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A monthly report
on development and
the environment in
Latin America

Final plans filed for dredging of Magdalena River

his month a construction consortium delivered the Colombian government final plans for the most ambitious engineering project ever undertaken on the Magdalena, Colombia's longest river. The blueprints call for dredges to begin clawing rocks and silt from long stretches of the murky-green Magdalena early next year as engineers design canals and levees to funnel the river's flow through a narrow channel.

Environmentalists warn of immense damage to the Magdalena's hydrological and biological processes and to those of its vast associated ecosystems. "When you channel a river and sever its connections with its drainage basin, its tributaries, floodplains, lagoons and swamps, you kill it," says Juan Darío Restrepo, a professor

of earth sciences at Medellín's EAFIT University.

The government touts the six-year, US\$1.3 billion effort to rehabilitate over half of the 1,000-mile (1,600-km) Magdalena for cargo transport as a catalyst for economic growth. Officials say it will cut transport costs for critical exports including coal, oil and minerals by 30 to 40%. They also say it will shave greenhouse emissions by 20 million metric tons of CO2 annually, as cargo shifts from clogged highways to the river.

"This will revolutionize the economy and lives of Colombians," President Juan Manuel Santos told the press when the government signed a contract for the work last year with

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Drone and satellite policing tested for Cocos Park

San José, Costa Rica

oachers in Costa Rica's Cocos Island National Park can run from park rangers; but thanks to two new electronic surveillance initiatives, they might soon find it far more difficult to hide.

Conservation groups in recent months have been piloting two programs to help government officials monitor the park, which encompasses 9-square-mile (23-sq-km) Cocos Island, located off Costa Rica's Pacific coast, and some 4,492 square miles (11,634 sq kms) of protected ocean waters around it. One has centered on public scrutiny of satellite images, the other on monitoring done by drones.

Due to the abundance in its waters of pelagic species such as dolphins, rays, sharks

and tuna as well as much other sea life, Cocos Island is a highly prized marine ecosystem, winning Unesco World Heritage Site status in 1997. Yet its marine riches attract hundreds of vessels to its waters every year to engage in illegal fishing.

Though park rangers patrol by boat, they struggle to catch illegal fishermen in the act. That's why conservation groups this year began testing aerial drones and satellite surveillance in hopes of using the new technologies to police the park. The programs' results have raised the hopes of the

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Drone being readied for testing at Cocos Island. (Photo by Turtle Island Restoration Network)

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Cyanide-solution spill rekindles debate over mining in Argentina

The warnings of mining critics in Argentina proved prescient this month when a valve failure at Barrick Gold's Veladero open-pit gold mine in San Juan province caused a cyanide spill on Sept. 13 in the Jáchal River watershed.

Ensuing criticism of Barrick Gold is reverberating in Argentina not only because the spill has drawn a strong reaction from open-pit mining opponents, but also because the country is just weeks away from a presidential election.

Making a campaign swing through San Juan on Sept. 24, Daniel Scioli, the front-runner to become president and a member of the party of current President Cristina Kirchner, said that despite the incident, Argentina should "continue forward" with mining.

But another of the six candidates, Margarita Stolbizer, visited San Juan the next day with a very different message. "Mining companies have no right to ruin our territory," she said.

The first news of the accident spill came in a warning that a worker at the mine sent to his family at their home in the city of Jáchal, 120 kilometers (75 miles) downstream of Veladero, using the Whatsapp messaging service. It read in part: "Don't drink the water."

Public concern spread immediately among Jáchal's 22,000 residents, some 400 of whom gathered that evening outside the city's municipal-government building to protest the lack of official information.

Not until the next morning did Barrick Gold acknowledge that a "cyanide solution" had been spilled. At the same time, the company asserted that "there was no pollution." On Sept. 17, Barrick reported that 224,000 liters of the cyanide solution had been spilled, and on Sept. 23 it boosted the figure to 1,072,000 liters, nevertheless insisting that "human health was not affected."

As soon as the spill was confirmed, a provincial judge ordered that bottled water be distributed to downstream residents and that use of cyanide in the mine be suspended indefinitely. The judge, Pablo Oritja, later called on nine Barrick employees to appear before him on Oct. 6.

For its part, the company announced that 15 employees deemed responsible for the accident had been dismissed, and that they were replaced with employees brought in from abroad. Meanwhile. members of the United Nations Office for Project Services (Unops) arrived to assess the spill's water-quality impacts. The Unops team issued a statement saying that "dispersal of pollutants from an environmental incident is not an instantaneous phenomenon," and adding that the study will therefore take considerable time.

In the meantime, the outrage of Jáchal residents has shown no signs of dissipating. On Sept. 25, some 1,000 protestors made the 150-kilometer (93-mile) trip to the city of San Juan, the provincial capital, in over 100 cars, vans and buses and staged a demonstration in which they called for Veladero's closure.

Veladero, which produces some 650,000 ounces of gold a year, is situated in the Andes at an altitude of 4,000 meters (13,000 feet). Barrick has said that the US\$540 million it spent to put the mine into operation in 2005 marks the biggest private investment in Argentina since the country's 2001 economic crisis. Veladero is less than 10 kilometers (6 miles) from Pascua Lama, a

large Barrick Gold mine that has been under development.

Work on Pascua Lama, which straddles the Argentine-Chilean border, is currently suspended in the wake of litigation in Chile over potential environmental impacts and concern by the company about declining world gold prices. Follow-up: Felipe Nelson Saavedra, San Juan Province Minister of Mining, San Juan, Argentina, +(54 264) 430-6962, fsaavedra@sanjuan.gov.ar; Miguel Giménez Zapiola, Director of Corporate Affairs, Barrick Gold Argentina, +(54 11) 5776-6600, comunicacionesargentina@ barrick.com.



Green groups prevail in fight over Mexican aqueduct plan

A US\$3 billion project in Mexico to build an aqueduct serving the northern city of Monterrey is being canceled, a victory for the many conservation and citizen groups that opposed it.

Jaime Rodríguez Calderón, who takes office as governor of the state of Nuevo León on Oct. 4, has said he will not extend the contract his predecessor signed with a private consortium when it expires this month.

Environmental groups argued the 372-kilometer (231-mile) aqueduct was simply not necessary and said there were many other ways to assure the long-term water supply to Monterrey, the country's third largest city.

