

# TREES 2.0 Statement of Reasons

## Intro

The Architecture for REDD+ Transactions (ART) has been developed to promote the environmental and social integrity and ambition of greenhouse gas (GHG) emission reductions and removals (ERRs) from the forest sector to help catalyze new, large-scale finance for REDD+ (reducing emissions from deforestation and forest degradation and enhancements of forest carbon stocks) and to recognize jurisdictions that deliver results. ART provides a credible standard and rigorous process to transparently register, verify, and issue REDD+ emission reductions and removals credits that ensure environmental and social integrity.

When ART published TREES 1.0 in February 2020, TREES focused exclusively on slowing and halting deforestation and forest degradation. At that time, ART signaled that the next version of TREES would consider expanding to crediting restoration of forests and protecting intact forests and to HFLD jurisdictions thereby offering incentives for Participants to benefit from a wider variety of climate mitigation activities.

The new crediting approaches in TREES 2.0 were developed with input from two expert committees; the HFLD Committee and the Removals Committee. In addition, the ART Secretariat commissioned a study to evaluate options for Indigenous Peoples participation, and also worked with a statistics expert to develop an updated approach for uncertainty. The public consultation version of TREES 2.0 included an approach for crediting removals, an innovative approach for HFLD Participants, a pathway for Indigenous Peoples to benefit from REDD+ markets, a new approach for calculating uncertainty, and requirements to avoid double counting with the International Civil Aviation Organization (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

The ART Secretariat published the draft REDD+ Environmental Excellence Standard (TREES) version 2.0 for stakeholder consultation for 60 days between February 1 and April 2, 2021 and accepted late submissions through April 7. The Secretariat received 26 formal submissions totaling 293 individual comments.

The ART Secretariat held an additional public stakeholder consultation period for a revised draft version of the High-Forest, Low-Deforestation (HFLD) crediting approach for Version 2.0 of TREES. The additional consultation period extended from May 24, 2021 to June 23, 2021 with late submissions accepted through July 7. The ART Secretariat received 8 formal submissions totaling 82 individual comments.

The comments in both consultation periods were thoughtful and reflected both understanding of REDD+ and a wide breadth of expertise. The comments and questions covered many topics and offered numerous suggestions for improvement. Responses to all comments are available in the TREES 2.0 Comment and Response Log posted on the ART website.

This Statement of Reasons document seeks to highlight ART's treatment of the key issues that received the most comments and have a greater impact on the outcome of TREES. The approach and rationale taken to address stakeholder comments related to these key issues is described below.

## HFLD Crediting Approach

It is widely recognized that forests are critical to meeting Paris Agreement<sup>1</sup> goals of limiting the planet's warming to 1.5 degrees. REDD+ recognizes the critical role of protecting, maintaining and restoring forests as a critical solution to combat climate change. Therefore, the goal of REDD+ should be to incentivize all jurisdictions to achieve and maintain high-forest and low-deforestation (HFLD) status.

The intact forests found in HFLD jurisdictions provide both climate mitigation and adaptation benefits by storing carbon, regulating local and regional climate, supplying critical moisture to agricultural lands, resisting wildfire, and serving as an ecological source area to effectively restore and recover degraded lands and continue to provide ecological services humans depend on.<sup>2</sup> Forests influence local and global temperatures and the flow of heat throughout the planet. The process of evapotranspiration cools air temperatures and the volatile organic compounds that are emitted by trees increase cloud cover which reflect heat and have a cooling effect.<sup>3</sup> Recent studies have further confirmed that forests play a more important role in cooling the surface in almost all regions of the Earth than was previously thought.<sup>4</sup>

Deforestation is projected to increase all over the tropics, totaling nearly 290 million hectares from 2016-2050,<sup>5</sup> raising an urgent need to incentivize conservation of remaining forest stocks. Models that are calibrated with historical patterns of deforestation forecast deforestation to rise in Latin America and Africa, while staying roughly constant in Asia in the absence of economic incentives for forest conservation.<sup>6</sup>

