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California Air Resources Board 1001 | Street Sacramento, CA 95814

To Chair Nichols and the California Air Resources Board and Staff:

Fall brings the Tropical Forest Standard back before you, at the start of another season of forest burning around the world that has led observers to widely differing conclusions about what can and should be done about it and who should have a role. Should California subsidize and support the creation of a program that allows companies that have benefitted for so long from the emissions that are contributing to the spread and intensity of these fires, and from poisoning communities across California, to have a cheaper means of "offsetting" their ongoing damages and projecting a green image to the world? Should the state condone the airline industry or jurisdictions in other industrialized countries offsetting their emissions through forests in some of the most complicated, unequal places in the world that are notoriously difficult for outsiders to understand? As a California taxpayer, I am uncomfortable with this use of funds, and disappointed that CARB has continued to invest in this strategy. That a self-selected group of Assemblymembers seem to be modestly, hesitantly condoning this plan is not a surprise. Their position indicates that the Tropical Forest Standard is about not just carbon offsets, but political offsets – it is always easier to ask a foreign government to take care of a problem than push harder for greater commitment here at home. It is more politically expedient to tell your constituents that you are saving tropical rainforests rather than raising taxes on them to push forward the structural changes necessary in our state to wean us off fossil fuels.

I write this letter not only from my position as a California taxpayer who is concerned about climate change and who wants my state to invest our funds for real impacts close to home, however, but also because of what I have seen while spending the last six years studying the effort to compensate those in tropical countries for reducing deforestation. As a PhD candidate at the University of California, Berkeley, I have spent those years in tropical forest communities, examining the results of a program sponsored by the US Agency for International Development (USAID) to develop the "highest quality" REDD+ projects across Colombia's Pacific region – projects that are on the cusp of receiving VCS and CCBA verification for having sequestered, in theory, millions of tons of carbon between 2013 and 2017. In my dissertation research, I have also examined much of the literature coming out of other studies of compensated reductions in deforestation from around the world.

While I appreciate that the proposed TFS differs in several ways from the projects I've studied most closely, these efforts share a larger context and some essential requirements and challenges. There is much to be learned from the experiences we do have with these projects and other REDD+ programs to date, and from the pay-for-performance aid programs more generally (Angelsen 2017; Karsenty and Ongolo 2012; Wong et al. 2016). The notion that the TFS would be entering uncharted territory and that we must test it to know whether it will work is alluring, particularly because of the meager and sometimes perverse outcomes of these past efforts, but it ignores the many commonalities the TFS shares with these other efforts. To this end, I would like to share some of the findings of my research and from studying the work of others to help the Board decide

whether the TFS is something that they want to condone for the rest of the world, and consider for use in California's own cap-and-trade program in the future.

First, the projects I studied created a windfall of carbon credits without anything changing on the ground. These credits generated by the projects I've studied have been pre-sold to companies under a loophole built into the national carbon tax that went into effect in 2017. This loophole enables these companies to get out of paying the tax by becoming "zero carbon." Becoming "zero carbon" requires buying forest offsets that are much cheaper per tonne than the tax, saving these companies even millions of dollars a year.

Yet though the credits from their projects already have buyers, most people in the project communities did not know REDD+ was happening even two years after it had been validated. Everyone I interviewed, including project consultants and community leaders, expressed clearly that nothing had changed on the ground as a result of the project to reduce deforestation or degradation. The creation of the carbon credits resulted, instead, from the use of project baselines that were created out of a reference area whose communities were primarily far more affected by deforestation and degradation than the project communities. This finding aligns with other studies, such as that of Seyller et al. (2016), which point to the "virtual economy" of even "rigorously certified" projects. While the TFS proposes to address this with a strict baseline and third-party certification, there are elements of what we have learned in REDD+ projects that carry through.

