October 29, 2018

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Submitted electronically

RE: Comments on proposed Tropical Forest Standard (TFS)

Dear CARB Board and staff,

We are geographers and social scientists writing to express our concern that the California Air Resources Board's (CARB's) proposed credit-based Tropical Forest Standard (TFS) poses serious risks of harm to forest-communities and to the integrity of California's climate policy. We commend California's progress toward reducing its greenhouse-gas (GHG) emissions and CARB's recognition of the damages from tropical deforestation to earth's climate and biodiversity. However, we are concerned that CARB has failed to take account of the extensive literature documenting the environmental ineffectiveness and negative social impacts of tropical forest offsetting and their implications for carbon-trading linkages with jurisdictions in developing countries.

It is impossible to ensure that avoidance of GHG emissions at tropical forest offsetting sites is "*real, additional, quantifiable, permanent, verifiable and enforceable*" as required by California law for any carbon trading mechanism. Adopting the TFS is unlikely to slow tropical deforestation for reasons we list below, among others. Our own research has also convinced us of the risks that the TFS would pose to forest-dwelling people. Moreover, the TFS approach contributes to the adverse environmental-justice effects that offsets are having in California.

Case studies of REDD+ and PES around the world document how these programs have very often constrained the access of forest-dependent communities to land and forest resources, curtailed livelihoods with minimal compensation, undermined common-property forms of forest governance, and replaced indigenous conservation values and practices with expectations of payment. While some forest-dwelling groups have received short-term material benefits from REDD+ projects, such projects have provided "greenwashing" cover for destructive mining and expansion of export-agriculture plantations, and in some cases entailed violent repression or dispossession of entire communities.

REDD+ and other PES projects are implemented in forests where people live, often spaces with long histories of contestation, exploitation, and dispossession resulting from immense inequalities between forest communities, local elites, and extractive industries. Work against deforestation in these regions risks causing harm and requires deep understanding of the local context that comes from presence on the ground and trust-based relationships built over time. This cannot be accomplished with a program that measures rates of deforestation at arms length, depending on the competence and integrity of public officials in distant places.

Social and environmental safeguards have been established with the intention of ensuring that such projects do not cause harm. However, core safeguards under the UN-REDD Programme lack specificity and legal authority and are framed in some of the weakest language in international law. Further, mandated social and environmental safeguards often fail to avoid harm due to the inherent subjectivity and conflicts of interest of project managers and consultants hired to determine whether safeguard requirements have been met. It is easy to check "consultation," and "prior and informed consent" boxes by holding a publicly announced meeting without effectively informing communities of the full consequences for them or incorporating community decisions into project plans. Extremely poor-quality consultation is commonplace and the record of REDD+ is replete with conflicts, scandals, and self-dealing by officials and local elites.

Some have argued that this large set of case studies on REDD+ pilot projects is irrelevant to jurisdictional REDD, but the types of interventions discussed in this literature, such as establishment of conservation areas, regulations restricting land use, and payments to farmers and forest-dwellers for changing their practices, are precisely the types of activities that would be included in jurisdictional REDD programs. Therefore, the harms described in the above-mentioned studies of REDD projects and programs are entirely germane to the proposed TFS.

An international forest sector offset program risks weakening California's climate targets with credits whose benefits are not verifiable, risk reversal, and do not meet the other requirements of California law

Offsets using forest-carbon credits would not *reduce* emissions, but would simply legalize a portion of the continued emissions by the capped sectors in exchange for *hoped-for* avoidance of increased emissions from deforestation and forest degradation. Offsets, in this way, perpetuate environmental injustice. The use of offsets in California has allowed continued and even increased emissions of the toxic co-pollutants released alongside GHGs, particularly from the refineries and other large facilities that are the main users of CARB-approved offsets and that are located disproportionately in low-income neighborhoods.

