# NATURAL RESOURCE EXTRACTION

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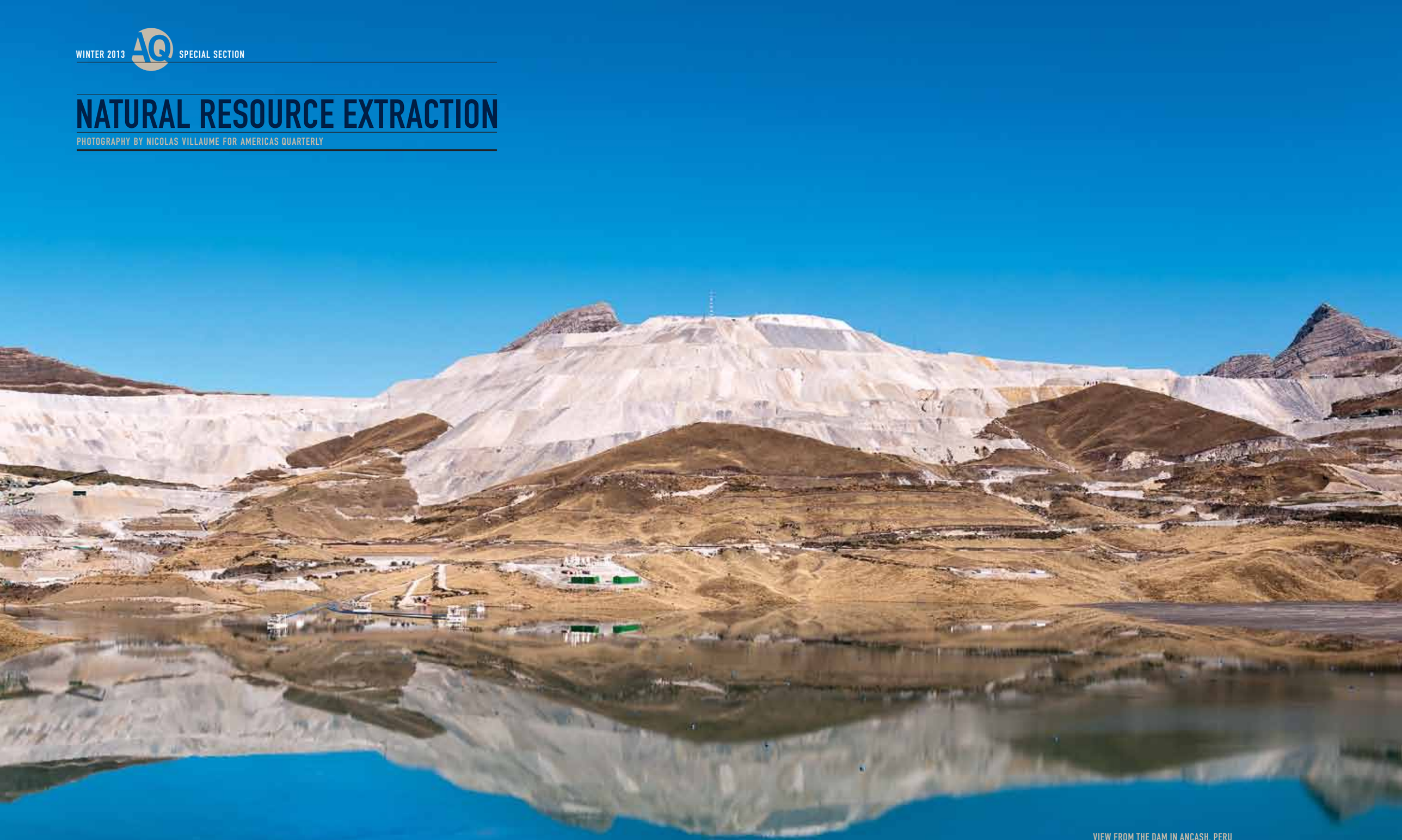


VIEW FROM THE DAM IN ANCASH, PERU

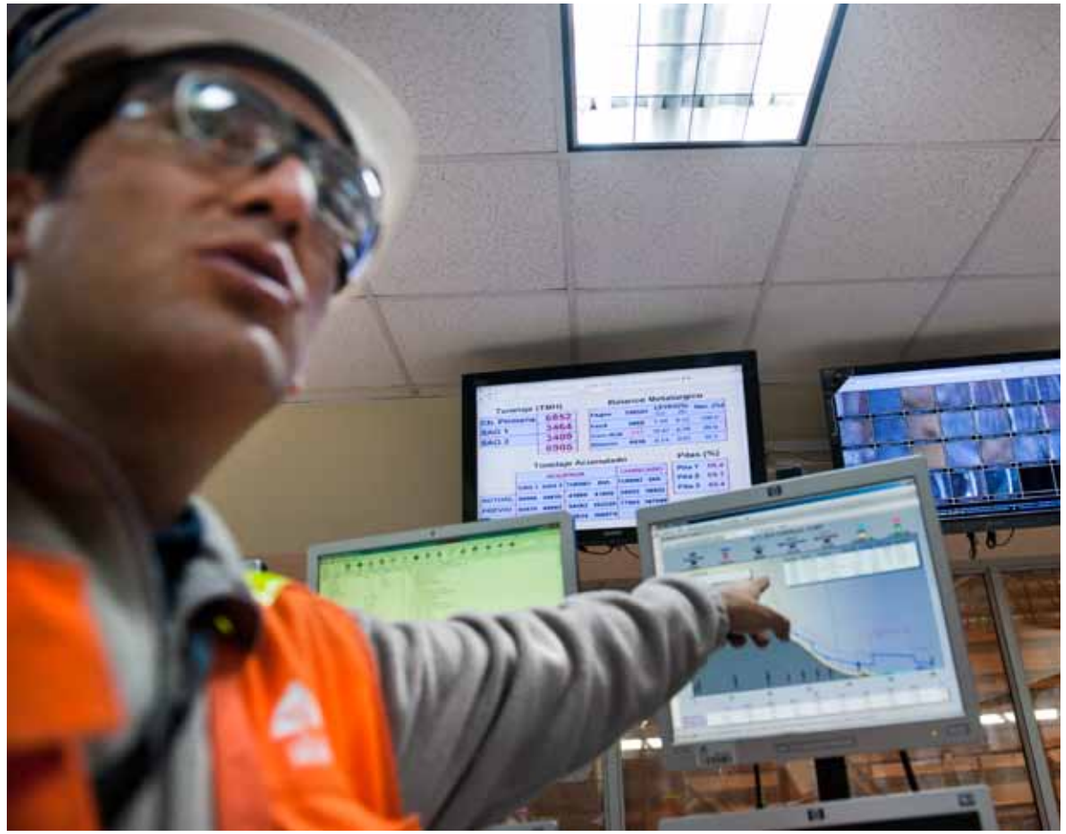
**With the stone detritus of the mine in the background, the approach to Antamina with its green facilities dotting the mountainside.**

# The Good, The Bad and The Ugly

BY ENRIQUE CALFUCURA, ASTRID MARTÍNEZ ORTIZ, CYNTHIA SANBORN AND JUAN LUIS DAMMERT*

How to avoid the resource curse is more than an academic question. Luckily, both investors and governments are learning how to take better advantage of natural resources while not falling into the trap of easy money and the corruption that comes with it.

