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October 29, 2018

To the California Air Resources Board  
Sacramento, CA

**Re: 2018 Proposed Tropical Forest Carbon Standard**

The Center for Biological Diversity (“Center”) and Friends of the Earth (“FOE”) respectfully submit the following comments on the Draft Tropical Forest Standard (“TFS”) and accompanying Draft Environmental Analysis (“Draft EA”).

The Center is a non-profit organization with more than one million members and online activists, including over 150,000 members and supporters in California. The Center’s mission is to ensure the preservation, protection and restoration of biodiversity, native species, ecosystems, public lands and waters and public health. In furtherance of these goals, the Center’s Climate Law Institute seeks to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and human health and welfare. Specific objectives include securing protections for species threatened by global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues.

Friends of the Earth-United States (FOE) is a non-profit advocacy organization with offices in Washington D.C., Berkeley, California, and Raleigh-Durham, North Carolina, with more than one-and-a-half million members and online activists, and over 100,000 supporters in California. Friends of the Earth has been active in environmental advocacy in California for decades; notable efforts have included successful public campaigns to remove nuclear power from the state’s energy portfolio; advocacy to reduce the climate footprint of school lunch programs; and advocacy against offshore oil extraction and the expansion of the state’s oil refineries. In 2018 we successfully worked with the California Public Employees’ Retirement System to revise the agency’s Sustainability and Governance Principles to recognize deforestation, biodiversity loss, land rights risks, and Indigenous Peoples’ rights to Free, Prior and Informed Consent as significant issues for investment management, in an effort to reduce California’s role in driving deforestation and ecosystem degradation both within and beyond our state’s borders. As a member of Friends of the Earth International, a federation of environmental organizations in 74 countries, FOE-US has an extensive history working across borders and

jurisdictions; our approach is deeply informed by our close partnerships with member groups in tropical forest countries.

The Center and FOE request that CARB *reject* the TFS. We agree with the California Air Resources Board (“CARB”) that tropical deforestation is a serious problem. Halting and reversing tropical deforestation is critical to preserving tropical ecosystems, as critical components of the world's weather systems, and as substantial carbon stores, as well as for the people and amazing wildlife that live there. Also, California, as the world's fifth largest economy and with our own state's history of deforestation, development, and greenhouse gas emissions, is responsible for a substantial portion of current and historic climate pollution and ecological degradation.

It is troubling, however, that CARB is continuing to push an international forest offsets program, which ignores the well-documented concerns and objections from environmental justice and indigenous rights groups, and the extensive evidence on harms in the peer-reviewed academic literature. CARB’s Environmental Justice Advisory Committee (EJAC) has explicitly and repeatedly urged the state not to pursue or include REDD offsets in California’s cap-and-trade program.<sup>1</sup> A coalition of 21 environmental justice organizations, indigenous rights groups, and other leaders has objected to an international forest offsets program in comments submitted on May 13, 2016. Moreover, California does not have the same expertise as the UN for effective implementation of rural development projects, and it is troubling that CARB assumes that it can perform better with a challenging international development dynamic than the UN.

In addition and in particular, CARB should reject the TFS for the reasons explained below. These include, but are not limited to:

- Tropical forest offsetting would exacerbate the dislocation of co-benefits from California, and would exacerbate environmental burdens, particularly in disadvantaged communities. It could harm California communities by allowing polluters in California to produce more greenhouse gas (“GHG”)—and co-pollutants—by purportedly offsetting their GHG emissions elsewhere.
- Tropical forest offsetting does not work to decrease GHG emissions or prevent tropical deforestation. Such programs fail to ensure additionality, are vulnerable to leakage, and threaten forest ecosystems by failing to address the drivers of deforestation.<sup>2</sup> They further pose serious risks to human and indigenous rights. The TFS does not provide enforceable measures to prevent these issues, especially as CARB sees it being adopted by other

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<sup>1</sup> California Air Resources Board Environmental Justice Advisory Committee. “Comments on the Proposed AB 32 Scoping Plan.” April 11, 2014; California Air Resources Board – 2017 Scoping Plan, Appendix A, AB 32 Environmental Justice Advisory Committee (EJAC) Recommendations, November 2017 (“Do not pursue or include reducing emissions from deforestation and forest degradation (REDD) international offsets in the Scoping Plan.”).

<sup>2</sup> As Dr. Barbara Haya of the Berkeley Energy & Climate Institute has explained in a previous rulemaking, there are many factors that affect deforestation rates, many of which are beyond the scope of an international forest offsets program, such as soy and beef moratoriums, changes in global commodity prices, and jurisdictional policy regardless of an offsetting program. Barbara Haya, Research Fellow, Berkeley Energy & Climate Institute, University of California, Berkeley. Comments on California’s proposed REDD program and linkage with Acre, Brazil, submitted June 4, 2016, at 4. Available at <https://www.arb.ca.gov/lists/com-attach/34-sectorbased4-ws-UDgGYVwkWGoLUGBj.pdf>. (Hereinafter, “Haya, June 4, 2016.”)

jurisdictions, many of which either may not have high environmental standards or strong enforcement mechanisms.

- Tropical forest offsetting detracts from the necessary work of preventing emissions from their largest source: burning fossil fuels.

Specifically with regard to the last bullet point, we are perplexed that California continues to allow extraction and refining of dirty fossil fuels within its jurisdiction—especially in and near communities of color—while it spends its time tweaking a program that is inefficient at best, and destructive at worst, and which exacerbates harms to California communities.

A recent 2018 report from the Intergovernmental Panel on Climate Change (IPCC) highlights the necessity of limiting warming to 1.5°C, rather than the Paris Agreement’s 2°C, to avoid catastrophic impacts to people and life on Earth.<sup>3</sup> According to the IPCC’s analysis, the damages that would occur at 2°C warming compared with 1.5°C include more deadly heatwaves, drought and flooding; 10 centimeters of additional sea level rise within this century, exposing 10 million more people to flooding; a greater risk of triggering the collapse of the Greenland and Antarctic ice sheets with resulting multi-meter sea level rise; dramatically increased species extinction risk, including a doubling of the number of vertebrate and plant species losing more than half their range, and the virtual elimination of coral reefs; 1.5 to 2.5 million more square kilometers of thawing permafrost area with the associated release of methane, a potent greenhouse gas; a tenfold increase in the probability of ice-free Arctic summers; a higher risk of heat-related and ozone-related deaths and the increased spread of mosquito-borne diseases such as malaria and dengue fever; reduced yields and lower nutritional value of staple crops like corn, rice, and wheat; a doubling of the number of people exposed to climate-change induced increases in water stress; and up to several hundred million more people exposed to climate-related risks and susceptible to poverty by 2050.<sup>4</sup> In order to avoid these catastrophic consequences, the 2018 IPCC report provided a revised carbon budget for a 66 percent probability of limiting warming to 1.5°C, estimated at 420 GtCO<sub>2</sub> and 570 GtCO<sub>2</sub> depending on the temperature dataset used, from January 2018 onwards.<sup>5</sup> At the current emissions rate of 42 GtCO<sub>2</sub> per year, this carbon budget would be expended in just *10 to 14 years*, underscoring the urgent need for immediate, transformative global action to transition from fossil fuel use to clean energy.<sup>6</sup> Simply put, we are out of time to make the significant and systemic changes needed to avert disaster.

