August 28, 2019

Hon. Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted electronically via: https://www.arb.ca.gov/lispub/comm/bclist.php
Re: Support for Proposed California Tropical Forest Standard

Dear Chair Nichols,

Thank you for the opportunity to again express EDF's strong support for Board endorsement of the California Tropical Forest Standard (TFS). **EDF again supports the proposed Standard and strongly encourages its immediate adoption by the California Air Resources Board.** The California Air Resources Board has given over a decade of consideration for the potential to develop a Standard that would define requirements for the kind of comprehensive emissions reduction programs from tropical forest jurisdictions that could match California's own standards for rigor and ambition. **Now is the time to act on that important and influential work.**

Since the proposed Standard was last presented to the board in November, 2018 an extensive process of stakeholder input and debate has contributed to the revised draft of the TFS published on July 30, 2019. While the revised draft keeps in place the rigorous requirements for ensuring environmental integrity, social safeguards and benefits, and public transparency embodied in the previous proposed version, the revision includes important changes that help to more clearly specify and detail some of these requirements. We believe that these changes strengthen the proposal, and by nature of the additional detail and clarity, provide greater assurance of the proposed Standard's quality and rigor. We have attached our technical comments on the proposed TFS from October, 2018 and below briefly outline our support for changes to the revised proposal, which build on those strengths.

The proposed revision of the TFS provides greater clarity on how it will ensure that emission reductions are additional through use of the crediting baseline, which requires jurisdictions to demonstrate emissions reductions below historical averages before being eligible to receive credits. It also provides important new detail on requirements for independent third-party verification, specifying that the Standard requires the same level of rigor be applied to accounting emissions for crediting also applies to

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ensuring environmental integrity and human and indigenous rights. The revised version also provides helpful language that clarifies how reversal risk is calculated, as well as its impact on crediting and buffer pool requirements. The TFS's rigorous requirements on social and environmental safeguards are also further detailed within the TFS and its addenda, providing the public more transparent access to the specifics of those requirements.

Now is a time for urgent action on climate. Tropical forests around the world stabilize the climate, and are the lifeblood of the communities who live in, use, and protect them from destruction. California should use its climate leadership, and a decade of collaboration and partnership with tropical forest jurisdictions and communities, to drive innovative solutions to the biggest problems facing humankind. Endorse the California Tropical Forest Standard and continue the fight.

Sincerely,

Christina McCain, PhD

Director, Latin America Climate

Technical comments from October 29, 2018

Hon. Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted electronically via:
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=ct2018&comm_period=A
Re: Support for Proposed California Tropical Forest Standard

Dear Chairwoman Nichols,

We thank CARB for the opportunity to comment on this very important proposal of a California Tropical Forest Standard. **EDF strongly endorses the draft Standard and supports its adoption by the California Air Resources Board.** While technical in nature, the implications of an official California Standard on tropical forests are difficult to overstate. After a decade of painstaking work on this front by California – in partnership with tropical forest jurisdictions and stakeholders - it is a critical moment for California to move forward in leveraging its global leadership to promote the reduction of greenhouse gas emissions from the cutting and burning of tropical forests.

Cutting and burning tropical forests is not only a threat to biodiversity and millions of people who depend on tropical forests for their livelihoods and cultures, but also contributes between 16-19% of

annual global greenhouse gas emissions.[1] That means that decimating tropical forests exceeds the greenhouse gas emissions of all the cars, trucks, and ships in the world every single year. The recent report from Intergovernmental Panel on Climate Change indicates that avoiding the most catastrophic consequences of climate change requires turning back the current global trajectory on emissions within the next handful of years. By absolute necessity, the world must address the loss of tropical forests. They represent one of the single greatest opportunities to turn the corner on greenhouse gas emissions within the next decade and put the world on a path toward climate safety. California is a global leader that is uniquely positioned to address this need by setting a standard for carbon markets that demands both stringent requirements for demonstrating environmental integrity, as well as program design and implementation that engages and benefits indigenous and other traditional communities who both use and safeguard forests.

