

WINTER 2014

ReVista

HARVARD REVIEW OF LATIN AMERICA

MINING



A Reflection

The vault-like room on the top floor of Bogotá's Gold Museum was shrouded in darkness—an eerie penumbra. Gradually, while indigenous flute music played in the background, the light began to dawn, and I was surrounded by thousands of pre-Colombian gold objects: necklaces, breastplates, drinking vessels, masks, pendants, earrings. I felt alone with the power and the beauty and the mystery of gold.

Since that first visit to the museum in 1975, I've taken dozens of visitors there without telling them about the magic of the gold-filled room (readers, I apologize for the spoiler!) Yet, it is only now, as I write my letter to you, that I remember earlier—and more negative—reactions to the products of precious metals from Latin American mines.

I had visited dozens of colonial churches in Central America before arriving in Colombia. Handcrafted silver amulets in the shape of ears, legs, hearts and other body parts caught my attention, and I learned they were a way of giving thanks for healing. Already struck by Central American poverty—a child in Honduras had grabbed some half-eaten chicken bones off my plate—I was saddened and angered by these costly donations from long-ago folks who probably had little to eat.

Metals played an integral part in the history of Latin America. After visiting the Gold Museum, I could understand how colonial Europeans were so attracted by the myth of El Dorado. Wealth and mining went hand-in-hand; something very lucrative was said to be “worth a Potosí,” a reference to the vast Bolivian silver mine.

After my vastly different reactions to the Gold Museum and the churches, I more or less forgot about mining during the 17 years I covered Colombia and Central America as a foreign correspondent. My stories were about war and revolution and the church, about human rights abuses and social change.

I did once report a story on gold in Colombia, my first experience in finding that statistics from different government agencies sometimes lack the least bit of similarity. I went to the huge Cerrejón coal mine in northern Colombia in the early 1980s. I even wrote about mine nationalizations in Nicaragua.

But mostly mining was off my radar.

Fast forward to 2010, when the world watched as the Chilean government and international supporters attempted to rescue 33 trapped miners...and succeeded. I cried as the men emerged from the mine. The drama of the rescue was televised live internationally. That Halloween, trick-or-treaters in Cambridge were wearing Chilean miner costumes. All of a sudden, miners had a face.

I remembered that the last times I had felt emotions around mining were my experiences in the Gold Museum and in the Central American churches. These conflicting reactions reflect some of the tensions in mining even today. Mining is a source of wealth, development, beauty, modernization and employment. Mining is a resource curse, making countries dependent on one commodity; it exploits; it is environmentally damaging.

In this issue of *ReVista*, we've explored some of these issues, as well as community reactions. And as I write about my three emotional responses to mining, I might add, don't forget the people. No matter what your response to mining, what matters in the end is how it affects people's lives.



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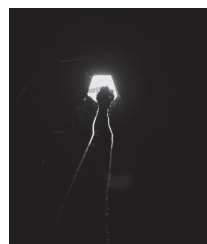
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ON THE COVER

View from a Colombian mineshaft.
Photo by Lorenzo Morales.

Two Tales of Mining and Human Choice

BY JUAN CAMILO CÁRDENAS

TWO TALES OF VERY SMALL HUMAN SETTLEMENTS with mining potential may help us reflect on what Latin America, on a larger scale, faces today regarding the exploitation of minerals from its territories. At these two settlements, mining was stopped because of human choices and collective action. In one case, tensions led to the use of force and rebellion; in the other, environmental tensions led to deliberation and democratic practice. Both illustrate the never-ending controversies about mining that have been haunting our continent in past centuries and to this date.

One of the stories, on the small island of Navassa in the Caribbean, ended in the death of some workers, the jailing of several people and the suspension of the collection of guano, a natural fertilizer highly valued toward the end of the 19th century at a moment when the U.S. agricultural sector was in great need of improving its farming productivity. The other case took place in 2013 in Piedras—a small town in Colombia's highlands—where the plans of a major international gold mining company to extract around a million ounces of gold per year over a twenty-year period are now stalled, while raising the hopes of a community that feared the threat of gold extraction would ruin their health, water sources and agricultural activities.

Both stories might be used to reflect on the current prospects of a new wave of mining in the region, brought by an increasing world demand for minerals. This boom brings fears of social and environmental negative impacts on the one hand, while on the other, it promises substantial revenues for states that urgently need to reduce poverty, now that most Latin American countries have embraced democracy and social redistributive policies.

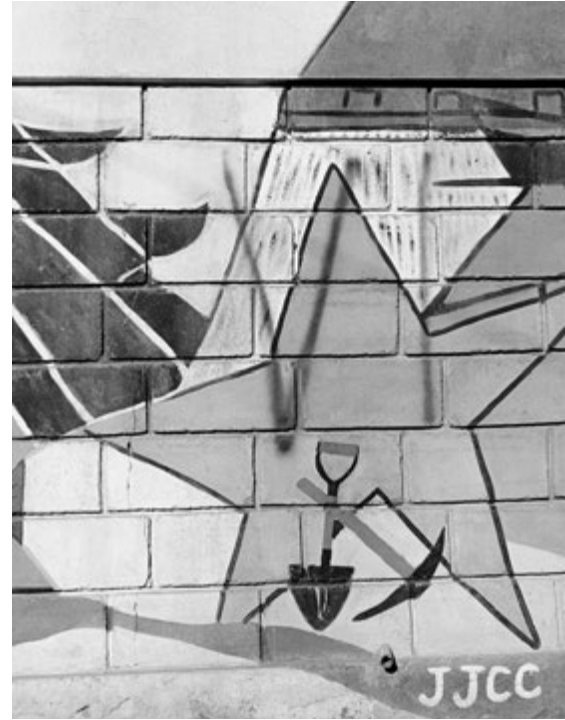
There lies the dilemma of a curse or a blessing, mining as a source of conflict and tragedy, or mining as a means for improving the well-being of the majority through fiscal revenues and social investment. The following two stories lie at the extremes, and as such, they should invite a constructive policy debate for the region.

THE GUANO STORY ON NAVASSA ISLAND

On his fourth trip, part of the crew traveling with Christopher Columbus landed on this small island between Haiti and Jamaica, and found no water, probably the main reason why there was no interest for the next three centuries in this five-square-kilometer piece of land. In mid-19th century the United States enacted the Guano Island Act (1856), which allowed U.S. citizens to take possession of unoccupied islands where guano was found and where no other countries had declared jurisdiction. The demand for guano, a precious fertilizer at the time, was booming with prices ranging between \$50 and \$70 per ton.

In 1857 Peter Duncan claimed Navassa under this act, later transferring his rights to Edward Cooper who then sold them to the Navassa Phosphate Company of Baltimore. This company exploited the guano under the direst of working conditions with a group of between 140 and 180 African-American workers brought from the Baltimore area. Mining started by the mid-1860s, with each man digging up between one and one and a half tons of guano per day, while being paid around \$8 per month.

By 1889 half of the workers were not allowed to go back to Baltimore because of their debt with the company store on





Clockwise from top left: A Chilean miners' labor union mural (1999) near La Serena in Andacollo, Chile; a Madonna shrine protects a Colombian mine; an open pit gold mine in northern Chile.



the island, which charged more than they could pay with their earned wages. The levels of physical punishment and inhuman working conditions ultimately led to a riot that year, ending with the death of five supervisors, and trials and execution sentences for the miners in the United States. The company declared bankruptcy in 1898 as a result of its bad publicity, difficulty in hiring workers and competition from other fertilizer suppliers. In 1901, the short-lived mining project in Navassa was shut down.

THE “CONSULTA POPULAR” IN PIEDRAS, COLOMBIA

In May 2013, the municipal council of Piedras in the Colombian Andes decided to issue a popular referendum, known in Colombia as *consulta popular*. The question was whether the inhabitants agreed that the municipality should allow extractive activities that could harm the health, water supply and agriculture of its territory. This particular town is at the center of a controversial mining project (“La Colosa”) with estimated reserves of 24 million ounces of gold, worth more than \$US30 billion today, and managed by one of the world giants of gold mining. The area affected is part of a particular ecosystem providing water sources for an entire region highly dependent on irrigation for rice production and human consumption. The project, according to the company, would cover 3,953 acres. Rough estimates mention state revenues between royalties and taxes of around USD\$450 million per year during the length of the extraction project.

On July 28, 2013, this small municipality of 14,200 inhabitants voted on the referendum. For this vote to have legal validity, a minimum of 1,702 votes was required. A total of 2,995 valid votes were finally cast. Only 24 gave a “yes” to mining, while 2,971 votes (99 percent) for the “no” sent a clear mandate from the local level, expressing the direct will of the people.

However, here as in all Latin America, the subsoil belongs to

the national state and not to the land-owners sitting on top of the valuable resources, creating a challenging jurisdictional dilemma. The company expects to begin production by 2019 on what would become the largest gold mine in Colombia, but as of today it still needs to muddle through several legal pending issues regarding environmental licenses in addition to this popular referendum, all of which has created a predicament for the national government.

LESSONS LEARNED, AND NOT LEARNED

These two extreme outcomes illustrate the tensions associated with mining, and should thus offer some lessons for reflection. It is not easy for the state to forego valuable and often urgently needed revenues for reducing poverty in order to preserve cultural systems, biodiversity-rich ecosystems, water supplies, and to reduce the threats to the health of local inhabitants. At the same time, to carry out extraction under inhuman or unsustainable conditions for highly profitable short-term profits is an unlikely prospect and seems to be a thing of the past. However, the excessively high profits from extracting some of these commodities can create small mineral rushes—just as with gold or colombite-tantalite (or coltan) today—in many of the peripheral areas out of control of the state, offering opportunities to informal miners and illegal groups. In Colombia, for instance, guerrillas, paramilitaries and other armed groups have turned their attention to gold as a more profitable source of revenue than drug trafficking.



The ballot for the *consulta popular* in Piedras resulted in a resounding “no” against the Colosa mining project.

Where such remarkably high profits are available, there will always be entrepreneurs willing to take the risks of investment, and therefore extraction, legal or illegal, small or large scale, will follow.

The century that elapsed between the events at Navassa and Piedras witnessed the arrival of legal mechanisms for workers to demand more decent conditions than those faced by the African-Americans who travelled from Baltimore to Navassa in the 1860s through the 1890s, or the Chinese workers in the guano mines of Peru. Progress in environmental laws and awareness has opened more opportunities for civil society and authorities to stay vigilant to the possible risks brought by these extractive activities and even exercise their right to stand against mining entirely. International agreements such as Convention 169 to protect indigenous and tribal lands have also pushed for changes in the national legislations that regulate mining activities, while the increasing mobilizations by rural communities and indigenous tribes against extractive industries continue to confront the industry.

Although local communities have better legal and democratic mechanisms today to oppose projects if they wish to, this does not mean that such mechanisms are without controversy or are always successfully enforced. But they do exist and are being more frequently called upon to defend the interests of those endangered culturally, environmentally or economically because of the threats from extractive activities.

However, the boom in mineral prices in the last decade has brought an equivalent increase in demand and therefore in potential rents, changing the landscape for the rule of law. This price hike in commodities such as gold since 2000 is extraordinary. Not even the small gold boom in the early 1980s could compare to the high prices of the last few years.

When prices in the international markets send such strong signals, risks and threats will

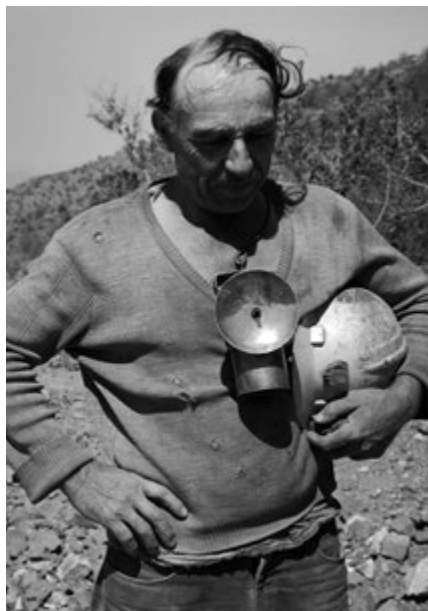
also thrive. That was the case during the Guano Rush in Peru and on numerous islands as carefully described in the book by Jimmy M. Skaggs, *The Great Guano Rush: Entrepreneurs and American Overseas Expansion* (St. Martin Press 1994). Increasing demand for coltan and other high-priced minerals will also bring these fears and opportunities.

THE LEGAL CONUNDRUM: RIGHTS BELOW AND RIGHTS ABOVE THE LAND

When informed and empowered civil societies enjoy a transparent private sector and effective and honest governments, dilemmas about mining can be solved through fair negotiations. This methodology creates opportunities for the mining sector while guaranteeing that economic benefits are spread evenly, and that environmental and social impacts are minimized.

However, there is still an institutional puzzle to be solved in the case of Latin America and its mining regulations. The problem is the dispute between the rights of the land where the mining projects are located and the rights over the subsoil. Because of historical reasons that date back to Castilian law and its subsequent laws for the “Indias,” national governments in the region have declared the resources of the subsoil of national interest and therefore these non-renewables remain under the ownership of the state.

Meanwhile, rights over the land have evolved towards guaranteeing private property through land reforms and legalization of the historic occupation of land, while also recognizing the rights of ancestral, Afro-descendent or indigenous groups over their lands through collective titles. Better legislation regarding the protection of forests, biodiversity and water resources has also helped to clarify and guarantee the common interest over the private interest when activities around the land threaten the sustainability of life and society. At the same time, the gradual and continuing process of decentralization from national to regional and local state levels in Latin America has empowered



A Chilean gold miner “pirquinero” stands at the top of a shaft after working underground near La Serena in Andacollo, Chile.

citizen-voters to get closer to their local public affairs. This has created regional and local movements that often collide with the political agendas or priorities of their national governments.

The continuation of the tradition to control and own the minerals and fuels in the subsoil for the national interest has provided governments with important sources of revenue, opening possibilities for social investment but also for corruption and the emergence of less democratic leaders. It is certainly easy to understand that no national government would forego such a rapid revenue checkbook. But it also needs to be recognized that the coexistence of state ownership of the subsoil with a more empowered civil society, stronger constitutional rights about the environment and cultural diversity, along with private and collective property rights over the land, will bring additional conflicts for designing and implementing any kind of mining activities under it.

Mining is bound to harm the socio-ecological integrity of the land where the extraction is to happen, often exacerbated by the additional infrastructure required for the mining operation such

as roads, water supplies or disposal of material. These activities often bring undesired side effects through the colonization of forested lands and expansion of the agricultural frontier. The trade-off is quite clear. The benefits of mining will have to come at a cost to the environment, agriculture and the integrity of the cultural systems in the location of the mining project.

The tale of Navassa could have had another ending, if more humane conditions of work were put in place and the distribution of benefits was closer to fair, allowing the Navassa Phosphate Co. to seize the opportunity of a great business that was closer to the eastern coast of the United States. At the time, Peru was facing serious political and economic problems and finding it difficult to maintain its prominent role as a major supplier of guano. A missed opportunity indeed. The future scenarios for the “Colosa” gold mining project in Piedras are still to be written, while the company and the environmental authorities resolve pending legal issues regarding licenses and impact evaluations, and while the judiciary deals with the extent to which the popular mandate of the voting in Piedras collides with the legal conundrum of the ownership of the subsoil by the national state.

Latin America does not have to face more Navassas, as more democratic institutions offer today more civilized spaces to exercise the right of people to intervene in their local public and private affairs, as was shown in Piedras. The trade-offs between minimizing the socio-ecological impacts and generating revenues for the state and private sectors can be solved through deliberation and the rule of law, but the main legal and political challenge in Latin America regarding the rights over the land and the rights to the subsoil remains.

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The Mining Boom in Latin America

Rents, Development and Democracy **BY FRANCISCO J. MONALDI**

LATIN AMERICA HAS WITNESSED AN UNPRECEDENTED natural resource boom in the last decade. The prices of many of the commodities exported by the countries in the region have dramatically risen over most of the last ten years. For example, the price of copper, below \$1 per pound in 2000-2003, rose above \$3 in 2006, and peaked at \$4 in 2011. As a result of the dizzying rise in prices, the region has experienced a windfall like no other in history, thanks primarily to the insatiable resource demand from the rising industrial economies of Asia, in particular the astonishing growth of China.

Latin America's gains from this commodity boom fall only behind the Middle East oil exporting region. In contrast to previous booms, this time more commodities and more countries in the region experienced a windfall, lasting longer than any previous episode. However, not all countries benefited equally. Benefits have varied significantly among countries: hydrocarbon producers like Venezuela (oil) and Bolivia (mostly gas, but also mining) gained the most in proportion to the size of their economies. Non-oil mining exporters like Chile (copper) and Peru (copper and gold) also benefited significantly, and some agricultural producers like Argentina and Paraguay got a significant boost too, mainly from soybean exports. Colombia profited from both an oil and mining boom (mostly coal). Some countries, like Mexico and Brazil, which export resources in abundance, did not benefit that much in net relative terms, because they also import a lot of other commodities and their economies are larger and more diversified. Mexico, Central America and the Caribbean were not net winners from the growth in China. South America in contrast was a clear winner.

The mining and commodity boom allowed Latin America to have the best

economic performance in decades, helping to increase public expenditures, reduce poverty and expand the middle class. Moreover, the sound management of the windfall in most countries implied that the financial crisis of 2008 did not significantly affect the region, a grand feat in a region prone to deep macroeconomic crises. The boom even brought popularity to most presidents in the region, and those who had the opportunity to run were easily reelected.

However, the macroeconomic and social achievements cannot hide the significant challenges and some negative effects of the mining boom. Increasing mining rents and increasing production bred conflicts between societal actors attempting to capture a share of these rents. Likewise, conflicts erupted about the negative effects of mining production over the environment (water, air and landscape) and the living conditions of local communities in mining areas.

And in the background of each country's policy agenda hovered the so-called resource curse. That phenomenon's economic challenges include maintaining competitiveness in non-resource sectors, management of the fiscal volatility, and the effective saving and productive investment of the windfall. Governance challenges also come up: avoiding authoritarianism, rent-seeking and corruption. Finally, sustainable development challenges must be taken into account, those arising from the exploitation of non-renewable resources that produce negative environmental consequences.

CAPTURING THE MINING RENTS

The mining sector has characteristics that generate complex and sometimes tense relations between states and extractive companies. First, many mineral resources generate sizable rents in the international

markets. These are profits above the levels required to attract investment, i.e. above costs and a "normal" profit. Gold and copper production generates significant rents, although much less than oil. Other minerals, like zinc, silver, nickel, lead, iron, bauxite and tin, are also often a source of rents. According to the World Bank, in 2011, rents from mineral extraction (excluding hydrocarbons) as a percentage of GDP were more significant in Chile (\$41 billion, about 19 percent), Peru (\$17 billion, 11 percent), and Bolivia (\$1.3 billion, 6 percent). In Brazil they amounted to about 3 percent, small relative to the size of the Brazilian economy, but very large in absolute terms (\$67 billion). In Colombia (\$3 billion), Mexico (\$11 billion), Guatemala (\$0.6 billion) and Venezuela (\$3.5 billion), they were close to 1 percent of GDP, and in the rest of the region's countries less than 1 percent. Mining rents in some of these countries provide governments a significant source of fiscal revenues and are also a tempting target for other societal actors that would like to obtain a share.

However, rents are very volatile and vary from one mining project to another, depending on the type and quality of the mineral, the costs of extraction (which vary widely), as well as the location and transportation costs. The price of minerals is extremely volatile. For example, the price of copper was more than seven times higher in 2011 compared to 2003. As a result, is not easy to capture the rents in these very different conditions of profitability. Moreover, governments in the region typically employ unsophisticated taxation tools, like royalties, i.e. a share of gross revenues, which are ineffective at capturing rents when prices increase. In fact, most of the region's contractual and taxation systems have been typically regressive, so they capture

a smaller share of the profits as prices go up. The lack of more sophisticated taxation systems has been blamed on the governments' preference for simple instruments, which do not require a high quality bureaucracy and generate a more stable revenue stream. In addition, most of the existing mining contracts were signed when prices were very low and they were not properly designed to adjust government take when prices went up.

Another important characteristic of the large-scale mining sector—as opposed to the small, mostly informal mining—is the significant size of the so-called sunken investments that are needed for extraction and often long-term recovery (measured in decades). These are the large initial investments in exploration and development of a mine that cannot be redeployed elsewhere. As a result, producers are very vulnerable to changes in the taxes and regulatory conditions and the potential over-extraction of rents by the state and other societal actors. Since the producers' costs of operation are relatively less significant than the initial costs, they have incentives to keep operating the mines as long as they recover operational expenses, even if they do not recover the initial investments. For those reasons, the mining and oil sectors have been characterized in the past by cycles of investment and expropriation (or forced contract renegotiation).

The potential risk of expropriation and contract renegotiation makes property rights extremely important in the mining sector. In Latin America, the extractive sector has flourished in countries offering significant guarantees to investors: Brazil, Chile and Peru. Still, even in these countries there have been strong pressures to renegotiate mining contracts. The combination of high prices, regressive contracts and high sunken investments has provided fertile conditions for governments to ask for a larger share of profits.

The cases of Chile and Peru are illustrative of the challenges in capturing rents. According to ECLAC, in 2000, rents represented about 20 percent of the price of copper in Chile, while in Peru



An abandoned mine shaft in the mountains north of Copiapo, Chile.

production did not generate any rents at the time. After two decades of declining prices, taxes had been reduced to attract investment. By 2006, copper rents were above 80 percent in Chile and 75 percent in Peru, and in 2011 they were more than 90 percent in both countries, but in 2012–2013 prices and rents declined sharply. In 2006, the state was capturing only about 40–50 percent of the rents in Peru. In Chile, the state captured 90 percent of the rent generated in CODELCO, the state-owned mining company, but only 40–50 percent of the rents in private mining, which had rapidly increased to close to 70 percent of production. Pressures to increase the government take rose in both countries. But since they had given strong institutional guarantees of tax stability, it was hard to do, in contrast to Bolivia or Venezuela, where extractive industries were outright expropriated. The taxation

systems of Chile and Peru were only marginally changed after long negotiations with the mining companies. The balance between credibility and flexibility is not easy to achieve, but taxation systems can still be improved by making them more progressive and efficient.

Rising rents and large new investments also generated redistributive conflicts between subnational and national authorities, producing regions and non-producing regions, informal miners and governments, workers and companies, and between indigenous communities and both governments and mining companies. In some countries, the producing regions or municipalities capture a large part of the rents, making them the largest per-capita recipients of fiscal revenues. For example, in the case of Peru, 5 out of 25 regions concentrate 60 percent of the mining fiscal

receipts. Even though it makes sense to compensate producing areas for the negative effects of mining (pollution, congestion, etc.), in some countries the fiscal resources received by subnational governments far outweigh these costs, generating very large inequalities with respect to other poor non-producing regions. Mining regions often lack the capacities to manage their fiscal revenue booms, so they waste resources and cannot effectively execute projects. However, the fact is that societal actors that can disrupt production, such as local authorities, know that they have a powerful tool to extract concessions from the national government and the extractive companies. In Colombia, a constitutional reform enacted to take royalty revenues away from producing areas has generated significant discontent in these localities and some disruptions in production. The politics of resource rents has made it difficult for countries to implement more efficient and equitable systems for their allocation.

IS THERE A RESOURCE CURSE?

The idea of the existence of a resource curse originally referred to the argument

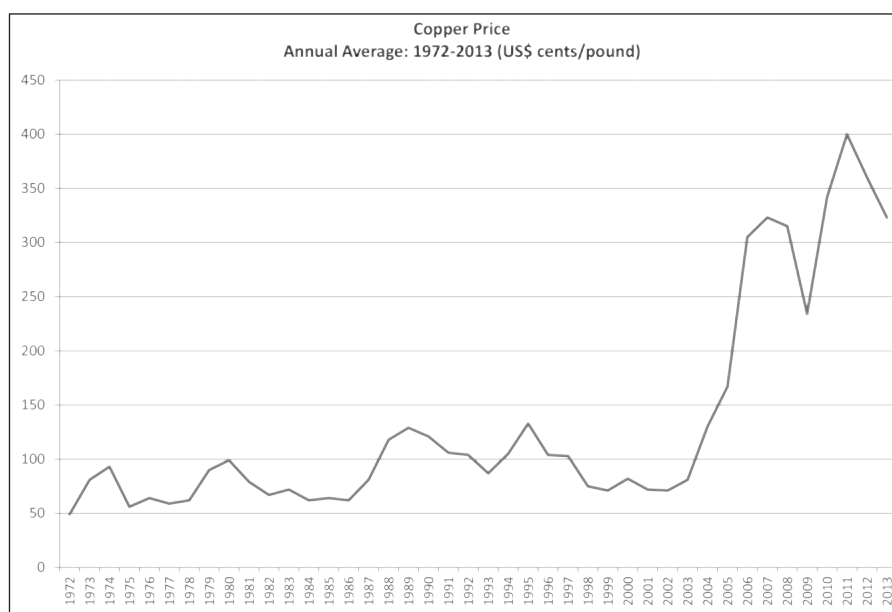
made by Jeffrey Sachs and other economists in the 1990s that resource-dependent economies had lower growth rates than the others. However, later studies showed that this held for the period 1970-2000, but not for longer time frames. In fact, the last decade has illustrated that abundant resources can be a macroeconomic blessing in times of high demand. Still, resource dependence creates many economic and institutional challenges, and the region has not escaped from them during this boom.

On the macroeconomic front some countries such as Colombia began to suffer symptoms of the *Dutch disease*—a decline in competitiveness resulting from the appreciation of the exchange rate produced by the inflow of mining rents. Although some countries used a significant part of the windfall to invest and save, an important part was spent in current consumption. In fact, in our region, savings were negatively correlated to the size of mineral rents. So the fiscal sustainability of the current spending levels is in question. If the price of commodities were to fall fast, as began to happen in 2012-2013, most countries in the region would have to make large macroeconomic

adjustments. Therefore, managing price volatility remains a big challenge. Chile and Peru, with their conservative fiscal policies and sound fiscal institutions for resource wealth management, are countries better equipped for this scenario. On the other extreme is Venezuela, with its very large fiscal deficits, even when the price of oil is at its peak.

The question remains about the sustainability of improvements. Can the countries in the region keep an economic growth largely based on mining and other commodity exports? History seems to suggest that without a more diversified economy, stronger capabilities and higher quality human capital, the recent growth acceleration would not be sustainable. How vulnerable are the new middle classes to a decline in commodity prices? The use of revenues from an exhaustible resource for current consumption reduced poverty rates across the region, but such gains may be soon partly reversed if rents decline. Long-term environmental sustainability of a resource-driven strategy also raises some questions, among them water management and global warming.

On the political side, many authors have claimed that resource rents promote authoritarianism and violent conflict. However, in the case of Latin America, these correlations have not held in the past. Nevertheless, in weak institutional environments, commodity windfalls can provide significant advantages to incumbents, who can use them to weaken checks and balances and the rule of law. Thus, resource windfalls may also represent a challenge for democratic governance. The governance challenge would be even more daunting if there is a collapse in commodity prices. The decline of the vulnerable middle classes could produce political instability across the region. Thus, we are still a long way from making our resource abundance a sustainable blessing.



The annual average for copper prices has risen sharply since 1972, although the most recent tendency is to show slight declines.

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PORTRAITS OF MINERS

Debates about the impact of mining are raging throughout the region. Often overlooked are the miners themselves. Here are two portraits of very different miners: a Colombian coal miner and a Chilean worker at a high-tech copper mine.

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Heart of Coal

A Profile **BY LORENZO MORALES**

A LAMINATED PICTURE OF THE SACRED HEART hangs from a naked light bulb in Floresmiro Olaya's prefab home. It seems that the Christ, with its heart on fire like a burning coal, stares at him out of the corner of his eye while Olaya finishes breakfast: a potato broth and a cup of hot chocolate. The sun has not yet come up the horizon as Floresmiro prepares to return to his labors in the depths of the earth. Only six weeks have passed since an explosion in the Colombian coal mine where he worked killed his brother and four friends. Floresmiro was the only survivor.