The incoming governor agreed. "We have other alternatives which would turn out to be much cheaper," he said in a Sept. 16 television interview.

The Monterrey VI aqueduct drew fierce opposition because of its cost and the participation of a scandal-tainted company in the consortium, which was still only in the planning stages. Environmental groups, among them the U.S.-

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U.S. warns Mexico on bycatch of loggerheads

Mexico City, Mexico

he United States has sent a blunt message to Mexican environmental authorities: stop your fishing industry from killing loggerhead sea turtles or face sanctions. The National Oceanic and Atmospheric Administration (NOAA) last month issued a "negative certification" to Mexico under a law requiring nations that share endangered species with the U.S. to ensure their fishing regulations meet standards applied in the U.S.

NOAA argued that Mexico had done too little to prevent loggerheads from getting caught in fishing nets in the Gulf of Ulloa, off the coast of Baja California Sur. The negative certification has been sent to the White House, which determines the penalty. NOAA officials declined to forecast possible sanctions, but the pertinent regulations allow for steps including a halt on imports of fish whose capture can result in bycatch. "It's unfortunate that it had to get to this kind of sanctions," says Alejandro Olivera of the Center for Biological Diversity in La Paz, Baja California Sur. Referring to recent—albeit apparently insufficient-Mexican measures to prevent bycatch, he adds: "The Mexican government has known about this problem for ten years, and until the United States government applied pressure it did nothing."

Push-back from Mexico

Mexico's lead fisheries agency, the National Commission of Aquaculture and Fishing (Conapesca), said in a statement that it "regretted" the NOAA decision and suggested the U.S. government "could have made an informed decision about the measures adopted by Mexico to protect the yellow [loggerhead] turtle before it identified our country as causing the bycatch of these turtles." The government would continue working with the U.S. government to reach a solution, Conapesca said.

Loggerhead turtles swim thousands of miles during their lifetimes from Japan to feeding grounds off the Pacific coast of Mexico, one of the turtle kingdom's longest migrations. NOAA declared the loggerhead (Caretta caretta) endangered in 2011, citing population declines due to bycatch, poaching and fortification of beaches to prevent erosion. The Pacific coast of Baja California Sur is a foraging "hotspot" for migrating loggerheads, but also a rich fishing ground. Estimates vary, but some studies conclude that as many as 3,000 loggerheads annually die in gillnets and on longlines.

"We are very close to a threshold at which the population could decline very dramatically," says Agustín Bravo, director of the northwestern office of the Mexican Center for Environmental Law, a leading green group here.

The NOAA action does not come in a vac-

uum. The agency in 2011 introduced a certification process under the Moratorium Protection Act in an effort to strengthen safeguards against unregulated fishing and bycatch of endangered marine species. NOAA put Mexico on notice in 2013 for inadequate loggerhead-protection measures, which meant Mexico had two years to align its rules in this area with those of the U.S. and avoid negative certification.

Conapesca in April issued rules to boost turtle protection in the Gulf of Ulloa. They create a so-called Temporary Partial Fishery Reserve of nearly 9,000 square kilometers (3,500 sq miles), and set an annual loggerhead turtle mortality limit of 90 turtles. Once that threshold is reached, gillnets and longlines will be suspended in the reserve from May through August, the turtles' heaviest feeding period. Conapesca also earmarked 2,000 square kilometers (770 sq miles) of the reserve as a Specific Restricted Fishing Area in which large-mesh gillnets would be banned all year and smallermesh gillnets from May through August. A third of boats using the reserve must carry scientific observers and the rest video surveillance in conjunction with satellite monitoring.

Protections found wanting

Some experts say the plan fails to cover a big enough area, and complain it will expire in two years. The restrictions on fishing gear take effect in October of this year, though the Maythrough-August foraging season—when the turtles face the greatest risk—is now over. "So they let another year go by," Bravo says.

NOAA says Mexico's new rules mark "significant progress," but fall short of U.S. turtle-protection standards used in Hawaii and California. For one, the agency says, Mexico's rules address the size of the net mesh but not how long nets can be left in the water. Also, Mexico failed to impose protections outside the Maythrough-August period and to say how it would monitor turtle deaths. Experts note the mortality cap of 90 turtles far exceeds that applied by NOAA in the Hawaii shallow-set longline fishery. There, the "interaction" of only 34 loggerheads with nets triggers closure of the fishery for the rest of the year.

Sarah Uhlemann, senior attorney and international director at the U.S. nonprofit Center for Biological Diversity, notes Mexico is the first country to receive a negative certification under the Moratorium Protection Act. What the White House does now and how Mexico reacts, Uhlemann argues, will reveal a lot about the power of the certification process. "It sets a really important precedent," she says.

-Victoria Barnett

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Documents & Resources:

NOAA declares loggerhead turtle populations as endangered: http://bit.ly/LOGGERHEAD

NOAA Feb. 2015 report to Congress on countries improving international fisheries management: http://www.nmfs.noaa.gov/ia/iuu/ msra_page/2015noaareptcongress. ndf

NOAA decision to give Mexico a negative certification over bycatch of loggerhead turtles: http://www.nmfs.noaa.gov/ia/iuu/msra_page/addendum_to_2015report_to_congress.pdf

National Commission of Aquaculture and Fisheries (Conapesca) plan to protect turtles off Baja California Sur: http://dof.gob.mx/nota_detalle.php? codigo=5388487&fecha=10/04/2015

Ecuadorians can seek Chevron Canada assets

Ottawa Canada

n a 7-0 ruling, the Supreme Court of Canada this month dismissed an appeal by oil giant Chevron that would have stopped Ecuadorian Amazon villagers from using Ontario courts to collect US\$9.5 billion in damages for environmental contamination in Ecuador.

Chevron had appealed to Canada's highest tribunal last year, challenging a Dec. 2013 decision by the Ontario Court of Appeal allowing the Ecuadorian plaintiffs to launch proceedings aimed at seizing Chevron Canada assets. The 47 plaintiffs, representing some 30,000 villagers, say they must do so to collect the \$9.5 billion that an Ecuadorian court ordered Chevron to pay them to remedy years of oilfield pollution in their country's Amazon region.

