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October 29, 2018

Mr. Richard W. Corey
Executive Officer
Air Resources Board
1001 I Street
Sacramento, California 95814

via electronic submission to
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=tfs2018&comm_period=N

RE: Proposed California Tropical Forest Standard

Dear Mr. Corey:

The Center for Tropical Research (CTR) at UCLA respectfully submits this letter in support of the California Air Resources Board (CARB)'s proposed Tropical Forest Standard ("Standard"). CTR is a leading center focused on tropical studies that builds capacity to conduct research on tropical systems in California and around the globe, and serves as a source of world-class science on tropical ecosystems. We find that the proposed Standard would advance California's landmark efforts to combat global climate change while protecting indigenous peoples and providing a critical signal to tropical jurisdictions. Tropical forest protection is an indispensable strategy for fighting climate change, protecting public health, preserving biodiversity, and protecting and enhancing the livelihoods of forest-dependent peoples. With this Standard, California can establish a high-quality global model for assessing international forest offsets and signal to jurisdictions across the world that protecting forests is critically important.

It is well documented that preserving and maintaining the world's tropical forests and natural lands are critical to global public health and to fighting climate change. Tropical forests sequester carbon from the atmosphere, thereby mitigating climate change and harmful air pollution.[1] Tropical forests also actively cool the atmosphere.[2] The failure to decrease tropical deforestation and degradation would be catastrophic for forest biodiversity and, as a result,

[1] Stephens, BB et. al (2007). Weak Northern and Strong Tropical Land Carbon Uptake from Vertical Profiles of Atmospheric CO2, 316 *Science* **316**: 1732.
[2] Nepstad, DC; Stickler, CM; Soares-Filho, B; Merry, F (2008). Interactions among Amazon land use, forests and climate: Prospects for a near-term forest tipping point, *Philosophical Transactions of the Royal Society B* **363**: 1498.

carbon sequestration.[3] Tropical soils depend on tree biodiversity to sequester carbon effectively, and this ability diminishes as biodiversity diminishes.[4] When tropical forests are harmed and degraded, carbon sequestration is subsequently diminished by harm to trees as well as soils.[5] In this way, tropical deforestation and degradation have become among the largest sources of carbon emissions, releasing more global greenhouse gas emissions annually than the global transportation sector.[6] The recent Intergovernmental Panel on Climate Change report reflects the immense importance of tropical forest management practices, indicating with high confidence that deforestation and degradation pose "profound challenges" for sustainability of human settlements, food, livestock feed, and other important ecosystem services.[7] Recent research into tropical forests has underscored their importance to global carbon levels, and highlighted how poorly understood these critical ecosystems are. For instance, as recently as last year new research showed that peat deposits in the Conga Basin forest sequestered nearly 30 billion metric tons of carbon, effectively doubling the amount of carbon that is stored in that tropical forest region.[8]

Given the critical role tropical forests play in combatting global climate change, we support the Tropical Forest Standard as an important step towards California's thoughtful and effective engagement in this important sector. As a leading tropical research center, we can affirm the important role these ecosystems play in carbon sequestration and biodiversity. Adopting the Standard would provide an important signal to actors in tropical regions that there is value in engaging in conservation activities.

By approving the draft Standards, CARB would join a growing list of California institutions that recognize and value the role of tropical forests in the health and well-being of Californians. The Congo Basin is the second largest tropical rainforest after the Amazon, hosts incredible biodiversity, and is estimated to hold approximately 60 million metric tons of carbon. In 2015, with approval from the University of California Office of the President, UCLA inaugurated the Congo Basin Institute (CBI), its first foreign affiliate, which is based in Cameroon. CTR led the creation of CBI, and the University of California campuses at Davis and Riverside have also joined CBI.

From its inception, CBI has hosted cutting edge research on biodiversity, conservation, sustainable agriculture, forestry, and carbon sequestration. In the process, CBI has afforded

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[3] Laurance, WF et. al. (2012). Letter: Averting biodiversity collapse in tropical forest protected areas. *Nature* **489**: 290.
[4] Bunker, DE et. al (2005). Species Loss and Aboveground Carbon Storage in a Tropical Forest. *Science* **310**(5750): 1029.
[5] Laurance, WF and Williamson, GB (2002). Positive Feedbacks among Forest Fragmentation, Drought, and Climate Change in the Amazon, *Conservation Biology* 15: 6.
[6] Winkler, H (2014). Emerging lessons on designing and implementing mitigation actions in five developing countries. *Climate and Development* 6:1 (Mar. 26, 2014).
[7] Intergovernmental Panel on Climate Change, *Global Warming of 1.5 C – Summary for Policymakers*, at SPM-22 (Oct. 6, 2018), *available at* http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.
[8] Dargie, GC; Lewis, SL, Lawson, LT; Mitchard, ETA; Page, SE; Bocko, YE; Ifo, SA (2017). Age, extent and carbon storage of the central Congo Basin peatland complex. *Nature* **542**: 86-90.

California students the opportunity to study and conduct research in the Congo Basin tropical forests. CBI has a strong commitment to local capacity building, and all of our activities include Central African students and researchers. Thus, CBI is already building the capacity necessary for the development, monitoring, reporting, and verification of potential credit programs, like those envisioned in the Standards.

The aforementioned recent discovery of peat deposits containing an estimated 30.6 billion metric tons of carbon in the Congo Basin underscore the importance of tropical forests generally, and the Congo Basin specifically, in combatting global climate change. We believe the proposed Standards would support jurisdictions like those in the Congo Basin to better understand the role they can play in avoiding carbon release, and paves the way for participation of this critical region in formalized carbon markets.

Through CBI, the University of California has already committed to building a cadre of Californian and African researchers and students who can form the workforce needed to effectively implement jurisdictional crediting programs to reduce emissions from tropical deforestation and degradation. These efforts complement and support the Standards, and demonstrate an understanding within the state of California of the importance of tropical forests.

CTR supports action by CARB to approve the Tropical Forest Standard. We believe this Standard presents an opportunity for California to lead the world in tropical forest protection and conservation, which has the potential to yield immense public health and environmental benefits.

Respectfully submitted,

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