Still sipping from his cup, Floresmiro doesn't take his eyes off the bunch of covers over his bed, separated from the dining room by a doorless passage. Under the covers lies his seventh child, a baby who came into this world at the same time his brother died. The day of the explosion his wife suffered a shock, which caused the premature birth. The baby has not been named yet.

"If five people died in the accident, why not six?" says Floresmiro, a 34-year-old sporting a small mustache and sun-colored cheeks. "Sometimes I think it would have been better to have left with them," he says, tired of carrying the

weight of having to relate the tragedies. Earlier, in 2006, he survived another explosion that killed another brother in a mine nearby.

The day before he was to return to work, Floresmiro—wearing a virgin wool poncho and rubber boots—took me to La Escondida, the mine where the accident occurred. It was a cold and foggy morning; the sun was beginning to color the mountains over the small community of Peñas del Boquerón in the Sutatausa municipality. Olaya remembered new details of that infamous day, so far the worst mine tragedy reported in his town.



Floresmiro Olaya, dressed in a typical Colombian woolen poncho, poses with his family in his prefab home.

explosion. Floresmiro didn't know if the mine was legal. "The patron was organizing the paperwork," he told me. But he recognized the mine lacked proper ventilation, internal shelters in case of collapse and other safety precautions. He said the only time he saw a government inspector was the day after the accident, when mining authorities came to shut down the mine.

The explosion hurled Floresmiro almost to the mouth of the mine, enveloped in a cloud of dust and debris. He still doesn't remember anything. He was told that following the explosion, someone at the bottom of the mine started to pull the string that rings a small bell in the surface to tell the *cochero* (the person in charge of activating the tractor) to start pulling the loaded cart. Floresmiro believes that person was his brother calling for help—imagining him surrounded by his friends, suffocating slowly in the darkness.

The rescue crew took two hours to arrive that day. "The people say that they came to pick up the dead and not save the injured," said Floresmiro, claiming that the rescue workers came ill-equipped and asking to borrow tools. "They could have saved lives in the time that it took them to arrive," he said.

More than half of the mortal accidents in Colombia occur in the coal mines of Cundinamarca and Boyacá—only a few hours' drive from the capital city of Bogotá. Between February and July 2011, the year that the accident occurred, the mining authorities inspected 524 mines in those municipalities. According to the report, 73 percent of these mines operated under unsafe conditions.

In 2010, 173 miners died in 80 mining accidents, three times the number of victims in 2009, according to official statistics. In 2012, reported mining accidents rose to 122 cases with 138 miners dead, some of whom were women, according to a government report. The worst single

tragedy in recent history occurred in June 2012 in the coal mine of San Fernando, located in Amagá, Antioquia. That explosion left 163 miners trapped underground, 73 of whom perished. "The ways these mining labors are performed affect the human rights of the miners who work under extreme high risk conditions," said Colombia's Public Defender in 2011, following five mining deaths in La Preciosa mine in Sardinata, located in northwestern Colombia.

Colombia is the largest producer of coal in Latin America and the fifth major exporter in the world. In 2012, the country extracted more than 90 million tons of coal, more than double the amount extracted ten years ago, according to government figures. Colombia has estimated coal reserves of more than six billion tons and the mineral represents a quarter of the country's exports.

Although most coal is extracted in the north of the country from open-pit mines operated by multi-national companies (Cerrejón, Glencore and Drummond), an important portion of the national production depends on miners like Floresmiro, who excavate the coal underground daily in thousands of small mines, many of them illegal. Here there are no engineers and the main technology is intuition.

Colombian miners are digging deeper and faster than ever before to take this inexpensive energy source to the world's hungry market, mainly the United States and China, where consumption soared between 2005 and 2011. The appetite for Colombia's coal is so great that an international funding agency recently received a proposal from China to finance a railway that would take out the highly efficient and coveted coal from the center of the country to the main harbor on the Pacific coast.

President Juan Manuel Santos has put mining at the heart of his economic development strategy, but Colombia is lacking clear guidelines and institutions prepared to regulate an industry that is growing uncontrolled and chaotic, gen-

On February 1 he entered the mine at five in the morning. He was supposed to repair one of the wooden arches that sustain the tunnel. One hour later, his brother and some other miners passed by, on their way down to the bottom of the mine, almost a 1,000 feet underground.

Like hundreds of informal mines of coal that flourish in that part of the Andes mountains, La Escondida is a precarious construction: a molehill-like shaft sustained by makeshift sticks that takes you to the depths of the earth. Outside, a rusted cart, tied to a steel cable that rolls and unrolls on the wasted rim of an old stationary tractor, plays the part of an elevator. Each mine is a black pockmark on the intense green vegetation of these mountains.

An accumulation of methane gas, a by-product of organic material decomposing over millions of years, caused the

erating an unprecedented risk to miners, the people in the surrounding areas and the environment.

At the moment of the accident in La Escondida, only 16 government inspectors and 50 contractors were responsible for the supervision of more than 6,000 mines all over Colombia. This number only reflects the number of legal mines reported. The government calculates that there are more than 3,000 illegal mines scattered in 18 of the 32 states of the country, a figure that is conservative.

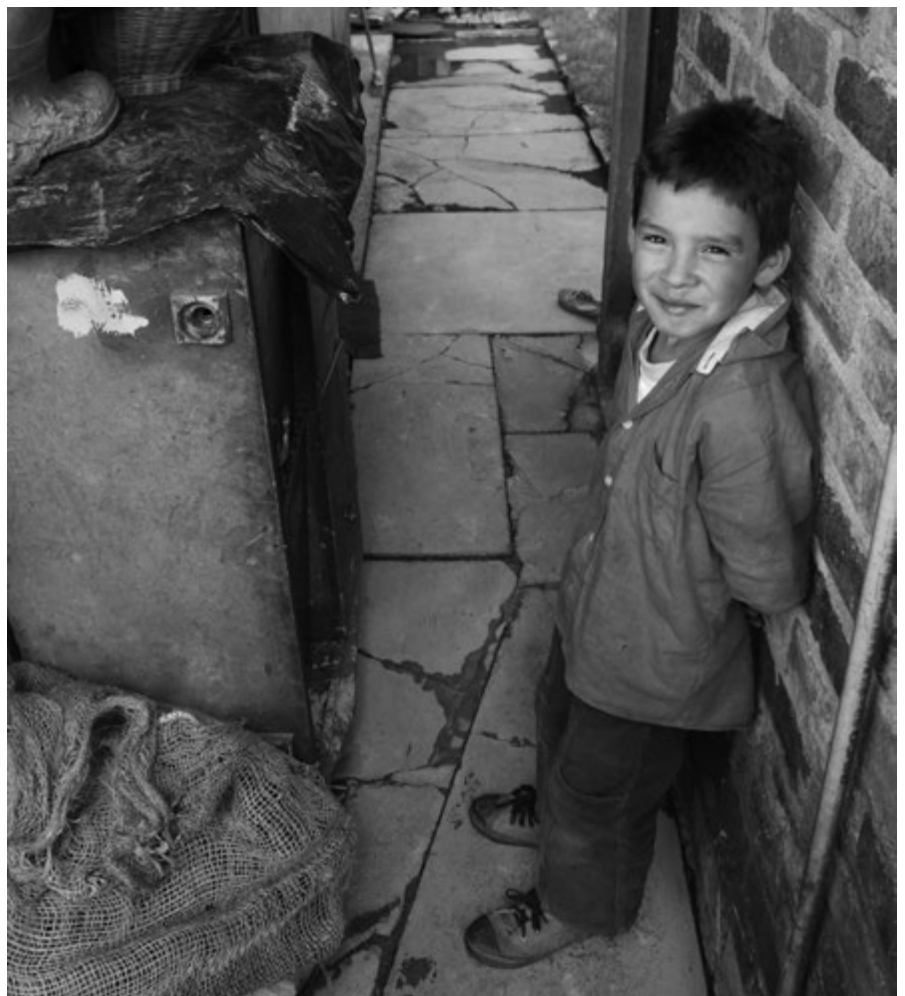
Ingeominas, the agency at the time of the explosion in charge of supervising the security of the mine and regulating mining exploration rights, proved to have little useful impact. Carlos Rodado, then Minister of Mines and Energy, was alerted to corruption within the agency, prompting the transformation of Ingeominas into the National Mining Agency in May 2012, a change that many environmentalists contend was in name only.

Floresmiro takes his last sip of the chocolate and gets ready to return to the tunnels. A friend helped him line up a new job at La Fortaleza, a mine 650 feet from where the accident occurred. While he puts on a beige overall, he tells Michael, one of his sons, to hurry so he will not be late for class at school. Then he sits down to put on yellow rubber boots. Instead of socks, he covers each bare foot with newspaper rolled into a cone, a trick for the cold and humid mine. A miner may have to stay underground for up to eight hours without sun and with temperatures that vary from very cold to intense heat. Before he leaves for work he says goodbye to his wife Estela and kisses a wooden rosary that hangs from a dressing table near his bed.

"Every morning one thinks of death and thinks of God," Floresmiro tells me on the way to the mine. "One knows that one will enter, but you don't know if you will get out," he says.

Working in these mines has been his routine for the last 26 years. Despite the risks, Floresmiro has not considered any other job. For him, as for the thousands of campesinos in this zone, coal mining





Floresmiro Olaya has worked in Colombian coal mines for the past 26 years. Here are scenes from his everyday life at home and work.



Top photo: Floresmiro Olaya pauses for an instant before descending the dark mine tunnel after his return to the mine following the February accident in which his brother died. Below: A view of the entrance to the precarious mine; the tunnel is held up by arches made from eucalyptus poles.

is the main source of work and the best paid. Floresmiro makes 100,000 pesos a day (US\$60), about five times more than the minimum legal wage in Colombia, which is what he would be paid if he worked in flower harvesting, another source of jobs in the area. That's why no one sees anything wrong when a new

clothes: nylon generates static that produces tiny sparks. They also ask me not to use my camera flash; another spark that could trigger a tragedy.

The tunnel descends at an almost 45-degree angle and is held up by arches built at every meter, made from eucalyptus poles, forming a kind of trachea that extends deep into the mountain. The ground is muddy because of the subterranean waters that seep in. As we descend, the light filtering through the mouth of the mine slowly begins to diminish until it disappears completely. The tunnel is tighter and lower as we go down. We can

inheritance. He doesn't ask many questions, even though after the accident he thinks that his children should find another path. He started working the mines when he was eight years old. He helped his father, Guillermo, a campesino who is now in his eighties and still talks forcefully. "I have worked in these mines since I got teeth and until I lost them," Guillermo likes to say and assures us that he laid the groundwork for more than a hundred mines.

Most likely, Floresmiro will follow in the footsteps of his father (he has already lost his first tooth) and even if he does not want his children to follow his career path, they most likely will. Every afternoon, after school, the kids in the area turn the abandoned and closed mines into playgrounds. They act as miners pushing imaginary carts or sit on top of discarded eucalyptus poles, pretending to be driving the trucks that every afternoon come to haul what the grownups have taken out of the mountain. Before returning home, at sunset the kids pick up the little chunks of coal left on the ground, put them in sacks, hoist the sacks on their shoulders and take them home to light their stoves.

"How much oxygen do we have?" Floresmiro asks suddenly. Jexcenia looks at the meter: "20-8," she replies. Floresmiro signals that it is time to walk up to the surface. Shortly, a new bunch of miners will come down for the afternoon shift. We climb back to the mine opening. Our eyes have become accustomed to the penetrating darkness of the tunnel and suffer as an unperceivable turn of the tunnel reveals, atop, a small ray of sunlight, like a major star illuminating this unique night in plain daylight.

***Lorenzo Morales** is a Colombian journalist. He was editor of *Semana.com*, Colombia's main current affairs weekly and a Pulitzer Center on Crisis Reporting fellow to report on the mining boom in his country. He teaches journalism at the Universidad de los Andes in Bogotá and holds an M.S. from Columbia University Graduate School of Journalism.*

Thousands of miners in Colombia, the largest producer of coal in Latin America, risk their lives to bring cheap energy to the rest of the world.

hole appears in the ground and a boss shows up ready to pay in cash. No one asks for permissions or licenses.

"What's wrong 'Flores,' are you scared?" mine supervisor Jexcenia Corredor asks Floresmiro as he pauses for an instant before beginning the descent into the tunnels of La Fortaleza. Corredor was hired after the accident in February. She now wears a gas detector that hangs on her neck like a doctor's stethoscope. These devices are used in very few mines throughout the region.

"No, not fear," responds Floresmiro..., "but it is not easy to come back." He feels guilty. He feels his companions reproach him for surviving the explosion that killed his friends. Before going in, he crosses himself before a small virgin wedged between a rock and covered with coal dust.

To follow Floresmiro and Jexcenia down to the bottom of the mine, I have to sign a hand-written document in a school notebook that I accept to enter the mine under my responsibility. Floresmiro and Jexcenia are going to revise some arches that he has to replace as his first assignment. They give me a helmet with a lantern and test my cotton

only advance by crawling; every now and then the helmets with the tenuous lamps scratch the irregular roof of the mine.

"These poles need to be replaced," Floresmiro tells Jexcenia as he hits a rotten pole with his closed fist; in other places, the arches are not even there.

We take a break and sit on some rocks. Oxygen is scarce. Each word comes out with effort. We are 300 meters underground. One hundred meters further down you can hear the miners who continue to grind the rock with their picks.

"This is a pretty mine," says Floresmiro as he gently passes his hand over the dark walls of the mountain as if he was caressing the neck of an animal.

Above us, on the surface, the scenery has changed dramatically. Floresmiro remembers that when he was a child, where now mountains of coal accumulate, there used to be corn, potato and wheat crops. "Nowadays we have to buy in shops what we used to grow in our land," he says, short of breath. He says that the mines have taken over his land and that new and bigger companies have bought out the smaller ones.

Floresmiro assumes his work as an

Travails of a Miner, VIP-style

A Profile **BY ALEJANDRA MATUS**

SERGIO SEPÚLVEDA IS A CHILEAN MINER WITH an enviable salary—equivalent to that earned by a university-educated professional. He owns a brand new Korean-made car, and every three years he receives a substantial bonus following union negotiations with his company. The last one he received, in January 2013, was worth US\$46,000.

Sergio operates a perforating machine in the open-pit mine La Escondida, the greatest copper producer in the world. The transnational company BHP Billiton, thanks to a concession agreement with the Chilean state, currently runs the huge operation.

Only two months ago, he was working four by four. That is to say, four days in the mine, located 105 miles southeast of Antofagasta in northern Chile, nearly 10,000 feet above sea level. And then resting four days at home, in Quillota, 795 miles south of Antofagasta, at sea level.

While he's on the job, he sits by himself in the enormous cabin—slightly larger than a bus—above a 75-foot tower of the huge perforating machine as it swings up and down rhythmically, carving out holes in the earth. The 60-foot holes that Sergio makes are rapidly filled by teams of workers with explosives that free the copper trapped in the subsoil of the Atacama desert, the most arid in the world.

The heated perforating machine has a comfortable stool where Sergio perches. Thanks to state of the art technology, he operates the machine by gently moving some joystick-style levers, paying attention to the information supplied by the GPS, a computer and a set of digital cameras that show him clearly what's on his route outside. To stave off boredom, he listens to music on some first-rate equipment.

But Sergio hates the comments by folks who consider him part of a caste of “privileged” miners. In the last labor

strike, Antofagasta residents screamed out “You shameless scoundrel!” But Sergio insists that “[these critics] don’t understand the price we pay.” They don’t feel the constant vibration of the perforating machine that shakes his body for twelve hours a day. They don’t have to breathe the persistent cloud of dust that covers him in his daily work. They don’t experience the nerve-racking claustrophobia and isolation of half of his life. They don’t have to get used to missing their children grow up on a daily basis.

A FORCED CHOICE

Sergio and his four brothers are my cousins, the sons of my mother’s sister, Ana. When we were kids, my mother would take me and my two brothers to visit them every once in a while for a holiday. Sergio and his brother Herman, the oldest of their clan, were about my age and we would go off to explore their town in search of adventures. We’d steal corn from the cornfields, running off terrified that we’d get caught, or go to the cemetery just to scare ourselves. We would bring home a withered flower from a gravesite—keeping ourselves awake at night thinking that the dead person for whom the flower was intended would come back to haunt us. Sometimes we’d go swimming in the river, because back then in the beginning of the 1970s, Pitorca had a river and water. We were—you might say—happy kids. We still didn’t understand that we were poor. And we understood even less that my uncle Sergio, my cousin’s father, had arrived in Pitorca not out of choice, but as punishment by the dictatorship.

He was a “relegated” person—under a sort of house arrest that extended to the town. He was not allowed to go beyond the borders of the town—an especially difficult situation because he was viewed

by all its inhabitants as a dangerous Marxist. Before the coup, my uncle had been a union leader for the company where he worked (Soquimich, which at that time was a state-owned saltpeter firm). With Augusto Pinochet’s power grab, my uncle was forced to leave María Elena, the hamlet where he lived near Antofagasta. He had to beg for someone to help him and his family with the move, stuffing their possessions into boxes.

“When my father came to Pitorca, he brought with him a juice extractor, a vacuum cleaner and a television set, because things had been going quite well for him before the coup,” says the younger Sergio.

A “relegated” person did not have many rights in Chile, and hard times, the most miserable of hard times, befell the family. The electronic household items were sold to buy food to eat. My uncle tried to start up a small business on his own, but since he couldn’t leave town, that didn’t work. By then, I had five cousins and my uncle, working occasionally in construction or other odd jobs, could hardly feed them. Sergio, the oldest cousin, had to begin to work when he was nine years old. He didn’t leave school, but as he got older, he realized that going to the university was beyond his reach and that he needed to find a good, stable job. He did what he could to survive and to help the family: he harvested potatoes and tobacco; he worked in a gold mine; he managed a bakery.

In 1988, Sergio learned that La Escondida mine, which had recently begun production, would be receiving job applications. He was recently married, living in distant Pitorca, but he didn’t hesitate a moment. He went to Antofagasta and waited three months to get a job interview. There were four other job applicants, and all five received offers, but the other four decided not to stay because



Many of Chile's mines are state-of-the-art with advanced technology. Nevertheless, there are many strains on workers' lives.

the initial salary was too low. Sergio, on the other hand, accepted the starting salary of 45,000 Chilean pesos (around the equivalent of US\$400 today), almost half of what he was earning in Petorca. He was betting on the job security that working for such a prestigious and well-known mining company would offer.

He was accepted as an operator, the simplest and most poorly paid job in the production scale, but he quite quickly began to assume new responsibilities and climbed the ranks. He learned to operate heavy equipment, like the so-called “rubber feet” machine that picks up the material that falls off as trucks are being loaded. His salary tripled in three years. And it multiplied many times over when he learned to use the perforating equipment, which he has been operating since 1994.

“My work is like that of the infantry in the Army. I go ahead of everyone making holes in the ground. Several groups follow me with explosives,” he explains.

Up until 1998, the perforating machines were quite different from those used today. They were hydraulic machines that were operated by moving levers manually. “As a result of using so much physical force, I tore the tendon of my right arm,” he recounts.

Sergio has witnessed his work colleagues fall ill or die of heart conditions because of the wear and tear from the constant abrupt altitude changes. Dizziness, headaches, earaches and sudden heart conditions are all common miners' complaints; Sergio's brother Herman, also a miner, almost died of a heart attack. Just two months ago, the company adopted the international standard of seven for seven, that is, seven days in the mine followed by seven days off.

Sergio has hypertension and also suffers from a back condition that he claims has developed because of the many hours he must remain in a seated position, subjected to the interminable vibration of the perforator. He's almost fifty years old, and he fears that when he retires, he'll have to spend his savings on doctors, as so many of his work colleagues have had to do before him. “Old people leave this job to get sick or die,” he says.

But the greatest sacrifice of his work is not his health.

THE DIFFICULT RETURN

When Sergio finishes his days of rest at home, he gets up at 6 a.m. and begins the long journey by bus to the capital, Santiago, where he boards a plane to Antofa-

gasta. At the airport there, a bus awaits him to take him to the mine in the highlands, where he arrives around 5 p.m. If he's on a shift that night, he has just enough time to change clothes and eat something before beginning work. If he's on the day shift, he'll stay at the camp (about half an hour away from his workplace), go to the gym, eat in the mess hall and sleep in the one-person apartment assigned him. And he'll begin to count the days before he returns home.

“The company doesn't make you live in Antofagasta. You can live wherever you want, but you have to pay travel expenses yourself. I used to go back and forth by bus, 18 hours of travel. But I decided to live close to the capital, so I could give my children better education and health care. Besides, Antofagasta is just too expensive,” he says.

In the camp, life is lonely. “I used to think that it is only in the cities that people live wrapped up in themselves without even knowing their neighbors' names. But in this work something quite similar happens. People are very individualistic. You listen on the intercom all day long to the guys making comments, jokes, talking about their work needs. When you finish your shift, you don't want to listen

any more. The only thing you want to do is to eat quickly and retreat to your room, your refuge, and disconnect from everything,” comments Sergio.

The camp has gyms, saunas, indoor sports courts, game and television rooms, but little social life. “If you use the treadmill, the machine has little television screens to watch any program you wish. You put on the headphones and you disconnect. Or you swim in the pool without talking to anyone. And what you want most of all is just to get to your room and scrub off the smell of the mine,” he confesses. In his apartment, Sergio has cable television and wi-fi that provide him with distractions and help him pass the time.

As the time comes to go back home, he gets excited. “I believe there aren’t many in the world who can say I’m going to study something because I like it and I’m happy doing it. In my case, it didn’t happen like that. I got to where I am through necessity, to be able to survive. I perform my work responsibly, but only to fulfill my tasks. I can’t really say it’s my calling,” he says.

Sergio and his wife Fabiola have managed to maintain a lasting relationship for 26 years. But he admits that work tensions have affected his family. “The woman carries the greatest burden. The man goes, does his job, and when he returns home from work, he wants everything to be peaceful and happy there. One wants to behave like a good dad and if the woman scolds the kids, one just says, ‘Let it be.’ But life isn’t like that. One goes off the work, and the wife is left with all of the daily burden.

“My sons are older (Jonhatan, 25, and Sergio, 19) and they grew up in this system. The four days I was absent from home, my wife was both mother and father.” He adds, “To be far away and always returning causes a lot of harm. A cost that I had to take on and accept in order to earn good money.”

Sergio says that he has seen many of his work colleagues separate from their wives because of this situation, saying that 70 percent of his colleagues are no longer with the same wives with whom



Sergio checks his cellphone to while away the time. His apartment also has cable television and wi-fi.

they arrived at the mine. He adds that many of the miners, born and raised in an environment of scarcity, suddenly find themselves with a lot of money to spend and don’t know how to contain their aspirations.

Consumerism, he says, is an obsession: “One falls into the trap of spending everything one earns.” When bonus time arrives, auto dealers have their promotions ready to tempt the miners. “I know colleagues who buy cars worth 25 million pesos (US\$50,000). Or you remodel and expand your home. In my opinion, money goes to a chain of people who are eagerly waiting for it: auto dealers, construction companies, the casino, private schools for your kids. A network of people and sellers that benefit from your sacrifice.”

JONHATAN’S MESSAGE

If Sergio could have chosen, he would have studied history or archaeology. He has a metal detector that he uses in his spare time to look for treasures and old coins, messages from long-ago times that allow us to understand the origin and meaning of life.

His brothers Herman, Juan Luis and Luis Alberto work in mining, also having

to watch their kids grow up from afar. His youngest brother, Mauricio, is the only one who has refused to pay this price. He has preferred to live with a smaller salary than his brothers, but to go home at night. Sergio understands him.

“My oldest son studied computer science and as I much as I wanted him to, he didn’t manage to get his degree. As an alternative, I offered to get him a job in the mine. I can easily do that,” he says. “No, dad,’ my son told me. I don’t want to give my wife and kids the life you gave me.’ It was a blow to hear that. It shook me up because, whatever the case, I had earned money with a great deal of sacrifice. I didn’t choose that, but I see the consequences. I gave him everything he could want materially. I bought him a car when he turned 18, things I couldn’t even dream about. But my son will tell you that he’d prefer that I had earned half my salary to avoid the damaging absence of his father, that things just shouldn’t have been that way. One gets married to be together with one’s wife and kids, not to be separated.”

Sergio is resigned to his situation. At least, he has been able to provide his children a lifestyle far from the poverty he experienced as a child, and he is grateful for the opportunity. Life is hard outside the mine. He knows because once, years ago, he quit his job seeking new horizons and eventually went back to the mine. Finally, he says that he’s okay with what’s happening. He still has energy and time to live and hopes to retire when he turns 55 and start a business with one of his sons. As if to recover his lost time—the years of mining.

Alejandra Matus, Nieman Fellow 2010 and MPA from the Harvard Kennedy School (2011), is an associate professor with the Faculty of Communication and Letters of the Universidad Diego Portales in Chile. She is the author of several books, among them El Libro Negro de la Justicia Chilena and Doña Lucía. La biografía no autorizada about Lucía Hiriart, the widow of Augusto Pinochet, published in 2013.



THINKING ON DEVELOPMENT

Is mining a blessing or a curse or somewhere in between? What does it mean for the economic development of the region? Here, writers from different disciplines and countries take a look at mining's implications.

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The Overlapping Geographies of Resource Extraction

Four months, three decisions, one pattern?

BY ANTHONY BEBBINGTON, NICHOLAS CUBA AND JOHN ROGAN

ON MAY 23, 2013, VICE PRESIDENT ALVARO GARCÍA Linera announced that Bolivia would promote drilling for hydrocarbons inside protected areas. His statement projected the image of a sovereign, ecologically modernizing and necessary extraction: an extraction for Bolivian development, by the Bolivian state, protecting Bolivia's environment. Associating existing protected areas with non-sovereign interests, he commented that it was "not by chance that national parks have been declared in a good part of these oil- and gas-rich zones, preventing us from exploring them and doubtless protecting these resources for someone else." He continued, "We are going to use (the resources) ourselves, with due care, with due capacity to mitigate environmental impacts, with the care needed to protect the natural structure of the forests, mountains and rivers, spending as much money as is necessary to guarantee this mitigation: it is incumbent on us Bolivians to use this wealth."

Two short months later, in July 2013, the Peruvian government overrode its own Ministry of Culture, which had expressed concerns that designs for an expansion of the Camisea gas project into protected areas would threaten the well-being of indigenous peoples living in voluntary isolation. There were clear echoes here of an argument that then-President Alan García had made several years earlier: "Against oil, they have created the figure of the 'non-contacted' jungle native, unknown but presumed to exist, on whose account millions of hectares must not be explored, and Peruvian oil has to stay underground." Then came another case, on August 15, 2013, as Ecuador's

President Rafael Correa completed an Andean hat-trick and announced that oil drilling would proceed inside the Yasuní National Park, another protected area occupied by indigenous peoples living in voluntary isolation (<http://www.bbc.co.uk/go/em/fr/-/news/world-latin-america-23722204>). This third decision was especially dramatic, as Yasuní had been the object of an internationally recognized experiment in which the world would have paid Ecuador not to exploit the oil in recognition of the inherent cultural, biophysical and climatic impacts that such extractions would imply.

