SHELL RESPONSE TO: ART/TREES PUBLIC CONSULTATION ON TREES 2.0 – 31ST MARCH 2021

Introduction

Shell welcomes the efforts being made by ART to update the TREES Standard. Shell is supportive of REDD+ crediting that offers assurances that the delivery of certified emission reductions/ offsets represents robust tons. In this regard we acknowledge that, as the market for REDD+ credits expands, particularly for nature-based credits, there is a need for credible approaches at multiple (project, subnational and national) levels to promote market integrity. This includes overcoming the discrepancies that occur between projects and national accounting. As an investor in and buyer of offsets, with a wish to continue to invest in Avoided Deforestation projects, we have a stake in:

a) a long-term offset market underpinned by robust technical principles;
b) a system that supports jurisdictional approaches that are credible and sustainable and protect the carbon rights of all rights holders;
c) a system in which projects exhibit credible baselines and can be nested into national or subnational accounting.

We are pleased that ART is inviting comments on its updated standard. Please find our responses to specific sections below.

Sections 3.1 and 3.1.1 – Indigenous Peoples

Topic	Revision or Clarification	Statement of Reason	Shell Response
Eligible participants	Adds criteria for Indigenous Peoples to be considered eligible as subnational accounting areas or as direct Participants in ART.	ART would like to provide a pathway for eligibility of Indigenous Territories as discrete subnational accounting areas under a national Participant or via direct Participation. Eligibility criteria are proposed that align with existing criteria for subnational jurisdictions. A scale threshold is required in order to conform with the ART Immutable Principle that allows for crediting at the "national level, or subnational as a time-bound interim measure, only where it represents high ambition and large scale and is recognized as a step towards national level accounting." ART strongly encourages and welcomes specific comments and feedback on the proposed criteria, in particular from prospective Participants among Indigenous Peoples, national governments, and subnational jurisdictions.	We appreciate the effort by ART to include Indigenous Peoples in its Standard. However, we have several concerns: • Applying the 2.5m hectare threshold would mean that a significant percentage of indigenous lands would be ruled out. • The rights holder to carbon may be excluded from the ability to access credits after 2030, i.e. they must be part of a government run program by this date. • We understand from discussions with the ART Secretariat that ART/TREES takes rights to carbon (be they Indigenous Peoples or land owners) very seriously, and that verification bodies have to check that carbon rights are being respected. However, as ART doesn't allow for carve-outs or opt-in mechanisms, and many countries have yet to explicitly clarify carbon rights, we are concerned that a verifier that does not have expertise on land tenure, forest governance and carbon rights may allow such rights to be assigned to one party over another without full consent of those who may have rightful claims.

Section 3.2 – Removals activities

Topic	Change in text	Statement of Reason	Shell Response
Eligible activities	Adds removals activities	This addition is associated with the inclusion of removals crediting under ART.	We support an effort to include additional REDD+ activities into the standard and understand the challenges of including 'enhancement from forest remaining forests' at this time. However, we would like to emphasize the need for clear stratification for areas of new forests (that generate removals), and the use of appropriate removals factors that take into account forest type, soil type, age class, etc. We suggest including stronger safeguards against natural forests being converted to plantations (incl. oil palm).

Section 3.3 - Additionality

Topic	Change in text	Statement of Reason	Shell Response
Additionality	Adds language on removals	This addition is associated with the inclusion of removals crediting under ART.	We welcome the provisions established by ART for the crediting of activities resulting in GHG removals. The establishment of a reference level for activities resulting in GHG removals faces, however, technical challenges. For example, the segregation of areas in which removal activities of different nature are implemented, i.e. commercial forestry activities versus non-commercial forest restoration activities. In case the additionality of the abovementioned activities is evaluated differently, we would welcome further guidance on the procedures needed to stratify the areas and also any consideration on the possibility of considering specific reference levels for different activities implemented which result in GHG removals.