For one, tropical jurisdictions will be invested in for linkage based upon whether or not they are likely to create credits under the TFS criteria, not whether they are under particular threat at the moment.. Because it is hard for these programs alone to actually change anything substantially on the ground, the calculus is done in advance to figure out which locations are likely to have a baseline favorable to getting them credits, and those are the ones that receive investments. This finding aligns with others in the literature (Wong et al. 2016; Delacote, Velly, and Simonet 2018; Atela, Quinn, and Minang 2014). Some number of the tropical jurisdictions that California, CORSIA, or other jurisdictions might link with will also *happen* to lower deforestation rates through a fluke of the past, present, or future, given the uncertainty of these spaces. This bias toward jurisdictions likely to produce these credits, and randomness that allow some to do so without any changes, present an immediate challenge to the additionality criterion that is, theoretically, so sacred in these efforts.

The other issue that this project experience raises is that the consultants that are really doing the work to develop these programs on the ground will still have leeway to create the best possible result for the linked jurisdictions. In the projects I studied, which were supposedly rigorously constructed, and validated and verified by third party auditors under multiple standards, the consultants were able to tweak leakage and reference areas, and to alter their models to generate the greatest number of credits for the projects that in practice made no changes on the ground. USAID's project documents even boast that they were able to hire a consultant capable of such manipulations, as a means of selling the project to investors.

Second, the reason that nothing had changed on the ground was because it was a lot easier, and less controversial, to invest the \$18 million USD that went into creating changes into technical solutions and steps to get the project validated and verified – writing documents that attempted to convince the world of what *should* have been changing on the ground as a result of particular project activities, rather than *actually* changing it.

USAID and its Washington, DC contractors, of course, have little actual say in what occurs in these remote communities with local governance bodies. The steps needed to prove to the world that the project is changing things on the ground, however, are expensive. Each project represented millions of dollars of public investment in consultants – those to study local drivers of deforestation, those to model deforestation and degradation under a particular methodology, those to conduct Lidar flights and analyze the data collected, those to audit the projects, etc. These consultants are primarily based in the US and Europe. As one consultant told me, "REDD+ is supposed to by community-owned, and there is no community in the world that could afford it." Another consultant who made millions from the USAID projects lamented that "the problem with these programs is that way too much money goes to consultants."

While the outcome of the substantial body of research questioning the fundamental environmental integrity of these programs *might* be to redesign or scrap the effort so as not to pretend that forests can be meaningfully fungible with fossil fuels, the outcome has been instead that more and more funding goes to consultants to do a more complex and expensive dog and pony show to "prove" the validity of these credits. This might be attributed to the ongoing political challenges to moving the ball forward in industrialized countries and a continuing belief among environmental economist's that these credits are relatively "cheap."

This windfall for consultants and little funding leftover for the communities making sacrifices or working hard to try to implement changes is likely to appear in jurisdictional programs as well. In fact, in programs operating under the TFS, this funnel effect on funding is likely to be exaggerated by the skimming that the jurisdiction leaders and program technicians themselves will do. Even if these jurisdictions are able to reduce deforestation for some period, then, it is unlikely that the communities that sacrificed to make this happen are likely to receive just compensation for this given these costs.

Third, the relatively small investments that did go into "alternative development" and "good governance" yielded poor results. None of the projects ended up producing any lucrative alternatives, which of course made changing behavior around timber harvests even more unlikely. The projects also failed to target these alternatives to those most dependent on harvesting timber. This is not a fluke, but a common issue to these kinds of combined conservation and development projects – those who have the time, interest, and capital to participate are commonly not those who are engaging in the "problematic" enterprise. These individuals may also have little desire to restrict these activities of their neighbors because they are important sources of livelihoods for their communities. Some projects have produced enterprises that provide some income for a period, but few of these are actually near valuable enough to serve as a viable substitute for timber harvesting or other deforestation drivers if they were actually competing head-to-head.

It is likely that jurisdictions looking to participate in a TFS-based linkage would have similar results. That is because these kinds of "alternative projects" – like the fishponds, brazil nuts, or rubber processing of Acre – are the kinds of investments that development consultants know how to make. These jurisdictions are likely to rely on these kinds of "projects" as an important part of their efforts to reduce deforestation – after all, they purport to address deforestation without actually going after those who stand to benefit most from this deforestation and therefore are most likely to fight, ignore, or work around restrictions on their ability to deforest.

