Terra Global
Comments on California's Tropical Forest Standard

October 29, 2018

Dear CARB,

We would like to thank CARB for developing this California Tropical Forestry Standard. We believe that it can deliver high-quality cost-effective offsets to the California Cap-and-Trade program while driving valuable climate finance to governments and particularly communities for protecting forests around the world.

Terra Global is well positioned to provide valuable input on the finalization of the Standard and the issues related to jurisdictional linking requirements to make Tropical Forest Offsets a valuable compliance instrument for California's Cap-and-Trade and other ETS systems. For over 12 years, Terra Global has led the development of GHG quantification methods and tools under international standards for Agricultural Forestry and Other Land-uses. We provided technical guidance to the development of jurisdictional protocols both for the Verified Carbon Standard and for the Carbon Fund Methodological Framework. We have worked in over 28 countries on REDD+ and sustainable landscapes programs supporting the implementation and on-going management of site level projects up to national level REDD+ programs, and verify that indigenous peoples and forest reliant communities are involved at every level. In 2015, we led the audit team to conduct the first ever REDD+ SES international review on the Arce REDD+ program. And Terra Global, has been a leader in developing and transacting in REDD+, including in Colombia who has a large new domestic market.

Please see our comments on the Standard below.

Chapter 1.2 Definitions

"Activity-Shifting Leakage" means increased deforestation and/or degradation that results from the displacement of activities or resources from inside the implementing jurisdiction's geographic boundaries to areas outside the implementing jurisdiction's geographic boundaries as a result of the sector-based crediting program activity.

Comment: The definition of activity-shifting leakage should be contained to other jurisdictions <u>in the same country</u>. As there is no ability for a jurisdiction to measure the impact outside their country and international standards limit activity shifting leakage accounting to same countries.

"Crediting baseline" refers to the level established for the purpose of crediting under the implementing jurisdiction's sector-based crediting program. The crediting baseline will be specific to the implementing jurisdiction and is an annual measure of absolute GHG emissions set below the reference level by taking into account local, regional, jurisdictional, and national greenhouse gas emissions reductions or enhanced sequestration requirements or incentives affecting tropical deforestation within the implementing jurisdiction.

Comment: The protocol includes definitions for emissions from Deforestation and Degradation, which are included though the text. But the scope of allowable activities under the Standard should be consistent with UNFCCC decision I/CP.16 which includes all the following:

The definition of crediting baseline should be consistent with UNFCCC decision I/CP.16 to include

(a) Reducing emissions from deforestation;
(b) Reducing emissions from forest degradation;
(c) Conservation of forest carbon stocks;
(d) Sustainable management of forests; and
(e) Enhancement of forest carbon stocks

Accounting pursuant to this Standard, including establishing the reference level and crediting baseline must take into account deforestation and degradation (if applicable) of native forests.

Comment: The scope of the Standard should include other REDD+ activities, which are included above.

"Implementing jurisdiction" refers to a subnational jurisdiction that designs and implements a sector-based crediting program. "Subnational jurisdiction," or "jurisdiction," for purposes of this Standard, refers to a political subdivision of a country, typically taking the form of a state or province. Member jurisdictions of the GCF Task Force are examples of subnational jurisdictions.

Comment: Please clarify whether this could be a group of jurisdictions operating together since this would make the process more efficient for both jurisdictions and the State of California.

"Native forest" means forest occurring naturally in an area, as neither direct nor indirect consequences of recent human activity. Native forest must maintain a diversity of native species and multiple ages. Native forest do not include monoculture or industrial plantations.

Comment: This description is too narrow and may exclude some forests in tropical counties. Often smallholders rely on forests for natural resources including timber and a variety of NTFPs. These forests could have high numbers of forest crops and be significantly influenced by human activity.

"Monitoring" means the ongoing collection and archiving of all relevant and required data for determining the reference level, crediting baseline, reduced emissions, and quantifying GHG emissions reductions that are attributable to the sector based crediting program.