Section 4.1 – Accounting requirements

Topic	Change in text	Statement of Reason	Shell Response
Accounting requirements	Adds removals accounting language.	This addition is associated with the inclusion of removals crediting under ART.	We suggest to change the wording in the sentence: "*GHG removals for a given year shall be the product of activity data multiplied by removals factor by the time elapsed since the activity began"* to "for a given period" from "for a given year" to suit what is calculated (i.e. multiplied by Time (years) rather than 1)

Section 4.1.3 – Removals factors

Topic	Change in text	Statement of Reason	Shell Response
Removals factors	Adds a new section	This addition is associated with the inclusion of removals crediting under ART.	In our opinion, IPCC Tier 1 emissions factors should be moved away from, in particular where the resulting units are proposed for markets or offsetting purposes. Tier 1 can only be acceptable as a short-term (i.e. 2 years which is what it may take to acquire imagery and analyze it for a complete jurisdiction) interim measure for very specific values, i.e. not as a general approach. Tier 1 values for some specific calculations should only be used in the case that data is not available at the time of certification. Tier 2 data should be the minimum requirement in order to guarantee quality and integrity, with a view to moving to Tier 3 data within a reasonable timeframe. If Tier 1 is used, however, the requirements need to be explicit on how it is shown to be conservative and it needs to be ensured that on-the-ground or peer-reviewed measurements fully capture variability by strata and environment within the jurisdiction. With regards to Standard Operating Procedures (SOPs), we would suggest that SOPs must be widely accepted by national/international authority or peer-reviewed literature for the relevant activity.

			Further, we suggest some reconciliation of non-conformity between measurements undertaken by jurisdictions before joining ART (i.e. pre-joining) and measurements generated during an ART crediting period. Transparency in how pre-joining measurements were collected should confirm adherence to sensible measurement protocols.
Removals factors	Measurements taken before the Participant joined ART are not required to meet these requirements. However, measurements collected after the Participant joins ART must meet these requirements.	n/a	In line with the above, we suggest improved clarity on what happens in the case where the measurements prior to joining ART (e.g. pre-2021) are not consistent with measurements taken after joining ART. This would seem to create a mismatch between the reference level and the monitoring during the crediting period. This is relevant not only for removals, but any measurement used – since the monitoring of the crediting period should be consistent with that used during the reference level to be comparable. Many countries data prior to joining ART may not be compatible with TREES requirements. How does ART intend to uphold market quality offsets in such cases?

Section 4.4 – Scope of activities

Topic	Change in text	Statement of Reason	Shell Response
Scope of activities	Revises language to include removals and to delete the requirement for ex-ante projections of emission sources when justifying de minimis exclusions.	This new language is associated with the inclusion of removals crediting under ART. The requirement for ex ante projections of emissions was deleted due to the inherent inaccuracy and challenges of making such estimates.	We support the position that removals cannot function as compensation for total deforestation emissions. Similarly, we support that the same logic is applied to emissions from forest degradation. In this regard, we believe that "*Emissions from forest degradation can also be excluded where emissions total < 10% of reported deforestation emissions"* is a pragmatic approach, as long as absolute emissions from forest degradation are not larger than the total amount of removals. We suggest including provisions to address this.

Section 5.2 – Optional HFLD crediting level

Topic	Change in text	Statement of Reason	Shell Response
Optional HFLD crediting level	Adds a new section	This new section provides a distinct HFLD crediting approach under ART to reward Participants that meet the TREES High-Forest Low-Deforestation (HFLD) eligibility score, which includes forest cover and deforestation rate. This crediting level approach was developed in consultation with a committee of HFLD experts with the objective of ensuring that HFLD credits are fungible in carbon	We support the acknowledgement that HFLD countries have had a different historic trajectory to other forest countries. However, we are concerned about challenges in setting robust baselines. There is not yet clear scientific evidence on how best to develop projected baselines in cases of historically low deforestation. Due to such challenges, we do not believe such "credits" should be used as offsets by companies. Several challenges include: - The uncertainty in measurement – estimating forest change annually or biannually (as required to have 7 data points over 15

		markets. An easy-to-use tool is available on the ART website to enable Participants to calculate their crediting level according to the proposed method more easily.	years), can be quite high and, as such, significantly affect the projection. It would be useful to clarify how uncertainty is managed to set the projected baseline. - The projection can also change substantially depending on the selected reference period, which appears to be 7 to 15 years (which is a large spread of potential years for the reference period). - The use of a quantile regression is one approach, which could differ substantially from, e.g. a linear projection or other method – making the baseline seem somewhat arbitrary.
Optional HFLD crediting level	In addition, Participants may optionally claim removals from the greenhouse gas storage that would have occurred during the crediting period in forest that would have been lost in the absence of the REDD+ program. In order to quantify these lost removals, the Participant must follow these steps: 1. Estimate the area of forest that would have been deforested during each year of the crediting period by applying a projected deforestation rate (employing the quantile regression described above) per stratum. 2. Subtract the actual area of deforestation from the projected area of forest that would have been deforested. 3. Multiply area of avoided deforestation per stratum calculated in step 2 by an applicable removal factor.	n/a	We believe that IPCC default values may in some cases not be appropriate to conduct such a quantification, specifically taking into account the uncertainty levels that are presented for removal activities. We would also like to gain higher clarity on the temporal scope considered for the areas included in the calculation, i.e. please provide more detailed information detailing if removals are considered only for the crediting period for which it is calculated, or if it accumulates over subsequent crediting periods and, if so, for how long. Finally, we want to highlight that the reference provided in the ART Trees V.2 draft refers to Table 2.9 while we think that it should refer to Table 4.9.