The Canadian proceeding pitted the principles of limited liability between parent corporations and their subsidiaries against access to justice and the right to effective remedy. The Sept. 4 ruling states Chevron has sufficient presence in Ontario to warrant jurisdiction. "Chevron Canada has a physical office in Ontario, where it was served," Justice Clément Gascon wrote for the court. "Its business activities at this office are sustained; it has representatives who provide services to customers in the province. Canadian courts have found that jurisdiction exists in such circumstances."

Connection established

Noting that court decisions in other jurisdictions, when legitimate, should be respected and enforced, Gascon wrote: "Canadian courts, like many others, have adopted a generous and liberal approach to the recognition and enforcement of foreign judgments. To recognize and enforce such a judgment, the only prerequisite is that the foreign court had a real and substantial connection with the litigants or with the subject matter of the dispute, or that the traditional bases of jurisdiction were satisfied."

Chevron had argued that it has no connection to Ontario; that it is a legally separate company from Chevron Canada, and that it had no assets there. Chevron Corp. has no assets in Ecuador for the respondents to pursue there.

The decision, though, was purely jurisdictional. "The establishment of jurisdiction does not mean that the plaintiffs will necessarily succeed in having the Ecuadorian judgment recognized and enforced," it read. "A finding of jurisdiction does nothing more than afford the plaintiffs the opportunity to seek recognition and enforcement of the Ecuadorian judgment."

While the court noted shares in a subsidiary belong to the shareholder, not to the subsidiary itself, it did not address the view, advanced by Chevron, that subsidiaries are distinct entities and should not be liable for actions by their

corporate parents. It also pointed out Chevron "has 100% ownership of every company in the chain between itself and Chevron Canada."

Since 1993, plaintiff attorneys have sought redress for oilfield pollution that harmed soils, water sources and human health in the Ecuadorian Amazon provinces of Sucumbíos and Orellana. Chevron never produced oil in Ecuador, but became the defendant in the suit in 2001 after acquiring Texaco. A Texaco subsidiary, Texpet, was accused of causing the pollution as managing partner of oil operations in the area from 1963 to 1972. In 2011, an Ecuadorian court issued a US\$18.3 billion judgment against Chevron in the case, but the award was reduced to \$9.5 billion on appeal. With Chevron having sold its assets in Ecuador in 1992, plaintiffs are trying to collect on the judgment by seizing company assets in other countries.

Chevron reacts

On its website, Chevron expressed confidence that the \$9.5 billion Ecuadorian judgment against it will prove unenforceable. "Today's decision has no bearing on the legitimacy or enforceability of the fraudulent Ecuadorian judgment," the company said. "Instead, the Supreme Court of Canada has simply decided that the Ontario trial court has jurisdiction to entertain further proceedings in the action..."

Steven Donziger, a U.S. attorney who has represented the Ecuadorians, said that while enforcement of foreign judgments is routine in Canada and around the world, the impact of the Canadian decision will be important.

"The implications of this particular decision are enormous for human rights victims everywhere, given Chevron's unprecedented efforts to spend hundreds of millions of dollars to block the courthouse door to these vulnerable and long-suffering indigenous and farmer communities," he stated. Donziger added that an amended claim has been filed before the Ontario Superior Court of Justice.

Donziger is appealing a March 2014 ruling by U.S. District Judge Lewis Kaplan that the Ecuadorian judgment was the result of fraud committed by Donziger and others. Kaplan's ruling, which blocked pursuit of Chevron assets in the United States, decided a suit Chevron had filed against Donziger under the Racketeer Influenced and Corrupt Organizations Act (RICO). "We expect a favorable decision on appeal [of the Kaplan ruling], but ultimately what U.S. courts have to say about the case will have little or no impact in Canada, given that only Canadian courts have actual jurisdiction for purposes of enforcement," Donziger says.

-Celeste Mackenzie

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Documents & Resources

For the Supreme Court of Canada decision: http://bit.ly/SUPREMEDECISION

For Chevron comment on the case: www.theamazonpost.com.

Brazilian solar policies attract panel makers

Rin de Janeiro Brazil

our foreign manufacturers of solar equipment are planning to set up panel-assembly plants in Brazil, thanks in large part to efforts by the Brazilian government to spur solar power generation through renewable energy auctions for project developers and panel makers.

Such projects will give Brazil its first industrial-scale solar-panel-supply capacity, relieving developers of the need to import virtually all their solar panels and most other components—and to pay steep import taxes to do so. "Assembling solar panels in Brazil will make them much cheaper than foreign-bought panels subject to import taxes, and this gives us a competitive advantage in a market with too much solar growth potential to ignore," says Adalberto Maluf, marketing director of the Brazilian subsidiary of BYD, a Chinese company planning one of the plants here. "This is why we expect to have three or more competitors in the next year or two."

Two of the foreign firms—SunEdison and Canadian Solar—will initially supply equipment to solar farms that they themselves are installing here in partnership with local developers. They are doing so in order to meet power-supply commitments they sold at Brazil's first national solar auction, held in October 2014 and last month.

Meanwhile, two other foreign entities plan to produce panels here but thus far have not sought to develop their own solar farms. These are BYD and a joint venture called Pure Energy, which comprises the Italian holding company BMS, the solar developer Regran, also Italian, and the Brazilian construction company Cerutti Engenharia.

Supplying six farms

U.S.-based SunEdison announced in November 2014 it was investing US\$30 million here to assemble solar panels and trackers, which move solar panels so they face directly into the sun throughout the day. The panel plant, to become operational next year at a still-undecided location, will supply six solar farms the company plans to build in northeastern Bahia state. The farms are a joint venture with Renova Energia, Brazil's largest renewable energy company.

The other company slated to build an equipment plant to supply its own solar farms, Canadian Solar, confirmed such plans but has declined to provide details. The plant is expected to supply eight solar farms Canadian Solar is installing in a joint venture with local developer Solatio Energia in east-central Minas Gerais state.

Pure Energy, the joint venture focusing

on panel assembly, is erecting a R\$40 million (US\$10.6 million) plant in northeastern Alagoas state, with production slated to start in December. The other firm set to produce equipment without installing its own solar farms, BYD, says it is building a R\$150 million (US\$40 million) plant slated to begin operations in January and to start panel deliveries in April 2016.

