

## **Comment 1 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Jonah

Last Name: Busch

Email Address: jbusch@cgdev.org

Affiliation: Center for Global Development

Subject: Eight Reasons for California to Lead on Climate and Tropical Forests

Comment:

Eight Reasons for California to Lead on Climate and Tropical Forests

Thank you for the opportunity to share views and express support for including sectoral offset credits for reducing emissions from deforestation and forest degradation under the California cap-and-trade program.

When it comes to fighting climate change, California is already a world leader on pricing carbon, transitioning to renewable energy, and decarbonizing the world's eighth largest economy. California now has yet another golden opportunity to lead on climate by helping to halt and reverse tropical deforestation.

Here are eight reasons for California to accelerate inclusion of sectoral offset credits for tropical forests:

1. To fight climate change comprehensively.

Climate change is bad enough for Californians facing drought and sea-level rise. It's many times worse for people in poor countries who are more exposed and less able to adapt. Fighting climate change by regulating smokestacks and tailpipes is essential, but there's no chance of avoiding dangerous climate change without also halting and reversing deforestation. Every year tropical deforestation produces more greenhouse gas emissions than the European Union.

2. To contain costs.

Reducing tropical deforestation is a bargain. Relative to California, tropical forests offer 55 times as many emission reductions below twenty dollars per ton of carbon dioxide. By letting regulated companies purchase these low-cost emission reductions to meet a fraction of their climate obligations, California can meet its ambitious climate goals at a lower cost to companies and their customers.

3. To be the standard-setter for the world.

What California decides will have an outsized importance for the world's tropical forests that goes well beyond the emission reductions its companies might buy each year. California can write rules that set the precedent for other US states and even other developed countries on how to use tropical forest offsets in cap-and-trade programs in a way that guarantees environmental integrity and benefits indigenous peoples, the best guardians of tropical forests. Just as with clean air laws a generation ago, California once again has the chance to be the standard-setter for the world.

4. Because there are side benefits for sustainable development.

Deforestation isn't just bad for the climate, it's bad for people living near and within the forests. Brazil's deforestation has been blamed for its record-setting drought; Indonesia's massive and deliberately-set forest and peat fires are choking Southeast Asia with a thick carcinogenic haze, causing a public health emergency. By financing forest protection in the tropics, California will be contributing to Global Sustainable Development Goals on poverty alleviation, food, water and sanitation, health, and energy. And since tropical forests are home to two-thirds of all plant and animal species that live on land, California will be helping to achieve international agreements on biodiversity too.

5. Because it's a tested model.

National performance payments for conserving forests have been tested using public funding, and they're working. Brazil's anti-deforestation policies reduced Amazon deforestation by 80% over the last decade—the single largest reduction in greenhouse gas emissions ever achieved by any country. In return Norway contributed one billion dollars into the Amazon Fund.

6. To support indigenous peoples.

Evidence to date suggests that performance payments for conserving forests can benefit indigenous peoples. Brazil has increased indigenous territories to an area larger than Greenland. Guyana has accelerated titling of indigenous lands. And in Indonesia, a court decision recognized indigenous peoples' claims to 40 million hectares of forest.

7. Because technical issues are surmountable.

The Air Resources Board white paper lists a number of technical issues, such as monitoring, reference levels, and social safeguards. These issues are important but surmountable. Many good ideas for addressing these issues have been put forward in the last decade, including by the REDD Offsets Working Group, the Methodological Framework of the Forest Carbon Partnership Facility Carbon Fund, the Verified Carbon Standard Jurisdictional and Nested REDD+ Framework, and bilateral REDD+ agreements. A new working group report by the Center for Global Development recommends keeping rules simple and practical.

8. Because finance is the missing piece.

Climate diplomats have finished negotiating global rules for paying for reductions in emissions in deforestation. These rules are expected to become part of an international climate agreement in Paris this December. More than 50 tropical countries are lining up to reduce deforestation, if funding for performance payments comes forward. California can jumpstart action in those countries by sending the signal that market finance is on the way.

By including sectoral offsets for reducing emissions from deforestation and forest degradation in its cap-and-trade program, California will open up a new source of finance to help tropical countries conserve their forests, with many attendant benefits for climate and sustainable development.

Yet again, California has a golden opportunity to lead.

Jonah Busch, Ph.D.  
Center for Global Development  
2055 L St, Fifth Floor  
Washington, DC 20009

References:

"Eight Reasons for California to Lead on Climate and Tropical

Forests." Jonah Busch. Center for Global Development Blog. October 27th, 2015.  
<http://www.cgdev.org/blog/eight-reasons-california-lead-climate-and-tropical-forests>

Further reading:

"Look to the Forests: How Performance Payments Can Slow Climate Change." Report of the Working Group on Scaling Up Performance-Based Transfers for Reduced Tropical Deforestation. Center for Global Development, Washington, DC. 74 pp. October 14th, 2015.  
<http://www.cgdev.org/publication/ft/look-forests-how-performance-payments-can-slow-climate-change>

"Why Forests? Why Now? Paper Series." Frances Seymour and Jonah Busch. Center for Global Development, Washington, DC.  
<http://www.cgdev.org/page/wfwn-paper-series>

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-10-30 09:05:09

No Duplicates.

**Comment 2 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Elizabeth

Last Name: Nussbaumer

Email Address: enussbaumer@fwwatch.org

Affiliation: Food & Water Watch

Subject: Reject REDD Offsets

Comment:

On behalf of Food & Water Watch and our over 280,000 supporters in California, I write to express our organization's opposition to the California Air Resources Board's consideration of "The potential for including international, sector-based offset credits in the Cap-and-Trade Program" – an initiative that continues to promote offsets, and specifically sector-based offsets from jurisdictional reducing emissions from deforestation and forest degradation (REDD) programs.

Offsets do not lead to real, additional or permanent emission reductions. Even worse, offsets generated from REDD projects cannot meet even the basic technical requirements like additionality and permanence. Such offsets would also adversely affect indigenous and rural populations by fueling land rights disputes and dispossession, while promoting the historic abuse of developing countries as outsourcing centers for the excess of developed countries.

Please see the attached document for our full comment.

Attachment: [www.arb.ca.gov/lists/com-attach/2-sectorbased2015-ws-VDJUVchWFQBZFQ7.pdf](http://www.arb.ca.gov/lists/com-attach/2-sectorbased2015-ws-VDJUVchWFQBZFQ7.pdf)

Original File Name: FWW Comment sectorbased2015-ws 111215.pdf

Date and Time Comment Was Submitted: 2015-11-12 13:30:12

No Duplicates.

### **Comment 3 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Edu

Last Name: Effiom

Email Address: edu.efiom@biol.lu.se

Affiliation: Cross River State Forestry Com., Nigeria

Subject: Sustainable forest management via FMCs in CRS enabling payment for ecosystem services

Comment:

Thank you California for providing this opportunity to share comments. GCF update on the California Air Resources Board Workshop indicate an exciting meeting which we would have loved to participate as a member state in GCF especially as it seems there was no Afro-tropical representation at the meeting. Nonetheless, we greatly anticipate the actualization of this possibility (the inclusion of tropical forest jurisdictions in California's Cap and Trade Program).

What we would have love to especially highlight besides other green financial initiatives in our State, would be our benefit-sharing initiatives-payment of royalties and loyalties to forest communities in CRS which is in the form of payment for Ecosystem services. In CRS, we co-mange the forest that is the community forest with a community-based organisation ccalled FMCs (Forest management Committees) established by Forestry Commission. We train community members on basic forestry skills. The incentive here is in the payment of 30-70% of the revenue acred from selective timber harvesting, salvage etc. This ensures their coperation in helping us protect the forest and place the commitment on them to protect their forest. I can provide more details on this if needed. Thank you.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-11-13 05:16:08

No Duplicates.

## **Comment 4 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Brett  
Last Name: Byers  
Email Address: brett@rainforesttrust.org  
Affiliation: Rainforest Trust

Subject: Comments Regarding Tropical Forest Offset Credits  
Comment:

Dear California Air Resources Board,

As a board member of Rainforest Trust (<https://www.rainforesttrust.org>), a US charity focused on tropical forest conservation, and as a committed conservation philanthropist focused on preserving large areas of tropical forest with a primary motivation of mitigating climate change (see: <http://millionacrepledge.org> and <http://millionacrepledge.org/byers-santos/>), I would like to submit the following comments in relation to the October 28, 2015 California Air Resources Board meeting regarding the possibility of introducing tropical forest carbon offset credits to the California CO2 cap and trade market. I much appreciate the work of the California Air Resources Board towards including tropical forest conservation and restoration offsets, giving the tremendous importance of tropical rainforest to mitigation of human-caused climate change. Respectfully submitted, Brett Byers.

### **TROPICAL FOREST COULD BE HALF OF THE CLIMATE CHANGE SOLUTION**

First, and most importantly, I would like to indicate that, as I did at the meeting, while CO2 emissions from rainforest destruction and degradation may only account for 11% to 15% of total worldwide, tropical forest conservation and restoration has the potential to provide about 50% of the net CO2 emissions reductions over the next critical decades that it will take the world to largely stop burning fossil fuels and to reach peak atmospheric CO2 concentrations, with CO2 levels in the atmosphere then dropping.

There are two primary reasons that could permit tropical forest conservation to provide half of the climate change solution. First, with adequate political will and funding (which are needed for all climate change solutions), forest conservation and restoration can be implemented much faster than a transition away from fossil fuel use. The New York Declaration on Forests indicates the length of time dramatically reduce and eliminate forest destruction is measured in years, while estimates (especially when political realities are considered, as well as the still rapidly increase in use of fossil fuels in the developing world) of the time to end fossil fuel use start at 35 years, with more realistic periods extending to 50 or 85 years.

Second, there are hundreds of millions of acres of tropical forest that are degraded, often selectively logged, such that the large trees, which contain the majority of the above-ground-carbon, are absent. If these degraded areas are protected, they would absorb huge quantities of CO2 for 50 to 100 years until the small trees become large. No human intervention is needed, as the seed base and variety of small trees are intact within the degraded forest. An amount of as much as over 10 billion tons of CO2 could be absorbed per year by recovery of degraded forest. This amount thus

could be nearly 30% of current worldwide CO2 emissions and could be larger than the current net emissions from continued tropical forest destruction and degradation, which amounts to another 11% to 14% of total CO2 emissions.

As such, tropical forest conservation and restoration could provide a critical bridge to the post-fossil fuel era, and could be a major portion of any climate change solution.

Finally, I note that the amount of carbon stored in tropical forests worldwide (nearly 2,000 billion tons of CO2 sequestered) is equal to over half of the carbon stored in proven fossil fuel reserves (estimated to be about 3,000 billions tons of CO2 emissions on burning of this fuel). Thus, just as we court very dangerous climate change by burning all (or even a substantial fraction of) proven fossil fuel reserves, we face the same danger by destroying all (or a substantial fraction of) remaining tropical forest.

Here are citations to articles and papers (many peer-reviewed academic papers) providing support to the assertions above:

1. Regarding the 35+ years to convert off of fossil fuels: Mark Z. Jacobson and Mark A. Delucchi, Providing all global power with wind, water and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials, Energy Policy (2011) 39, 1154-1169,

<http://www.stanford.edu/group/efmh/jacobson/Articles/I/JDEnPolicyPt1.pdf>

2. New York Declaration on Forests:

<http://www.un.org/climatechange/summit/wp-content/uploads/sites/2/2014/07/New-York-Declaration-on-Forest---Action-Statement-and-Action-Plan.pdf>

3. Peer reviewed articles showing potential of rainforest to offset CO2 emissions, including via absorption of CO2 by recovering degraded forests (the second article also indicates that about 500 billion tons of carbon is stored in tropical forests, equal to nearly 2000 billion tons of CO2 emissions on destruction of such forests):

a. Richard A. Houghton, The emissions of carbon from deforestation and degradation in the tropics: past trends and future potential, Carbon Management (2013) 4(5), 539-546,

<http://research.mblwhoilibrary.org/works/39404> and

<http://www.tandfonline.com/doi/pdf/10.4155/cmt.13.41> .

b. John Grace, Edward Mitchard and Emanuel Gloor, Perturbations in the carbon budget of the tropics, Global Change Biology (2014) 20, <http://onlinelibrary.wiley.com/doi/10.1111/gcb.12600/full> .

c. There is literature that indicates that tropical forest conservation and restoration could offset about 30% current human-caused CO2 emissions (see:

<http://www.cgdev.org/blog/tropical-forests-offer-24%E2%80%9330-percent-potential-climate-mitigation>

and citations from within, including

<http://www.cgdev.org/sites/default/files/CGD-Climate-Forest-Paper-Series-11-Goodman-Herold-Maintaining-Tropical-Forests.pdf>

). But note that because it will take decades to eliminate (or at least dramatically reduce) fossil fuel use, whereas tropical forest conservation and restoration can be put in place far more quickly, the cumulative net CO2 emissions from tropical forest conservation and restoration could be roughly equal to that from reduction in fossil fuel during the critical period from now until peak atmospheric CO2 concentration, with tropical rainforest conservation and restoration providing a crucial bridge to the post fossil fuel era.

