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ReVista

HARVARD REVIEW OF LATIN AMERICA

ENERGY

OIL, GAS AND BEYOND

Oil, Gas and Beyond

I was waiting for the ship to come in. In fact, so was everyone else in Nicaragua. Gas lines stretched around the block. The supermarket shelves were nearly bare. Lights went out again and again, plunging the country into frequent darkness. Telex machines couldn't work, and we reporters had to depend on the few places with generators to file our stories (for younger readers, this was pre-computer and smart phones). U.S. President Ronald Reagan had imposed a trade blockade on Nicaragua in May 1985. The Soviets were sending oil, dodging the blockade.

We reporters did what we always do: we reported on the ship's arrival. But we also breathed a collective sigh of relief. The arrival of the Soviet ship meant hot showers and light to read by.

Energy is intensely political. It shapes nations and trade and fuels wars and blockades. Energy, I discovered then, is also intensely personal. It shapes our lives on a daily basis. It's not only a matter of how we get around or whether we have enough food to eat; energy production affects the communities that receive it and those that produce it. It shapes attitudes toward gender and race and nationalism and identity. It pollutes the air and the rivers. It offers immense economic opportunities. Or it does both.

You might not think of Latin America and the Caribbean right away as a big energy producer or consumer. But Venezuela stands ninth in global oil production with gas reserves almost triple those of Canada. Three countries—Venezuela, Brazil, and Mexico—account for about 90 percent of the region's oil production. And Latin America and the Caribbean also have the capability to provide abundant alternative and renewable energy sources: wind, solar, geothermal and biomass, among others.

Perhaps because of my experience in Nicaragua, I started to conceive this issue in terms of meta-politics. And there is certainly a lot of politics related to energy in the region: the political upheaval of Brazil as a result of corruption scandals in the national oil company; the turmoil in oil-rich Venezuela; the impact of the semi-privatization of Mexico's oil industry; the targeting of Colombia's energy installations by guerrilla forces in a show of strength in the context of the ongoing peace process.

But then I thought back on how the arrival of oil had been experienced on a very local and personal level. I began to hear stories about the production of energy: what it felt like to grow up in an oil camp, how energy production affects indigenous women in one particular region, how local communities involve themselves in deciding what is done with oil.

And just recently Alvaro Jiménez, Nieman Affiliate at Harvard '09, happened to mention to me that he was starting a website "Crudo Transparente," a site that monitors the Colombian oil industry. Out of curiosity—and as a quick break from proofreading this issue—I took a peek. The site focuses on five areas: local economy, contracts and royalties, environment, security and human rights and ethnic conflicts. I was pleased to see how much overlap there was with the themes I had chosen for this issue of ReVista.

Although the website deals with only one country—Colombia—it felt like an affirmation of the focus I had chosen for this wide-ranging topic. Energy is political. Energy is personal. Energy matters.

June C. Erlick

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ReVista

Editor-in-Chief
June Carolyn Erlick

Copy Editor
Anita Safran

Publication Interns
Isabel Espinosa
Gabriela Farrell
Diego Lasarte

Design
Jane Simon Design

Printer
P+R Publications

Contact Us
1730 Cambridge Street
Cambridge, MA 02138
Telephone: 617-495-5428

Subscriptions, Back Copies and Comments
jerlick@fas.harvard.edu

Website
revista.drclas.harvard.edu

Facebook
ReVista, the Harvard Review of Latin America

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China in Latin America

Seeking a Path Toward Sustainable Development BY REBECCA RAY

ALL EYES WILL BE ON CHINA IN 2016, AS IT PREpares to host its first-ever G-20 summit. While the rest of the world discusses this symbolic act of new global prominence, Latin America knows that China's prominence is nothing new nor merely symbolic.

In fact, for much of the last decade China has driven Latin America's trade and investment. Unfortunately, during this China-led commodity boom, policy makers overlooked the intrinsic dangers of commodity-led growth. Now that the boom is ebbing, those weaknesses have become glaring. They are particularly visible in energy sectors such as oil and coal, where issues of land tenure and water and air contamination have united environmentalist and indigenous resistance. These are the findings developed in the recent report by my colleagues and me at Boston University, Universidad del Pacífico (Lima) and Centro de Investigaciones para la Transformación (Buenos Aires): *China in Latin America: Lessons for South-South Cooperation and Sustainable Development*, which explores the role of Chinese trade and investment in Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico and Peru. China is now the top export destination for South American goods—mostly petroleum, copper, iron and soy—and second only to the United States for exports from the entire Latin America and Caribbean (LAC) region. The China and Community of Latin American and Caribbean States (CELAC) summit in December 2014 generated projections of $250 billion in new Chinese investments within the next decade, including two new oil concessions in Ecuador, shale oil and gas concessions in Argentina, and a transcontinental railway that Premier Li Keqiang discussed on his trip through the region in May.