* Enrique Calfucura conducted the research in Chile; Astrid Martínez Ortiz in Colombia; and Cynthia Sanborn and Juan Luis Dammert in Peru. For their bios and source citations visit www.americasquarterly.org/good-bad-and-ugly



ANTAMINA'S NASA-LIKE CONTROL ROOM
**Large-scale mining today has grown in complexity. This is Antamina's mineral separation facility.**

Understanding when natural resource extraction investments provide long-term, broad-based benefits—not just to investors but also to local communities and national economies—is essential to our global economy. While global economic growth will wax and wane from year to year, and with it the demand and price of commodities, over the long term natural resource demand will continue to grow. Whether it's timber, oil, natural gas, coal, or metals, the natural bounty of the earth remains a central feature of modern production.

As demand for these materials has spiked in recent years with the industrialization of one-time developing countries like China, India and Brazil, so too have the prices of these commodities. These increases have brought greater investment as well as schemes by nation-states to open up their lands for exploration.

With support from the Ford Foundation, we conducted a study of 12 natural resource extraction investments in three countries—four each in Chile, Colombia and Peru. All but two of them (a timber investment in Chile and a natural gas project in Peru) were mining projects. The goal was to understand under what conditions investment in natural resource extraction contributed to broader community and national development.

For the purposes of the study, we define "conditions" to include: the legal and regulatory framework that governs natural resource investments; the transparency and predictability of the legal and regulatory framework; the system in which public revenue is collected—through taxes and royalty payments—and distributed to national and subnational governments; the quality and efficacy of public officials; the community context and relations with the state and investors; and the labor and environment practices of the investing companies.

Of course, a central question is how to define broader community and national development. For this, our research partner—Americas Society—defined the broader socioeconomic good as comprising several factors.

They include: the extent to which natural resource investment contributes to socioeconomic development in the immediate area surrounding the activities, through public and private social programs and economic growth and development; the extent to which investment and public policy have generated value-added growth in the local and national economies; and last, whether these investments have avoided long-term social conflict and helped to build community ties.

Each of the three countries studied represents a different stage in the development of their local mining industry and each case study—including the timber/wood case study in Chile and the natural gas study in Peru—represents different lessons in terms of addressing the community tensions and the public and economic distortions caused by natural resource extraction investment and the global resource boom.

## What's on the Books: Country by Country

Despite differences in how governments in the three countries collect and allocate revenues from natural resource extraction and in the legal frameworks governing labor and the environment, they all share one important trait. For all their individual flaws, all three countries are electoral democracies with the attendant guarantees for citizens' rights. That context provides opportunities and flexibility for adjustments, accountability, transparency, and—at times—mediation between sectoral and individual interests and collective preferences. How well the governments fulfill those responsibilities varies, as we will see below. But there is no underestimating the importance of the role played by democratic governance in these countries to help ensure that natural resource extraction benefits the broadest common good while respecting fundamental environmental, human and labor conditions and rights.

# Chile

**TRAFFIC COP TO THE GIANTS**

A foreman supervises the procession of megatrucks at the Collahuasi copper mine. Collahuasi produced 426,000 tons of copper in 2011—8 percent of Chile's total copper production.

Three Countries,
Three Different Trajectories

# Chile

Natural resource extraction—and copper mining specifically—have always played an outsized role in Chile's economic development, as well as its politics. The bulk of that, of course, is produced for export; for example, between 1998 and 2011, primary products accounted for 70 percent of the country's exports. In a familiar story across all three case studies—indeed across much of the developing world—the share of primary products in Chile's economy and exports surged in the 1990s and early 2000s as China and India began their rapid economic growth. Demand for everything from food to minerals and metals grew with it.

Primary products represented 12.6 percent of Chile's GDP in 1998, with the mining sector accounting for 7.3 percent. By 2010, primary products had grown to 16.4 percent of Chile's GDP, with mining alone accounting for 13.4 percent. During the same period, exports grew substantially, in large part due to the increased value of commodities, such as copper and forestry-related products, including timber and wood pulp. For example, from 1998 to 2003, global copper prices averaged just below $1.00 per pound. After 2004 the price swelled to an average $2.22 per pound, an increase of 122 percent. Wood pulp also grew in value, its average price per ton increasing by 25 percent between 2004 and 2010 compared to prices from 2000 to 2003.

The overwhelming bulk of investment in extractive industry in Chile has come from outside the country. In the period between 1998 and 2011, 30 percent of the total foreign direct investment (FDI) that entered through DL 600 —a law that sets the terms for FDI—went to the mining sector, while only 1 percent of the total foreign direct investment went to other primary sectors (forestry, agriculture and fishing). From 1998 to 2008, foreign direct investment was 52 percent of the total investment in the mining sector in Chile. Investment in forestry, agriculture and fishing sectors was largely made by Chilean companies.

In the period 2002 to 2010, 84 percent of investment in private mining copper and gold projects was made by foreign mining companies.

## What's on the Books? CHILE

### GENERAL FRAMEWORK AND TAXATION

Since 1974, foreign investment in Chile has been guided by Decree Law 600 (DL 600). DL 600 grants foreign investors a number of guarantees: access to the formal exchange market; rights to remit capital and profits; access to all economic sectors; non-discrimination between domestic and foreign public or special tax regimes; exemption from value-added taxes; and tax stability. According to DL 600, foreign investors can choose between two different income taxation regimes: a flat rate of 42 percent on taxable income; or the General Taxation Regime with a 17 percent tax on income plus additional taxes on income.

Private mining companies must pay two additional types of taxes. The first is an annual payment for the mining concession at a rate of $1.60 per hectare for land under exploration and $8.20 per hectare for land under active mining.[1] The second is Law 20,026 approved in 2006, the *Impuesto Específico a la Actividad Minera* (Specific Tax on Mining Activity—IEAM).

The IEAM allows the bigger copper-mining companies—those investing over $50 million—to choose between the tax rates established in DL 600 or a new tax in exchange for 15 years of tax stability. The IEAM provides two ranges of tax rates according to the size of the mining activity: marginal rates between 0.5 and 4.5 percent for companies with annual sales between 12,000 and 50,000 metric tons of copper; and a single rate of 5 percent for companies with annual sales greater than 50,000 metric tons of fine copper. In 2011, the government approved Law 20,406, which modified the IEAM to give companies the option of voluntarily accepting a tax rate increase of the IEAM, in exchange for a six- year extension of the tax stability. The adjustment was intended to help the state raise funds after the 2010 earthquake. Twenty of the 30 largest mining companies accepted the new tax rates, which lasts for three years and then returns to the old rate.

There are a number of protections from arbitrary government action affecting mining interests that ensure stability and predictability in the investment climate.