If you would like any of these articles in PDF format or if you would like further explanation, please contact me.

With regard to page 35 (item 6) of the ARB Staff White Paper on this subject found here

<http://www.arb.ca.gov/cc/capandtrade/sectorbasedoffsets/ARB%20Staff%20White%20Paper%20Sector-Based%20Offset%20Credits.pdf>

, I think that the cap should perhaps be lowered when new sources of credits (such as REDD) are added. Another option is to reduce the crediting baseline relative to the reference level. Or, as degraded forests recover, the reference level could be altered over time to ensure greater forest conservation over time. Or these mechanisms could be applied in combination.

#### FOCUS ON ELIMINATION OF SELECTIVE LOGGING

Selective logging, while far better than clear cutting of forest, must end for tropical forest conservation and restoration to reach its full potential. As described in my first comment above, about one-half of the potential of tropic forest to mitigate climate change could stem from regrowth of degraded (often selectively logged) tropic forest. Some refer to selective logging as a sustainable use of forest. But it is essential that the ARB not permit selective logging as a sustainable use of forest, given that end of selective logging is a huge part (again, about half) of tropical forest's potential to mitigate climate change. Thus, on page 26 of the ARB Staff White Paper (in the second paragraph of i. Leakage), it is essential that selective logging is NOT consider sustainable forest management. Other truly sustainable use, such as harvesting brazil nuts without harming trees, would be acceptable.

#### FOCUS ON HALTING BUILDING OF ROADS IN OR ADJACENT TO TROPIC FOREST

On page 25 of the ARB Staff White Paper (in the second paragraph of ii. Additionality), I find the mention to road building as a valid reason to adjust the reference level disturbing. Road building is hugely destruction to forests (bring destructive development because of the road access), and should be strongly discouraged.

#### OTHER COMMENTS ON ARB WHITE PAPER

On pages 14 to 15 of the ARB Staff White Paper, I think that there may be a small mistake in description of the albedo effect, as the paper focuses on high reflectivity as a problem rather than a good thing. In my understanding, low reflectivity cause direct absorption of heat, whereas high reflectivity (such as from ice, snow or cloud cover) reduces this direct absorption, which direct absorption is a much bigger issue than any further reflection back to earth within the atmosphere.

On page 27 of the ARB Staff White Paper (in the ii. Reversals paragraph carried over from the prior page), I worry that the reset of the baseline emissions for naturally-caused deforestation could be a problem, if a warming and drying planet (because of climate change) would result in more and larger fires in the tropical forest, and perhaps provisions should be made to avoid this.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-11-13 09:32:39

No Duplicates.





**Comment 5 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

This comment was posted then deleted because it was unrelated to the Workshop item or it was a duplicate.

## **Comment 6 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Gary

Last Name: Hughes

Email Address: ghughes@foe.org

Affiliation: Friends of the Earth - US

Subject: Next Steps for Evaluating the Role of Sector-Based Offset Credits Under the California Cap  
Comment:

On behalf of Friends of the Earth-US, this letter and accompanying Appendix is respectfully submitted as a contribution to the development of socially just and environmentally effective climate policy in California. Our organization is grateful for the opportunity to submit this letter and the accompanying materials as documentation that will especially serve to identify and expose inadequate risk analysis by state agencies regarding potential establishment for new rules in the Cap-and-Trade Program. This material, as well as that which has been previously offered over the years in regards to the potential California adoption of a "Reduced Emissions from Deforestation and Degradation (REDD)" based offsets program, will serve ultimately to inform the development of truly just and effective climate policy for the State of California.

In brief, after assessment of the various types of risk associated with the potential role of International Forest Sector Based Offsets, or REDD, in the California Cap-and-Trade Program, it is clear that there exists an exceptionally high level of exposure of the program to a multitude of risk factors that will likely undermine the environmental and social effectiveness of the offsets program, and hence both the carbon market and the intended emissions reductions that are the primary objective of AB32. It is also clear that the California Air Resources Board is not obligated or mandated in any way whatsoever to expose the residents of State of California to this risk. In other words, there is no real viable public interest for which the State of California has to embark upon such a risky policy endeavor, especially when there are other more concrete and tangible means by which Californians and California industry can meet both mandated emissions reductions and stated tropical forest protection goals. It is particularly irresponsible to move forward with this policy proposal when unmanaged risk could result in severe implementation problems with, or even outright failure of, the offsets program, putting the entire Cap-and-Trade based climate policy of the State of California in jeopardy. Considering the issues of risk as well as the complexities of rapidly evolving contextual dynamics in potential partner jurisdictions we consider that it is an imperative that there be a full and transparent discussion regarding the economic, social, and political contexts within which REDD based subnational jurisdictional linkages for offsets are proposed.

Attached is a zip package with Comment Letter, Appendix List, and Appendix Materials.

Attachment: [www.arb.ca.gov/lists/com-attach/6-sectorbased2015-ws-BmdcKAFjWGMBbgRy.zip](http://www.arb.ca.gov/lists/com-attach/6-sectorbased2015-ws-BmdcKAFjWGMBbgRy.zip)

Original File Name: Archive.zip

Date and Time Comment Was Submitted: 2015-11-13 17:13:05

No Duplicates.

**Comment 7 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Mike  
Last Name: Korchinsky  
Email Address: mike@wildlifeworks.com  
Affiliation: Wildlife Works

Subject: Strong support for International REDD+  
Comment:

Please find comments attached.

Attachment: [www.arb.ca.gov/lists/com-attach/7-sectorbased2015-ws-VTITMAyACdSMVAi.pdf](http://www.arb.ca.gov/lists/com-attach/7-sectorbased2015-ws-VTITMAyACdSMVAi.pdf)

Original File Name: Letter to California ARB.pdf

Date and Time Comment Was Submitted: 2015-11-15 05:57:17

No Duplicates.

## **Comment 8 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Fabrina

Last Name: Furtado

Email Address: f.furtado7@gmail.com

Affiliation: PLATAFORMA DHESCA BRAZIL

Subject: Rights Violation in Acre - SISA and REDD

Comment:

To whom it may concern,

We writing to present concerns in regards to the possibility of California establishing REDD related market linkages with Acre. We understand that the state of California continues to argue that Acre is the most advanced REDD jurisdiction in the world, and that the concerns that have been raised are not relevant.

Firstly, we would like to register our disagreement with the consultation process established by the State. It is our understanding that this process has not led to the inclusion of critical reflections in regards to the proposal, which seriously undermines the quality of any policy.

Secondly, we would like to let you know that during the year 2013, the Rapporteur on the Human Right to the Environment (Relatoria do Direito Humano ao Meio Ambiente, or RDHMA) of the Brazilian Economic, Social, Cultural and Environmental Rights Platform (Plataforma Brazil) conducted two field visits for its fact-finding and advocacy mission as a result of denunciations received in regards to the negative socio-political, economic and environmental impacts of the System of Incentives for Environmental Services (Sistema de Incentivos aos Serviços Ambientais, or SISA), private REDD projects and Sustainable Forestry Management projects in the State. Plataforma Dhesca is a network of civil society organizations that carries out actions to promote and defend human rights, as well as advocacy to obtain redress for human rights violations. The Rapporteurs' work is to diagnose, report on and recommend solutions for rights violations identified by civil society. They conduct in loco missions to investigate the denunciations they receive and, with the goal of supporting demands for redress for the violations, they undertake initiatives to engage public authorities and other entities involved in the conflicts.

The main problems found are related to the existence and deepening of territorial conflicts, both in territories already controlled by communities and local peoples and those subject to uncertainty around land tenure. These conflicts, in turn, affect the communities' capacity to guarantee their livelihoods, as well as the preservation and promotion of their culture and identity. Violations in regards to the right to information and participation we also found. The Acre government demonstrated a lack of political will and capability of leading with these problems. Furthermore, concerns were also raised due to the fact that the Federal government does not recognize SISA.

The situation reveals a violation of various international treaties signed by Brazil as well as the Brazilian constitution and other laws and policies.

As a result, we recommend that the California State abstain itself from establishing REDD related market linkages with Acre, and establish effective dialogue with the organizations, movements and communities raising concerns in regards to SISA and the private REDD projects in Acre as well as to the risks they are facing to carry out the profession as a result of their critical position.

It is also important to mention that other recommendations are made in the Final Report such as the need for the Federal Public Prosecutor to investigate the denunciations of rights violations in the Acre, that the certifies - VCS and CCBA - re-evaluate the projects, that the funders - BNDES and KfW - stop financing these policies and that the federal government guarantee the rights of the communities affected by REDD projects in Acre.

Attached is the Final Report of the Mission in Portuguese. Unfortunately, we have not yet been able to translate it, but please let us know if you need any further information.

Regards

Cristiane Faustino and Fabrina Furtado

Attachment: [www.arb.ca.gov/lists/com-attach/8-sectorbased2015-ws-UTRVMANtAj8BaAhl.pdf](http://www.arb.ca.gov/lists/com-attach/8-sectorbased2015-ws-UTRVMANtAj8BaAhl.pdf)

Original File Name: economia\_verde\_relatorio(1).pdf

Date and Time Comment Was Submitted: 2015-11-15 16:20:49

No Duplicates.

**Comment 9 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Jutta

Last Name: Kill

Email Address: juttakill@gmx.net

Affiliation:

Subject: Public comment to the State of California Air Resources Board on Staff White Paper REDD+  
Comment:

Dear Sirs,

please find attached to this message my submission to the California Air Resources Board regarding the Staff White Paper 'SCOPING NEXT STEPS FOR EVALUATING THE POTENTIAL ROLE OF SECTOR-BASED OFFSET CREDITS UNDER THE CALIFORNIA CAP-AND-TRADE PROGRAM, INCLUDING FROM JURISDICTIONAL "REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION" PROGRAMS'.

Sincerly,  
Jutta E. Kill

Attachment: [www.arb.ca.gov/lists/com-attach/9-sectorbased2015-ws-UiJUI1Q3V2gGaQNg.pdf](http://www.arb.ca.gov/lists/com-attach/9-sectorbased2015-ws-UiJUI1Q3V2gGaQNg.pdf)

Original File Name: Public comment Jutta Kill to the State of California Air Resources Board.pdf

Date and Time Comment Was Submitted: 2015-11-16 05:21:07

No Duplicates.



## **Comment 10 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Alcilene

Last Name: Souza

Email Address: alcilene@sema.mt.gov.br

Affiliation: Secretaria de Estado do Meio Ambient MT

Subject: Suggestion regarding the recommendations on the staff White Paper

Comment:

The State of Mato Grosso has a suggestion regarding the recommendations on the staff white paper (page 34) on the issue of additionality:

"Regarding additionality below the baseline of 5%, we suggest that this issue be reviewed again. Conserving tropical forests is a gigantic effort. Besides the large amount of pressure on forest resources, there are not sufficient public budget allocations to remunerate local communities for important environmental services, nor are there effective economic instruments for curbing deforestation. Thus, restricting the ability to generate credits would further restrict the few funding opportunities for forest conservation and the Cap-and-trade program in California, which is one of the few existing opportunities."

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-11-16 09:00:52

No Duplicates.

**Comment 11 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Katherine

Last Name: Watts

Email Address: katherine.watts@carbonmarketwatch.org

Affiliation:

Subject: Sector based offset credits in the cap and trade system

Comment:

Dear Madam or Sir,

Please find attached the submission from Carbon Market Watch on the issue of sector based offset credits in the cap and trade system.

In our view, the differences in the characteristics of the carbon cycles of biological (including REDD) and fossil carbon are fundamentally different and that they should not be treated as fungible with each other. The timescales of the fluxes are radically distinct with fossil carbon being stored permanently on geological timescales, and biological carbon more susceptible to rapid fluxes, including from climate impacts.

Biological carbon is also harder to account for accurately, and relies on projected baselines that are subject to significant uncertainties.

A better means of supporting REDD would be to put a levy on trading in the cap and trade market.

Kind regards,

Dr Katherine Watts

Attachment: [www.arb.ca.gov/lists/com-attach/11-sectorbased2015-ws-VzRVMLAjUWBXPgdp.pdf](http://www.arb.ca.gov/lists/com-attach/11-sectorbased2015-ws-VzRVMLAjUWBXPgdp.pdf)

Original File Name: Carbon Market Watch submission to the California Air Resources Board\_FINAL.pdf

Date and Time Comment Was Submitted: 2015-11-16 11:23:33

No Duplicates.

## **Comment 12 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Emiliya  
Last Name: Rasheva  
Email Address: emrasheva@yahoo.com  
Affiliation:

Subject: NO to international offsets in California's Cap-and-Trade  
Comment:

NO to international offsets in California's Cap-and-Trade

The inclusion of international forest sector-based offset credits within California Cap-and-Trade to cover up to 8 percent of emissions reduction goals would be a major mistake for the following reasons.