Chinese demand for raw commodities has been an independent driver of social and economic change in Latin America, putting pressure on waterways, forests, and traditional livelihoods. LAC exports to China have larger environmental impacts, and support fewer jobs, than other regional exports. But our research also finds that Chinese investors are capable of living up to local standards where Latin American governments enforce them consistently. Taken together, these results mean that policy makers have the chance to set the terms of their relationships with China, but if they neglect this opportunity and fail to set and enforce high standards, they will have to reckon with serious social and environmental consequences.

CHINESE INVESTOR PERFORMANCE

As the region boomed over the last decade, companies from China and across the world arrived to get in on the opportunities. Chinese firms, with less experience abroad than their Western counterparts, found themselves particularly challenged by unions, local communities, indigenous groups, and global civil society networks. However, our case studies show that Chinese investors are flexible and able to adapt, often outperforming their domestic and Western counterparts.

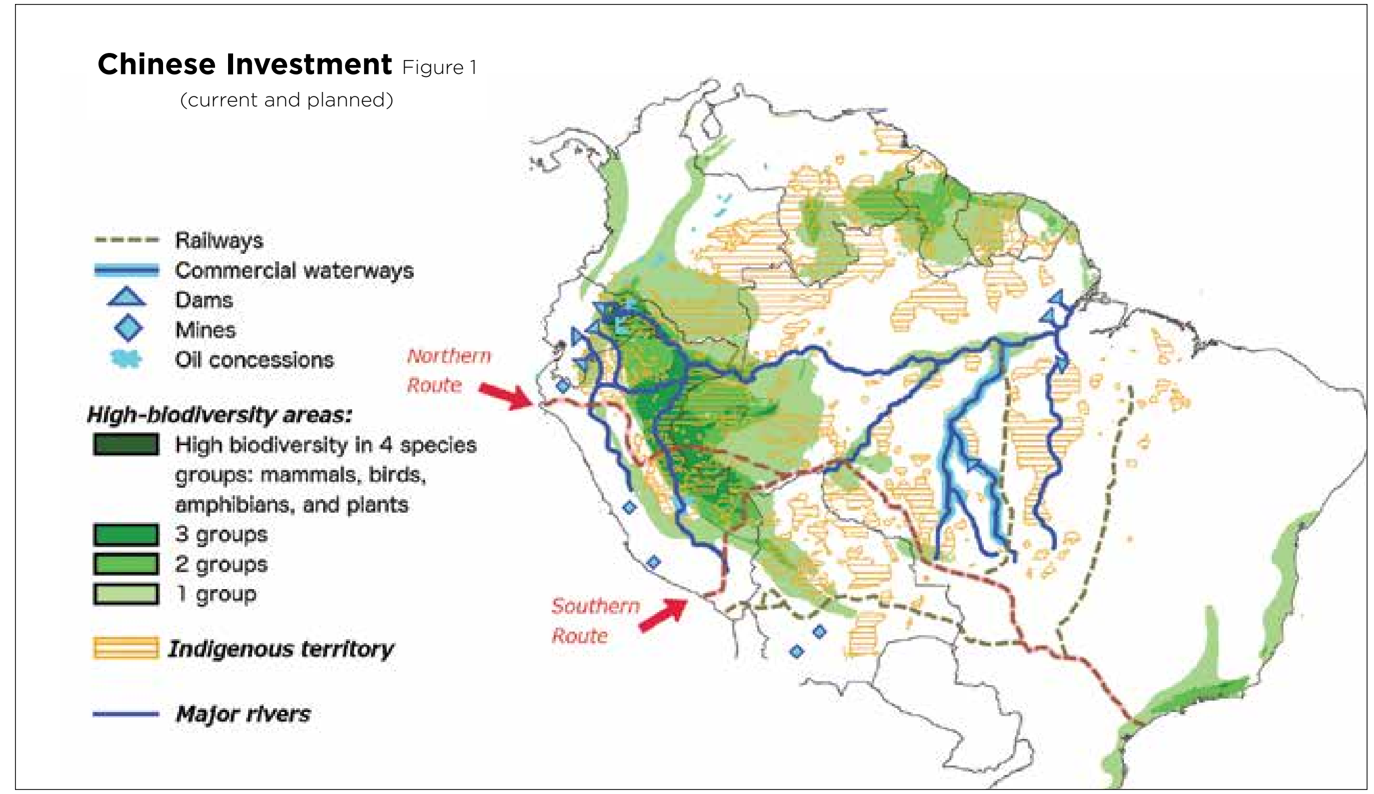
Perhaps most tellingly, Sinopec (a large Chinese petroleum state-owned enterprise), which appears in three of our eight case studies, shows different levels of social and environmental performance depending on different local standards. Overall, these case studies show that Latin American governments have the opportunity—and the responsibility—to set and enforce high standards.