	4. Sum the removals across strata to determine total foregone sequestration as a result of REDD+ program implementation. The foregone removals rate can be derived from measurements in forests within the Participant's jurisdiction. Alternatively the Participant may use the relevant default from the IPCC		

5.3 – Crediting levels for removals

Topic	Change in text	Statement of Reason	Shell Response
Crediting levels for removals	Adds new section	This new section provides a distinct crediting approach for removals under ART for Participants that have successfully reduced emissions from deforestation and degradation. Removals from the conversion of nonforest to forest are eligible for crediting. Crediting for forests remaining forests is not yet eligible, due to issues related to additionality and setting a credible baseline, but it may be considered in future versions of TREES. This crediting level approach was developed in consultation with a committee of removals experts.	We understand that "Strata should be associated with unique removals factors" though it is not obvious how these will be defined, especially as they will change over time (the first year when a forest is visible on imagery it is assigned a removal factor, but that then doesn't increase as those trees grow (?) as crediting from 'forests remaining forests' is not allowed?). Moreover, we believe the basic premise that removals crediting only start to count when visible from satellite imagery creates an issue. Annual areas of non-forested land to forested will likely not be discernible by satellite within a given crediting period until (depending on location, species etc.). Our comment above around clear stratification and allocation based on age class will be an important component: simple growth curves for forest type should be available for most if not all jurisdictions. This could be combined with historical satellite imagery to calculate the age of forest then forecast the changing C stocks (and therefore eligibility).
Crediting levels for removals	The crediting level for removals consists of an average annual area of conversion from nonforest to forest land during the 5 calendar-year reference period. Annual areas converted from non-forest to forest during the crediting period are eligible for crediting. Annual areas of conversion of non-forest to forest land can be derived from	n/a	Our interpretation is that this is just used to determine when additional areas are eligible for crediting. Additional metrics beyond % conversion non-forest to forest need to be included, e.g., growth curves, canopy cover rate of increase. We emphasize the stratum's (or individual commercial plantation's) long-term average should not be counted twice (or more).

	remote sensing and/or verifiable recorded statistics, but the source of activity data must be consistent between the reference period and the crediting period. Annual areas of non-forest converted to forest land shall either be recorded or interpolated.		
Crediting levels for removals	Stratification of areas between "types" of conversion to forest land is advised, and at a minimum stratification between commercial forest and natural forest restoration is suggested. Commercial forest is defined as any homogeneous tree planting or forest regeneration with the purpose of timber, fiber, fruit or tree sap harvest for a commercial local, national or international market. Natural forest restoration is defined as tree planting or natural regeneration of native species with the intention of restoring natural forest cover, without a commercial purpose.	n/a	We require more clarity on how the assignment of removals factors is going to be applied to the different commercial uses – all of which have very different emission profiles over time. We agree stratification at a minimum must differentiate between commercial forestry, natural forest restoration (e.g., wind-blown seeds), and planted forest restoration. But we strongly encourage much more location- and ecosystem-specific stratification. Moreover, we would like to express our interest to understand better if and how survival rates / mortality of credited new forests be taken into account over time. Additionally, how trees that are considered crops (e.g. fruit trees) can be included by countries as commercial forests.

Crediting levels for removals	Strata should be associated with unique removals factors (see Section 4.1.3). Where separate factors do not exist for a given stratum, strata shall be combined as needed so unique removal factors are applied to each stratum.	n/a	
Crediting levels for removals	If stratification clearly distinguishes the areas of natural forest restoration, they can be excluded from additional crediting level analysis. All new areas of natural forest regeneration reported under ART are eligible for crediting	n/a	Unclear whether natural regeneration (non-commercial) is included. It seems that this could potentially generate large (non-anthropogenic) removals, particularly if there was high deforestation during the reference period and then the reference level for non-commercial, new forests is set at zero. We highlight the challenge for naturally regenerated areas is not if they regenerate, but actually if the conditions to ensure the long-term permanence and enhanced carbon stock actually exist.
Crediting levels for removals	For strata which include commercial forest planting and restoration, the crediting level shall be established using an average of the annual area of conversion of non-forest to forest. This annual average area of non-forest to forest land conversion shall serve as the crediting level for removals crediting.	n/a	As per our comment above – this requires provision on how the long-term average carbon stock is not credited twice.
Crediting levels for removals	In any given year of the crediting period, areas of non-forest converted to forest land that exceed the crediting level area shall be multiplied by the removals factor for that stratum to estimate	n/a	