Moreover, CARB should reject the TFS because it is not supported by an adequate or informative environmental analysis. The Draft Environmental Analysis (“EA” or “Draft EA”) should be prepared to inform CARB’s decisionmaking on this matter, regardless of whether CARB believes it was “required” by this project. Once CARB endorses this standard, it foresees it being used for airline offsetting, by emissions trading programs in other jurisdictions, and/or

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<sup>3</sup> IPCC [Intergovernmental Panel on Climate Change], *Global Warming of 1.5°C*, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), available at <http://www.ipcc.ch/report/sr15/>.

<sup>4</sup> *Id.* at Summary for Policymakers.

<sup>5</sup> IPCC [Intergovernmental Panel on Climate Change], *Global Warming of 1.5°C*, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty (October 6, 2018), <http://www.ipcc.ch/report/sr15/>.

<sup>6</sup> *Id.*

by linking to California’s cap-and-trade program; however, the Draft EA either barely touches on these contingencies or ignores them completely. Even if a public process must occur before these future events, a) there is no guarantee all of them will include their own environmental analyses, and b) CARB should not move forward with endorsing a standard without a comprehensive understanding of its potential impacts. Indeed, it is clear that CARB is unsure of what type of “rulemaking” it is currently undertaking, including whether it even merits an EA, which means this process and the TFS’ implications and impacts are even more confusing and concerning to the public.

Thus, for the reasons set forth herein, CARB should reject the TFS, and focus its time and effort on immediate, proven, and comprehensive measures and programs that will end fossil fuel emissions and keep global warming under 1.5°C.

## **I. The TFS Should be Rejected Because It Fails to Meet Many of Its Primary Objectives**

### **a. The Project Fails to Fulfill its Objective to Incentivize Reductions of GHG Emissions from Tropical Deforestation**

The Draft EA states that a primary objective of the TFS is to incentivize reductions of GHG emissions from tropical deforestation.<sup>7</sup> However, the goal of protecting tropical forests is fundamentally different from the primary goal of a carbon offset market, which is to reduce the cost to industrial polluters for complying with the requirements of California's greenhouse gas pollution laws. Importantly, research shows that market-based international forest offset trading programs have not proven to be an effective way to reduce GHG emissions from deforestation, and the TFS does not overcome these short-comings.

Evidence from existing REDD programs indicates that they are not effective in reducing deforestation. A 2017 meta-analysis of deforestation rates that analyzed 23 subnational REDD+ initiatives in Brazil, Peru, Cameroon, Tanzania, Indonesia and Vietnam concluded that REDD programs were not effective in reducing deforestation: “we find overall minimal impact of REDD+ in reducing deforestation on the ground thus far.”<sup>8</sup> Similarly, an analysis of REDD+ programs in Indonesia found only “mixed” results for carbon sequestration.<sup>9</sup>

A key reason that offset programs such as REDD are not effective is because they fail to address the main drivers of deforestation, such as large-scale commercial agriculture, cattle ranching, timber harvesting, and conflicts over land and resources.<sup>10</sup> As summarized by ethnographic research by Milne et al. (2018), “many REDD+ schemes appear to have fueled social conflict while having limited success in addressing the drivers of forest loss and

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<sup>7</sup> Draft EA at 10.

<sup>8</sup> Bos, A.B. et al., Comparing methods for assessing the effectiveness of subnational REDD+ initiatives, 12 *Environmental Research Letters* 074007 (2017).

<sup>9</sup> Enrici, A.M. & K. Hubacek, Challenges for REDD+ in Indonesia: a case study of three project sites, 23 *Ecology and Society* 7 (2018).

<sup>10</sup> Osborne, T. et al., *Indigenous Peoples and REDD+: A Critical Perspective*, Indigenous People’s Bicultural Climate Change Assessment Initiative, November 2014.

degradation,” finding that “REDD+ in the course of implementation maps onto local power structures and political economies, rendering it blunt as tool for change.”<sup>11</sup>

**b. The Project Fails to Fulfill its Objective to “Establish Robust Criteria for Emissions Trading Systems to Assess, and Potentially Include, Jurisdiction-Scale Programs that Reduce GHG Emissions from Tropical Deforestation”**

As detailed below, the TFS fails to fulfil its objective to “establish robust criteria” for “emissions trading systems to assess, and potentially include, jurisdiction-scale programs that reduce GHG emissions from tropical deforestation.”<sup>12</sup> The TFS criteria will not prevent leakage or ensure additionality and permanence.

**i. The International Forest Offsets program proposed by the TFS is highly vulnerable to leakage, particularly interstate leakage within the same country and international leakage to other tropical forest regions.**

The International Forest Offsets program proposed by the TFS is vulnerable to leakage of forest-destroying activities both within and beyond partner jurisdictions. Leakage – which refers to the increase of deforestation activities outside the partner jurisdiction in response to reductions within the partner jurisdiction, including both activity shifting leakage and market shifting leakage – is very difficult to monitor and mitigate. The EA acknowledges that leakage could result in the TFS failing to “lead to real reductions or sequestration from the perspective of the atmosphere.”<sup>13</sup> However, the TFS’s requirements are inadequate to monitor or prevent leakage, particularly interstate leakage within the same country and international leakage to other tropical forest regions.