Sinopec arrived in Colombia in 2010, through its subsidiary New Grenada Energy Colombia (NGEC). It has struggled to meet national standards, but the government is at least partly responsible for these lapses. NGEC initially committed to a half-million dollar land conservation project to safeguard local communities' water source. Three years later, NGEC had not yet complied, resulting in a formal complaint by the local environmental group Mastranto. The Attorney General's office ruled against NGEC, but also cited the National Environmental Licensing Authority (ANLA) for a lack of oversight.

Sinopec has also faced criticism of its hiring practices, but this is due mostly to the national government's inability to overcome local power structures. Sinopec, like many other firms, hires through local Community Action Boards (CABs). CABs—and by association, Sinopec—have come under fire for bargaining with job positions, offering them to well-connected families far away instead of local applicants. The national government has proposed a new hiring structure, but unsurprisingly this has been met with fierce resistance from the CABs themselves.

In Argentina, Sinopec's environmental record has been better than in Colombia, but belatedly so and only after coming under heavy public scrutiny. Sinopec arrived in 2010, purchasing Occidental Petroleum's holdings and inheriting its commitments to build aqueducts to alleviate competition for water with local communities. Sinopec eventually completed them in 2014—after a major drought struck the area, creating pressure from the local press and community groups.

Sinopec's record in Argentina also has a better employment record than in Colombia. Most of Sinopec's Argentina operations are in the province of Santa Cruz, far away from the oversight of Buenos Aires. However, oil contracts are negotiated at the provincial level, giving Santa Cruz a better vantage point for enforcement. In terms of labor, Santa Cruz requires oil companies to hire Santa Cruz residents, and Sinopec has complied. This stands in contrast with Colombia, where Sinopec has been denounced for hiring workers from other areas of the country.



Chinese investment, biodiversity and indigenous territories

MAP BY REBECCA RAY

In Ecuador, Chinese oil state-owned enterprises Sinopec and China National Petroleum Company (CNPC) formed two joint ventures (Andes Petroleum and PetroOriental) to purchase Occidental's Ecuadoran holdings in 2006. In doing so, they inherited a history of water and soil contamination dating back to the infamous days of Chevron. Since arriving, though, they have lived up to modern Ecuadoran standards, and faced less environmental and social conflict than any other major oil companies in the country.

Despite its good track record to date, Andes Petroleum has begun to face heavy resistance in Ecuador due to two new concessions they have recently won in the Amazon. Protests have sprung up in Ecuador and internationally, and Pope Francis mentioned the situation in his recent visit to the region, calling for protection of the Amazon and its inhabitants. These are the first new concessions in Ecuador under a new citizen participation law, but our fieldwork shows that the government has fallen short in implementing this new law and failed to adequately consult affected indigenous populations before granting the concession. While Chinese investors are the face of the new development, it is the Ecuadoran government that has set the stage for this conflict.

Taken as a whole, our case studies show that local governments and civil society have a crucial role in ensuring that foreign investors live up to local standards. Nonetheless, when social and environmental standards are consistently enforced, Chinese investors in particular have shown themselves capable of rising to the challenge.

COMMODITIES, THE ENVIRONMENT AND EMPLOYMENT

China's demand for commodities is often linked to environmental degradation and conflict. In five of our eight case studies—in Argentina, Bolivia, Colombia, Ecuador and Peru—we examine conflicts that have arisen between Chinese investors and local communities. In each case, the same two triggers consistently explain most causes of conflicts: scarce job creation and competition for natural resources (water use, land tenure, and contamination of water and soil).