The first of these, *Ley Orgánica Constitucional sobre Concesiones Mineras* (Constitutional Charter on Mining Concessions) or Law 18,097, establishes that any owner of a mining concession has the right to compensation equal to the present value of future net cash flows if the state should expropriate the holding—a high price and clear disincentive for the state if it wants to expropriate.

The second are the guarantees of tax stability provided in DL 600 and IEAM, which the government has respected.

### DISTRIBUTION OF REVENUE

National revenue from natural resource extraction comes from four sources: income taxes paid by the state copper company CODELCO; income taxes paid by private companies; income taxes paid by the large copper mining companies under the IEAM; and annual payments on mining concessions.

The projected revenue from the taxation of CODELCO finances the general public budget. Surpluses above the projected revenue are invested abroad in two sovereign wealth funds: the Pension Reserve Fund (FRP) and the Fund for Economic and Social Stabilization (FEES), created in March 2007 to avoid an overvaluation of the Chilean *peso*. As of December 2011, these assets amounted to $4.4 billion for the FRP and $13.2 billion for the FEES.

Revenue generated by the taxation of private companies passes directly to the treasury and to the national budget. Although regional governments cannot collect taxes, a national law establishes that an equivalent amount of the revenue collected from mining concessions must be returned to the regions and municipalities where they operate. Seventy percent of that revenue is assigned to the National Fund for Regional Development (FNDR) at the discretion of the regional governments to spend as they like. The remaining 30 percent of tax revenue is allocated to municipalities where the mining activity is located.

Some of the taxes (averaging 26.5 percent between 2006 and 2010) collected under the IEAM finance the *Fondo de Innovación para la Competitividad* (Innovation Fund for Competitiveness—FIC) administered by the Ministry of Economy. The fund finances national and regional programs in technology development.

Between 2006 and 2010, FIC grew from $91 million to $204 million. As a result, total funding for innovation (including FIC and other public sources of funding) grew from $365 million in 2006 to $711 million in 2010. In addition, the 2011 amendment created the Investment and Regional Restructuring Fund (FIRR) to support regional and municipal governments' development projects. By 2014, FIRR will have allocated $100 million annually.

### CONSULTA PREVIA

International Labour Organization (ILO) Convention 169 went into effect in Chile in 2009, institutionalizing the right of Indigenous peoples to be consulted whenever norms, laws or resolutions may affect them directly—known as *consulta previa* (prior consultation). In the same year, the Ministry of Development and Planning established the Supreme Decree 124 (DS 124), which requires that the consultation go through state agencies. This decree limited the scope of applicability of the right to consultation to the environmental qualification assessment (the Environmental Impact Assessment System—SEIA) required by the government.

The state's role, established in DS 124, generated uncertainty in Indigenous communities and private investors. Indigenous communities sought legal protection in the courts, a process in which some courts of appeals established the suspension of projects or a new assessment of them because they had not consulted the Indigenous communities under the standards of ILO 169. Investors appealed to the Supreme Court, which initially adopted the position that the rules of participation in environmental legislation met the requirements of Indigenous consultation. Later, however, the same Supreme Court changed its position.

During 2012, the Supreme Court overturned a number of environmental qualification resolutions because they did not undergo a process of *consulta previa*, as required by ILO 169. The mining projects of the Paguanta and El Morro mines in northern Chile have seen their environmental qualifications revoked. One of this report's Chile case studies, Caserones, conducted an additional consultation with Indigenous communities that was determined to meet the expectations for the SEIA.

This picture could change considerably during 2013. In March 2012, the Council of Ministers for Sustainability approved a proposal for a new regulation of the SEIA that strengthens the procedure for Indigenous participation in *consulta previa*.

Currently, the approval or rejection of environmental qualification of a project is granted, in a first instance, by a committee of regional representatives of the different ministries evaluating the environmental permits for the project. A project receiving a negative answer in the first instance may appeal to a superior authority: a committee of the ministers responsible for the same environmental permits, who will re-evaluate the project, giving a rejection or an approval with new requirements.

### VALUE-ADDED ECONOMIC DEVELOPMENT

FIC has financed several initiatives that seek to increase research and development in Chile. One of the programs financed is the *Comisión Nacional de Investigación Científica y Tecnológica* (CONICYT). CONICYT supports research by young researchers; encourages scientific and technological development; finances scientific centers of excellence in R&D; recruits new faculty researchers in universities; and finances regional programs. FIC has also financed most of the programs of Production Development Corporation (CORFO), which are associated with innovation and entrepreneurship, dissemination of technology transfer and innovation in areas of public interest.

# Peru

## AS FAR AS THE EYE CAN SEE

**Antamina's open-pit copper mine has been in operation since October 2001 and is the world's third-largest copper mine.**

Three Countries,
Three Different Trajectories

# Peru

Peru has been a mining economy, stretching back to colonial times. Its power and potential as a source of minerals and metals increased with the privatization of former state-owned mining companies and increased demand in the 1990s and 2000s for commodities. Today, Peru is the second largest copper producer in the world after Chile, and the world's third largest producer of silver, tin and zinc. In 2011, mining exports accounted for 59 percent of Peru's total exports.

With the increase in value and volume of mineral exports in Peru, mining has come to represent a larger share of the country's GDP. Since 1994, the share of Peru's GDP represented by natural resource extraction increased from 4.6 percent to 4.9 percent. According to Macroconsult, a private consulting firm, in 2011 mining represented over 15 percent of total taxes collected, 30 percent of all corporate income taxes paid and over 21 percent of all private investment.

As prices increased, investment in exploration and production has flowed into Peru, reaching an historic high of $7.2 billion in 2011, with a 20 percent increase in the first quarter of 2012 alone. Of the 2011 sum, an estimated 95 percent came from overseas—with Chinese investment representing roughly a quarter of the total. Correspondingly, China is the largest recipient of Peru's mineral exports, consuming 24.8 percent of them in 2011, with Switzerland in second with 13.6 percent.

The risks of having an economy and public tax system so dependent on a commodity, tied to external prices and markets, are obvious. For one, Claudia Cooper and Eduardo Morón argue that despite rates of economic growth averaging 7 percent between 2007 and 2010, mining represented half of the total taxes collected on profits in the same period—a condition augmented in part by the fact that 60 percent of the national economy is based in the informal sector, which does not pay taxes. Second, with the increase in price and exploration, investments in mining and the markets for the minerals and metals produced are tied disproportionately to investment from the outside (and in particular one country—China), and that market's demand to keep prices high.

Third, mining traditionally provides few broad-based benefits outside the immediate area of economic activity. Peru is no different. According to one study conducted by Macroconsult, only around 1 percent of the population is directly employed in mining. And while a study by Eduardo Morón and others revealed that the majority of inputs into mining in Peru—including goods and services—were sourced locally (the major part from the capital city, Lima), the regions where the mining occurs accounted for only 20 percent of locally sourced goods and services.

> In 2011 mining represented over 15 percent of total taxes collected, 30 percent of all corporate income taxes paid and over 21 percent of all private investment.

