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RE: Comments on Scoping Plan draft – In support of a smaller carbon offset program and not adopting a credit-based REDD program

Dear ARB staff and board,

Thank you for the multiple opportunities to comment on the draft scoping plan. Thank you also for your hard work and tenacity taking on substantial greenhouse gas emissions targets and the policies to achieve them. At this political moment I feel very lucky to live in California, in large part because of the strong policies California has adopted.

These comments focus on California's offset program and support ARB's decision to substantially shrink the size of the program.

If the 8% offsets limit were to continue through 2030, offsets would remain a substantial portion (around one third) of the state's efforts to reduce emissions toward its 2030 target and could make up all of the reductions that would occur directly by the cap-and-trade program.

These reductions from California's offset program are inherently uncertain; some amount of over-crediting is very likely, and it is possible that a large portion of credits generated do not represent real additional reductions. Most of ARB's offset protocols target project types that were being built to some extent without offset credits. Such business-as-usual (BAU) projects are non-additional but qualify to participate in ARB's protocols. The effects of many technology support programs, including utility efficiency programs, are assessed using net-to-gross ratio analysis, which is used to estimate the proportion of projects participating in an incentive program that were actually enabled by the incentive program. ARB, however, does not assess the proportion of offset projects that are additional. The failure to include such an analysis means that a non-zero but unknown portion of projects generating credits under the various protocols are non-additional. Further, it can be difficult to discern the effect of the incentive of the protocol on new project development from what would have happened without the incentive. Even when a net-to-gross ratio analysis is performed, an inherent challenge of offsets is that they allow a known quantity of emissions to be emitted above the cap in the capped sectors to be offset with an uncertain quantity of reductions outside of the cap.

A second challenge inherent to offsets is that they can create perverse incentives that can inadvertently lead to emissions increases. By paying for reductions, offsets create a new source of profits for facilities that emit greenhouse gasses. This can create an incentive to increase emissions in order to decrease them, such as by improving the economics of high emitting activities like coal mining, or by creating disincentives for other governments to regulate emissions. These perverse incentives mean that offsets can cause more harm than good.

The risk of over-crediting and harm is much greater with international REDD programs. These risks include displacement or dispossession of forest communities which has been widely documented with pilot REDD projects and programs, leakage of deforestation to areas outside of the REDD project, crediting business-as-usual reductions in deforestation rates, crediting incremental changes in deforestation rates that only postpone deforestation rather than address the long-term drivers of deforestation, double counting across multiple funding sources, creating a weak precedent for international cooperation under the Paris Agreement by allowing two obligations to be traded off of one another – reducing emissions and supporting emissions reductions in poorer countries, and increasing volatility in the state's carbon market. Policies that avoid these risks and meaningfully lead to long-term permanent carbon storage and positive outcomes on local communities are difficult to assess from far away. While supporting jurisdictions that meaningfully reduce tropical deforestation is tremendously important for carbon, biodiversity, and livelihood reasons, a program that trades reductions in the global North for an uncertain quantity of reductions in tropical deforestation weakens climate mitigation efforts and risks harm to forest communities. Instead, we need an agile funding program based on a deep understanding of what is happening on the ground and the ability to adapt the funding program to that understanding, combined with reducing the largely international drivers of deforestation, to make a positive difference in tropical deforestation and in global greenhouse gas emissions.

Offsets also weaken ARB's efforts to design a model climate policy in several other ways. So far, offsets have allowed the price of carbon created by California's cap-and-trade program to remain far below both the social cost of carbon and levels needed to drive meaningful reductions. California's expectation of a substantial use of offsets to meet the 2020 and 2030 targets have also weakened California's potential to demonstrate a vibrant, low-carbon economy on a solid path towards close-to-zero emissions that are needed in all areas of the world by 2050.

One possible alternative cost-containment mechanism that could replace offsets in full or part would be to make allowance credits available at a ceiling price level, expanding the existing containment reserve system. The funds generated could then be invested in a wide range of activities that reduce emissions, which could possibly include technologies and activities currently targeted by the offset program.