The birth of a local solar-equipment market in Brazil stems in part from the success of the country's first solar auction, after which most of the investments were announced. (See "Brazil's first solar-only energy auction finds takers"—EcoAméricas, Nov. '14.) At such auctions, regional distributors buy future solar power under government-set terms from solar-farm developers. Prices are subject to a government-set ceiling, and is sold in 20-year contracts.

Strong initial auction

At the first auction, held last October, distributors bought 889.6 megawatts of future solar power at an average price of R\$215.12 (US\$86.80) per megawatt hour (MWh). In the second auction, which took place last month, distributors contracted for 833.9 megawatts at an average price of R\$301.79 (US\$84 per MWh). The Brazilian Photovoltaic Solar Energy Association (Absolar), Brazil's main solar trade group, considered both auctions successful, given that a total of 1,723.5 megawatts of power was sold. The second auction was seen as more impressive than the first because the sales occurred even though the economy was stagnant last year, will have contracted this year by an estimated 2% and is expected to continue shrinking next year, dampening energy demand.

In the second solar auction, the government responded to the demands of solar developers by greatly increasing the ceiling price of solar power in reais, the local currency, because the real had devalued by 43% against the U.S. dollar since the first auction.

The higher ceiling maintained a stable U.S.-dollar price for solar power for developers because even with the beginning of a nascent solar equipment market, they will still be importing some of their dollar-priced solar equipment and components.

A third solar auction is planned for Nov. 13, with the government-set ceiling price expected to be comparable in dollars to the ceiling price of the last auction, according to Absolar. The trade group expects a total of over 1,500 megawatts of energy will have been sold at this year's two auctions, 40% more than last year. The government says it will hold at least one solar auction annually in the coming years.

-Michael Kepp

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Centerpiece

Chinese investors pose challenge for NGOs

hen the world's largest hydroelectric dam builder, China's state-owned Sinohydro, withdrew from the Agua Zara project in Honduras in 2013, opponents credited a grassroots campaign by local activists. The campaign's leader, Berta Cáceres, won the Goldman Prize (the "green Nobel") this year largely as a result of that effort.

But as Cáceres organized members of her indigenous Lenca people to block supply roads to the Agua Zarca construction site, representatives of the U.S.-based environmental group International Rivers (IR) were working behind the scenes in Beijing. They were meeting with Sinohydro executives, providing the kind of information that a Western company's community-relations team might normally gather on local sentiment and the positions of civil society groups.

While no one can say which, if either, strategy prompted the company's about-face, the Agua Zarca campaign may prove to be a landmark in the development of relations between Latin American civil society and the increasingly prominent Chinese investors sponsoring megaprojects in the region. Some observers believe that Latin American civil society leaders and Chinese business executives might be starting to learn how to deal with each other. But it could take time. Many Central and South American activists are struggling for ways to understand the modus operandi of these new investors and even how to make initial contact.

"It is very important to find ways to exert influence," says Esperanza Martínez, co-founder of the Quito-based NGO Acción Ecológica, and perhaps Ecuador's most prominent environmentalist. "But we don't understand them well, and civil society there is weaker. We understand Europe and the United States better."

In recent decades civil society organizations around the world have developed a standard playbook of methods to influence decisions by international investors. Those investors, however, have typically been multilateral financial institutions such as the World Bank and the Inter-American Development Bank (IDB) as well as Western and Japanese companies keen to protect their brand images and stock prices. Multilateral banks have created formal mechanisms to incorporate NGO and community input about the projects they finance. And many Western companies have learned that public protests and legal challenges can prove costly and time consuming. A 2012 report on mining sector trends released by Deloitte, a global consulting firm, stressed the need to address the demands of what it called "restless stakeholders." By taking extra steps to be good corporate citizens, Western mining company executives believe they can insure themselves against nationalizations, additional regulation, higher taxes, lawsuits, and protests that could hamstring operations.

But civil society groups have had to come to grips as well with the increasingly powerful presence of Chinese investment. In 2010 Chinese loans to Latin America overtook the combined total for the World Bank, Inter-American Development Bank (IDB) and U.S. Export-Import Bank, with US\$119 billion of credits flowing to the region during 2005-14, according to Inter-American Dialogue, a Washington, D.C.-based think tank. Chinese foreign direct investment in Latin America averaged \$10 billion a year during 2010-13, according to the Economic Commission for Latin America and the Caribbean (ECLAC), a United Nations agency based in Santiago, Chile. The agency does not have a specific estimate for last year, but says the figure was probably higher.

Funds in such deals have been channeled for the most part into large-scale infrastructure projects and extractive endeavors such as the Coca Codo Sinclair dam and the Mirador copper mine in Ecuador. As they have tried to engage with Chinese investors,



Ecuadorian Minister of Electricity and Renewable Energy Esteban Albornoz, foreground, visits the Coca Codo Sinclair hydroelectric project. (Photo courtesy of Ecuadorian Energy Ministry)

Latin American activists have found their customary tools wanting. "In Ecuador and around the region, we have figured out how transnationals from the United States, Europe and [Latin America] do business," says Mario Melo Cevallos, coordinator of the Human Rights Center at the Law School of the Catholic University of Ecuador in Quito. Melo cites pressure that can be put on publicly traded companies, a tactic that Ecuadorian activists used in the high-profile oilfields pollution case brought against Chevron. "When it comes to investors

the Chinese banks," she says. "It became important to figure out how to exert influence on them." The first question Garzón asked herself was whether Chinese investors had social and environmental standards and, if so, what they were. Civil society organizations spend much of their efforts trying to

persuade multilateral banks to adhere to

ing in 2009 I began to notice the growing

importance of new actors like the BNDES

[Brazil's national development bank] and

strategy would work with the Chinese. That exercise led to an 80-page booklet for local communities called "Legal Manual on Chinese Environmental and Social Regulations for Foreign Loans and Investments: A Guide for Local Communities."

Used since December

issue.) She says a Peruvian nonprofit called Law, Environment and Natural Resources (DAR) is "highly effective" at this. Says Ray: "[DAR] holds regular public events to cultivate a dialogue about the ongoing process of Chinese investment in Peru."

In that vein, DAR is tracking the activities of the New Development Bank, which is operated by the so-called BRICS countries of Brazil, China, India, Russia and South Africa, says Martha Torres Marcos-Ibáñez, an Amazon specialist with DAR.