\* False solution to climate change. The net effect of a forest carbon offset on greenhouse gas concentrations in the atmosphere is at best zero. If emissions are reduced in one place, but through the sales of carbon credits emissions are allowed to continue somewhere else these emissions cancel each other out. Forest offsets are a cost containment mechanism that reduces the impact of A.B. 32 goal of reducing global warming pollution.

\* High levels of vulnerability and uncertainty. Forests are vulnerable to the impacts of climate change itself as well as international forest offset projects experience difficulties in constructing baseline, determining additionality, assessing leakages, monitoring implementation, and measuring real carbon stocks and emission reductions.

\* Existence of domestic offsets. California's Cap-and-Trade program already incorporates the use of domestic carbon offsets through forestry practices, livestock biogas control, and destruction of ozone-depleting substances. If regulated industries desire to offset some of their emissions, they can do it even currently. Forest offsets are ineffective in reducing net greenhouse gas emissions, but at least domestic carbon offset projects can economically and environmentally benefit Californians.

\* Negative consequences. The inclusion of international carbon offsets in California's Climate Policy is very likely to (i) increase pollution in California; (ii) potentially exacerbate fraud, corruption, large-scale land acquisitions, human rights violations and negative environmental consequences; (iii) encourage the international institutionalization of an ineffective and damaging practice; and (iv) help divert attention away from the urgent need of a sharp and immediate reduction of global greenhouse gas emissions at source.

Absolute equality and fairness may never meet because people are all so different in their perceptions and interests, but the California Air Resources Board has the responsibility to effectively represent the will of the people who will bear the true economic, environmental and social costs of international offsets.

References attached.

Attachment: [www.arb.ca.gov/lists/com-attach/12-sectorbased2015-ws-UCJSMQZhVGJXIwZj.pdf](http://www.arb.ca.gov/lists/com-attach/12-sectorbased2015-ws-UCJSMQZhVGJXIwZj.pdf)

Original File Name: References\_Comment.pdf

Date and Time Comment Was Submitted: 2015-11-16 11:36:01

No Duplicates.

## **Comment 13 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Isaac  
Last Name: Rojas  
Email Address: isaac@coecoceiba.org  
Affiliation: Friends of the Earth International

Subject: comentarios a consulta REDD  
Comment:

Estimados señores de la Mesa Directiva de Aire de California,

Amigos de la Tierra Internacional es la red ecologista de grupos de base más grande del mundo. Nuestros grupos desarrollan campañas en 74 países en los temas ambientales más urgentes del momento como el cambio climático, la destrucción de los bosques, prácticas comerciales no éticas y alimentos transgénicos. Nuestra Federación tiene grupos en Estados Unidos, Brasil, México, Nigeria e Indonesia y todos ellos, trabajan activamente en las áreas de protección de bosques, cambio climático y construyendo propuestas para alcanzar la sustentabilidad.

Como una organización con amplia membresía en países y provincias del Sur Global, incluyendo varios de los estados involucrados en el Governor's Climate and Forests Task Force (por su nombre en inglés) como Kalimantan Central en Indonesia, Chiapas en México y el Estado Cross River de Nigeria; queremos manifestar que nuestro lenguaje materno así como el de la gran cantidad de comunidades que serán afectadas por esta política, no es el inglés. En el caso del Grupo de Coordinación del Programa de Bosques y Biodiversidad de Amigos de la Tierra Internacional, tenemos nuestra base en Costa Rica donde el idioma es el español. Por esta razón y con gran respeto, enviamos este comentario en español sabiendo que comprenderán el uso de este idioma.

Desde nuestro trabajo cotidiano y nuestra vasta experiencia, manifestamos que incluir el mecanismo REDD en cualquiera de sus formas dentro de mercados de carbono, es una mala elección.

Esta consulta pública a la que respondemos hoy, posee desde su inicio limitaciones que impiden la plena y efectiva participación de aquellos grupos, comunidades locales y Pueblos Indígenas que se verían directa y principalmente afectados: no hay traducción al español de los documentos claves (y menos a los idiomas locales); los documentos son muy técnicos y no se dan las facilidades necesarias para que los mismos puedan ser entendidos por el público en general; el plazo de participación de esta etapa actual del proceso ha sido muy breve, y solamente ha sido anunciado en medios que no están al alcance de toda la población que será impactada, sobretodo donde los impactos serían sentidos con mayor fuerza. Además no está claro como funciona el proceso en su totalidad. Por todas estas razones, manifestamos que la Mesa Directiva del Aire de California (the California Air Resources Board) no tiene la competencia adecuada de inciar, ni menos administrar, una política cuyos impactos trascienden fronteras internacionales, e incluso fronteras culturales.

Añadimos que además, en Chiapas, Acre y California los grupos ecologistas, campesinos, y de Pueblos Indígenas tienen una larga

historia de oposición a políticas de compensaciones de carbono y de REDD, debido a los impactos que conllevan que pueden verse en los documentos que adjuntamos.

Adicionalmente en Chiapas, nuestro trabajo junto a las comunidades y Pueblos Indígenas muestra claramente que en este territorio, al promover REDD y los mercados de carbono, se ahondaría divisiones entre grupos, se profundizaría un modelo de desarrollo extractivista que además es excluyente. De la misma forma, es claro que el primer esfuerzo de implementar una política de REDD en Chiapas ha fracasado, y los actores responsables aún no han reconocido los graves errores que se han cometido, no menos el contexto socio-económico en donde se ubican.

En Acre, REDD como parte del modelo de la llamada economía verde, simplemente vendría a profundizar las violaciones a los Derechos Humanos que diversas organizaciones han denunciado en el documento (poner título del mismo). En este estado brasileño, REDD aumenta las condiciones de empobrecimiento, exclusión, erosión de los derechos sobre la tierra y por ende, aumenta los conflictos sociales.

Lo anterior puede ser profundizado en los documentos adjuntos: posición de Amigos de la Tierra Internacional sobre REDD; REDD Gamble elaborado por Amigos de la Tierra Internacional, entrevistas realizadas a miembros de comunidades locales y Pueblos Indígenas en Acre que pueden ser accesadas en Radio Mundo Real ([radiomundoreal.fm](http://radiomundoreal.fm)), documento de Amigos de la Tierra Internacional que analiza en formato de educación popular los contratos REDD, el informe sobre el proyecto REDD en Kalimantan -KFCP-, documento de análisis de la situación de Derechos Humanos en Acre.

Debido a lo anterior, es claro que no hay que promover la inclusión de REDD dentro de mercados de carbono. Igualmente, los mercados de carbono han probado su ineficacia profunda en la lucha contra el cambio climático, por lo que no deben ser promovidos.

Además, hasta ahora las comunicaciones que el estado de California ha promovido sobre REDD han creado confusión entre los programas REDD basados en donaciones de recursos públicos, como es la iniciativa del gobierno de Noruega, y los programas REDD basados en mercados de carbono. Manifestamos que esta diferencia es fundamental en determinar los efectos de tal programa tanto en reducir emisiones a nivel global como en sus múltiples repercusiones en las culturas, viviendas y economías de las comunidades locales que van a tener que aceptar nuevas políticas e intervenciones en sus territorios a través de programas REDD.

Agradeciendo su atención a la presente,  
Se despide de Ustedes,

Isaac Rojas  
Coordinador Programa de Bosques y Biodiversidad  
Amigos de la Tierra Internacional

Attachment: [www.arb.ca.gov/lists/com-attach/13-sectorbased2015-ws-BmMCZ1A+Aj8EbVQ5.pdf](http://www.arb.ca.gov/lists/com-attach/13-sectorbased2015-ws-BmMCZ1A+Aj8EbVQ5.pdf)

Original File Name: [economia\\_verde\\_relatorio.pdf](#)

Date and Time Comment Was Submitted: 2015-11-16 11:10:01

No Duplicates.

## **Comment 14 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Laurie  
Last Name: Williams  
Email Address: williams.zabel@gmail.com  
Affiliation: Citizens Climate Lobby

Subject: Input on Process for Considering REDD offsets  
Comment:

The workshop and presentations provided to date have given an inadequate opportunity for those who have grave concerns about the proposed REDD program to participate. Time should be scheduled for parties with concerns about impacts on native communities in developing countries, additionality, demand shifting that results in deforestation to other locations, low carbon pricing and perverse incentives to make presentations as well as to participate by submitting written comments. CARB staff appear to have prematurely become cheer leaders for this approach without acknowledging the many serious problems associated with the proposed approach to deforestation. Please include me on all future communications regarding this topic.

Among the concerns I would like to express and have CARB consider further are:

1. Given the urgency of climate change, it appears that international efforts to increase forest cover and carbon sequestration must be in addition to reducing fossil fuel burning, not instead of reduced fossil fuel use, as proposed here. The push for full availability of offsets means that very few if any of the required reductions in GHG emissions attributable to the current AB32 cap and trade program would be actual fossil fuel emission reductions in California as opposed to offsets.
  2. Reduced deforestation assumptions regarding baseline would allow profit taking in situations where deforestation continues. There is no requirement for national increases in forest cover and carbon sequestration to obtain incentive payments.
  3. Additionality is unprovable because the price for offsets is not known when a project begins and may be very low in the future, as has happened in Europe's ETS. This volatility undermines any claim that the project would not have occurred but for the offset price and favors projects that represent the continuation of business as usual, which will always be the least expensive projects.
  4. Beginning this program will make it more difficult for governments to appropriately regulate forest activities, as it will create a huge group of people who seek to continue being paid to continue this program run by for profit carbon traders, carbon offset developers and carbon verifiers.
  5. A subnational program maximizes opportunities for demand shift to other locations with the result that a different forest is cut and there is no net benefit from the program.
  6. The program would interfere with international efforts to secure a gradual and predictable increase in carbon prices worldwide, which economists agree would be the most effective way to insure a rapid transition to cleaner energy. This program aims to keep carbon prices low, which can be done more efficiently with a floor price and ceiling price for allowances.
  7. Deforestation would be most effectively addressed by incentives for national increases in total forest cover and sequestration that are well funded and not linked to lowering carbon prices.
- I request a response from CARB to each of these points and look forward participating future consideration of this proposal.

Respectfully, Laurie Williams  
Volunteer Citizens Climate Lobby  
Williams.zabel@gmail.com  
Oakland, CA

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-11-16 11:20:56

No Duplicates.



**Comment 15 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Larry

Last Name: Leefers

Email Address: Leefers@msu.edu

Affiliation:

Subject: Comments on Sector-based Offset Credits from Michigan State University

Comment:

File attached with comments on Reference Emission Levels;  
Monitoring, Reporting and Verification; Drivers of Deforestation  
and Degradation; and Safeguards.

Attachment: [www.arb.ca.gov/lists/com-attach/15-sectorbased2015-ws-UTJdOIYIWWsAdARm.pdf](http://www.arb.ca.gov/lists/com-attach/15-sectorbased2015-ws-UTJdOIYIWWsAdARm.pdf)

Original File Name: CA\_ARB\_Sector-Based\_Offsets\_MSU-Comments.pdf

Date and Time Comment Was Submitted: 2015-11-16 12:06:10

No Duplicates.

**Comment 16 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Keven  
Last Name: Brough  
Email Address: keven.brough@permianglobal.com  
Affiliation: Permian Global

Subject: Permian Global observations on REDD+ credit white paper  
Comment:

Dear CARB Staff:  
Thank you for the opportunity to join the workshop and submit our comments. We look forward to continuing this important conversation with you.

Sincerely,  
Permian Global Team

Attachment: [www.arb.ca.gov/lists/com-attach/16-sectorbased2015-ws-B3VUN1YzADcLUgRb.pdf](http://www.arb.ca.gov/lists/com-attach/16-sectorbased2015-ws-B3VUN1YzADcLUgRb.pdf)

Original File Name: REDD+ Credit White Paper Comments - Permian Global.pdf

Date and Time Comment Was Submitted: 2015-11-16 12:18:35

No Duplicates.

## **Comment 17 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Alberto

Last Name: Saldamando

Email Address: [saldamando@sbcglobal.net](mailto:saldamando@sbcglobal.net)

Affiliation: Indigenous Environmental Network

Subject: Comments on Sector Based offsets, Jurisdictional REDD

Comment:

The Indigenous Environmental Network is an international non-governmental organization composed of grass roots indigenous communities and organizations located throughout Canada and the United States, including California. We work with associated Indigenous organizations and Indigenous communities in Central and South America, Africa and Asia, and the Pacific, who inform our work. We have followed California's climate change initiatives with great interest, and with the well being and the rights of Indigenous Peoples well in mind.

Our forest dependent partners and communities have, as we do, great concerns about forest offsets, particularly REDD+ type projects and programs that threaten their food security and food sovereignty, the use of their forests for medicine, ceremony, their cultures and world views, their identity and ways of life. They are put at great risk by REDD and REDD+.