Below I expand on these points, drawing from previous comments submitted.

1 The 8% offset limit is a large proportion of reductions required in California

If the offset limit were to continue to equal 8% of emissions through 2030, the limit would equal around one third of cumulative reductions required in California during 2021 to 2030. It would be more than the total reductions expected to result from the price of carbon created by the cap-and-trade program itself.

The 8% offsets limit equals a large portion of total reductions expected through 2020, and would continue to be a large portion of reductions if extended through 2030. While "8% of compliance obligations" might not sound like a large quantity, it is important to remember that an emitter's compliance obligation equals its total emissions (not the required reductions) since each emitter has an obligation to hold allowance or offset credits equal to its total emissions.

For 2021 to 2030, ARB estimates that the total reduction needed in California as 680 million tonnes of CO_2-equivalent ($MTCO_2e$).[1] If the maximum limit on the use of offsets continues to be 8% of compliance obligations, and if the cap were to cover 77% of California emissions (as is expected in 2020) and decline linearly from 2020 to 2030, then maximum offset use would equal almost a third of all California-wide reductions needed in that period. The quality of the credits generated under the offset program would play a large role in determining the success of California's efforts to reduce emissions.

Through 2030, ARB expects other core measures (complementary measures) to achieve 490 MT CO2e in cumulative reductions and the cap-and-trade program to achieve the remaining 191 MT.[2] An 8% maximum allowed use of offsets would equal more than the total reductions expected from the cap-and-trade program itself.

Similarly, during 2013 to 2020, assuming that no containment reserve credits are used, the 8% offset limit equals around half of total cumulative reductions, and more than the total reductions expected directly from the price of carbon created by the cap-and-trade program.[3]

2 The quantity of reductions resulting from California's offset program is uncertain and most likely higher than reductions achieved

Under the UN's offset program—the Clean Development Mechanism (CDM)—the majority of participating projects is understood to not represent real additional emissions reductions. While California has adopted a more promising approach to offsets, the challenges that so weakened the CDM are fundamental risks for any offset program, including California's. Offsets replace certain

1 January 2017 draft Scoping Plan
2 Figure II-2 of the January 2017 draft Scoping Plan.
3 See Haya, B. 2013. California's carbon offsets program - the offsets limit explained, http://bhaya.berkeley.edu/docs/QuantityofAB32offsetscredits.xlsx, for detailed calculations.

reductions under the cap with an uncertain amount of reductions outside of the cap. The quantity of reductions resulting from an offset program is uncertain for two main reasons.

First is additionality. Under the CDM, the majority of projects generating credits are most likely non-additional (Haya 2009). Instead of reducing emissions in developing countries the majority of CDM offset funds paid project developers to build projects they were already building. While the CDM certainly did have some influence on project development, its effect on emissions was only a portion of the reductions claimed and credited (Haya 2009, He & Morse 2010, Wara 2008). This means that countries and companies exceeded their emissions limits, but without reducing equivalent emissions elsewhere, weakening countries' Kyoto Protocol targets.

ARB has decided to address additionality with a common practice test. Only project types that are not common practice are allowed to participate. Even if the project types are not common practice, most of the protocols ARB adopted credits activities that were already being built each year on their own before the offset program was implemented. Going forward, new projects that would have been built regardless of California's offset program can now generate credits.

To assess the effects of a program supporting the deployment of a technology, it is common for program evaluators to estimate the portion of total technology deployment due to the program, taking into account the amount of development that would likely have occurred without the support program. In utility-run efficiency programs this is called net-to-gross ratio assessment. ARB is not performing such an analysis, and instead assumes that all projects registered under its offset program would not have happened without the offset income (are additional), an assumption that is unrealistic since most project types were being built without offsets before California's offset program. ARB is therefore allowing the generation of credits from some portion of non-additional activities, an amount of over-crediting that has not yet been assessed.