In HFLD jurisdictions, passive protection of forests has in many cases until recently been the result of the distance from human settlements and roads. Unfortunately, this situation is changing rapidly as encroachment becomes more widespread and infrastructure and extractive activities are extended into previously remote areas. It is estimated that for each hectare of intact forest cleared, seven hectares of forest edges are created (with much larger edge areas reported in Gabon and Guyana).<sup>7</sup> Already 70% of the world's forests lie within one kilometer of a forest edge, which store on average 25% less carbon than areas far from forest edges, and this proportion is rising.<sup>8</sup> Almost 97 million hectares of intact forest, equal to one-fifth of the global area of intact forest, currently lies within mining, oil and gas concessions.<sup>9</sup> Expected future deforestation will penetrate interior, higher-carbon forests, resulting in enormous emissions of greenhouse gases estimated at 170 billion tons of CO<sub>2</sub> just from intact forest by 2050.<sup>10</sup>

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<sup>1</sup> Available at: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

<sup>2</sup> Funk, J. M. et al. (2019). Securing the climate benefits of stable forests, Climate Policy, DOI: 10.1080/14693062.2019.1598838

<sup>3</sup> Ellison, D. et al. (2017). Ibid.

<sup>4</sup> Bright, R.M, Davin, E., O'Halloran, T., Pongratz, J., Zhao, K., Cescatti, A.(2017). Local temperature response to land cover and management change driven by non-radiative processes. Nature Climate Change. Vol 7.

<sup>5</sup> 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>

<sup>6</sup> Busch, J. & Engelmann, J. (2017). Ibid

<sup>7</sup> Maxwell, S. L. et al. (2019). Ibid.

<sup>8</sup> Haddad, N. M. et al. Habitat fragmentation and its lasting impact on Earth's ecosystems. Sci. Adv. 1, e1500052 (2015).

<sup>9</sup> Grantham, H. S., Tibaldeschi, P., Izquierdo, P., Mo, K., Patterson, D. J., Rainey, H., ... Jones, K. R. (2021). The emerging threat of extractives sector to intact forest landscapes. Frontiers in Forests and Global Change, 4. doi:10.3389/ffgc.2021.692338

<sup>10</sup> Busch, J. & Engelmann, J. (2017). Ibid

Moreover, there is a risk that deforestation pressure will shift to HFLD areas as high deforestation regions engage in efforts to reduce their local rates of forest loss, incentivized in part by the prospect of revenues from forest carbon credits. This effect is known as displacement or leakage, and if left unaddressed it can erode efforts to control deforestation-related emissions at a global scale. Studies suggest that creating incentives to maintain carbon stocks in HFLD areas can be an effective solution to reduce the risk of such leakage across jurisdictions.<sup>11</sup>

The ART Secretariat and ART Board greatly appreciated the comments received and consultations conducted on the proposed HFLD crediting approach from 16 different countries, organizations and individuals. The comments were thoughtful and covered many topics. Several themes arose:

- The initially proposed HFLD crediting approach only provided incentives for HFLD Participants with rising emissions and did not provide any incentives for those with decreasing or stable forest emissions profiles. This could lead to perverse incentives for HFLD jurisdictions to allow emissions to rise prior to joining ART.
- The initially proposed approach likely would only provide benefits for one crediting period.
- The initially proposed approach allowed for a Crediting Level that increases over time, which diverges from the TREES Crediting Level approach, which remains constant for all 5 years of the crediting period.
- The initially proposed approach did not differentiate based on the unique characteristics of HFLD jurisdictions such as the quality of the forest carbon stock protected or the HFLD Score.

Several organizations and countries provided suggestions for alternate approaches that would focus on providing incentives to HFLD jurisdictions by rewarding them for attributes that are unique to them. The ART Board carefully considered these suggestions. Following these deliberations, the ART Secretariat proposed a new approach for determining an HFLD Crediting Level and conducted a second public consultation on the new approach, which responded to many of the suggestions and comments submitted during the first public consultation. ART again was appreciative of the responses and consultations from eight different countries and organizations on the revised approach. Many of the comments were supportive of the approach as it incorporates the unique attributes of HFLD jurisdictions and recognizes the need to reward them for protecting vast forest cover (since HFLD jurisdictions are not able to benefit from the traditional REDD+ crediting approach).

