Earth Innovation Institute

Strong Support for CARB Endorsing the Draft California Tropical Forest Standard

Public comment from Earth Innovation Institute

The Earth Innovation Institute strongly supports the California Air Resources Board endorsing the draft California Tropical Forest Standard as a step toward integrating international jurisdictional sector-based offsets for reducing emissions from deforestation and forest degradation into the California cap-and-trade program.

Below, we:

i) describe the importance of the Standard in the larger context of solving climate change; and

ii) offer specific points of feedback on elements of the draft Standard with the goal of approving the strongest possible final Standard.

Solving climate change necessitates reversing tropical deforestation. The recent report of the Intergovernmental Panel on Climate Change on limiting global warming to 1.5 degrees Celsius makes clear that solving climate change requires two monumental transitions.[1] First, a transition in energy use from fossil fuels to solar, wind, and nuclear. And second, a transition in land use from deforestation and forest degradation to protecting and restoring forests in the tropics. California is already a world-renowned leader in policy for achieving the energy transition. By approving the Draft Tropical Forest Standard, California would go far toward being a policy leader for achieving the land transition as well.

Tropical deforestation is still accelerating and not yet slowing let alone reversing. As with energy, the state of tropical forests overall has been trending in the wrong direction. Tropical deforestation has steadily accelerated this century, with the most recent two years having the highest rates of tropical tree-cover loss on record.[2] Even so, some tropical countries and states have shown impressive successes in reducing deforestation, especially in the Brazilian Amazon, often with little recognition or reward.[3] Their successes in reducing deforestation have been accompanied by important progress addressing social issues, including enhanced rights, finance, and protected forest reserves for indigenous peoples.[4] In addition, the maintenance of tropical forests increases environmental services and habitat for biodiversity.

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[1] IPCC (2018). Special Report on 1.5 Degrees.

[2] Mikaela Weisse and Liz Goldman (2018). "2017 was the second-worst year on record for tropical tree cover loss" Global Forest Watch Blog. https://blog.globalforestwatch.org/data/2017-was-the-second-worst-year-on-record-for-tropical-tree-cover-loss

[3] Claudia Stickler et al (2018). The State of Jurisdictional Sustainability: Synthesis for Practitioners and Policymakers. Earth Innovation Institute/Center for International Forestry Research/Governors Climate and Forest Taskforce. https://earthinnovation.org/wp-content/uploads/2018/09/Stickler_et_al_2018_StateJS_Synthesis_small.pdf

[4] Maria DiGiano et al (2018). The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest jurisdictions through partnerships between subnational governments and indigenous peoples. https://earthinnovation.org/publications/the-twenty-year-old-partnership-between-indigenous-peoples-and-the-government-of-acre-brazil/

Endorsing the standard would contribute to reversing tropical deforestation. By endorsing the California Tropical Forest Standard, the California Air Resources Board would support tropical jurisdictions seeking to protect and restore forests by providing economic benefits while safeguarding the rights of local indigenous peoples and traditional communities. Currently, pay-for-performance finance has been leveraged to enhance indigenous peoples' rights in tropical forest jurisdictions, most notably in Acre, Brazil, where one-third of finance is channeled to support indigenous communities, through mechanisms determined by indigenous peoples themselves.[5] For the few jurisdictions able to sell offset credits directly to California, the possibility of offset finance would offer economic incentives to pursue alternatives to deforestation-driven economic development, converting forest conservation from a burden into an opportunity. However, the quantity of tropical forest offsets that could be sold to California has been tightly restricted so that nearly all emission reductions occur domestically. Importantly, approving the Standard also provides important indirect benefits to states in many other countries that have made commitments to reduce deforestation contingent on international finance, but may not be able to access finance directly. The Standard would set the precedent for cap-and-trade systems in other states, provinces, or countries, as well as industry associations or voluntary buyers. Tropical states could leverage the achievement of the Standard to obtain additional climate finance from other sources. Finally, the momentum from approving a Standard would inspire and motivate other tropical forest jurisdictions to reduce deforestation, as efforts to improve forest conservation and management are rewarded.

California is the right leader. California is known worldwide as a leader in environmental regulation and for setting strong standards. California's domestic forestry offsets have been successful at restoring forests and protecting biodiversity; half of the credits issued have been to projects led by Native Americans.[6] It can apply the same high bar for social and environmental safeguards to tropical forests. California, along with other members of the Governors' Climate and Forests (GCF) Task Force, are forging a new model for recognizing and supporting the rights of indigenous peoples and their role as forest stewards via their recent endorsement of the Guiding Principles of Collaboration and Partnership between Subnational Governments, Indigenous Peoples and Local Communities.[7] By integrating these Principles into the Standard and California's regulatory framework, California can also set an important precedent for other GCF Task Force member states to do the same.

