

ENVIRONMENT

Save the Trees to Save the Forest

by Robert Collier

When Chilean President Sebastian Piñera inaugurated an electric car charging station last April, there was plenty of optimism far and wide. The facility in the nation's capital, Santiago, was the first of its kind in Latin America, and its grand opening seemed like a bellwether event. Perhaps it would show the way for a new era of alternative-fuel vehicles in the region. Perhaps it might even signal Latin America's shift toward leadership on climate-change policy in general.

Unfortunately, however, it was none of these things. Instead it was a sign of why Latin America, despite some encouraging steps, has made little progress on climate change.

For many Latin countries, climate policy cuts in many-sided ways. Just weeks after Piñera's event, his government's environmental authority gave final approval to a controversial, \$7 billion series of five hydroelectric dams in southern Chile. That project would require a 1,000-mile power line slashed through pristine coastal rainforests in what environmentalists say could be the world's longest clearcut. While the government portrayed the decision as a carbon-reducing way of weaning Chile from unreliable imports of Argentine natural gas, environmentalists call it a boomerang in the making that would destroy a carbon-absorbing wilderness and distract attention from the need for a low-carbon energy policy emphasizing energy efficiency.

Soon afterward, a rapid-fire series of events in Brazil gave notice that protection of the Amazon jungle, the lungs of the planet and the world's largest carbon sink, is faltering.

Capping a years-long battle with environmentalists, Brazil's environmental agency gave final approval for the Belo Monte dam, a hydroelectric power plant in Pará state that will be the world's third largest, producing 11,200 megawatts of electricity. Environmentalists have long said the dam will spur deforestation, endanger indigenous groups and increase carbon emissions throughout the Amazon.

Days later, unidentified gunmen in Pará killed husband-and-wife anti-logging activists José Cláudio Ribeiro da Silva and Maria do Espírito Santo. It was yet another spilling of blood in the lawless region's decades-long trend of violence against forest protectors. And mere hours after that killing, the lower house of Congress in Brasilia approved a revision of the Forest Code that

would open up protected areas to logging while granting amnesty to landowners for previous illegal logging. Brazil's rate of deforestation has spiked dramatically this year after several years of decline, and environmentalists have become increasingly critical of the country's efforts to protect the jungle.

At the time this article went to press, it was unclear whether the new forestry bill would become law, but its political significance was clear — despite the wishful thinking of environmentalists around the world, the Brazilian Amazon is open for business, not for forest protection.

For many nations, deforestation is the prime source of emissions. The share of forestry and land use in total greenhouse gas emissions ranges from as high as 80 percent in Nicaragua and Panama to about 60 percent in Brazil and over 50 percent in the rest of Latin America's tropical nations.

For good reason, U.S. public opinion on global climate policy has focused primarily on the deforestation issue rather than other sources of carbon emissions. The dramatic, iconic specter of the Amazon rainforest is powerful and awe-inspiring, and it rivals "charismatic megafaunas" such as the polar bear and the panda as an environmental bellwether.

California's carbon-trading program, which was given final approval in December 2010 but is currently in legal limbo after adverse court decisions, would eventually allow the state's industries to offset part of their greenhouse gas emissions by purchasing credits generated by forest preservation in Brazil and other nations.

Elsewhere in Latin America, strategies for climate action have been caught in the same trap as in other developing countries — waiting for economic aid and leadership from developed nations that have generally avoided moving beyond the level of mere rhetoric. So far, only Mexico and Chile have adopted fuel-economy regulations.

Some nations have made pledges and elaborate programs, such as Mexico's Special Program for Climate Change (PECC), which in 2008 set a target of cutting the country's carbon dioxide output in half from 2000 levels by 2050. Yet the PECC and others were conditioned on the Catch-22 availability of foreign funding.

The one notable exception is Costa Rica, which has taken independent action. It not only pledged to become the first carbon-neutral nation in the world,



Photo by Bruno Abreu.

The watershed of Belo Monte, site of a controversial dam project in Brazil.

but it has pioneered a program, funded by a 5 percent gasoline tax, that pays property owners to conserve forests on their land.

Many environmentalists throughout the hemisphere have looked to California for leadership. The state's climate action strategy has spawned a broader initiative, the Western Climate Initiative, which is intended to eventually create a cross-border cap-and-trade system spanning Canada, the United States and Mexico. The initiative is set to start trading on January 1, 2012. Participants will include California, British Columbia and Quebec, with Ontario expected soon after, although the launch could be delayed by California's legal troubles.

The Mexican states of Baja California, Chihuahua, Coahuila, Nuevo León, Sonora and Tamaulipas have observer status in the initiative. Major environmental philanthropies in the United States, with the active support of Mexican President Felipe Calderón, have trained state officials for years in the possible implementation of sectoral strategies, such as carbon trading within the power sector. But the collapse of cap and trade in the U.S. Congress and the legal delays for California have cast that bottom-up strategy in doubt.

Latin America's fastest-rising emissions sector is transportation. The region's carbon emissions from transport — mostly cars — comprise 32 percent of its total emissions, higher than the global average of 17 percent, and those emissions are predicted to triple by 2030. As millions of people scramble toward middle-class living standards, growth in both auto ownership and distance traveled are booming, and suburbs are sprawling across the landscape.