The TFS’s mechanisms for detecting, managing and mitigating leakage are vague, and include a single requirement that is focused within partner jurisdiction boundaries: “a demonstration that drivers, agents, and causes of deforestation are directly addressed by the program *within the implementing jurisdiction’s geographic boundaries*,” with two suggested options for fulfilling this requirement: demonstrating (1) business-as-usual or accelerated production of crops and livestock (two of the commodities that can drive deforestation) within the partner jurisdiction, or (2) no increase in production of extractive industry within the partner jurisdiction, accompanied by lower deforestation and forest degradation rates.<sup>14</sup>

However, simply showing business-as-usual or increased production of crops and livestock within a partner jurisdiction (or alternately no increase in extractive industry production within a partner jurisdiction) does not prove that leakage is not occurring beyond that jurisdiction. The displacement of forest-destroying activities from inside to outside implementing jurisdictions could still be occurring, where “farmers, ranchers, agribusinesses, developers or logging companies that face restrictions on access to forest land through a REDD+ program in one state tend to seek land in neighboring states, or elsewhere in the nation where the REDD+

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<sup>11</sup> Milne, S. et al., Learning from ‘Actually Existing’ REDD+: A Synthesis of Ethnographic Findings, Conservation and Society (2018).

<sup>12</sup> Draft EA at 10.

<sup>13</sup> Draft EA at 11.

<sup>14</sup> TFS at 15-16.

program is operating, because of their familiarity with the laws, institutions, and culture of that nation.”<sup>15</sup>

Furthermore, encouraging the intensification (i.e., “accelerated” rate of production) of agriculture and livestock on cleared lands could have substantial negative social and environmental implications for local communities and the surrounding forest. In the Brazilian Amazon and elsewhere, the intensification of agricultural land use due to tightened regulation of deforestation and agronomic practices had led the expansion of land areas being cleared for crops and livestock, including forest clearing in neighboring jurisdictions: “Common to all analyses is the evidence that intensification of profitable land uses tends to enhance its spread rather than to confine it spatially, regardless of the mix of drivers (Hecht 2005; Morton et al. 2008; Rudel et al. 2009; DeFries, Rudel, and Hansen 2010).”<sup>16</sup>

To prevent this, it would surely not be sufficient in many jurisdictions to simply require that local environmental laws not be violated, as states where substantial deforestation is occurring generally do not have either high environmental standards or strong enforcement mechanisms.<sup>17</sup> In addition, it would be extremely difficult to monitor such non-forest activities outside of forest project boundaries, across the partner state’s economy.

**ii. The International Forest Offsets program proposed by the carries a high risk of crediting non-additional activities.**

The baseline level of deforestation, or “reference level,” must guarantee that credits generated by reducing deforestation and degradation relative to that baseline are additional to what would have occurred in the absence of an offsets program. However, setting baseline “reference levels” for crediting is problematic because there are many factors that affect deforestation rates. Evidence indicates that past deforestation rates do not accurately indicate current and future deforestation rates, which are influenced by many different social and economic factors within the jurisdiction, by the larger market for goods driving deforestation, and by national and state-level policies and efforts. Moreover, a recent single year with an exceptionally high rate of deforestation could dramatically lower the baseline, allowing partner jurisdictions to produce forest offsets of no real carbon benefit.

In comments submitted to ARB in June 2016 on the proposed REDD program and linkage with Acre, Dr. Barbara Haya of the Berkeley Energy & Climate Institute presented the results of an analysis of ARB’s proposal to set the crediting baseline at 10% below the average rate of deforestation within a state during the previous ten years<sup>18</sup>—the approach that has been adopted by the TFS.<sup>19</sup> Haya compared the ten-year average deforestation rate (2001-2010) to the period from 2011-2015. Of the 102 jurisdictions that Haya assessed, thirteen showed a drop in deforestation rates by greater than 10%, meaning that an international forest offsets program

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<sup>15</sup> ROW at 34.

<sup>16</sup> Oliveira, G. & S. Hecht, Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America, 43 *Journal of Peasant Studies* 251 (2016).

<sup>17</sup> Milne, S. et al., *Learning from ‘Actually Existing’ REDD+: A Synthesis of Ethnographic Findings, Conservation and Society* (2018).

<sup>18</sup> Haya, June 4, 2016.

<sup>19</sup> TFS at 12-14.

hypothetically initiated in 2011 with a crediting baseline equal to 10% below the average rates during the previous 10 years would have generated credits without any further action, resulting in non-additional crediting. In Acre, average deforestation rates during the 2011-2015 period were 15% lower than the 2001-2010 average, meaning, again, that linkage with Acre over this period would have generated offsets that had no real carbon benefit. To reiterate this point, a ten-year historical average does not represent current trends under recently implemented deforestation programs within the Brazilian state of Acre, which is being considered for linking in CA-REDD. As Haya describes in her comments:

For example, in Brazil, reductions have been affected by the soy and beef moratoriums catalyzed by international NGOs, national Brazil policy, state-level policy and programs, and changes in global commodity prices... It is difficult to assess the extent to which deforestation rates were affected by any one of these factors. Second, the Brazilian government and Acre have decided to make forest protection a priority for a range of reasons, not just for the global climate benefits. Brazil has also committed to reducing its deforestation rate as a part of its commitments under the UN Paris climate accords (in their INDC). They are also receiving funds from governments internationally to help pay for these efforts, including from Norway as mentioned above. An effective REDD program is hard to carry out and requires substantial political will to be successful. The sale of REDD credits can help pay for, and provide legitimacy for, a government to carry out a program they wish to carry out. But if those payments are the main motivation for a REDD program, that REDD program is bound to fail; the political will would not likely be sufficient for an effective REDD program that preserves forests for the long run rather than just lowering emissions for a short period of time. For all of these reasons, *REDD credits would not be considered additional as offset credits.*"

Other analyses have similarly shown that the baseline "reference level" varies significantly depending on the reference time period that is chosen, and can lead to non-additionality. For example, Mertz et al. (2018) found that forest reference levels are highly sensitive to the reference period chosen, and therefore "demonstrating additionality of REDD+ in fast developing areas is difficult."<sup>20</sup> Another study found that "depending upon the baseline approach used, the total credited emissions avoided ranged over two orders of magnitude for the same quantity of actual emissions reductions."<sup>21</sup> These studies show that the reference levels proposed by the TFS do not provide sufficient certainty to deliver robust and additional carbon credits for compliance purposes.

**iii. The International Forest Offsets program proposed by the TFS does not guarantee permanence in carbon emissions reductions.**

In the TFS, "permanence" means that emissions reductions from "efforts to reduce tropical deforestation and/or degradation must not be reversed and must endure for at least 100

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<sup>20</sup> Mertz, O. et al., Uncertainty in establishing forest reference levels and predicting future forest-based carbon stocks for REDD+, 13 *Journal of Land Use Science* 1 (2018).