Comment: Generally, monitoring does not refer to the data collected for establishing the reference level and crediting baseline, but only the quantification of emission reductions, and social activities of the program. For Clarification we recommend updating this to make it clear.

This Standard requires sector-based crediting programs to include mechanisms, in the unlikely event of a reversal, to replace any reversed GHG emissions reductions to ensure that all credited emissions reductions endure for at least 100 years in a manner comparable to ARB offset credits issued pursuant to the Compliance Offset Protocol for U.S. Forest Projects under the California Cap-and-Trade Program.

Comment: Under the California Compliance Offset Protocol for U.S. Forest Projects "For an avoided conversion project, the action is committing the project area to continued forest management and protection through recording a conservation easement with a provision to maintain the project area in forest cover or transferring the project area to public ownership." It is not at all feasible that forests targeted under this Standard as these jurisdictions do not have conservation easements legal instruments.

"Reference Period" means a 10 consecutive year period used to set the reference level. The first reference period shall be a 10-year period that ends no more than 24 months prior to linkage with an ETS.

Comment: The 24 month maximum period might be hard to manage if the time table for submission and approval of a linking agreement is not short and predictable. We suggest that it be 24 months from the date the request to approve the REDD+ program is submitted by the jurisdiction. For clarity, there needs to also be explicit specification of the vintages of emission reductions that are eligible based on the last date in the reference period. Since jurisdictions will be both building and finalizing their REDD+ requirements under this Standard and simultaneously implementing the activities on the ground, it should be clear which vintages may be used from the year following the reference period.

"Sector-Based Crediting Program" is a GHG emissions-reduction crediting mechanism established by a country, region, or subnational jurisdiction in a developing country and covering a particular economic sector within that jurisdiction. A program's performance is based on achievement toward an emissions reduction target for the particular sector within the boundary of the jurisdiction.

Comment: There is no universally accepted definition of what makes a "developing country". For example, it might be interpreted as excluding countries who are members of the OECD. In this case, Colombia which has recently joined OECD would be excluded, yet Colombia has the world's highest income gap and most forest tenure holders earn less than $3 PPP a day and will continue to lose forest cover if there are not interventions. Please create a clear definition of which country's jurisdictions will be eligible.

"Sector plan," as described in Chapter 3 of this Standard, refers to the strategic implementation plan for the tropical forest sector within the implementing jurisdiction. The sector plan describes the legal, policy, and program tools within the implementing jurisdiction's overall strategy to reduce drivers of deforestation. These drivers may be jurisdiction-specific and can include agricultural drivers such as land conversion for cropland expansion and cattle ranching, land conversion for housing expansion, extractive industries such as timber harvesting, mining, and oil and gas exploration and extraction, and other drivers of deforestation.

Comment: This definition of drivers is not broad enough to capture large countries whose deforestation is primarily subsistence-based. Please expand the definition to include wood energy (fuelwood and charcoal), *shifting cultivation, illegal and/or timber harvesting for local use. It is very important to that top-down approaches to reducing emissions from land-use change target, engage and empower communities on the ground. Any carbon finance from the State of California should reach these communities who make local decisions to reduce deforestation.*

Chapter 3. Sector Plan

Comment: 3 (c) The requirements for public participation in the sector plan, should include (in addition to open meetings), the requirement to conduct one or more public comment periods that are facilitated on the free website and that follow good practice for number of days to respond and the requirement to post responses publicly.

3 (d) (1) This description must include transparent, high-quality, spatially explicit mapping data for above-ground biomass using remote sensing technology that has been calibrated to the implementing jurisdiction against ground level measurements from within the jurisdiction as specified in Chapter 4, subparagraph (d)(1).