Fourth, it is a coal company, a subsidiary of Glencore, that is benefitting from the millions of dollars of foreign aid investment in the creation of these projects that have yet to actually make a change on the ground (El Tiempo, Casa Editorial 2017). They are, in essence, being subsidized in their move to be "zero carbon" by these aid organizations, and also by the Colombian government, which loses millions of dollars in tax revenue through this "zero carbon" loophole. A coal company can then claim to be "zero carbon" while nothing changes on the ground in the rainforest and the Colombian government loses funding for the implementation of the peace process. As I am writing this, a few of the leaders of the FARC-EP, the former guerilla army with whom the Colombian government's failure to implement and invest fully in the peace accord (Aljazeera News 2019). This failure is not entirely a result of the revenue lost through this tax loophole, of course, but this leak has not helped.

Meanwhile, other groups have filled in the vacuum of the FARC-EP given the failure of the state to do so after the peace agreement, leaving many of the very same communities participating in the REDD+ program I was studying now stuck between warring factions. Since 2017, the state of their forest and whether or not they will receive funding from carbon credit sales have become even lower priorities for them in this context of escalating violence. The hundreds of thousands of dollars that each community might receive from this first sale of credits is unlikely to do much to prevent these groups from threatening them and stealing away their youth to serve as footsoldiers to protect their cocaine routes (necessitated by demand from the US and Europe, of course, in combination with the US's misguided and failed "war on drugs"). The expansion of mechanized gold mining and timber harvesting by armed outsiders that commonly associated with these groups are also unlikely to be impacted by carbon credit funding. None of these dynamics, it should be noted, are captured in the risk analysis undertaken as part of the REDD+ validation and verification.

This context is, unfortunately, hardly unique in tropical rainforests globally. It would not be hard to imagine a situation under the TFS that would have similar results – big public investments up front to get a program off the ground that may greenwash some fossil fuel corporations for a while, but which are fundamentally unequipped to compete with the drivers of deforestation.

Finally, I would reiterate that the projects that I studied were the *best* scenario of REDD+ projects. All the funding was provided by organizations that were interested in the projects primarily for their development benefits, not for turning a profit themselves, or even for conserving forests. One can easily imagine that if funding were to ramp up under programs developed to align with TFS, that this would attract more of the kinds of investors that USAID ultimately ended up *not* using in these Colombian projects after considering several offers from them. In the view of the USAID program team, the terms offered by these carbon investment companies were not beneficial enough to the communities being asked to sacrifice under the program.

Herein lies the most problematic catch-22 of this whole effort. Conserving forests will not be lucrative until governments commit to making it lucrative. Yet if these public investments are set up to create and support carbon markets, like the TFS is, with the goal of simply providing greater incentives to attract companies like these for-profit investors, *negative outcomes are likely to result for those dependent on these forests*. In practice, the number of REDD+ projects that have resulted in egregious harms to these communities are relatively few

thus far because there hasn't been much money available to those who would be willing to buy or assert control over their spaces for profit. Instead, most REDD+ projects have looked little different from alternative development or combined conservation and development projects of the past. The examples we do have of carbon forestry projects more generally that have had stronger profit or political motives are certainly concerning (c.f. Lord 2018; Cavanagh and Benjaminsen 2014; Schapiro 2009). Thus, while some of my colleagues are convinced that the problems and limitations we have seen with REDD+ to date are primarily a result of having too little funding invested, *REDD+ has not generated more social conflict and displacements thanks to those low levels of investments.* This is not to suggest that the world could not use more commitments to keeping forests standing, or more investments in fighting climate change, but that pay-for-performance and market mechanisms like that proposed by the TFS, which are poised to reward these displacements and double-down on inequalities of the past, are likely to do more harm than good (Chomba et al. 2017).