<sup>21</sup> Griscom B, et al., Sensitivity of amount and distribution of tropical forest carbon credits depending on baseline rules, 12 *Environ Sci Policy* 897 (2009).

years.”<sup>22</sup> This is problematic in several regards. First, to stay within the carbon budget for avoiding the worst damages from climate change, projects with truly permanent carbon emissions reductions should be prioritized. Instead, tropical forest offset programs exchange *certain, permanent* carbon benefits that would be achieved by avoided fossil fuel emissions for hoped-for uncertain, temporary carbon sequestration in speculative international forest projects.<sup>23</sup>

Second, there is nothing to demonstrate that ARB or partner jurisdictions have the capacity to monitor and manage an array of international forest offset projects over the course of an entire century, particularly given the extreme social, political and environmental disruption that is projected under even best-case global warming scenarios.

Third, it is unlikely that revenues from California offset credit sales can compete over time with the opportunity values of many non-forest land uses. Rising agricultural land values and commodity prices – a plausible result of growing global land and food scarcity – could easily swamp regulatory efforts, such as the TFS, that depend on markets in greenhouse-gas offsets.

Finally, the TFS’s proposed response to the permanence problem is inadequate. A buffer pool of credits would reduce total revenues from credit sales and could quickly become insufficient under many scenarios, such as an increase in commodity prices from competing land uses (for crops, livestock, timber, etc), economic changes, and political changes and upheaval.

### **c. The TFS Fails to “Ensure Rigorous Social and Environmental Safeguards”**

The Draft EA states that the TFS will “ensure rigorous social and environmental safeguards” through its “minimum social and environmental safeguards requirements.”<sup>24</sup> However, as detailed below, there is extensive evidence that, in practice, tropical forest offset programs, like that proposed by the TFS, repeatedly fail to safeguard Indigenous Peoples and have resulted in a disturbing history of human rights violations, even when social safeguards are reportedly in place. Furthermore, the TFS’s requirements do nothing to protect California communities, particularly low-income communities and communities of color, who will be harmed by the implementation of an international offset program that allows California’s big polluters to release more air pollution into their communities. The TFS also provides no requirements for protecting forest biodiversity.

#### **i. Harms to Indigenous Communities: Threats of Human Rights Violations Against Indigenous Peoples from the Proposed International Forest Offset Programs**

CARB asserts that the TFS will “ensure rigorous social and environmental safeguards” for indigenous peoples through the minimum requirements outlined in Chapter 10.<sup>25</sup> While these requirements may sound good on paper, CARB has ignores the extensive evidence that REDD

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<sup>22</sup> TFS at 7.

<sup>23</sup> Mackey, B. et al., Untangling the confusion around land carbon science and climate change mitigation policy, 3 Nature Climate Change 552 (2013).

<sup>24</sup> Draft EA at 12.

<sup>25</sup> TFS at 18-19.



programs do not safeguard Indigenous Peoples in practice and have led to human rights violations, even when social safeguards are reportedly in place.

CARB must confront the vast body of evidence showing that REDD programs have an extensively documented history of human rights violations of Indigenous and forest dwelling communities, including land grabs; exclusion from forests and restrictions on resource access; coercion; institutional violence; lack of meaningful participation including failure to obtain Free, Prior, Informed Consent; forced decision-making; lack of equitable benefit-sharing; and imprisonment for continuing cultural practices on the land. Indigenous peoples are put at risk of displacement and loss of control of their forests, their way of life, cultures, food security, and sovereignty. This is not surprisingly given that the market linkages proposed by CARB subject Indigenous Peoples to inequitable power structures.

These widespread human rights violations clearly show that there are inherent inadequacies in the social safeguards of REDD+SES and that the social safeguard frameworks of the TFS is insufficient. The remote location of many potential projects makes verification, monitoring and enforcement of the projects extremely difficult and unlikely to succeed. This means even if a project claims to meet all of CARB's social safeguards, there is no way to ensure human rights violations are not happening on the ground. In short, no amount of fine-tuning by CARB staff will arrive at a version that will provide assurances that the TFS will be immune to human rights violations.

CARB must not approve the TFS without confronting the evidence from numerous reports and studies documenting harms to indigenous communities from market-based tropical forest offset programs, including but not limited to:

- A World Rainforest Movement report examining 14 REDD and PES projects around the world which documented extensive human rights abuses to forest-dwelling peoples: “In many cases communities were never asked whether they consented to the forest carbon project...Where REDD project plans were presented to communities...what the villagers got in return was mainly harassment, restrictions on land use, and blame for deforestation and climate change.”<sup>26</sup>
- A comprehensive report from the Indigenous People's Biocultural Climate Change Assessment Initiative (IPCCA), with case studies in seven countries, showing that market-based approaches can neither fully respect and protect human rights nor conserve forests over the long term.<sup>27</sup>
- A report from the Brazilian Platform for Human, Economic, Social, Cultural and Environmental Rights describing Acre as a state suffering extreme inequality, deepened by a lack of information about green economy projects, which results in communities

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<sup>26</sup> World Rainforest Movement, REDD: A Collection of Conflicts, Contradictions and Lies, February 2015.

<sup>27</sup> Osborne, T. et al., Indigenous Peoples and REDD+: A Critical Perspective, Indigenous People's Biocultural Climate Change Assessment Initiative, November 2014.

being coerced to accept "top-down" proposals as substitutes for a lack of public policies to address basic needs.<sup>28</sup>

- A 2016 study from Madagascar showing that existing social safeguards are not being fulfilled: “This research shows that existing safeguard commitments are not always being fulfilled and those implementing social safeguards in REDD+ should not continue with business as usual.”<sup>29</sup>
- Recent research showing that REDD programs do not increase the well-being or income sufficiency of indigenous groups:
  - A comprehensive review by Sunderlin et al. (2017) on the degree of success in meeting well-being and income goals examined in six countries (Brazil, Peru, Cameroon, Tanzania, Indonesia, Vietnam) at 22 initiatives, 149 villages, and approximately 4000 households, finding that “REDD+ has not contributed significantly to perceived well-being and income sufficiency.”<sup>30</sup>
  - A study by Shrestha et al. (2017) in Nepal concluding that “economic contribution of the REDD+ payment to the household economy is very nominal and is insufficient to invest in livelihood enhancement activities.”<sup>31</sup>
- Recent research showing that REDD programs typically fail to obtain meaningful Free, Prior, Informed Consent, and do not allow meaningful participation in planning or implementation:
  - Research by Samndong et al. (2018) in the Democratic Republic of Congo finding that community participation was “characterized as ‘tokenism’ whereby the communities were consulted and informed, but never achieved managerial power or influence over the REDD+ pilot project. The decision for the communities to join REDD+ was not democratic and the information provided during the process of introducing REDD+ was not sufficient for the communities to make an informed decision to join or not.”<sup>32</sup>
  - Research by Spiric et al. (2017) finding that Mexico’s REDD+ readiness process had “low level of input legitimacy in so far as that the federal government environment agencies concentrate most decision-making power and key land-use sectors and local people’s representatives are absent in decision-making forums.” The study also found that REDD policy documents were dominated by the positions of government agencies and international conservation organizations,

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<sup>28</sup> DHESCA Brasil, *The Green Economy, Forest Peoples and Territories: Rights Violations in the State of Acre* (2014).