We note that the White Paper cites meetings on forest offsets where Indigenous Peoples and their organizations were in attendance ostensibly in support of forest offsets and REDD, in Barcelona, Spain, and the consultations held in UC Davis, (the most recent in October 2015, in Sacramento California). The White Paper also mentions international REDD Readiness projects and the massive amounts of money, hundreds of millions of dollars spent by Norway and other counties as well as the World Bank. Perhaps if funding were available to bring Indigenous communities with real and negative experience with REDD+ projects to CARB meetings and consultations, CARB might be better informed as to the real impact of REDD+ on Indigenous Peoples. We would be glad to nominate representatives of these indigenous communities for consideration.

The Coordinator of Indigenous Organizations of the Amazon River Basin (COICA) is prominent among those in attendance at these meetings. This large and important South American Indigenous NGO, as the White Paper states, has, "declared their interest in and support of REDD mechanisms that respect the rights of traditional forest-dwelling people, and have partnered with research and environmental organizations in assessing GCF member inclusion of rights recognition, participatory processes, benefits sharing, territorial security, and governance."

It is noteworthy that COICA, in spite of years of participation in the international REDD+ process has as yet a REDD+ project in any of the communities it represents. Their demands are specific and aspirational. Their vision of REDD+ is one where all of their rights as recognized by the United Nations Declaration on the rights of indigenous peoples (2007), as well as International Labour Organization Convention No. 169 (!989) are fully recognized and respected. This vision is fully outlined in the COICA publication, REDD Indigena Ambiental - RIA. But the sad fact is that the Amazon basin governments, including MOU partner Acre,

Brazil, are not receptive to these aspirations. The same can be said of Mexico, and MOU partner, Chiapas.

Essential to this vision are internationally recognized right of indigenous peoples includes their self determination and the right to their ancestral lands. As one of the Indigenous participants at the October 2015 CARB meeting reflected in responding to a question, a critical aspiration for REDD+ is that it will lead to the titling of their lands. But the Brazilian indigenous representative also reflected that legislation recently introduced in Brazil would impede the recognition and titling of indigenous lands. Indeed, Brazil has as yet to share with Amazonian indigenous peoples, the benefits of funds received from the Amazon Fund.

The Indigenous Environmental Network is in full solidarity with these aspirations including the right of Self Determination and all that the term implies internationally. We are also in solidarity with the recognition and titling of Amazonian indigenous ancestral lands. We need ask if California is willing to undertake the fulfillment of these aspirations within their REDD forest offset program.

The Great REDD Gamble, a recent report by Friends of the Earth (FoE) pointed to the failures of these aspirations in existing REDD+ projects:

"The most egregious of these is that by increasing the value of standing forests, REDD is exacerbating existing tensions around land tenure and access to resources. It can also impede ongoing efforts to resolve land tenure disputes [fn] as REDD presents governments with an increasing financial incentive for the state to retain or assert ownership. And,

"One common factor that emerges very strongly from these case studies is the extraordinarily disruptive influence that REDD+ projects can have on Indigenous Peoples and local communities, especially if people have not consented to the project in question or been engaged in its design, or if there are existing uncertainties about land tenure. We also found that REDD+ projects can trample over existing local knowledge, and interfere with local food security."

With regard to consent and engagement in design as mentioned by FoE, we recall that the Chiapas representative described consultations held in Chiapas regarding REDD, as a one day meeting where all of civil society, including business, land owners, environmental NGOs, local governments and other non-indigenous representatives, as well as indigenous peoples, were invited and attended. She reflected that this was done in the interests of democracy. But this kind of democracy does not auger well for those indigenous communities directly affected.

The fact remains that much of the Amazon Forest loss is due to the expansion of cattle ranches, large mono crop plantations and illegal logging where local government authorities are many times complicit. As FoE points out, REDD generates land grabs and the violations of the rights of forest dependent peoples where only the governments and the already rich benefit. But questions of corruption and attenuate racism and the violence it continues to inflict on indigenous peoples in these countries, particularly Mexico, remain the silent elephant in the room.

Under any international relationship it remains to the State and in this case of jurisdictional forests offsets, to local government as well, and their willingness to recognize and title ancestral lands, and the respect indigenous peoples' self determination over those lands, territories and forest resources. We have serious doubts that the State of California can guarantee those rights to forest dependent peoples. Jurisdictional REDD has other purposes.

Attachment: [www.arb.ca.gov/lists/com-attach/17-sectorbased2015-ws-USYHaVI6VHMLaAhX.doc](http://www.arb.ca.gov/lists/com-attach/17-sectorbased2015-ws-USYHaVI6VHMLaAhX.doc)

Original File Name: White paper comments.doc

Date and Time Comment Was Submitted: 2015-11-16 13:35:49

No Duplicates.

**Comment 18 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Katie  
Last Name: Sullivan  
Email Address: sullivan@ieta.org  
Affiliation: IETA

Subject: IETA Comments on Sector-Based/REDD+ Offsets  
Comment:

To Whom It May Concern,

Attached, please find IETA's comments on ARB's Public Workshop and Staff White Paper related to "Evaluating the Potential Role of Sector-Based Offset Credits Under the California Cap-and-Trade Program, including from Jurisdictional REDD+ Programs".

We appreciate this opportunity to share input.

Best,

Katie Sullivan

North America Director  
IETA

Attachment: [www.arb.ca.gov/lists/com-attach/18-sectorbased2015-ws-Vz5WNQRxUmAAWVUm.pdf](http://www.arb.ca.gov/lists/com-attach/18-sectorbased2015-ws-Vz5WNQRxUmAAWVUm.pdf)

Original File Name: IETA Submission to ARB\_Sectoral Offsets White Paper + Workshop\_16Nov2015.pdf

Date and Time Comment Was Submitted: 2015-11-16 13:39:14

No Duplicates.

**Comment 19 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Christie

Last Name: Pollet-Young

Email Address: cpollet-young@scsglobalservices.com

Affiliation:

Subject: Strong Support for Sector-Based Credits with Quality Verification

Comment:

Please see that attached document.

Attachment: [www.arb.ca.gov/lists/com-attach/19-sectorbased2015-ws-BXYFYFMhWVVSNwdo.pdf](http://www.arb.ca.gov/lists/com-attach/19-sectorbased2015-ws-BXYFYFMhWVVSNwdo.pdf)

Original File Name: SCS Comments\_ARB\_REDD.pdf

Date and Time Comment Was Submitted: 2015-11-16 14:32:25

No Duplicates.

**Comment 20 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Louis

Last Name: Blumberg

Email Address: lblumberg@tnc.org

Affiliation: the Nature Conservancy

Subject: Including Sector based, tropical forest offset credits in the CnT

Comment:

Attached, please find the comments of the Nature Conservancy on the ARB workshop held on October 28, 2015 on Including Sector based, tropical forest offset credits in the Cap and Trade program and companion white paper.

I'm not sure the file was uploaded. I'll send it my surface mail too

Attachment: [www.arb.ca.gov/lists/com-attach/20-sectorbased2015-ws-BnIFbQdlBAhWIIUw.docx](http://www.arb.ca.gov/lists/com-attach/20-sectorbased2015-ws-BnIFbQdlBAhWIIUw.docx)

Original File Name: TNC REDD Wrkshp ltr fnl.docx

Date and Time Comment Was Submitted: 2015-11-16 14:33:38

No Duplicates.



## **Comment 21 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Coordinadora de las  
Last Name: COICA  
Email Address: coica@coica.org.ec  
Affiliation:

Subject: COICA TO CARB  
Comment:

To: California Air Resources Board (CARB)

From: Coordinator of the Indigenous Organizations of the Amazon Basin (COICA)

Re: ARB Workshop and Staff White Paper, Scoping Next Steps for Evaluating the Potential Role of Sector-Based Offset Credits Under the California Cap and Trade Program, Including from Jurisdictional "Reducing Emissions from Deforestation and Forest Degradation" Programs.

Dear California Air Resources Board,

I am writing on behalf of COICA to thank CARB for the opportunity to participate in California's process to develop regulations to include jurisdictional REDD+ offsets in the Cap and Trade Program. We congratulate ARB on the productive and inclusive workshop held in Sacramento, California on October 28, 2015 to discuss this issue, which is of critical importance to the 400 indigenous communities and ethnicities across Amazonia that we represent. We believe that REDD programs like the one proposed by California will not only lead to significant reductions in greenhouse gas emissions from deforestation, but provide essential economic benefits to our communities and help protect the forests on which our livelihoods and cultures depend.

We would like to express support for the steps outlined in the Staff White Paper and the frameworks developed by the REDD Offset Working group (ROW) to ensure high quality offsets from jurisdictional programs. We are supportive of the jurisdictional approach to protecting tropical forests that is being pioneered by the members of the Governors' Climate and Forests task force (GCF), and recognize that the Brazilian states of the GCF are global leaders in developing robust jurisdictional REDD+ programs with strong social safeguards and benefit-sharing mechanisms. Our partnership with the GCF is an important mechanism to continue to develop these safeguards through inclusive processes, and share lessons across the GCF regions. The REDD+ program proposed by California could provide real and tangible benefits to our communities through connections to these programs.

In this sense, COICA has developed Amazon Indigenous REDD+ - RIA which includes the worldviews and perspectives of the Amazon peoples in order to enable an adequate REDD+ process in the indigenous territories. The UNDRIP and other international tools are included in the RIA framework due to the importance of these for the Indigenous peoples to access to benefits.

We offer our continued support to ARB staff as they continue to lead on climate change through the development of this important program. Thank you once again for including us in your process, and your thoughtful consideration of our perspectives. COICA is hopeful

that this process can continue such that the necessary linkages can be made by 2017, in time for the third compliance period of the Cap and Trade Program.

Sincerely,

Edwin Vasquez Campos  
Coordinador General COICA

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-11-16 14:43:12

No Duplicates.

**Comment 22 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Parin

Last Name: Shah

Email Address: parin@apen4ej.org

Affiliation: APEN

Subject: APEN's Comments on Proposed Sector-based Offset Credits  
Comment:

Please see attached comments. Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/22-sectorbased2015-ws-VTQBd1YyUm8HXgBj.pdf](http://www.arb.ca.gov/lists/com-attach/22-sectorbased2015-ws-VTQBd1YyUm8HXgBj.pdf)

Original File Name: APEN Comment Letter on REDD - 16Nov2015.pdf

Date and Time Comment Was Submitted: 2015-11-16 15:03:12

No Duplicates.

**Comment 23 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Michael

Last Name: Dwyer

Email Address: dwyerdwyer@gmail.com

Affiliation: University of Bern

Subject: Comments on forest sector-based offsets

Comment:

Please see attached

Attachment: [www.arb.ca.gov/lists/com-attach/23-sectorbased2015-ws-UTUAcVYuAzVXIwdY.zip](http://www.arb.ca.gov/lists/com-attach/23-sectorbased2015-ws-UTUAcVYuAzVXIwdY.zip)

Original File Name: Dwyer\_CARB\_comments.zip

Date and Time Comment Was Submitted: 2015-11-16 15:18:29

No Duplicates.

**Comment 24 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: David  
Last Name: Antonioli  
Email Address: DAntonioli@v-c-s.org  
Affiliation: Verified Carbon Standard

Subject: VCS Comments on Staff White Paper Evaluating Sector-Based Crediting  
Comment:

Please find comments attached.

Attachment: [www.arb.ca.gov/lists/com-attach/24-sectorbased2015-ws-ViAFYFclAw8Lblc4.pdf](http://www.arb.ca.gov/lists/com-attach/24-sectorbased2015-ws-ViAFYFclAw8Lblc4.pdf)

Original File Name: VCS Comments to ARB on Sector-Based Crediting 16 Nov 2015.pdf

Date and Time Comment Was Submitted: 2015-11-16 15:28:39

No Duplicates.

**Comment 25 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: William

Last Name: Westerfield

Email Address: [william.westerfield@smud.org](mailto:william.westerfield@smud.org)

Affiliation: SMUD

Subject: SMUD Comments re Inclusion of Sector Based Offsets in Cap and Trade  
Comment:

Attached are SMUD's Comments re Inclusion of Sector Based Offsets  
in Cap and Trade.

Attachment: [www.arb.ca.gov/lists/com-attach/25-sectorbased2015-ws-UzdROFU3VHIGbQJn.pdf](http://www.arb.ca.gov/lists/com-attach/25-sectorbased2015-ws-UzdROFU3VHIGbQJn.pdf)

Original File Name: Document.pdf

Date and Time Comment Was Submitted: 2015-11-16 15:31:37

No Duplicates.

**Comment 26 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Vedis

Last Name: Vik

Email Address: Vedis.Vik@mfa.no

Affiliation: Government of Norway

Subject: Norwegian comments re sector-based offsets

Comment:

Please find attached comments from the Government of Norway regarding the potential for including international, sector-based offset credits in California's cap-and-trade program.

Best regards,  
Vedis Vik

Environment Counselor  
Embassy of Norway  
Washington D.C.