Endorsing the California Tropical Forest Standard would benefit all Californians. Endorsing the California Tropical Forest Standard as a step toward including jurisdictional sector-based offsets from tropical forests into the cap-and-trade system would benefit all Californians. The availability of lower-

[5] Maria DiGiano et al (2018). The Twenty-Year-Old Partnership Between Indigenous Peoples and the Government of Acre, Brazil: Lessons for realizing climate change mitigation and social justice in tropical forest jurisdictions through partnerships between subnational governments and indigenous peoples. https://earthinnovation.org/publications/the-twenty-year-old-partnership-between-indigenous-peoples-and-the-government-of-acre-brazil/

[6] Carolyn Kormann (2018) "How Carbon Trading Became a Way of Life for California's Yurok Tribe." The New Yorker. https://www.newyorker.com/news/dispatch/how-carbon-trading-became-a-way-of-life-for-californias-yurok-tribe

[7] Guiding Principles of Collaboration online: https://static1.squarespace.com/static/5896200f414fb57d26f3d600/t/5b915dc2f950b735d57ee294/1536253379182/Principles_ENGL_V8.pdf

cost offsets would contain compliance costs and help avoid sharp increases in electricity prices as California's cap on emissions ratchets downward. Because of the tight constraints on the use of offsets, tropical forest offsets would displace purchases of offsets from other sources rather than domestic emission reductions. It would expand the fight against climate change from the roughly 1% of global greenhouse gas emissions within California's borders to the 16-19% of emissions from gross tropical deforestation and forest degradation.[8] Keeping tropical forests standing lowers the long-term risks of climate change to all Californians, such as sea level rise, fires, and drought. Taking this step would be yet one more way for California to show the world that in the face of intransigence on climate in national capitals, "we are still in."

The time is now: Advances in policy design and forest monitoring. It has been more than a decade since California first introduced the Global Warming Solutions act in 2006. Since then there has been voluminous analysis of the design of performance-based payments for reducing emissions from deforestation and forest degradation, including by the REDD+ Offsets Working Group. There has been much useful practical experience with the implementation of performance-based payments for reducing emissions from deforestation and forest degradation, including through Brazil's Amazon Fund and the Carbon Fund of the Forest Carbon Partnership Facility. Furthermore, scientific and technical capacities to monitor forest loss have advanced rapidly and have been implemented in reliable, transparent governmental deforestation monitoring programs, such as the PRODES program in Brazil. Capabilities exist now to meet operational needs for measurement, reporting, and verification and reference levels for reducing emissions from deforestation and forest degradation. Measurement capabilities will continue to rapidly advance in the next few years as a result of new technology.[9]

[8] California Air Resources Board (2018). California Greenhouse Gas Emission Inventory -2018 Edition. https://www.arb.ca.gov/cc/inventory/data/data.htm; IPCC (2013). AR5 WGIII Chapter 11 Figure 11.8.

[9] Scott Goetz et al (2015). Measurement and monitoring needs, capabilities and potential for addressing reduced emissions from deforestation and forest degradation under REDD+. *Environmental Research Letters* 10:123001.

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Comments on the Draft California Tropical Forest Standard. The Draft California Tropical Forest Standard is well thought through, rigorous, and sets a high bar for environmental integrity and social safeguards, especially for indigenous peoples. It is consistent with what experts and stakeholders would expect to see from a jurisdictional offset protocol for reduced emissions from deforestation and forest degradation. Here we offer suggestions for strengthening specific elements of the Draft Standard. Note that the lack of a comment on an element denotes support for or concurrence with that element as it is currently written.

General Comment:

The Guiding Principles of Collaboration and Partnerships between Subnational Governments, Indigenous Peoples and Local Communities, drafted and recently endorsed by the Governors' Climate and Forest Task Force along with 18 Indigenous and Local Community representative organizations, provide guidelines for how subnational governments should engage with Indigenous Peoples and Local Communities. Because the Principles explicitly focus on the relationship between subnational governments and forest-dependent communities, they are a key resource for informing the criteria for public participatory processes, stakeholder engagement, and social safeguards within California's Tropical Forest Standard. **We recommend that the California Tropical Forest Standard include and adhere to the Principles of Collaboration and Partnerships between Subnational Governments, Indigenous Peoples and Local Communities as part of its criteria for stakeholder engagement and to substantiate participatory process requirements, as currently referenced in both Chapter 3 and Chapter 10.**

Specific comments:

P9. Chapter 2. (minor importance) Proposal: Clarify that "if applicable" applies only to "degradation" and not "deforestation." I.e., by changing to "deforestation and, if applicable, degradation", as in 4(d)(2).