Following review of the comments and further analysis, two adjustments to the revised HFLD crediting approach were recommended by the ART Secretariat and approved by the ART Board:

1. For the Crediting Level calculation, the carbon stock factor was reduced from 0.1% to 0.05%. A review of other GHG programs found that adjustments ranged from 0.02% of the carbon stock (Green Climate Fund - GCF) to 0.1% of the carbon stock (Forest Carbon Partnership Facility - FCPF). ART had initially proposed that 0.1% of the carbon stock be used because when combined with the HFLD Score, the results were in line with the ranges already used in the market. However, after conducting further analysis, the Secretariat recommended a more conservative factor, in line with ART's commitment to environmental integrity.
2. The deduction that is applied when a HFLD Participant's reported emissions exceed the historical emissions average has been increased to more strongly incentivize HFLD jurisdictions to continue to reduce and maintain lower emissions from deforestation and degradation. ART acknowledges

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<sup>11</sup> Busch, J., et al. (2009). Comparing climate and cost impacts of reference levels for reducing emissions from deforestation. *Environmental Research Letters*. 4, 044006. <https://doi.org/10.1088/1748-9326/4/4/04400>

that some fluctuations will naturally occur when overall emissions are very low, and thus some flexibility has been maintained related to this deduction.

It is worth emphasizing that all ART Participants, including HFLD jurisdictions, must have a REDD+ implementation plan in place. This plan will set out a strategy to implement and operationalize forest monitoring systems, enforce policies that improve forest governance and stewardship, among other things, which all support the maintenance of low deforestation rates.

## HFLD Eligibility

### HFLD Score

The definition of HFLD in TREES 1.0 included a static threshold for forest cover and deforestation rate in line with the Krutu of Paramaribo Joint Declaration on HFLD Climate Finance Mobilization (2019).<sup>12</sup> Stakeholders suggested using a more dynamic score threshold rather than a static definition, which would maintain rigor while providing some flexibility. Based on input from the TREES HFLD Committee, the ART Secretariat proposed the score threshold approach in TREES 2.0. The HFLD Score is comprised of two parts added together – a forest cover score and a deforestation rate score.

The flexibility of the score allows a participant with a greater area of forest but a slightly higher deforestation rate (indicating a higher threat) to still qualify as HFLD. Similarly, a participant that has experienced deforestation and therefore has had forest cover loss but has successfully reduced the deforestation rate could also qualify as HFLD.

Participants whose forest cover is greater than 50% and annual deforestation rate is less than 0.5% during each year of the historical reference period are eligible to calculate an HFLD Score. These values only provide the bounds for eligibility to calculate an HFLD score. They do NOT qualify a Participant as HFLD. Instead, eligible Participants must then calculate their TREES HFLD Score. If the HFLD Score is greater than 0.5 for each year of the reference period, the Participant qualifies as HFLD under TREES 2.0.

### HFLD Scale

The ART Secretariat also received comments suggesting that the HFLD designation should only be applied at a national level and not for subnational participants or for national participants with subnational accounting areas. The ART Board has elected to allow subnational HFLD assessment for several reasons:

1. Subnational participation is a time-bound incentive under ART. After December 31, 2030, only national-scale accounting will be permissible under ART.
2. ART believes it is important to incentivize jurisdictions to continue low deforestation and degradation as they grow their economies and potentially face increased deforestation pressures including from surrounding jurisdictions.
3. Recognized Indigenous territories may be included as subnational accounting areas in submissions of national participants (as described further below). These areas may only see results through the use of an HFLD approach given their longstanding forest protection efforts. Therefore, allowing Indigenous Peoples territories to be eligible for the HFLD crediting approach provides a pathway for Indigenous Peoples to benefit from REDD+ finance.
4. All subnational accounting areas are required to mitigate the risk of leakage by applying a deduction corresponding to the percentage of forest areas included in accounting.

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<sup>12</sup> ibid

## Removals

With TREES 2.0, ART has expanded to include crediting for the establishment of new forests which remove carbon from the atmosphere incrementally over time at the jurisdictional scale, adding another critical solution to help drive transformational change in the land sector and achieve the goals of the Paris Agreement.

Based on stakeholder input, the ART Board approved three changes to the removals approach in the TREES 2.0 consultation version.

First, language was added that requires Participants to demonstrate that all areas of newly established forests occur on land that has been non-forest for at least 5 years prior to planting or restoration activities. Since TREES does not require wall-to-wall monitoring, this status can be demonstrated on a site-specific basis, or on a proportional basis derived from unbiased sampling.

Second, non-forest ecosystems were added to Safeguard E (which prohibits the conversion of natural forests). Specifically, the changes are in theme 5.1 (“Non-conversion of natural forests and natural ecosystems”) and theme 5.2 (“Protect natural forests and natural ecosystems, biological diversity, and ecosystem services”).