Attachment: [www.arb.ca.gov/lists/com-attach/26-sectorbased2015-ws-AGNXPIE9WWcFZgBu.docx](http://www.arb.ca.gov/lists/com-attach/26-sectorbased2015-ws-AGNXPIE9WWcFZgBu.docx)

Original File Name: Comments ARB Nov 2015.docx

Date and Time Comment Was Submitted: 2015-11-16 15:27:05

No Duplicates.

**Comment 27 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Juan Carlos

Last Name: Jintiach

Email Address: juancarlos.jintiach@gmail.com

Affiliation: COICA - Coordinator of the Indigenous Or

Subject: Letter from COICA re: Sector-based offsets

Comment:

Dear California Air Resources Board,

I am writing on behalf of COICA to thank CARB for the opportunity to participate in California's process to develop regulations to include jurisdictional REDD+ offsets in the Cap and Trade Program. We congratulate ARB on the productive and inclusive workshop held in Sacramento, California on October 28, 2015 to discuss this issue, which is of critical importance to the 400 indigenous communities and ethnicities across Amazonia that we represent. We believe that REDD programs like the one proposed by California will not only lead to significant reductions in greenhouse gas emissions from deforestation, but provide essential economic benefits to our communities and help protect the forests on which our livelihoods and cultures depend.

We would like to express support for the steps outlined in the Staff White Paper and the frameworks developed by the REDD Offset Working group (ROW) to ensure high quality offsets from jurisdictional programs. We are supportive of the jurisdictional approach to protecting tropical forests that is being pioneered by the members of the Governors' Climate and Forests task force (GCF), and recognize that the Brazilian states of the GCF are global leaders in developing robust jurisdictional REDD+ programs with strong social safeguards and benefit-sharing mechanisms. Our partnership with the GCF is an important mechanism to continue to develop these safeguards through inclusive processes, and share lessons across the GCF regions. The REDD+ program proposed by California could provide real and tangible benefits to our communities through connections to these programs.

In this sense, COICA has developed Amazon Indigenous REDD+ - RIA which includes the worldviews and perspectives of the Amazon peoples in order to enable an adequate REDD+ process in the indigenous territories. The UNDRIP and other international tools are included in the RIA framework due to the importance of these for the Indigenous peoples to access to benefits.

We offer our continued support to ARB staff as they continue to lead on climate change through the development of this important program. Thank you once again for including us in your process, and your thoughtful consideration of our perspectives. COICA is hopeful that this process can continue such that the necessary linkages can be made by 2017, in time for the third compliance period of the Cap and Trade Program.

Sincerely,

Juan Carlos Jintiach

Technical Secretary of COICA

Attachment:



Original File Name: ARBletter\_COICA.pdf

Date and Time Comment Was Submitted: 2015-11-16 15:38:18

No Duplicates.

**Comment 28 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Christina

Last Name: McCain

Email Address: cmccain@edf.org

Affiliation: Environmental Defense Fund

Subject: Inclusion of International Sector-based offsets from REDD+

Comment:

Please find attached EDF's comments on inclusion of international sector-based offsets.

Attachment: [www.arb.ca.gov/lists/com-attach/28-sectorbased2015-ws-Wj8BY1E2UFwCZ1M+.pdf](http://www.arb.ca.gov/lists/com-attach/28-sectorbased2015-ws-Wj8BY1E2UFwCZ1M+.pdf)

Original File Name: EDF\_cmmnts\_REDD\_Nov2015.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:09:59

No Duplicates.

**Comment 29 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Brian

Last Name: Nowicki

Email Address: bnowicki@biologicaldiversity.org

Affiliation: Center for Biological Diversity

Subject: scoping comments on the International Forest Offsets

Comment:

These comments are submitted on behalf of the Center for Biological Diversity regarding the Staff White Paper on "Scoping Next Steps for Evaluating the Potential Role of Sector-Based Offset Credit Under the California Cap-and-Trade Program, Including from Jurisdictional 'Reducing Emissions from Deforestation and Forest Degradation' Programs," published by the Air Resources Board on October 19, 2015, and the public workshop on October 28.

These comments are intended to identify issues in need of further assessment and, in many cases, solicitation of specific public participation, in order to inform ARB's decision regarding whether or not to proceed with the development of an international forest offset program.

Attachment: [www.arb.ca.gov/lists/com-attach/29-sectorbased2015-ws-BzZVZIEPUDIKPQJd.pdf](http://www.arb.ca.gov/lists/com-attach/29-sectorbased2015-ws-BzZVZIEPUDIKPQJd.pdf)

Original File Name: 15 11 16 CBD comments to CA REDD scoping.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:34:31

No Duplicates.

**Comment 30 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Parin

Last Name: Shah

Email Address: parin@apen4ej.org

Affiliation: APEN

Subject: APEN's Comments on Proposed Sector-Based Offset Credits  
Comment:

Please see our most recent comment letter. Thank you.

Attachment: [www.arb.ca.gov/lists/com-attach/30-sectorbased2015-ws-VTQBd1YyUG0GXwZl.pdf](http://www.arb.ca.gov/lists/com-attach/30-sectorbased2015-ws-VTQBd1YyUG0GXwZl.pdf)

Original File Name: APEN Comment Letter-16Nov2015.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:27:55

No Duplicates.

**Comment 31 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Barbara

Last Name: Haya

Email Address: bhaya@berkeley.edu

Affiliation: UC Berkeley

Subject: Comments on proposed California REDD program-an additionality analysis

Comment:

Please find comments attached.

Attachment: [www.arb.ca.gov/lists/com-attach/31-sectorbased2015-ws-UDhTNAF5AzECWwhr.pdf](http://www.arb.ca.gov/lists/com-attach/31-sectorbased2015-ws-UDhTNAF5AzECWwhr.pdf)

Original File Name: Haya comments to ARB on a proposed CA REDD program.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:42:52

No Duplicates.

## **Comment 32 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Kathleen

Last Name: McAfee

Email Address: kmcafee@sfsu.edu

Affiliation: San Francisco State University

Subject: REDD+ offsets for AB32? Losing the Forest for the Trees

Comment:

The present discussion about increasing the supply of offsets distracts from the purpose and could undermine the effectiveness of AB32. The ARB White Paper and the October 28 workshop presentations emphasize a goal of reducing compliance costs, seemingly losing sight of the purpose of AB32: to reduce greenhouse-gas emissions in California.

There is already an ample supply of existing and potential offsets in California, not to mention the US and Quebec, despite the frequent, predictable claims by emitting entities and industry lobbyists that a shortage is just around the corner. Oversupply means low prices, of course. Prices of allowances are already too low to stimulate emissions reductions on the scale necessary to spur a transition to a very-low-carbon economy in California that can serve as a model for the rest of the United States and the world.

As the ARB knows, the world's main cap-and-trade scheme, the EU Emissions Trading System, has been plagued by low prices and oversupply of allowances from its beginning, largely as a result of allowance giveaways, lobbying by covered industries and deceptive accounting of past emissions by the latter, as well as outright fraud and allowance thefts. In the past year the ETS and the EU government have rewritten the ETS rules in a desperate effort to shrink the surplus of more than 2 billion EUAs, even as it is acknowledged that the hoped-for reduction in excess allowances will not be sufficient to achieve Europe's GHG reduction target. In short, the ETS is discredited as an effective emissions-reductions strategy. AB32 is not the ETS and ARB staff say they have learned from ETS failures, but adding a whole new category offsets to California's program would ignore the ETS's most important lesson.

Internationally, the supply of forest carbon offsets, including those developed for the Clean Development Mechanism (CDM), for voluntary carbon markets (VCM), and for compliance markets that have yet to arise, already dwarfs effective demand to such a degree that offset prices remain abysmally low worldwide. This fact is well known. For example, the Director of Markets and External Affairs for Forest Carbon Group AG, observes that the forest-carbon finance industry faces an oversupply of projects and credits, falling credit prices, and no political signal in sight which could boost companies' or countries' demand. (source: Ecosystem Marketplace)

Moreover, more than a decade's experience with the forest-carbon offsetting linked to the models for REDD+: the CDM and payment for environmental services (PES) schemes, as well as to VCM offsetting and existing proto-REDD projects, has demonstrated that is practically impossible to ensure that putatively GHG-reducing activities at diverse and distant sites result in actual emissions avoidance or reductions. It is even harder to guarantee that they

meet the criteria of additionality, enforceability, and social benefits required, for good reason, under AB32.

If REDD+ credits are added to the AB32 pool of offsets, the resulting slight increase in demand would have little effect on rock-bottom forest-carbon offset prices. Instead, adding REDD+ to AB32 would lend undeserved credence to a dubious category of forest-linked global warming "solutions" that has already morphed far beyond any feasible regulatory oversight and that does nothing in itself to reduce net GHG emissions. No matter how we phrase it, offsets are, after all, a form of permits to pollute.

Surprisingly, both the ROW report and the ARB White Paper overlook a substantial body of literature, including work by scholars in California, that illustrates the pitfalls and failures of forest-based offsetting in the global South. Even the Center for International Forestry Research (CIFOR), a preeminent global forest research agency that was once very optimistic about REDD, now reports that its "honeymoon with REDD" is over. Many of its reports express serious doubts about whether REDD+ can be salvaged as an effective climate-mitigation strategy.

Numerous scientific studies have documented the near-impossibility of monitoring and preventing "leakage" when forest felling for timber, agriculture, mining, and ranching shifts from the targeted project area to a neighboring village, valley, or island, or to another jurisdiction. "Permanence" is even harder to ascertain, much less guarantee. "Perverse incentives" and opportunities for rent seeking abound: landowner and states exaggerate their past deforestation or their future deforestation intentions in order to gain more certified credits to sell; consultants and credit brokers cherry-pick data to demonstrate project success, etc. Moral hazards arise in the context of the conflicting priorities of officials, NGOs, or consultants in charge of monitoring, enforcing, or certifying compliance with project requirements, on the one hand, and ecosystem services buyers or project sponsors, on the other hand. Furthermore, the introduction of monetary payments for conservation has been shown to undermine local traditions that value and manage nature, "crowding out" non-monetary incentives that commonly have supported sustainable resource management by local and indigenous communities.

The ROW authors imagine a way too optimistically, in my view, that under a jurisdictional model, NGOs, private investors, and public authorities in Acre and at the federal level in Brazil (and Mexico, etc.) will manage to overcome these multiple obstacles to achieving net forest-conservation gains without significant social damages. But straightforward analysis shows that economic efficiency in the generation and allocation of conservation funds under PES or REDD+ means that such programs cannot tackle the primary causes of forest loss in places such as Brazil and Mexico. One reason is that the cost of "buying off" potential investors in deforestation for mines, ranches, pulpwood monocultures, soy and biofuel plantations, golf courses, resorts, etc., is far too expensive compared to payments to less wealthy and poor landholders whose activities do far less damage to forests.

REDD+-type projects, unable to address the main drivers of deforestation, instead are distracting public and private resources and attention away from tackling the root causes of forest loss. Proto-REDD+ projects are being touted by governments from Mexico to Madagascar to Papua New Guinea and Indonesia to demonstrate their climate-mitigation contributions. Closer inspections reveal that such conservation claims often serve as a cover for forest-destroying business as usual. This is doubly dangerous at a time of commodity price booms and "reprimarization" of the economies of formerly-colonized world regions: accelerating extractivism propelled by soaring investment from Chinese and other sources in Latin America, especially, as well as in Africa and parts of Southeast Asia.

Nevertheless, the ROW report and the ARB White Paper portray REDD+ projects and jurisdictional programs as a boon to rural development and the poor. This is misleading. Targeting the poor to receive REDD+ payments is labor-intensive and costly, making this approach uncompetitive in market-oriented conservation strategies. Even the World Bank, a major early supporter and current sponsor of REDD, has warned that prioritizing the poor as recipients of payments for carbon sequestrations and other ecosystem services will undermine the efficiency and effectiveness of such programs.

It is true that some communities targeted for PES and pro-REDD projects have obtained short-term cash payments, other modest material benefits, and technical assistance from such projects. But other communities have become worse off, as I note below. If indigenous, peasant, and other low-cash-income landusers are to be compensated for their contributions for forest and biodiversity conservation as they should be there are better, more direct ways to do this. When compensation for sustainable practices depends for finance on markets in offsets, the greater part of the already-modest revenues are taken by the long chain of public and for-profit actors involved project development, capacity-building, monitoring, verification, and certification, with little left for the poor.

Literature on PES and more recently on REDD+ has documented real damages to indigenous and other local communities from these programs. In the context of increased financialization of the global economy and rising prices of food, fiber, and mineral commodities, forests and wetlands are being reconceptualized as carbon sinks and peasant farm lands repurposed as biofuel and export-crop plantations. Along with anticipation of profits from carbon-market investments, this has accelerated the processes of land grabbing and illegal or unjust acquisition of land by the economically powerful and green grabbing: expulsions of forest dwellers and small-scale farmers for ostensible environmental goals. Even where land users are not evicted, they often face reduced access to sites of cultural significance, passageways, and sources of food, forage, medicines, and shelter materials.