Leakage from conservation jurisdictions is inevitable and impractical to detect or fully quantify. Leakage occurs when reduced availability of an asset (such as cleared land) or production of a commodity (such as beef, timber or minerals) in one place creates an incentive for increased production elsewhere, in a different community, jurisdiction, or country. Confirming that production remains at least constant does not mean that leakage is not shifting deforestation to neighboring or even distant jurisdictions and countries. Monitoring and accounting for or avoiding leakage involves accounting for many interrelated effects that are highly uncertain, including the already increasing production of beef and animal feed, increased emission from intensification of beef and crops, and price effects on commodity production and consumption and on land use. The recommendation that TFS credit-generating programs should welcome "production of crops and livestock at a business-as-usual rate or accelerated rate" as an indication that leakage has not occurred encourages the single most environmentally destructive form of agriculture, confined beef production, and the nearly-as-unsustainable cultivation of maize and soy animal feeds. It is prohibitively difficult to trace and quantify the carbon footprints of the increased feed and other inputs used in intensification of beef and crop production. Moreover, significant research in Amazonia has shown that soy and other agricultural intensification can lead to increased deforestation when agricultural entrepreneurs invest profits from increased per-hectare yields in expanding their production area. Given the intractability of leakage

prevention and accounting, California cannot ensure that offsets-financed conservation programs are resulting in net environmental gain.

Furthermore, the difficulty of confirming *additionality* poses a substantial risk. Past experience assessing additionality from international projects is very poor. The large majority of offset projects under international climate agreements are non-additional. Similarly, studies of REDD+ and PES projects, the types of projects that could be included in a nested approach, have shown that landholders seeking offset credits can contend falsely that they plan to cut forests in order to receive payments to not do so. Estimating the effects of a jurisdictional REDD program on emissions is even more difficult than for projects. It is nearly impossible to quantify the land-use change in a jurisdiction linked to California that results from payments by California offset users. For example, in Brazil, past reductions and recent increases have been affected by national government policy changes, soy and beef moratoriums catalyzed by international NGOs, changes in global commodity prices, and European government programs providing incentives to reduce deforestation but not based on carbon trading. It is difficult to disentangle the effects of California's offset program from the range of other factors affecting land use change in a single jurisdiction.

In addition, *permanence* cannot be guaranteed, not even the less-than-permanent promise of 100 years of sequestration required under current California policy. A reduction in industrial emissions is effectively a reduction in absolute permanent emissions, but any benefit from sequestering carbon in forests can easily be reversed by fire, political shifts leading to policy reversals such as those happening in Brazil, commodity price increases in export agriculture, or expansion of extractive industries. The climate effects of putatively identical amounts of fossil-fuel carbon and carbon sequestered in trees or soils are not equivalent. If fossil fuels remain below ground they will never add to global warming, but carbon stored in vegetation risks contributing to atmospheric GHGs, and is especially likely to do so where the major drivers of deforestation are not effectively addressed. In Amazonia these threats include large-scale soy and palm oil production, cattle ranching, logging, hydroelectric dams, mining, oil drilling, and roads. Such lucrative activities have higher opportunity costs with which carbon-credit and offset markets, given low and volatile prices, cannot compete.

Finally, CARB's proposed TFS fails to meet California requirements which restrict linkage to programs of *equivalent stringency and enforceability*. The purpose of a linkage is for two jurisdictions that have taken on targets of similar stringency to work together to meet those targets at lower cost for both parties, on a path towards deep long-term reductions. California has a binding cap but the linked jurisdiction is not required to have one. California's cap-and-trade program covers its industrial sectors, whereas the proposed TFS is in the forest sector with risk of greater reversals than can be compensated for by buffer stocks. While California has adopted laws committing to long-term deep emissions reductions, cooperating jurisdictions would have to demonstrate structural commitments to reform their forest, agricultural, and mineral sectors in ways that the TFS cannot not require.

We reiterate here our understanding of the unacceptably high risk that California's proposed TFS poses to the integrity of California's global warming efforts and to forest communities. Now that California policy has begun to make progress toward reducing GHG emissions from the state, strengthening and enforcing the successful parts of that policy is the most important thing the ARB can do to contribute to the health of tropical forests and address the pressing dangers detailed in the new IPCC report.

Most sincerely,

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