While the positive impacts of this Standard go far beyond California alone, it is important to note that California's cap-and-trade program itself could provide a critical flow of incentives to targeted, high-quality jurisdictional programs to reduce deforestation. A California Tropical Forest Standard has tremendous potential to influence, not only tropical forest jurisdictions, but also existing and emerging markets globally. In this way, California's action would amplify the impact of its climate program globally. Further, while the Standard's adoption is not a regulatory action, if such credits were allowed into California's cap-and-trade program in the future, they would be limited to the 2% of credits allowed not subject to the Direct Environmental Benefit. However, it would still be a significant incentive for some jurisdictions with programs that could demonstrate sufficient rigor. That action could leverage gains in emissions reductions from tropical forests around the world that far exceed the offset quantity could be credited in California's system.

EDF would also like to commend CARB for staff's work on the Environmental Analysis (EA) associated with the Tropical Forest Standard. As the EA itself lays out, there is a reasonable argument that no Environmental Analysis was actually required under the California Environmental Protection Act (CEQA). Nevertheless, we believe completing this very thorough EA, using conservative assumptions, was the right approach given the important nature of the current effort. The current proposed Board endorsement of the Tropical Forest Standard will not result in any direct changes or impacts to the cap-and-trade program or any other regulatory program and will also not result in a California linkage. Therefore, the current EA provides a window into staff's thinking about potential environmental impacts of a Tropical Forest Standard that might be incorporated into California's program in the future. Ideally, this will allow a transparent dialogue with stakeholders that can ensure CARB is able to produce a robust Environmental Analysis should the agency take any direct regulatory action like including a Tropical Forest Standard offset in the cap-and-trade regulation or linking with a jurisdiction that could provide Tropical Forest Standard Credits. We believe this effort is consistent with the spirit of CEQA which is about transparency and exploration of opportunities to mitigate any significant environmental impacts. It is also consistent with CARB's approach to stakeholder outreach – particularly in the complex cap-and-trade arena – which emphasizes early and meaningful engagement with stakeholders even before official regulatory action is taken by the agency.

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[1] Seymour, Seymour and Jonah Busch. (2016). *Why Forests? Why Now? The Science, Economics of Tropical Forests and Climate Change.* Center for Global Development. Washington, DC. Estimates range put the contribution of tropical forests in the range of 17-33% of global greenhouse gas emissions. R. A. Houghton, B. Byers, A. A. Nassikas, Negative emissions from stopping deforestation and forest degradation, globally. Global Change Biology: 1-10. (2017).

Below we would like to highlight a few key features of the proposed Standard itself, many of which EDF has commented on in the past, and which we believe contribute to the proposed Standard's overall strength and comprehensiveness.

Program Scale: Foremost, we want to emphasize that a jurisdictional approach recognizes aggregate reductions achieved below the level of a baseline of emissions across the entire region. Thus, a jurisdictional program to address deforestation with a rigorously set baseline is analogous to an ambitiously set and enforced cap under a cap-and-trade program at the level of a whole state such as California or Quebec. Because the proposed Standard takes a jurisdictional-level approach, it provides similar assurance of additionality, consideration of leakage, and ability to manage risks of non-permanence. Such an approach to crediting emissions reductions from tropical forests is conservative from the start. In addition, as we highlight below, there are further mechanisms in the proposed Standard that build in additional layers of assurance of the sectoral crediting program's integrity – both for emissions reductions and social and environmental safeguards.

Program Scope: EDF supports the Standard's proposal to credit emissions reductions from both reduced deforestation and degradation within jurisdictional programs that demonstrate comprehensive measurement and accounting of those sources of emissions across their forest sector**.** This is because degradation can, in some cases, contribute significantly to overall forest sector emissions[2] and we commend CARB for including in throughout the proposed Standard as a potentially significant source of emissions. In the case of any potential future linkage between any market and specific jurisdiction, the relative contribution of degradation to overall jurisdictional forest emissions should thus be examined as part of a "key category" analysis in line with IPCC good practice guidelines as already required in Chapter 8 (a) of the proposed Standard. Such an examination on a case-by-case basis should determine whether accounting of and crediting for degradation emissions is necessary for a robust assessment of forest sector emissions. Many jurisdictions with programs to reduce deforestation emissions are also undertaking efforts for carbon stock enhancement of natural forests. These efforts, while recognized by the proposed Standard are not currently proposed for crediting. We encourage CARB to move toward the development of robust criteria for crediting carbon stock enhancement of natural forests in the future. However, for clarity and consistency in the current proposal, we recommend removal of the words "or enhanced sequestration" should be removed from Chapter 6, part (a).