These same trends emerge in our statistical analysis. We find that LAC exports to China have heavier environmental impacts, and support fewer jobs than other LAC exports. These two factors combine to create a perfect storm for conflict, as oil wells, plantations and mines for export to China outcompete communities for natural resources, but do not replace those livelihoods with new jobs.

From 2009 to 2013 (the last five years of available data), we find that LAC exports to China support about 20 percent fewer direct jobs than other exports, per million real dollars, and fewer than half as many direct jobs as overall economic activity.

This jobs deficit is due to the outsized importance of extractive industries (oil, gas, and mining) among the region's exports to China. Over the last five years, extractive products made up over half of LAC exports to China, but just one-third of the region's exports overall. Meanwhile, extractive industries support only about one-sixth as many jobs in LAC as manufacturing, per million dollars of output. So the export basket to China is much less labor-intensive than the region's traditional export basket.

Ecuador shows a striking example of this dearth of new jobs. From 2008 to 2012, extractive products made up 58 percent of all Ecuadoran exports, but 70 percent of exports to China. Meanwhile, extraction supports just one direct job and 16 indirect jobs per million dollars of output, compared to 25 direct and 22 indirect jobs for manufacturing. Overall, exports to China support just 30 jobs per million dollars, compared to 70 jobs per million dollars supported by Ecuadoran exports overall.

While Chinese investment is not creating new jobs, its thirst for natural resources is squeezing communities pursuing traditional livelihoods. We find that LAC exports to China use twice as much water per dollar as other exports on average, and ten times as much water per dollar as overall regional economic output. This disparity is due mainly to large-scale agriculture. Among major LAC economies, Argentina shows the largest difference, mostly because of its soy exports, which make up more than 70 percent of Argentine exports to China but just 14 percent of overall exports.

LAC trade with China also has a disproportionate climate impact. LAC-China exports create about 15 percent more net greenhouse gas emissions per dollar than other exports, and over twice as much as overall economic output.

These net emissions go beyond those from power plants. In fact, many of the China-related net emissions are due to the destruction of natural carbon sinks, brought about by deforestation or the clearing of the Brazilian *cerrado* to produce soy exports. As the map of Chinese investment in the Amazon basin shows, its sites are heavily concentrated on sensitive terrain. Chinese dams, mines, oil concessions and railways often intersect important centers of biodiversity.

While Chinese investment is not creating new jobs, its thirst for natural resources is squeezing communities pursuing traditional livelihoods.

The darkest green areas on the map—with extremely rich biodiversity—exist only in northern Peru and eastern Ecuador. The dark green areas in Ecuador are nearly invisible due to the presence of Chinese oil concessions, including two new blocks recently won by Andes Petroleum, discussed above.

Also, a long-anticipated transcontinental railway may finally come to fruition after being a major focus of Premier Li Keqiang's recent trip to Latin America. The map shows two possible routes currently under discussion, highlighted in red. The northern route cuts through indigenous territory in the interior of Peru, as well as over highly biodiverse land. The southern route largely avoids these risks. Which route the governments of Peru, Brazil and China pick will have enormous consequences for its environmental and social impacts.

HOLDING THE LINE AT THE END OF THE COMMODITY BOOM

As China's economy slows, its demand for commodities is cooling also. As a result, the region's governments are facing pressure to roll back their environmental and social safeguards to streamline new projects.

Peru has drastically weakened its enforcement of indigenous consultation laws for new extractive projects. It has essentially eliminated protection for tribes that were reclassified as "peasant" communities instead of "Indian" communities decades ago, in a move seen as dignifying at the time. Bolivia's new mining law was set to eliminate the Environment Ministry's authority to take part in the approval of new mining projects, but civil society successfully resisted that provision.

Latin American governments must maintain the policies needed to ensure that economic activity in natural resource sectors is managed in an environmentally responsible and socially inclusive manner. Perhaps more important, as the Bolivian case reveals, is the need for civil society to monitor both governments and foreign companies.

China's prominence is here to stay, as its hosting of the G-20 and myriad new investment projects in LAC show. Without the proper policies in place to make sustainable development part and parcel of its relationship with China, Latin America will continue to experience social and environmental conflict, a burden ultimately detrimental to long-run prosperity.

__Rebecca Ray__ is a pre-doctoral research fellow at Boston University's Global Economic Governance Initiative and a Ph.D. student in economics at the University of Massachusetts-Amherst.

THE ECONOMICS OF ENERGY

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