California's Forest Projects, Livestock Projects, Mine Methane Capture Projects, Rice Cultivation Projects, and Urban Forest Projects protocols credit activity types that were already occurring to some extent without the offset program. The annual rate of implementation of livestock digesters in the United States decreased rather than increased since California's livestock protocol was adopted. Without assessment of the industry, the net effect of the program on project development is wildly uncertain. California's Forest protocol allows forest owners of forests holding more than the average for the forest type to generate offset credits. But approximately half of all US forest land holds more than the average already. One assessment of the Forest protocol suggest that the protocol is more likely to reward forest owners who are already managing their lands to hold more than average carbon rather than to change land management decisions (Kelly & Schmitz 2016).

Even if ARB were to perform a net-to-gross ratio assessment of the effect of the offset program on emissions, such an assessment is not very accurate. Inherently, offsets allow for a known quantity of emissions to be emitted above the cap in the capped sectors, in exchange for an uncertain amount of reductions outside of the capped sectors.

3 Offsets can create perverse incentives to increase emissions

A second risk posed by offsets is that providing a new source of profits for specific project types eligible for offset sales could create perverse incentives that lead ultimately to emissions increases. For example, due to the very high global warming potential of HFCs, the CDM created the incentive for refrigerant manufacturers to produce more refrigerants than they otherwise may have and in a less efficient manner, so they could maximize the amount of HFC byproduct they destroyed for large offset profits (Wara 2008, Schneider & Kollmuss 2015). Under California's offset program, there is a potential for California's offset program to create profits large enough to change business decisions in the facilities implementing the projects. When the underlying products, like coal and livestock, are more emissions intensive than their alternativesthe offset program can thus lead to net increases in emissions. For example, the profits from the sale of offsets from the flaring of methane and the country's gassiest mines could potentially be large enough to allow a struggling mine to remain open longer than it otherwise would have (Haya et al. 2015). As another example, we understand that the U.S. Bureau of Land Management has been taking California's offset program into account in their decision whether and how to regulate or incentivize methane capture from coal mines on federal lands.[4] Since regulation requiring such capture would prevent regulated mines from participating in California's mine methane capture protocol (a technology that is required by law can not be considered additional), California's protocol may result in a weakening of federal regulation compared to what would have happened without the offset program. These potential effects are inherent to offsets, could have a deleterious effect on emissions that can be hard to identify and quantify.

In sum, the reductions of any offset program are uncertain due to uncertainty in the proportion of non-additional projects. In addition, offsets could risk generating profits large enough to increase production of high emitting products. These effects are hard to accurately assess and prevent. Allowing offsets to meet a large portion of California's reduction target puts into question whether California has met its target.

4 Carbon prices need to be higher to drive substantial reductions and to reflect the social cost of carbon

The main function of offsets is cost containment. But to drive reductions, allowance prices need to rise. A number of modeling studies predict that carbon prices could need to rise well above $50 per tCO_2e for the carbon price itself to make a substantial contribution towards meeting California's 2030 target (Borenstein et al. 2014, Regional Economic Models Inc. (REMI) 2014, McCollum et al. 2012).

Also, the cost on society for each tonne of carbon dioxide-equivalent emitted (the social cost of carbon) is much greater than today's allowance prices. Three integrated assessment models have been used to estimate the global social cost of carbon. The average values they have generated, using

4 This statement was made during a public presentation: BLM update on Waste Mine Methane given by Mitch Leverette/Bill LaSage, Bureau of Land Management, at the 2014 U.S. Coal Mine Methane Conference, held by the US Environmental Protection Agency's Coalbed Methane Outreach Program, November 18-19, 2014, Pittsburgh, PA.