There are micro-costs as well. With the expansion of mining exploration and extraction has come conflict. Unlike in Chile, where most of the mining occurs in the sparsely populated north in and around the Atacama Desert, in Peru the mining areas lie in poor, marginalized but populated areas often close to Indigenous communities. In many of these areas, mining—particularly open-pit mining—does not generate significant opportunities for employment or business. At the same time, the investments bring in outsiders and generate other opportunities, creating (at the very least) the appearance of disparity.

As a result, the number of social conflicts associated with extractive activities in Peru has risen dramatically. In 2007, Peru's Public Ombudsman recorded only 23 conflicts involving the extractive industry; by 2012 that had shot up to 149—a 548 percent increase. The majority of those community conflicts were in Ancash (32 cases) and Puno (22). Most recently, a community uprising in Cajamarca has halted the expansion of a gold mining project proposed by the U.S. company Newmont.

## What's on the Books? PERU

### GENERAL FRAMEWORK AND TAXATION

The general law governing natural resource extraction in Peru is the 1993 Constitution. Along with subsequent legislation, it was designed and written in an era in which the logic was to create a regime that could attract private investment and in which the state played a minor, even subsidiary, role to private businesses. In addition, as in Chile, the law guaranteed foreign investors the same rights as local investors.

The seminal law for mining was the Supreme Decree 014-92 (Unified Text of the General Law on Mining), which promoted private over public investment, thus reducing state participation in mining. As a result of the context in which the laws were approved—during the period of neoliberal reform under then-President Alberto Fujimori—there were no provisions for any state-owned or state-led extractive companies like CODELCO or Petrobras in Brazil.

Instead, the Peruvian state's role is primarily that of promoter or regulator of private initiatives, receiving the primary benefit of natural resource extraction investments through taxes, royalties and rights over concessions. Within that, even the ability of the state to direct investments for a broader national development strategy was weakened in the 1990s when the government shuttered the National Planning Institute.

According to the 1993 Constitution, renewable and non-renewable resources are the patrimony of the state, which has sovereign rights over their use. This gives the state the right to grant subsoil concessions as an irrevocable right for an indefinite time, but not the surface rights of the land. These have to be bought, rented or obtained by other means, obliging investors to negotiate with community owners for the sale or use of the property—a provision that has provided a powerful impetus to force sides to negotiate. Peruvian law also limits the granting of concessions in specific areas, such as urban or peri-urban areas, nationally protected zones and border areas—though in recent years specific executive decrees have overridden some of those limits.

According to the Ministry of Energy and Mines, the legal and regulatory framework today remains highly favorable for private investment, ensuring predictability and transparency between the state and investors—in ways similar to Chile. These include investment contracts guaranteed by the government and the constitution; access to the formal exchange market; rights to remit capital and profits; non-discrimination between domestic and foreign public or special tax regimes; tax stability; resolution of conflicts through national or international arbitration; and guarantees for private property.

Under the current tax regime, revenue from natural resource investment is collected in several ways. First is the annual fee levied on mining companies, determined by hectare.

Despite Peru's very decentralized system of authority and public spending, regional governments have no formal role in the process of negotiating with companies or mediating conflicts. Instead, their role is more ad hoc and informal—a tension between their otherwise considerable power in other matters of governing at the local level.

For the Peruvian government, the greatest source of revenue from mining is income tax, which represents about 70 percent of its total tax take from mining. In the case of hydrocarbons, the gross income comes through royalties.

In addition to the annual concession tax and income taxes, mining companies also pay royalties and an annual obligatory employee profit-sharing payment to workers equivalent to 8 percent of net annual profits.

In 2007, then-President Alan García created a system under which companies could voluntarily and temporarily agree to contribute 1 to 2 percent of their windfall profits to two funds (*Fondo Minero Local* and *Fondo Minero Regional*, respectively) to support development in areas of mining activity. Those funds were designated for programs in nutrition, education and health, among others. A total of 39 companies participated, though the lion's share of the revenue (76 percent) came from one company, Compañía Minera Antamina in Ancash.

In 2011, President Ollanta Humala ended the voluntary fund and introduced three new laws increasing compulsory payments. Essentially, the first two established new taxes on quarterly operating profits on firms that did not have tax stability guarantees ranging from 2 percent to 8 percent and, on those that did have stability guarantees, to between 4 percent and 13 percent. The third raised royalty payments on all companies' quarterly operating profits to between 1 percent and 12 percent.

Royalty payments are not officially a tax, but a payment to the state for the right to exploit natural resources; as such, they are tax deductible. In Peru royalties are calculated on the value of sales based on the average monthly price of the commodity. That rate ranges from 1 percent to 3 percent of the value of the monthly exports, depending on the price. (The hydrocarbons industry has a similar structure of taxes levied on production and royalty payments but the former are not required until the investment begins to produce profits; royalty payments are on the value of production of hydrocarbons and are considered payment for the right to explore and produce. As in mining, they are tax deductible.)

The Peruvian mining association´s leaders regularly complain about the high tax burden in Peru, claiming that between income tax, royalty payments, worker payments, and the one-time voluntary payment—now tax—the effective tax rate equals

64 percent of profits.[1] The aggregate rate, they argue, is higher than in countries in Peru's competitive set: Australia, Canada and Chile. In a 2012 study, though, Claudia Cooper and Eduardo Morón placed the rate at between 38 and 48 percent. And the same year, PricewaterhouseCoopers assessed that Peru's income tax rate, while higher than Chile's (at 20 percent), is the same as that of Australia and Mexico and lower than the United States' (35 percent at the federal rate) and Brazil's (34 percent), and close to Canada's (with federal and provincial taxes ranging from 25 to 31 percent).

## DISTRIBUTION OF REVENUE

Since 2003, half of the income tax revenue collected by the Peruvian government is redistributed to subnational governments, in what is called the *canon minero*. Before it was 20 percent, but in what became an aggressive decentralization reform, the Peruvian state approved in 2003 the creation of three levels of subnational governments—region, province and district, each with an elected executive, and each vested with policy responsibilities and budgets. Since that time, the distribution of the *canon minero* has been an important source of local political competition as well as tension between subnational governments and central policymakers.

Of the 50 percent of the revenue collected from mining companies and passed to subnational governments, 25 percent is dedicated specifically to the governments of regions where the mining production occurs (and 20 percent of that is dedicated directly to regional universities). The remaining 75 percent of the total *canon minero* is distributed between the provincial and district governments in the following way: district governments in which the mining occurs receive 10 percent; provincial governments (and all their district governments) in which the mining occurs receive 25 percent; and regional governments (and all their provincial and district governments) in which the mining occurs receive 40 percent. As a result of this complex calculus, the district that has the good (or bad) fortune of housing active mines receives not only 10 percent, but also the proportional amounts assigned to all districts, regions and provinces.

The result has been a flood of resources to often small, poor, rural local governments with limited human and institutional capacity. To give an idea, the home of Antamina copper mine, Ancash region, received 582 million *soles* ($227.08 million) in 2011 under the *canon minero* system. The region that received the second greatest amount was Arequipa, with 507 million *soles* ($197.82 million) in the same year; third, La Libertad, with 352 million *soles* (137.34 million); and fourth Cajamarca, with 318 million *soles* ($124.07 million). To give a sense of the disproportionality, out of a total 22 regional governments, six other regions did not receive one *sol* from the *canon minero*, and another three only received between 2 million and 7 million *soles*.