<sup>29</sup> Poudyal, M. et al., *Can REDD+ social safeguards reach the ‘right’ people? Lessons from Madagascar*, 37 *Global Environmental Change* 31 (2016).

<sup>30</sup> Sunderlin, W.D. et al., *REDD+ contribution to well-being and income is marginal: the perspectives of local stakeholders*, 8 *Forests* 125 (2017).

<sup>31</sup> Shrestha, S. et al., *Contribution of REDD+ payments to the economy of rural households in Nepal*, 88 *Applied Geography* 151 (2017).

<sup>32</sup> Samndong, R.A., *The participation illusion: Questioning community participation in a REDD+ pilot project in the Democratic Republic of Congo*, 20 *International Forestry Review* 390 (2018).

while the positions of civil society organizations and academics were partly or not at all reflected.<sup>33</sup>

- Research documenting violence to Indigenous Peoples: A study by Howson (2018) in Kalimantan, Indonesia, concluding that “REDD+ is accelerating the very violence and environmentally destructive behaviours it claims to discourage.”<sup>34</sup>

ii. **Harms to California Communities: An International Forest Offset program will exacerbate environmental justice problems in California.**

An international forest offset program would enable California refineries and other industrial polluters to continue to emit harmful greenhouse gases and co-pollutants into neighboring communities – predominantly low-income communities and communities of color – which would worsen California’s health and environmental justice crisis. The TFS does nothing to address or minimize these unacceptable harms to California’s communities that would result from the proposed project.

In California, studies have documented that industrial facilities with heavy emissions such as refineries, cement factories, gas and electricity production facilities are disproportionately located in communities of color and lower-income communities, and that these communities bear disproportionate air pollution burdens.<sup>35</sup> With an international forest offset program, some industrial polluters will emit more greenhouse gas pollution and co-pollutants, and for longer, than they would otherwise be allowed to in the absence of those offsets. Already overburdened communities living in some of the most polluted air basins in California would face added harms from this additional pollution. Harmful pollutants emitted by California refineries that cause serious health harms include known cancer-causing chemicals like benzene, formaldehyde, and arsenic; smog-forming chemicals like nitrogen oxides, carbon monoxide, volatile organic compounds; and particulate matter that causes lung and heart problems.<sup>36</sup>

CARB must consider the harms from an international offsets program to California communities who will bear the burden. This is particularly critical in light of new research by Cushing et al. (2018) confirming that California’s cap and trade program is perpetuating environmental health inequities in the state because it is incentivizing carbon offsets instead of local emissions reductions at the regulated facilities:

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<sup>33</sup> Spircic, J. et al., A dominant voice amidst not enough people: analyzing the legitimacy of Mexico’s REDD+ readiness process, 7 *Forests* 313 (2017).

<sup>34</sup> Howson, P., Slippery violence in the REDD+ forests of Central Kalimantan, Indonesia, 16 *Conservation and Society* 136 (2018).

<sup>35</sup> Pastor, M., et al., Minding the climate gap: what’s at stake if California’s climate law isn’t done right and right away, Program for Environmental and Regional Equity, University of Southern California, Los Angeles (2010).

<sup>36</sup> Office of Environmental Health Hazard Assessment, Analysis of Refinery Chemical Emissions and Health Effects, (Draft September 2017), <https://oehha.ca.gov/air/analysis-refinery-chemical-emissions-and-health-effects>; <https://oehha.ca.gov/media/downloads/faqs/refinerychemicalsreport092717.pdf>

Our results indicate that, thus far, California's cap-and-trade program has not yielded improvements in environmental equity with respect to health-damaging co-pollutant emissions.<sup>37</sup>

Notably, the study found that the majority of regulated facilities reported higher annual average local GHG emissions since the initiation of carbon trading, and that communities of color and low-income communities were more likely to experience increases in greenhouse gases and co-pollutants from regulated facilities:

We found that facilities regulated under California's cap-and-trade program are disproportionately located in economically disadvantaged neighborhoods with higher proportions of residents of color, and that the quantities of co-pollutant emissions from these facilities were correlated with GHG emissions through time. Moreover, the majority (52%) of regulated facilities reported higher annual average local (in-state) GHG emissions since the initiation of trading. Neighborhoods that experienced increases in annual average GHG and co-pollutant emissions from regulated facilities nearby after trading began had higher proportions of people of color and poor, less educated, and linguistically isolated residents, compared to neighborhoods that experienced decreases in GHGs.

Importantly, the study recommended policies that incentivize local emissions reduction, rather than carbon offset projects which perpetuate the environmental justice crisis:

The incorporation of additional policy and regulatory elements that incentivize more local emission reductions in disadvantaged communities could enhance the local air quality and environmental equity benefits of California's climate change mitigation efforts.

### **iii. Harms to Tropical Forests: The TFS Does Not Reduce the Drivers of Deforestation or Include Safeguards for Forest Biodiversity.**

The TFS does not include robust criteria for environmental safeguards to protect tropical forests and their biodiversity. As detailed above, the TFS does not reduce demand for the commodities that drive deforestation and forest degradation, such as palm, soy, wood, pulp, and cattle, and REDD programs to date have not been effective in reducing deforestation. Furthermore, revenues from carbon offsets would not necessarily be directed to fund programs that directly counteract deforestation, as the distribution of revenue is at the discretion of the partner jurisdiction, presumably with the consent of the participating communities.