different discount rates, range from $12 to $128 per tCO_2e (US Environmental Protection Agency 2013 (revised 2015)). The actual social cost of carbon in California should be higher than these values for two reasons. First, these values only include damages that were monetized by the models and leave out important damages that have not yet been monetized (effectively treating these damages has having zero cost). Examples of damages left out of the models are the effect of climate change on conflict and the effect of ocean acidification (Anthoff & Tol 2013). Second, the value of life and wellbeing of a poor person are considered by these models to be less than the value of a wealthy person's life. This is because sickness or mortality of a poor person has less absolute impact on global GDP than that of a wealthy person. The ethical challenge of treating different people's lives and wellbeing as having different value while assuming the cost per tonne CO_2 they emit is the same can be remedied with an equity-weighted social cost of carbon. Under an equity-weighted model, the social cost of carbon would be higher for countries with greater per capita wealth, better reflecting the different value of money in different countries. One of the three models (FUND) was run with such equity weighting. Under this run, the social cost of carbon in the United States was two to eight times higher than the non-equity weighted estimate, depending on the equity principle used (Anthoff & Tol 2010).

5 California can play an important role globally as a wealthy advanced economy that reduces emissions substantially through 2030; a large offset program would weaken our policy's value as a model

Around the world, jurisdictions need to reduce emissions substantially and quickly. Putting our global warming law in the context of the international climate agreements, wealthy countries have a dual obligation to reduce their own emissions, and to support reductions in poorer countries. California has the potential to implement a model set of climate policies and demonstrate how a wealthy advanced economy can substantially reduce its emissions. If we meet a large portion of our reductions by buying offset credits that represent a questionable amount of reductions from out-of-state, the message we are sending to the rest of the world is that a low carbon economy reflecting the reductions needed to keep global temperatures in a range considered relatively safe is too expensive.

6 ARB should not consider adopting a credit-based REDD program

Overall, a credit-based REDD program as California proposes comes with high risk of generating credits without actual permanent reductions, of making California partially responsible for harm to forest communities, and of increasing volatility in the state's carbon market. Alternative methods of supporting reductions in tropical deforestation would likely be more effective and involve less risk.

POOR RESULTS FOR FOREST COMMUNITIES AND THE WEAKNESS OF SOCIAL & ENVIRONMENTAL SAFEGUARDS

REDD is being considered for implementation in forest areas where people live, following, in most forested areas of the tropics, a long history of contested extraction and displacement and

dispossession of communities living in the forests (Larson & Ribot 2007). When programs are implemented in the context of large imbalances in wealth and power, more likely than not, those who are better able to capture the program benefits will, at the expense of those less able to. So the outcomes of REDD projects and programs so far are not surprising.

Case studies from over the world have documented how REDD programs have lead to displacement and dispossession of forest communities, in Brazil, Cameroon, Ethiopia, Indonesia, Laos, Madagascar, Nigeria, Tanzania, Vietnam and elsewhere (e.g. Ingalls & Dwyer 2016, Corson 2011, Pokorny, Scholz & de Jong 2013, Kelly & Peluso 2015, Beymer-Farris & Bassett 2012, McElwee 2016, Asiyanbi 2015, Osborne, Bellante & Hedemann 2014). These studies and others document how REDD policies often do not address the main drivers of deforestation, like beef, soy, and timber harvesting, but instead target small holders, which is politically easier. This has led to restrictions of their traditional and livelihood uses of the forest, while REDD benefits go to larger players (e.g. Osborne et al. 2014, Ingalls & Dwyer 2016). Creating new conservation areas also often involves dispossession of forest communities (e.g. Kelly & Peluso 2015, Corson 2011). Even in Acre, indigenous communities have blamed the government for inadequate consultations, forced dispossession (restricted use of the forest for subsistence agriculture), and violence against those protesting the REDD program (Faustino & Furtado 2014).

Some of these studies describe jurisdictional REDD programs which involve multiple programs and government policy (Acre, Brazil; Cross River State, Nigeria) and some of these studies describe REDD projects of the type that are expected to be a part of an expanded jurisdiction-wide REDD strategy, like the establishment of conservation areas, or projects that pay farmers to change their land use practice. Therefore, the types of negative outcomes documented in these studies are relevant to California's proposed jurisdiction-scale REDD program.