Although these decisions relate to a different extractive industry, that of gas and oil, both the decisions and their justifications are highly relevant for mining and other exploitation of natural resources in the region. Ecuador's President Correa and his ministers have used two arguments to justify their government's position. First, that the decision to go into Yasuní was the responsibility of the international community, which had not stepped up with the resources to compensate Ecuador for leaving the oil in the ground and, second, that the country's poverty reduction needs were so great that, absent this compensation, he could not afford to leave the oil in the ground—the revenue was needed to finance social development. A few years earlier, on October 7, 2009, Bolivia's President Evo Morales had said something similar: "What, then, is Bolivia going to live off if some NGOs say 'Amazonia without oil'?They are saying, in effect, that the Bolivian people ought not to have money, that there should be neither IDH [a direct tax on hydrocarbons

used to fund government investments] nor royalties, and also that there should be no Juancito Pinto, Renta Dignidad nor Juana Azurduy" [cash transfer and social programs]. In Peru the emphasis was slightly different. Minister of Energy and Mines Jorge Merino simply declared that there were no contacted indigenous peoples in the area into which Pluspetrol, the operator of Camisea, would expand, and that therefore there was no need for any process of prior consultation. Both government and company argued that environmental risks could be mitigated.

There are many ways of making sense of these decisions. They can be seen as legitimate manifestations of sovereign power exercised by democratically elected governments. These political leaders have each invoked sovereignty to justify their decisions and question the legitimacy of their critics. These justifications can also be seen as one more formulation of the argument that "growth is good for the poor" (the title of David Dollar and Aart Kray's widely cited defense of economic growth). The belief that natural resource extraction will generate wealth that will help "the poor" is pervasive, even though the evidence that oil and mining revenues necessarily enhance their well-being is decidedly mixed, and certainly the social and infrastructural spending triggered by Ecuador's last round of oil-led growth in the 1970s proved unsustainable. Third, these different decisions and justifications can be interpreted as one more indication that 21st-century socialism and 20th-century neoliberal capitalism approach the governance of natural resource extraction in strikingly similar ways. They are also

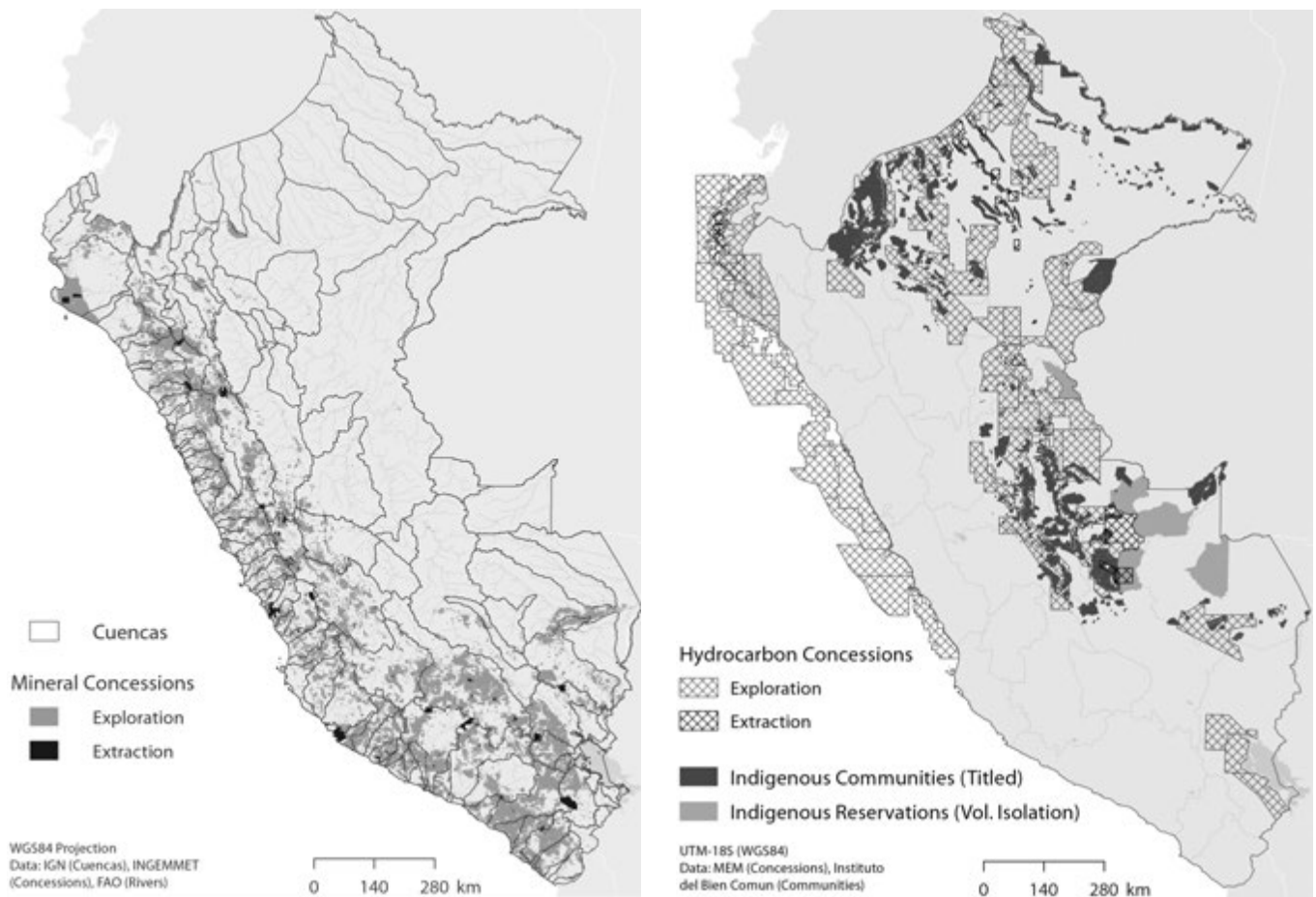


Figure 1: Map overlaying the geography of mining concessions and the geography of drainage basins in Peru. Basins on the coast, western slopes and central valleys of the Andes are especially affected. Figure 2: Map overlaying geographies of hydrocarbon concessions and operations and the Amazonian geographies of titled indigenous communities and areas reserved for indigenous peoples living in voluntary isolation in Peru.

further examples of how institutions are “flexibilized” in order to allow drilling and mining, a pattern in which the rules of the game are always shifting, and where, despite efforts to introduce environmental and social safeguards, these seem ultimately to be softened to accommodate extraction. In the words of Peru’s former Minister of Culture, Luis Peirano, “the idea of the government and the Office of the Executive is that there should be no obstacles or impediments to investment” (as quoted by Paola Arica in the Peruvian publication *La Revista Agraria*).

The ways in which such decisions are justified resonate with broader claims made in theories on development and sustainability. Decisions about extraction are consistently framed as responses

to the urgent need to reduce poverty and finance social policy. Less attention is paid to the precise mechanisms through which this poverty reduction will occur, while potential purposes motivating these decisions go unspoken. These silences remind us of arguments that have been made by Colombian anthropologist Arturo Escobar, among others, that we must always be attentive to what is done “in the name of development” and that very frequently the notion of development is invoked in order to justify decisions that are really about something else. This does not mean going so far as to argue that “development” is always “destruction,” but it is important to recognize that the language of development can all too easily be used to justify

destruction in the service of some greater good. This is one of the arguments that the Uruguayan social ecologist and commentator, Eduardo Gudynas, has been making in recent years, as he has established himself as one of the most trenchant critics of Latin America’s commitment to large-scale resource extraction, industrial agriculture and mega-infrastructure. Gudynas constantly reminds his audience of all that is being risked and traded in as governments of the region rush for the subsoil.

In a related vein, it might be argued that underlying such decisions is a notion of democracy as a problem of arithmetic more than one of fundamental rights. Of course it is true that the number of people who will benefit from the taxes

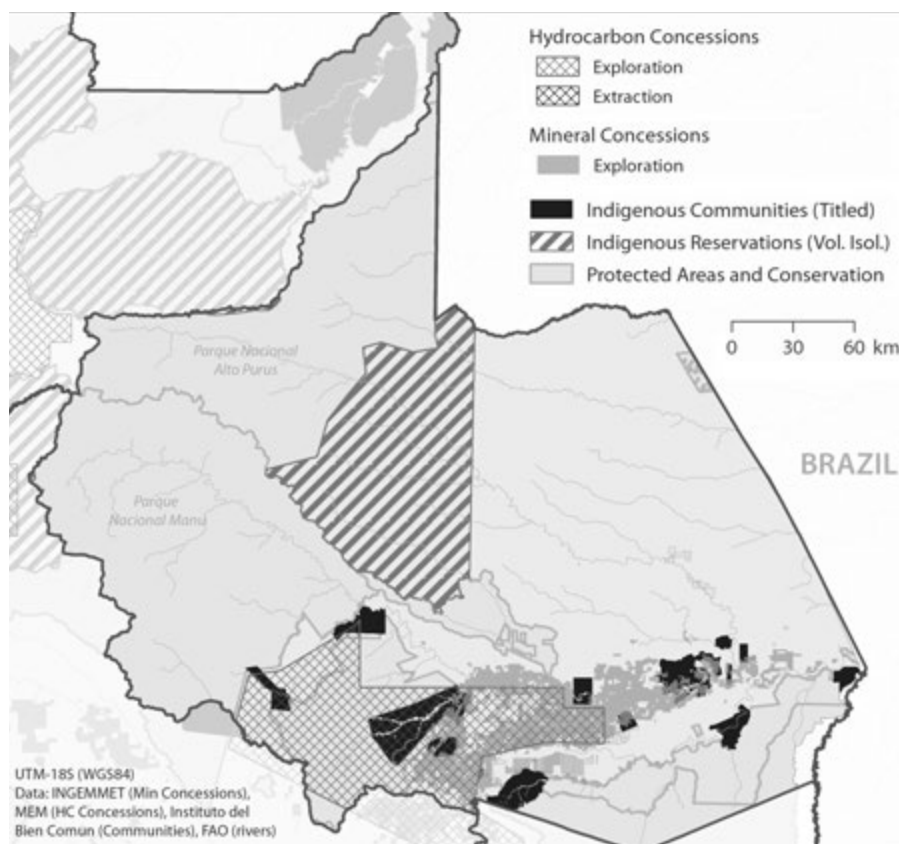


Figure 3: Overlapping geographies of mineral and hydrocarbon concessions, protected areas and indigenous territories in the region of Madre de Dios, Peru.

generated by natural resource extraction will far exceed the number of indigenous peoples living in voluntary isolation who will be adversely affected. It is also very likely to exceed the number of indigenous and other people whose livelihoods and territorial claims might be compromised. The question that is not asked, however, is whether one person's right of access to education and health services is equivalent to another person's right to existence, to an ethnic group's collective right to territory or, even, to nature's right to existence. Posing this question does not mean that one automatically concludes that these latter rights (to existence, territory, identity) necessarily trump rights of access to social services. It does mean that this question about how to discuss, agree upon and legitimize trade-offs among these different sorts of rights has to be addressed head on and debated seriously in the public

sphere. To the extent that these discussions are elided (and they often seem to be in these presidential interventions), then the quality of democracy is impoverished and space is created for development strategies that can systematically privilege some social, racial and ethnic groups over others.

At the same time as these resource extraction decisions are being framed within particular discourses of development and democracy, they are also being framed within discourses of care and technological modernity. In this sense they are part of a larger argument about "ecological modernization," which claims that with the appropriate technology and institutions, economic growth can accompany, and be a vehicle for, environmental protection and restoration. We see this in the García Linera quotation introducing this article, as well as in the way that Rafael Correa

couched his Yasuní decision, saying that oil exploration would leave most of the park untouched, affecting less than one percent of its area (to quote the BBC). Spokespersons for Pluspetrol, the operator of the Camisea project, likewise said that their plan to expand operations "far and away satisfies Peruvian laws and international standards" and that "these are high level standards against which Camisea has performed successfully during these ten years of working in the area and of serving as an outstanding example internationally."

OVERLAPPING GEOGRAPHIES

While these three cases are particularly poignant, involving areas of great biodiversity and indigenous peoples who in some instances live in voluntary isolation, they are really just the sharp end of a broader phenomenon associated with the expansion of extractive industries—a phenomenon of "overlapping geographies." In these cases the expansion of natural resource extraction overlaps with areas already demarcated as "protected" and in some instances occupied by groups opting to live in isolation. In other cases, mining and hydrocarbon concessions overlap areas occupied and used by indigenous and/or peasant communities, by pastoralists or by market-oriented farmers. They also overlap with areas on which urban settlements depend for their water resources. More than spatial overlaps in a simple descriptive sense, these can also be viewed as "overlapping geographical projects." That is to say, there are different ideas at play here regarding who should occupy particular spaces, who should govern and control what goes on in those spaces, whose symbols should be visible in those landscapes, and who should have access to the land, water and biogeographical resources existing in those spaces. Thus, geographical projects that are often unselfconscious and taken-for-granted become very definite when they are challenged by other projects that are based on other ideas of who should control space and access resources.

Over the last decade or so, a number of Latin American, North American and European organizations and scholars have explored ways of mapping these overlapping geographies. They have sought to give visual expression to supranational, national, subnational and really quite local forms of overlap, and have also explored different types of overlaps. They have mapped overlaps between mining licenses and water resources (Figure 1), hydrocarbon concessions and indigenous territory (Figures 2 and 3), mining concessions and rural communities, and natural resource concessions and protected areas (Figure 3). Maps have also honed in on specific drainage basins, and zoomed out to give a sense of the overall geography of environmental costs produced by extraction, while others are trying to give visual expression to the flows of tax revenue generated by extraction.

The goal of such visualizations is to communicate dimensions of the extractive economy that are not adequately conveyed by text, graphs or tables. The underlying idea is that the spatial dimension communicates something specific and unique, and it is often the case that as soon as such maps are projected, the audience's intake of breath is at once sharp and audible. The question, however, is whether such visualizations are adequate vehicles of communication. Indeed, I have often heard officials criticize such maps of concessions on the grounds that they vastly overstate the significance of extraction. Such critics argue that only a very small area of a mining or oil or gas concession is ultimately converted into pits, tunnels, wells, pipelines and other operational infrastructure. This, of course, is true. However, these concession maps still communicate many things that are important.

First, the visualizations show the overlapping geographies that those actors who are driving the extractive economy are willing to countenance as they seek out minerals and hydrocarbons. That is, they draw attention to development trade-offs that decision makers are at least willing to consider.

Second, they reveal the geographies of uncertainty produced by the extractive economy. When a local population finds out that the subsoil beneath them has been subject to a concession (and they generally find out after the fact because they are very rarely consulted beforehand), then a great deal changes. Visions of the future change dramatically and begin to incorporate a raft of new potential losses and gains, all imagined on a relatively large scale (lots of jobs, lots of pollution, big roads, bigger holes in the ground). This sense of uncertainty (and all its attendant risks and opportunities) has been a recurrent theme in the fieldwork that I and my colleagues and students have done over the last few years in Peru, Bolivia, El Salvador, Ecuador and Colombia. The national maps of exploration licenses and contracts give a sense of just how widely this uncertainty extends, while the subnational maps help draw attention to its particular dimensions in specific places ("what does this mean for our water?" "what will happen to our territory?"). Meanwhile, a large literature on social protest helps us understand the different ways in which this uncertainty contributes to conflict and social mobilization.

Third, maps such as these make visually explicit the existence of governance systems that produce overlapping and potentially contradictory claims on, and rights in, natural resources. They help to show which of these systems are more and less coordinated. For instance, systems granting rights to explore the subsoil and systems delineating protected areas seem to be better coordinated. There are fewer overlaps between national parks and mineral concessions, and indeed the three cases introduced at the start of the article have become contentious precisely because the normal practice has been to avoid overlaps between extractive industries and protected areas. Conversely, there seems to be far less coordination between the governance of extractive industry and that of water and agricultural resources, the result being significant overlaps between

areas in which extractive industry has been given rights and areas that are important for water resources and agricultural production. The maps do not tell whether the reasons for this lack of coordination are inefficiency, information constraints, a policy or political commitment to prioritize resource extraction over other activities and needs, the lack of politically organized constituencies to demand coordination, or some other reason. But they do help pose the question quite forcefully.

Visualizations such as these are also one way of showing how the construction of any particular territory as well as the construction of a nation state depends on the ways in which different geographical projects are combined and negotiated. These "projects" imply different ways of controlling and using natural resources and of occupying and governing space. They imply the presence of different social actors at the helm of such projects, and different ways of producing wealth. As these projects meet, one may dominate others or they may negotiate modes of coexistence. The expansion of extractive industries is one such geographical project—and a particularly powerful one. How it ends up interacting, mediating and negotiating with other geographies and geographical projects is already proving to be an important factor in the refashioning of nation, territory and the state in Latin America. In this sense, the political significance of mining, oil and gas is immense.

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Mining and Economic Development in Peru

A Time of Resurgence **BY PABLO DE LA FLOR**

OVER THE LAST DECADE, PERU HAS BECOME ONE of the most successful economic performers in the developing world, registering average growth rates above 6 percent a year. The resurgence of mining, at a time of high metal prices, has been one of the key drivers behind the country's stellar growth record. Peru's experience shows that—contrary to the conventional “resource curse” assertions that rich natural resource endowments bring about economic stagnation, corruption and authoritarianism—it is possible to transform mineral wealth into sustained development with broad and significant welfare improvements for large segments of the population. Far from being a curse, mining has been a blessing for Peru.

Peru has experienced high economic growth while reducing poverty in half (currently less than 26 percent of the total population) and improving income distribution. According to the Inter-American Development Bank, more than half the population now belongs to the middle class. This contrasts sharply with previous episodes of short-lived economic expansion. The significance of Peru's transformation becomes all the more dramatic when one considers that not too long ago, in the late 1980s, the country was mired in hyperinflation and threatened by a bloody internal conflict waged by two extremist terrorist organizations. I still remember, while pursuing my doctoral studies at the University of Chicago, reading academic accounts that described Peru as a quasi-failed state. Close to a million young Peruvians left the country in search of a better future abroad, discouraged by the deteriorating living conditions and rampant unemployment. The turnaround experienced by the country since then has been extraordinary.

The implementation of successful economic stabilization and structural adjustment policies in the early 1990s created the conditions for rapid growth. However, it was mining that facilitated this resurgence, attracting the first large investment projects that generated the income needed to fuel continued economic expansion. This consolidation of mining as an engine of growth has to be viewed against the backdrop of the country's long tradition of metallurgy, dating back to pre-Columbian times. In 2011, Peru was the world's second largest producer of copper, silver and zinc, and the sixth largest producer of gold. Not surprisingly, most large mining multinational corporations have a presence in the country. I worked for one of them, the Antamina Mining Company, a consortium formed by Teck, BHP Billiton, Xtrata and Mitsubishi. When it was first developed, Antamina became the largest green-field mining project in the world.

The importance of mining to Peru cannot be overstated. It accounts for close to 14 percent of the country's GDP, and around 60 percent of exports. Its relative economic weight has expanded over the last decade, leading some critics to argue that the current mining boom has deepened the country's dependence on primary resources and crowded out other productive activities. The evidence shows, however, that domestic industrial production has broadened and gained in complexity. Equally important, measured in volume terms, non-traditional exports tripled their size over the last decade, outpacing the volume growth of mineral production. Nevertheless, because the price of minerals reached historical heights due to skyrocketing Chinese demand, the relative partici-

pation of mining in the country's total export bill has grown significantly.

Mining has become a magnet for foreign direct investment (FDI) as well. In 2012, the inflow of FDI reached a total of US\$12.2 billion, with mining representing the main share (US\$8.5 billion). The pipeline of planned investments, including the expansion of existing operations, and the development of new mines, many of which have secured the approval of Environmental Impact Assessments (EIAs) and other authorizations, could top US\$53 billion by 2020. The imple-



An overview of a Barrick mining project in Lagunas Norte in La Libertad, Peru (Lagunas Norte and LN Faja Trans).



mentation of these initiatives would more than double the current production of copper and multiply by six the output of iron ore. These projects could increase exports by \$30 billion and generate over two million additional jobs. Due to the enhanced interconnections between mining and other local industries, each additional \$1 billion in mineral exports could lead to an increment of close to \$1.5 billion in GDP.

Mining also claims an important place when it comes to fiscal resources (15 percent of total government income collected in 2012). The central administration transfers half of the taxes collected from the industry to the regions and municipalities where the minerals are extracted.

The “mining canon,” as this mechanism is known, is an important way to make Peru less centered in Lima. This decentralization effort is a process that seeks to give power and administrative functions to elected authorities at the local and provincial levels. The income sharing system was put in place so that localities and communities around mining centers would benefit more from the resources generated by the industry. The expectation was that these governments would invest the income in basic infrastructure and thus improve living conditions in the highland areas where mineral extraction takes place.

As a result of the current bonanza, the yearly funding provided to regional and

local administrations grew from S/81 million to S/4.5 billion (*soles*) in 2001-2012. Unfortunately, these increased flows have not been accompanied by a strengthening of local capacities. Consequently, these authorities have proved unable to manage the windfall revenues, with large balances remaining unspent in bank accounts. Execution of investment budgets in regional governments and municipalities with a mining presence averaged 60 percent in 2011. Furthermore, in many cases, authorities have prioritized projects with low social returns such as the construction of soccer stadiums and ornamental plazas.

The future of mining will hinge not only on the evolution of global demand,

but, more importantly, on what happens with the wave of social conflicts and community opposition that has engulfed many mining projects. According to the Peruvian Ombudsman Office, active social conflicts have tripled over the last five years. Of the total 148 socio-environmental conflicts identified, seven out of every ten are mining-related. Several studies show better socio-economic indicators for populations in mining districts than for their counterparts in similar areas where extractive industries are absent, but social conflicts in the former have been rising. The causes of these phenomena are complex and multifaceted.

Conflicts in mining areas often express environmental concerns, mostly about water usage and quality—even though “new mining” conforms to very demanding environmental standards, in stark contrast to informal and illegal extractive operations prevalent in many areas of the country. Other conflicts revolve around compensation for land purchases and relocations, perception of unmet commitments, or demands for the implementation of infrastructure projects not provided by local governments. In the negotiations that I have been involved with in Ancash, disputes focused on very specific issues. In other areas, however, conflicts have become heavily politicized. Last year, a wave of protests and strikes in Cajamarca, in the northern highlands, brought about the suspension of the US\$4.8 billion Conga gold mining project. Similar mobilizations have affected other mineral producing regions, threatening to hinder the execution of many promising projects.

The absence of strong institutional channels to mediate between communities and mining companies has also contributed to the existing wave of conflicts. The Ombudsman’s office is one of the most respected public organizations, but its scope, resources and outreach capacity are limited, since it only intervenes after disputes have already escalated. No effective system now exists to identify and prevent potential conflicts. The absence of legitimate and mutually

accepted mediation mechanisms means that companies and communities are left to sort their differences on their own. When authorities intervene, it is usually to establish “dialogue tables” after violent mobilizations have already occurred.

The persistence of deficits in key social services such as water and sanitation, amid an unprecedented fiscal bonanza, has aggravated frustrations among local communities, further fueling conflicts. The lack of managerial capabilities to efficiently administer windfall resources at the local level will have to be addressed in order to temper the current wave of conflicts. To that end, it is critical to strengthen human capital in local administrations, and put in place a system of incentives to recruit and retain competent managers in key posts. The solution to the problem goes beyond the provision of training, and entails other structural measures, such as improved remuneration scales and the overhaul of the public administration system (a recently launched measure). It is also important to align local investment decisions with national priorities to bolster the impact of social policy interventions at the local level.

Corruption can be a problem that further exacerbates conflicts, as public resources that would otherwise be available for social investments are redirected for personal gains. Earlier this year, the former mayor of San Marcos in the Ancash region, one of the local governments that benefits most from canon transfers, was arrested after leaving town with a stash of cash from the municipal coffers. The city has had three different mayors in fewer than two years, with the first two fired because of nepotism charges. According to national surveys, corruption is widely considered one of the main problems affecting the country.

In 2010 Peru became the first country in the Americas to join the Extractive Industries Transparency Initiative (EITI), which commits companies operating in the country to make public all tax and royalty payments to the government, with an independent audit certifying the validity of the information provided. Companies

have successfully completed two rounds of reports with very minor discrepancies. To further advance the cause of transparency, it would be important to also require local administrations to provide details of canon expenditures and submit them to independent external audits.

More recently, the administration of President Ollanta Humala has implemented several measures aimed at diffusing tensions and enhancing the legitimacy of the environmental oversight process. Last year it established the National Environmental Certification Service (SENACE), formally charged with approving all Environmental Impact Assessments for extractive industries. Previously this role was assigned to the Ministry of Mines, which was also responsible for the promotion of mining investments. The government has also approved the regulation of the Prior Consultation Law, a piece of legislation aimed at providing indigenous communities with an enhanced voice on administrative processes, including those linked to natural resource projects. The outcome of the consultation is non-binding, as the government maintains the right to make final decisions.

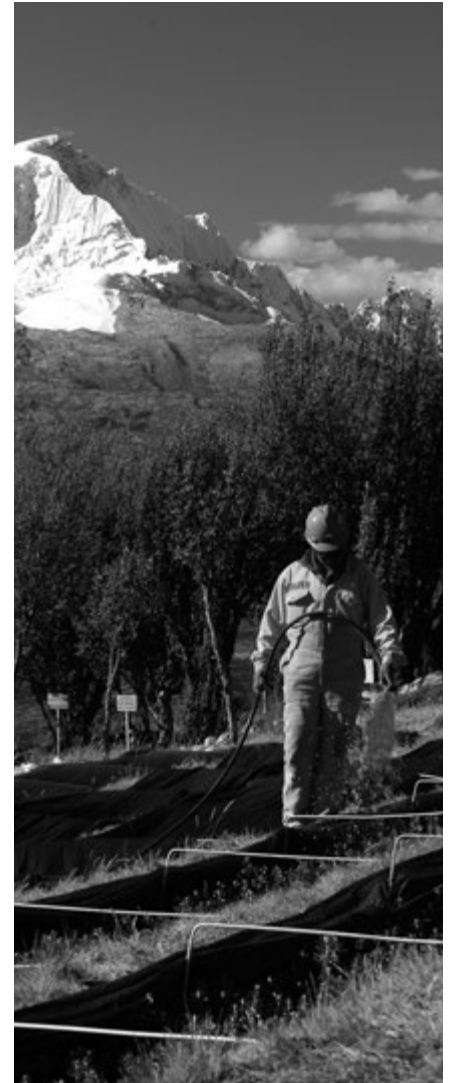
Mining companies have also made important efforts to improve their relationships with communities, assuming a more open and constructive approach in their interactions with local groups. They have strengthened social responsibility programs and enhanced contributions to the economic development of communities where they operate. One example is the Antamina Mining Fund (AMF), to which the company contributed 3.75 percent of its profits in 2006-2011, as part of a broader industry commitment arranged with the central government. The AMF implemented programs that effectively reduced chronic child malnutrition, improved quality of schools, broadened access to basic health services, and assisted local governments in improving the local public infrastructure in Ancash. These projects were carried out through partnerships with local NGOs and other national and international organizations.



The recent slowdown of the Chinese economy has translated into lower mineral prices. Not surprisingly, this more restrictive international environment has negatively affected the Peruvian economy, now expected to expand at 5.6 percent instead of the 7 percent projected earlier in the year. In this new environment, the industry's tax payments have also plummeted. During the first half of the year, canon transfers to the regions have contracted close to 30 percent. The resulting fiscal austerity has become another source of tensions in mining areas, where local authorities have begun to mobilize, this time against the central government, demanding that the full transfers be restituted despite the drop in mineral prices.

Many of the local governments that were hostile to the industry are now demanding that the national government provide additional resources to cover the gap left by lower mining canon transfers.

Despite the recent downturn in prices, mining could continue contributing significantly to Peru's rapid economic growth, helping to bring about poverty reduction and improvements in the welfare of large segments of the population. Peru has a unique opportunity to transform its rich mineral endowment into sustainable development. However, to do so, it will need to successfully manage the complex challenges posed by the social conflicts currently affecting some of its most promising mining projects.



A view of the Pierina mine in Ancash, including its garden project.