Third, TREES will allow removals crediting for native forest restoration activities that were initiated up to 10 years prior to the crediting period. TREES will allow the incremental growth from native forest restoration that occurred historically to be considered in the crediting period, but only for the growth occurring on these areas during the crediting period. This applies to native restoration only, which applies a zero baseline. This change was made to recognize the long-term nature of removals activities and allow participants to benefit from the ongoing benefits of early actions.

The Secretariat also received numerous comments suggesting that the addition of removals crediting from forests remaining forests, or enhancement of carbon stocks in existing forests, be included in TREES. Based on recommendations from the Secretariat, following discussions with the Removals Committee, the ART Board decided to limit the scope of removals crediting to non-forest to forest in TREES 2.0. The ART Board and Secretariat recognize the important role that enhanced removals from forests remaining forests play in combatting climate change; nonetheless, the ARB Board decided not to include crediting for enhancement of carbon stocks from forests remaining forests in this version of TREES based on the difficulty in establishing a credible crediting level at jurisdictional scale. The ART Board and Secretariat will actively monitor technological advances that could improve the accuracy of this type of accounting, for consideration in future versions of TREES.

## Indigenous Peoples

TREES 2.0 creates a new opportunity for Indigenous Peoples - who provide a critical global service as effective forest protectors - to contribute to and benefit from large-scale programs to protect and restore tropical forests.

ART greatly appreciated the significant and meaningful feedback received during the public consultation process regarding the options for participation of Indigenous Peoples in ART. Thoughtful comments were received from a variety of stakeholders including environmental NGOs and sovereign nations. We note, however, that no feedback was received directly from Indigenous Peoples communities.

The official comments and informal comments received focused on a few key topics:

1. The proposed scale threshold is likely a significant barrier to the direct participation of individual Indigenous Peoples territories.
2. Given low levels of deforestation in many Indigenous Peoples territories, Indigenous Peoples territories are not likely to benefit from participation unless eligible for crediting under the HFLD approach.
3. Ensuring application of the safeguards is extremely important for this stakeholder group.
4. Indigenous Peoples territories have unique governance structures different from each other and from the national governments, with one result being that the application of the TREES safeguards framework to Indigenous Peoples territories as direct Participants would not be appropriate or feasible.

The scale threshold was proposed based on alignment with the scale eligibility threshold requirement for subnational participation in ART. Comments were received in support of maintaining this threshold for Indigenous Peoples territories to manage the risk of leakage. The ART Board decided to maintain this threshold, understanding that it would exclude most Indigenous Peoples territories from eligibility, and instead agreed on an alternative path to facilitate the recognition of the performance of Indigenous Peoples territories under ART.

TREES 1.0 allows subnational jurisdictions that wish to aggregate to meet the scale threshold to do so through an agreement to establish a subnational accounting area as part of a national submission. In TREES 2.0, this option has been expanded to also allow for Indigenous Peoples territories to participate in aggregate and/or join with one or more non-indigenous subnational jurisdictions through an agreement to establish a subnational accounting area for a national submission. In this manner, ART enables Indigenous Peoples territories of any size the ability to contribute to and benefit from the carbon market by working with other Indigenous Peoples territories and/or non-indigenous subnational jurisdictions and the national government to participate in ART.

ART fully appreciates the important contributions that Indigenous Peoples make as stewards of forests. ART recognizes that many Indigenous Peoples have successfully protected their territories through substantial effort and have not experienced large amounts of deforestation to date. As described in the HFLD section above, subnational accounting areas submitted by a national Participant may qualify as HFLD and therefore use the optional HFLD crediting level approach. This enables recognized Indigenous Peoples territories aggregated into a subnational accounting area under a national Participant access to the HFLD crediting level approach, which may better reflect and recognize their historical performance in protecting their forests. ART hopes that a crediting approach that incentivizes HFLD Participants will encourage national governments to increase dialogue and collaboration with Indigenous Peoples territories in forest protection and restoration efforts.

