



ART Additionality Primer and Frequently Asked Questions

Introduction

Additionality is a central concept for the carbon market. In general, a result is considered additional if it exceeds emission reductions or removals that would otherwise occur in a conservative, business-as-usual scenario. For REDD+ this means that the activities reduced emissions and/or increased removals at higher levels than would have occurred in the absence of REDD+ implementation (i.e., the business-as-usual scenario). Additionality is key in ensuring the issuance of high-quality carbon credits.

Achieving additional emission reductions and removals is emphasized by the need for urgent and compelling climate action, as shown by the IPCC's Sixth Assessment Report¹. Nature-based solutions, in particular the protection and restoration of forests, are critical to deliver near-term climate results at scale and serve as crucial pathways to meet the goals of the Paris Agreement² and limit the planet's warming to 1.5 degrees by mid-century. Therefore, it is important to promote REDD+ actions that transform business-as-usual practices and yield additional emission reductions and removals, thus incentivizing forest conservation and restoration. The goal of the present document is to present more details on how the TREES methodology addresses the issue of additionality at the jurisdictional scale and answer some frequently asked questions on the topic.

Background

Determining additionality of REDD+ initiatives will depend on numerous factors, including the scale of the planned activities. The principles used to calculate additionality for projects, which are much smaller in scale, cannot be applied to jurisdictional (national or subnational) REDD+ activities. For example, it is virtually impossible to establish a reference region for a national level REDD+ program as several conditions, such as existing forest protection laws and regulations of industrial and agricultural activities, among others, vary from country to country. Traditional project-based additionality tenants such as regulatory and financial tests do not make sense when the government is the program proponent. It is clear that finance is needed to make protecting and restoring forests economically attractive compared to the activities that are the drivers of deforestation. In addition, enacting laws and increasing enforcement are the most effective activities to generate jurisdictional scale results.

Under TREES, additionality at the jurisdictional scale for the TREES Crediting Level and the Removals crediting approaches is ensured through a performance-based approach that is established by a conservative historical baseline or "crediting level". The performance-based approach for additionality

¹ <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>

² <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>



under ART ensures that credits will only be issued if emissions are demonstrated to be reduced below the crediting level, or removals are demonstrated to be above the crediting level. Using historical averages to set the baseline (against which performance is assessed, and additionality is determined) naturally captures current impacts of laws, regulations, fiscal policies, commodity prices, local and regional actions, all the many layers that impact a jurisdiction's performance. Historical averages also capture cycles of drought, pest infestation, fires and other natural disasters which may vary from year to year. The impact of future changes can be truly evaluated only by using the integrated annual emissions. To do otherwise would allow cherry picking of only some factors that may have an impact without including all. Conceptually, using a performance-based approach for jurisdictional additionality assessments is the most relevant because governments already have the power to draft and enforce legislation to address emissions; the fact that they haven't been incentivized to do so to date (resulting in forest loss) means that any generated results based on jurisdictional actions as compared to the jurisdiction's own recent historical past is the best metric to demonstrate additional climate progress.

This type of performance-based additionality is widely accepted among carbon market stakeholders, including highly respected organizations such as the U.N.'s ICAO (International Civil Aviation Organization), and is the most appropriate for jurisdictional-scale REDD+ programs. ART requires all Participants to describe the drivers of deforestation and degradation within their accounting areas, as well as the new and ongoing activities they undertake to mitigate these drivers. The performance-based approach for additionality guarantees that credits will only be issued for reductions and removals beyond the crediting level, ensuring that the new and revised, or improved, REDD+ activities are driving climate mitigation performance and yielding TREES Credits.

Summary of TREES Requirements

TREES 2.0³ offers three different crediting approaches: two for emissions reductions and one for removals. Section 3 of TREES 2.0 lists key jurisdictional program requirements, including determining additionality. ART requires jurisdictions (Participants) to submit a REDD+ implementation plan outlining the new and ongoing REDD+ program activities, including their locations. This forms the basis for additionality under ART as Participants need to indicate what activities, beyond business-as-usual, are being implemented and where. The additionality criteria for each TREES crediting approach are outlined below.