Paradoxically, this sector is also where Latin America's greatest hope lies, and it is one in which real steps are being made to reduce emissions. None of this progress, however, is due primarily to climate concerns. As elsewhere around the world, many Latin nations are adopting genuinely forward-looking, innovative transportation policies whose prime motivations are not the polar bear, the rainforest or the planet.

Latin America has become the pioneer of bus rapid transit, known as BRT, which is a favorite of transit policy wonks everywhere but is virtually unknown among the U.S. public. The system, which uses dedicated lanes, articulated buses, street-level stations and electronic fee payment, functions essentially like a high-speed streetcar system and is touted as a low-cost alternative to urban

rail systems. Stations are connected to local bus services, creating a hub-and-spoke system.

Across the region, 32 cities have BRT systems. They represent one-quarter of the BRT systems globally and serve almost 18 million people or two-thirds of total BRT ridership worldwide. No BRT systems exist in the United States.

The BRT boom started in 1972 in Curitiba, Brazil. Currently, around 70 percent of Curitiba's commuters, a total of 1.3 million people, use BRT to travel to work, resulting in congestion-free streets and pollution-free air. Compared to other Brazilian cities of its size, Curitiba uses about 30 percent less fuel per capita, resulting in one of the lowest rates of outdoor air pollution in the country.

Bogotá, Colombia, conceived its TransMilenio system as a copycat of the Curitiba BRT but soon expanded the plan's scope and complexity. It now has the highest number of users among BRT systems globally, with close to 1.3 million trips per day, or 20 percent of total trips in the city, on a 52-mile network. TransMilenio even includes routes on freeways, where busses whiz by bumper-to-bumper traffic. TransMilenio is also part of a more comprehensive mobility policy that includes car restrictions and the implementation of hundreds of miles of pedestrian promenades and separated bicycle paths.

In Mexico City, BRT was introduced in 2005 as the Metrobús. Developed in cooperation with international experts including Lee Schipper, then director of the transportation think tank EMBARQ and now a project scientist in Global Metropolitan Studies at UC Berkeley, Metrobús has grown to three lines covering 41 miles, 113 stations and 280 buses, moving 620,000 passengers per day.

Elsewhere in the region, cities large and small, from Pereira, Colombia, to León, Mexico, have built successful BRT systems. In doing so, these cities have reduced their CO₂ emissions considerably while increasing public mobility, despite bumper-to-bumper gridlock for car traffic.

However, it is important to note that climate was not a major concern in any of these cases. On the contrary, the main public policy motivations were congestion, pollution, quality of life and public health. But by reducing automobile-related CO₂ emissions, these policies have done more than all the region's ostensibly climate-related policies put together.

This contradiction points to the overall urgent need to reframe the climate debate in Latin America, the United States and around the world. Instead of being cast as merely a fight to save the climate, the same goals can be achieved, perhaps faster and with less controversy, if they are cast in terms of public health and energy security.

Conventional pollutants have a direct and visible impact on quality of life and public health, causing the increased incidence of asthma, bronchitis, heart disease, cardiopulmonary disease, stroke, cancer and premature mortality. According to the World Health Organization, outdoor air pollution causes approximately 800,000 premature deaths annually, more than half of which are in developing countries. In Mexico City alone, air pollution causes 4,000 premature deaths and 2.5 million lost work days each year, according to the nonprofit Mario Molina Center for Strategic Studies in Energy and the Environment.

Bogota's Transmilenio.



Photo by Juan Felipe Rubio.



Photo by Martín Mejía/Associated Press.

A Peruvian boy receives asthma treatment in Lima, a city rated among the most polluted in Latin America.

Low-carbon strategies can also appeal to national-security conservatives. For many countries, increased fuel efficiency means a decrease in oil consumption. For countries that are oil importers, every barrel saved is precious foreign currency saved. Chile, Central America and most of the Caribbean desperately need to reduce their oil imports, and tough fuel-economy rules could do just that.

Mexico has perhaps the most to gain by cutting its oil use. Petroleum revenues provide about 40 percent of federal government revenue, but declining production is expected to wipe out the country's oil exports. In all, Mexican oil output has dropped from just short of 3.5 million barrels a day in 2004 to about 2.5 million barrels in 2010. Mexican oil exports to the United States, now 1.1 million barrels a day, have fallen by nearly a third in the past six years. The U.S. Energy Information Administration estimates that Mexico could become a net oil importer as early as 2015, with net imports reaching 1.3 million barrels per day by 2035 — about half of its current production levels.

This would be catastrophic for Mexico. It would upend its patronage-oriented political system, do serious damage to its economy and increase social and political instability.

Climate per se does not figure in these considerations. But just as some U.S. national-security conservatives drive Priuses and many Chinese generals advocate for energy conservation to reduce their country's dependence on oil imports, environmentalists in Latin America may be well advised to recast their message.

Public health, mobility and energy security hardly seem like dramatic, attention-getting slogans for saving the planet. But around the region, from Tierra del Fuego to the Río Bravo, they are achieving real results in reducing carbon emissions and improving the quality of human life.

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