The TFS program does not include criteria for protecting biodiversity such as quantitative requirements for the maintenance of species diversity, forest structure, and canopy cover. This is particularly troubling because a 2016 review found that REDD programs have not been effective in implementing biodiversity safeguards, resulting in potentially poor outcomes for biodiversity: “Our review suggests that the current lack of guidance on how to implement the UNFCCC

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<sup>37</sup> Cushing, L. et al., Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap and trade program (2011-2015), 15 PLoS Med e1002604 (2018) (“Cushing, 2018”).

biodiversity safeguards in REDD+ could lead to mixed and potentially poor performance from national REDD+ initiatives.”<sup>38</sup> In this review, Panfil et al. (2016) examined how 80 existing REDD+ projects are addressing biodiversity issues, and found that projects lacked specific goals and logical links between goals, project interventions, and monitoring, suggesting “that the projects will have difficulty achieving and measuring biodiversity impacts.” The study concluded that “in practice, REDD+ is likely to have variable outcomes for biodiversity, depending on how biodiversity goals are articulated, implemented, and monitored.”

#### **d. The TFS Fails to Fulfill its Objective to Meet Long-Term Climate Objectives.**

CARB asserts that a tropical forest offsets program will help the state meet its long-term climate objectives.<sup>39</sup> However, subnational REDD initiatives financed through offsets have proven to be ineffective and inefficient at reducing GHG emissions. Carbon offset programs are a poor use of state staff time and financial resources and a dangerous distraction from the strategies that do work: ending fossil fuel production and use. Given the urgency for immediate, effective action to reduce carbon emissions from fossil fuels, as underscored by dire warnings of the recently released IPCC report on *Global Warming of 1.5°C*, CARB should show its commitment to meeting the state’s climate goals by implementing stronger emissions reductions in our own state that really matter, specifically, phasing out the state’s fossil fuel production, a rapid transition to zero-emission vehicles, and a just transition to 100% clean energy. These measures would protect the health and wellbeing of all Californians, especially members of the already over-burdened communities.

## **II. The TFS Should Be Rejected Because the EA is Inadequate and Fails to Inform This Decisionmaking or Provide a Model for Other Programs.**

### **a. The EA Ignores Potential Compliance Responses or Programs That May Incorporate the TFS or Use It as a Model**

CARB states that it intends for this standard to be used as a model for “other GHG emissions mitigation programs such as the International Civil Aviation Organization’s (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) and other emerging programs.”<sup>40</sup> It could also be used as a model for “other emission mitigation programs and emission trading systems that are seeking to assess and potentially include jurisdiction-scale programs that reduce emissions from tropical deforestation and thereby incentivize substantial greenhouse gas (GHG) emission reductions caused by tropical deforestation.”<sup>41</sup> Furthermore, while this proceeding does not formally incorporate the TFS into the state’s cap-and-trade program, it is clear that CARB anticipates this could happen in the near future.<sup>42</sup>

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<sup>38</sup> Panfil, S. N. & C.A. Harvey, REDD+ and Biodiversity Conservation: A Review of the Biodiversity Goals, Monitoring Methods, and Impacts of 80 REDD+ Projects, 9 Conservation Letters 143 (2016).

<sup>39</sup> Draft EA at 12.

<sup>40</sup> Draft EA at 2.

<sup>41</sup> Id. at 1.

<sup>42</sup> Id. at 2. See also, CARB, Proposed Scoping Plan at 29, fn 40: “ARB staff identified the jurisdictional program in Acre, Brazil, as a program that is ready to be considered for linkage with California, and has committed to proposing regulatory standards for assessing tropical forestry programs and to proposing linkage with the program in Acre as part of a future rulemaking process.” Available at: [https://www.arb.ca.gov/cc/scopingplan/2030sp\\_pp\\_final.pdf](https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf).

All of these are reasonably foreseeable results of CARB endorsing the TFS, yet the Draft EA fails to analyze their potential environmental consequences. The EA must address not only a project's direct effects, but also the reasonably foreseeable indirect effects, and the effects of foreseeable activities that will occur as a result of the project.<sup>43</sup> The EA must identify and analyze both direct effects of a project and the "indirect or secondary effects" – those effects which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable.<sup>44</sup> This is particularly true since CARB anticipates that *other* jurisdictions potentially without environmental review requirements may adopt the TFS—and even may rely on this EA to determine the environmental consequences of doing so.<sup>45</sup> Thus, CARB must analyze the foreseeable environmental impacts of the very compliance responses it anticipates may happen (including use by ICAO for aviation offsets, use by other emission trading systems, linkage to cap-and-trade, and so on) *before* deciding whether to endorse the standard. Otherwise, the EA essentially becomes a make-work exercise that fails to inform this and future decisionmaking, and CARB will be endorsing a standard without fully understanding its implications.<sup>46</sup> For this reason, CARB should now reject the TFS; it simply does not have enough information on which to base its decision.

Furthermore, the EA should analyze the impacts—even if on a programmatic level—of these foreseeable actions, even if the TFS would only be used in some cases after a future rulemaking with a separate EA, such as with respect to linkage with cap-and-trade. CARB states that this EA provides a "programmatic" level of analysis,<sup>47</sup> indicating that a future, project-specific EA may rely on, or tier from, this programmatic EA.<sup>48</sup> However, given the EA's failure to include foreseeable compliance responses, and its cursory and inadequate analysis as described below, CARB must not rely on this EA in any future rulemakings. Indeed, what this frustrating two-stage process (endorsement of the TFS, then adopting into regulation such as cap-and-trade) appears to do is to submerge or hide environmental impacts "by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences."<sup>49</sup> CEQA does not allow this.

Because CARB is proposing to endorse a TFS that it anticipates will be used as a model for future trading programs—in this or other jurisdictions—without having a real understanding of the potential impacts, and because—as explained in Section I above—there *are* significant unanalyzed impacts, CARB should reject the TFS.

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<sup>43</sup> Public Resources Code § 21065; Cal. Code Regs., tit. 14, § 15378, subd. (a) ("CEQA Guidelines").

<sup>44</sup> CEQA Guidelines, §§ 15358, subd. (a)(2); 15126.2, subd. (a); 15064, subd. (d)(2), (3); *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 396 ("*Laurel Heights*").

<sup>45</sup> See Draft EA at 19, stating that one reason for preparing the EA is precisely because CARB knows the TFS will be used by other jurisdictions. Even if other jurisdictions must go through a public process for creating crediting programs (TFS, ch. 3(b), (c)), it is unclear how this will be enforced, or that these processes will necessarily include robust environmental review processes at all.