Reference Levels: EDF strongly endorses the Standard's proposed approach that the initial reference level should be set based on historical deforestation emissions across the entire forest sector in a given partner jurisdiction. This eliminates hypothetical projections of deforestation trends in a given jurisdiction, and instead incentivizes programs that have adopted deforestation reduction targets that will reduce deforestation emissions against measurable historical levels and ensures additionality. This is another key feature of the proposed Standard that contributes fundamentally to its strength and significance as a model. We agree that a ten-year historical time period is adequate to capture year-to-year variability in deforestation rates, while reflecting the recent policy and economic context within which the program is being implemented.

[2] A. Baccini, W. Walker, L. Carvalho, M. Farina, D. Sulla-Menashe, R. A. Houghton, Tropical forests are a net carbon source based on aboveground measurements of gain and loss. Science. 358, 230-234 (2017).

Crediting Baselines: EDF supports the Standard's proposal that the crediting baseline should start at a minimum of 10% below the reference level and decline over time at pre-determined intervals. Because each jurisdiction has unique circumstances, specifying specific levels of ambition or targets is not appropriate in this Standard, which serves as a framework and a set of minimum requirements for these jurisdictional programs, and detailed evaluation of jurisdictional circumstances must occur on a case-by-case basis. The Standard's proposal of having the crediting baseline adjust every five years is also sound. However, we suggest that updating of the crediting baseline occur on a predetermined trajectory (either linear, or step-wise) set between the jurisdiction's initial reference level and an ambitious target. This will strengthen the proposed baseline approach even more, by further ensuring additionality, as well as providing jurisdictions predictability based on performance and incentivizing overall ambition. What defines an "ambitious" target is again, a determination that can be made, case-by-case, given individual jurisdictional circumstances at the time an individual linkage is being developed. However, a potential metric for high ambition that we recommend would be to achieve (close to) zero gross deforestation and degradation (and, eventually negative emissions including restoration and reforestation).

We also commend CARB for drafting a Standard which provides jurisdictions with the flexibility to include nested projects within their programs. When it comes to requirements for project-level baselines, we agree that the jurisdiction's sector plan should include a procedure for ensuring project baselines "that reflects and fits within the jurisdiction's reference level," (Chapter 15(b)). However, we think the requirement for a "historical average baseline" for projects is unnecessary and could preclude nested projects that provide effective incentives for conserving forests in areas with historically low rates of deforestation. As a result, we suggest deleting the reference to "historical average baseline" in Chapter 15(b) to enable jurisdictions to tailor its program to best meet its needs and desired benefit-sharing arrangements.

EDF is also supportive of the approach in the proposed Standard in setting clear requirements that emissions reductions credited by any carbon market from a sector-based crediting program for tropical forests be transparently accounted for and retired from the sector-based crediting program, so as to avoid double counting. This is critical both directly between a subnational sector-based crediting program and any carbon market purchasing those emissions reductions, as well as between the subnational jurisdiction and any national accounting systems. Avoiding double counting has important implication for the integrity of country commitments through National Determined Contributions and the commitments of the Paris Agreement.

Leakage: Monitoring of emissions and crediting reductions relative to a baseline at a jurisdictional scale are the best approaches for accounting for any potential leakage (shifts) in deforestation within the jurisdiction. As such, the approach of the proposed Standard, because of its jurisdictional nature, is already highly comprehensive in addressing the potential for leakage. However, we applaud CARB's proposal to also address the potential for emissions leakage outside a jurisdiction's borders. We previously recommended that CARB could establish simple yet effective approaches to ensure that forest protection efforts within a jurisdiction are effectively addressing the root causes of deforestation. Chiefly, these are pressures to expand agriculture in an unsustainable manner to avoid shifting these pressures to other locations outside the jurisdiction. As we have suggested before, the best way to do this is to ensure that the jurisdiction is maintaining or increasing, rather than suppressing, agricultural and forestry output at the same time that encroachment on forest areas is being controlled This is precisely the approach taken in the Standard, which incentivizes jurisdictions to take a comprehensive

look at both economic development and deforestation drivers and takes a highly conservative approach in terms of crediting emissions reductions. As we also suggested, the Global Commodity Leakage Module: Effective Area Approach of the Jurisdictional and Nested REDD+ Standard from Verra could be a model for implementing this approach.

