

'Flight shaming' could help unleash billions in airline cash to protect the Amazon and other tropical forests

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Concerns about the carbon footprint of air travel have taken off around the globe with "flight shaming" the latest cultural battleground set up by the escalating climate crisis.

Under public pressure, the international aviation industry is poised to inject hundreds of millions and eventually billions of dollars into environmental projects under a United Nations' deal to counteract the increasing amount of greenhouse-gas emissions expected from airplane travel in coming decades.

Emerging as a likely top recipient of these corporate dollars are governments in South America, Africa and Southeast Asia. In exchange for annual payments, countries or local governments would be required to document a dramatic reduction in the destruction of their tropical forests, from the jungles of the Congo and Thailand to the Amazon.

However, carbon-offset programs aimed at preserving forests in developing nations have a

history of displacing indigenous groups and funding efforts that would've happened regardless of the payments.

California's top air-quality regulators are debating whether the state should put its name on an internationally anticipated blueprint for designing such offset programs.

The Tropical Forest Standard—which the California Air Resources Board will consider on Sept. 19—has drawn vocal critics and vehement supporters.

"We're now venturing into an area, by even having this discussion, which is way beyond CARB's normal areas of operation," air board Chair Mary Nichols said during a contentious, hours-long board meeting in November to discuss the forest standard, "and, I think, we've had legal and technical and expert staff who've worked with us every step of the way, but clearly there's a danger of California's name being misused, abused."

However, Nichols—who did not respond to interview requests for this story—went on to say during the public hearing last fall that she also felt compelled to help preserve the Amazon and other ecosystems.

"The tropical forests are in fact vanishing," she said. "Whether they're vanishing because of foreign influences or local greed or criminals or many other things, they are being destroyed."

The [airline industry](#) is no stranger to using carbon offsets, with the popularity of such programs ebbing and flowing throughout the last decade. In many cases, airlines such as United, Delta and JetBlue have encouraged passengers to purchase offsets on their own.

San Diego International Airport started an offset campaign in 2015 dubbed the "Good Traveler Program." Now run by the private company, Rocky Mountain Institute, the program serves about a dozen airports around the country and collected payments last year from travelers in San Diego to account for more than 363 million miles.

"Traveling is an important part of the global economy and global life," said Robert Gleason, president and CEO of Evans Hotels, who is credited with spearheading the offset program while serving on the board of the San Diego County Regional Airport Authority. "Having the availability and ease of purchasing an offset credit makes me feel better about it."

Carbon-offset credits are typically purchased for roughly \$10 a ton of greenhouse gas, but can range in price from as little as \$0.50 a ton to as much as \$50, depending on numerous factors.

Despite such programs, questions have started to spread about whether and to what extent it's socially acceptable to fly—with the issuing making headlines in recent months.

Most notably, Swedish teenager and climate activist Greta Thunberg traveled across the Atlantic Ocean in a solar-powered sailboat to speak at the U.N. Climate Action Summit in New York scheduled for later this month.

Thunberg's journey sent an unmistakable message to global leaders planning to travel to the climate summit on commercial or private planes: "flygskam," as it's been dubbed in Sweden, which roughly translates to flight shame.

Henrik Holohei, director general for mobility and transport at the European Commission, warned a gathering of the International Aviation Club in Washington this summer that the flygskam movement was taking root in mainstream European culture and would likely make its way to North America.

"Europe's sentiment and societal expectations in this are today ahead of other regions, but trust me," he said, "it is just a matter of time before this wave

spreads to the rest of the world."

Celebrities and even royalty are being forced to defend their flying habits. The Duke and Duchess of Sussex, Prince Harry and Meghan Markle, who have expressed environmental concerns publicly, were recently blasted on social media for their frequent use of private jets. Elton John, who booked a flight for the couple to vacation with him in the south of France this summer, felt compelled to announce on Twitter that he had paid into a carbon fund to offset the flight's climate-warming emissions.

While some, such as Thunberg, have the luxury and time to sail across the ocean, many professionals rely on regular air travel to stay competitive, including those most dedicated to stopping [climate change](#). Many believe that widespread shunning of air travel is unlikely because it is so interwoven into modern life.

In fact, flying is projected to increase several fold in coming decades as more people in developing nations join the ranks of the middle class.

So how bad is flying really? It depends on the accommodations.