<sup>46</sup> The consequence of failing to comply with CEQA's substantive mandates that foreseeable impacts be analyzed and mitigated is not only that the environment is left at risk, but also that Californians are denied the benefits of informed self-government. (*Laurel Heights*, 47 Cal.3d at p. 392.)

<sup>47</sup> See e.g., Draft EA at 6.

<sup>48</sup> Public Resources Code §§ 21068.5, 21094, subd. (a), (b).

<sup>49</sup> *Bozung v. Local Agency Formation Comm.* (1975) 13 Cal.3d 263, 284; see also *Orinda Ass'n v. Board of Supervisors* (1986) 182 Cal.App.3d 1145, 1171 quoting *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188, 195-196; Guidelines, §§ 15126.2, subd. (a); 15378, subd. (a).

**b. The EA Provides a Superficial and Internally Inconsistent Analysis of Impacts and Therefore Fails to Propose Mitigation Measures for Those Impacts.**

**i. The Draft EA Fails to Analyze or Mitigate Impacts in California.**

The Draft EA specifically declines to analyze impacts in California. Indeed, the EA states: “essentially all impacts that could result from the Proposed Project would take place outside the United States. . . .”<sup>50</sup> This assertion is not accurate. For instance, there will be significant impacts to the air quality of California communities, particularly disadvantaged communities already suffering from disproportionate amounts of air pollution under the state’s current cap-and-trade program, from the use of an offset program that allows California industrial facilities to continue polluting by purchasing emissions offsets created elsewhere. Cushing et al. (2018) found that rather than investing in green projects within the state, an astounding seventy-five percent of offset credits went towards projects outside of California.<sup>51</sup> Meanwhile, from 2011-2015, disadvantaged communities within California experienced *increases in both GHG emissions and co-pollutant emissions* from regulated facilities disproportionately located in their neighborhoods.<sup>52</sup> Incentivizing out-of-state projects while actively harming California’s disadvantaged communities undermines the intent of AB 398.<sup>53</sup> The EA’s failure to discuss these impacts renders it inadequate to support the TFS.

**ii. The EA’s Cumulative Impacts Analysis is Inadequate.**

CARB’s cumulative impacts analysis for the TFS is apparently taken from the EA for California’s 2017 Scoping Plan. This is bizarre for several reasons, and serves to highlight further contradictions and inadequacies in the rest of the impacts analysis.

The 2017 Scoping Plan EA looked at U.S. (and Canada) forest offset programs and impacts, but not at (other) international programs or impacts. Therefore, the Scoping Plan EA cannot substitute for a cumulative impacts analysis on the TFS project in this (TFS) EA. Despite the TFS EA’s statement to the contrary,<sup>54</sup> the Scoping Plan EA does not provide any analysis on which the TFS EA can rely. Moreover, the *specific* impacts analysis in the TFS EA looks only at *international* impacts, as explained above. By “relying” on the Scoping Plan EA, which only looked at *domestic* impacts, for its *cumulative* impacts analysis, the TFS EA makes entirely opposite and contradictory assumptions about where impacts will occur.

Further highlighting the incongruity between the cumulative and specific impacts analyses, none of the compliance responses listed in the TFS EA cumulative impacts section (from the Scoping Plan EA)<sup>55</sup> are evaluated in the Draft EA’s specific impacts analysis. Further, the TFS EA does not provide any context for evaluating the impacts of this particular decision on

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<sup>50</sup> Draft EA at 5.

<sup>51</sup> Cushing, 2018.

<sup>52</sup> Ibid.

<sup>53</sup> Note that the Office of the Senate Floor Analyses stated its understanding that, of the offset credits allowed, AB 398 “[r]equires 50% of all offsets to be *in* California.” See Senate Floor Analysis for AB 398 at 5 (emphasis added).

<sup>54</sup> “The 2017 Scoping Plan EA, which referenced the potential development of a jurisdictional sector-based crediting approach to address emissions from tropical deforestation, provided a program level review of significant adverse impacts associated with the reasonably foreseeable compliance responses that appeared most likely to occur because of implementing the recommended measures.” (Draft EA, p. 34.)

<sup>55</sup> Draft EA at 34 et seq.

the TFS in relation to (or in addition to) those compliance responses in the cumulative impacts section. It simply regurgitates some of the generalized impacts identified in the Scoping Plan EA, and nothing more. Because of lack of any analysis of the TFS's impacts in conjunction with other compliance responses in the cumulative impacts analysis, the Draft EA's purported cumulative impacts analysis is of no use in determining whether CARB should endorse the TFS.

**iii. The EA's Impacts Analysis and Therefore Mitigations Measures are Inadequate.**

The EA's analysis of impacts—and proposed mitigation measures—is hardly an analysis at all. Each sector cuts and pastes identical assumptions that are provided without support. For instance, every single sector relies on the same word-for-word assumption that:

Implementation of the Proposed Project could result in planning efforts and implementation of actions within external jurisdictions that reduce deforestation. The reasonably foreseeable changes to land uses would effectively limit degradation of the existing environment and would be intended to result in: forest protection, forest management and forest production processing and marketing, and increased sustainable agriculture, ranching, silviculture, and agroforestry activities associated with the restoration of degraded areas, so as to value forests and reduce pressure for deforestation of new areas.

The EA lacks substantial evidence—or any evidence—to support these assertions. Rather, as explained in Section I above, there is significant evidence that undermines them—demonstrating that a REDD-type offset program could in fact harm forest ecosystems. The Draft EA entirely ignores such evidence.

The resulting superficial and unsupported analysis results in similarly superficial and unhelpful conclusions about potential impacts and suggested mitigation. For instance, the assumption that the TFS will stem deforestation results in the meaningless conclusion that land use and planning impacts are potentially significant because, in order to avoid the impact, local jurisdictions would need to have in place land use plans “adopted for the purpose of avoiding or mitigating an environmental effect,” but “it is not certain [the jurisdictions] would do so.” The mitigation measure is of little help since “CARB lacks jurisdiction to ensure [an acceptable land use plan] is implemented.” Instead of preparing a Draft EA that provides no actual insight, CARB could have prepared one that looked at the existing conditions, plans, and impacts in areas it anticipates this TFS will be used, such as in the airline sector, Acre, Brazil, and California's own cap-and-trade program. Such an analysis, for instance one that looks at existing land use and deforestation plans in Brazil, would have been significantly more useful to CARB's decisionmaking.

