## 2016 CALIFORNIA'S BIG DECISION ON Jun CLIMATE CHANGE & TROPICAL FORESTS

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California's public policy innovations for solving environmental challenges have been emulated worldwide. The state is now poised to deepen this legacy of environmental leadership as it scopes the feasibility of implementing the tropical forests provision of its landmark Global Warming Solutions Act. This provision, which would create a mechanism for carbon trades between California and tropical nations, is currently under deliberation by the California Air Resources Board. At Earth Innovation Institute, we see it as the best opportunity in a decade to slow down climate change. The reason is simple: healthy tropical forests are central to solving climate change. The clearing, logging and burning of tropical forests release about a fifth of the world's carbon dioxide emissions that are caused by human activities. Roughly half of all of the carbon that leaks into the atmosphere when tropical trees are killed by bulldozers or chainsaws is absorbed again by living tropical trees that are growing and storing carbon in their wood. If we slow the loss of tropical forests while speeding their recovery, the chances of avoiding the worst impacts of climate change become considerably larger. Tropical forests can buy humanity precious time to make the much slower transition to low-emission energy systems. But what does California have to do with tropical forests? The quick answer is: a lot! The tropical forests provision of California's Global Warming Solutions Act (GWSA)—formally known as the international sector-based offsets program-would establish the first regulated market for channeling investments into tropical states and provinces that are successfully slowing carbon pollution caused by tropical forest destruction. It was in anticipation of this market that Arnold Schwarzenegger, while Governor of California, invited Governors of tropical forest states and provinces in Brazil and Indonesia to Los Angeles to establish a novel partnership for slowing climate change by slowing tropical forest destruction. This 2008 partnership has grown to 29 members, called the "Governors' Climate and Forests task force". The territories of GCF members include one fourth of the world's tropical forests, including most of the rainforests of Brazil, Indonesia, Peru and Mexico. Many tropical governors have not waited for the launch of the California market. They have gotten to work. The Brazilian GCF state governments alone, with help from the Brazilian national government, have already slowed down Amazon deforestation rates by more than 70%, keeping four billion tons of carbon dioxide out of the atmosphere. This is a bigger contribution to climate change mitigation than Obama's Clean Power Plan will achieve by 2030. These tropical Governors and the farmers,

businesses and rural communities that they represent are ready to do much more. But they need a signal that the world will care if they do. They need to know that their bold efforts to do what industrialized nations have failed to do—to keep most of their native forests standing—will translate into better markets for their products, better investments in their low-carbon economies. and more jobs. In 2014, GCF governors pledged to slow deforestation 80% by 2020 if adequate funding is in place. Once operational, the GWSA tropical forest provision could provide just that signal. It would allow California's biggest carbon polluters to offset up to 4% of their total emissions by investing in statewide programs that have been developed to slow the clearing and degradation of tropical forests. The best example of this type of program—and the first in line to receive investments from California if the program is launched—is found in the Brazilian state of Acre, in the southwestern corner of the Amazon region. During a recent visit to Acre, where I serve on the science committee of the state's climate change program, I was inspired by the remarkable progress that has been made in building a new "low-carbon" economy. Acre is keeping forests standing while producing more food on the land that is already cleared, increasing its exports of fish, pork, chicken, Brazil nuts and native rubber to other states. It is creating jobs and new sources of income for the state's indigenous people, its forest-dwelling rubber tappers and its small-scale farmers. After showing me one of the Brazil nut processing factories that he is responsible for, Manoel Monteiro—who grew up in the forest harvesting native rubber—asked me if California would implement its tropical forest program. "Our cooperative is giving better Brazil nut and rubber prices to our 2500 members, who are all poor rubber tapper families. We need the California carbon market to keep this program strong." California's tropical forest program would also bring substantial benefits to Californians, especially those with low incomes. By providing a large volume of inexpensive offsets, it would help to avoid price increases in electricity that are projected as the state's power utilities strive to meet aggressive emissions reduction targets. California has pledged to reduce carbon pollution to 1990 levels by 2020 and to 40% below 1990 levels by 2030. The poorest people in California and the world will also suffer the most from climate change itself. In this regard, California's tropical forest program could help avoid centuries of unnecessary suffering if it initiates a domino effect, with other states and nations building mechanisms for rewarding progress in slowing tropical deforestation. Such economic signals could go a long way towards realizing the potential of healthy tropical forests to solve climate change. California can galvanize its global environmental leadership by implementing the tropical forest program.