Many initial efforts parallel the information-gathering strategy. International Rivers recently published a report ranking the social and environmental practices at seven Chinese hydroelectric projects around the world, including two in Ecuador. The U.S. green group Friends of the Earth presented seven case studies addressing Chinese bank financing for overseas investments. Two concern Ecuador: Mirador and the Pacific Refinery. Read one of



Protestors in Quito, Ecuador on Aug. 21 with sign reading "Chinese mines, get out!" (AP photo, Ana Maria Buitron)

from places such as China, Indonesia or India, we don't understand anything. We don't understand their logic."

Nor does Salvador Quishpe Lozano, who is the prefect, or governor, of Ecuador's Zamora Chinchipe province, home of the Mirador deposit. "The Canadians were here before, and I know activist groups put pressure on publicly traded companies in the United States, Europe and Canada," he says. "But with the Chinese it is different because they have a different way of doing things."

That way of doing things typically means focusing tightly on carrying out the project. Says Stephanie Jensen-Cormier, China program director of International Rivers: "They do not have that [community relations] infrastructure built into their companies."

With the expected slowdown in the Chinese economy, experts have forecast that the biggest effects for Latin America should be in commodity exports. It is less clear to what extent China's foreign direct investment will be affected. If new Chinese initiatives were to dry up, there are already enough megaprojects in the pipeline to keep everyone busy for a while.

Paulina Garzón, director of the China-Latin America Sustainable Investments Initiative at American University in Washington, D.C., was among the first to address the shift in foreign investment, some of which also was driven by Brazil. "Start-



Ecuadorian President Rafael Correa, right, with Chinese Technology Minister Wang Gang. (Photo by Eduaordo Santillán)

2014 in training workshops for affected communities in Ecuador, the manual has prompted campaigns of letter writing to Chinese banks about Mirador and the Pacific Refinery, a petroleum refinery project. The manual also has been presented at events in Colombia, Peru and Brazil. Meanwhile, Garzón's organization has been publishing a newsletter in Spanish about Chinese investment in Latin America.

Rebecca Ray, a research fellow with the Global Economic Governance Initiative at Boston University's Frederick S. Pardee School of Global Studies, categorizes Garzón's workshops as one part of a two-pronged strategy. The other, she says, involves informing the public about the environmental and social impacts of Chinese investment projects. (See Q&A-this

the central conclusions: "The case studies indicate that Chinese banks lack transparency and sufficient methods of engaging with the public, practices which reduce their access to beneficial information and input that could improve their [good corporate governance] compliance."

Another strategy is to make inroads on public opinion, and not only in Ecuador. Garzón, Melo and their respective organizations are working to gather information about large Chinese investments in Ecuador and then engage with Chinese opinion leaders. "Gather and spread information—that's the objective," says Melo. "And to establish communication with civil society, both in Ecuador and in China. We want to forge better contacts with Chinese universities that

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Esperanza Martínez, co-founder of the Quito-based group Acción Ecológica.

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might be interested in working together."

For their part, Latin American student groups are trying to link up with their Chinese counterparts. During the COP 20 climate summit in Lima, Peru, last year, students from Ecuador's indigenous Yasuní ethnic group reached out to young people from China and elsewhere. With abundant petroleum reserves, Yasuní lands have become a focal point for debates about oil drilling, including by Chinese companies. The students set up an informal network called the Climate Change Non-Adapters. "We have a lot in common with Chinese youth," says Elena Galvez, a Yasuní youth leader.

Still, a wall of silence often prevails. Mónica López Baltodano, executive director of the Popol Na Foundation, a Nicaraguan nonprofit, describes her organization's efforts to contact the Chinese company HKND Group, which won the concession to build a canal across her country. (See "Canal project still a puzzle after formal start"—EcoAméricas, Feb. '15, and "Impact report on Nicaraguan canal issued, but not to public"—EcoAméricas, Aug. '15.)

Hard to engage

Popol Na's research revealed HKND not to be a "real" company, but a consortium of 16 others. "It didn't have an office in the country," López Baltodano says, adding that its legal local address was that of a Managua law firm. Popol Na says HKND appeared to be using office space at the headquarters of Enatrel, Nicaragua's state-owned electric power transmission company, but had trouble confirming even that. "They don't answer the phone," she says. "They don't want to receive letters. We have to send messengers. It is impossible to communicate with the company."

The wall extends to places where physical proximity would seem to make silence impossible. "I don't have any contact with the Chinese," says Quishpe, the Ecuadorian provincial governor. "We share the streets and trails of our little city of Zamora with them, because there are a lot of Chinese citizens around. I don't know what they do, but it seems to me that many of them are common laborers."

Quishpe believes that instead of trying to pressure the Chinese, local activists should get their own national governments to uphold their laws and standards. "There is no dialogue," he says. "I have not tried to talk to them myself. I don't think I have anything to discuss with them. We have a constitution, and our national government is responsible for upholding the law. Our message has always been directed to our national government." (Repeated efforts to contact officials at the Chinese Embassy in Quito were unsuccessful.)

Back in Beijing, environmental organizations such as International Rivers do their best to convey the kind of input to Chinese companies that Western firms would gather through their community-relations departments. They've been talking with executives at Sinohydro regularly for the last five or six years and making contact with other Chinese companies involved in financing and investment in Latin America. "When we bring information [to the companies], they are interested," says Jensen-Cormier.

Cultural gap

After International Rivers released its above-mentioned report, a Chinese company that had received poor marks for its behavior in Cambodia, partially because of its lack of transparency, contacted the group to clarify its policies, she says. Jensen-Cormier and others note that the corporate cultural gap between China and Latin America might be wider than some people think. That could engender unintended communication breakdowns. "In Latin America people are aware and outspoken," she says. "It is a different way of doing things. With protests. That is not the norm in China."

From the point of view of Chinese business executives, "They build to satisfy their clients, which are often governments," says Jensen-Cormier. "A lot of times they do not have that infrastructure [for community relations] built into their companies." They don't realize that a project can fail "if a lot of stakeholders are against it."