Mandated social and environmental safeguards can improve program outcomes but often fail to avoid harm and achieve the listed requirements (prior and informed consent, etc.). This is due to the subjectivity involved in carrying out the policies and evaluating a project against the standards. The priorities and motivations of those carrying out the policies and evaluations have a larger influence on project outcomes than externally imposed standards. For example, the quality and outcomes of public consultations and prior and informed consent requirements have varied widely. It is easy to check the "public consultation" box by holding a publicly announced meeting, without effectively informing communities of what a project means to them, creating a meaningful discussion that airs and resolves differences, and incorporating stakeholder decisions into project decisions (World Bank 2000, Chambers). Poor-quality consultation is commonplace (e.g. McElwee 2016). The evaluation of social and environmental impacts, too, is often subjective, and it has been common for benefits to be exaggerated, and risks to be ignored in impact reports. This can partially be explained by the conflict of interest verifiers hired directly by project implementers have to provide a positive assessment to be hired again. Putting in place social and environmental safeguards is better than not doing so. Such safeguards give communities impacted by projects standards against which to protest projects. Though many safeguard standards have been insufficient to ensure that the standards are actually met.

LEAKAGE

ARB's two proposals for accounting for and avoiding leakage are mathematically logical and simple, but do not address the complexity of the factors determining the effects of deforestation-driving commodities on deforestation and the uncertainty in that effect. For example, ARB's methods of addressing leakage assume that intensification of production of deforestation-driving activities reduces leakage. Such intensification can reduce leakage, but has also led to increased leakage in some cases. In Brazil, intensification of soy production has increased leakage because soy producers have invested their greater profits in more soy production (Oliveira & Hecht 2016). This was made possible because soy consumption is relatively elastic.

REDD CREDITS DON'T MEET THE ADDITIONALITY REQUIREMENT IN AN OFFSETS SENSE

AB 32 defines additionality of an offset credit thus: "the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur."[5] Offsets allow an emitter covered under an emissions cap to reduce emissions outside of the cap in lieu of reductions under the cap. The emitter must *cause* emissions to be reduced outside of the cap through the credit purchase for the resulting credits to "offset" emissions that otherwise would have been reduced under the cap.

A REDD program linkage is unlikely to meet the additionality requirement in the offsets sense of additionality because it would be very difficult to show that California's REDD program causes reductions in deforestation in the linked jurisdiction. First, too many factors affect deforestation rates. For example, in Brazil, reductions have been affected by the soy and beef moratoriums catalyzed by international NGOs, national Brazil policy, state-level policy and programs, and changes in global commodity prices (Nepstad et al. 2014). It is difficult to assess the extent to which deforestation rates were affected by any one of these factors. Second, the Brazilian government and Acre have decided to make forest protection a priority for a range of reasons, not just for the global climate benefits. Brazil has also committed to reducing its deforestation rate as a part of its commitments under the UN Paris climate accords (in their INDC). They are also receiving funds from governments internationally to help pay for these efforts, including from Norway as mentioned above. An effective REDD program is hard to carry out and requires substantial political will to be successful. The sale of REDD credits can help pay for, and provide legitimacy for, a government to carry out a program they wish to carry out. But if those payments are the main motivation for a REDD program, that REDD program is bound to fail; the political will would not likely be sufficient for an effective REDD program that preserves forests for the long run rather than just lowering emissions for a short period of time. For all of these reasons, REDD credits would not be considered additional as offset credits. Income from REDD credit sales would support state efforts, but the causal link between California's REDD program and the reductions achieved cannot confidently be made.

[5] Cal. Health & Safety Code § 38562(d)(1)-(2)

EQUIVALENCE IN A LINKAGE SENSE

ARB's choice to link with Acre puts its REDD program in a linkage space rather than an offsets space. This is necessary because the program would not pass the additionality requirements for offsets credits, as described just above. There has never been a linkage between an industrialized and a developing jurisdiction (an Annex 1 jurisdiction and a non-Annex 1 in UNFCCC parlance). So California is forging ahead into new territory.