Projects carried out under the rubric of PES and REDD+ are already contributing to this trend, as I and others have discussed and documented in peer-reviewed publications. This, of course, is what REDD+ "safeguards" are meant to address. But the problems that generate a need for safeguards are built into the conceptualization and structure of forest-carbon offset trading from the outside.

Finally, it would behoove the ARB to beware the influence of the REDD+ "industry" itself. Undoubtedly, most of the people working on REDD+ in NGOs, government agencies in California and abroad, academia, the Governors Climate Task Force, and the myriad consulting firms are motivated by the goal of averting catastrophic global warming. This is probably also one motivation of people and firms in the growing army of for-profit carbon-credit project developers, certifiers, bankers, and brokers, and speculators. But other motives, especially profit and career growth, and the satisfaction of working on the technical aspects of the climate challenge, are also at work. Institutions and individuals such as these often develop momentum and growth ambitions only partly related, if at all, to the goal of slowing global warming. REDD+ could become self-perpetuating regardless of its actual outcomes.

The carbon-credit finance industry, through bodies such as the International Emissions Trading Association (IETA), is lobbying hard for broad expansion of offsetting "opportunities" by means of globally fungible forest and industrial offset credits that could be traded and substituted across jurisdictions worldwide. This would create more, and more lucrative work for offset-industry traders, bankers, brokers, project developers, certifiers, and other consultants. But it would also greatly expand the options for



emitting entities worldwide to delay and avoid the actions that they must be required to take for the sake of the planet and our inheritors.

And, because offset prices are so much cheaper in places where land, resources, and incomes are lower and where Ð from a global market standpoint, lives are worth less Ð allowing more offsetting in the global South would further shift the burden of coping with climate change onto the people and places least able to bear it. Although this is not what AB 32 supporters and staff intend, endorsement of tropical forest offsets by California would encourage this dangerous trend. The greatest strength of AB32 is its regulation-centered approach. It is it not primarily reliant on the shell games of cap-and-trade and offsetting, which merely shift the damages of GHG emission from one landscape and one group of people to another without achieving net emission reductions. LetÕs keep it that way.

Kathleen McAfee  
Associate Professor  
San Francisco State University

Attachment: [www.arb.ca.gov/lists/com-attach/32-sectorbased2015-ws-UTJQOVQ4VWsFZIU7.docx](http://www.arb.ca.gov/lists/com-attach/32-sectorbased2015-ws-UTJQOVQ4VWsFZIU7.docx)

Original File Name: comments on REDD+ AB32 11 16 15.docx

Date and Time Comment Was Submitted: 2015-11-16 16:29:50

No Duplicates.

## **Comment 33 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Larry  
Last Name: Lohmann  
Email Address: larrylohmann@gn.apc.org  
Affiliation: The Corner House

Subject: Comments on White Paper on Sector-Based Offsets  
Comment:

State of California  
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Air Resources Board  
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"Scoping Next Steps for Evaluating the Potential Role of Sector-Based Offset Credits under the California Cap-and-Trade Program, Including from Jurisdictional 'Reducing Emissions from Deforestation and Forest Degradation' Programs"

### COMMENTS

Just for fun, let's suppose that one day a certain office in one of the many government office buildings in Sacramento produces a State of California Staff White Paper to help the state decide what steps to take next to evaluate the possible role of a time machine industry in the development and growth of the state's economy.

The title of this imaginary White Paper specifies that time machine manufacture only has a "potential" role in California's economy. At the time of its release, no official decision has been made whether or not to go forward with the time machine project. Despite this pro forma reserve, however, the White Paper never allows itself to get bogged down in doubts about whether a time machine could actually work. Displaying a commendable and timely "Yes we can!" attitude throughout, it instead dwells on the benefits the project could bring assuming it were feasible.

Economy-wide cost savings are of course one key incentive for going ahead with the idea. Travellers to the future would be able to bring back finished blueprints for all sorts of devices and products yet to be developed, making possible enormous R&D savings. By the same token, inconvenient economic crises afflicting present-day California could be prevented by qualified time travelers twiddling with the past events that led up to them. Indeed, whole sections of the White Paper are devoted to detailing such benefits (pp. 8, 11-12, 40) and describing various threats faced by California citizens and enterprises that could be met in part through the innovation of time travel (pp. 9-11).

Nor does the White Paper neglect to mention the ways that the time machine project would help sustain California's leadership in creating models for the development of such high-concept industries worldwide (pp. 12-13). The White Paper also lists a number of added co-benefits or positive externalities that can be expected to be associated the development of a temporal displacement industry (pp. 13-15). These include favorable effects on biodiversity (retrieving the lost DNA of extinct species for cloning so that today's biomes

can be replenished), as well as the possibility of temporarily exporting convicted criminals to the future to relieve overcrowding in California's prisons.

Far from just enumerating the benefits of time travel, however, the White Paper also pays attention to the nuts and bolts of time machine development. Sensitive to both the economic importance of global supply chains and the advantages of close engagement with other governments in addressing the need for time travel, it explores the benefits of linking California's prospective time machine sector with those being developed in other jurisdictions. It notes potential for further cooperation between California and Indonesia, Ivory Coast, Nigeria, Peru, Spain, Norway and Quebec, as well as various US states (pp. 17-21), and cites already-existing memoranda of understanding with Chiapas, Mexico and Acre, Brazil. Acre's technical capabilities and enabling legal environment with respect to time-machine development are singled out for particular approbation (pp. 42-45). The White Paper also emphasizes how far technical developments in time travel have proceeded, spelling out some of the latest advances in cosmology, string theory, wormholes, and overall understanding of the space-time continuum, in the application of which California's universities play a leading role (pp. 18-22).

In accordance with California's emphasis on stakeholder participation, the process of review and consultation of which the White Paper forms a part places great importance on inviting testimony from a wide variety of experts, as well as representatives of groups who have previously been affected by the infrastructure associated with the temporal displacement sector. However, in keeping with its overall positive, can-do spirit, the policy team did not regard considerations about the impossibility of time travel to fall within the remit of the inquiry represented by the White Paper. None of the experts consulted, therefore, was polled explicitly about whether a time-machine construction project could actually be carried out. Most of those giving testimony were content with this omission and were happy simply to give their views about what their field contributes, or could contribute, to any effort to develop time travel. A few experts did depart from this format, stating that in their judgment the project would be unwise or a waste of state revenues and should be abandoned. However, these stakeholders were gently urged to rephrase their protests in terms of how best to overcome difficulties and safeguard the time machine project against the repercussions of certain inevitable problems that would arise in its implementation.

Thus the White Paper features, on pp. 40-41, a table with three columns headed "Issue", "Additional Work", and "Reason for Additional Work" (excerpts below).

| Issue   | Additional Work  | Reason  |
|---|--|---|
| Getting from singularity or wormhole theory to a working physical transport mechanism of modest size                  | Assess how researchers in other jurisdictions have addressed the issue; evaluate what counts as acceptable size                    | A time machine must be suitable in size and fittings for human passengers                                       |
| Ensuring that temporal displacement mechanisms are sufficiently accurate to deposit passengers at pre-specified dates | Determine satisfactory methodology for manufacturing and calibrating time-travel equipment to internationally-recognized standards | Efficient economic exploitation of information-exchange across temporal regions necessitates robust accuracy in |
| Time-travellers accidentally killing their own ancestors  |  |   |

Coordinate training programs for time-travellers; research and institute insurance measures  
Safeguards are essential to ensure against the sudden disappearance of the present  
Safeguards for passenger survival and health  
Select optimal mechanisms for protection against disruptions in space-time continuum; ensure the continuation of health safeguards with a monitoring, reporting, and verification system  
Economic benefits depend on the presence of humans able to to select suitable future technologies for transfer to the present; human rights concerns are also important

Under "Issue" appear entries such as "Getting from singularity or wormhole theory to a working physical transport mechanism of modest size". Since there is no column headed "Whether the Issue Calls into Question the Time Machine Development Project", the table proceeds directly to practical means for addressing the issue in question ("Additional Work"). Similarly, since there is no column entitled "Reason (If Any) for Not Doing Additional Work", the table proceeds directly from there to a column justifying the additional work.

For convenience, all testimony and references used in the White Paper are fitted into this general framework. This has a notably streamlining effect on conventional scientific reasoning. Instead of considering whether time travel technology has a role in fostering California's economic growth, the White Paper simply reinterprets scientific findings to support the assumption that it must do so. Instead of considering whether time travel is possible, the White Paper can simply assume that it is, using the procedures of *petitio principii* to optimize science's efficiency in arriving at the necessary conclusions.

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The White Paper on "Scoping Next Steps for Evaluating the Potential Role of Sector-Based Offset Credits under the California Cap-and-Trade Program" released on 19 October is, of course, completely different from our White Paper on time travel. For one thing, although imaginative, it's not imaginary.

Yet the two are similar enough that the evaluation of one can serve as a guide to the evaluation of the other. In particular, the overall approach to science that the two White Papers take is structurally identical.

The imaginary White Paper on the potential role of time machines in the California economy is organized around the assumption that human time travel is possible and. Accordingly, the paper is unwilling to countenance inconvenient science. The real White Paper on the role of sector-based offset credits in California climate policy is equally tightly organized around the assumption that such credits are capable of contributing to climate mitigation. Equally, it ignores, glosses over, or denies the science that contradicts that assumption.

Let me take two examples. The first is the way that the White Paper is compelled to deny basic facts that we know about the nature of uncertainty, in particular the distinction between history and counterfactual history. The second is the way that the White Paper is forced repeatedly to ignore the basic climatic difference between carbon emissions of fossil origin and carbon emissions of biotic origin. Either one of these scientific errors, both of which are committed pervasively throughout the White Paper, is sufficient to invalidate the paper's underlying assumption that sector-based offsets can help mitigate climate change.

Uncertainty first. Like project-based offsets, the sector-based offsets treated in the White Paper require the setting of a "reference level" or baseline of emissions. In the case of sector-based offsets, this baseline takes the form of an "emissions reduction target for the particular sector within the boundary of the jurisdiction" issuing the offset (p. 1). It is against the "Business-As-Usual" reductions specified by this baseline that "real, measurable and long-term" additional reductions must be proved to have occurred through the jurisdiction's "own efforts" if credits are to be granted and sold (p. 24). Sector-based offsets thus require that the consequences of the events of counterfactual history be calculable with a certainty and precision commensurate with those attaching to the events of actual history. To put it another way, the emissions levels actually achieved under the jurisdiction's regulation can, in principle, be specified in a single more or less precise number. So can the reductions achieved beyond this level. But in order to attribute the difference between the two numbers to the jurisdiction's additional "own efforts", it must be shown that without those efforts, a precisely specifiable level of reductions would not have taken place. That means being able to calculate numerically the difference between what did happen and what would have happened had conditions been different. As the White Paper itself puts it, because an emission reduction from a REDD program is 'additional' only if it would not have happened in the absence of the project or program, it must be determined whether the forest in question "was or is actually destined for deforestation" (p. 35). This "destiny" can be calculated, according to the REDD Offset Working Group from which the White Paper takes many of its cues, simply by extrapolating the "10-year historic average emissions due to deforestation" in a given forest area into the future (p. 24) - even though the White Paper itself hints, on p. 31, that there exist incentives to maximize credit production not only by falsifying such numbers, but also by making special, destructive interventions in forests themselves, opening the notion of such estimates to further ridicule.

The term "destined", in short, inadvertently betrays the unscientific nature of the REDD premise. The well-known FAO forester Jack Westoby put this sort of pseudo-science in its place more than 25 years ago when he noted that projecting then-prevalent US heroin-consumption trends into the future yielded the conclusion that "every man, woman and child in the US will be a junkie by 2020". Because of the "certainty equivalence" that sector-based as well as other offsets must posit between counterfactual and real history, all offset credits are necessarily scientifically bogus. To mix them with the allowances granted or auctioned under cap and trade proper is to guarantee that the hybrid that results will be unable even to achieve verifiable emissions goals, to say nothing of climate goals. What is perhaps even worse, incidentally, is that while sector offset economics requires that participating technicians pretend to be able to calculate destiny, it is only the destiny of farmers, forest dwellers and others who lie outside the circle of REDD credit-generators (project operators or partner jurisdictions (p. 25)). The latter must methodologically be treated as, by contrast, in possession of self-determination - making this pseudo-science not only pseudo but also inherently colonialist in nature. A detailed discussion of this issue, however, will have to be excluded from this particular Comment.