Latin American civil society leaders are quick to say they are not opposed to the concept of Chinese investment. "It is neither necessary nor helpful to demonize Chinese investors, to convert Chinese investors into an enemy," says Melo. "That would be wrong. Instead we need to better understand their agenda and their strategies; and to understand whether these agendas and strategies are compatible with the long-term agendas and strategies of our country; and find points of agreement."

Garzón argues that Chinese investors may ultimately be driven to reach out to activists for the same reason as their Western counterparts. "It is in the interest of Chinese investors to begin to establish relationships with civil society where they operate in Latin America," she says. "The risk you run for not having a 'social license' is very high."

-Bill Hinchberger

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Magdalena dredging continued from page 1

Navelena, a consortium comprising the Brazilian construction company Odebrecht and its Colombian partner, Valorcon.

Since the delivery of final plans for the work on Sept. 11, however, environmentalists have stepped up warnings that the hydrology of the Magdalena, whose sediment load is among the world's heaviest, makes such a project too complex. "These engineers only see the river as a channel for laying cement," says Restrepo. "They don't see the river as an integrated drainage basin."

The fight over the future of the Magdalena comes as Colombia confronts some of the highest cargo costs in Latin America, with its limited network of roads and its trucks backed up on mountain passes. It simultaneously raises hopes for more efficient transport and fears that wetlands, fishing resources and vulnerable fauna, already under pressure, could be further harmed.

"The majority of ecosystem services are provided not from the river itself, but from its floodplains and its wetlands. Interfering with that system could have a dramatic impact..."

- Sandra Vilardy

From colonial times to the mid-20th century, the Magdalena was the principal artery of commerce in Colombia, linking Andean populations and manufacturing centers in the interior of the country with the ports of Cartagena and Barranquilla on the Atlantic coast. Exports and imports travelled easily through its waters on flat-bottomed riverboats. River ports, tucked into the thick jungles on its banks, grew prosperous with trade.

But tectonic processes in the Andes combined with heavy rains, landslides and deforestation carried out to accommodate farms, mines, and ranches have spurred erosion. Sedimentation in the river has increased by around a third in just the last 10 years, according to various studies.

The Magdalena has become so shallow in parts that navigation is no longer possible on a critical stretch joining Puerto Salgar, a river port close to the capital, Bogotá, to Barrancabermeja, another river port located 155 miles (250 kms) to the north. That has meant several days of expensive extra hauling by truck of products such as the coal and oil sent from

southern Colombia to the nation's Atlantic ports in the north.

The engineering challenge for Navelena, the construction consortium, is to dredge and deepen the river from Puerto Salgar to Barrancabermeja and from Barrancabermeja to the coast. The consortium also will build canals and levees to send the Magdalena through a narrower course, increasing its force and ability to flush out sediments.

That, according to government officials, should allow convoys of barges typically hauling 7,200 tons of cargo—the equivalent of 240 tractor-trailers—to ply the river year round. Travel time from Bogotá to the coast will be cut in half, from 12 days to six. Total cargo transported on the Magdalena is projected to rise from 1.5 million tons in 2011 to 10 million tons in 2029.

"The country will come to see the river as a strategic ally of its economy," said Navelena President Jorge Barragán, in an April interview with the Colombian daily El Espectador. "This project is completely viable."

The Magdalena's environment, however, already is in rough shape, experts say. Lead, mercury, and other toxins from thousands of farms and factories along the river, as well as untreated sewage from riverside communities, have pared the number of fish species recorded in the mid-20th century from 130 to 20 today.

In addition, populations of iconic species such as the West Indian manatee (Trichechus manatus), the American crocodile (Crocodylus acutus), and the Magdalena River turtle (Podocnemis lewyana) have plummeted. Some species could face local extinctions even without the dredging project.

The planned river work will only make the situation worse, environmentalists say. The dredging of the riverbed will particularly affect species of fish and reptiles that use the river bottom as their habitat. The channeling of the river with canals and levees, meanwhile, will prevent water from reaching the wetlands along the river's edge, thereby drying those ecosystems during the parched summer months, starving them of nutrients and interfering with their life cycle.

"The majority of ecosystem services are provided not from the river itself but from its floodplains and its wetlands," says Sandra Vilardy, a professor of ecology at the University of Magdalena in Colombia's Caribbean coast city of Santa Marta.

Adds Vilardy: "Interfering with that system could have a dramatic impact, in part because this is where the fish reproduce, the turtles lay their nests and the birds eat."

-Steven Ambrus

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Aerial-surveillance project continued from page 1

green groups and the country's National System of Conservation Areas (Sinac) alike.

Since August, people from all over the world have participated in a satellite monitoring campaign organized by the U.S. green group Turtle Island Restoration Network using the crowd-sourcing platform at Tomnod.com. The platform shows anyone with a computer, a fast Internet connection and a few hours of time how they can patrol the park by looking through satellite photos.

It has been used in the past for search and rescue missions and to help map flood damage, but so far more than 11,500 people have monitored the waters of Cocos Park on Tomnod. Scrolling through images of the park waters, users are instructed to watch for the disruptive streaks of a vessel's wake. Once a boat is spotted, volunteers can tag it for later inspection by Turtle Island Restoration Network.

The beta program started with archived images provided by satellite imaging company DigitalGlobe, which owns Tomnod. The campaign quickly became one of Tomnod's most successful, spurring DigitalGlobe to task its satellites with taking 10 new photos of the park at the same time each day. The campaign ran until Sept. 15.

"We are just curious to see how it works. If nothing else, we are certainly getting a lot of attention for Cocos Island," says Joanna Nasar, director of communications for Turtle Island Restoration Network. "We want to get the final results and see what we can do with them."

Not all of the results have been reviewed, but so far no poachers have been identified in the satellite images. Still, several legal dive boats were tagged in the data reviewed so far, indicating that users can easily recognize boats in the images. Tomnod and Turtle Island Restoration Network are also exploring the combined use of radar and satellite images to improve the odds of finding illegal boats.

The experimentation has shown that the satellite surveillance not only could help curb poaching, but also could serve the goal of marine conservation in the Cocos Island reserve in other ways.

"We got reports that there was a whale spotted in the images," Nasar says. "So that is another potential cool use of satellites; if we can actually see wildlife migrating, it could help with research."

Poachers that manage to go undetected by the legions of Internet lookouts will have to watch the skies for fast-moving aerial drones.