P11. Chapter 3(d)(1-2). (intermediate importance) If above-ground biomass is mapped spatially explicitly as in 3(d)(1), then this is superior to and should obviate the need for average biomass values by stratified forest type as in 3(d)(2). Calculating stratified average values in 3(d)(2) could provide potentially useful summary information, but as an input to calculations it would be redundant to the information collected in 3(d)(1). **Proposal: clarify that 3(d)(2) is for informational rather than calculation purposes.**

P15 Chapter 6(e). (minor importance) Proposal: Clarifying that "the crediting baseline must be maintained" refers to emissions within the crediting period rather than annually (if this is indeed the case).

P16 Chapter 8(b). (intermediate importance) The requirement that reporting periods must cover the calendar year from January 1 through December 31 as opposed to any other 1-year period (e.g. from September 1-August 31) could needlessly burden jurisdictions that already undertake, or for valid ecological or administrative reasons choose to undertake, forest monitoring on a different schedule. For example, a jurisdiction in which the most active period of deforestation and fires regularly occurs in the

November-February season could logically prefer to monitor land-use change during 1-year periods that encompass this entire season rather than cutting it in the middle. **Proposal: Consider removing "covering the calendar year from January 1 through December 31."**

P19 Chapter 11.2-11.3. (intermediate importance). Holding some amount of credits in a buffer pool to cover risk of reversal is sensible, but some limits on the length of time the credits must be held in reserve should be specified, along with fate of the buffer pool at the end of the program. **Proposal: Specify some mechanism for maximum size of the buffer pool to accompany the minimum size of 10 %, the length of time the credits must be held in reserve, and some mechanism for either recovering or retiring these credits at some end date, e.g. the end of the program.**

P23 Chapter 14(b), 14(d). (high importance) Updating the reference level and crediting baseline on a rolling average basis as specified in the draft Standard could result in unintended consequences and perverse incentives. For example, a jurisdiction that reduces emissions by a smaller amount could earn more credits than if it had reduced emissions by a larger amount. Or, a jurisdiction that reduces emissions later could earn more credits than if it had reduced emissions sooner. Or, a jurisdiction that increases its emissions by more could earn more credits than if it had increased its emissions by less. All three of these unintended consequences stem from a jurisdiction's future emissions contributing toward both to their advantage through their emission reductions and (after a lag) to their detriment through their crediting baseline. See Annex below for further details and numerical examples.

There are multiple ways to set the rules for updating crediting baselines to avoid these unintended consequences, so that larger and earlier reductions are rewarded more than smaller and later reductions:

1) Crediting baselines could be ramped down from their initial level according to some set schedule. This ramp down could occur linearly (e.g. by 1% each year) or in a stair-step fashion (e.g. by 5% each 5-year crediting period). This would be analogous to how California's own cap on greenhouse gas emissions declines over time. The practical effect of such a change would be that partner jurisdictions would be required to demonstrate increasing amounts of "own effort" over time to continue to sell credits.
2) Reference levels and crediting baselines could be extended by keeping the start-date of the reference level fixed and updating the end-date of the reference level every five years. This would be analogous to Brazil's updating of its Forest Reference Emission Level, in which the start date is fixed at 1996 and the end date has been successively updated from 2006 to 2011 to 2016.[10] (partial fix)
3) Reference levels and crediting baselines could be kept fixed at their initial level.

Of these three options, the first fully eliminates perverse incentives while requiring partner jurisdictions to demonstrate increasing amounts of "own effort" over time. The crediting baseline should decline gradually; if the crediting baseline is scheduled to decline too quickly then there is a risk that the economic incentives for partner jurisdictions to participate may become insufficient.

Proposal: In the initial crediting period, maintain the crediting baseline as 10% below the reference level. In subsequent crediting periods, decouple the crediting baseline from the reference level. This allows partner jurisdictions more flexibility to update their reference levels, e.g. in accordance with national FREL/FRL submissions to the UNFCCC, without affecting the crediting baseline.

In subsequent periods, change the method by which the crediting baseline is updated away from a rolling average to decline over time according to a pre-set schedule, consistent with California's own declining cap. This would remove perverse incentives while requiring partner jurisdictions to demonstrate increasing amounts of "own effort" over time in order to continue to sell credits.

> **Chapter 6(f): Remove.**
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> **Chapter 14(b): Remove "using a 10-year average of the annual estimate of emissions from deforestation and, if applicable, degradation."**
>
> **Chapter 14(d): Change "consistently with any reference level changes" to "downward by at least [[1% of the initial reference level] each year][[5% of the initial reference level] each crediting period]."**

Chapter 16(c). (intermediate importance). California presumably intends to exchange ETS offset credits for forest jurisdiction sector-based credits on a one-to-one basis. This is fine, and other jurisdictions that follow the California Tropical Forest Standard may choose to do so as well. However, other jurisdictions might choose, in order to be conservative and to improve environmental integrity, to exchange offset credits allowances on a greater than one-to-one basis, i.e., using a trade ratio. For example, the 2009 Waxman-Markey bill specified a 5:4 ratio between forest offset credits and allowances. A conservative trade ratio of this sort should not be precluded. **Proposal: Modify "an equal number of" to "an equal or greater number of."**

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Annex 1: Adverse consequences of updating reference levels and crediting baselines using a rolling average can be corrected through other methods of updating.