ART agrees with several commenters regarding the need to ensure that the TREES safeguards are fully implemented and, in particular, that the rights of Indigenous Peoples territories are recognized and respected. As described in the TREES Safeguards guidance document, the land tenure theme under Cancun Safeguard B requires the Participant to first describe procedures for the recognition, inventorying, mapping, and securing of customary and statutory land and resource tenure rights where REDD+ actions are implemented. These procedures may be directly related to REDD+ or may be part of other applicable frameworks or policies. Then resources must be allocated to implement the procedures and finally the Participant must demonstrate that stakeholders had access to, use of and control over land and resources in line with their rights.

As outlined in TREES, no credits will be issued unless the Participant can demonstrate ownership of the credit or the right to benefit from payments for the emission reductions or removals (ERRs). For example, in the case where rights to the ERRs are granted to Indigenous Peoples within the subnational accounting area, the government would need to have an agreement with the Indigenous Peoples either to receive the payment for performance for the ERRs or to have full rights to the credits, which would allow for the transfer of title.

The TREES Safeguard themes from Cancun Safeguard C specifically address respecting the knowledge and rights of Indigenous Peoples and members of local communities. These themes include:

- Identify Indigenous Peoples and local communities, or equivalent
- Respect and protect traditional knowledge
- Respect, protect, and fulfill rights of Indigenous Peoples and/or local communities, or equivalent

In line with Cancun Safeguard A, TREES Safeguard theme 1.2 requires that REDD+ activities be consistent with the objectives of relevant international conventions and agreements. When a country has ratified or otherwise officially agreed in a legally binding manner to a relevant international convention the requirements of the agreement(s) or convention(s) must be outlined and the requirements apply to all other TREES Safeguard themes as noted. In some instances, a country may not have ratified an agreement but may have adopted certain provisions in its legal framework, which would be included by reference. For the 23 countries that have ratified the Indigenous and Tribal Peoples Convention (International Labor Organization - ILO 169), this agreement's requirements would be included by reference. For the 148 countries that support the UN Declaration of the Rights of Indigenous Peoples (UNDRIP), any UNDRIP requirements that have been codified in their legal framework would be included by reference and other requirements would be the expected best practice.

## Uncertainty

Based on consultations with stakeholders and experts, ART was alerted to some challenges related to application of the uncertainty approach in TREES 1.0. The first challenge that was identified is related to conducting a Monte Carlo simulation correctly. To address this issue, ART engaged a REDD+ expert at FAO to develop a tool that will help Participants conduct Monte Carlo simulations correctly and avoid the most common mistakes.<sup>13</sup>

The second issue was that TREES 1.0 required separate uncertainty calculations for reference level emissions and reported emissions. This requirement is something that numerous stakeholders criticized, as it is different from the way other carbon crediting programs calculate uncertainty. However, when TREES 1.0 was published, we considered it to be the most robust approach available. Since then we have learned that the approach is overly punitive, and likely a deterrent to participation for some countries, in particular, due to uncertainties associated with accounting of forest degradation emissions, which is required by TREES.

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<sup>13</sup> The Monte Carlo simulation tool is available at: <http://www.fao.org/redd/information-resources/tools>

The revised approach in TREES 2.0 is based on uncertainty calculations of the emission reduction. This new approach is based on a paper published in May 2021<sup>14</sup> that lays out a practical way of reducing **over**estimation risks that would be considered intolerable by market stakeholders. Therefore, rather than reporting and discounting for uncertainties associated with under-reporting, which do not affect atmospheric integrity or ART's credibility or rigor, we now apply a risk tolerance level that considers the risk of over-reporting or overestimation only.

This calculation is done by applying a one-sided confidence interval and requiring conservative discounting based on a 30% risk tolerance for over-reporting. The 30% risk tolerance level is more conservative than approaches used by other jurisdictional REDD+ programs, while still allowing some flexibility for countries with higher uncertainties associated with forest degradation emissions. *Further*, the 15% uncertainty allowance has been removed in TREES 2.0, which now requires conservative deductions at all uncertainty levels above zero, applying a gradual scale.

Finally, a new provision was added which allows Participants to re-calculate uncertainty at 5-year intervals and re-coup deductions if uncertainty has decreased over time. It is hoped that this change will incentivize longer term participation in ART while also encouraging continued improvement in accuracy of carbon accounting methods over time.

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<sup>14</sup> Neeff, T. What is the risk of overestimating emission reductions from forests – and what can be done about it?. *Climatic Change* **166**, 26 (2021). <https://doi.org/10.1007/s10584-021-03079-z>