By law, *canon minero* resources should be dedicated to public investment to improve the living conditions of the local population. But the law prevents the application of the resources to operating or current expenses, such as salaries. Instead, they can only be used to finance or co-finance infrastructure projects. Often—rather than supporting expanded schooling or health programs, among others—many of these funds have gone to infrastructural white elephants, including the construction of new plazas, municipal palaces and, in some cases, bull rings and public pools. In addition, under the law, funds that have been transferred to subnational governments cannot be returned to the central bank, but instead remain parked in the regional government banks.

Local governments just haven't been able to keep up with the cascade of funds that have come their way in recent years. For example, in 2011, 12 regional governments spent less than 60 percent of the *canon minero* resources they received. One case, Puno, only managed to spend 33 percent of its new-found wealth. Spending rates were even worse for the more local governments at the provincial and district levels. Ten provincial governments in 2011 had spent less than 50 percent of the *canon minero*; nine district governments had spent the same amount, with one case—Yarabamba—only managing to spend 20 percent of its windfall. With mining production and prices expected to increase over the long term, this may be only the start.

The Peruvian central government has become aware of the problems stemming from the surfeit of revenue flowing to local governments and from officials ill-equipped to manage it. Beyond the problem of poorly spent resources, there has also been the problem of public corruption and what several have called "*cholo* disease," (a play on the term Dutch Disease), the distortion of local economies that draws rural agricultural workers to better paying, though often less productive, jobs in urban areas.

Currently, the Peruvian government is examining ways to allow for more flexible use of the funds, increasing oversight of local governments, and training local officials in public administration and management.

## CONSULTA PREVIA

As with many other countries, Peru adopted ILO 169 in 1994 long before it became commonly understood or used. The rights described in the convention were not formally translated into national law until 2011.

Among the drivers for this were the widespread protests by Amazonian natives against a series of laws related to forestry and access to land that they perceived as threats to their communal territories. These protests culminated in a tragic confrontation in the town of Bagua in 2009 that left 25 police and at least nine Indigenous dead.

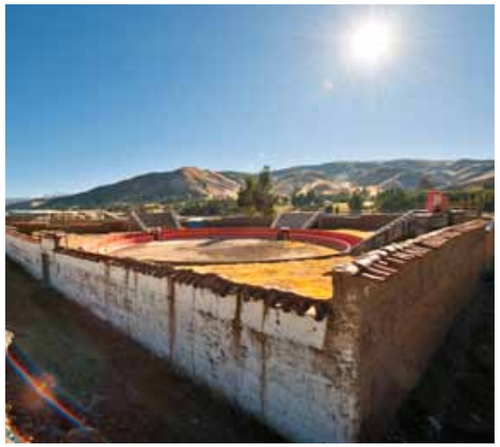
One year later, the congress signed a judicial order requiring fulfillment of ILO 169; García refused to sign it into law, but Humala approved it in 2011. The new law enabling implementation of ILO 169 is potentially quite sweeping, requiring the state to consult native and Indigenous peoples before enacting any legislative or administrative measure that could affect their livelihoods or lifestyles.

Nevertheless, implementation poses various problems. The most immediate is that it only applies to Indigenous and native communities, and the Peruvian state is just now in the process of determining which communities qualify for that designation. Some of the most conflictive mining projects in Peru today may not qualify under this legislation—which does not mean that the communities affected will be any less willing to demand consultation.

A second challenge is that the law does not provide communities with veto power, so that even when there is firm opposition to a mining project within a community, the state has the final word.

Once a private concession is granted, Peruvian law does require that the private company involved consult with local communities (Indigenous or not) in the development of its environmental impact study. The law also requires a plan for citizen participation in which the investor details the means for seeking participation during the evaluation and life of the mining project. Once the project is completed, the company must circulate for public comment its plan for closing the mine.

The vagueness of the legal framework has sparked a number of competing interpretations—and rising expectations among communities around mining areas. Many nongovernmental organizations (NGOs) and communities believe that only getting local communities to agree to extant concessions is not sufficient. But the law—as it stands—is not unlike that in Chile and Colombia, which also are facing conflicting interpretations. As ILO 169 specifies Indigenous communities, the question of who is Indigenous is a sharp point of debate.



A GOOD USE OF RESOURCES?
**A bullfighting ring in Chavín de Huántar, funded with taxes on mining companies, remains unused by locals.**

## VALUE-ADDED ECONOMIC DEVELOPMENT

One of the longstanding issues in Peru has been the lack of integration of mining into the broader sectors of the national economy. Large-scale mining in Peru—as in many places—is capital intensive, but generates little direct employment or broader economic spillover effect. Nevertheless, according to a 2012 study by IPE, mining is beginning to draw more of inputs from local producers, including 14 percent of manufactured inputs from local Peruvian manufacturers. The same study also calculated that increased mineral exports will generate over 78,000 jobs, 90 percent of those outside the mining sector. Under this calculation, each job created by mining generates nine more in non-mining sectors.

Nevertheless, for reasons of scale, capacity and legal restrictions, the revenue boom generated by mining is unlikely to produce the public, large-scale investments necessary to generate development in many of the areas hosting mineral or metal extraction.

Similarly, the stories of *canon* investment in regional public universities have not been encouraging. While based on the laudable idea of encouraging investment in research and development relevant to the needs of these regions, in fact it has also been hard to overcome the legal and bureaucratic obstacles placed on the use of what are considered temporary and variable funds by the state (for starters, the money cannot be used to cover researchers' salaries or buy down teaching time).

There is also a dire lack of trained researchers in most public universities. Since 2004, an average of just 20 percent of the total *canon* funds for universities has been spent, and much of that went to infrastructure and equipment rather than human resource development.

Among the universities receiving most *canon* funding is the historical San Antonio Abad University in Cuzco, which received 233,464,800 *soles* ($91.09 million) in 2011, while two universities in Ancash (where Antamina is located), Santiago Antúnez de Mayolo and Del Santa, received 150 millon ($58.53 million) each.[2]

# Colombia

**SUPER-SCALE**
A Cerrejón employee surveys the large coal-mining trucks in the company's workshop.

Three Countries,
Three Different Trajectories

# Colombia

Until recently, Colombia's natural resource extraction industry has been based around energy: petroleum, natural gas and—in mining—coal. But as demand for minerals has grown, the country's metal mining industry has opened up and government officials are now actively courting extractive industry investors in coal, but also gold and nickel. The government's *Plan Nacional de Desarrollo* 2010–2014 (National Development Plan) lists as one of its main strategies supporting the development of the mining and energy sector, which it defines as one of the main future engines of the country's economic growth. Within that plan, the government has committed itself to applying the revenue generated by natural resource extraction to stimulate broad-based economic growth in Colombia in a sustainable manner.