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The Journalist in an Open Pit Mine

The Adrenalin Keeps Flowing BY GONZALO QUIJANDRÍA

SOME ACQUAINTANCES ASKED ME A FEW DAYS ago if I missed journalism. Without hesitation, I answered yes: journalism had provided me with the tremendous privilege and opportunities for my work to be heard, seen or read, and this can turn into an addiction that is hard to break.

I left journalism 12 years ago when I decided to accept a job in the communications department of an international mining company, resigning from a position as editor of a business and economics magazine.

My first job had been at a television broadcasting station in Lima. Over a period of five years, I worked as a reporter, an interviewer and finally as anchorman for “Contrapunto,” a Sunday television show specializing in investigative reporting. Not only did the program achieve high national viewer ratings, it also became the standard for investigative journalism in Peru during Alberto Fujimori’s administration.

As a result of investigative reports

broadcast on “Contrapunto” that included stories about alleged human rights violations and cases of corruption in the armed forces, as well as wiretapping, the Fujimori government in 1997 revoked the citizenship status of Israeli-born Baruch Ivcher, the owner of the television station I worked at. Ivcher had become a naturalized citizen of Peru several years earlier. This move by Fujimori’s government, designed by the president’s advisor, Vladimiro Montesinos, led to the company’s minority shareholders taking control of the television station. I resigned in protest.

The following year, in 1998, I was accepted into Harvard University’s Nieman Foundation program for journalists, which enabled me to pursue studies for one year and interact with some of the best journalists of my generation from 11 countries. At the end of my year as a Nieman Fellow, I returned to Peru accepting a job as editor of a business and economics magazine, a job I held for two years.

At this point in time, at the beginning of this century, then-Peruvian President Alejandro Toledo appointed my father, Alvaro Quijandría, as his Minister of Agriculture. At first, this appointment had no bearing on my job since the topics I had been working on were related to business and economics. But little by little I began to miss investigative reporting, particularly in the area of politics. I fully understood that my work might be the subject of criticism given my close family ties to the government, in the event I were to resume a career in political journalism. At that point, I went through a late vocational crisis. I thought that economic journalism would never succeed in filling the space left by political reporting. I began thinking about completely abandoning a career in journalism and reinventing myself in some related career. Within this context a job offer from the mining company appeared.

Compañía Minera Antamina, a joint venture among Canadian, Australian

The Veladero gold mine owned by Barrick in San Juan Province, Argentina, is a conventional open-pit operation.

What attracted my attention and in some way led me to accept the job was an assertion that would become reality only a few months later: “We need you to help get this mining project off the ground. Its construction will mean an extra growth point in the GNP this year.” How can you not want to be part of something so significant?

I began my job at Antamina the same day that the 38-foot diameter semi-autogenous grinding SAG mill entered into operation, a wonder of engineering installed at nearly 14,000 feet above sea level in the middle of the eastern Andean Mountains, 217 miles from Lima. In 2001, mineral prices had risen to appreciable levels, but talk of the Peruvian “mining boom” had not yet begun. One could still count on the fingers of one hand the number of transnational mining companies operating in Peru.

Antamina became the first mining company in Peru to talk about social responsibility and to start operations only after obtaining a social license, a process that often took years to build trust levels with the communities affected. This process actually enabled the construction of the mine to be completed ahead of schedule and under budget.

Antamina’s strategy in Peru was innovative, and at the beginning it was viewed with skepticism by the local mining industry, which years later ended up accepting—not without an absence of setbacks in its own mining operations—that things had in fact changed in the relationship between mining companies and communities.

I worked with this company for nine years, attempting to build consensus in the communities by implementing both mass and direct communication strategies. I established a policy of transparency and an open-door policy for the local media, I organized direct town hall meetings with the local population, and I produced a series of educational materials

and Japanese companies which became the largest mining project ever developed in Peru, offered me a job. Leaving journalism behind to accept a position at a mining company was not a decision made in haste. I’d been thinking about such an idea for a while—not the idea of working in the mining industry, about which I knew little despite my business editor job—but rather the decision of leaving journalism.

When I had been working as a journalist, I had reached the conclusion at one point that mining was not a good option for my country. The novels from the 1970s, which portrayed Peruvian miners as being heartlessly exploited, only reinforced that point of view. The novels were similar in tone to the description that film director James Cameron would make of miners of the future in his film *Avatar*. So when the offer came for a job in a mining company, I had conversation after conversation with friends who had some connection to the field and with

others who were very critical of the role of mining in Peru.

I remembered how in one of the classes I took during my Nieman year at the Kennedy School of Government, a debate arose on a topic that seemed particularly surrealistic to me: “Is development good for humanity?” The arguments against that position centered on environmental impact as an undesired effect of progress. However, after that class, I couldn’t help thinking how far off that argument was for a country like Peru where, in the words of poet César Vallejo, “there is so much to be done.”

As I was mulling about whether to take the job at the mining company or not, I realized that no one uninvolved in the sector knew anything about it nor knew anyone connected with mining activity. These were the years of the “tigers of Southeast Asia.” High mineral prices had not yet arrived on the world scene, and there was little information in the media about mining.



Left: An outcrop in the Barrick mine looms over a desolate landscape in Lagunas Norte in La Libertad, Peru (Lagunas Norte and LN Faja Trans). Right: A mining worker smelts metals; note the use of protective clothing.

aimed at explaining the mining process and the technologies used to minimize environmental impact. To this very day, the process used to launch Antamina's mining operation is studied around the world as a business success case, and there is no doubt that communication strategies contributed to that success.

Following this experience, it didn't take me long to realize that I hadn't left behind the adrenaline found in the practice of journalism for a quieter and safer line of work, because the mining industry explodes with intensity. As the years passed, mineral prices reached historic levels; communities neighboring mine deposits saw their income rise as a result of the influx of mining canon royalties (in Peru, half of the income tax generated by mining activities must be transferred to the municipal governments located near the site of the mine deposit)—resources that the local authorities were not properly prepared to manage. Thus, frustration grew among the communities upon

seeing that they possessed financial resources to help them climb out of poverty but that their officials did not have the capacity and skills to execute development projects. Furthermore, mistrust also grew in the public opinion concerning the ability of the mining companies to effectively control their environmental impacts, an issue magnified by the more than 600 environmental liability sites identified in Peru dating back to the previous century. As a consequence of this complex set of problems, social violence began to occur more frequently. Even today, no effective formula to achieve social peace has been found.

During these past twelve years I have worked with various types of mining companies: Australian polymetallic mines, Canadian gold mines and the mining division of a Peruvian business group that has diversified operations and holdings in Peru and Brazil. The history of mining in the world over the course of this period has also suffered fundamental changes:

it has gone from being an industry with a perpetually low profile to one that occupies news headlines in the media, and it has become the nucleus of social conflicts, some of them very violent and with loss of human lives.

For the media, the image and reputation of the mining industry that make up the intangibles that I am required to manage as part of my daily job have historically been complicated. A miner is always a new actor that appears on the scene of those areas in which the company operates, since his job is to search for minerals and to extract them at the sites where they are found. This fact of life in the mining industry makes it inevitable that miners will always be viewed as the "new guys on the block" in the communities and this dynamic engenders mistrust.

I had never experienced this type of suspicion during my years in journalism. What the field of journalism had, particularly in television, is a high level of public exposure, and when an investigation was



well prepared and adequately supported by evidence, people expressed their gratitude with their trust.

From the standpoint of the mining industry, building trust among the audience that I need to address is very complicated and it requires an extra dose of hard work and understanding. The main problem lies in the levels and degree of the violence in this relationship, as it is common to see highway roadblocks, public assemblies where “popular justice” is often administered (physical attacks not excluded) and hear constant criticism on the radio and in local newspapers.

That is the point of departure for mining projects, because it is becoming increasingly necessary to implement participative processes of open communication in business decisions that could have any community impact. Likewise, the environment of poverty in which most mining deposits in Peru are located (usually at the highest plateaus in the Andes Mountains), makes it essential for compa-

nies to develop social responsibility policies and projects.

Peru is preparing to receive the largest mining investment in its history: approximately US\$50 billion in investment projects for the coming years. If these projects are successfully developed, there is no doubt that they will create an even deeper change in Peruvian society. An investment inflow of this magnitude will bring direct and indirect employment, tax revenues for the central and local governments, decentralized purchases of goods and services. However, if these revenues do not translate into the much-needed public infrastructure construction or increased welfare for the communities, outbreaks of social violence will increase.

I hope that the mining industry makes the most of the lessons learned over these past years and is able to address the challenge it faces. As a reporter, I experienced some of the events that may be considered part of Peru’s recent history. I covered the occupation of the residence of

the Ambassador of Japan in Peru for four months by the Tupac Amaru Revolutionary Movement, the wiretapping scandals by intelligence operatives in the government of Fujimori (whom I interviewed three times while he was president), the withdrawal of citizenship from Baruch Ivcher and Vladimiro Montesino’s dark sources of income. One might think that I could not experience moments as intense as those that I felt when reporting these incidents, but this is not so. These feelings come up at the popular assemblies, in the processes of public participation and in the direct negotiations with the community representatives where you sometimes feel like you are pushing a heavy automobile— but one with the power that is capable of creating opportunities for many people to climb out of poverty. This is the intensity that I discovered in the mining industry.

Gonzalo Quijandría was a 1999 Nieman Fellow at Harvard University.



Making Way for Mines

Chinese Investment in Peru BY CYNTHIA SANBORN AND VICTORIA CHONN CHING

IMAGINE THAT YOU HAVE TO MOVE. IMAGINE that you must pack all of your belongings and memories and move six miles down the road. Your town will be swallowed up to make way for an open pit copper mine. The mountain you've looked at all your life will be leveled to the ground. But you know—or you have been told—that the new place will offer you better public services, new schools and roads, a new clinic and church. And for the first time in your life, you will get a home of your own instead of rent-

ing. Although you have misgivings, you agree to give it a try.

The relocation of Morococha, an old mining town in Junín, Peru, has drawn enormous national and international attention. For one thing, it is the first voluntary resettlement of a community to make way for a mine in recent Peruvian history. Most of the town's 5,000 residents were consulted by the company involved and, amidst tears, fears and tough negotiation, agreed to the move and various forms of compensation. Fur-

thermore, the company moving them is part of the Aluminum Corporation of China, Chinalco, a multinational owned by the Chinese state. Since obtaining the concession in 2007 for the Toromocho project—named for the mountain to be removed—Minera Chinalco Perú S.A. has invested considerable time and money in trying to construct not only homes, schools and the mine, but also viable community relations, leading many to ask if this signaled a new phase for Chinese investors in this region.



In the last decade Peru has been able to achieve sustained economic growth, cutting poverty in half and producing an expanding middle class, making it one of Latin America's success stories. The country's recent boom has been driven in part by the increasing global demand for the minerals and other primary commodities that Peru exports, as well as by sound macroeconomic policymaking and strong commitment to international trade. Expanding relations with China form an important chapter in this story.

The demands of a growing China have offered exceptional opportunities to attract new investment and markets for traditional exports. In recent years, copper, iron, gold and other minerals have made up about 60 percent of total Peruvian exports, 25 percent of total FDI and 15 percent of total tax revenues. While investors from more than 30 countries are involved in Peru's mining industry, China has become a leading market for these resources. Nearly a third of the exporting country's total projected mining portfolio of US\$56 billion over the next decade will come from direct investment from Chinese sources.

Although many in Peru see economic relations with China as a blessing, the heavy investment has also revived concerns about the "resource curse," the risks of excessive dependency on primary commodity exports with the accompanying structural challenges that can hinder a more diversified and productive economy. To the extent that Chinese demand for Peru's minerals and oil is higher than the world average, some argue that it contributes to reinforcing this pattern.

Dependency on mineral exports also raises concerns about the social and environmental implications of large-scale extractive activity. The mining industry within China has had serious problems with safety and environmental regulations, raising the issue of whether Chinese companies can comply with global standards. Transparency is another concern; many in Latin America have come to demand a high standard of transparency that some Chinese companies do not offer.

The Chinese have not been active participants to date in voluntary efforts such as the Extractive Industries Transparency Initiative (EITI). Yet recent scholarship by Kevin Gallagher, Rubén González Vicente, Deborah Brautigam and others has suggested that the key issue is not whether a company is Chinese, or of any other nationality, but rather the willingness and capacity of host countries to regulate firms adequately.

Peru leads Latin America in efforts to implement new standards for the mining industry and to use the abundant revenues from mining to advance an array of development goals. In 2011, Peru became the first country in the Americas to be declared compliant within the EITI framework. That same year, the government of President Ollanta Humala launched efforts to implement ILO Convention 169, guaranteeing the rights of indigenous and tribal peoples to prior consultation on major public policies that affect their lives, including the granting of mineral and hydrocarbon concessions.

But as China's growth and world minerals prices take a downturn, the drive to increase new mining production has come into conflict with social and environmental concerns. Government initiatives in these areas have also been hampered by institutional weaknesses, conflicts of interest and outright corruption, generating numerous and often violent disputes between companies and communities over land and water rights, revenues and environmental contamination. Such conflicts pose challenges and delays for all firms, including Chinese investors new to the country.

For the last few years, colleagues at the Research Center of the Universidad del Pacífico (CIUP) and the Peru-China Center have been studying various aspects of Chinese involvement in Peru's economy and society. Along with macro-level issues of trade and investment, we are asking if growing Chinese direct investment in Peru's extractive industries—especially mining—will have any social or environmental implications different from those involving other multi-

national or Peruvian investments. Have Chinese state-owned firms reacted differently from their peers in the industry to social conflict or changing regulatory demands? Have local actors—government, communities and NGOs—reacted differently to Chinese investors?

China has actually been present in Peru for more than 160 years. During the mid-19th century, thousands of Chinese men were brought to Peru as coolies—indentured agricultural workers—to labor on sugar plantations and the rich guano islands. Chinese workers also helped build railroads and extract rubber and gold from the Amazon region. But direct Chinese investment in Peru was virtually nonexistent until 1992, when the Shougang Group bought the state-owned iron ore company, Empresa Minera de Hierro del Perú (Hierro Perú). Then the largest Chinese investment in Latin America, at US \$118 million, it was one of the first state enterprises privatized by the Fujimori administration. In 1993, SAPET, a subsidiary of the China National Petroleum Corporation (CNPC), also purchased some state-owned assets in the Peruvian oil industry. Yet fifteen years would pass before more significant Chinese investments would flow towards the Andes.

Today around one hundred Chinese firms are legally registered to operate in Peru, with at least fifteen Chinese firms holding important concessions, and hundreds of smaller ones also in Chinese hands. Peru is now a leading location for Chinese mineral investment in Latin America. The majority of

With the exception of the top right photo, which depicts worker housing in a Chinese-owned mine in Peru (taken by Dan Collins), all photos in this article have been taken by children to capture the city of old Morococha, which was moved to make way for a mine. The children learned how to create a photographic history of their town with the help of the organization Ojos Propios, an association that seeks to create stories through images. The photographs are shown in the Museum of Memories in the new town, which is located in Carhuacoto. Readers can view the entire project at <http://www.flickr.com/photos/64439520@N08/sets/72157632603800330/>.



these firms are state-owned, purchased directly or through takeover of smaller Western firms with most investments in copper or iron. Most concessions are still in the exploration stages, although Toromochi is expected to go into production in December 2013. A Chinese firm or consortium may also purchase another enormous copper project, Las Bambas in Apurímac, as a result of negotiation with Chinese regulators over the takeover of Xstrata, the prior owner, by Glencore.

One might ask if there is a “Chinese way” of doing business in Latin American mining? The short answer is no. Diverse Chinese firms operate here, with both public and private capital, and the policies of the Chinese government towards its overseas companies are evolving fast.

Peru is now a leading location in Latin America for Chinese mineral investment. One might ask if there is a “Chinese way” of doing business in the mining sector in Peru. The short answer is no.

Rather than generalizing, we consider it fundamental to analyze more closely the nature and operations of each firm, and their relationships to the Chinese state, local authorities, other mining firms, and diverse stakeholders. In Peru, the two best-known cases are also ones that demonstrate the sharpest contrasts: Shougang and Chinalco.

SHOUGANG: STARTING WITH THE LEFT FOOT

Although Chinese investment is increasingly important for Peru's mining sector, there is still only one operating mine owned by a Chinese company in this country, Marcona, the largest iron mine in the country, located in the Ica region. Its owner is Shougang Hierro Perú S.A.A., part of the Shougang Group, a state-owned conglomerate founded in 1919 in Beijing that focuses mainly on the steel industry. It was the first Chinese mining company to “test the waters”

in Latin America. In 1992, Shougang bought Empresa Minera de Hierro del Perú, and with it the Marcona mine, which was developed by the U.S.-owned Marcona Mining Company in the 1950s and expropriated by Peru's military government in 1975.

For Peru, this was the first sale of a state-owned company under the Fujimori administration's dramatic liberalization effort, and the primary concern was restoring investor confidence. At the time of the purchase, Hierro Perú was a run-down firm with significant economic losses, an aging labor force and highly politicized union. The town of Marcona, a former mining camp, had also seen better days.

In preparation for the sale, the Peru-

vian government laid off half the work force, but apparently left the unemployed in company housing. According to comparative development expert Rubén González Vicente, when Shougang arrived, it promptly evicted these people, bringing in Chinese workers to take their place. Locals burned the company's three Chinese arches in protest, González reports, and the foreign workers were quickly sent back home. In this sense, Shougang had already started on the wrong foot, provoking conflict with both its remaining labor force and the surrounding community.

Under two decades of Chinese management, Shougang Hierro Perú became a highly profitable company. In 2011, for example, it produced more than seven million tons of iron ore, and last year it recorded a 50 percent growth in its net profits. Yet Shougang also remains one of the most widely criticized foreign mining firms in Peru, perhaps rivaled only

by the Yanacocha gold company, jointly owned by the Denver-based Newmont Mining Corporation and the Peruvian Buenaventura. First of all, Shougang broke its original investment commitment, reneging on plans to modernize the mine itself. Privatization had promised to create conditions to improve worker safety; the company fell short of that. While economic and political setbacks for the mother firm in China in the mid-90s apparently account for part of this situation, workers and local authorities received no explanations. The company's broken promises would not be forgotten. Then short on cash and facing debts back home, Shougang executives took a hardline approach to union negotiations, leading to annual strikes and protests that grab media attention. In addition to accusations of low wages and poor working conditions, the firm has been accused of noncompliance with environmental regulations, and has had conflicts with the surrounding community over provision of water, electricity and alleged contamination. In the eyes of many Peruvians, as well as the international media, Shougang represents the negative stereotype of a Chinese company that ignores global standards in the race to feed its demand for ores.

However, a recent study by Amos Irwin and Kevin Gallagher, *Chinese Investment in Peru: A Comparative Analysis*, indicates that Shougang “has not performed significantly worse than its foreign or domestic counterparts.” Although the company's labor and environmental records are weak by international standards, these authors claim that

Children and teenagers captured images of the old Morococha, a city that was moved to make way for a Chinese-owned mine. The website for the project is <http://www.ojospropios.pe/index.php/talleres/item/156-talleres-en-morococha> Video of the project: <http://www.youtube.com/watch?v=NwQEQh0DzJM> Site for the project: <http://www.ojospropios.pe/index.php/talleres/item/156-talleres-en-morococha> Video of the project: <http://www.youtube.com/watch?v=NwQEQh0DzJM>



Shougang lies somewhere in the middle when compared with a selection of other multinational and national firms operating in Peru. Examining wages, working conditions, safety and accident records and environmental sanctions, they find that Shougang is neither the best nor the worst. While its rate of serious accidents is relatively high, and it tops the charts for man-hours lost to strikes, Shougang ranks better than most in terms of percentage of workers on payroll with full benefits and profit-sharing rights. The conclusion is not that Chinese firms have low standards, but rather that Peruvian authorities have been weak in enforcement of standards with virtually all operating firms.

Shougang inherited a difficult situation that is not comparable to newer greenfield projects without prior constraints. However, this does not explain the persistent conflicts it has generated, its absence from voluntary fora such as EITI, or its reticence to invest in improving community and public rela-

tions. For some observers, these problems can be attributed to cultural and political differences between Peruvian and Chinese managers, the idea being that the Chinese do not know how to deal with free trade unions, a free press or local democracy. However, more recent cases suggest that Shougang's problems may have more to do with the company back at home *per se* than its Chinese origins, as Shougang Corporation is facing an increasing number of challenges in an industry with more and fiercer competition. Furthermore, since 2011 the company reports investing over US \$1 billion in modernization and expansion of its facilities, leading to an increase in profits and payroll, though not in labor peace.

Chinese companies moving into Peru in the past decade are trying to learn from, and avoid, the mistakes of their predecessors, including not only Shougang but also Western-owned firms like Yanacocha, which also began working in Peru in 1992 and has faced growing

social conflict since. En route to becoming truly global firms, a number of Chinese companies are making efforts to act with social responsibility, and to be perceived as such. The leading example in Peru today is Chinalco.

CHINALCO: EXCEPTION TO THE RULE?

"Chinalco is building a new city of Morococha with an investment of \$50 million," according to the Spanish-language announcement. "First a new city, then we begin operations. This is responsible mining. We're Chinalco. We believe in Peru."

—Bloomberg News, November 1, 2010

The Aluminum Corporation of China (Chinalco) is a state-owned enterprise founded in Beijing in 2001 after the merger of a group of aluminum companies as part of China's efforts to consolidate and restructure its industry. Today it is one of the world's largest aluminum producers. In 2007, Chinalco acquired the Canadian junior firm, Peru Copper Inc., obtaining the Toromocho project in central Peru. The project is named for Mount Toromocho (in Spanish, "bull with no horns"), which is being razed to build a copper mine and processing plant, carving out an open pit larger than New York City's Central Park.

According to reports, Chinalco has invested more than US\$3 billion in this project, which should have a life span of 36 years. With an annual output of more than 250,000 tons during its first decade, it is expected to generate close to US\$7.5 billion in income tax revenues.

Located in a high-altitude historical mining region, this project stands out for its state-of-the art construction, investment in an acid water treatment plant for the area, and diverse forms of social investment, as well as the relocation of the nearby town of Morococha (see box on left).

In this case, Chinalco executives—aware of Shougang's reputation—explicitly wanted to mark their distance and establish a socially and environmentally

Morococha: Memories of the Bull Without Horns

Once upon a time a frog and a lizard had a fight about what Morococha should be: an agricultural town or a mining town. So they had a race and the lizard won. This is why, the residents explain, Morococha has long been dedicated to mining.

Located in the province of Yauli, in the Junín region in central Peru, Morococha is about 90 miles from Lima. At 14,930 miles above sea level, it is a cold and stark place to be. When Minera Chinalco Perú announced the future relocation of this town for the construction of an open-pit mine, most of its 5,000 residents had mixed feelings—hoping for better living conditions, skeptical about what a foreign company had to offer, and worried that their old home would simply be swallowed up and forgotten.

Fortunately that may not be the case. With the help of Ojos Propios, an association that documents stories through images, Chinalco has offered the children and teenagers of Morococha the opportunity to create a Memory Museum. The goal is to tell their stories and remember the old town, through a series of photographs taken by residents themselves. Armed with cameras, children roamed the town and saved in images the parts of old Morococha they would want to see and remember in the future.

From the lake next to Morococha, to friends playing in a barely standing playground, the young photographers captured what they defined as their identity, as members of this former mining camp. While the families are moving to a new place six miles down the road, and to high expectations for their parents and grandparents, the idea is that these children would not forget where they came from. After all, they are the leading characters of this story.



Eduardo Cisneros, 11, took this photo of a Coca Cola truck for the Ojos Propios project to preserve memories of the old Morococha.

responsible company. The first CEO of Minera Chinalco Peru, Gerald Wolfe, had previously run Antamina, considered a global model for “new” mining and CSR. While the current CEO, Huang Shanfu, is Chinese, most of the management team and workers are Peruvians. Indeed, since the Shougang protests in the early 1990s, no subsequent Chinese mining company in Peru has tried to bring its own labor force from home. Chinalco also retained the community relations consultants originally hired by Peru Copper, working with them to try and conduct an exemplary relocation process.

By objective standards, the old town of Morococha is a bleak site. Built as an earlier mining camp, it is cold and rundown, with communal latrines and a limited water supply. The majority of residents were renters who lived in overcrowded and dilapidated buildings, while working

in mines nearby. At the edge of town sits a toxic tailings dump around which local children play.

Yet moving is always hard, and Chinalco initially encountered resistance, led by the town’s mayor and an influential group of property owners. Over time, and with considerable patience and astute negotiation, the majority of residents agreed to relocate, and in October 2013 the mayor reluctantly agreed. In the new town, all families have their own home with running water, sewage and a property title. Hence even before the mine goes into operation Chinalco will have established a new standard in Peru. And ironically, executives from Peruvian and other international companies complain that Chinalco is distorting the market, offering better wages and benefits than the industry average. Its financial backing also appears to be unparalleled

even by other Chinese firms operating in this region.

So is Chinalco the new model of Chinese overseas investment? Or is this the exception to the rule? Whichever the case, it is yet too soon to tell.

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The Mining Boom in Colombia

Blessing or Curse? **BY GUILLERMO RUDAS**

BACK IN THE 1930S, THE FAMED TANGO COMPOSER Carlos Gardel warned us in a lovely musical *arrabal* that “twenty years is nothing....” But in the area of mineral and mining, the tune is somewhat different. For more than twenty years, until the middle of the last decade, the cost of coal providing energy to much of the world hovered between \$30 and \$40 a ton; in the last few years, it’s risen to between \$80 and \$90, even reaching \$200 at one point. Copper, the incomparable energy

conductor without which electric motors would not be so popular, was already at \$2,000 a ton, increasing to an average of \$6,800 a ton, and finally recently reaching \$10,000. Nickel—without which stainless steel could not be manufactured—went from less than \$8,000 to more than \$20,000 a ton, even reaching \$50,000 in the first semester of 2007. We sometimes take nickel for granted; it’s all those jingly coins in our pockets. And gold itself, most often associated with

A huge open-pit coal mine is located in the César region of Colombia, one of many throughout the country. Europe—particularly Holland—is the primary destination for these coal exports.

jewelry but providing a safe and alternative capital investment, had soared from a traditional price of around \$350 per Troy ounce to more than \$1,700 at one point.

Both producing and consuming countries have interpreted the price bonanza

and its effects in a multiplicity of ways. We would expect that the exporters of these desired commodities would be the beneficiaries of such high prices. Discussions on the challenges and opportunities of mining in Latin America took place at an international forum organized by the Universidad de los Andes in Bogotá (and sponsored in part by the David Rockefeller Center for Latin American Studies), which brought together participants from quite different disciplines and perspectives—including government officials, academics and the mining sector.

The conference provided me with an opportunity to present some ideas on mining in Colombia, formulated through a collective effort of a group of professionals convened by the *Contraloría General de la República*—the Colombian Comptroller General. Together with specialists from different fields, we were invited by this branch of government—a monitoring agency—to analyze the state of mining and propose solutions for the many challenges rising from the mining boom. Jorge Enrique Espitia, a specialist in public finances from the Comptroller's Office, and I were assigned the task of estimating the state's share of the income generated by the price bonanza. Month after month, we shared our reflections with our work team led by Luis Jorge Garay, an economist with ample national and international experience in public policy. The results of this group effort were published in a book entitled *Minería en Colombia: derechos, políticas públicas y gobernanza* (Contraloría General de la República, 2013).