1. **Emissions reductions generated using the TREES Crediting Level demonstrate additionality when monitored and reported emissions are verifiably below the performance threshold defined by the TREES Crediting Level (historical 5-year period average).** The crediting level must be updated every five calendar years and may not be higher than the previous crediting level. This ensures continued additionality of any generated emission reductions.
2. **Emissions reductions generated using the HFLD Crediting Level use a positive list additionality test.** This is based on categorizing Participant status and a conservative estimate of forest loss

³ <https://www.artredd.org/wp-content/uploads/2021/12/TREES-2.0-August-2021-Clean.pdf>



that underpins the crediting approach. Section 5.2 of TREES 2.0 specifies that to qualify for HFLD crediting, Participants must meet the HFLD Score threshold in every year of the historical reference period. If they meet this eligibility criteria, then their emissions reductions are deemed additional. This “positive list” additionality approach for HFLD is different than the performance-standard approach for non-HFLD emission reductions and removals credits. ART recognizes that HFLD jurisdictions are critical for forest protection and contribute significantly towards reducing the impacts of the global climate crisis, yet these HFLD jurisdictions face ongoing threats that require stakeholder action. For this reason, ART acknowledges that forested jurisdictions with low deforestation should be incentivized to continue their efforts to keep forests protected. For more information pertaining to HFLD, please see the [ART HFLD Primer](#).

- 3. Removals generated using the TREES Removals Crediting Level demonstrate additionality through a two-step process:**
 - a. The Participant’s emissions from deforestation and degradation have been reduced below the conservative historical TREES Crediting Level during the same year removals credits are sought; in other words, removal activities can only be credited if emission reductions were also achieved in the same accounting area during the same period; and
 - b. The Participant’s monitored and reported removals are verifiably above the TREES Removals Crediting Level based on a historical 5-year reference period.

Frequently Asked Questions

- 1. Does ART require Participants to directly attribute policies and initiatives to a resulting emission reduction or removal? If not, does ART require Participants to document new and ongoing activities?**

ART does not require evidence of direct causality between an intervention and a resulting emission reduction or removal (ERR). Given the complex nature of activities at a jurisdictional scale, direct attribution would be difficult to assert and verify.

However, ART Participants are required to provide a REDD+ Implementation Plan. The REDD+ Implementation Plan shall be part of the initial documentation submitted to ART as well as each TREES Monitoring Report (TMR). Each TMR must outline the new and ongoing REDD+ activities implemented as part of the jurisdictional REDD+ program and includes a requirement to define where the activities are occurring. This requirement ensures that Participants transparently identify the activities implemented as part of their REDD+ program that result in emission reductions or removals.

Any emission reductions or removals resulting from new and revised existing REDD+ activities and policies will be evident when compared to the historical crediting level, calculated using a period where such activities were absent. ART will only issue TREES Credits beyond the crediting level, providing assurance that the new and revised or improved REDD+ activities are driving performance and resulting in marketable credits.



2. How does ART confirm that a Participant's forests are currently under threat of deforestation?

ART requires all Participants to describe the drivers of deforestation and degradation as well as the new and ongoing activities they undertake to mitigate these drivers. This information is validated and verified by the independent auditor. Because TREES does not allow adjustments of crediting levels based on projections of individual activities, TREES does not require evidence of the amount of deforestation or degradation caused by each driver or the effect of each mitigation strategy.

3. Are HFLD TREES Credits additional and fungible with non-HFLD TREES Credits?

Yes, HFLD credits under TREES 2.0 constitute additional climate action. Published scientific projections⁴ are that future deforestation will extend into intact, high carbon forests, resulting in greenhouse gas emissions of an estimated 170 billion tonnes of CO₂ by 2050, equivalent to four times annual global CO₂ emissions in 2019. TREES 2.0 incentivizes jurisdictions to continue to conserve intact forests since protecting the carbon of these forests is essential to meeting the goals of the Paris Agreement.

ART recognizes that HFLD jurisdictions are critical for forest protection and contribute significantly towards reducing the impacts of the global climate crisis, yet these jurisdictions face ongoing threats that require stakeholder action. For this reason, ART acknowledges that forested jurisdictions with low deforestation should be incentivized to continue their efforts to keep forests protected.

Therefore, recognizing the growing threats to all tropical forests, a conservative approach to HFLD crediting that considers the unique circumstances of this category of forests is crucial. To qualify for HFLD Crediting, Participants must meet the HFLD Score threshold (Section 5.2 of TREES 2.0). The HFLD Score is a composite of the Participant's Deforestation Rate Score and Forest Cover Score. This "positive list" additionality approach for HFLD is different than the performance-standard approach for non-HFLD emission reductions and removals credits. Under TREES, only jurisdictions that meet the rigorous HFLD threshold values for high forest carbon stocks and low deforestation rates are eligible to utilize the optional HFLD crediting approach.