As a latecomer to the extractive industry—as well as a huge beneficiary of the boom in oil and gas prices—Colombia represents a country that has the opportunity to put in place an innovative set of regulatory, legal and policy instruments to catapult it into a regional leader in this field and avoid the pitfalls and conflicts of other countries, including those across its border in Peru.

AN HOMAGE TO COAL
**A Cerrejón crane monument at the entrance to the mine.**

It's a course that will be made easier given the timing of Colombia's increased focus on the export of primary products. The global commodity boom occurred after the country already had a diverse economy, including a healthy manufacturing economy and export base. As a result, even after the global commodity boom of the late 1990s and 2000s, hydrocarbons only accounted for just over 5 percent of Colombia's GDP, and mining approximately 2 percent—less than either Chile or Peru. But, like both countries, foreign direct investment makes up a significant portion of the investment in both the hydrocarbons and mining industries, averaging around 27 percent of the total investment in the sectors between 2005 and 2011.

## What's on the Books? COLOMBIA

### GENERAL FRAMEWORK AND TAXATION

The mining code of 2001 (Law 685) regulates the exploration and exploitation of mining resources. It seeks to promote the extraction of minerals by state and private companies to satisfy domestic demand and boost exports under the concept of sustainability and promoting the social development of the country. The law defines sustainability as the obligation to adequately use resources and develop mining capacity consistent with the integrity of the environment and toward the country's development goals.

To this end, the law establishes areas in which it reserves the right to limit or exclude mining activity. Among them are zones of national security; special reserve zones in which existing informal activities can remain and the state will not allow new proposals or contracts, but will continue to study special mining projects; zones of exclusion, including national parks, in which mining is forbidden or granted only in specific circumstances; restricted zones where for reasons of proximity to urban areas, historical or archaeological sites or other natural resources, exploration requires a special state dispensation; and last, areas occupied by Indigenous or Afro-Colombian populations that require that the investors do not affect the cultural, social or economic lives of surrounding communities.

Those rights were extended by executive action when President Juan Manuel Santos suspended the granting of titles for exploration under his predecessor President Álvaro Uribe's policy of "first there, first in right." Under the policy, the government's granting of concessions had accelerated. Instead, Santos promised to designate strategic mining zones in which the state would competitively award titles. Defined by Resolution 0045 in July 2012, 17.6 million hectares of the Amazonas, Vaupés, Vichada, Guainía, Guaviare and Chocó were defined as strategic mining areas. A first round of bidding will begin in 2013 on 2.5 million hectares. The Ministry of Environment, however, implemented a two-year suspension of mining in the Amazon in August 2012 to conduct environmental studies and save the area from exploitation.

In November 2012, Santos approved a law tackling the problem of illegal mining in the country, which included provisions to crack down on criminal mining and provide access to titles for non-criminal, but informal, mining operations to allow for their formalization under the law.

Concerning taxation, the Colombian government in June 2011 approved a new system of royalties and taxation. This new legislative act of 2011 did not modify the percentages of royalties paid by the mining and hydrocarbon sectors that were established in 1994 and 2002. What does change, though, is a greater distribution of royalties paid to provinces that have no mineral production in order to have a more equitable distribution of royalties.

### DISTRIBUTION OF REVENUE

Before the reform, 80 percent of royalties was distributed to mineral, gas or oil producing provinces (or 17 percent of the population) and 20 percent of royalties was placed in the National Royalty Fund that invested in other regions (the equivalent of 70 percent of the population). By 2015, this will be flipped on its head: 20 percent of the royalties will be distributed to mineral, gas and oil producing provinces, and 80 percent will be destined for non-producing regions. Likewise, the reforms aim for greater transparency in the use of resources and savings—both to save resources when earnings fall due to fluctuations in international prices and to compensate for the depletion of deposits.

Colombia does not have a specific earmark for mining revenues. They are distributed directly by regional governments, not the national government. The general system of royalties, described above, has its own budget, specific designations and target percentages.

The distribution of royalties is as follows: 10 percent into the Science, Technology and Innovation Fund to increase innovation and regional competitiveness; 10 percent for retirement savings; and 30 percent for the Savings and Stabilization Fund. The remaining 50 percent will be distributed between the Regional Compensation Fund and the Regional Development Fund. It was estimated in 2012 that under the new system approximately 10 billion *pesos* ($5.59 million) annually will be dedicated to development projects.

### CONSULTA PREVIA

The 1991 Colombian Constitution laid the groundwork for *consulta previa* under Article 330. The article requires that activities in natural resource extraction in Indigenous lands must not affect the cultural, social or economic integrity of Indigenous communities and grants the government the authority to promote the participation of community representatives in those activities. Later that year the congress adopted ILO 169 as Law 21, requiring the government to establish and maintain consultative processes with affected communities and to determine if the interests of Indigenous peoples will be affected by the prospecting for or extraction of mineral resources that exist under their lands. In the case of resettlement, the law requires that any efforts must have the consent—freely given—of the communities. In 1993, Afro-descendant communities were added to the list by Acts 70 and 99.

In 1998, the vague boundaries of the law were given more precision with Decree 1320, which analyzed the economic, environmental, social, and cultural effects that resource extraction will have on communities and proposed means to protect their integrity. Indigenous or Afro-descendant peoples who have collective ownership or permanent residence—even without title—over territories have the right to be consulted before any natural resource project can be developed. Prior consultation is to be conducted by those responsible for the project, work or activity with the community.

In 2008, legislation gave a formal institutional identity and structure to the right of *consulta previa*. Decree 4530 vested the Interior Ministry with the objective of supporting and coordinating the state offices charged with *consulta previa*, along with all the other national and international human rights obligations of the state. The office grants official recognition of territorial rights of local ethnic communities, monitors the fulfillment of commitments made during the consultation process, consolidates and maintains the records of instances of *consulta previa*, receives petitions, and supports the other offices and ministries associated with the process.

The government serves as a facilitator during the prior consultation process, yet there is no central enforcement authority with the last word. The Ministry of Interior confirms the existence of Indigenous or Afro-descendant communities in the areas of exploration, and companies and communities begin a process of impact analysis and remediation proposals that must be delivered to the respective environmental authority (Ministry of Environment and Sustainable Development, Regional Autonomous Corporations, or the recently established Environmental Licensing Authority). Supervisory authorities, such as the Attorney General's Office, may also be present. If there is no agreement between the communities and company in the first meeting, additional meetings are planned, and if no agreement is reached, the environmental authority will autonomously decide whether or not to grant the environmental license. At this point, the community has no veto power, but can bring the case to court.

### VALUE-ADDED ECONOMIC DEVELOPMENT

In 2010 the Colombian Congress passed a law that discussed the corporate social responsibility of mining companies. The law asks for only the voluntary compliance of companies to undertake their activities under a general framework of development, to take into account the improvement of quality of life of the population and the prevention and mitigation of environmental damage in the regions or surrounding areas where they work.