Our opinions necessarily referred to the debate about mining that is raging in Latin America, as well as to the position of the Colombian authorities regarding that debate. At the same time the conference was taking place at the Universidad de los Andes, Cepal Executive Secretary Alicia Bárcena spoke to a Colombian business newspaper (*Portafolio*, March 24, 2013) about the profits of foreign businesses that invested in the hemisphere. She pointed out that, in keeping with the price rise of these products, their profits “went

from an average of US\$20,000 millions a decade ago to \$113,000 millions in 2012.” She suggested that the region ought to put into effect “mechanisms and instruments to gain a share of these higher profits through taxes and royalties.” Then-Minister of Mines Federico Rengifo, in contrast

that mining activity generates. But the figures we encountered in our investigation dampened our hopes. Thus a recent study by Chilean economist Jean Acquatella and colleagues, *Rentas de recursos naturales no renovables en América Latina y el Caribe* (Cepal, 2013), demonstrates a

Several years of skyrocketing mineral prices have meant enormous wealth for companies. We need now to take a hard look at taxes and royalties.

to Cepal's position, declared to the same newspaper that he would not consider an increase in the share paid by oil and mining companies to the state, saying that the government “had clearly declared that it did not wish to modify the royalties law” and that “it seems to us that our present regulatory framework is adequate to ensure competitiveness” (*Portafolio*, March 20, 2013).

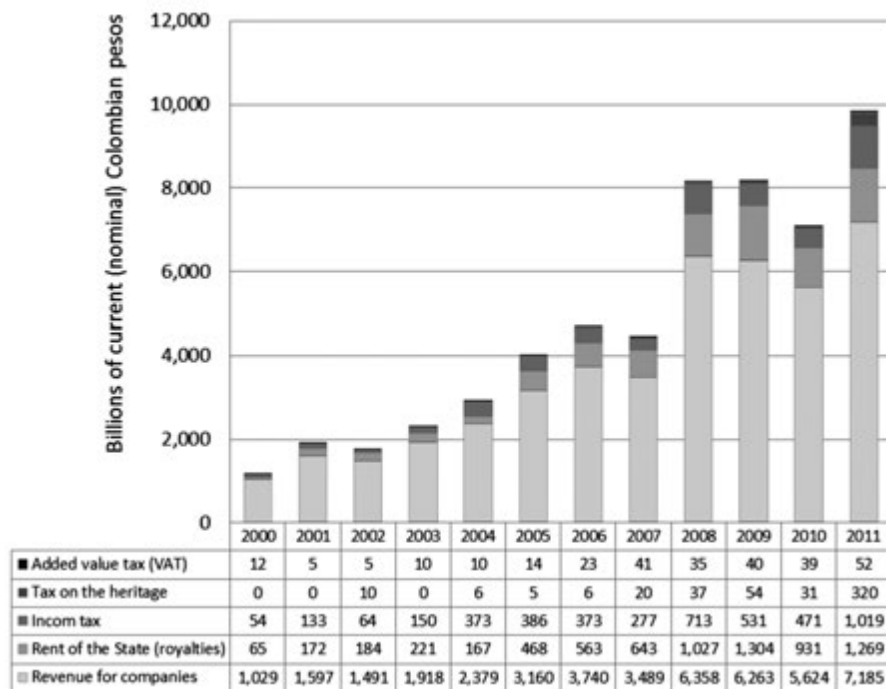
In this context, our inquiries place us at the forefront of a dramatic situation: after several years of skyrocketing prices, enormous wealth has been created for companies that generate their profits through the extraction of resources from the state's subsoil; at the same time water and other natural resources have become fragile, with grave sociocultural and environmental consequences, and residents in the mining regions continue to be mired in poverty. Infant mortality rates in these regions are statistically higher than the national average; the majority of the population does not have access to elementary health care or other basic services provided by the state. Criminality, measured by the number of violent deaths, is also totally out of control in these regions, quite a bit above the national average in a country with high rates for this type of crime.

We were still hoping that state income from the exploitation of its national patrimony would have helped to move us towards eradicating poverty, while mitigating the social and environmental costs

crude reality: recently, in the midst of the greatest surge in prices for Colombia's mining products, the fiscal income generated through the exploitation of natural resources in Colombia only reached \$2.30 per each hundred dollars of the Gross National Product (GNP). Among the countries included in the research project, we surpassed only Peru (\$1.90 for each \$100 of the GNP); we were considerably below Chile (\$3.2), Mexico (\$7.8) and Bolivia (\$10.1).

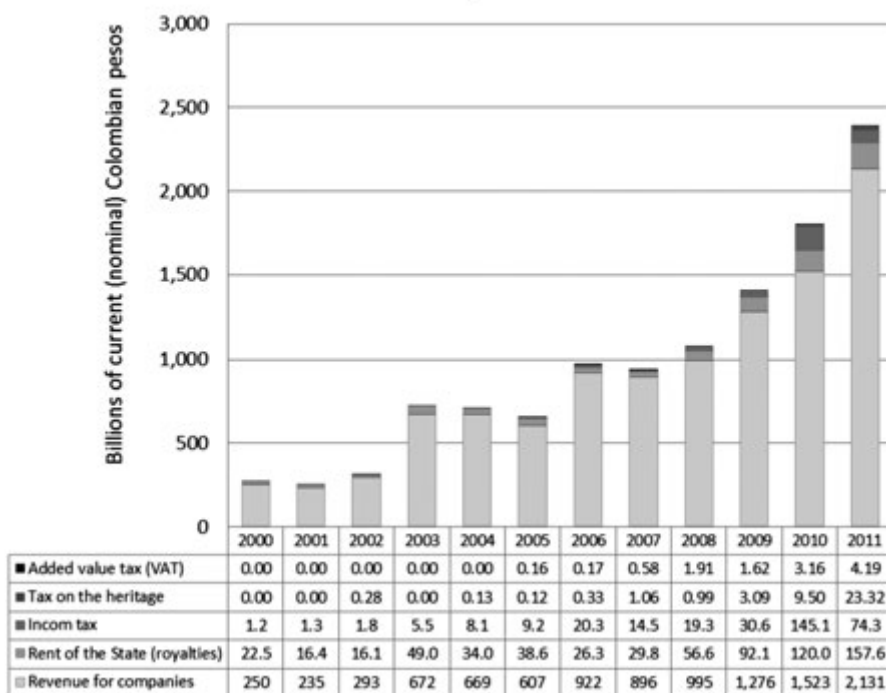
Studying official figures, we then analyzed the taxes paid by the mining companies operating in Colombia. In the last few years, the nominal income tax rate has hovered between 30 and 35 percent of the profits. However, the mining companies have actually paid only about 10 percent of their income, an amount they calculate as net of operating costs. How is this possible? It's not a matter of tax evasion; the law itself permits multiple discounts and deductions from the taxable base, especially short-term depreciation of investments, which covers the long time expectations. We also looked into royalties, the income that corresponds to the state as owner of the resource. The state receives a fixed percent of mineral exports from Colombia, discounting the costs of processing and shipping. These royalties are calculated exclusively with information provided by the companies, since the Colombian authorities have not yet developed a monitoring capacity. Moreover, the same state gave up its

Colombia. Coal, 2000-2011



A look at Colombia's coal revenue. Source: Rudas & Espitia, in Garay et al., *Minería en Colombia*, Contraloría General de la República, Bogotá, 2013.

Colombia. Gold, 2000-2011



A look at Colombia's gold exports. Source: Rudas & Espitia, in Garay et al., *Minería en Colombia*, Contraloría General de la República, Bogotá, 2013.

right years ago to participate directly in the mining business, in contrast to other countries such as Chile, which participates directly in the exploitation of copper—or even in contradiction to itself, as Colombia has a large state-owned oil company.

With effective royalties of 3.2 percent on the international price of gold, 9.5 percent on coal and less than 12 percent on nickel, this might seem to be a reasonable participation. It would indeed be valid given equally reasonable prices, as occurred in the first twenty years of this account. But allowing royalties to remain as a fixed percentage of the price (and considerably moderate at that) when prices are soaring makes no sense.

Contrasting what the state receives for royalties with income tax, we are surprised to see that during this price bonanza, for every US\$100 of royalties paid by the companies to the state, they receive income tax deductions and discounts to the tune of \$130. We therefore propose a deep revision to the tax system, using a proportional percentage rather than a fixed one. Thus, when prices are above the historical average on a long-term basis, the companies should pay a higher percentage of royalties to elevate state participation in the profits. When prices fall again, which will happen sooner rather than later, this percentage will return to moderate levels without affecting the competitiveness of the companies.

We've been talking to recently named Minister of Mines Amílkar Acosta, an expert on the theme of taxes and royalties, and we believe that the balance could indeed tip in favor of a position that is more favorable to the Colombian state.

Guillermo Rudas, MSc in Environmental and Resource Economics from the University of London, has been an economics professor at the Universidad Javeriana in Bogotá for more than 30 years. He is now a consultant on current topics, such as the one dealt with in this article, advising entities such as the Comptroller's Office. All this, of course, without giving up his academic career.



COMMUNITY RESPONSES

While labor mining unions have often been strong in Latin America, voices of protest have now spread to local communities, concerns about issues of environment, labor, land ownership and even questions of taxes and royalties.

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Mining Challenges in Colombia's El Choco

Locomotive or Steamroller? **BY STEVE CAGAN**

COLOMBIAN PRESIDENT JUAN MANUEL SANTOS likes to promote extractive industries as the “locomotive” that will pull the country’s economy forward. His plan projects providing mining concessions for large-scale operations to multi-national mining corporations. In the northern Pacific department of El Chocó, that development means that large gold mines will replace the smaller mechanized operations that now exist, as well as the traditional artisanal miners.

This plan also pits the government against the smaller-scale mechanized miners, whom it accuses of running illegal operations. The operators fear they will lose everything because the government is trying to shut them down. The legal details can be mind-numbing.

The government is also in conflict with the local communities, which have special rights as Afro-Colombian or indigenous communities. However, the government’s position is that their territorial rights only apply to the soil, not the sub-soil. The people in the area, through their communities and organizations, express fears that Santos’ plan will mean the end of their rain forest, of the communities it has nurtured, and of their ability to make a living here.

Because of their concerns about this frightening prospect, the locals are making common cause with the current mechanized miners. This has provided a strong front of opposition to the multinationals. But some people see the alliance with the mechanized miners as a Faustian bargain. They argue that “the destruction that the multinationals will do in fifteen years, the current operators will do in thirty.”

The recent expansion of mechanized mining has produced a number of effects

and consequences very different from those of traditional artisanal mining. The new practices have created divisions among the public; some individuals and communities see the mechanized mining as a great economic opportunity, while others see it as a threat to their forest and their way of life, and even have doubts about the economic benefits.

In September 2012, at a meeting during the Colombian bishops’ annual Week for Peace, community activists discussed the mining problem in Quibdó, the capital of El Chocó. A young Afro-Colombian activist, Eduardo, asked for the floor (note: community members’ names have been changed.)

“Everyone is upset about the government’s encouraging the transnational mining companies. And they are right to be upset. We are right to oppose that. But what about what we are doing right now? What about the damage we are doing to the forest by mechanized mining? What about the damage we are doing to our communities? What are we going to do about that?”

Most of the twenty or so people in the room agreed with him; only Juan Carlos, who works for one of the mechanized miners, disagreed. And even he did not feel he could strongly object.

This moment made clear how mining issues divide and unite people in local communities.

Just what are these issues and where did they come from?

El Chocó has always been an area of gold mining. Indigenous people mined gold there before the Conquest. The Spanish came to the Atrato River—the major artery in the area under discussion—because they knew there was gold



there (and in the mistaken belief that it would provide a more direct route to Peru). They brought African slaves—mostly from other parts of the colony—who were the ancestors of today’s Afro-Colombian population, to work in the mines.

Some early mechanized gold-mining operations in El Chocó were playing out by mid-20th century; the gold was not sufficient to justify the costs.

Meanwhile, throughout the centuries, Afro and indigenous communities close to the gullies and rivers carried out traditional artisanal mining. This activity—what in the United States we call placer mining or panning for gold—is known in the area as *bareque*, and the men and women who engage in this artisanal mining are called *barequeros/as* or sometimes simply *mineros/as*.

The gold here is not in veins, but in



Some traditional artisanal miners in the Chocó region now seek to find gold in the areas of pits abandoned by machinery.

small flakes scattered in the mud and soil below the surface. People pan all day to get much less than an ounce of gold; many tons of soil have to be turned over to find pounds of gold. In recent years, impelled by the sky-high price of gold, mechanized mining has come to this area, and with a vengeance. Hundreds of big backhoes have been brought in to open large pits in a search for the gold. The new mining operations represent a threat to the important, delicate rain forest environment, and also to traditional cultures, as people abandon the range of economic activities that have defined them culturally and have supported their families, to become full-time artisanal miners in the areas of the pits abandoned by the machinery. In other areas, the machinery destroys planting areas, kills fish, or otherwise interferes with such activities.

The mechanized mines do not directly hire many local people—a mine using two or three large backhoes to dig may have a crew of around twenty people, including mechanics and operators who come from other areas. But they do provide a special opportunity for panning for gold, as the owners allow people to mine in the areas where the machines have finished their work.

Since this work is physically less stressful than panning in the rivers (although it's also more dangerous, as the pits are not very stable and collapses occur—an accident last year killed seven people, buried under tons of soil, but somehow these accidents seldom arise in the general conversation about mining), and because it is hoped that where the machines have worked there is more gold to be found, a good many people in El Chocó have become full-time miners.

The *bareque* has long been one of a range of family economic activities. Other activities have traditionally included planting (plantains, bananas, yucca, sugar cane, and a variety of fruits and vegetables) and keeping chickens and pigs, hunting and fishing, gathering fruit in the forest, and cutting wood—all primarily for consumption by the family.

Most of these activities were outside the money economy. A man forced by the violence of the civil conflict to leave his village along with his family remembered that “Back in the village, often we didn’t have a peso in our pockets. But we didn’t worry, because we knew our children would eat, and eat well.” Panning for gold and platinum (and to a lesser extent some surpluses from the other activities) provided the cash needed to acquire the things they could not produce—cloth, tools, and so on. And panning was a part-time activity.

“When I was a girl, my family lived on the Bebaramá River,” said María Eugenia. “This was a good place to mine—when the grown-ups went out to pan for gold, they found a lot. Still, they never did that all the time. We had our *fincas*; my parents and uncles and aunts planted crops to eat. And the men went to fish and hunt. The mining was important to us, but it wasn’t all we did.”

But things are changing. Recently, María Eugenia wrote to me: “...what do you think? I spent four days in the village where I was born, it was beautiful; it had been many years since I visited there. This community is in the Río Bebaramá...it is very organized, but as it is a mining community, they let themselves believe that [story] and many families have stopped producing [crops], now everything has to be brought there. For me this is very worrisome, because before they did manual mining and they also harvested, so when for some reason they didn’t go to mine, they weren’t hungry. Now they have let the heavy machines in and everything has changed.



For more information about Steve Cagan and Mary Kelsey's project, see elchocomining.net.

I took advantage of being there and spoke with some relatives and advised them to reconsider the situation, but since right now they are feeling abundance, they did not pay attention to what I said."

So one of the effects of the entry of mechanized mining is that in some places people are abandoning or sharply reducing their traditional range of economic activities and becoming full-time miners. (There is a parallel development in cutting down the tropical hardwood trees, traditionally an activity of a few weeks a year. Now it is the full-time occupation of men who use big chain saws provided by lumber dealers). Among other consequences of this change, younger people are not learning the skills that sustained their ancestors, and even themselves as children.

In the villages, some people tell me that the arrival of the machines in their villages has not affected their lives much, and others recount abrupt and dramatic changes. In part, this is because the experiences have varied widely from community to community, but the different versions of the story also clearly have to do

with the plasticity of memory. The people who have shifted to full-time panning for gold will tell you, correctly, that they have more money than they have ever seen before. But it is also true that now they have to buy everything that they produced before. Despite their hopes, they don't necessarily find much gold, especially in the abandoned pits (after all, the machines leave for a reason). A few years back, I became friendly with a couple of brothers-in-law who bought gold from the *barequeros* in a town on the Río Andágueda. They were considered by the miners to be more honest than the other buyers in town, and more generous in what they paid. (This was during the run-up of gold prices; I began to understand that part of their friendliness was that they wanted me to serve as their agent in the United States...) One day I asked one of them if the people working in the pit were going to be able to get themselves out of poverty by mining. "Never in their lives," he said. "We are making some good money, but they can't find enough gold for that."

Without even talking about such



"externalities" as stress, health and quality of life, are these people in better financial shape than before? They say "Yes." María Eugenia and other local people I've interviewed say "No." From what I can see, no one has examined this question in a rigorous way; the truth is, the answer remains unclear. Many articles, both scholarly and popular, have been



published about mining policy, about the mechanized mining, and about the conflict between that practice and government plans, but so far I have found nothing about the direct financial and cultural effects on the artisanal miners. Inquiries among academic friends in the field found no one doing the research on this important and interesting subject.



The same argument remains unsettled for the economic effects of these changes on the communities as a whole. The organization of the mechanized miners claims that three-quarters of the new mines are locally owned, and that the communities are benefiting from the infusion of money. Many community activists dispute both the ownership figures and the supposed benefits. Once again, while work has been done on the effects on the national economy of medium-scale mining, I have found nothing on this topic.

While there may be grounds for serious disagreement about the economic consequences of mechanized mining, it is hard to avoid seeing the serious environmental consequences. Traditional activity in the rivers and streams—which still goes on—has barely any environmental impact. The amount of dirt that is turned over is very little, and this is primarily from the existing river or streambeds. Holes are not opened in the forest floor, or if they are, they are very small and shallow, and the forest can recover relatively quickly. The artisanal miners do not use mercury or cyanide, as mechanized miners do.

There is an intermediate kind of mining. Some of the artisanal miners are now using motorized pumps to move much more water, which allows them to get through a great deal more soil in a day. I witnessed a lively argument among a group of community activists: some felt that the damage done by the *motobombas* put them on the side of the big machines, while others felt the damage was minimal and that the forest and the streams could recover from the effects of their labor. I have seen how a stream, given one year's rest from the *motobombas*, recovers its crystalline clarity. But have the flora and fauna recovered? It's another open question.

Once I traveled with a couple of Basque video makers and the parish priest of Lloró to visit some of the mines and communities on the Andágueda River. The manager of one mechanized mine started arguing with the priest, saying, "You're the priest who thinks he is the guardian of the environment!" He explained that even though it is true that they dig big pits, once the work is done, they cover them up and restore the forest. In fact, they are legally obliged to do that.

But it is equally true that even in the remote possibility that they would want to do it, it would be impossible. The many tons of dirt, silt, rocks that have been dumped into the gullies and rivers cannot be recovered to refill the pits. And even if they were recovered, the thin layer of tropical rainforest topsoil is gone. The forest cannot be restored.

The debris dumped into the streams and rivers also has its impact on them, of course. Coupled with the activity of

of these pits, and the number is growing. Between the increasing destruction of the forest floor by the mines and the accelerating cutting of trees, the rain forest of El Chocó is moving towards an unknown tipping point, from which it will not be able to recover.

And now a much greater threat looms just over the horizon. The Colombian government is promoting much larger-scale mining by transnational corporations.

The communities—even those that

ple who have been doing so much damage to traditional culture and economy, and to the environment, are now able to present themselves as the defenders of traditional mining and the communities. And by allowing panning in the pits—at least in the areas they have finished working themselves—they have won the loyalty of many locals.

One day, I got into a conversation with the driver of the *rapimoto* (the motorcycle taxi) I was riding. He said, “I come from mining people, in Condoto [an important mining area in southern El Chocó]. My father was a miner. He worked and planned, got some property, got everything prepared, it all looked very good. Then those guys came and took the land from him.”

“But ‘those guys’ weren’t transnationals; they’re not doing that yet?”

“No, the men with the machines. These guys. They and we are going to be hurt by the transnationals, but that doesn’t excuse the way they act now.”

Which expressed the contradiction at the heart of the current resistance led by these “small” miners. The communities have to oppose the coming of the transnationals, and in some important ways that means making common cause with the current mechanized miners. But the result is lining up with people who themselves have already created a lot of problems.

It is this ironic and confusing turn of events that gives relevance and importance to Eduardo’s question.

Steve Cagan is an independent documentary photographer who has lately focused on environmental issues and grassroots daily life on the Pacific Coast of Colombia. His latest work for ReVista was in the Winter 2013 issue on water. Together with artist Mary Kelsey, he has spearheaded a project intended to document the work and lives of grassroots miners—and the threats to their traditions—through photography, drawing, texts (by the people themselves) and more. He can be reached at stevecagan.com. The gold mining project website is elchocomining.net

By allowing panning in the pits—at least where they have finished working—mechanized mines have won the loyalty of many local residents.

the *dragas*—dredge boats that operate directly on the beds of the larger rivers—mining worsens the sedimentation and silting of the rivers. People in the communities complain of decreasing fish populations, and while some of this can be attributed to over-fishing and other sources of pollution, the mines are contributing to the problem. Meanwhile, as the mouths of the Atrato River become blocked with sediment, destructive flooding is becoming more common.

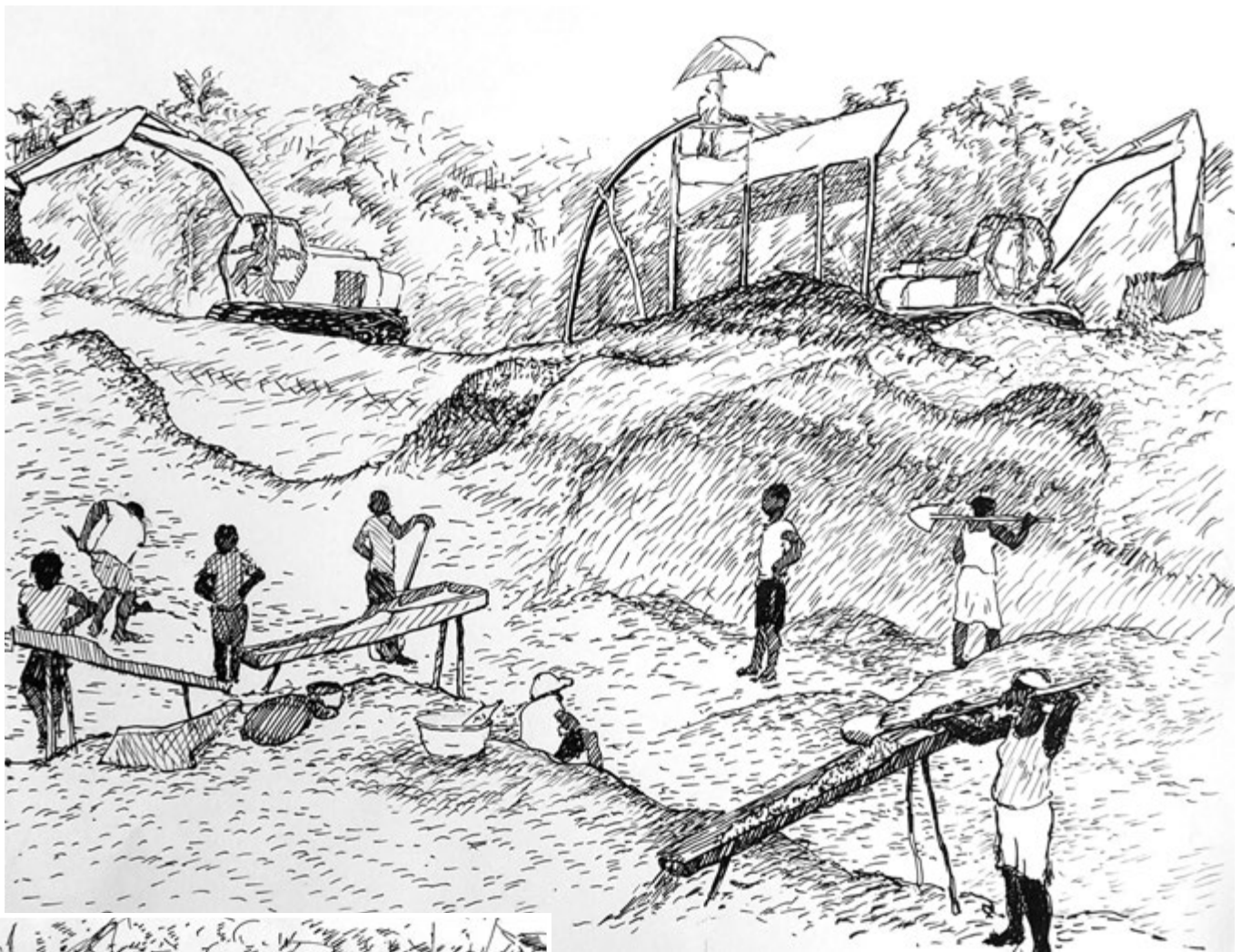
In order to turn the flakes of gold into manageable balls of metal, the mechanized miners rely on a method that goes back at least to ancient Rome. They mix the gold with mercury, which creates a solid aggregate. Then, to get rid of the mercury, they heat it, so that readily absorbable methyl mercury is given off into the atmosphere. In an interview, a doctor in a community health center said, “People come to me complaining that they have headaches and aching joints, that they are having trouble sleeping and concentrating. We know what the problem is; the levels of mercury in their blood are rising.”

But how serious a threat does mechanized mining pose to the forest as a whole? It’s hard to know, but we do know that in an area less than half the size of Ohio, there are now well over 800

support current mechanized practices—are nearly unanimous in their opposition to this development. At one community meeting, a well-known activist priest said, “This will not be a locomotive for us, but a steamroller!” The opposition is so strong and unified that when it became clear that some of the members of the *junta directiva* (the executive board) of the federation of Afro communities in the middle Atrato river basin had been bought off by a combination of international companies and government ministries, the organization’s “discipline committee” removed the entire *junta* from office.

The opposition to this new threat is being led by the organizations of mechanized miners. This is only logical. On the one hand, their economic interests are directly threatened by the government’s plans. And on the other hand, the government has been trying to remove them from the scene, claiming that their operations are illegal. The government’s position has a reasonable legal basis, but they have acted in a repressive manner towards these operators, turning them into martyrs and strengthening the support by the local people for the machine operators, who, they feel, have opened new economic horizons for them.

It’s a strange situation. The very peo-



In the Beberamá village you can see both traditional houses and TV dishes on top. The Embera water tank drawing came about when I asked the villagers if there was anything I could draw that they might want. Two drawings resulted: the suspension bridge, which they currently have but is not wide enough to take cattle across; and a tank that could provide safe water for all of the approximately 240 people in the village. For the tank, they took me up a steep hillside to show me where they would put it, and I drew it there.—Mary Kelsey.

Indigenous People and Resistance to Mining Projects

An Overview **BY LUIS VITTOR**

LATIN AMERICA'S GOVERNMENTS AND ITS indigenous peoples are clashing over the issue of mining. Governments, motivated by economic growth, have established legal frameworks to attract foreign investments to extract mining resources. When those resources are located in indigenous lands where the residents oppose extraction, conflict is frequent. But what motivates this opposition of indigenous people and local communities? What mechanisms have the communities and the indigenous people developed to express their disagreement with this new activity within their territory?

Around two decades ago, mining in Latin America entered a new phase. From the beginning of the 1990s, governments have been modifying regulatory frameworks to compete for foreign investment. Each country aims to offer more benefits and security to investors, relaxing national norms that could create obstacles for the development of mining projects. Mining is often considered to be “of national interest” and/or “of public utility” (Peru, Ecuador, Guatemala, Mexico, Colombia, among others). In other places, the state itself participates in the mining ventures (Chile, Bolivia, Ecuador). The policies have allowed companies to acquire rights to explore and mine millions of acres, taking advantage of the governments’ benefits and the high price of minerals.

Much of the land granted for mining intrudes into indigenous territories. In fact, many communities do decide to accept mining activity, signing agreements with companies and the state. However, an increasing number of communities and indigenous peoples are expressing their opposition to mining through their own initiatives or those of their local government. These local ini-

tiatives are called a neighborhood referendum (*consulta vecinal*) in Peru, good-faith referendums in Guatemala, peoples’ referendums or popular referendums in Colombia and community referendums in Ecuador. The voting procedures are held without the authorization of the federal state, but the decisions are closely scrutinized by the local communities and municipal authorities.