A round-trip, first-class flight between San Diego and New York generates roughly the same amount of greenhouse gas per person as a typical Californian driving a moderately fuel-efficient car does in an entire year—about 4 metric tons.

The average American has an annual carbon footprint of 16 metric tons, according to the Our World in Data project from the University of Oxford. Many countries in South America and Africa, by comparison, have emissions rates of fewer than 3 tons a person, some just a fraction of a ton.

However, while air travel can rack up a staggering amount of emissions in just a matter of hours, flying can be less carbon intensive than driving a gasoline-powered car or truck.

Flying economy class, for example, has a smaller [carbon footprint](#) than driving alone and a similar impact to carpooling with one other person.

"The U.S. airline industry is a green economic engine," said Carter Yang, spokesman for the trade group Airlines for America. "We drive more than 10 million U.S. jobs and \$1.5 trillion in annual U.S. economic activity, while contributing just 2% of the nation's greenhouse gas emissions."

The question for many has become if, and to what extent, such long-distance travel is necessary at all. The debate touches not only on the direct environmental impacts of air travel but complicated questions about privilege and class.

No country has produced more climate pollution since the start of the Industrial Revolution than the U.S., while the most devastating impacts of warming are expected to hit first and hardest those least at fault, notably subsistence farmers in India, Africa and China.

While many of the planet's top climate-change activists continue to frequently hop on planes to promote their books, give talks and organize events, some are starting to grapple with the irony of the situation.

Many prominent activists have argued over the years that an emphasis on personal behavior shifts the burden off elected leaders and corporate power players.

However, in the age of social media, more of these public figures are increasingly concerned about how their actions are viewed and, perhaps more important, emulated.

Bill McKibben, author and cofounder of the environmental group 350.org, told the Union-Tribune that he increasingly skips events that require air travel. He often chooses to teleconference using Skype or Zoom.

"I give hundreds of talks a year now via video," he said in an email. "It's not as good as being there in person, but it works pretty well, and it probably communicates the urgency of the situation as much as whatever I say."

The global airline industry is now poised to purchase more than 2 billion carbon-offset credits

over the next 15 years, under a U.N. agreement to address emissions from international flights.

That means hundreds of millions of dollars a year could flood into states in Brazil to help protect the Amazon, as well as many other nations with large, carbon-sequestering ecosystems.

The airline industry would buy the offsets as part of a 2016 deal with the U.N.'s International Civil Aviation Organization, ICAO. The agreement caps emissions at 2020 levels to address an anticipated tripling of fuel consumption from international flights over the next two decades.

Depending on the price of carbon offsets, the industry could be required to pay out between \$1.5 billion and \$6.2 billion in 2025, according to an ICAO analysis. National governments will be responsible for ensuring airline companies under their jurisdiction honor the pact.

The implications for tropical forests are significant, especially because other industries, including in the oil and gas sector, have also started to seriously consider investments in offsets, said Frances Seymour, a distinguished senior fellow at the World Resources Institute and author of "Why Forests? Why Now? The Science, Economics and Politics of Tropical Forests and Climate Change."

"I hesitate to predict the future because I've certainly been disappointed before," she said, "but I would say that there's more chatter about this possibility than there has been in the last 10 years."

The payments are perhaps the only thing standing in the way of the continued destruction of rain forests around the world, Seymour added.

"In places that I know well, including Indonesia, the incentives for deforestation if you're a governor or a district head are quite high," she said. "You have the opportunity to invite investment into your district. If you are corrupt, you can make a lot of money with the licensing."

About 5% of the planet's primary rain forests have been cut down during the last two decades, with Brazil, Indonesia and the Democratic Republic of

the Congo leading the way, according to an analysis by the World Resources Institute and Global Forest Watch. Nearly 8.9 million acres, an area roughly three times the size of Los Angeles County, was wiped out last year alone.

Forests, especially old-growth forests, sequester massive amounts of carbon. While experts disagree on the exact quantities of greenhouse gas that planting new trees would keep out of the atmosphere, there's a scientific consensus that continuing current rates of deforestation will accelerate planetary warming.

For the airline industry, the added cost of purchasing offsets would represent a relatively small adjustment when compared to historical fluctuations in the price of jet fuel.