Second, the supposed climatic "equivalence" between carbon dioxide emissions from fossil sources and carbon dioxide emissions from biotic sources. On p. 24, the White Paper notes that measurements of carbon uptake from forest growth are "complicated" by the diversity of carbon pools within tropical forests, for example, "above-ground biomass (i.e., tree trunks, etc.) versus below-ground carbon pools (i.e., roots and soil carbon)." What the paper neglects to mention is that there is also a difference between the pools of carbon more or less locked underground in coal, oil and gas and above-ground carbon pools such as those of forests and

grasslands. While the carbon dioxide emissions from fossil fuels are chemically identical to those from burning or damaged forests, they are not climatically identical. Industrial emissions add permanently to the above-ground carbon pool circulating among forests, grasslands, the air and the surface layers of the oceans; biotic emissions do not. Furthermore, the prevention of fossil-based emissions has different knock-on effects from the prevention of emissions from biotic sources, and these differences will result in different impacts on long-term emissions trajectories and thus on global warming. With careful policy design, the prevention of fossil-based emissions can be organized in aggregate ways that contribute to a permanent shift away from fossil fuels, while, as many have pointed out, the prevention of biotic emissions is likely only to delay this necessary transition. The White Paper's persistent lumping together of the carbon dioxide from fossil fuel combustion with the carbon dioxide from deforestation and forest degradation is therefore incorrect from the point of view of climatology. The fact that this scientific mistake is repeated in the very term "REDD" that the White Paper has inherited from the United Nations and other organizations is no excuse given the high stakes involved as well as the capability of the California scientific community advising ARB to make its own independent judgments.

The confusion between fossil emissions and biotic emissions by itself invalidates the White Paper's arguments that the inclusion of sector-based REDD credits would be a climatically positive addition to California's cap and trade program. To take just three brief examples:

On pp. 9-11, the White Paper states that "reducing emissions from tropical deforestation also reduces impacts of global climate change on California". The implication is that because REDD offsets reduce "emissions", they will also reduce the impacts of climate change on California. But both the premise and the inference are false. First, REDD offsets do not reduce global molecule emissions even in those cases where a REDD project succeeds in reducing emissions from local forests. The credits from a REDD project that are sold to California greenhouse gas polluters would be designed to allow exemptions from laws that would otherwise prevent those polluters' emission of an equal number of carbon dioxide molecules; that is the *raison d'être* for REDD credits. To put it another way, the boundaries of a sector-based REDD offset program are not the boundaries of the jurisdiction that administers the program. Rather, they extend across the globe to California and include the fossil-based industries located there. Hence even in principle REDD offsets cannot reduce the impacts of climate change on California. In fact, they would be likely to worsen those impacts due both to the fact that prevention of biotic emissions cannot "compensate" for fossil emissions in climatic terms and to the fact that the lack of equivalence between counterfactual history and actual history makes the necessary measurements impossible. Second, it is misleading to say that REDD projects even reduce "emissions", even in local forest areas where they manage to be "successful". This is because any emissions from forests that REDD projects happened to prevent are different in nature from the emissions from California industries. Hence, again, the claim that the White Paper makes throughout that jurisdictional, sector-based offset credits are a cost-effective means of making greenhouse gas emissions "reductions" is unacceptable from a scientific point of view.

On p. 4, the White Paper cites estimates that emissions solely from tropical deforestation and forest degradation account for 11-14 per cent of global greenhouse gas emissions. While these molecular figures may well be correct, they do not imply that tropical deforestation and forest degradation are responsible for 11-14 per cent of global warming. That would only be the case if fossil emissions were equivalent to biotic emissions in terms of climate history, which they are not. It is thus unscientific to use such numbers to attempt to reduce the share of responsibility for

climate change that falls on the extractors and users of fossil fuels.

On pp. 39-40, the White Paper claims, in response to stakeholder concerns, that "polluters' obligations to reduce emissions will not be diminished by the potential inclusion of a REDD program". This is a confusion based, again, on the failure to distinguish fossil and biotic emissions. By paying for pollution rights generated by sector-based REDD offset programs, California industries would indeed be able to evade otherwise legally-binding obligations to reduce fossil-based emissions; that's the reason they would buy them. Yet even in the unlikely circumstance that these offset credits represented lowered biotic emissions, they would not represent lowered fossil emissions, which are, climatically speaking, a very different and far more serious thing. California polluters, who are responsible for so much social and environmental damage within the state, would therefore indeed find themselves under less obligation to address both fossil-emissions and climate-change issues.

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Attachment: [www.arb.ca.gov/lists/com-attach/33-sectorbased2015-ws-Uj5QOVI7BDpRNIQ6.pdf](http://www.arb.ca.gov/lists/com-attach/33-sectorbased2015-ws-Uj5QOVI7BDpRNIQ6.pdf)

Original File Name: LOHMANN COMMENTS ON WHITE PAPER.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:48:02

No Duplicates.

**Comment 34 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Amy

Last Name: Vanderwarker

Email Address: amy@caleja.org

Affiliation: California EJ Alliance

Subject: : ARB's proposal to include international, sector-based offset credits in cap-and-trade  
Comment:

Please see the attached comment letter on the Working Paper on expanding the international forest offsets. Thank you very much,  
Amy Vanderwarker

Attachment: [www.arb.ca.gov/lists/com-attach/34-sectorbased2015-ws-BmUCYVM4BzVWMwRr.pdf](http://www.arb.ca.gov/lists/com-attach/34-sectorbased2015-ws-BmUCYVM4BzVWMwRr.pdf)

Original File Name: CEJACCommentLetter-REDD FINAL.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:44:47

No Duplicates.



**Comment 35 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Daniel  
Last Name: Nepstad  
Email Address: dneptad@earthinnovation.org  
Affiliation: Earth Innovation Institute

Subject: Comments on Sector-Based Offset White Paper  
Comment:

Dear California Air Resources Board Members,

Earth Innovation Institute (EII) would like to first congratulate the California Air Resources Board (ARB) and its staff on continuing the regulatory process to bring offsets from reduced emissions in deforestation and forest degradation into California's Cap and Trade Program. EII works actively in many of the jurisdictions that are members of the Governors' Climate and Forests task force (GCF), where deforestation is the largest source of emissions. These states and provinces are developing some of the most ambitious climate change programs in the world, and their joint commitment through the Rio Branco Declaration could represent a total of 4.4 Gt of avoided CO<sub>2</sub> emissions by 2030. Many of the states have already achieved enormous reductions in deforestation, but have so far received very little recognition or financial support. The program proposed by California sends a critical signal to these regions that their efforts to reduce deforestation are recognized and valued, as a necessary component of the global effort to mitigate climate change.

Our staff participated in the workshop on October 28th and has reviewed the associated whitepaper, and we are impressed with ARB's rigorous consideration of technical structures necessary to implement this program. I participated in the REDD+ Offset Working Group, and EII is supportive of ARB's review of the ROW Recommendations and intention to build on these frameworks to deliver high-quality, compliance-grade offsets into the Cap and Trade Program. We believe that the process laid out by ARB in the workshop and White Paper will ensure the atmospheric integrity of California's program, provide critical social and environmental safeguards, and support continued development of low-emission rural development strategies in the tropics. California is a global standard-setter in environmental regulation and climate action, and this program is yet another example of that leadership.

We agree that there is great value in moving this process forward in time of the third compliance period of the Cap and Trade Program. We look forward to continuing to participate in the public process to finalize these regulatory frameworks, and would like to offer our support.

Sincerely,  
Dr. Daniel Nepstad  
Executive Director, Earth Innovation Institute

Attachment: [www.arb.ca.gov/lists/com-attach/35-sectorbased2015-ws-UjMAdABjV2hRMgZy.pdf](http://www.arb.ca.gov/lists/com-attach/35-sectorbased2015-ws-UjMAdABjV2hRMgZy.pdf)

Original File Name: ARBletter\_EII.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:51:03

No Duplicates.

**Comment 36 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Peter  
Last Name: Mach  
Email Address: pmach@coderedd.org  
Affiliation: Code REDD

Subject: Comments from Code REDD  
Comment:

Please find Code REDD comments attached.

Attachment: [www.arb.ca.gov/lists/com-attach/36-sectorbased2015-ws-WjtRJVIxAg4Ccwdv.docx](http://www.arb.ca.gov/lists/com-attach/36-sectorbased2015-ws-WjtRJVIxAg4Ccwdv.docx)

Original File Name: ARB White Paper Code REDD Response .docx

Date and Time Comment Was Submitted: 2015-11-16 16:40:47

No Duplicates.

**Comment 37 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Arjun  
Last Name: Patney  
Email Address: arjun.patney@winrock.org  
Affiliation: American Carbon Registry

Subject: REDD Sectoral Offsets  
Comment:

Thank you for the opportunity to comment. Please see attached.

Regards,  
Arjun Patney  
Policy Director  
American Carbon Registry

Attachment: [www.arb.ca.gov/lists/com-attach/37-sectorbased2015-ws-BmdTNIQnAw8DaQBl.pdf](http://www.arb.ca.gov/lists/com-attach/37-sectorbased2015-ws-BmdTNIQnAw8DaQBl.pdf)

Original File Name: ACR letter to ARB on Potential for Sector-based Offsets.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:57:30

No Duplicates.

**Comment 38 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Rick

Last Name: Saines

Email Address: richard.saines@bakermckenzie.com

Affiliation: Baker & McKenzie LLP

Subject: Comments of Encourage Capital in Support of REDD

Comment:

Please See Attached Comments

Attachment: [www.arb.ca.gov/lists/com-attach/38-sectorbased2015-ws-VjNQOANhBTISIQZ0.pdf](http://www.arb.ca.gov/lists/com-attach/38-sectorbased2015-ws-VjNQOANhBTISIQZ0.pdf)

Original File Name: Encourage\_\_Public\_Comments\_to\_CA\_REDD+.pdf

Date and Time Comment Was Submitted: 2015-11-16 16:56:52

No Duplicates.

**Comment 39 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Tracey  
Last Name: Osborne  
Email Address: [tosborne@email.arizona.edu](mailto:tosborne@email.arizona.edu)  
Affiliation: University of Arizona

Subject: Comments on California's cap and trade program and REDD+  
Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/39-sectorbased2015-ws-VzgFcARnU29RJVM9.zip](http://www.arb.ca.gov/lists/com-attach/39-sectorbased2015-ws-VzgFcARnU29RJVM9.zip)

Original File Name: Osborne\_Comments.zip

Date and Time Comment Was Submitted: 2015-11-18 08:27:18

No Duplicates.

**Comment 40 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Claire

Last Name: Halbrook

Email Address: CEHU@pge.com

Affiliation: Pacific Gas and Electric Company

Subject: PG&E Sector-based Offsets Workshop

Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/40-sectorbased2015-ws-VWcANgY2AmQLUIVk.pdf](http://www.arb.ca.gov/lists/com-attach/40-sectorbased2015-ws-VWcANgY2AmQLUIVk.pdf)

Original File Name: 2015\_11 PGE Final Sector Based Offsets Comments.pdf

Date and Time Comment Was Submitted: 2015-11-18 08:54:43

No Duplicates.

**Comment 41 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Almir  
Last Name: Surui  
Email Address: almirsurui@gmail.com  
Affiliation:

Subject: Sector Based Offset Credits Comments  
Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/41-sectorbased2015-ws-BnVRMIY0AyRSOwd1.pdf](http://www.arb.ca.gov/lists/com-attach/41-sectorbased2015-ws-BnVRMIY0AyRSOwd1.pdf)

Original File Name: Sector Based Offset Credits Comments.pdf

Date and Time Comment Was Submitted: 2015-11-19 10:11:14

No Duplicates.



**Comment 42 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Monica

Last Name: Lopez

Email Address: monica.lopez@jalisco.gob.mx

Affiliation:

Subject: Comments from Chiapas and Jalisco, Mexico

Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/42-sectorbased2015-ws-VTIQP1MwBCUFbAhX.pdf](http://www.arb.ca.gov/lists/com-attach/42-sectorbased2015-ws-VTIQP1MwBCUFbAhX.pdf)

Original File Name: Libro Blanco ARB - comentario GCF MX\_E.pdf

Date and Time Comment Was Submitted: 2015-11-20 09:05:52

No Duplicates.

**Comment 43 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

This comment was posted then deleted because it was unrelated to the Workshop item or it was a duplicate.

**Comment 44 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Marvin

Last Name: Sotelo

Email Address: secretariatecnica@alianzamesoamericana.org

Affiliation:

Subject: Sector Based Offset Credits Comments

Comment:

Please See attached comments

Attachment: [www.arb.ca.gov/lists/com-attach/44-sectorbased2015-ws-VTlcPwF0VHNRMGfz.pdf](http://www.arb.ca.gov/lists/com-attach/44-sectorbased2015-ws-VTlcPwF0VHNRMGfz.pdf)

Original File Name: Letter to the CA-ARB eng.pdf

Date and Time Comment Was Submitted: 2015-11-23 11:38:43

No Duplicates.

**Comment 45 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Erica

Last Name: Smith

Email Address: erica.smith@terrarglobalcapital.com

Affiliation: Terra Global

Subject: Comments on the ARB Staff White Paper

Comment:

Please see attached comments.

Attachment: [www.arb.ca.gov/lists/com-attach/45-sectorbased2015-ws-AXVUNwNwWHlQNwdY.pdf](http://www.arb.ca.gov/lists/com-attach/45-sectorbased2015-ws-AXVUNwNwWHlQNwdY.pdf)

Original File Name: Terra Global Comments to ARB REDD White Paper Nov 2015 v1-0.pdf

Date and Time Comment Was Submitted: 2015-11-23 14:12:59

No Duplicates.