The Good,
The Bad and The Ugly

# Cases, Comparisons and Conclusions

BY RICHARD ANDRÉ, RYAN BERGER, WILDA ESCARFULLER, MARI HAYMAN, AND ALANA TUMMINO

How laws and regulatory structures affect the natural resource extraction industry and affect social inclusion, environment and economic development is best determined by looking at the behavior of specific firms on the ground.

The Ford Foundation–supported study from which this article is drawn looked at four cases of natural resource extraction in each of the three countries studied: Arauco Forestry, Caserones, Collahuasi, and Los Pelambres in Chile; Camisea, Compañia Minera Antamina, Tintaya, and Toromocho in Peru; and AngloGold Ashanti Colombia, Cerrejón, Gran Colombia Gold, and Mineros in Colombia.

In each country, we looked at one investment in depth, which included visiting the site and meeting with company officials, workers and community members. Below are some of the comparative conclusions reached.

Fuller analysis of the case studies and their implications can be found in the Americas Society/Council of the Americas white paper, released in February 2013. It's available on the AS/COA website **(www.as-coa.org/naturalresources)**

Across all the themes below, one lesson stands out: effective laws and public policy are necessary, but not sufficient, to ensure broader economic equity and to protect the environment and community rights. Two variables are equally important. The first is the capacity of the state to enforce the laws, to capture tax and royalty revenue, and to channel it to productive investments and social programs. The second is the goodwill and commitment of the companies and their local representatives.

In today's increasingly charged political and social environment, resource governance requires a commitment at the highest corporate level to support the communities in which the companies do business, to ensure that the benefits of natural resource extraction are broadly felt and that their investments are well-served.

## Governance

Since the cases included in the study were existing mines, questions of tax stability and predictability mattered less. However, Chile's decades-long guaranteed stable tax regime was praised as worthy of imitation by a number of companies, which hope that Colombia will follow the same route. The greatest concern was the effectiveness of social spending—especially in Peru. In San Marcos, for example, the closest town to the Antamina mine site, the city government received $53 million in 2012 alone; yet the town of San Marcos, with a population of 13,607, still does not have potable water, and two successive mayors have been trailed by allegations of corruption.

Because of the lack of confidence in the state, mining companies like those in Peru prefer to provide direct support through their own foundations for development and social programs—effectively bypassing the local government. During the administration of President Alan García (2006–2011), mining companies could choose to voluntarily support local development instead of paying a windfall profits tax. When President Ollanta Humala took office, such support was converted into formal tax payments for state programs, causing many companies to worry that they might lose the opportunity to support (and thereby brand) local development projects.

## Value-Added Development

Identifying the link between local development (economic and social) and extractive investment is always difficult, given the complexity of the factors involved. Nevertheless, the areas in Chile that have hosted resource extraction companies have experienced declining levels of poverty and improvements in human development during the time of economic mining activity—especially compared to other parts of the country. In Peru, three separate studies by social scientists in 2007, 2008 and 2012 found higher standards of living and higher levels of human development in mining households than in non-mining regions.

In a number of cases, companies have sought to boost the local economy by hiring locally and, when possible, sourcing inputs from local suppliers. But this is not always easy. In Chile, the mining companies on average hire between 50 percent and 60 percent of their workforce locally. In some cases, however, the percentages are even lower. In Caserones, for example, even after the local company, Minera Lumina Copper Chile, trained local populations to ensure a skilled workforce, it managed to hire only 20 percent of its workers locally.

In all of the 12 cases studied, companies also used their own form of private corporate philanthropy. Companies such as Antamina and Camisea (Peru), Cerrejón and AngoGold Ashanti (Colombia), and Caserones and Collahuasi (Chile), invested in local enterprises engaged in activities such as sheep farming, microenterprise, agriculture, and tourism (including a dinosaur park in Pica, Chile).

Beyond the social services that governments provide, the state can play a fundamental role in preventing the economy from being trapped in a monocultural export path. It can do this by effectively and independently using the revenue from extraction activities to invest in and cultivate higher value-added areas of the economy. The efforts of Chile and Colombia are more promising to date than those of Peru.

Targeted programs like Chile's *Fondo de Inovación para la Competetividad* (FIC) and Colombia's earmarking of 10 percent of royalty payments for a national research and development program are aimed at converting the revenue boom from commodities into an engine for economic development outside the extraction field. In contrast, although Peru earmarks 20 percent of the *canon minero* for regional universities in the areas where extraction occurs, this has failed to fund the sort of research and technical training that was originally intended.

## Community Relations and Consulta Previa

While there have been constitutional provisions for some sort of *consulta previa* process in countries like Peru and Colombia since the 1990s, community groups and legislatures have only recently started to use them. While they do not grant community groups veto power over an extraction project, they require a company to conduct a broad, community-based assessment of the environmental and social impact of a concession that has already been approved. In some cases, these competing expectations can cause a conflict.

The case studies revealed the ambiguity and unpredictability of the community-company relationship. Much depends on the individual will of the corporations. The successful companies were those that went beyond basic mining activities and sought to institutionalize representation and input from communities through direct and regular discussions —in other words, *consulta constante* rather than just *previa*.

In 2007, Cerrejón in Colombia responded to criticism of its community relations by seeking the advice of a panel of experts, who in turn proposed a change in corporate culture, the creation of four separate community foundations, and a consistent effort to engage the input and counsel of the local Wayúu Indigenous groups. The goodwill developed through such a comprehensive and multifaceted effort at sustainability laid the groundwork for community support for a plan—later shelved—by Cerrejón to divert the Río Ranchería 26 kilometers (16 miles) to gain access to coal deposits under the riverbed.

Contrast that with Collahuasi, where local Aymara groups complain that the mining company bypasses the channels established by the firm for consultation with communities. The groups dispute the mine's claims that its operations have not negatively affected water supplies in nearby lakes.

Goodwill does not last indefinitely. At one time, Tintaya in Peru was considered a model corporate citizen. But after a change of ownership in 2006, the community-company dialogue largely disappeared. When the mine attempted to expand its operations in 2010, it found itself engulfed by a series of violent social conflicts.