The U.S. airline industry, for example, enjoyed profits of nearly \$20 billion in 2016, up from \$3 billion in 2012, thanks largely to cheap fuel from fracking.

Airline companies could do more to rein in their emissions through improved fuel economy before they start buying offsets, said Daniel Rutherford, program director for marine and aviation with the International Council on Clean Transportation.

"The idea that they're going to throw up their hands and say, 'We can't do anything about this. We're going to offset it,' is fundamentally the wrong approach," he said.

The least efficient airlines in the U.S. burned about 26% more fuel per passenger mile than the most efficient airlines, according to a 2019 ICCT report that Rutherford co-authored.

"What we're seeing these days is more and more old air-frames get a new engine slapped on it and sold as a new product," he said. "Research shows that aircraft fuel-efficiency could be improving twice as fast as it is right now if the industry were deploying all of the emerging technologies."

Airlines for America spokesman Yang rejected the idea that the industry cuts corners, saying that U.S. airlines increased overall fuel efficiency by 130%

metric tons of greenhouse gas emissions.

"That's hardly an environmental record for our airlines or our passengers to be ashamed of," Yang said. "It's a record of sustainability to be proud of."

California helped launch the market for carbon offsets in North America more than a decade ago.

Now top officials with the state's Air Resources Board are considering giving a similar boost to the nascent international market for offsets aimed at slowing destruction of tropical forests.

"There's a need for folks to feed their families, and currently the economic signal for a lot of folks is to use that land for something other than forests," said Jason Gray, chief of the air board's climate change program evaluation branch. "This is intended to help flip that valuation switch."

The proposal has proved controversial.

One on side, government heads in developing countries and powerful nonprofit organizations, such as the Environmental Defense Fund, have responded enthusiastically to the idea of giving out massive cash infusions to slow aggressive clearing of forests for agriculture and other uses. On the other, nonprofits representing native tribes and green groups, such as the Center for Biological Diversity, have raised serious doubts about whether the benefits will outweigh the risks.

Still, both sides agree that California's ton-for-ton emissions accounting system for tropical forests is one of the most rigorous in the world to date. They also agree that an official stamp of approval by the state would give the resulting offset programs a reputation of legitimacy—deserved or not.

The agency's approach to administering offsets has garnered international recognition over the years, distinguishing itself from the much-maligned crediting program that grew out the 1997 Kyoto summit.

The challenge for offset programs has always been measuring their effectiveness.

Those working under the U.N. system tried to ensure projects were only viable with the cash from offsets—an approach that proved fraught with problems.

California steered clear of using such a financial test. Rather, the state created formulas to determine the average emissions for a specific industry and then credited efforts that reduce emissions below that benchmark.

A logging company, for example, can qualify to sell carbon offsets as long as it holds more carbon in its forests than a regional average.

While this approach limits opportunities to game the system, it also sidesteps the hard question of whether the purchase of an offset is truly driving a reduction in greenhouse gas—or simply rewarding those with greener-than-average practices.

As a Union-Tribune investigation from October 2018 revealed, California's offsetting scheme has frequently allowed companies to sell credits for projects they almost certainly would've undertaken regardless of the cash infusions.

The state's proposed methodology for crediting reductions in tropical deforestation uses this benchmark approach, rewarding governments for lowering rates of destruction below a 10-year average.

Many people concerned about the Amazon and other forests support the approach, including famed anthropologist Jane Goodall. She sent a letter to the air board in advance of November's public hearing that read in part:

"Many people around the world are watching California's efforts and I truly believe that if the State passed the Tropical Forest Standard this would send a very important message to advanced economies around the world as to the huge importance of the tropical forest solution."

The main fear among critics is that a jurisdiction could collect money for years on the pledge of protecting large swaths of a rainforest, only to wipe out all gains with a change in political

administration.

Many activists point to the recent election of Brazilian President Jair Bolsonaro as evidence of how quickly political winds can change. The former military officer was voted into office on the pledge of opening the Amazon to the development of hydroelectric plants and other industries that drive deforestation.

"There's serious risk that these credits will hold no environmental value over time with changes in government and changes in commodity prices and fires," said Barbara Haya, a researcher at the University of California, Berkeley and one of the state's top independent expert on carbon offsets.

"There are changes that need to happen in the airline industry," she added. "There are ways to improve it but it's cheaper to buy credits. We have to ask, 'Is it worth it?'"

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