In May, Turtle Island Restoration Network, Sinac and the Costa Rican ocean-conservation group Pretoma tested aerial drones as a means of tracking illegal fishing and migrating wildlife with infrared cameras. Drones have been used in Costa Rica before to detect illegal shrimp trawling, but the team was unsure how they would perform in the marine environment around Cocos Island, where rainfall can reach 20 feet a year. The pilot program proved successful, and surveillance drones are expected to launch in the park sometime next year.

Able to fly for 40 continuous hours and travel more than 2,000 miles, the drones can survey the park—and collect visual evidence for use in prosecutions—more efficiently than patrol boats can.

"We aren't sure what is going to be the thing that works and finally shuts down illegal fishing, but we want to try any and all available technologies. We think all of this new technology could have a big role in conservation in the future."

- Joana Nasar

"Illegal fishers can see approaching patrol boats...and flee or cut their nets free," says Todd Steiner, the executive director of Turtle Island Restoration Network. "When they cut their nets free, it is impossible to prove they are fishing and makes convictions in court improbable. On the other hand, [the aerial drones] can sit in the air above without being seen and record and document what is going on without poachers knowing their illegal actions are being documented."

Coordinating with the Costa Rican Environment Ministry, the groups say that any video evidence they gather as a result of their electronic monitoring could be brought to bear in legal proceedings against violators.

While the specific legal details have not been ironed out, conservationists believe such efforts could significantly improve protection of Cocos Island Park.

"We aren't sure what is going to be the thing that works and finally shuts down illegal fishing, but we want to try any and all available technologies," says Nasar of Turtle Island Restoration Network. "We think all of this new technology could have a big role in conservation in the future."

-Lindsay Fendt

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based Nature Conservancy, raised concerns over possible impacts on the Pánuco River, which would have been the source for the aqueduct.

Instead, reforestation can help replenish the aquifer and restore a degraded river basin to increase the supply of water to Monterrey, critics of the plan contend.

"The state needs more water—sufficient, and of high quality," says Cosijoopii Montero, director of the local environmental group Extreme Reforestation.

Environmental groups expect Rodríguez to appoint a new director of the local utility, Monterrey Water and Drains (SADM), which had promoted the aqueduct, and they are arguing for a role on the agency's board. Says Montero: "We won't allow things to happen the same way again."

Follow up: Cosijoopii Montero, President, Extreme Reforestation, Monterrey, Mexico, +(521 81) 1212-3347, rex@reforestacionextrema.org.



Killing of Brazilian tribal leader puts spotlight on land conflicts

The Aug. 30 murder of a Brazilian tribal leader has rekindled concern about land conflicts here, particularly those that for decades have contributed to the high rate of assassinations and suicides among the victim's people, the Guarani Kaiowá.

The tribal leader, Semião Vilhalva, was killed during a clash with local cattle ranchers trying to run a group of Guarani Kaiowá off land earmarked as a new reservation for them. The Guarani Kaiowá, who inhabit the western state of Mato Grosso do Sul, have for decades accused Brazil's government and courts of deliberately causing genocide by failing to provide their long-suffering tribe with ample land to inhabit.

To drive that accusation

home and to protest Vilhalva's murder, a procession of some 30 tribal members carried a coffin and a banner reading "Enough Genocide" to the Supreme Court and the Presidential Palace in the national capital of Brasília on Sept. 1.

Vilhalva was among 1,500 Guarani Kaiowá living in an encampment located on the new, much larger reservation that the government created for them in March 2005 but has yet to demarcate.

The delay occurred because in July 2005, the Chief Justice of Brazil's Supreme Court suspended the decree that creates the reservation, and the full court still hasn't ruled on the question.

The decade of inaction in the case has allowed ranchers to stay on the land, which they and the Indians claim as their own. Tension over this state of affairs fueled the Aug. 30 clash between encamped Indians and a group of 100 ranchers accompanied by hired gunmen, resulting in Vilhalva's murder.

The 45,000-member Guarani Kaiowá people are the second-largest indigenous group in Brazil, but occupy just 0.06% of Mato Grosso do Sul state. Most of the tribe lives on eight reservations covering a total of 300 square kilometers (116 square miles) in villages so overcrowded that they resemble refugee camps.

A small percentage of tribal members inhabit land they have reclaimed. Other groups of Guarani Kaiowá live in roadside encampments next to areas they once inhabited and are trying to reclaim, an effort that sometimes costs them their lives.

Forty-one of the 138 assassinations of Brazilian Indians last year occurred in Mato Grosso do Sul state, one of 20 areas where such violence occurred, according to a report by the Indigenous Missionary

Council (Cimi), Brazil's most respected and influential indigenous-rights group. And 25 of those murdered were Guarani Kaiowá, says the report, which is entitled "Violence Against Indigenous Peoples" and was issued in June of this year. No other region registered over 15 tribal murders in 2014, but Mato Grosso do Sul has averaged 35 annually since 2003, and 65 a year since then.

The Cimi report says that of the 18 regions where 135 Indian suicides occurred in 2014, four dozen happened in Mato Grosso do Sul state, where the Guarani Kaiowá are by far the biggest tribe. In the 17 other regions, all but one had single-digit suicides. Mato Grosso do Sul state has averaged 47 indigenous suicides a year since 2000, according to the report.

"The high number of Guarani Kaiowá suicides and murders has mainly been caused by their living in very small, extremely overcrowded reservations and by their clashes with armed ranchers when attempting to reclaim land on which they once lived," says Cimi's executive secretary, Cleber Buzatto.

Says tribal leader Daniel Vasques Kaiowá: "When our land is taken from us, our lives are also taken away. When we attempt to take back our land, we are trying to reclaim the lives we lost."

The Guarani Kaiowá had been living on about 20% of what is now Mato Grosso do Sul state until the 1930s, when the government spurred western settlement by handing out land titles to migrating farmers and ranchers. All 10,000-15,000 Guarani Kaiowá were forcefully relocated to the eight small reservations where 45,000 of them now live.

On these reservations, the tribe lacks land to do subsistence farming, let alone hunting and fishing. Young male members work on nearby

sugar plantations in harsh conditions and for little pay. Others work in low-paying jobs in nearby towns.