Permanence and Reversal Risk: EDF supports the approach outlined in the proposed Standard to ensure permanence of greenhouse gas reductions from tropical forests and address reversal risk. We view both as sound and, in fact, highly conservative. Implicitly or explicitly, it is generally assumed that if use of a fossil fuel is reduced while producing an equal or greater amount of energy or economic output previously generated through higher emissions, the reduction is permanent. A forest jurisdiction reducing emissions from deforestation will have achieved emission reductions which are just as permanent as any others.

Our view is thus that the permanence approach outlined in the Standard is very comprehensive for three main reasons: First, jurisdiction-wide accounting is itself the best insurance mechanism as it will pool the risk of reversals due to fires and other risks across the entire jurisdiction. Second, a robust emissions reduction strategy must break the historical link between energy output and economic growth and increased emissions. As noted above, a jurisdictional approach to reducing deforestation that reduces emissions while maintaining or increasing production of the drivers of deforestation, as is outlined in the Leakage section of the proposed Standard, also is of central importance to identify risk of non-permanence. Addressing these drivers of deforestation at a jurisdictional scale also helps to ensure permanence of reductions and reduce reversal risk.

As CARB has proposed in the Standard, to the extent that there is a potential risk that some reductions achieved might be reversed later (as is possible in any emissions reduction program, regardless of the sector) it is important that CARB establish rules for ensuring that any potential reversal can be effectively mitigated. EDF supports the proposed approach of establishing a jurisdictional buffer pool of credits, which would serve as a backstop to any reversal of credited emissions reductions, such that the environmental integrity of the program is always maintained. The proposed contribution to the buffer pool of 10% of total emissions credited is a conservative approach, but one which strikes a balance between guaranteeing environmental integrity over the long-term, while still providing ample financial incentives to jurisdictions engaging with an ETS. While the 10% contribution to the buffer is a conservative approach in the initial years of a linkage, after a certain period of time has elapsed such that the total buffer pool has built up, it would not be unreasonable to gradually enable the release of some of the past credits placed in the buffer pool, as long as reversals have being avoided. This would reward the jurisdiction with additional incentives for good performance and reflect the fact that drivers of deforestation in the tropical forest jurisdiction were addressed such that the risk of reversing the initial reductions has been reduced.

MRV: In the decade since California began contemplating the potential for designing rules to credit jurisdictional sector-based programs to reduce deforestation, forest carbon measurement and monitoring tools have only grown more sophisticated and cost-effective. The technology exists in multiple platforms and combined approaches to measure both deforestation and degradation emissions with tremendous accuracy, as well as monitor land use change remotely through an array of available satellite imagery, both at high resolution and at scale. Because of

the broad range of potential high-quality methods, EDF believes the Standard's approach in not being overly prescriptive for precise methodologies and/or technologies, is the most practical approach. As long as they are consistent with the IPCC, this approach will allow jurisdictions to capitalize on the forest monitoring systems that are most appropriate for their local circumstances, while still assuring the necessary rigor to meet with California's standards.

Social Safeguards: The proposed Standard's emphasis on social safeguards to ensure the consultation and inclusion of forest communities, as well as transparent and equitable distribution of benefits is critically important. While the decision to reduce deforestation or emissions at a jurisdictional scale is a prerogative of government, forest communities must be included in, and benefit from, the development and implementation of forest policies and programs if these are to be effective. They are key partners in the effort to mitigate deforestation emissions and develop sustainable approaches to the conservation and use of forests that ensure their current and future well-being.