Comment: This requirement for the reference level to be spatially explicit is of absolute importance. Without this requirement for the reference level (and the resulting crediting baseline), there is very high risk that the climate finance being generated through the sale of tropical forest emission reductions into California could create a transfer of wealth between the government and forest tenure holders in the jurisdiction. However, to date governments that are establishing these reference levels have 1) limited methodological guidance and analytical models to construct robust spatially explicit baselines and 2) have low capacity and/or motivation to create creditable and fair spatially explicit reference levels. And the international standards such as Carbon Fund Methodology Framework and VCS-JNR do not provide this required guidance.

We recommend that additional guidance be added to this Standard to establish a set of criteria for demonstrating the integrity of the spatial explicit reference level. This would include requirements that take into account in a quantitative manner 1) impact that spatial drivers have on the location of deforestation and degradation, 2) type of deforestation the area is subject to (planned, unplanned), 3) land tenure type, and 4) quantifiable factors the impact deforestation in the future that were not captured in the past. While CARB might want to leave this level of detail to the jurisdictions, this does not protect enough against large transfer of wealth risks within the jurisdiction, nor does it guarantee that carbon finance will reach those on the ground creating higher risk of reversals. It should be clearly stated in the social impacts that payments for performance should be spatially driven as well.

(g) The sector plan must describe how the implementing jurisdiction's sector-based crediting program is compliant with, fits within, and avoids double counting with any other voluntary or mandatory program's efforts to reduce emissions from deforestation and forest degradation, including any approved Nationally Determined Contribution under the Paris Agreement of the UNFCCC. (UNFCCC 2015)

Comment: This section must be clear about whether a country can report the same emissions reductions toward meeting their NDCs as they deliver under this Standard.

Chapter 4 Reference Level

The reference level shall be based on the annual estimate of total forest area cleared, expressed in metrics that are consistent with IPCC methodologies, and if applicable, the national Forest Reference Level or Forest Reference Emission Level. A jurisdictional reference level serves as a benchmark for assessing progress achieved against a jurisdictional crediting baseline.

Comment: It is good to leverage other standards and IPCC methodologies. But this Standard should only allow for methods consistent with or exceeding IPCC 3 methods. Senate Bill 1018 is clear on the level of integrity required for linking see 12894 (f) (1) "The jurisdiction with which the state agency proposes to link has adopted program requirements for greenhouse gas reductions, including, but not limited to, requirements for offsets, that are equivalent to or stricter than those required by Division 25.5 (commencing with Section 38500) of the Health and Safety Code." Based on these SB1018 requirements and the conditions of approved California protocols including forestry and rice, for the Standard to be "equivalent to or stricter" it would require application of IPCC Level 3 methods at the jurisdictional level.

4 (c) the requirement to only use historical deforestation and degradation does not capture that true dynamics of "business as usual" in many jurisdictions. The construction of reference emission levels should allow the inclusion of factors that will influence future deforestation and degradation that are not in the historical reference period as long as they can be quantified and validated. These factors are important to capture avoided planned deforestation and unplanned deforestation that is impacted to new road access, population factors and other land-use change dynamics not reflected in the past. This includes high forest cover, low deforestation (HFLD) counties that face unique national circumstances where past deforestation will not be reflected in the future as economies change, or historically inaccessible areas become accessible through infrastructure improvements or political stability. Both the Carbon Fund Methodological Framework and the VCS-JNR allow for unique national/jurisdictional circumstances to be included in the reference emission level. These jurisdictional protocols as well as project-based standards under the VCS provide guidance for quantification and justification of reference levels that differ from historical averages.

4 (e) If an implementing jurisdiction includes both deforestation and degradation in its reference level, the methodology used to determine annual averaged rates of deforestation and degradation, based upon peer-reviewed science reflecting regional differences within the jurisdiction, must be accounted for separately and included within the implementing jurisdiction's sector plan described in Chapter 3.

Comment: This makes it sound like peer reviewed literature can be used to quantify deforestation and degradation rates. This section should deleted as only IPCC Tier 3 level GHG quantification methods with actual land-use change analysis with supporting data and maps with spatially explicit quantification should be allowed.