	the net9 carbon removals eligible for crediting. This eligible area will be recorded and maintained in an 'ongoing removals stratum' annually to estimate the additional annual total of removals.		
Crediting levels for removals	For each hectare of planted and restored forest (natural or commercial) that is subsequently recorded as being deforested, one hectare shall be removed from the area maintained in the 'ongoing removals stratum' used to calculate additional annual removals. Where possible this shall be justifiably assigned to a comparable non-forest to forest stratum. When using stratified area estimates, or systematic or random sample based remote sensing approaches to estimate activity data, it shall be conservatively assumed the loss impacts the stratum with the highest removal factor.	n/a	As per our comment above – this reads as if a hectare can move back and forth between the classifications of 'ongoing removals stratum' and 'deforested'. As per our comment above – this requires provision on how the long-term average carbon
Crediting levels for removals	If an area that is being credited for removals under ART is converted back to non-forest, these emissions must be reported as deforestation emissions in next monitoring report submitted to ART.	n/a	

Section 7.1.2 - Reversals Buffer Pool Contribution

Topic	Change in text	Statement of Reason	Shell Response
Reversals Buffer Pool Contribution	Modifies the equation to add removals.	This addition is associated with the inclusion of removals crediting under ART.	We welcome the modification of the equation to calculate the contribution to the buffer pool. We would like, however, to highlight that the following aspects are worth considering: 1) ART does not detail provisions for the scenario in which the emissions associated to reversal events exceed the volume of credits retained in the buffer pool. 2) In case that, to attend the issue exposed in section 1) above, it is considered a "jurisdictional carbon credit debt", i.e. a provision under which a jurisdiction having experienced a reversal event not covered by the buffer pool has to discount the exceeding amount of the buffer pool from its future jurisdictional performance, we suggest to include provisions to avoid the disincentivizing of jurisdictions, i.e. avoid that jurisdictions cease to pursue the certification motivated by the prospect of getting access to a lower amount of emission reductions than what has been actually achieved.

Section 7.2.1 – Leakage deduction

Topic	Change in text	Statement of Reason	Shell Response
Leakage deduction	Modifies the equation to add removals.	This addition is associated with the inclusion of removals crediting under ART.	For the leakage equation, we would suggest taking into account the area of forest at risk of loss rather than the area of all forest outside the jurisdiction when assigning % Leakage deduction.

Section 8 – Uncertainty

Topic	Change in text	Statement of Reason	Shell Response

Uncertainty	Revises the approach to determine the uncertainty of the ERRs and assign a deduction based on the risk of over-crediting corresponding to an ART-wide tolerance level.	This section was changed to address ART's intent to update the uncertainty approach in TREES 2.0 based on continued evaluation of approaches and consultation with experts. These changes now include the quantification of the uncertainty of the emission reduction and removal value, and only applies deductions when ERRs could be overestimated. A tool to assist Participants to correctly conduct a Monte Carlo simulation will be posted on the ART web site.	This is a welcome improvement in the standard, i.e. the requirement to calculate uncertainty of the ER. This is important for transparency. We understand that Equation 6 would allow a ~30% risk of overestimation. We don't suggest immediately ratcheting this percentage down, however, we would like to express that as a corporate buyer, we are concerned that this could create credits that, in essence, are not real. We don't believe that ART wants to be in a position where 30% of its registry is potentially 'hot air' so would like to understand if there is a roadmap to progressively lower this uncertainty range.
Uncertainty	Model and allometric errors are excluded, as such errors are considered consistent between emissions in the crediting level and crediting periods, and thus the transaction cost and capacity building needed to include far outweigh any benefit in uncertainty determination.	n/a	While we acknowledge that model and allometric errors are consistent between emissions in both the crediting level and the crediting period, we encourage ART Trees to include provisions to inform about the significance of such errors. It would be perhaps also useful to establish a procedure that leads to a continuous error reduction, and to continuous improvement in the estimation and quantification of error's significance.