Peru has seen a number of neighborhood referendum processes in the past decade: in Tambogrande (2002), Ayabaca and Huancabamba (2007) and Islay (2009). These communities decided against mining activities that go against their way of life and direction of development. In referendums in the provinces of Candarave and Tarata (2008), the communities have voiced their opposition against the use of water resources for mining activities. In 2012, the community of Kañaris also held a referendum on the mining project Cañariaco.

In March 2002, residents in the city of Esquel in Argentina voted in a popular referendum to oppose the development of a Meridian Gold Company mining project. And in Guatemala many communities—and in particular, indigenous communities—have expressed their opposition to mining through referendums. Such was the case in the village of Sipcapa, where in June 2005 the Sipakapense Mayan communities organized a first community referendum in which they vigorously rejected the Marlin mining project. In 2012 no less than 74 of such referendums have taken place, and according to the 2012 Annual Report of the United Nations Office of the High Commissioner for Human Rights, the indigenous communities of Guatemala have been among the most active in voicing their concerns regarding mining

in their territories.

In Ecuador, the Kichwa indigenous people carried out a communitarian referendum in the localities of Tarqui and Victoria del Portete (2012), rejecting the mining project Quimsacocha. In 2009, Embera indigenous and Afro-descendent communities in Colombia’s Chocó held a referendum and opposed the mining project of the Muriel Mining Corporation. In July 2013, the inhabitants of the town of Piedras in Tolima, Colombia, declared themselves in opposition to all mining activities in their territory.

In her 2007 book *No pero Si: Comunidades y Minería*, Alejandra Alayza asserts that one of the principal causes of mining conflicts lies in previous state decisions regarding subsoil explorations. According to Alayza, the state makes unilateral decisions when it grants concessions and mining licenses, so “no adequate agreements had been made with local populations over the use of natural resources in their zones.” In effect, state policies for mining concessions can be understood as an imposition of federal rule on indigenous lands without any consideration for their inhabitants’ rights, the use of their territory and its resources.

In the first place, indigenous peoples are generally not informed about the state decision to grant rights to third parties over the subsoil, which breaches indigenous rights to land and territory established by law. Usually, the community will be merely informed of the decision by the company that has been granted the concession to explore and extract resources from the subsoil of the lands in question. In many cases, the communities have no other option than to accept initiation negotiations between unequal actors regarding the use of their

land while giving up their internationally recognized rights to their territories. If the community is not willing to reach an agreement for whatever reason, there is no efficient mechanism or procedure to bring its position to the attention of the state. It is on these grounds that the communities are now expressing their resistance against mining.

Moreover, the territories of communities and indigenous populations are neither abandoned nor unproductive: they serve traditional community usage or are used in intensive activities such as agriculture, cattle raising or tourism. Above all, these communities generally constructed a way of life and a vision of their own form of development based on the natural possibilities of the territory. Yet the concessions are granted without even evaluating the actual use of the land nor the benefit that this generates for its communities.

Indigenous territories are often part of a water basin or a fragile ecosystem such as lakes, moorlands, cloud forests and highland wetlands. The water serves agriculture, livestock and human consumption. These resources and their

value for subsistence of the inhabitants and their local economies are not taken into account when granting concessions nor are given sufficient weight in environmental impact assessments.

Mining by its very nature causes environmental and social damage, both on a large and small scale. It contaminates water bodies such as river and lakes and also underground sources of water. It causes air pollution because of its gas emissions. Mining tends to have a negative impact on the quality of soil and to affect biodiversity. Moreover, mining affects public health; it generates forced displacement of communities and changes their livelihoods. All throughout the history of mining, the exploitation of metals has generated tremendous consequences, including environmental and social disasters. Nowadays, many countries are conducting inventories of the environmental impact of mining, using the concept of “liabilities” to calculate negative costs. For example, in December 2012, Peru registered 7,576 “environmental liabilities” from traditional mining alone, as reported in the Peruvian

Ministry of Mines and Energy’s Annual Report. Although 1990s environmental laws modified the *modus operandi* of traditional mining, modern mining also generates negative environmental and social impacts.

For the indigenous peoples who have suffered the negative impacts of mining, there are sufficient arguments to oppose the increase of such activities in their territories. They want to prevent these negative impacts from happening—or happening again—in their communities. It is an argument based on memory and on observation—and reinforced by scientific information.

In accordance with international law, indigenous peoples have the right of property over the lands that they have traditionally occupied, and where mineral resources exist in the subsoil, states are obliged to consult indigenous peoples before companies can start their exploration and extraction activities (as mentioned in Articles 14 and 15 of Agreement 169 of the OIT on Indigenous and Tribal Peoples and Article 21 of the American Convention on Human Rights of the Organization of American States).

Resistance to mining is often expressed through lawsuits or the exercise of rights, and therefore it frequently leads towards a practical and political legal empowerment on the part of the indigenous peoples. In many cases, the communities base their decision on rights recognized by national and international juridical instruments protecting indigenous rights; in particular, they refer to the right to hold referendums (*consulta*) to guarantee the continued enjoyment of fundamental rights such as ownership of their lands, as well as the right to decide their own priorities of development, health, culture and other aspects of their lives.

The territories occupied by indigenous peoples often coincide geo-culturally with areas of great biodiversity or many strategic resources for life on the planet, such as water and forests. One can clearly see this situation in the Amazon area, with the greatest number of indigenous peoples and some of the most biodiverse territo-



Communities take to the streets to protest mining and ecological damage.

ries in the world; Mexico, which is part of the geo-cultural area of Mesoamerica, provides a similar case.

The position of indigenous resistance tends to be stronger in those areas in which indigenous territories are also biodiverse. In a similar fashion, the importance of environment or territory, whether as a source of subsistence or a supplier of common goods such as water, is non-negotiable for communities that resist mining activities in their territory.

The right to freely determine the model of development of the indigenous or communitarian territory through referendums is a new theme that fundamentally questions the limits of the power of the state in regards to the property rights of indigenous peoples or of other local groups.

From the point of view of governments, the communitarian referendums conspire against the sovereignty of the state. Federal authorities do not recognize their validity because supposedly these processes are not binding. From the point of view of indigenous peoples, the referendum is a right derived from international law that establishes community participation in decisions affecting the residents. The decision to allow mining is submitted to the consent of those who live in the territory.

These conflicts lead us to predict that the future debate about the rights of indigenous peoples will not only be about prior, free and informed consultation, but will also fundamentally center on who has the power to decide what is in the interest of the communities. This especially makes sense regarding places where the resources are located in the subsoil of indigenous territories, taking into account the environmental value and biodiversity of these lands. In any case, the debate will center on the issue of state power: to what degree can the state—using the argument of sovereignty—decide how the nation's natural resources will be used.

Luis Vittor is a Peruvian economist and an advisor to the Andean Coordinator of Indigenous Organizations (CAOI).

Mining Companies and Local Communities

Moving from Paternalism to Respect **BY RACHEL DAVIS**

“That’s the shame of it all, because the relationship got off on that type of foot. You make noise, you get in the way, you cause a problem, we give you money; we get what we want, you’ve got what you want, and then once that money runs out, it starts all over again.”

THOSE ARE THE WORDS OF A SENIOR STAFF member in the community relations team at a major mining project in Peru, talking about the cycle of paternalism that the company had become stuck in when engaging with local communities around the operation. The company is not alone in experiencing this negative dynamic: many in the extractive sector in Peru and elsewhere in Latin America, indeed globally, have learned the hard way that “throwing money at problems” when they arise is no way to build sustainable operations. Already leading companies in the sector are moving from a reactive to a proactive approach, based on meaningful engagement with local communities’ concerns and on company-community partnerships, right from the earliest stages of a project’s development.

Many reasons exist for this shift, and in this article I highlight two of them: first, a growing awareness of the costs to extractive companies of getting community engagement wrong; and second, greater clarity at the international level about companies’ responsibilities when it comes to respecting the human rights of local communities.

Of course, communities (at the local, regional and national levels) experience significant costs when mining companies fail to prevent or address the negative impacts that their operations can have on individuals’ health,

livelihoods, safety and a range of other basic aspects of human dignity—that is, on their human rights. But mounting evidence shows that companies themselves can experience significant costs as a result of such negative impacts, and the conflicts that can ensue.

Global research that I conducted, together with my colleague Daniel Franks at the Centre for Social Responsibility in Mining at the University of Queensland, confirms that extractive companies typically fail to identify and aggregate the costs to their own business arising from conflict with local communities around their operations. The research showed that the most frequent costs related to delay or other interruptions to the project schedule—for a world-class mining project, this can run to USD\$20 million per week of delay (in Net Present Value terms). The most often overlooked costs of conflict are typically the significant staff time that then has to be spent on trying to manage the situation—certainly by the community relations team but in serious or entrenched cases, conflict can have real implications for senior management’s time too. Finally, the research found that the greatest costs experienced by extractive companies tend to be those arising from the lost opportunities for expansion or new project acquisition that are increasingly faced by companies with a reputation for poor community relations.

Understanding and tallying up these costs can help support internal arguments by community relations staff within extractive companies for devoting greater resources and attention to effective management of the company’s impacts and meaningful engagement with affected communities.

Quite apart from the growing “business case” for mining companies to get community relations right, another development is contributing to changed company behavior in this area. And that is the recent convergence at the international level upon the responsibility of companies to respect human rights in their own activities and throughout their business relationships. The United Nations Guiding Principles on Business and Human Rights—unanimously endorsed by member states in the UN Human Rights Council in 2011—set out this responsibility clearly. As business goes about “its business,” it needs to act in a way that avoids infringing on the rights of others and also to address negative impacts with which it may be involved.

Companies can meet this responsibility by putting in place appropriate policies and processes for “human rights due diligence” and remediation to help ensure that they are effectively preventing and addressing their negative human rights impacts—on workers, local community members or others that they may impact through their operations, products or services. The Guiding Principles also direct companies to pay attention to international human right standards that apply to particular groups such as indigenous peoples, including the right to free, prior and informed consent.

The Guiding Principles were supported not only by states but also by leading multinational corporations, trade unions, non-governmental organizations, employer and industry associations, socially responsible investors, law firms and national bar associations, and many others who were involved in the 6-year consultation and research process that led to their creation. In addition, the Guiding Principles have been incorporated into the revised OECD Guidelines for Multinational Enterprises and their key elements are reflected in the updated Sustainability Framework and Performance Standards of the International Finance Corporation (IFC), the private sector lending arm of the World Bank. The International Organization for Stan-

dardization (ISO) also recently established a Guidance on Social Responsibility Standard (ISO26000). The UN Guiding Principles were authored by the former Special Representative of the UN Secretary-General, Professor John Ruggie of the Harvard Kennedy School, for whom I worked as a legal advisor.

We now see countries (such as the United Kingdom and United States) issuing national action plans on how they intend to implement the Guiding Principles, and state bodies (like the SBS in Peru—the independent financial sector regulatory agency—or various Export Credit Agencies in OECD states), encouraging or requiring companies to pay greater attention to these issues. All these

A very different relationship is evolving between mining companies and communities.

developments should help contribute to a more level playing field of expectations on business—as well as the prospect of greater respect for the rights of those individuals that companies may affect.

In the mining sector, the International Council on Mining and Metals has developed guidance for mining companies on how to implement effective human rights due diligence processes and grievance mechanisms. Effective operational-level grievance mechanisms that can receive complaints from local communities can be a key means for companies to identify problems early, before they escalate and turn into more serious forms of conflict. Many mining companies have some kind of mechanism in place to receive complaints regarding a project, but these mechanisms often lack legitimacy in the eyes of those who are supposed to use them, are insufficiently integrated into the company’s decision-making processes or are otherwise ineffective. The Guiding Principles outline a set of “effectiveness criteria” to help companies develop mechanisms that can better respond to affected individuals’ needs and concerns.

The Guiding Principles emphasize the importance of meaningful stakeholder engagement by companies, particularly when they are trying to understand their actual and potential impacts (including through information received via grievance mechanisms); develop effective ways to mitigate the risk of negative impacts; track their performance (for example, through joint monitoring efforts that involve local community members); and remediate actual impacts that they have caused or contributed to. There is a growing number of positive examples from major energy projects of company-community dialogue aimed at addressing historical grievances and new issues as they arise. The Corporate Social

Responsibility Initiative at Harvard Kennedy School has captured three of these in a series of videos, told entirely in the voices of the participants of the process, with examples from Peru, the Philippines and Nigeria.

All of this implies a very different kind of relationship between mining companies and local communities—one based on partnership and engagement rather than paternalism. And one that seeks to respect the rights of local communities, leading to more sustainable outcomes for communities and companies alike.

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In the Name of Development

Moving Cerrejón Mountain, Its Coal, and Its People **BY ERICA JAFFE REDNER**

JUST OVER A GENERATION AGO, WAYÚU healers made ritual journeys to Cerrejón Mountain, where they gathered traditional plants for remedying community members' ailments. The people of La Guajira, Colombia, roamed the land with little restriction in those days, enabling them to subsist through hunting, fishing, crop harvesting and livestock grazing, and to enjoy historical and sacred spaces that reinforced their shared identity. Yet a 1975 agreement struck between the Colombian government and Exxon to export the region's coal profoundly changed these social and economic rhythms.

The Cerrejón Mine Corporation undertook exploratory activities in 1977, followed by railway, port, and road construction efforts between 1981-1986 that paved the way for extractive operations. The reins of the enterprise changed hands in later years following Colombia's decision to fully privatize the mine in 2000 and Exxon's departure in 2002. Cerrejón's open-pit coal mine, now the largest in the world, has been jointly owned in equal shares by Anglo American, BHP Billiton, and Xstrata since 2006.

A short documentary produced by Exxon in 1988 to showcase its early work in La Guajira emphasized the separate and peaceful coexistence of the Wayúu on one hand and Cerrejón's pursuits and affiliates on the other. "The Wayúu ... do what they must to keep their way of life intact," the narrator affirmed against a backdrop of images depicting their subsistence activities, "the influence of a great industrial venture all around them, largely unseen." Twenty-two years later, Cerrejón similarly asserted in response to concerns raised by NGO DanWatch, "Cerrejón's relations with the Wayúu ... [have] always been peaceful." Yet the evidence suggests a far more complicated reality.

The period immediately preceding

the film's production found Exxon relocating property owners from territories provisioned by the government for mining operations. Negotiations fixed the form and scale of compensation, but did not serve as a forum for denying access to the land. Some resisted Exxon's relocation efforts, while others were placated by its development promises. Yet even the latters' support for Exxon's presence was overwhelmingly short-lived.

"On its arrival, the mining company offered the Wayúu participation in the benefits of coal mining," Remedios Fajardo Gómez recalls in the 2007 edited volume, *The People Behind Colombian Coal*. "This implied 'development' and 'progress,' which for the Wayúu meant the solution to the problems of water supply, education, health and sustainable development.... We ceded our ancestral land as a 'loan.'" But "[a]s time passed," she explains, "the relationship deteriorated and the community slowly began to realize the implications of the mining company's proposals.... Each time the communities were affected by the company's actions, we protested—but our protests were never heeded.... We realized that we had made a mistake."

The absence of laws requiring disclosure of mining's negative impacts left the communities unprepared for such consequences as the ongoing destruction of their sacred mountains (which offends their spiritual sensibilities and limits their ability to engage in important cultural practices), severe dust generation that has disproportionately plagued children with acute respiratory infections (now the principal source of morbidity in the districts of Barrancas and Hatonuevo), water contamination, noise pollution that has disrupted their routines and damaged homes, and the loss of sufficient land for the physical survival and

social sustenance of many communities arising from the scale and specific placement of Cerrejón's acquisitions.

Colombia incorporated International Labour Organization Convention 169 into its constitution in 1991, affirming indigenous peoples' right to consultations that would enable them to "decide their own priorities for the process of development" and "participate in the formulation, implementation, and evaluation of [development] plans." The country further endorsed the United Nations Declaration on the Rights of Indigenous Peoples in 2009, which protects indigenous peoples' right to give and withhold free, prior, and informed consent [herein FPIC] for development projects. Though Colombian Constitutional Court decisions have subsequently supported consultations and FPIC, establishing particularly in a 2009 ruling that "[t]he abstract general interest and majority vision of development cannot be imposed when such projects are developed in indigenous peoples' territories," the national government has provided little enforcement, and even requested that the 2009 decree be overturned.

In 2011, community activists told a Witness for Peace delegate that Cerrejón's consultations "just inform[ed] the communities" of their plans and "never [warned] them about [mining's] negative consequences." They noted further that Cerrejón "only gather[s] together some ...authorities" without including "the rest of the community," and explained that "[i]f the *cabildos* [councils] do not ... sign the document that the mining officials have prepared, they are subject to pressure, and even threats. The mining company then takes the document to the Ministry of the Interior and presents it as a prior consultation with the communities."



Cerrejón has deflected accusations of human rights violations by hiding behind the state. “If the human rights of the people in the nearby communities are being violated, it is the responsibility of the government of Colombia to protect its citizens,” Cerrejón’s president asserted in 2006. In addressing a 2010 criticism of its role in Tabaco’s 2001 expropriation, Cerrejón dodged responsibility by suggesting that “the state eviction of families” (in which the national police and army assisted Cerrejón in the latter’s appeal for a forced eviction) was “lamentable.” Though Cerrejón pledged in May 2013 to design new programs through which communities “will be fully informed of and have the opportunity to participate in decisions that may affect them,” a July 2013 communication announcing its plans for another forced expropriation by the Colombian state overshadows the promise of this development.

Cerrejón justifies its coal mining operations in La Guajira on three grounds, the first being the “opportunity for improving... standards of living,... and strength-

ening... social capital” through its resettlements. Reviews of recent development outcomes by resettles have been mixed. Community leader Doris Carrillo, who hails from the non-indigenous peasant community of Patilla, affirmed the desirability of her new setting, as reported by Oliver Balch in a July 2013 *Guardian* article. “Here we have electricity and running water, and a school with five classrooms. ... [T]he health center is just five minutes away,” she explains. “I couldn’t condemn my children to the reality we used to live.” Yet residents from Chancleta fear resettlement will reduce their opportunities. PBI Colombia reported in 2011 that Chancleta’s Community Action Committee representative doubted many farmers could survive there. They noted further that residents would “have to learn to grow crops in small lots of arid land rather than the vast plots that they once had at their disposal,” and that the new location has even greater pollution.

Cerrejón’s vision is undermined further by the significance Wayúu and Afro-Colombians attach to their native

Mountains sacred to the Wayúu have become casualties of Cerrejón’s open-pit coal mine.

residences. Though trappings of material development may be provided on alternate lands, it comes at the price of parting with centuries-old historical sites that memorialize Afro-Colombians’ salvation from European captors and their subsequent survival strategies, as well as territories occupied by the Wayúu for millennia that are intricately interlaced with their creation mythology, representing vital resources for the maintenance of social capital that Cerrejón seeks to strengthen through resettlement.

The destruction of homes and schools with which recent history and memories are bound poses yet another drawback to the resettlement arrangement, as does the “psychological trauma,” as displaced Tabaco resident José Julio Pérez puts it, “that at any moment you can disappear from your land.” The trauma of displacement may be accompanied by such alleged tactics to expedite resettlement



Left: A sign in the Roche community proclaims, “Resettlement: Communities of the Future. Social responsibility hand in hand with Roche.” **Right:** Another banner states, “Welcome to the Community Service Office of Roche” (literally headquarters that Cerrejón established in Roche for ongoing communication with families regarding resettlement). The left corner of the sign includes Cerrejón’s trademark slogan, “Coal for the world, progress for Colombia.” In July 2013, Cerrejón announced plans to forcibly expropriate Roche.

negotiations as delaying potable water deliveries, cutting off electricity, offering special financial rewards to the first families to leave (frustrating collective negotiation efforts and contributing to intercommunal tension), smearing reputations, and threatening to initiate legal proceedings for forced expropriation if a settlement is not reached promptly. Thus, “development through resettlement” as justification for Cerrejón’s presence is beset by problems.

Social development programs form the second basis on which Cerrejón legitimizes its presence. They have boasted of their development contributions generally: “Roads, electrical grids, and ancillary infrastructure are now present in the region as a direct result of the coal extraction. A formal work ethos has been installed.” These Eurocentric conceptions of progress (which clash, for instance, with many Wayúu’s grievances about the “ripp[ing] open” of their sacred hills and mountains for road construction and the subsequent unwanted visitors roads deliver) have routinely guided Cerrejón’s selection of projects, such that communities are frequently alienated rather than supported by them.

One example is Cerrejón’s recent provision of electricity to select communi-

ties in Alta Guajira. “2011 will be remembered ... as the year in which ... a dream came true for [these] residents,” Cerrejón reported in a press release. “They will finally receive electric power services” following “more than two years of intense negotiations [by Cerrejón] with IPSE and Electrocaribe ... [W]orkshops were held [earlier this week] to introduce the project to the benefiting communities.”

Cerrejón’s failure to introduce the project at its initial stage suggests that community members had neither the opportunity to collectively decide whether they desired the electricity and wished to give consent, nor the ability to access information about potential negative consequences to ensure that it was in their best interest. Beneficiaries from the Media Luna community, for instance, had expressed despair in past years about their inability to subsist on their remaining land following adjacent appropriations by Cerrejón. Would the installation of power lines further encroach upon their limited space for livestock grazing and hunting, interfere with sacred sites (such as their cemetery), or otherwise impact how they interacted with the land? Were they prepared and willing to endure the visual blight of the infrastructure in exchange for the electricity? And

had each community member determined how s/he would find the means to pay for the electricity, both now and after Cerrejón ceases operations in 2034?

Another example of a social development project legitimized through a Eurocentric conception of progress is Cerrejón’s investment in the Waya Guajira hotel. Cerrejón’s press releases describe plans to use it for “ecotourism, with the purpose of driving progress for the local communities that will benefit directly from it,” and boast that “[i]t is the first hotel ... with high international standards ... in the country.” Yet there’s neither mention of dialogue with, nor receipt of FPIC to use the land for the hotel from, the local communities that Cerrejón suggests will “benefit directly from it.”

It is unclear whether surrounding communities would welcome tourism. If they do embrace it, negotiations to strategically locate the hotel such that benefits distribute across communities as equally as possible would be necessary to avert intercommunal conflict. An allegation from a local NGO representative that Cerrejón commissioned anthropologists and other professionals to “document traditional knowledge” for creating an authentic regional experience at the hotel (such as providing traditional Wayúu foods) is also alarming

since profits would be made from their intellectual property without FPIC.

While some of Cerrejón's projects have made positive contributions (particularly those mitigating Cerrejón's environmental impact), their consistent pattern of creating and introducing projects, rather than implementing programs conceived of (or at least approved by) the communities, has in many cases exacerbated communities' burdens. It's also important to note that without FPIC, social development projects organized by Cerrejón will always present a danger, as fear of desired projects' withdrawal encourages the stifling of grievances such that, intentionally or not, they become a form of coercion.

The final basis on which Cerrejón justifies its activities is the economic benefits distributed to Colombians through Cerrejón's tax and royalty payments (totaling US\$702.4 million in 2011), direct employment of 5,204 people, its extension of contract work to 4,333 additional citizens, and its support of external employment through domestic procurement. As Colombia's largest private exporter in 2011 (with sales constituting 40.5 percent of Colombian exports), its operations also contributed significantly to currency stability.

In his inaugural address, Colombian president Juan Manuel Santos bolstered the financial justification by communicating his belief in mining's ability to serve as a key "locomotive" (or "economic engine") for Colombia's development, facilitating peace, prosperity, and the creation of jobs. Yet NGOs like PBI Colombia express skepticism about mining as a means of moving the country and its people forward, citing increased environmental damage, social conflicts resulting from the development projects, and government failure to channel the previous decade's natural resource wealth into "public investment in health, education, basic sanitation, potable water, energy and infrastructure" due to "institutional weakness, corruption, ... and organized crime."

Cerrejón has attempted to address the public investment problem by devoting resources to strengthening

Colombia's governing institutions, raising a critical question: Does the need for Cerrejón to assume such a role underscore the promise of its presence, or the peril? Oxford economist Paul Collier emphasizes in his book, *The Bottom Billion*, that strong checks and balances are vital for ensuring that natural resource income is invested in public goods, such that they should ideally precede natural resource extraction. Given Cerrejón's presence nonetheless, we must consider whether Cerrejón can appropriately and effectively assume the role of institutional reformer, particularly in light of such conflicts of interest as its dependence upon the government for its operational license, the advantages it derives from the government's failure to protect human rights, and its agenda ("establish[ing] conditions conducive to the subsequent expansion of the operation at higher levels," as indicated in its 2011 sustainability report).

The financial justification advanced by Cerrejón and President Santos also forces the question: Should the wider country's economic development be privileged over the protection of 846,641 Guajirans' needs and rights? In a 1977 article addressing skepticism about the usefulness of empowering small societies to protect their ways of life from commercial encroachment, late Harvard anthropologist David Maybury-Lewis contended, "[T]he usefulness of their ... social existence is not in doubt for the members of that culture. ... [W]e must help other cultures to survive because in all conscience we have no alternative. It is a moral imperative of the sort that insists that the strong must not trample on the rights of the weak."

Responding to the argument that "preventing 'backward' peoples from enjoying the benefits of civilization" is immoral (which legitimizes development by force), Maybury-Lewis submitted further, "[W]e know ... that the introduction of new industries in remote and not-so-remote areas can lead to cultural breakdown and personal despair within the local population as well as providing

jobs, increasing income, and so on. This is a familiar dilemma even in advanced societies, which is why people are so anxious to have a say in what happens to their own communities." Harvard economist and philosopher Amartya Sen similarly rejects development by force, emphasizing in his book, *Development as Freedom*, that "expansion of freedoms [should be] ... the primary end and ... principal means of development." He argues that development should not be understood chiefly as material progress, but as "the removal of various types of unfreedoms that leave people with little ... opportunity of exercising their reasoned agency."

If Guajirans (and particularly its indigenous and Afro-Colombian residents) had the freedom to choose, would they willingly sacrifice values, customs, and social bonds that are inextricably tied to the land in exchange for development? Given the existing spectrum of opinions, it's safe to say that some would consent to the tradeoff and others would not. The former position is a familiar one in the West; the latter stance, less familiar to the Western imagination, might sound something like Lorena Hernández's appeal in a 2010 documentary produced by Fuerza Mujeres Wayúu. "My message for all those who want to help us from their heart ... is that we should become more aware of what we have," she says, gesturing around her at her community's rustic landscape. Ironically, Exxon's 1988 film, quoting an unknown and unseen Wayúu, echoes the sentiment poignantly. "We are poor, some say. But I say, we are rich. We have the sea, we have women, and the sun. Who has more than we? My land is good because it is mine."

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Power, Violence and Mining in Guatemala

Non-Violent Resistance to Canada's Northern Shadow **BY ALEXANDRA PEDERSEN**

IT WAS ANOTHER COLD SUMMER'S NIGHT IN THE Guatemalan highlands when I received a devastating phone call. "Yoli has been shot!" said a voice on the other end. Frantically, I gathered all the information I could: Was she alive? Where is she now? By the time I went to bed—not that I could sleep—I knew human rights defender Yolanda (Yoli) Oquelí Veliz was stable and safe, at least for the time being.

I first met Yoli at a community blockade known as La Puya in May 2012. Named after a thorny tree that grows in the area, La Puya translates to "a thorn in the side," a name somewhat emblem-

atic of the movement's mission. La Puya is a space of non-violent resistance about thirty minutes outside Guatemala City. When Canadian mining company Radius Gold Inc. acquired an exploitation license from the Guatemalan government in early 2012, the company began moving large equipment into community territory. By March 2, locals from the municipalities of San José del Golfo and San Pedro Ayampuc assembled a roadblock at the mine's entrance. La Puya's participants are protesting what they say is the company's lack of transparency, as well as patterns of impunity and corruption within the

Guatemalan government. The Guatemalan Human Rights Commission/USA has expressed worry over Radius' environmental impact assessment as the company "recognized that air quality would be affected, as well as flora, fauna, top soil, and the available quantity of water." Communities in this area have access to water once, sometimes twice a week, making water a primary concern for locals.