Chapter 6. Crediting Baseline

To ensure the additionality of any sector-based offset credits issued by the sector-based crediting program, the implementing jurisdiction must establish a crediting baseline at least 10% below the reference level described in Chapter 4.

Comment: This concept of setting the crediting baseline below the reference emission level for REDD+ is not new to California. This was included in CARB past REDD+ work, and at the time it bought numerous negative comments from participants. We understand and appreciate that California is seeking to ensure that integrity of the emission reductions from REDD+ coming into the California system, but by simply setting the crediting baseline 10% below the reference emission level does NOT substitute for ensuring emission reductions are additional. If California's goal is to require a jurisdiction to make it's "own contribution" through lowering the crediting baseline below the reference emission level this should be explicit. In addition, it must be taken into account with a jurisdiction's already contributed emission reductions under the national NDCs (assuming emission reductions allied to NDCs cannot be used for California compliance).

We recommend leveraging existing international standards to add a requirement to this Standard to cover demonstrating additionality of the activities generating emission reductions within the jurisdictional program. And to consider recognizing contributions that a jurisdiction is making to NDCs as "their contribution".

If however, you move forward to use this 10% lower crediting baseline to cover "additionality and own contribution", we suggest that 1) instead of lowering the crediting baseline thus creating a hurdle before a jurisdiction can raise climate finance through sales into California, you simply require that for every 10 credits generated 1 to be retired which can be used for NDC and 2) jurisdictions in LDCs are not subject to any discounting.

Chapter 8 Monitoring and Reporting

Each report must determine, to a high degree of accuracy, the extent to which emissions reductions resulting from reduced deforestation and, if applicable, degradation, are achieved and quantify the total number of sector-based offset credits that the implementing jurisdiction will issue against the established crediting baseline.

Each report must include an updated calculation pursuant to the quantitative uncertainty measurement methodology specified in the sector plan. A percent credit deduction shall be taken prior to issuance corresponding to the results of the uncertainty calculation.

Comment: 8 (c) The definition of a "high degree of accuracy" must be defined by quantitative values, so that various REDD+ programs liking to California for offsets are treated the same way. This will ensure consistency to all REDD+ programs, and should not be left up to the individual REDD+ program to decide how to apply uncertainty deductions. There should be clear definition on accuracy requirements for each *component of the GHG quantification process and the methods used to combine uncertainty estimates for individual components (e.g. land-use change, carbon stocks and indirect emissions) across the whole program to generate a REDD+ program level uncertainty. In addition, there should be a minimum overall accuracy level that must be met for the program. Given that CARB's has a 5% threshold for invalidation, the maximum uncertainty threshold should that that into account.*

8 (d) The requirements for calculation of the uncertainty deductions must also be explicit. Under international standards we have seen differences in how these deductions are applied. Some standards apply "cliff" deductions where there are brackets of uncertainty and under each one there is a set deduction – this can create large change in uncertainty deduction for a small change in uncertainty. We would recommend a smooth function that reduces or increases the deduction based on reported uncertainty, not a set of brackets or "cliffs".

Chapter 9. Third-Party Verification

Comment: While it may be implied in other sections, this section should make it clear that the jurisdictional sector plan with the reference level, carbon stock, creating baselines, etc. and Social and Environmental Impact Monitoring Plan MUST be 3rd party verified (validated) and whether this must be completed prior to a jurisdiction applying to California for approval and linking.

9 (a) The Standard requires that the sector plan specify 3rd party verification requirements that meet the criteria in the list under 9 (a) 1- 3. Please confirm whether those points are to be considered as "and" or "or".

Confirm whether the UNFCCC review process specific in Decision 14/CP.19 meets the verification criteria of the Standard.

9 (a) (3) Requiring only 2 years of professional experience for individuals performing the review, is inadequate. These REDD+ program design and the quantification methodology are complex. A minimum of 5 years work experience in REDD+ programs and quantification should be the minimum.