There is much talk about the power of safeguards to prevent these outcomes, yet most project developers see safeguards as a box-ticking exercise to get through without excessive expense (Krause and Nielsen 2014; Lord 2018). If forest-dependent people don't have legal rights to land, despite having customary tenure and even living on the land for generations, there may be little that safeguards can do to keep them from being kicked off "legally" by the government as part of efforts to reduce deforestation. These people may be labeled as "poachers," "squatters", or "invaders," even though they may have cultivated and cared for this land for decades or even centuries within their families. This has been such a common occurrence in many of these tropical forest countries for the creation of protected areas - and, simultaneously, timber, mining, and agricultural concessions --that it is hard to imagine it won't also result if the value to jurisdictional governments grows of reducing deforestation (Kelly 2011; Global Witness 2018; Fairhead, Leach, and Scoones 2012; Grajales 2011; Larson and Ribot 2007). These processes of displacement can also happen in subtle ways through these programs that would not be picked up by the safeguards proposed under TFS (Kansanga and Luginaah 2019; Lemaitre 2011; T. Osborne 2015; T. M. Osborne 2011; Scheba and Rakotonarivo 2016; Chomba et al. 2016). Nor do these safeguards have much to say about distribution of benefits – more than once, the benefits of forest carbon credit programs have flowed into the pockets of those who have done nothing but serve on paper as community or jurisdictional representatives. Finally, the need to rely on safeguards is indicative of larger holes in the justice framework of REDD+. As Sikor puts it, "REDD+ remains a black box to justice because justice concerns are not directly incorporated into the core design of REDD+ actions. Instead, justice concerns are cast into safeguards and added to REDD+ in an effort to filter out undesirable outcomes of local and national REDD+ actions, relegating justice concerns to remedial actions" (Sikor 2013).

The issues I raise here – just a selection of those encountered in my research – do not lead to tweaks that CARB can make to TFS to make it better. Rather, they are fundamental to efforts to turn forests into fungible carbon credits in parts of the world that are remote, have long histories and ongoing realities of complicated violent conflicts and extreme social inequality, where it remains most lucrative to clear forests, and where governments have little interest in investing to halt this clearing. These are places where the companies and individuals that benefit most from forest clearing often have long relationships with – or are one and the same as – governmental actors at local, provincial, and national levels. Even recognizing the "climate value" of tropical forests, is hard to deny the fundamental problems of assuming that forest offsets, and particularly tropical rainforest offsets, given their multiplied political economic and ethical risks, can be reasonably traded for fossil

fuel emissions from the industrialized world. It is also hard to argue that additionality and permanence can be guaranteed with the help of a "buffer pool," or that leakage can be calculated with a reasonable level of uncertainty when protocols for this, including that of the current TFS, are woefully insufficient for capturing the ever-slippery leakage that can happen in a globalized world, and may even have perverse consequences. I fear that a hysteria around the need to *do something*, a problematic assumption that creating markets or incentivizing "private sector investment" will necessarily create better conservation and development outcomes, and the limitations of toolkits of scholars and development and conservation "practitioners," has clouded the thinking of many about what are likely to be effective, just, and lasting solutions to the climate crisis and tropical deforestation. And while some may suggest that we need all the tools we can get to throw at such massive challenges, there are proposed solutions that can set us back. For all the reasons described, the TFS, and the larger notion that we can offset our way to climate change mitigation through tropical forests, is one of these proposals that weakens our motion toward lasting mitigation solutions at the same time it places a burden on those who have never benefitted from fossil fuels.

I would urge CARB not to endorse the TFS, and to stop investing now in in trying to "fix" a program that has such fundamental limitations. Though there are consultants who will surely benefit if CARB staff spend another year creating another version of the Standard with more hoops for jurisdictions to jump through, these are unlikely to improve the end result for the parties whose voices really *should* matter in these discussions: those affected most by climate change and fossil fuel production and burning, those who could face displacement from their homes to create offset opportunities for these polluters, and those directly affected by the deforestation around them pushed by companies providing goods to keep urban consumers of the world hundreds or many thousands of miles away sated. Let's keep our eyes on the prize, then, by leading the world in cutting down our own fossil fuel production and use, and by reducing demand from our own state and its consumers for these deforesting products.

Sincerely,

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