**Comment 46 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Joey

Last Name: Martinelli

Email Address: joey@wspa.org

Affiliation: Western States Petroleum Association

Subject: WSPA Comments on ARB's Evaluation of Potential Sector-Based Offset Credits  
Comment:

Please see attached comments

Attachment: [www.arb.ca.gov/lists/com-attach/46-sectorbased2015-ws-Wi1QJQd2UWMLUgZl.pdf](http://www.arb.ca.gov/lists/com-attach/46-sectorbased2015-ws-Wi1QJQd2UWMLUgZl.pdf)

Original File Name: WSPA Comments on ARB's Evaluation of Potential Sector-Based Offset Credits.pdf

Date and Time Comment Was Submitted: 2015-12-14 09:56:36

No Duplicates.

## **Comment 47 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Lauren

Last Name: Withey

Email Address: [lwithey@gmail.com](mailto:lwithey@gmail.com)

Affiliation: University of California, Berkeley

Subject: Comments on Sector Based Offset Credits

Comment:

I am a Ph.D. student in UC Berkeley's Environmental Science, Policy, and Management program, where I study REDD programs. My fieldwork takes place on the Pacific coast of Colombia, where USAID is supporting a large-scale REDD+ project among Afro-Colombian and Indigenous communities.

I am concerned about California's interest in including international offsets in AB32 because REDD poses a risk to the people in the communities involved, will be more costly than presently recognized, and is likely to pose a serious threat to the legitimacy of the entire AB32 effort.

As you have already received much feedback on the white paper, I will focus my comments on the elements of concern that I see most clearly in my own fieldwork.

To offer a little context, the region where I work is made up of some of the wettest and most biodiverse tropical forests in the world, on the Pacific coast of Colombia. Most of the land has been granted to Afro and indigenous communities in collective land titles over the last 20 years as part of Colombia's 1991 Constitution, which focused on pluriethnic rights. USAID has been working in the region for many years through a sequence of projects, all of which have involved some "alternative development" efforts, whether as an alternative to deforestation or to coca growing - or both.

In 2011, USAID began a program called BIOREDD+ in the region. It aimed to incorporate one million hectares of land under collective title in the Pacific into a series of REDD+ projects that would offer alternative, sustainable development and the promise of funding via carbon credits down the road in exchange for reduced deforestation. The program also now incorporates some projects of reforestation on land destroyed by gold mining. Presently, 19 communities are involved in projects that have been validated, and are entering an 18 month phase in which they are aiming toward project verification that could allow them to begin generating carbon credits and receiving funding on the voluntary market. I want to be clear that the program is not, to date, part of any jurisdictional REDD effort, though this would be the aim as Colombia further develops its program.

Other than the jurisdictional issue, however, this program would seem to be an ideal REDD project in many ways: USAID has a long history in the region and knows the communities well; the projects are taking place on collectively titled lands where processes of free, prior, informed consent are required under law and have been observed in the four-year development of these projects; and the communities are not being asked to take on the expensive technical costs of REDD, but can rather rely on USAID to fund carbon measurements and complex social, economic, and ecological analyses required for determining deforestation projections. Indeed, USAID

invested some \$26 million over the first four years of the program to get to the point of validation.

My time in the field suggests that this program, however, suffers from some major challenges, many of which much other research confirms are not unique to the Colombian context.

The BIODREDD+ program, like REDD as a whole, is clearly the result of a kind of magical thinking about "development" that has yielded remarkably few encouraging results over the last fifty years, and indeed has resulted instead in a well-documented series of perverse consequences. The idea is essentially that if the "developed" world can give enough money and technical support to some entity in the "developing" world, a desired result can be realized. The politics of REDD in the international climate change context are such that many have set aside these decades of experience in a naively hopeful view that somehow this time will be different, that with enough hand-holding by UN-REDD and the Green Climate Fund toward readiness and enough emphasis on safeguards, that the wide-ranging goals of REDD+ are realizable.

I will not attempt to summarize here all of the problems with these assumptions, but a few are worth bearing in mind in the context of REDD. First, the local level where REDD projects are taking place have just as many political and personal complexities as those places that are trying to pay them to offset their own emissions. The main difference is usually that what is in law in these places has little bearing on what actually occurs on the ground. A solid primer on what this means in the field is James Ferguson's *The Anti-Politics Machine* of 1991.

In my field work, there are community leaders that have accepted REDD on behalf of the community because they think the funding associated with it from USAID can bring some temporary jobs (including for them and their families), but they have little belief that they will be able to have any impact on deforestation. This is because, though they have title and officially are supposed to have control over the territory granted them by the state, many armed outsiders live from entering their territories and cutting wood. Additionally, they are understandably loathe to take away one of the only livelihoods of their community - a community where most live on less than \$2 a day. It would be wonderful if USAID money could pay for some extra boats for those who cut wood to also fish, or to teach them to plant and harvest cacao, but few are likely to leave timber harvesting if it is more lucrative in the immediate and is what they have done their whole lives. In an area where, as in many parts of the world, those fighting on behalf of clean water and intact forests have been killed for their work, leaders are also very cautious about confronting the armed actors that are financing these activities or taking wood out themselves. As in many forest regions around the world, there is also little capacity or will for enforcement by state actors, who are also risking their lives - and those of their families - if they decide to take action. In the communities where I work, the "state" is generally seen as providing little and, when it does enter, as either providing goods that unneeded, putting restrictions on their traditional ways of life, or threatening the communities by putting them in the middle of battles between the military and the armed actors.

There are instances of community leaders in this region deliberately keeping certain members of the communities in the dark about development projects in order to save the benefits for their supporters or friends - they become their own personal pork projects, in other words. As a result, though these projects have all technically gone through an FPIC process, it is hard to find people outside of the leadership board who actually have heard of REDD or know what it is. When people do know what REDD is, they describe it consistently to me as the project where "gringos come to take out oxygen."

Yet such an interpretation of REDD can hardly come as a surprise. Not only is there a long history of gringos and Europeans taking key resources from this region, but REDD is extremely challenging to understand, even for those with Master's and Ph.D.'s who have worked in the field for years - it is a small wonder there is suspicion around it. Even where well-educated leaders have really tried to bring the whole community in to understand what REDD is about, it is hard to find a community member who can explain climate change or what trees have to do with it. Trees and the territories they are on have a very different meaning for them than what REDD applies to them. While FPIC is therefore an important step in concept, it is laughable to suggest that everyone in these communities, many illiterate, almost none having surpassed high school, are going to be capable of giving informed consent on REDD and all of the highly technical elements that accompany it.

Additionally, this extreme complexity of REDD comes with high costs. As noted, USAID spent \$26 million on BIOREDD over four years, and yet there is almost nothing to be seen on the ground for it today. Many have noted changing beliefs about REDD+ internationally - how, encouraged by very limited assessments like those of McKinsey and Nicholas Stern, it was initially seen as this cheap, quick bridge to reduce warming while the gritty question of industrial emissions was being sorted out at national and international scales, and how upon implementation attempts, the complexities and additional costs began to expose the ridiculousness of this initial, poorly calculated notion (see the Global Landscapes Forum). That there is cautious optimism around REDD today seems true, and seems to be where the ARB is presently. I would suggest that this optimism is not only naïve, but distracting and expensive, and therefore an actual threat to making real progress on climate change mitigation. These costs assume that having the right policies in place in these developing countries, coupled with enough money to actually replace benefits from cutting wood, can make REDD viable. What decades of experience shows is that laws on the books mean remarkably little on the ground, and that the money will probably not be used to replace these activities. If they do in one place, leakage is very likely to result. In the region I am working in, such leakage is seen most obviously in the illegal mining industry. Where the state comes in to crack down on one major mining spot, one shortly thereafter finds new mining projects spread around into nearby river basins. Whac-a-mole is an apt metaphor for this situation - with a slow-reacting "whac-er," using a broken mallet, who probably has some benefactors in the mole community in charge.

Local suspicion about REDD, and differing views on REDD within these communities can also be highly divisive. REDD, if actually implemented as in project design documents, would almost always carry high costs for some and changes in access to resources. It may also lead to violence and fear where, as noted earlier, leaders are asked to put their lives on the lines to halt deforestation in their communities. Whether this atmosphere of division and threat is conducive to achieving real, permanent deforestation reductions is an important question. At the same time,

Another central question about REDD's effectiveness over the medium term is whether REDD really addresses the biggest drivers of deforestation, and it emerges in the context of my field site. As I have suggested above, REDD in the context of my communities is aimed at getting some of the poorest, most disenfranchised members of Colombian society, to spend time and effort to stop one of the most lucrative activities available in their community, a community which still has one of the richest forests in the country. At the same time, across most of Colombia's Andes, huge swaths of previously forested lands are now home to pastures that house a few trees and a few cattle, owned by some of the wealthiest people in the nation. Much of the wealth of these individuals has come from a long history of extractivism from these Afro and indigenous lands -



often using the slave labor of Afro and indigenous people - and from deforestation and concentration of lands in the Andes region. This relatively poor use of land to benefit the few has therefore been the biggest driver of deforestation in Colombia historically. There have also been big companies, some foreign, some Colombian, which have been responsible for the biggest deforestation in the Pacific - this extraction was actually one of the main impetuses for Afro community organization to fight for collective title to their territories. More recently, there are other key drivers of deforestation, such as palm oil and rubber production (also funded by USAID), coca movement into forests in order to hide from fumigation planes (another US-funded project), mining, and sprawl.

But the Afro and indigenous communities, many of which have no potable water or basic sanitation facilities, have clearly benefitted little from whatever wealth is created from these deforestation drivers, and their individual impacts on the land have been relatively few. That is not to say that there is not cutting of trees on their land, or to fall into the "ecological native" narrative common in this field, but simply to question whether asking them to not use their resources for their benefit, or to put their heads on the line to halt all deforestation on their territories, is fair given the history of and current main drivers of deforestation in the country. If they put in a lot of effort to stop deforestation and develop carbon credits on their land, they still face threats from the outside that they have little control over because of the realities of economic power in their country. If the state looks the other way while a business comes into the Afro territories again uninvited and begins cutting their trees again - a very real scenario that has occurred on multiple occasions - it is the community that suffers as a result, that loses valuable credits or must put a greater portion of every credit into the kind of insurance pool that the white paper describes.

This question of equality in the REDD debate applies, obviously, in the context of offsets in general - is it right for the gringos who have so long benefitted from industrialization and the cheap exploitation of resources from these developing countries to ask these communities to not have the right to benefit in the same ways? The idea that money for alternative development is equivalent to what they might do with these trees or this land is one of the great falsehoods behind REDD, and is frankly offensive to those who desire sovereignty over their lands.

There is much more I might say - about fundamental problems with additionality, perverse incentives in the certification process, and the near-impossibility of effectively assessing leakage - but I believe this gives you a sense for some of the ground-level realities that come to bear in REDD. Even in the most well-run of jurisdictional REDD programs, I believe ARB is likely to encounter some of these challenges. I fear that to really do this well, as is suggested in the White Paper, ARB is going to have to be far more engaged than it has the resources to be, and that such engagement raises important sovereignty issues. The challenges in international REDD cannot be equated to work with Quebec or work on domestic offsets. The forests that REDD is most focused on are in extremely different legal, cultural, and historic contexts - not only from Quebec and the US, but from one another. The idea of creating tradable credits out of these extremely complex, unique, and often highly volatile political and economic contexts is one that is highly problematic, and one which I fear will cost ARB, the world, the people of the communities involved, and the people of California far more than is presently recognized in the White Paper.

I am happy to talk more about any of these points, or any other aspects of REDD I have not had the opportunity to cover in this brief summary of what I am finding. I am also happy to provide more good resources about early REDD pilots and what we might learn for

REDD from past conservation and development experiences. Thanks for considering these thoughts. As a Californian, I want us to continue to be a leader in the climate change fight, and I hope that these experiences will help us to do so.

Best regards,

Lauren S. Withey  
University of California, Berkeley  
Environmental Science, Policy and Management

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-12-18 12:36:14

No Duplicates.

**Comment 48 for Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) - 1st Workshop.**

First Name: Joanna  
Last Name: Durbin  
Email Address: [jdurbin@climate-standards.org](mailto:jdurbin@climate-standards.org)  
Affiliation:

Subject: . Comments on Scoping Next Steps for Evaluating the Potential Role of Sector-based  
Comment:

See attached.

Attachment: [www.arb.ca.gov/lists/com-attach/48-sectorbased2015-ws-VCYAYwFkV2BSC1cI.zip](http://www.arb.ca.gov/lists/com-attach/48-sectorbased2015-ws-VCYAYwFkV2BSC1cI.zip)

Original File Name: REDD+ SES International Review for Acre ENG.zip

Date and Time Comment Was Submitted: 2016-01-27 13:51:51

No Duplicates.

**There are no comments posted to Comment on the potential for international, sector-based offset credits in the Cap-and-Trade Program (sectorbased2015-ws) that were presented during the Workshop at this time.**