Section 9.2 - HFLD eligibility

Topic	Change in text	Statement of Reason	Shell Response

HFLD eligibility	Replaces the definition of HFLD with a calculated HFLD Score and threshold approach.	This change was made based on consultation with HFLD experts, who indicated that a dynamic score is more robust than a static definition.	As noted above, we support the acknowledgement that HFLD countries have had a different historic trajectory to other forest countries. However, we do not believe such credits should be considered as offsets and would suggest a separate certification, rather than simply tagging such units under TREES.

Section 10 – Calculations of ERRs

Topic	Change in text	Statement of Reason	Shell Response
Calculation of ERRs	Revises the equations to include removals	This addition is associated with the inclusion of removals crediting under ART.	Linear projections of tree growth overestimate the amount of carbon that nature uptakes in the first years. Extrapolating this behavior to a forest may overestimate the carbon performance of removals per area basis, hence creating fictitious offsets, i.e. "hot air". While we salute the simplification of calculation approaches, also acknowledge that it would be important to make sure that the calculation of ERRs stemming from removal activities considers a provision to avoid overestimation.

Section 13 – Avoiding double counting

Topic	Change in text	Statement of Reason	Shell Response
Avoiding double counting	Clarifies how TREES addresses the avoidance of double claiming.	This section clarifies how TREES addresses the avoidance of double claiming, recognizing that international requirements for Corresponding Adjustments to avoid double counting under the Paris Agreement Article 6 are still being negotiated, that the infrastructure for countries to account for Corresponding Adjustments is not yet in place, that there will be a transition period for the Paris Agreement rules and infrastructure to be in place, and	We support the position that "a*t present, voluntary transactions do not require corresponding adjustments",* and are encouraged by the commitment of the ART Registry to facilitate and provide the infrastructure to support accounting needs. However, with regards to Double Issuance, we believe that it is important to provide rules on how (verified) project credits are treated and how the deductions are operationalized.

		that Corresponding Adjustments may not be required for all potential agreements that ART Participants may enter into. Recognizing also that requirements for Corresponding Adjustments are clear for government-to-government transfers under Article 6.2 and for transfers for use in the ICAO CORSIA, the ART Registry already has infrastructure in place to facilitate the avoidance of double claiming for all transactions where accounting for international transfers may be required or preferred. This includes functionality to publish Host Country Letters of Authorization for transfer of TREES Credits, to label TREES Credits associated with a Letter of Authorization, as well as to label TREES Credits for which a corresponding adjustment has been applied.	We would also like to understand what happens if a project within a jurisdictional program (which isn't nested) was claiming to be producing as many (or more) credits as the jurisdiction: Would ART/TREES then not issue any credits to the jurisdiction?

Annex B – CORSIA Double Counting

Topic	Change in text	Statement of Reason	Shell Response
CORSIA double counting	Adds new double counting requirements for transfers for use under the ICAO CORSIA	This annex was added to enable Participants to adhere to requirements of ICAO CORSIA.	We support ART's updates with regards to Double Counting under CORSIA. We support strong and stringent compensation mechanisms such as the options provided by ART. We would however like to understand better who the burden falls to establish whether a corresponding adjustment has been made. Would the responsibility for establishing and reporting this fall to ART?

Conclusion

We commend ART for suggesting solutions and consulting with stakeholders on how to create jurisdictional programs that are fit for purpose and produce credible carbon credits.

It is evident that the updated TREES Standard is looking to create credible accounting requirements for jurisdictional programs. We appreciate the updates, in particular to the uncertainty requirements, and the clarifications around corresponding adjustments.

However, there are a few areas in which we have concerns or would request further clarity:

- Carbon rights: We are concerned that situations might arise in which land, natural resource or carbon rights of communities, landowners or indigenous peoples are not respected by the (sub-)national government. In many tropical forest countries, such rights can often be murky, creating a situation that is challenging for auditors. We would like to see stronger guidance around how such situations will be handled by ART/TREES.
- Removals: We appreciate the effort to include removals while we believe that more clarity is needed with regards to required stratification, how removals factors are assigned, and the duration of time that removals in new forests can be credited.
- HFLD: We also appreciate the effort to find opportunities for HFLD countries and believe that such certification can have high sustainable development benefits, especially for least developed countries. We are less certain, however, that such units can currently be considered robust offset units and would recommend considering a different certification mechanism.

As Shell supports high-quality NBS credits and aims to contribute to the integrity of the sector as a whole, we appreciate the invitation to comment and look forward to continuing the dialogue with ART.