Consultative development of programs to reduce deforestation bringing all stakeholders to the table results in better informed policy and more successful outcomes. The required "sector plan," described in detail in Chapter 3, requires a tropical forest jurisdiction to describe in detail and document, not only the individual components of its sectoral crediting program in terms of its legal and policy framework, its individual initiatives and components, and its technical methodologies, but also information on how its program was designed in a public and participatory consultation process with stakeholders and communities affected by its implementation. A major strength of the Standard's requirements, in addition to the individual technical areas discussed below, are its rigorous requirements for transparency, public consultation – particularly of forest communities, and public availability of information.

While implementation of robust community consultation and collaborative development of program and benefit distribution plans can be challenging and take time, they are critical to a program's overall success and integrity. Existing models of robust and collaborative consultation processes that enable equitable and effective distribution of benefits to support forest communities exist in many instances. Engaging indigenous and other traditional forest communities as stewards of healthy forests and innovators in a sustainable forest economy lead to successful outcomes. Many existing efforts can serve as potential models, but perhaps none so powerfully and directly applicable as in the state of Acre, Brazil.

Acre's state Incentive System for Environmental Services (SISA) program has established a system of social and environmental safeguards that is exemplary and carries certifications from both REDD+ SES and the Climate, Community, and Biodiversity Alliance (CCBA). While Acre's model and the standards set by these certification bodies provide excellent guidelines, individual jurisdictions may be able to demonstrate rigorous standards that do not necessarily carry these particular certifications. As such, we endorse the prudent approach of the proposed Standard, which points to specific standards such as the REDD+ SES as guidelines, but allows some flexibility for jurisdictions to demonstrate the establishment and implementation of an equivalently rigorous mechanism for implementing and monitoring these safeguards.

Third party verification of social safeguards, as required by the proposed Standard. This is an important component that strengthens its overall approach and EDF commends CARB for ensuring that third party verification, from appropriately qualified verifiers, is included as a requirement in the Standard. One important potential addition to the Standard overall, in

recognition of its important efforts to ensure the inclusion of indigenous forest communities in the development of sector-based crediting programs, could be to include reference to the recently adopted Guiding Principles of Collaboration and Partnerships between Subnational Governments, Indigenous Peoples and Local Communities. These Principles were drafted and unanimously adopted in September 2018 by the Governors' Climate and Forest (GCF) Task Force along with 18 Indigenous and Local Community representative organizations. Because California is a founding member of the GCF Task Force, inclusion of the Guiding Principles, in addition to the rigorous requirements spelled out in the draft Standard provides important clarity on the State's commitment to them.

EDF unequivocally supports the proposed California Tropical Forest Standard and we encourage the California Air Resources Board to adopt it now. This Standard overall is comprehensive, rigorous, and is urgently needed. Regardless of whether, or how many, jurisdictions may be prepared to meet the rigorous requirements of the proposed Standard today, its impacts will be important and far reaching. The adoption of this Standard will send a powerful signal to tropical forest jurisdictions around the world that robust, high-quality programs to reduce deforestation and forest degradation can and will be rewarded by carbon markets.

The proposed Tropical Forest Standard, if adopted, could serve as a globally trusted standard that strikes a much-needed balance between stringency and rigor in key features necessary to ensure integrity and transparency, with the flexibility that is required to apply these rigorous requirements effectively in differing local contexts. Consistent with CARB's clear definition of International Sector-Based Offsets in its original regulatory language in 2008, the Standard takes a whole-sector, jurisdictional-level approach to crediting emissions reductions from reducing tropical deforestation and degradation. This is a critical feature of the current proposal, which will ensure real additional reductions at scale in partner jurisdictions and incentivize comprehensive approaches based on a long-term vision for solving the deforestation problem. By matching the scale of incentives for ambitious programs to reduce emissions from tropical forests with the scale of the problem of emissions from deforestation, California's Tropical Forest Standard has the potential to alter the dangerous pathway on which the world is currently set.

Again, thank you for the opportunity to express our views on this important initiative and we looking forward to continued work with CARB in developing a future regulatory measure based on the California Tropical Forest Standard.

Sincerely,

Christina McCain, PhD

Director, Latin America Climate