For evaluating *equivalence*, it helps to note some important characteristics of a linkage between economy-wide cap-and-trade programs like California's and Quebec's:

1. California and Quebec both have legally binding caps; both jurisdictions are buying and selling credits, not just selling credits.
2. Both targets are ambitious; net credit sales from one jurisdiction to the other will only occur if the ambitious reduction target is achieved and exceeded. Trading is viewed primarily as a way to facilitate joint achievement of the targets, rather than as a source of revenues for reductions below the target.
3. Fundamentally, emissions reductions from any one jurisdiction do little to mitigate global climate change; jurisdictions adopt emissions targets to encourage other jurisdictions to accept comparable commitments.
4. California's and Quebec's targets and policies to meet those targets are expected to be permanent reductions in a progression towards the long-term deep reductions needed to keep global temperatures below a two degree increase. If either jurisdiction abandons their efforts and lets emissions rise again it would break from the fundamental purpose of the agreement – long-term cooperative action towards the deep reductions needed to avoid a temperature increase above two degrees Celsius.

One important difference between the California-Quebec linkage and this proposed REDD linkage is that the REDD linkage is between two jurisdictions with substantially different levels of wealth and responsibility for causing climate change, (with "common but differentiated responsibilities and respective capabilities" in UNFCCC parlance). Distinctions between who should reduce and who should pay for those reductions have been a central point in discussions about equitable global climate change cooperation.[6] Common but differentiated responsibilities justify financial flows only in one direction (that California's cap is legally binding and Brazil is not). It also justifies that Acre should receive international support for some of the "own effort" part of its REDD program.

It is well accepted that Annex 1 jurisdictions have an obligation to both reduce their emissions AND support reductions in non-Annex 1 jurisdictions. A credit-generating REDD program creates a way for those two obligations to be traded-off for one another. Like with emissions trading, trading of two different obligations might make sense if sufficient targets are set for both. But under California's REDD program, California has only established a target for reducing its emissions, and not for providing REDD support.

If California cannot claim responsibility for causing Acre's reductions below the crediting baseline, what then justifies California avoiding reducing its emissions because Acre has reduced its deforestation rates below the baseline? In the linkage world, as discussed above, two jurisdictions

[6] See the Greenhouse Gas Development Rights as one carefully thought through analysis of how obligations can be equitably distributed, http://gdrights.org/, accessed May 19, 2016

take on targets, and decide to work together to lower the costs of meeting those targets for both parties, on a path towards deep long term reductions.

I don't aim to provide a complete answer as to what equivalence means between an Annex 1 and non-Annex 1 jurisdiction. California is wading into territory that has not yet been agreed under international climate change negotiations. But I do highlight several things that are clear. ARB in assessing the equivalence of a jurisdictional REDD program should only link to a REDD program if the following is true:

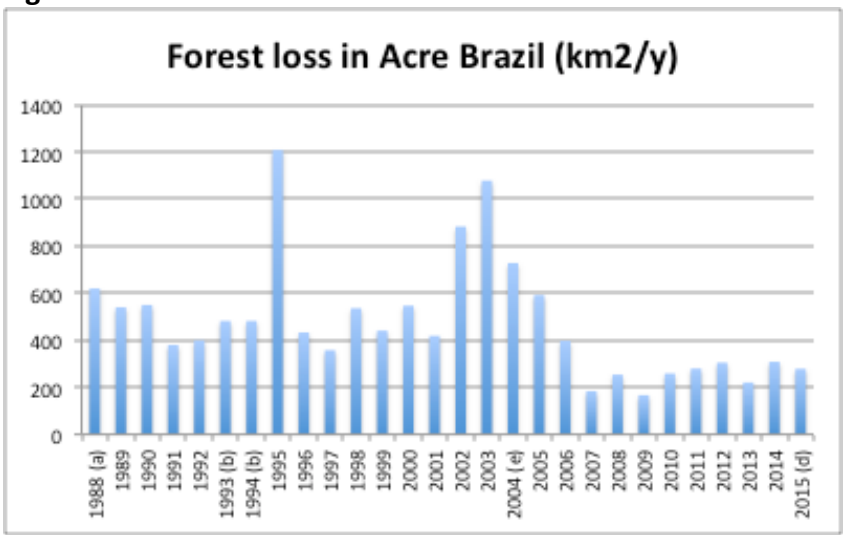
The REDD crediting baseline must be clearly below BAU and require substantial own effort to be achieved. With a linkage between Annex 1 and non-Annex 1 jurisdictions the non-Annex 1 jurisdiction would intend to reduce forest loss below the crediting baseline so that credits are generated, but the crediting baseline should be clearly and conservatively below BAU requiring own effort to be achieved. The efforts taken to reduce deforestation rates must move towards lasting changes that protect forests in the long run. They must address the main drivers of deforestation and not just the low hanging fruit that can slow deforestation temporarily. The jurisdiction must have demonstrated the capacity and motivation to reduce deforestation rates through the success of its existing REDD program. These should be criteria of the equivalence determination. Additionality in the offsets sense of the term (the purchaser reduces someone else's emissions instead of their own) is not confidently achieved with a jurisdictional REDD program. Equivalence in a linkage sense comes from the cooperative agreement to transform the economy towards ever deeper reductions in the sectors covered.