9 (b) The work it takes to complete the monitoring and 3rd party verification for emissions is longer that 3 months. Requiring that emissions from the prior year must be posted by March 1 of the following year is not at all feasible. A minimum of 6 months should be allowed.

Chapter 10 Social and Environmental

To ensure that forest-dependent communities and other representative stakeholder groups participate in the development of the sector plan and receive direct benefits as a result of the plan, the implementing jurisdiction's sector plan must include social and environmental safeguards that are equivalent to the principles and criteria specified in the REDD+SES Version 2 (REDD+SES 2012), and must provide narratives as to how each of these principles and criteria are met using indicators defined in the sector plan.

Comment: Terra supports the Standard requiring the application of known social and environmental principals and criteria. It is also good that the Standard requires the on-going reporting and verification of the social and environment results for the REDD+ program. And while we understand the value of providing some flexibility for REDD+ programs to design and implementation of the social and environmental safeguard and impact monitoring, the Standard's needs to specifically require the development a social and environmental monitoring plan (not just stakeholder engagement plan). The Social and Environmental Monitoring Plan should be 3rd party validated with the sector plan. Then the Standard should be clear to the frequency (annual) of monitoring in accordance with the plan and the requirement for 3rd party verification.

Consider the following updates to clarify these requirements:

> *Chapter 3 Sector plan – add a specific requirement to create a Social and Environmental Monitoring Impact Plan which will be developed in accordance with requirements under Chapter 10.*
>
> *Chapter 8 Monitoring and Reporting and Chapter 9 Verification – state that the monitoring report that has been prepared in accordance with the Social and Environmental Monitoring Impact Plan report must be prepared annually by the same date as the GHG emission report, and verified by the same VVB.*
>
> *Chapter 10 - Unlike the GHG emission results, which only allow for emissions to be delivered to the ETS when performance is under the crediting baseline, there should be some requirements describing what happens if the REDD+ social and environmental monitoring yields negative performance. The Standard should set requirements for REDD+ program to maintain positive to neutral social and other environmental impacts to be eligible for crediting. There should be a requirement for the REDD+ program to establish rules for this, possibly around number of open grievances, law suits, and/or impact metrics showing negative trends, etc. California would not want to have program that while still producing emission reductions has negative social impact results.*

Chapter 11 Permanence and Reversal Risk

The implementing jurisdiction will identify and quantify drivers of potential reversal, resulting in a risk reversal factor. This factor will be deducted from the total issued credits and transferred into a buffer pool.

Comment: Terra also endorses taking approaches from other international standards which can be leveraged.

Such a mechanism must include a contribution of sector-based offset credits to a jurisdictional buffer pool. The ETS shall establish its own Sector-Based Crediting Program Buffer Pool to accept sector-based offset credits transitioned from the jurisdictional buffer pool.

Comment: Why does the ETS take these credits? If participating in multiple ETS, the Sector-Based Crediting Program Buffer Pool should be pooled as it is more efficient. The program should meet the Standard's requirements then all ETS can verify that the total pooled amount is there.

Upon linkage with the ETS, the implementing jurisdiction shall transition its buffer pool credits to be maintained in the ETS Sector Based Crediting Program Buffer Pool.

Comment: The implementing jurisdiction should only transition its buffer pool credits after credits are issued and again the jurisdictional program should be able to hold credits for all linked ETS programs together.

Chapter 13 Enforcement

Enforcement must include regulatory oversight of any public or private individual, corporation, company, or other entity involved in the implementation, including monitoring, reporting, and verification, of the sector-based crediting program, including with respect to any nested project. Enforcement actions must be tracked by the implementing jurisdiction.

Comment: Of course it is mandatory that the REDD+ jurisdiction demonstrates its ability to enforce the regulatory oversight of its program that is linked with California. In a number of countries, the resources and expertise for enforcement are present at the national level, and in this case, the local government will rely on the federal government to support them with enforcement and monitoring. This "enforcement" requirement in the Standard may create a challenge for the local government, if it does not allow for language stating they can rely on federal government for some level of enforcement. We suggest that you provide guidance in cases where the federal government preforms a number of requirements under the Standard on what is needed in the legal/regulatory/contractual arrangements between the local and federal government to meet this enforcement requirement.