Pressures from the resulting poverty have led to alcoholism, enabled by bars that have sprung up in and outside the reservations. Evangelical churches, meanwhile, have attracted many younger tribal members, who have increasingly come into conflict with elders over religious and cultural questions.

With depression all too common among them, young Guarani Kaiowá account for the bulk of suicides. In 2014, 66% of the Guarani Kaiowá who took their lives were tribal members aged 15 to 29, according to the Cimi report.

Experts see resolution of the land disputes as essential in addressing the pressures at work on the tribe, and they point their finger mainly at the government and the courts.

"The government is mainly to blame for trying to create new Guarani Kaiowá reservations without relocating displaced farmers and ranchers and fairly indemnifying them for capital improvements, such as buildings on the land," says Marco Antonio Delfino Almeida, a federal prosecutor in Mato Grosso do Sul state. "But legal footdragging by the Supreme Court and federal court decisions in favor of the ranchers and farmers with land titles is partly to blame for the tribe still mainly being confined to the eight small reservations where it was originally relocated." Follow-up: Cleber Buzatto. Executive Secretary, Indigenous Missionary Council (Cimi), Brasília, Brazil, +(55 61) 2106-1650, secretario@cimi.org.br; Daniel Vasques Kaiowá, Guarani-Kaiowá, leader, Aral Moreira. Mato Grosso do Sul state. +(55 67) 9917-1934, daniellemesvasque s@hotmail.com; Marco Antônio Delfino Almeida, Federal Prosecutor in Mato Grosso do Sul state. Campo Grande. Mato Grosso do Sul state, +(55 67) 3411-1700, marcoalmeida@mpf.mp.br.

Q&A:

Multi-university group assesses Chinese impact in region

Kevin Gallagher, a professor of global development policy at Boston University, is cofounder of a research network called the Working Group on Development and Environment in the Americas. Drawing on university investigators across the Western Hemisphere, the network is coordinated by research centers at the University of Buenos Aires in Argentina, the University of the Pacific in Peru, and **Boston University and Tufts University in the United** States. Recently, the network produced a report titled "China in Latin America: Lessons for South-South Cooperation and Sustainable Development." The report examined two questions: to what extent has China independently influenced environmental and social change in Latin America, and to what degree does the social and environmental performance of Chinese companies investing in the region differ from that of their counterparts. Gallagher discussed the findings recently with EcoAméricas editor and publisher George Hatch.



Kevin Gallagher

Has Chinese demand for commodities caused environmental degradation in Latin America?

We confirm this. China has been a significant and independent driver of environmental degradation in the region since the turn of the century. It has driven economic growth, but growth that has been based on the region selling China primary commodities such as soybeans and metals. Such production and export are highly land intensive, often involving land conversion in highly forested areas and thus accentuating pressure on everything from local livelihoods to global climate change. We find Latin American exports to China are two times more CO2 intensive and ten times more water intensive than the region's economies as a whole. And Chinese demand for commodities can ignite more of this type of extractive activity by U.S. and Canadian firms by driving up commodity prices. We confirm China as an independent driver of environmental degradation not only because its demand increases pressure to get minerals out of the mountain; but also because to get minerals out of the mountain, you need chemicals and water. The report documents case after case of that.

A common criticism is that Chinese firms active in Latin America are less sensitive to environmental and social concerns than their international counterparts working in the region. Is that the case?

We were surprised to find that Chinese companies are not always the most egregious in their social and environmental behavior. It is important to make a distinction between the growth in exports to China as a driver of environmental degradation and whether Chinese firms operating in Latin America is the problem. These are two different questions. Some actors in the region and globally tend to paint China as a straw man, but to a certain extent that's not fair. It's not always the case that Chinese companies are any better or worse than other companies in terms of their social and environmental performance. As an example, in Peru there's a large metals smelting and refining operation formerly owned by the U.S. mining company Doe Run and for years the source of widespread pollution in the Andean community of La Oroya. Compared to that firm, the Chinese companies are exemplary. When they are pressured

by the enforcement of regulations and-or the environmental sector, we find evidence that they can perform better. That's why we lay the responsibility at the feet of Latin American governments. After all, these are Latin American resources, ecosystems and peoples that are in jeopardy. When governments and civil society enforce their own rules and hold firms accountable, better social and environmental outcomes prevail. That is what we found. For example in Peru, the [Chinese] firm Chinalco has rapidly responded to environmental challenges around its [copper] mine and had numerous consultations and engagements with local civil society. Chinese firms like Chinalco typically take a longer view of their assets, as opposed to a western firm that is more likely to sell its assets during a downturn. Because of this the Chinese firms. at their best, are more apt to work to build longer-term relationships with communities and governments. But in the Chinese case, they are

globalizing into countries with higher standards. This is new to them. Pressure has to be applied from governments and also from civil society.

Even if governments in the region were to hold foreign investors to higher standards, how would they address the intense pressure that global demand generally, and Chinese demand in particular, are putting on the region's natural resources?

Latin America, especially South America, faces a blessing and a curse. It has a comparative advantage in primary commodities. But when prices and demand for commodities are high, the region grows and [the countries] play economic catchup so much that they neglect the environment. And when prices and demand go down, they don't want to place a burden on the engines of growth. So it's a built-in conundrum. They live on commodity boom-and-bust cycles, [which means] the constituency for a low carbon economy is not there. We document that the commodity boom emboldened many of these interest groups, like ruralists in Brazil to put downward pressure on the Forest Code [Brazil's main forest-protection law]. In Peru, now that demand for commodities has gone down because Chinese demand for commodities is going down, the government is so concerned that they're streamlining environmental regulations. This is happening across the region. As growth slows there is a desperate attempt to get any kind of investment possible, even if that means turning a blind eve to social and environmental regulations. Moving forward, China can be part of the conversation; but Latin America needs to prioritize environmental sustainability and social inclusion on economic, environmental, and social grounds. To their credit, the Chinese are committing to tens of billions of dollars of infrastructure in the region. If Latin America had a plan for integrating low-carbon and socially inclusive infrastructure programs, the Chinese might invest even more. Indeed, in a new joint fund with the Inter-American Development Bank the Chinese are financing wind farms in Uruguay, but that's what Uruguay has asked for. More broadly, Latin America must build from its strength in primary commodities and diversify to manufacturing and services in order to transition to a low-carbon economy in a socially inclusive manner.