ACRE's CREDITING BASELINE

Acre has proposed a crediting baseline of 496 km^2 of forest loss per year, the ten-year average deforestation rate during 2001-2010 (see Figure 3). This rate does not seem to be low enough to confidently avoid non-additional crediting. During the 28-year period from 1988 to 2015, major deforestation spikes occurred in four years—1995, 2002, 2003, and 2004. The 2001-2010 period proposed for the crediting period includes three of those four spike years. The proposed crediting baseline rate is higher than the average deforestation rates during 1988-2001 when the large spike in 1995 is excluded and six percent below that average including the large spike (see Figure 3). Future rates should be lower than past rates due to the influence of the Greenpeace led soy and beef moratoriums and lasting effects of federal policies already implemented. This implies that there is a reasonable chance that future BAU deforestation rates will be below 496 km^2/y. Further, Norway has agreed to provide funds to Acre, Brazil, through 2021 as payment for reductions in deforestation rates achieve (results-based payments).[7] Norway's funds should help pay for some of Acre's "own effort" to reduce deforestation and should not be double counted with California's payments.

[7] Birdsall, N., W. Savedoff & F. Seymour. 2014. The Brazil-Norway Agreement with Performance-Based Payments for Forest Conservation: Successes, Challenges, and Lessons. CGD Climate and Forest Paper Series #4

Figure 3



Source: Brazilian PRODES data http://www.obt.inpe.br/prodes/index.php

CAPACITY AND RISK

The risks associated with a credit-based REDD program are large. They include causing harm to forest communities, crediting business-as-usual reductions in deforestation rates, crediting incremental changes in deforestation rates that only postpone deforestation rather than attack the drivers of deforestation in the long run, leakage, double counting with other sources of funding, and creating a weak precedent for international cooperation under the Paris Agreement by allowing two obligations to be traded off of one another – reducing emissions and supporting emissions reductions in poorer countries. I question whether ARB has the capacity to do the due diligence and build the relationships over time to run a jurisdiction-wide REDD program that avoids these risks, and whether it is worth making the success of California's global warming law dependent on ARB's success in doing this.

Supporting an effective REDD program requires understanding the history of forest policy and REDD efforts in the jurisdiction to assess whether there is an interest and capacity in adhering to the social and environmental safeguard principles, and to see if the program indeed addresses the major drivers of deforestation and reflects the changes to the land use sector necessary to slow down and bring an end to deforestation in a sustainable manner. Gaining this understanding involves collecting information from a range of sources including vocal opponents and supporters of REDD, individual researchers from think tanks, academia and NGOs who have done field research in the specific jurisdiction, individuals involved in REDD and forest policy from the state and local governments, local communities, and NGOs and to the individuals they recommend. So far, ARB has not done this, and it is unclear whether the agency has the capacity and ability to do the fieldwork necessary.

Sincerely,

Barbara Haya

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