Furthermore, the EA fails to acknowledge or analyze well-known impacts likely to arise from the TFS, given numerous examples and information on problems with applying REDD standards internationally, as described in Section I above. These include, among many others, harms to indigenous communities, failures of forest offset programs to guarantee GHG reductions, and harm to forest ecosystems from leakage and other drivers.



Overall, the internally inconsistent assumptions in the EA’s impacts analysis, the lack of any substantial evidence supporting various assertions that impacts will not be significant, the lack of analysis of many foreseeable compliance responses or harms to California communities, the lack of enforceability of mitigation measures, and the boilerplate descriptions of the benefits of the program to forests despite evidence to the contrary, cause this EA to be wholly inadequate to support a decision adopting a TFS. CARB must reject it.

**c. The EA Alternatives Analysis Fails to Provide a Meaningful Evaluation.**

The alternatives analysis is the “the core of an EIR.”<sup>56</sup> An agency “may not approve a proposed project if feasible alternatives exist that would substantially lessen its significant effects.”<sup>57</sup> Therefore, lead agencies must examine a reasonable range of alternatives that feasibly meet most of the project’s basic objectives while avoiding or substantially reducing the significant effects of the project, even if these alternatives “would impede to some degree the attainment of the project objectives, or would be more costly.”<sup>58</sup> The examination of alternatives must “include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.”<sup>59</sup> “An inadequate discussion of alternatives constitutes an abuse of discretion.”<sup>60</sup>

Here, the alternatives analysis fails to provide a meaningful analysis of the alternatives. As with the impacts analysis, it provides no support for its assertions of the benefits and harms of each alternative. For example, CARB states that its “no project” alternative would result in deforestation without providing any basis for making that assumption. To the contrary, as provided in sections I.b.2 and I.c.3 above, there are many examples that show that REDD programs are not necessarily additional to existing programs within countries to reduce deforestation, and that REDD programs fails to address the drivers of deforestation. CARB confronts none of these examples or studies in its EA, instead relying on broad conjectures without evidence.

Additionally, the EA is supposed to provide a reasonable range of alternatives that meet most of the project’s objectives, yet the analysis includes an alternative that on its face fails to meet five of the six objectives: endorse a standard that does not seek to disincentivize mineral extraction (Alternative 3). Five of the six objectives relate to reducing GHG emissions, climate change, and increasing social and environmental safeguards. At the same time, mineral extraction is one of the primary sources and drivers of GHG emissions, climate change, and social and environmental injuries. A 2016 global analysis found that the carbon emissions that would be emitted from burning the oil, gas, and coal in the world’s *currently operating* fields and mines would fully exhaust and exceed the carbon budgets consistent with staying below 1.5°C or

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<sup>56</sup> *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d. 553, 564.

<sup>57</sup> *Save Panoche Valley v. San Benito County*, 217 Cal. App. 4th 503, 521 (2013) (citations omitted); *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-31, 733 (“A major function of the EIR is to ensure thorough assessment of all reasonable alternatives to proposed projects by those responsible for the decision” (citation omitted).

<sup>58</sup> CEQA Guidelines, § 15126.6(a), (b).

<sup>59</sup> CEQA Guidelines, § 15126.6(d).

<sup>60</sup> *Kings County Farm Bureau*, 221 Cal.App.3d at 731, citing *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.App.3d 376, 404-406.

2°C.<sup>61</sup> Further, the reserves in currently operating oil and gas fields alone, even excluding coal mines, would lead to warming beyond 1.5°C. An important conclusion of the analysis is that *most* of the existing oil and gas fields and coal mines will need to be closed before their reserves are fully extracted in order to limit warming to 1.5 degrees.<sup>62</sup> Some existing fields and mines will need to be closed to limit warming to 2 degrees.<sup>63</sup> In short, there is no room in the carbon budget for *new* fossil fuel extraction *anywhere*.<sup>64</sup> Additionally, most of the world’s existing oil and gas fields and coal mines will need to be closed before their reserves are fully extracted to meet a 1.5°C target. There is, therefore, no justification for CARB to advance a climate change standard alternative that would not disincentivize mineral extraction.

**d. The CEQA Exemption for Regulatory Action Taken to Protect the Environment Does Not Apply.**

CARB states that “even if viewed as a ‘project’ under a conservative lens, [the TFS] is appropriately considered exempt from CEQA as an action taken by a regulatory agency for protection of the environment. (See 14 CCR Section 15308.)”<sup>65</sup> Where there is a reasonable possibility that a project or activity may have a significant effect on the environment, an exemption is improper.<sup>66</sup> CARB’s assertions that its TFS will have a beneficial effect on forests and on the climate are little more than speculation, with no substantial evidence to support them. To the contrary, as described in Section I above, there is ample evidence that REDD-type programs fail to protect forest ecosystems and do little to stem GHG emissions. CARB must engage with these studies and examples, and cannot simply claim an exemption without any evidence that its action will, in fact, protect the environment.

**Conclusion**

In general, the TFS remains deeply problematic, and CARB’s proposal to endorse the TFS without having fully addressed the many pitfalls raised herein, by indigenous rights groups, and by environmental justice communities is troubling. We request that CARB reject the TFS, and focus instead on crafting regulations that will end fossil fuel extraction and combustion, reduce California’s deforestation footprint, provide direct benefits to California communities, and deliver the large-scale, rapid GHG reductions needed to avoid the worst climate catastrophes.

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<sup>61</sup> Oil Change International, *The Sky’s Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (September 2016), available at <http://priceofoil.org/2016/09/22/the-skys-limit-report/>.

<sup>62</sup> Oil Change International, *The Sky’s Limit California: Why the Paris Climate Goals Demand That California Lead in a Managed Decline of Oil Extraction*, May 2018, at 7, 13, available at <http://priceofoil.org/ca-skys-limit>.

<sup>63</sup> Oil Change International, *The Sky’s Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (September 2016) at 5, 7.

<sup>64</sup> This conclusion was reinforced by the IPCC Fifth Assessment Report which estimated that global fossil fuel reserves exceed the remaining carbon budget (from 2011 onward) for staying below 2°C (a target incompatible with the Paris Agreement) by 4 to 7 times, while fossil fuel resources exceed the carbon budget for 2°C by 31 to 50 times. See Bruckner, Thomas et al., 2014: Energy Systems. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press (2014), [http://ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc\\_wg3\\_ar5\\_chapter7.pdf](http://ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_chapter7.pdf) at Table 7.2.

<sup>65</sup> Draft EA at 5.

<sup>66</sup> *Wildlife Alive v. Chickering*, (1976) 18 Cal. 3d 190.