As currently written in the draft Standard, lines 14(b) and 14(d) specify that implementing jurisdictions must update reference levels every 5 years using a 10-year average of the annual estimate of emissions from deforestation and, if applicable, degradation; and must update crediting baselines consistently with any reference level changes.

As documented in the spreadsheet below, updating reference levels and crediting baselines on a rolling basis presents the potential for at least three non-sensible outcomes:

1) A partner jurisdiction that reduces its emissions by a smaller amount (1a) could gain the same number of credits as if it had reduced its emissions by a larger amount (1b). (Or, in the case where the crediting baseline is 10% below the reference level, a slightly-smaller amount of credits)

Reductions credited relative to a reference level that is the average of the previous two periods (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
1a	Emissions	5	5	4	2	1	7
	Credited reductions	n.a.	n.a.	**1**	**2.5**	**2**	**5.5**
1b	Emissions	5	5	2	2	1	5
	Credited reductions	n.a.	n.a.	**3**	**1.5**	**1**	**5.5**

Reductions credited relative to a crediting baseline that is the average of the previous two periods less 10% (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
1a	Emissions	5	5	4	2	1	7
	Credited reductions	n.a.	n.a.	**0.5**	**2.05**	**1.7**	**4.25**
1b	Emissions	5	5	2	2	1	5
	Credited reductions	n.a.	n.a.	**2.5**	**1.15**	**0.8**	**4.45**

2) A partner jurisdiction's that reduces its emissions later (2a) could gain more credits than if it had reduced its emissions earlier (2b).

Reductions credited relative to a reference level that is the average of the previous two periods (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
2a	Emissions	5	5	4	2	1	7
	Credited	n.a.	n.a.	**1**	**2.5**	**2**	**5.5**

	reductions						
2b	Emissions	5	5	2	4	1	7
	Credited reductions	n.a.	n.a.	**3**	**0**	**2**	**5**

Reductions credited relative to a crediting baseline that is the average of the previous two periods less 10% (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
2a	Emissions	5	5	4	2	1	7
	Credited reductions	n.a.	n.a.	**0.5**	**2.05**	**1.7**	**4.25**
2b	Emissions	5	5	2	4	1	7
	Credited reductions	n.a.	n.a.	**2.5**	**0**	**1.7**	**4.2**

3) A partner jurisdiction that increases its emissions by a bigger amount (3a) could gain more credits than if it had increased its emission by a smaller amount (3b).

Reductions credited relative to a reference level that is the average of the previous two periods (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
3a	Emissions	5	5	7	2	1	10
	Credited reductions	n.a.	n.a.	**0**	**4**	**3.5**	**7.5**
3b	Emissions	5	5	6	2	1	9
	Credited reductions	n.a.	n.a.	**0**	**3.5**	**3**	**6.5**

Reductions credited relative to a crediting baseline that is the average of the previous two periods less 10% (credit only if positive)

Scenario	Period	-1	0	1	2	3	Total
3a	Emissions	5	5	7	2	1	10
	Credited reductions	n.a.	n.a.	**0**	**3.4**	**3.05**	**6.45**
3b	Emissions	5	5	6	2	1	9
	Credited reductions	n.a.	n.a.	**0**	**2.95**	**2.6**	**5.55**

These three non-sensible outcomes could be avoided by removing the requirement that updating be a 10-year rolling average and specifying instead one of the following three options for updating reference levels:

a) Reference levels and crediting baselines ramp down from the original reference level according to a set schedule (e.g. declining by 5%/10%/20% of the original level each period

after the first crediting period), consistent with the declining cap in California's cap and trade program.

b) Reference levels and crediting baselines keep the same start-year of the reference period and updating only the end-year of the reference period, consistent with Brazil's Forest Reference Emission Level (partial fix); or

c) Reference levels and crediting baselines keep the same reference period for the duration of the program.

About Earth Innovation Institute:
The Earth Innovation Institute is a not-for-profit, independent research institute with headquarters in San Francisco and offices in Brazil, Indonesia and Colombia. We pursue our goals of slowing climate change, conserving tropical forests and fisheries, and improving rural livelihoods by promoting sustainable rural development through a blend of research, consensus-building, policy analysis and reform, and private sector engagement.