Radius' attempt to establish the El Tambor Mine was met with powerful peaceful resistance by members of La Puya. Two months after Yoli's June 2012 shooting, Radius sold what it called a



“problematic asset” to a Nevada-based company Kappes Cassidy and Associates (KCA). Riot police then occupied La Puya at the demand of the Guatemalan government and in response to pressure from KCA. Despite the overwhelming temptation to react with violence, La Puya has not thrown one stick, not one stone. “We may be meek, but we are not stupid,” Yoli says. “We know our rights and we are going to fight for them.”

Although El Tambor Mine is no longer Canadian, what happened to Yoli is emblematic of the experience with some Canadian companies in Guatemala. Canada has the leading number of mining companies in the world, controlling more than 8,000 exploitation and exploration projects in 120 countries worldwide. However, the Canadian government prefers that mining companies adopt voluntary policies rather than accept formal

regulations and legal liability. Mining companies are left to police themselves regarding respect for human and environmental rights. Between 1999 and 2009, Canadian corporations owned 33 percent of the global extractive companies involved in mining conflicts, trailed by Australia and India at eight percent each.

HUMAN RIGHTS DEFENDERS

Yoli’s shooting was an act of rage by pro-mining advocates who saw her as a threat to economic growth through resource extraction. Her case is not an unusual one. The Guatemalan Human Rights Commission/USA reports more than 2,000 assaults against human rights defenders between 2000 and 2010 and the murder of 118 defenders during the same years. Attacks are directed principally against individuals and groups who are indigenous Maya, community leaders, environ-

La Puya, a community organization in Guatemala that roughly translates as “a thorn in the side,” protests the lack of transparency of Canadian mining company Radius Gold Inc.

mentalists, activists, academics, lawyers, journalists or union representatives.

Mining companies are often abetted by the Guatemalan government, the military and police as they attempt to control those who speak out against extractive industries because of environmental or community control issues. Physical and psychological terror often seeks to divide and dismantle campaigns against unequal forms of “development” and further marginalize those already disenfranchised. In Guatemala’s post-conflict environment, Canadian mining companies have been able to gain legitimacy for the use of force by the Guatemalan state and perpetrated forms of violence for the



benefit of the company's bottom line.

Yoli is one of many human rights defenders attacked in recent years. A non-governmental organization, Rights Action, reported the attempted assassination of another anti-mine protester, Diodora Antonia Hernandez Cinto, at her home near Goldcorp Inc.'s Marlin Mine in 2011. Rights Action explains that Diodora was shot "because she would not sell her plot of land to Goldcorp." She was hit in the face and as a result lost her right eye. Documentary photographer James Rodríguez says: "One year after her miraculous recuperation, Diodora continues to reject offers to sell."

In 2011, indigenous Q'eqchi' communities took legal action against HudBay Minerals Inc. in Canadian civil court for the murder of an indigenous Maya leader, the rape of 11 indigenous women and the unprovoked shooting of a young man, all by HudBay security. These cases are precedent-setting, and as communities inch closer to justice, plaintiffs face increased attacks by pro-mining personnel in an effort to have the suits withdrawn. Rights Action reports that the company is providing small sums of money in an effort to "convince" the other women-plaintiffs that they all drop their

lawsuit." Despite the peaceful means of pursuing the legal justice, intimidation tactics against the indigenous Q'eqchi' communities have not subsided.

In April 2013, the Network in Solidarity with the People of Guatemala (NIS-GUA) publicized the shooting of six community members from the San Rafael las Flores area around Tahoe Resources' El Tambor Mine. The assaults were ordered by Tahoe's head of security Alberto Rondon, who is now facing criminal charges for attempted homicide. Shortly after, the Guatemalan government declared a state of siege in the municipalities surrounding the mine and deployed 8,500 military personnel to control the conflict with what NISGUA calls a "conflict with the repression of communities opposing large-scale development projects and the stigmatization of community leaders and human rights defenders."

Abroad, the extractive resource industry is promoted as the latest cure for development shortcomings, while failing to acknowledge practices detrimental to the self-determined development sought internationally by local communities. Canadian extractive industries receive extraordinary amounts of government support from Export Development Can-

ada (EDC), the Canadian Pension Plan (CPP), the Canadian International Development Agency (CIDA) now a part of the Department of Foreign Affairs and International Trade (DFAIT) and Canadian Embassies, as well as the World Bank.

While mining is a fundamental part of Canadian culture, the Canadian press largely ignores reports of human rights abuses. Few Canadians are aware of the mining companies' actions and local communities' reactions to them. The detrimental environmental, social and economic influence caused by Canadian mining companies is staggering. As accusations of human rights and environmental violations pour in, Canada is quickly losing its humanitarian reputation.

LANDSCAPES OF POWER

In 1997, one year after Guatemala's civil war ended, the national Mining Law was updated to further attract foreign companies to invest in the country's rich natural resources. Changes included a reduction of royalty payables from six percent to a minuscule one percent, unlimited use of local water supplies and duty-free imports for operation. Guatemala's Mining Law is an exemplary neoliberal strategy that promotes economic growth



From left to right: the Tambor ridge; Indigenous Q'eqchi' Maya take on the Hudbay company; Sign says, "We are all San José del Golfo."

through a "race to the bottom" between countries in the Global South. As Catharine Nolin and Jaqui Stephens (2010) explain, "mining companies are guided by global and national policies, but the strongest impact of mining practices is felt in the local cultures and environments." This opens Guatemala to plunder and limits the power of HRDs to reject mining companies from their territory.

Both indigenous and non-indigenous communities have reacted to the proliferation of extractive industries in Guatemala. Since 2005 more than 65 community consultations have been held across the country, with a majority of the one million participants voting "No" to invasive forms of development on community lands. However, in an attempt to delegitimize the efforts of human rights defenders, the Guatemalan government ruled that *consultas* are not legally binding. This contradicts Guatemala's 1997 ratification of the International Labour Organization's (ILO's) Convention No. 169, legally preserving the rights of indigenous peoples. Non-indigenous communities rely on their constitutional right to consultation through their municipal government, which is frequently blocked by corruption.

Efforts to assemble peaceful demonstrations and resistance across Guatemala have been met with endless incidents of force. In 2004, former President Óscar Berger dispatched 1,200 soldiers and 400 police officers to forcibly end a highway blockade assembled by indigenous communities affected by Goldcorp Inc.'s Marlin Mine. Tear gas and bullets left one protester dead and injured several others in an effort to "protect the investors" (Mychalejko 2005; Nolin & Stephens 2010).

This year, Tahoe's Escobal Mine at San Rafael las Flores was responsible for the murder of an indigenous Xinka leader, the kidnapping of locals, threats, harassments and illegal detainment of human rights advocates. President Otto Pérez Molina responded by imposing a state of siege terrorizing communities with military personnel occupation. This mine is not yet operational and is already the center of social conflict.

On July 9, 2013, Pérez Molina attempted to further discredit efforts of human rights defenders in his nationally televised show "De Frente con el Presidente" by promoting metal mining as positive for Guatemala economically and safe environmentally. Pérez Molina now has pro-

posed a two-year moratorium on mining. Some critics say the proposed moratorium is an effort to quell opponents, while other Guatemalans believe he is reforming the Mining Law. Current mining projects will continue to operate despite community efforts to have their voices heard.

The financial, political and judicial pressure brought to bear against communities resisting Canadian mining companies is enormous. Communities desire respect and dignity; they believe in a self-determined way of life in harmony with the earth rather than extracting precious metals from it for short-term gain. Those who benefit from mining are not locals but corrupt government officials, the Guatemalan elite and transnational mining companies, all of whom strengthen their financial and political power under the guise of development. Jobs are limited and temporary, corporate "gifts" of healthcare or education dry up after the mines close, ecosystems are left in perpetual reclamation and community divisions are irreparable.

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Resistance to Mining in El Salvador

A Battle for Water, Life, and National Sovereignty **BY EMILY ACHTENBERG**

WILL TINY EL SALVADOR, WHERE HALF THE rural population lives on less than two dollars a day, become the first nation on the planet to legally ban gold mining? Or will profit-maximizing transnational mining companies succeed in using investor-friendly international trade tribunals to trump national sovereignty and popular demands for water security, environmental protection, and sustainable development?

This epic conflict is playing out today on an unlikely battlefield, a country still struggling to bolster its fragile democratic institutions some twenty years after a brutal civil war. It illustrates the challenges faced by a developing country that is seeking to determine an environmentally and socially responsible mining policy, when foreign investors' rights loom large over domestic policy decisions.

ORIGINS OF THE CONFLICT

The controversy over mining in El Salvador has focused on Pacific Rim, a Vancouver-based transnational that acquired a permit in 2002 to begin exploratory activities for a massive gold mine in Cabañas, located in the Lempa

three million Salvadorans rely on this water each day for drinking, farming, fishing, livestock rearing, and hydroelectric power.

Never a strong feature of the national economy, mining was effectively halted in El Salvador by the civil war (1980-1992). But Pacific Rim's initiative signaled the start of a twenty-first century mining boom. Lured by rising global commodity prices and lucrative investment opportunities under the Dominican Republic-Central American Free Trade Agreement (DR-CAFTA), transnational companies had filed 29 exploratory permits for gold mining in El Salvador by 2008.

At the same time, mounting concerns by local communities about the potential environmental and social risks of Pacific Rim's project were widening into a broad national resistance movement against metallic (gold and silver) mining. In 2007, the Catholic Church of El Salvador issued a formal proclamation against mining signed by seven bishops and one archbishop. Later that year, a national poll revealed that more than six out of every ten Salvadorans were opposed to metallic mining. The

force and pressured the government to review El Salvador's mining policy.

In March 2008, conservative President Tony Sacá announced a temporary ban on metallic mining permits in El Salvador, pending further study and reform of the mining law. As a result, Pacific Rim abandoned the feasibility study it had begun in order to obtain an exploitation permit for its mine, the next stage in the process required to actually begin operations. In July, the company ceased exploratory drilling and effectively halted all mining preparations.

THE CASE AGAINST MINING

The case against Pacific Rim, and metallic mining generally in El Salvador, has been effectively articulated by the *Mesa*. Large-scale gold mining operations, the *Mesa* argues—especially the water-intensive cyanide ore process used by companies like Pacific Rim—pose a significant threat to rural economies and local drinking water supplies. The average metallic mine uses 24,000 gallons of water per hour, or about what a typical Salvadoran family consumes in 20 years. Toxic runoff, spreading to the surrounding land, can contaminate rivers, creeks, and ground waters. The Cabañas region is also prone to earthquakes and torrential rains, further heightening public health and safety concerns.

A case in point is the San Sebastián mine operated by the Milwaukee-based Commerce Group in the department of La Unión, whose exploitation license was revoked by the government in 2006 on environmental grounds. Decades of gold extraction at the site have turned the waters of the river a rusty red color, a classic sign of “acid mine drainage.” Recent government tests have found nine times the acceptable level of cyanide and one thousand times the acceptable

A broad resistance movement is growing in El Salvador against gold and silver mining. The National Roundtable Against Metallic Mining mobilized anti-mining sentiment into an effective political force.

River basin. The Lempa, El Salvador's largest river, is one of the few remaining uncontaminated water sources in the country. Its watershed extends to nearly half the national territory, including the capital city of San Salvador. More than

National Roundtable Against Metallic Mining (known as the *Mesa*), a coalition of community, environmental, and other civil society organizations formed in 2005, mobilized this growing anti-mining sentiment into an effective political

level of iron in the water, while public health studies confirm an unusually high incidence of kidney failure, cancer, and skin and nervous system disorders in the local population.

While the jobs promised by Pacific Rim and other mining companies may seem tempting to poor communities, the *Mesa* points out that few local residents have the technical skills to qualify for them. And while the lure of increased tax revenues is perpetually attractive to an impoverished government, under existing law, only three percent of mining profits would be captured by the public sector. In any case, the projected operational life of Pacific Rim's Cabañas mine is just six years.

Mining has also caused social conflict and violence in communities still struggling to overcome the effects of the protracted civil war. According to the *Mesa*, Pacific Rim targets funds for scholarships, schools, and other ben-

efits to municipalities (and mayors) not directly impacted by mining, creating friction with those communities that are affected. As one local activist has lamented, "Now in our communities, you don't trust people you've trusted your entire lives."

Four anti-mining activists in Cabañas have been killed since 2009 in what the *Mesa* describes as targeted assassinations. Dozens more, including environmental leaders, priests, and community radio journalists, have received death threats, which the company blames on "internal feuds"—the very conflicts that its presence has created. While some of the perpetrators of these murders have been convicted, the "intellectual authors" of the crimes have never been prosecuted. For anti-mining activists, the persistence of this climate of impunity evokes bitter memories of the civil war, with communities once again facing the threat of dis-

placement and loss of land and natural resources that their members fought and died to protect.

The government's de facto moratorium on new mining permits has remained in effect, extended by leftist FMLN President Mauricio Funes for the duration of his administration (through mid-2014). Funes is now seeking to formalize the moratorium through a law that would suspend metallic mining until El Salvador develops the necessary institutional structures to better control its social and environmental impacts.

The *Mesa* is pushing the government to go one step further, by legislating a permanent ban on metals mining. El Salvador, they note, is a world leader in water scarcity, climate risk, and environmental degradation, with 96 percent of its surface water already contaminated and only three percent of its original forest cover left intact. Under these condi-



El Salvador's small towns were rocked by the bloody and protracted civil war (1980-1992). Now, mining is causing social conflict and violence in many of the same communities.



A view of a volcano in El Salvador.

tions, they argue, a mining industry can never be environmentally sustainable. “We can live without gold,” says the *Mesa*, “but not without water.”

GLOBALIZING THE CONFLICT

Still, with the powerful new global weapons available to Pacific Rim and other mining transnationals, even a permanent legislative ban may not be enough. In December 2008, Pacific Rim inaugurated a new stage in the country’s mining wars by bringing the first legal challenge to a sovereign government’s environmental policy under DR-CAFTA. Arguing that the government’s failure to approve an extraction permit violated investors’ rights under the international trade agreement, Pacific Rim sued El Salvador for \$77 million in damages in the International Center for Settlement of Investment Disputes (ICSID), a World Bank court.

Despite Pacific Rim’s best efforts to transfer ownership of the mine to a newly incorporated Nevada subsidiary, ICSID ruled that Pacific Rim, a Canadian firm, could not proceed under DR-CAFTA (to which Canada is not a party). However, it allowed the case to go forward under El Salvador’s own 1999 investment law, which has permitted foreign companies to remove such “investor-state” claims to international tribunals. Subsequently, Pacific Rim upped its damage claim to \$315 million—an amount roughly equal

to two percent of El Salvador’s GDP, and half of its education budget. The merits of the case have yet to be adjudicated.

A similar case brought by the Commerce Group against the Salvadoran government at ICSID was dismissed on a technicality. Still, the government was forced to pay \$800,000 to ICSID in legal fees. To date, the government has spent at least \$5 million on mining litigation costs—an enormous sum for an impoverished country.

As the *Mesa* and its allies charged in a recent open letter to the World Bank, “Pacific Rim is using ICSID and the ‘investor-state’ rules of a free trade agreement to subvert a democratic nationwide debate over mining and sustainability in El Salvador.” And the strategy has been gaining traction with other transnationals, especially those involved in natural resource conflicts in Latin America. According to a recent report by the Institute for Policy Studies, of the 169 cases currently pending at ICSID, 60 (36 percent) involve mining or hydrocarbons extraction—up from 3 a decade ago. More than half of these disputes are in Latin America.

Recognizing that the causes of, and solutions to, El Salvador’s mining problems lie well beyond its borders, the *Mesa* has increasingly adopted a transnational perspective. It has joined forces with anti-mining activists in Honduras and Guatemala to resist extractive projects there that could poison El Salvador’s rivers before they even reach its borders. Some 49 proposed metal mining projects in these neighboring countries represent a significant threat of transborder contamination to El Salvador.

The *Mesa* is also working with a broad-based hemispheric alliance of fair trade, human rights, environmental, and religious groups in the United States and Canada to pressure Pacific Rim to withdraw its case from the international courts. They cite the precedent of Bechtel, a U.S.-based conglomerate that was forced to settle its \$25 million claim against the Bolivian government (for cancelling its water privatization con-

tract) for a token payment. The coalition is also seeking to eliminate unfair “investor-state” clauses from trade and investment treaties, while helping to extricate El Salvador and other countries from agreements that allow foreign investors to hijack local democracy.

The *Mesa* and its allies have recently celebrated some noteworthy (albeit limited) victories. Canada-based Goldcorp, the second largest mining company in the world, has temporarily suspended operation of its gold mine in Guatemala near the headwaters of the Lempa River, citing unfavorable economic conditions. An ICSID tribunal has dismissed the Commerce Group’s appeal of the court’s earlier decision denying jurisdiction, after the Commerce Group failed to post the required deposit. And the Salvadoran Congress has amended its investment law to require “investor-state” disputes to be adjudicated in the domestic courts, unless they are covered by a treaty that explicitly allows removal to an international tribunal.

Still, in the run-up to the tightly contested 2014 presidential election, the legislative proposals to ban mining—either permanently or conditionally—appear to be stalemated in political gridlock. While it may be easier for El Salvador to renounce mining than for countries already heavily dependent on mining revenues—including those with leftist governments like Bolivia and Ecuador—potential liabilities under trade and investment laws also affect the political calculus. Whether the costly and protracted “investor-state” legal challenges confronting El Salvador will have a sufficiently chilling political effect to discourage an environmentally and socially responsible mining policy remains to be seen.

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THE ENVIRONMENT

Mining has dramatic impacts on the environment and health. Water and air pollution are frequent concerns. Yet mining in a non-traditional sense—urban mining—can actually help the environment through recycling.

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Health Impact of Artisanal Gold Mining in Latin America

A Mining Boom Brings Risk from Mercury Contamination

BY NANCY LONG SIEBER AND JOSEPH BRAIN

METALLURGY IN LATIN AMERICA DATES BACK more than 4,000 years. Ancient artifacts of gold have been found at numerous sites throughout the Andes. The colonial era brought expanded mining of gold, silver and other metals. Techniques to increase the yield of precious metals were introduced, including use of environmentally hazardous processes such as mercury amalgamation. To this day mining continues as an important sector of the economy. However, the gold boom of the past decade has highlighted the risks and benefits of its expansion. The health effects of mining are one important concern.

Latin America contains some of the world's largest deposits of gold and other precious metals, such as Gramalote and La Colosa in Colombia, Pueblo Viejo in the Dominican Republic, Madre de Dios in Peru, and the Volta Grande in Brazil. As these countries experience growth, they must decide what role mining should play in their futures. Recovering valuable metals can make these nations

used to extract it. Gold was first found in alluvial deposits, where the shiny flakes or nuggets appeared among loose rocks and silt that were deposited in shoals or "placers" by moving water. For centuries this was the easiest way to find and recover gold, and placer mining remains widespread today. To extract the gold, miners create a slurry of the loose material from alluvial deposits and water, and then collect the relatively dense gold in pans, known as "bateas," or in more sophisticated sluices or mats that trap the gold particles. The concentration of gold in alluvial deposits is usually low—sometimes 1:1 million. Once the gold-containing particles have been separated from the rest of the sediment, mercury is added to further purify it. The mercury binds the gold to form an amalgam and is later removed, leaving the gold behind and often releasing mercury into the environment.

Large-scale heavy rock mining began in the mid-1800s as gold-rush entrepreneurs brought capital, labor, and equip-

Gold in hard rock is chemically bound to the ground rock. In industrial operations, gold is released by crushing the ore into a fine powder, then mixing it with sodium cyanide to bind to the gold to separate it. The cyanidation process, currently used in 90 percent of gold production, remains controversial due to the toxic nature of cyanide. However, unlike mercury, cyanide is degradable and does not accumulate in animals as it moves through the food chain. In Latin America, most artisanal miners do hard rock mining, primarily in small underground mines that they operate themselves or industrial mines that have been abandoned. Hard rock artisanal miners are more likely to use mercury than cyanide to harvest their gold.

Both artisanal and industrial mining flourish in Latin America, each with its own consequences for the environment and human health. Within this region, artisanal miners produce 200,000 kilograms of gold per year; nearly 40 percent of the gold that originates there. Most artisanal mining is illegal and unregulated. This work provides a livelihood for nearly two million people—about nine miners and support workers are needed to produce each kilogram of gold—but at an environmental cost that exceeds this benefit.

The major health risk from artisanal mining is mercury. Worldwide, artisanal mining is estimated to emit at least 1,400 metric tons per year. Of this about two thirds are released locally into soil and water near mining operations, and a third is released into the atmosphere, where it has the potential to affect people far from the mining sites. Artisanal min-

Both artisanal and industrial mining flourish in Latin America, each with its own consequences for the environment and human health.

more prosperous, thereby improving the health and well-being of their citizens. However, mining, particularly small-scale artisanal mining, also brings toxic exposures that produce adverse health effects on local and distant populations.

The impact of gold mining depends on the location of the metal and the methods

ment to mine the veins from which the placer deposits originated. Most gold mined today comes from large industrial operations, either in open pits or underground mines. Gold recovery requires heavy equipment and abundant water, and often leads to the destruction of local farmland and habitats.

ing is the largest single source of atmospheric mercury, accounting for 37 percent of annual emissions. Coal burning accounts for another 24 percent .

In placer mining, mercury is added to the material extracted from the alluvial deposits. Excess mercury is usually washed into the adjacent waterways along with other tailings, where it enters the local ecosystem. As mercury moves through the aquatic food chain, it becomes an even greater threat to health. The elemental “quicksilver” form of mercury that is used to create amalgam is relatively inert. However, in aquatic environments it is taken up by bacteria and algae, and is converted into the far more dangerous methyl mercury. Methyl mercury travels up the food chain, from algae to plankton to small fish to big fish, becoming progressively more concentrated. When consumed by humans, methyl mercury in fish is absorbed through the gastrointestinal system. Mercury can enter the brain and cross the placenta. It remains in the body bound to proteins, making it difficult to eliminate. The effects of methyl mercury on the developing fetus were tragically demonstrated in Minamata, Japan. Children born to mothers who consumed mercury-contaminated fish suffered devastating birth defects, particularly those affecting the nervous system. Children and adults who consumed contaminated fish also suffered neurologic damage and autoimmune disorders.

Mercury is used in small-scale hard rock mining operations. It is added to the crushed ore in small ball mills called “cocos.” The mills contain steel balls that crush the ore and mix it with mercury. The amalgam is collected, but about half of the mercury remains mixed with the crushed ore and is usually discarded.

Mercury vapor is produced when miners “roast” the amalgam, releasing the mercury and leaving the gold behind. Amalgam, which is 40 to 50 percent



Above: Ball mills or “cocos” in Colombia. Almost 100 grams of mercury is added to 60 kilograms of ore in each mill; Below: Mercury amalgamation in a batea.



A Kitchen Bowl Retort in Brazil. The bowl traps mercury vapor during the roasting process. The mercury can be collected and reused.

mercury by weight, is often roasted in the shops where miners sell their gold. For security reasons, the shops are often located in towns, where this dangerous vaporized mercury affects the inhabitants. Safety equipment, such as simple kitchen bowl retorts that trap fumes during the roasting process, are rarely used. While elemental mercury is poorly absorbed by the gastrointestinal tract, inhalation of its vapor gives it increased access to the brain and other systems. Mercury can impair vision, hearing, and balance, and sometimes causes coma or death. Damage to the kidneys often requires dialysis or even kidney transplants. Of particular concern is the tradition that the work of roasting amalgam is best done by women, many of whom have children with them or are pregnant.

The impact of mercury from artisanal mining in Colombia was well documented by the United Nations Industrial Development Organization Mercury Project led by Marcello Veiga. Veiga assessed mercury contamination

in five towns in the Department of Antioquia. He found the worst mercury pollution ever recorded, with mercury levels more than 1,000 times higher than the World Health Organization limits. Studies by the University of Antioquia have shown numerous cases of acute mercury poisoning, and evidence of chronic mercury toxicity in a many of the local children. They had decreases in attention, language, memory, and executive function. Similar health impacts exist in other South American boom towns, such as Puerto Maldonado in Peru.

Despite the well known health consequences from mercury in gold mining, the amalgamation process persists among small-scale miners in Latin America and globally. Mercury remains cheap and readily available. No special equipment is needed for its use in amalgamation, so it is easy for miners to move from one location to another and seek out richer deposits or evade arrest for this illegal activity. Artisanal gold mining with mercury nearly disappeared in the mid-20th

century, displaced by more efficient large-scale mining operations that use cyanide. However, the rise in gold prices, coupled with political and socio-economic instability in some areas in the 1970s, made gold mining appealing again to poor operators who could not afford more modern technology. This past decade's boom in gold prices piqued the interest of both artisanal and industrial mining operations. However, the slump in prices over the past year has caused some mining companies to scale back their ambitions, while the more nimble artisanal miners, with their lower overhead and ease of evading environmental and labor laws, continue to thrive.

Artisanal miners will continue to use mercury as long as they believe that the benefits of this method outweigh the costs. Shifts in attitudes must come from making miners aware of the risks and showing them new techniques that minimize the amount of mercury used or replace mercury amalgamation with safer alternatives. Workers and their families will benefit, as will everyone on the planet, since most mercury in the atmosphere is eventually deposited in the oceans, where it contributes to global methyl mercury contamination of seafood.

Restriction of mercury trade by the recent Minamata Convention, as well as national regulations, are intended to decrease the availability of the metal. As mercury becomes harder to come by, it is hoped that miners will seek safer alternatives. Governments, universities, and non-governmental organizations can promote this transition.

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Urban Mining

From Environmentally Harmful Waste to Huge Opportunities **BY DAVID DAEPP**

CONSIDER TWO SEEMINGLY UNRELATED ISSUES: rising urban poverty and electronic waste.

The Cities Alliance estimates that urban slums in developing countries are growing by roughly 120,000 people per day. As of 2012, the Latin American and Caribbean regions have seen a proportional decline in their slum dweller population (a positive development of the past two decades) but in absolute terms the number of slum dwellers has increased to a staggering 111 million.

Hold this image next to another of growing concern: current global production of electronic or e-waste is roughly 50 million tons per year, with Europe, the United States and Australasia being the largest producers. According to a report by UNEP titled “Recycling—from E-Waste to Resources,” the amount of e-waste being produced, including mobile phones and computers, could rise by as much as 500 percent over the next decade.

Increasing consumption of technology driven by the constant desire to have the newest and most advanced devices has translated into huge quantities of discarded cell phones, computers and household appliances. This consistent trend is fueling the rapid expansion of landfills with potentially hazardous consequences for human habitation, animal life and water resources. But what if e-waste is as much an opportunity as it is a risk?

Enter urban mining: a modern construct on an ancient practice, this little-known term defines the activity of reclaiming compounds and elements from discarded items—the most valuable of those found in e-waste.

According to some estimates, up to 30 times as much gold can be found in cell phone circuitry as in the gold ore processed from gold mines. More specifically, some 150 grams, or 5.3 ounces, per ton, compared to a meager five grams,

or 0.18 ounces per ton from gold mines. To add to that, the same quantity of cell phones also contains 100 kg. (220 lb.) of copper and 3 kg. (6.6 lb.) of silver, as well as many other precious materials.

An unusual mining-related phenomenon is taking shape in Chile. The country is leading the way in urban mining with e-waste recycler Chilerecicla having finalized a joint venture earlier in 2013 with Green Technology Solutions, Inc., (GTSO). With the global e-waste market valued at US\$9 billion a year, the state aims to capture a share of the business while benefiting the environment.