The TREES HFLD methodology sets a reference level based on average emissions from deforestation and forest degradation in the recent past, plus a percentage of the remaining forests' carbon stock, which is used as a conservative proxy of forest loss across the entire jurisdiction's accounting area if no REDD+ conservation actions are undertaken. TREES only calculates emission reductions based on a fraction (less than 0.05%) of a jurisdiction's carbon stock — meaning that credits are conservatively-issued and meet the additionality criterion for carbon market financing. The total percentage is actually less than 0.05% because it is multiplied by the HFLD Score, which will always be less than one. This means that to set the HFLD Crediting Level, the TREES Crediting Level is adjusted by less than 0.05% of the standing forest carbon stock in the HFLD jurisdiction, and this small fraction represents a conservative proxy⁵ of the actual risk of deforestation or forest degradation in HFLD jurisdictions.

⁴ Busch, J. & Engelmann, J. (2017). Cost-effectiveness of reducing emissions from tropical deforestation, 2016-2050. *Environmental Research Letters*, 13, 015001. <https://doi.org/10.1088/1748-9326/aa907c>

⁵ Teo, H. et al. (2024). Charting the future of high forest low deforestation jurisdictions. *PNAS*, 121(37). <https://doi.org/10.1073/pnas.2306496121>



Participants report annual emissions from deforestation and forest degradation during the 5-year crediting period (per the monitoring and reporting requirements in TREES). If annual emissions are below the HFLD Crediting Level, then the difference between the HFLD Crediting Level and the reported annual emissions value are the eligible emission reductions (ERs) for that period. Leakage, buffer pool, and uncertainty deductions are taken as applicable, and, following successful validation and verification, the net quantity is issued into the Participant's account as serialized TREES Credits. If reported annual emissions are above the 5-year historical emissions average by greater than 15% but are not greater than the HFLD Crediting Level, then an HFLD rising emissions deduction is taken from the final ERs according to TREES Section 5.2.2. This deduction can be up to 100% of the credits if the annual emissions rise significantly.

Like all other ART Participants, TREES requires action from HFLD jurisdictions. Under TREES, all HFLD jurisdictions must have a REDD+ implementation strategy that establishes the new or revised actions they are taking to mitigate the drivers of deforestation and degradation in the crediting period. These actions contribute to low deforestation rates in their jurisdictions, and without financial incentives, it is unlikely that forests in HFLD areas will remain effectively protected. Moreover, providing incentives to jurisdictions with intact forests to protect the at-risk forests lowers the risk of deforestation shifting to these HFLD jurisdictions as nearby jurisdictions with high deforestation begin reducing their forest-related emissions. The incremental value of emission reductions captured by the TREES HFLD methodology represents an additional mitigation outcome in the same sense that a traditional emission reduction methodology does – forests would have likely been lost in the absence of ongoing intervention.

TREES Credits that are issued based on the HFLD crediting approach are labeled as such in the ART Registry for full transparency.

4. Does ART require a demonstration of regulatory additionality?

No, ART does not require a demonstration of regulatory additionality, which is consistent with other jurisdictional scale REDD+ crediting programs. While additionality tests that incorporate regulatory mandates are important for project-level REDD+, they are not appropriate for national or subnational programs. This is because in a jurisdictional scale crediting program, the Participants are governments that already possess regulatory frameworks. They often have existing laws and policies in place, though they may not be consistently enforced. In a jurisdictional approach, applying regulatory levers is an important part of the Participant's strategy for addressing forest loss. If a carbon crediting program prevented jurisdictions from using such key tools, then this would significantly reduce their ability to affect change.

Domestic policies can be some of the most effective means to address the drivers of deforestation. Domestic policies could include a wide variety of legal, regulatory and policy measures that influence various aspects of land use, including permitting requirements, land and forest management policies, addressing land tenure issues, offering incentives, improving enforcement of policies, using fiscal levers, as well as many others. Policies and laws are important tools for governments to reduce their emissions, thus requiring test of regulatory additionality are inappropriate at jurisdictional REDD+ scales.



5. Does ART require a financial additionality test?

No, ART does not require a financial additionality test, which is consistent with other jurisdictional REDD+ programs. Financial additionality tests, or activities that would not have occurred without the revenues from carbon financing, at the jurisdictional level are not appropriate. A variety of factors make financial additionality unreasonable at the jurisdictional scale, which can be attributed to social and economic drivers. When it comes to forest protection and restoration efforts, all alternative land uses offer significant financial advantages, so the only reason a jurisdiction would pursue a jurisdictional scale crediting pathway is under the assumption that alternative forest finance streams will be forthcoming, as has been promised by the international community for decades.