Therefore, **the consolidation of REDD+ is the low hanging fruit of the voluntary carbon market within reach of all**, which will undoubtedly pave the way for the growth of other practices. In the end, from a climate management perspective, everything is interrelated.

#### Reference Notes:

- (i) MapBiomas. Relatório Anual do Desmatamento no Brasil 2023
- (ii) Verra – VCS Standard
- (iii) ART – THE REDD+ ENVIRONMENTAL EXCELLENCE STANDARD: TREES
- (iv) Verra - REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION: VM0048
- (v) LEI Nº 12.651, DE 25 DE MAIO DE 2012: Código Florestal
- (vi) Verra - JURISDICTIONAL and NESTED REDD+ Framework: JNR