Latin American nations such as Chile actually lead the United States in recovering unwanted computers, electronics and other gadgets from the waste stream. According to the U.S. Environmental Protection Agency, only about 25 percent of electronic waste is collected in the United States with about 38 percent of that waste stemming from computers.

Beyond the potential profit from this fledgling industry, what if slum dwellers could help in the collection and basic processing of e-waste—helping reclaim precious elements inside discarded technology that is now nothing more than pollution?

And what if part of the revenue from reclaimed e-waste elements was channeled into state and local programs to address issues related to urban slums, informal settlements, poverty and unemployment that plague *favelas* from São Paulo to Rio, across the Latin America region and worldwide?

National and local governments could partner with smaller e-waste recyclers, providing them with critical startup capital in exchange for a share of profits which would offset government operational costs as well as generate employment and additionally budget-

ary resources. With more than 100 million slum dwellers in Latin America and persistent issues of urban poverty and unemployment, training and employing slum dwellers could help mitigate these problems.

Not only would public-private partnerships focusing on e-waste mining and recycling generate viable employment for those on the fringes of society; their income would then be spent in local shops generating new revenue streams for a key driver of economic growth: small-and medium- size businesses.

Now let’s look back at the two images we started with: rising urban poverty/growth of urban slums and e-waste.

Our original image is now one of a growing problem (urban poverty/urban slums) and a partial solution to address that problem (urban mining/mining of e-waste).

Imagine turning our unwanted technology into large value/revenue streams for the gain of a broad range of stakeholders from slum dwellers to small and medium enterprises to government, while at the same time removing a growing burden on our environment. Urban mining can redirect the GPS of a huge industry by drawing attention, resources and action to what would otherwise be considered unwanted garbage.

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The opinions expressed in this article are those of the author and the author only. They do not reflect in any way the views/opinions of the institutions/entities (UNOPS and the Cities Alliance) with which the author is affiliated.

Ordinary People in Extraordinary Times

A REVIEW BY KIRSTEN WELD

Women in War: The Micro-Processes of Mobilization in El Salvador
by Jocelyn Viterna (Oxford University Press, 2013)

El Salvador's history of internal conflict during the Cold War era both parallels and diverges from the experiences of its Latin American neighbors. On the one hand, El Salvador shared in the devastation: its governments, backed materially and politically by the United States over the course of a twelve-year civil war (1980-1992), unleashed ferocious violence upon citizens in the hope of crushing a leftist insurgency. This state-sponsored, scorched-earth campaign killed tens of thousands and drove over a million from their homes. On the other hand, and unlike in most other regional contexts, the insurgents were sufficiently powerful and well organized that they were able to bring

though of a far more limited nature than what the United States provided to the Armed Forces—El Salvador's revolutionary forces carried out one of the most effective guerrilla insurgencies in recent history.

But while the stereotypical image of a Latin American guerrilla tends to resemble a strapping Che Guevara, Harvard sociologist Jocelyn Viterna demonstrates in her new book, *Women in War*, that it was, instead, women who made up the “backbone,” as she puts it, of the FMLN. Consequently, she emphasizes that we cannot understand the FMLN's achievements—or, for that matter, recent Salvadoran history—without understanding why women chose to join the FMLN, what their experiences of guerrilla life were like, and how these women's varied experiences of FMLN participation influenced their activities and identities in the post-war period. In explor-

voices of rank-and-file Salvadoran women insurgents, is a much needed addition to the literature on Central American revolutions.

Viterna's work seeks to transcend the binary frameworks common to much of the scholarly writing on women's participation in war and armed movements: that such participation is *either* emancipatory *or* limiting, that women participants *either* smash patriarchal boundaries *or* are further victimized by them, and that women's war experiences *either* expand *or* constrict social roles for women in the aftermath of violent conflict. Women insurgents' motivations and experiences were heterogeneous, Viterna explains, and it is necessary to differentiate among them. To do so, she develops a new methodological approach for analyzing how and why individuals decided to join the FMLN, an identity-based analytical framework for accessing what she calls “micro-level mobilization processes.” Put simply, this involves taking Salvadoran women—guerrillas, collaborators, and non-participants—seriously as social actors, accounting for their diverse wartime trajectories by highlighting how they strove to protect their most salient identity markers (as “woman,” “youth,” or “mother,” for example) in the face of extreme social violence.



What persuaded a particular group of women to accept and internalize the identity of “activist” during wartime? Why did some women in a given network mobilize while others did not? Why did the experience of guerrilla mobilization propel some women into activist work in the post-war period and cause others to retreat from politics? These are Viterna's research questions, and to answer them, she examines the interplay between the FMLN's highly gendered recruitment narratives, participants' development of activist identities, and the crucial contextual factors of place and time. Because the FMLN styled itself (and behaved) as the “good guys” in the war, defending the vulnerable and advancing a righteous cause, it was able to strategically leverage commonly shared identities in the service of its military objectives.

The methodological and theoretical insights in *Women*

Women made up the “backbone” of the Farabundo Martí National Liberation Front.

the military state to its knees. United under the umbrella of the Farabundo Martí National Liberation Front (FMLN) and with external support from Cuba and Nicaragua—

ing these questions, Viterna makes important contributions to social movement theory, feminist scholarship, and women's history; her book, which foregrounds the

in War will doubtless be of interest to sociologists of political movements, but the book also holds appeal for more general readers. Its privileging of women guerrillas' testimonies ensures that a rich human element runs continuously alongside the author's scholarly apparatus. We learn that while Amanda, who joined the FMLN early in the war as an eager volunteer, "knew that there was a need to fight" and "always had the aspiration that we could make the world a better place," Lulu, one of many others who joined up out of necessity after army incursions into her village made normal life impossible, noted that "you had to join [the guerrillas] because you didn't have any other alternative." The chapter describing everyday life in FMLN guerrilla encampments is particularly compelling, revealing both ex-guerrillas' fond memories of a shared sense of revolutionary unity and the daily reality of difficult, compartmentalized work that rewarded some women with high-prestige positions (as medics, radio operators, or political organizers) while relegating others to the more typically "female" work of food preparation. Viterna points out the challenges of managing motherhood, companionship, and reproduction in mobile military camps; however, she also notes that the FMLN's retention rates remained notably high throughout the war, and women's consistent presence in the camps "made them the stable presence of the organization."

At war's end, however, what ultimately predicted whether or not female ex-guerrillas would continue as activists in the post-war period was not the mere fact of having participated in the insurgency. Rather, it mattered whether specific women had held high-prestige positions, had connections to powerful commanders, and/or had received education and skills training in refugee camps during the war. This relates to one of Viterna's major arguments: that while the FMLN narrated women's roles in a way that *seemed* to challenge the existing patriarchal order, it actually failed to meaningfully challenge traditional gender hierarchies—indeed, it was the FMLN's *appeal* to standard gender roles that accounted for its recruitment success, and women's "stable presence" in the camps owed mainly to the fact that male commanders generally resisted sending them into open battle. We therefore cannot, *Women in War* conclusively shows, assume that women's participation in armed warfare necessarily bends gender in a lasting way across the board. To understand the impact of war on women's lives, we must instead listen seriously, as Viterna does, to the hopes and frustrations of these ordinary women caught up in extraordinary times.

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Dying to Become a Gangster

A REVIEW BY DAVID CAREY JR.

Adiós Niño: The Gangs of Guatemala City and the Politics of Death

by Deborah T. Levenson
(Durham, NC: Duke University Press, 2013. Pp. 183.)

The phenomenon of *maras* (gangs) has become prevalent and pervasive in Guatemala. As one example, during a Kaqchikel Maya language and culture course I co-directed in 2013, one native speaker drew an image of the devil with M-18 written across his forehead to demonstrate the Kaqchikel word for bad/evil (*itzel*). Referencing the Mara-18 or Calle-18 gang that terrorizes some Guatemala City neighborhoods and operates in other urban and rural areas of Guatemala, the image immediately resonated with the other native speakers and Guatemalan students in the course. Kaqchikel teachers resent *maras'* extortion in their central highland communities, but are grateful these groups have not yet deployed violence to achieve their goals.

Judging from Deborah Levenson's new book, *Adiós Niño*, the *mara* experience in the capital is decidedly different from that in the rural highlands, and also more complicated than the way the media (Guatemalan



and foreign alike) portray it. Even as she documents the lethal acts of M-18 and their counterparts in Guatemala City, Levenson posits that the terror associated with these gangs has been exaggerated and leveraged by elites, politicians, and narcotics traffickers to secure their positions of power.

One of Guatemala's tragic paradoxes is that crime—particularly violent crime—has actually increased since the signing of the 1996 Peace Accords that ended the nation's 36-year civil war commonly referred to as *la violencia* (the violence) or *el conflicto armado* (the armed conflict). For most Guatemala City residents, life has become more dangerous since the cessation of the war. By pointing to the ways *maras* are both part and pawns of larger forces that use violence to perpetuate their power, Levenson

makes a valuable contribution to the vast literature on violence in Guatemala (the very proliferation of which points to the nation's turbulent past and unstable present).

As the M-18 devil image suggests, street crime in Guatemala is frequently attributed to the *maras*. By immersing herself in the world of the Guatemala City *maras*, Levenson does not so much dispute this assertion as historicize it: she reveals how the *maras* changed dramatically from the 1980s to the late 1990s. Associated with disorder since the 1980s, the *maras* only recently turned to violent crime.

Emerging in the mid-1980s in response to the austerity measures of neoliberal economic reforms applied in many Latin American countries, the Guatemala City gangs of the 1980s provided an outlet for urban youth's angst and frustration with the government. Far from undermining civil society, these groups aimed at buoying its ability to respond to elites, politicians, and generals who sought to consolidate their own power and wealth at the expense of the poor and working and middle classes. As the Guatemalan military ostensibly released its iron grip on politics in the mid-1980s and opened the space for public protest by heralding (if not implementing) a transition to democracy, some gang members envisioned themselves as modern-day Robin Hoods. To be sure, gang members extorted working-class people too, but their actions originated in political activism rather than

in the culture of death that came to define the gangs of the late 1990s. Most members participated in the *maras* for a few formative years before moving on with their lives; few allowed the gang experience to define them. In contrast, as the *maras* took a violent turn in the late 1990s, most members joined them for (a tragically short) life.

Descriptions of the ferocity that characterized gang life in Guatemala City and the prison system make the second half of the book haunting. With her trademark transparency, Levenson explores how the methodological challenges of conducting oral history research with recalcitrant informants shaped her project. When she resumed her research in the late 1990s, many gang members refused to talk to her. For young men and women whose average life span was 22 years and for whom death was a constant companion, conducting an interview was not only pointless but counterproductive. Conditioned to remain silent, one young man told her, "To talk is to die" (89). Levenson admits, "It was impossible for me to conceptualize how to 'interview' anyone who did not want to talk." Her persistence paid off, however, as "the difficulties of having conversations started to become its own topic" (89). As a few gang members opened up and she sought interviews with those who were trying to leave or had left the gangs, she learned of a complex culture of death that permeated the lives of gang members, some of whom were as young as five years old. She also uncovered

raw emotions under tough exteriors. One ex-gang member, Rosa, admitted to "feeling bad" and suicidal after killing an elderly woman whose grandchildren were part of a rival gang. In a tribute to Levenson's even-handed approach, readers may be surprised to find themselves empathizing with murderers.

Documenting the pitfalls as well as the breakthroughs of working with those outside the law and at risk makes *Adiós Niño* particularly valuable for students who often approach books as inevitable validation of research rather than processes marked by fits and starts. Offering a window into the rewriting and revising process, Levenson quotes one reviewer's critique of her manuscript and then responds to it.

The book's penultimate chapter explores prisons as sites of gang rivalries, identities, communication, and power. Struggling for control, incarcerated gang members fight not so much to escape from prison but rather to expand their control inside it. These struggles pit them against prison personnel and against imprisoned authorities (military and civilian alike) whose main concern is controlling and profiting from the prison that houses them. To understand these complex relations and gangs' broader significance, it would have been helpful have a sense of how these gangs operated and what their long-term goals were, beyond the snapshots of individual violence and criminal activity that Levenson so richly documents. According to

other studies, the M-18 and other gangs have developed sophisticated organizational charts and strategic plans that guide and inform their work in the United States, Guatemala, Honduras, El Salvador, Venezuela, Peru and elsewhere. Exploring *maras'* meta-structures and goals would have provided a keener sense of how they operate internally and internationally, and how they seek to position themselves within the larger milieu of Guatemalan society and economics (albeit illicit).

In other ways, Levenson adeptly broadens the context of her study. Exploring Guatemala City residents' responses to the *mara* phenomenon, Levenson reveals that even Guatemalans desperate enough to call for strong-armed responses to *maras* do not necessarily blame individual *mareros* for their way of life. Violence begets violence but does not eradicate compassion. At the same time, those professing to help troubled youths are not necessarily altruistic. Hired by the Christian conservative president Jorge Serrano Elías (1991-1993), one Pentecostal organization physically abused boys in their care and tried to force their conversion. More than an ethnographic study, *Adiós Niño* explores the broader political, social, economic and historical contexts surrounding the creation and perpetuation of the *maras* in Guatemala City.

Less than 200 pages long, *Adiós Niño* is a concise and riveting read. Levenson's prose is engaging and the stories are gripping. Yet some arguments remain undeveloped.

Undoubtedly, it is difficult if not impossible to provide empirical evidence for the argument that forces larger than *maras* use them and benefit from a “micropower of death” to perpetuate their power. Yet concluding the book with the story of ex-gang members who were gunned down while trying to rebuild their lives, and suggesting in a few sentences that the killers were not related to the gangs but rather to the powers that be, left this reader intrigued but not convinced.

These critiques notwithstanding, with this, her second book about Guatemala City, Levenson makes a valuable contribution to Guatemalan scholarship that is largely dominated by rural studies of Maya peoples and to the historiography of urban Latin America more broadly.

David Carey Jr. is Professor of History and Women and Gender Studies and Associate Dean of the College of Arts, Humanities, and Social Sciences at the University of Southern Maine. The author of *Our Elders Teach Us: Maya-Kaqchikel Historical Perspectives*, *Ojer taq tzijob'al kichin ri Kaqchikela' Winaqi'* (A History of the Kaqchikel People), *Engendering Mayan History: Kaqchikel Women as Agents and Conduits of the Past, 1875–1970*, his most recent book is *I Ask for Justice: Maya Women, Dictators, and Crime in Guatemala, 1898–1944*. He also edited *Distilling the Influence of Alcohol: Aguardiente in Guatemalan History and Latino Voices in New England* (with Robert Atkinson).

Meditations on the Brazilian Amazon

A REVIEW BY LARRY ROHTER

The Scramble for the Amazon and the “Lost Paradise” of Euclides da Cunha

by Susanna B. Hecht
(University of Chicago Press, 2013, 612 pages)

As its title suggests, Susanna B. Hecht's *The Scramble for the Amazon and the 'Lost Paradise' of Euclides da Cunha* is actually two books in one. The first takes a macro approach, examining the geopolitics of imperialist competition in South America in the late 19th and early 20th centuries, while the second is very much a work of micro scholarship, focusing on the professional and private life of the Brazilian writer and military engineer Euclides da Cunha, a key player in the larger struggle. Both texts, however, share a common virtue: they supply valuable information about episodes not likely to be known to English-language readers.

Hecht's credentials for this intimidating task are considerable. A geographer and professor of urban planning at UCLA who has traveled extensively in the Amazon herself, she is the co-author, with Alexander Coburn, of the 1990 book *Fate of the Forest: Destroyers, Developers and Defenders of the Amazon*, which has become an important text in

environmental studies and cultural geography. Her new work is in some respects a companion to the earlier volume, a kind of prequel that explains how the Amazon came to be dominated by Brazil and how earlier resource booms, especially of rubber and gold, set the stage for the heedless get-rich-quick mentality that prevails in the region today.

The title of Hecht's book plays off the much better-known and exhaustively studied European powers' “Scramble for Africa,” which was taking place at the same time as the phenomenon she is writing about, involved a similar competition for control of natural resources and featured many of the same actors. Great Britain, the Netherlands and France all had colonial footholds at the northern edge of the Amazon, which they were eager to expand beyond the Guyanas, and King Leopold II of Belgium, having already seized control of the Congo, was always hovering, waiting for an opportunity to enter the fray.

But Hecht also notes that, in contrast to Africa, the Amazon version of the “great game” featured the United States as an important player with ambitions of its own. That Wall Street would want a



presence once the rubber boom started is obvious, and well known. But in the years preceding the Civil War, and even afterwards, sympathizers of Southern slavery envisioned the establishment of American colonies in the Amazon, and took steps to make that happen. Thus it was, to cite just one example of Hecht's ability to find the obscure but illuminating detail, that a “cohort of Confederates were responsible for naming the Ucayali port of Leticia, at the intersection of Peru, Colombia and Brazil,” which “was named after President John Tyler's granddaughter, the first person to raise the Confederate flag.”

So how did the Amazon avoid being carved up, as Africa was, by colonial powers external to the region? In Hecht's telling of the story, much of the credit goes to a figure who, though not named in her book's

title, gets as much attention as Euclides da Cunha: Jose Maria da Silva Paranhos, the Baron of Rio Branco, Brazil's Foreign Minister at the height of the scramble and, as such, da Cunha's patron and boss.

At the turn of the 20th century, da Cunha had become one of Brazil's most celebrated writers with the publication of *Os Sertões*, known in English as "Rebellion in the Backlands," a study of a millenarian uprising by peasants in the country's northeast. He envisioned writing another book, this one about the Amazon and to be called *Lost Paradise*, an undertaking that his patron, Rio Branco, realized could be effective in advancing Brazil's interests.

A deft diplomat, Rio Branco used the Monroe Doctrine to enlist the United States, where he had served in the Brazilian legation and made many friends, as a partner in keeping the Europeans out of the Amazon. But when Washington looked ready, through a treaty with Bolivia, to make a grab for the rubber-rich territory of Acre in the heart of the Amazon, Rio Branco was able to use the relationships he had cultivated in the United States to thwart that effort.

The Acre episode is one of three major territorial disagreements that provide the narrative spine of *Scramble for the Amazon*, the others being the so-called "Contestado" strip just south of the Guyana colonies of the European powers and a dispute with Peru over control of the Western Amazon. In all three instances, Rio Branco proved triumphant through his manipulation of processes of

adjudication and arbitration, and without Brazil having to resort to arms. As Hecht puts it, in his statecraft, "precedent was useful but not definitive: maps and documents were often inconclusive. The malleability of these processes was Rio Branco's greatest insight and underpinned his phenomenal success."

Hecht's portrayal thus adds both detail and context to what is still the most thorough treatment of the father of Brazilian diplomacy, E. Bradford Burns' 1966 *The Unwritten Alliance: Rio Branco and Brazilian-American Relations*. She notes, for example, that early in his career Rio Branco did a stint as Brazil's consul general in Liverpool, "the hub of Britain's imperial commerce," where he quickly came to "appreciate the commercial significance of Amazonia, a reality that often escaped his Rio-based colleagues." Later, as ambassador to Berlin, he was able to "witness the diplomacy of the great powers in the Scramble for Africa," which provided "useful schooling for deciphering strategy in large-scale territorial disputes."

Da Cunha became useful in both the practical and the theoretical realms to Rio Branco's efforts to extend and protect the frontiers of Brazil. Thanks to da Cunha's experience as a surveyor, he was a logical choice to be Brazil's chief representative on the boundary commission set up with Peru to map the watershed of the Jurua and Purus Rivers, which both countries claimed. Much was at stake in that venture: as da Cunha himself wrote, this was

"the largest territory that had ever been contested between two nations, some 720,000 square kilometers in one of the very least known parts of the planet."

In the battle to mobilize Brazilian and international public opinion, da Cunha may have been just as helpful. In a series of essays and newspaper articles that laid the foundation for the book he would never write, he turned the prevailing racist ideology of his era on its head, arguing that those most fit to settle the Amazon were not colonists from Europe, but Brazil's *caboclos*, the mixed-race offspring of Europeans, Amerindians and Africans. This was an argument that not only stoked Brazilian pride and nationalism, but enhanced interest in the remote Amazon among city-dwellers in the more sophisticated south of the country.

Da Cunha capped his service in the Amazon by preparing for international arbitrators an expedition report that, under the guise of neutral language, cleverly favored Brazil's arguments for control of the Purus and Jurua. "Had Peru won the arbitrations it would have become an Amazonian superpower—a kind of Brazil," Hecht writes. "Instead, Brazil with its documents, maps, essays and arguments, largely prepared by da Cunha, prevailed, giving us the map of the Amazon we know today."

Structurally, *Scramble for the Amazon* is as much a hybrid as its two main subjects. Some chapters read like sections of a history textbook, though with a conspiratorial

tone that Thomas Pynchon would approve of, while others are more like literary criticism, with the requisite references to Foucault. In some early chapters, knowledge of geology, botany and cartography is useful, while the final chapters seem almost like a *telenovela* script, thanks to what Hecht calls "the air of gothic melodrama" that hangs over da Cunha's final years, when he returned from the Amazon expedition to find that his wife had taken a lover, had a child by him, and would not end the affair with the military cadet half her age, who would eventually shoot and kill da Cunha before he could finish his book on the *Lost Paradise*.

This approach, though rather ungainly at times, seems justified because of the vastness of the topic Hecht is addressing and also because it mimics da Cunha's own style. "I ended up writing more of a biographical essay than I intended," Hecht confesses in one of the book's final paragraphs. "Like da Cunha's own Amazon fragments, this work is part biography, part social history, part nature writing, part geographic translation," an "apparatus for connecting various fragments that, of course, are also meditations on place, race, history, Brazilian nationalism and human progress."

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MAKING A DIFFERENCE



Building Blocks

BY JASON DYETT

SINCE THE FIRST, UNPLANNED VISIT of a Brazilian entrepreneur in 2011 to Harvard's Center on the Developing Child, a diverse group of professors, practitioners, civil society leaders and other committed individuals at Harvard and in Brazil have gathered to leverage scientific knowledge to promote better programs and policies for young children and their families in Brazil. Despite the 4,822 miles (7,761 kilometers), two languages, multiple disciplines and unique institutional pressures that separate us, the five founding partners of Núcleo Ciência pela Infância (NCPI)* have progressed considerably over the past two years.

A key component of the

initiative is an Executive Leadership Program that takes advantage of rigorous existing research to help shape action plans. The four-month program starts with a week-long course at Harvard and concludes with a workshop in São Paulo. More than 90 leaders from multiple branches and levels of government, the private sector and civil society have participated. Faculty lectures, workshops, ongoing facilitation by technical panels, team meetings and conversations between professors and participants have helped shape 29 action plans to improve early childhood outcomes in Brazil. These include: the countrywide Legal Frame-

work for Early Childhood; the early childhood programs in the municipalities of São Paulo (São Paulo Carinhosa), Arapiraca, Alagoas and in the state of Goiás; improvements to the Mãe Coruja Pernambucana program; and the scaling of the early childhood program from the state of Rio Grande do Sul (PIM) to the national level. Public sector participation in the leadership program has been strong, with 20 federal congresspeople, 14 state congresspeople, 6 representatives of Ministries, 4 state secretaries, 3 municipal secretaries and one public prosecutor having completed the course.

As the partner responsible

for leading the faculty and student exchange workstream, DRCLAS created a faculty grants process in 2012 targeted at increasing the engagement of Harvard professors, advanced degree students, and their Brazilian collaborators. A faculty committee at Harvard selected four projects that include nine Harvard professors, five Brazilian professors and three post-doc/advanced degree students. Thanks to the support of the Fundação Maria Cecília Souto Vidigal, DRCLAS awarded \$100,000 in grants for work on a variety of topics: the impact of disease burden on child development in the Amazon; measuring early life adversity in the western region of metropolitan São Paulo; early cognitive development and executive function in low-income children in Salvador; and numeracy and counting among indigenous children in the Xingu Indigenous Territory in Mato Grosso. After recognizing significant overlaps and complementary aspects of their studies to assess early adversity, researchers from these teams met in Brazil and in Boston to explore ways to share expertise and increase efficiency. Calibrating measures to local settings is a necessary step to produce reliable data and catalyze future large-scale assessments.

Our Brazilian academic partners have made significant progress forming a cross-disciplinary scientific community composed of leading researchers from throughout Brazil. Their work began by mapping the

current state of early childhood development research in the country. The group then synthesized knowledge from distinct disciplines as a platform for work on a first cross-disciplinary working paper that builds on the emerging consensus. This paper, written in non-technical language, aims to inform public policies. Harvard professors have been welcomed at each of the five meetings of the scientific community.

Identifying potential collaborators, stimulating active engagement and support-



ing growth have taken great effort; strong partnerships (and parenting) don't lend

themselves well to distance and neglect. But our efforts have been more than compensated by all that we have learned from and with our partners and above all by the growing impact of our joint initiative in Brazil and at Harvard. We know that improving child development outcomes builds stronger communities, increases economic prosperity, and results in a more just society. This is what unites us in a shared desire to keep building together towards even greater impacts.

Jason Dyett is the Program Director of the DRCLAS Brazil Office.

* NCPI, www.ncpi.org.br, was founded by the Fundação Maria Cecília Souto Vidigal (FMCSV), the University of São Paulo Medical School (FMUSP), Insper, the Center on the Developing Child at Harvard University, and the David Rockefeller Center for Latin American Studies at Harvard University.

FE ERRATA: MEMORY

The photo caption on p. 15 should read "ESMA headquarters in Argentina," not ESME.

The printed edition of *ReVista* contains an earlier version of an article entitled "Historical Footprints: How We Teach Colombia's Violent Past" by Laura Barragán Montaña. The correct version can be found online at <http://drclas.fas.harvard.edu/publications/revistaonline/> in both the PDF and individual article format.

In Jocelyn Viterna's review of Joseph Frazier's book (p. 86), the phrase "generals have confessed" should have read "former soldiers have been more willing to have discussed war atrocities." The editor and author apologize for the oversight.

Photographer Marcos Adandía's last name is missing an accent. Thank to Marcos once more for his excellent photos, one of which was used on the cover.

A photo credit was left off of Ned Strong's article on Recupera Chile. The photo was supplied courtesy of *El Mercurio*.



Happy 20th Anniversary

We at the David Rockefeller Center for Latin American Studies are celebrating our 20th anniversary this year. I arrived at DRCLAS (pronounced as Dr. Clas by our staff and friends) in 1997. Jason Dyett—who is now Program Director for our Brazil Office—had just left, and three hires made a staff of six under the leadership of John H. Coatsworth.

ReVista didn't exist, not even in my mind. Neither did our Regional Office in Chile, the Brazil office or the Mexico and Central America Office. We were tucked into the top floor of a five-floor building on Cambridge Street that no longer stands.

What's been amazing to me—apart from having the privilege and joy of creating *ReVista*—is to have witnessed how during the past twenty years (17 for me), Latin America has come to permeate every corner of Harvard from the Medical School to the Design School to the College. I've watched as DRCLAS' promotion of cross-disciplinary engagement has created unusual faculty alliances across the university.

I've watched as more than 2,000 students traveled abroad to study or research, including those who have had the transforming experience of spending a semester at the University of Havana in Cuba. Many of those students, faculty and Visiting Scholars have become part of the *ReVista* community, writing articles that reach our subscribers from Chubut, Argentina, to Beijing, China.

DRCLAS has made a difference in my life by allowing me to connect people through *ReVista*. If it's made a difference in yours, please share your experiences with me at jerlick@fas.harvard.edu. A selection of responses will be posted on our website at <http://www.drclas.harvard.edu/publications>.

Jane C. Elick





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With Featured Photography by **Steve Cagan**, **Louie Palu**, **Lorenzo Morales**, **the children of Ojospropios** and Featured Drawings by Mary Kelsey.