In addition, the Standard should provide examples and simple guidance on what must be done to demonstrate they are "tracking enforcement".

Chapter 15 Nested Projects

Comment: The text states "This chapter is intended as a placeholder to provide guidance to sector-based crediting programs that may seek to include nested projects as part of their programs in the future." But what does it mean to be a "placeholder"? Besides meeting the requirements set out in Chapter 15, is there anything else needed? We suggest removing the word "placeholder", as this implies something else will be specified in the future.

The Standard requires (c) Each project must submit a GHG emissions data report to the implementing jurisdiction and (d) each project must undergo independent, third-party verification pursuant to the implementing jurisdiction's sector plan requirements." But there may be cases where the project monitoring is conducted and verified at the jurisdictional level and then applied to the project area under *the methodology defined in the sector plan. It should be stated in this case independent project verification is not required.*

15 (e) The statement "The jurisdiction's social and environmental safeguard program must receive a positive verification consistent with the Climate, Community and Biodiversity Standards Version 3.1 (VCS Association 2017)." Stating that the "program" must meet this in the section on projects is confusing, did you mean project? Or is this stating that the jurisdictional program must verify under CCB? Generally, CCB is for project level safeguards and social and environmental impact monitoring. If the intent is to require all nested projects to be CCB verified, this should not be required if the project can demonstrate it is covered by the jurisdictional level stakeholder engagement and social and environmental impact monitoring.

15 (f) There should be guidance on cases where project areas saddle administrative jurisdictions and only one jurisdiction is linked. It is common for large forest project areas saddle administrative boundaries. A project should be allowed in a jurisdictional program if less than 30% of the project area is in another non-participating jurisdiction. This should be allowed under the following conditions; the participating jurisdictional program that is "linked" includes the whole project area in its crediting baseline, and monitoring and reporting of GHG emission as well as social and environmental impacts include whole project area. It should be subject to the participating jurisdiction getting a no action letter from the non-participating jurisdiction stating the project areas can be included, and that the non-participating jurisdiction agrees not to use or double count emissions from the portion of the project area in this jurisdiction.

Chapter 16 - Recognition Process for Transitioning Sector-Based Offset Credits

Comment: It is not clear what specific steps must be taken by a jurisdiction to apply to have its REDD+ program approved by CARB and to have CARB propose the program to the governor for linking. We request confirmation on the following questions related to REDD+ program approval process and the jurisdictional linking process:

1. *How will jurisdictions make requests to CARB for approval a jurisdictions REDD+ program?*
    a. *What are the specific steps that must be taken for a REDD+ jurisdiction to apply to have its REDD+ program approved?*
    b. *Who in California will review and approve the jurisdictional REDD+ program?*
    c. *What process will CARB use for review?*
    d. *What timeframes will CARB be held to for reviewing each step in the process?*
    e. *How will CARB ensure that the process for applying is open, transparent and provide fair access to all qualified REDD+ jurisdictions?*
2. *95941 – requires "The Board may approve a linkage with an external GHG ETS after complying with relevant provisions of the Administrative Procedure Act (Government Code sections 11340 et seq.). Will this be required for each jurisdiction and what will it entail?*
3. *Will CARB be the state agency who prepare and submit the request to the governor for linking and what are the timing requirements for doing so?*

4. *For each monitoring period, what will be the process for CARB review the jurisdiction's request for recognition of ETS sector-based offset credits to be issued and how much time will they have for the review?*
5. *If a jurisdiction opens a Compliance Instrument Tracking System Service (CITSS) account to hold REDD+ sector-based offset credits, once these credits are approved by CARB and issued (with the matching retirement in the jurisdiction's registry), can these be transfer to any CITSS account holder?*

Thank you,

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