13 November 2018

California Air Resources Board

1001 I Street

Sacramento, CA 95814

**Evidence on local REDD+ impacts from a long-term global comparative study**

Dear California Air Resources Board and Staff,

This letter is a follow-up to our letter to Governor Edmund G. Brown dated 29 October 2018 and entitled “Support for the California Tropical Forest Standard.”

The Center for International Forestry Research (CIFOR) has conducted the most comprehensive global assessment of the effectiveness, efficiency and equity of REDD+ initiatives at national, subnational and local levels[[1]](#footnote-1). Although the California Tropical Forest Standard goes beyond REDD+, as scientists involved in rigorous research on the impacts of REDD+ projects and programs on the ground for nearly a decade, we feel obligated to respond to recent claims that such initiatives have negative impacts on tropical forest communities.

In fact, our long-term systematic evaluation of the impacts of 17 local REDD+ projects and 5 subnational jurisdictional programs in Brazil, Cameroon, Indonesia, Peru, Tanzania and Vietnam provides a much more nuanced picture. Our study combines socioeconomic surveys in 150 communities and nearly 4,000 households (including control groups) with forest cover change data to measure the effects of REDD+ interventions on forests and people. So far, two rounds of panel data have been collected, at baseline in 2010-11 and again in 2013-14. A third round of data collection is being done this year to assess longer-term impacts.

Findings to date highlight some important impacts: First, more than half of the REDD+ initiatives reduced deforestation at the community level, although with small effect sizes[[2]](#footnote-2). Second, we observed no systematic negative impacts of REDD+ on local welfare at these sites[[3]](#footnote-3), with some site-level evidence of significant livelihood benefits[[4]](#footnote-4). Third, it is clear that sensitive and systemic issues such as land tenure insecurity cannot be fully addressed at the project scale. For instance, while REDD+ interventions did not worsen smallholder tenure insecurity, there is little evidence that project level efforts to address tenure security produced positive results[[5]](#footnote-5). Fourth, while there are examples of REDD+ projects enhancing women’s participation in village decision-making, there is also evidence that implementers could do more to promote gender equality and safeguard women’s rights[[6]](#footnote-6). Finally, incentives for smallholders and communities (e.g. payments or infrastructure) significantly alleviated the burdens of land use restrictions (e.g. through law enforcement, protected areas) associated with some REDD+ initiatives[[7]](#footnote-7).

A robust review of the recent scientific literature on REDD+ project impacts reflects these findings[[8]](#footnote-8). The few studies published on carbon/land use outcomes show moderately encouraging results, while the more numerous studies on wellbeing highlight small, or mixed results that are more likely to be positive when incentives are part of the offered intervention.

Jurisdictional programs for reducing tropical deforestation are fundamentally different from local REDD+ projects. However, we believe that rigorous evaluations of early REDD+ interventions on the ground can help inform design and implementation of these broader programs. We emphasize that careful research design is critical for understanding which outcomes can be attributed to REDD+. We also recognize that any such initiative should constructively address the lessons learned – both positive and negative – from experience to date, towards achieving positive outcomes for forests and people.

We reiterate our support for the California Tropical Forest Standard, and thank you for your continued leadership on this important issue.

Sincerely,

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Dr. Martin Herold, Professor, Wageningen University, Netherlands

Dr. Stibniati Atmadja, Scientist, Center for International Forestry Research, Ethiopia

Dr. Sven Wunder, Principal Economist, European Forest Institute, Spain

Dr. Tim Trench, Professor, Universidad Autónoma Chapingo, Chiapas, Mexico

Dr. William Sunderlin, Senior Associate, Center for International Forestry Research, Indonesia

1. CIFOR’s Global Comparative Study on REDD+: <https://www.cifor.org/gcs/> [↑](#footnote-ref-1)
2. Bos, AB, AE Duchelle, A Angelsen, V Avitabile, V De Sy, M Herold, S Joseph, C de Sassi, EO Sills, WD Sunderlin, S Wunder. 2017. Comparing methods for assessing the effectiveness of subnational REDD+ initiatives. Featured article in *Environmental Research Letters* 12, 074007: <http://iopscience.iop.org/article/10.1088/1748-9326/aa7032/meta> [↑](#footnote-ref-2)
3. Sunderlin, WD, C de Sassi, AD Ekaputri, M Light, CD Pratama. 2017. REDD+ contribution to well-being and income is marginal: the perspective of local stakeholders. *Forests* 8(4): <http://www.mdpi.com/1999-4907/8/4/125> [↑](#footnote-ref-3)
4. Duchelle, AE et al. Letter to Governor Edmond G. Brown entitled “Support for California Tropical Forest Standard.” 29 October 2018. [↑](#footnote-ref-4)
5. Sunderlin, WD, C de Sassi, EO Sills, AE Duchelle, AM Larson, IAP Resosudarmo, A Awono, DL Kweka, and TB Huynh. 2018. Creating an appropriate tenure foundation for REDD+: The record to date and prospects for the future. *World Development* 106, 376-92: <https://www.sciencedirect.com/science/article/pii/S0305750X18300202> [↑](#footnote-ref-5)
6. Larson, A.M., D. Solis, A.E. Duchelle, S. Atmadja, I.A.P. Resosudarmo, T. Dokken, and M. Komalasari. 2018. Gender lessons for climate

   initiatives: A comparative study of REDD+ impacts on subjective wellbeing. *World Development* 108, 86-102:

   <https://www.sciencedirect.com/science/article/pii/S0305750X1830072X> [↑](#footnote-ref-6)
7. Duchelle AE, de Sassi C, Jagger P, Cromberg M, Larson AM, Sunderlin WD, Atmadja SS, Resosudarmo IAP and Pratama CD. 2017. Balancing

   carrots and sticks in REDD+: Implications for social safeguards. *Ecology & Society* 22(3) 2: <https://www.ecologyandsociety.org/vol22/iss3/art2/> [↑](#footnote-ref-7)
8. Duchelle, A.E., G. Simonet, W.D. Sunderlin, S. Wunder. 2018. What is REDD+ achieving on the ground? *Current Opinion in Environmental Sustainability* 32, 134-140: <https://www.sciencedirect.com/science/article/pii/S1877343517301872> [↑](#footnote-ref-8)