## Environment

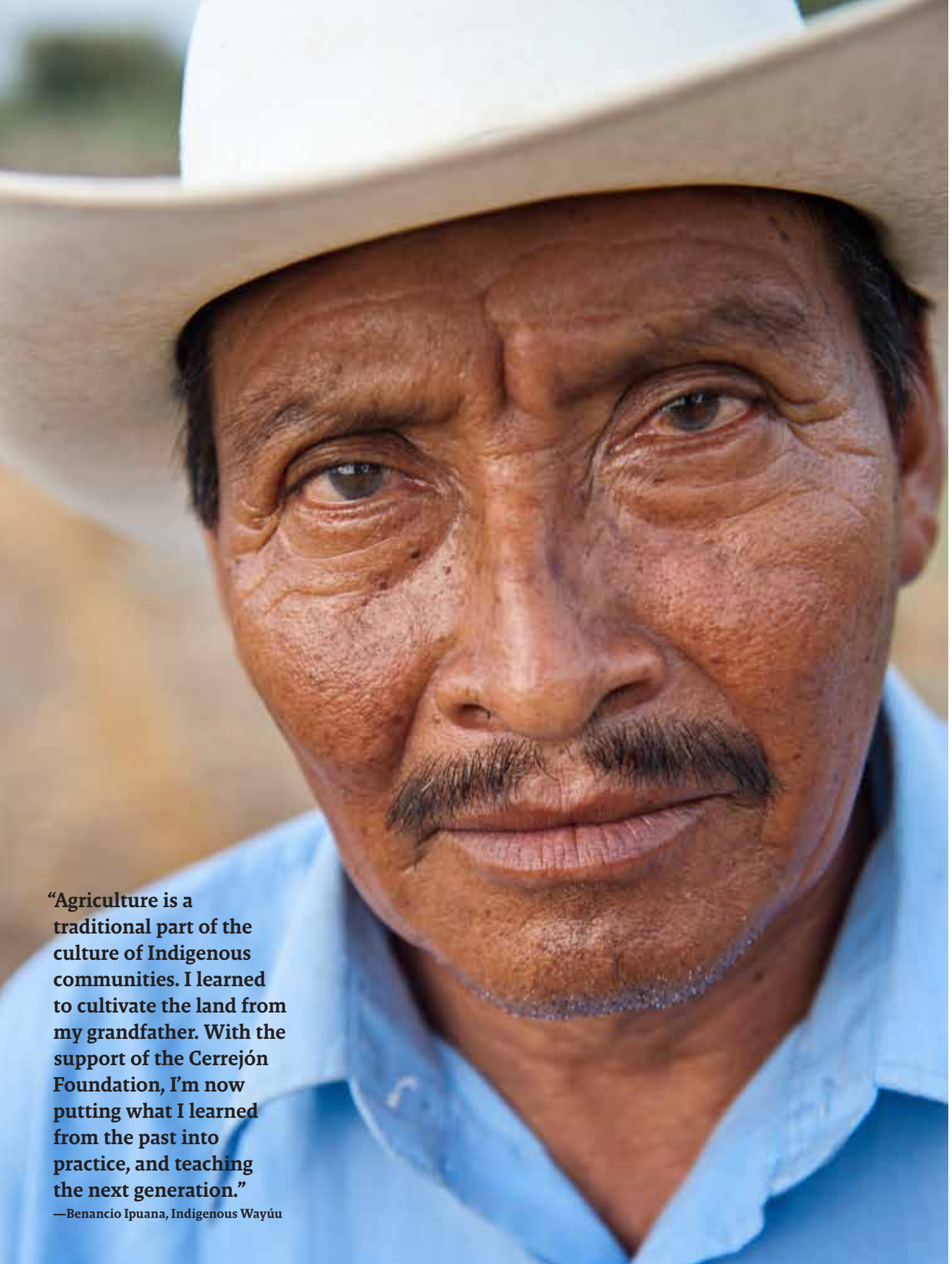
Mining companies should seek to ensure that their operations do not strain local resources, and they should restore the land—especially in open pit mines—to as close to its original state as possible once operations are terminated. There are a number of positive examples of corporate environmental stewardship in our cases.

Cerrejón has voluntarily taken steps to identify, prevent and mitigate any negative environmental effects stemming from its operations, in ways that go beyond its current obligations under the law. This has included reducing water use by over 50 percent in 2009 and maintaining a program to recover the over 2,700 hectares of land (with plans for another 16,000 hectares) used by the coal mine.

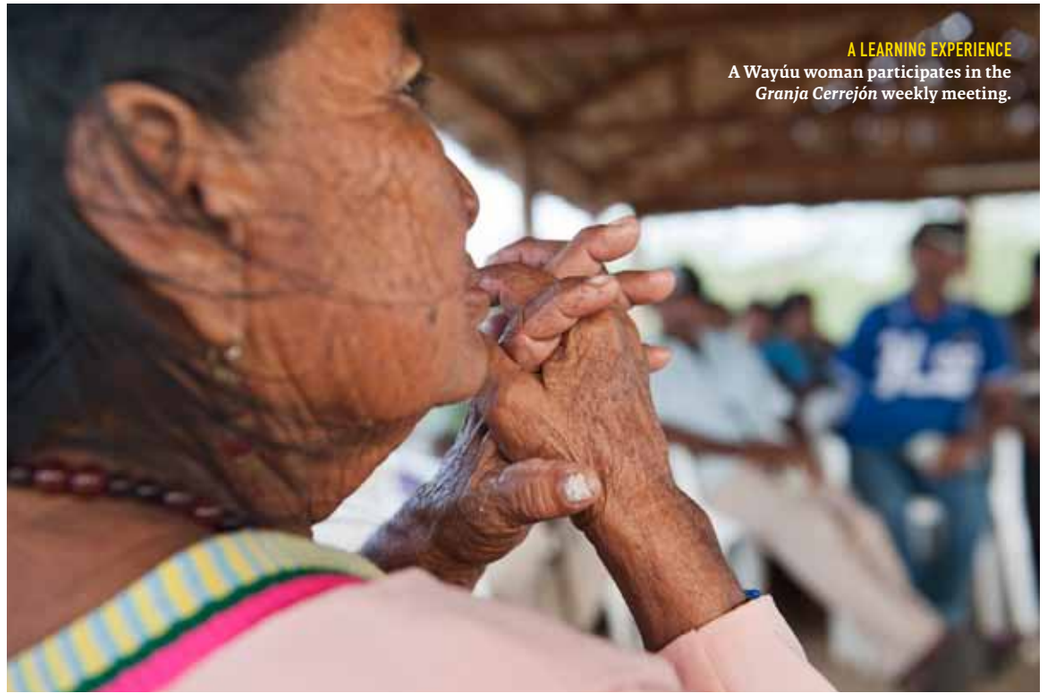
# Communities

LISTENING TO LOCAL PARTNERS

***Fundación Cerrejón Guajira Indígena*** **(Cerrejón Foundation for Indigenous Development in La Guajira) works with the local Indigenous communities in La Guajira, Colombia, to improve their quality of life by reinforcing cultural heritage within a framework of sustainable development. Here, local Wayúu meet at the *Granja Cerrejón*, where Indigenous inhabitants work with experts to improve agricultural production.**



"Agriculture is a traditional part of the culture of Indigenous communities. I learned to cultivate the land from my grandfather. With the support of the Cerrejón Foundation, I'm now putting what I learned from the past into practice, and teaching the next generation."
—Benancio Ipuana, Indigenous Wayúu



**A LEARNING EXPERIENCE**
**A Wayúu woman participates in the *Granja Cerrejón* weekly meeting.**

RECOMMENDATIONS

## Communities/Consulta Previa

In each country, ILO 169 has been subject to competing interpretations by investors, by community leaders, and within branches of governments, and a source of potential conflict. The disagreements are many: whether communities can reject a project; the time that communities have to discuss; the extent of the consultation process; and the role of central and local governments.

**National governments need to promote a discussion to develop a broad understanding of the consultative process.** Interpretations of *consulta previa* will continue to be a source of conflict unless governments make greater efforts to inform the public about the law and seek broader consensus.

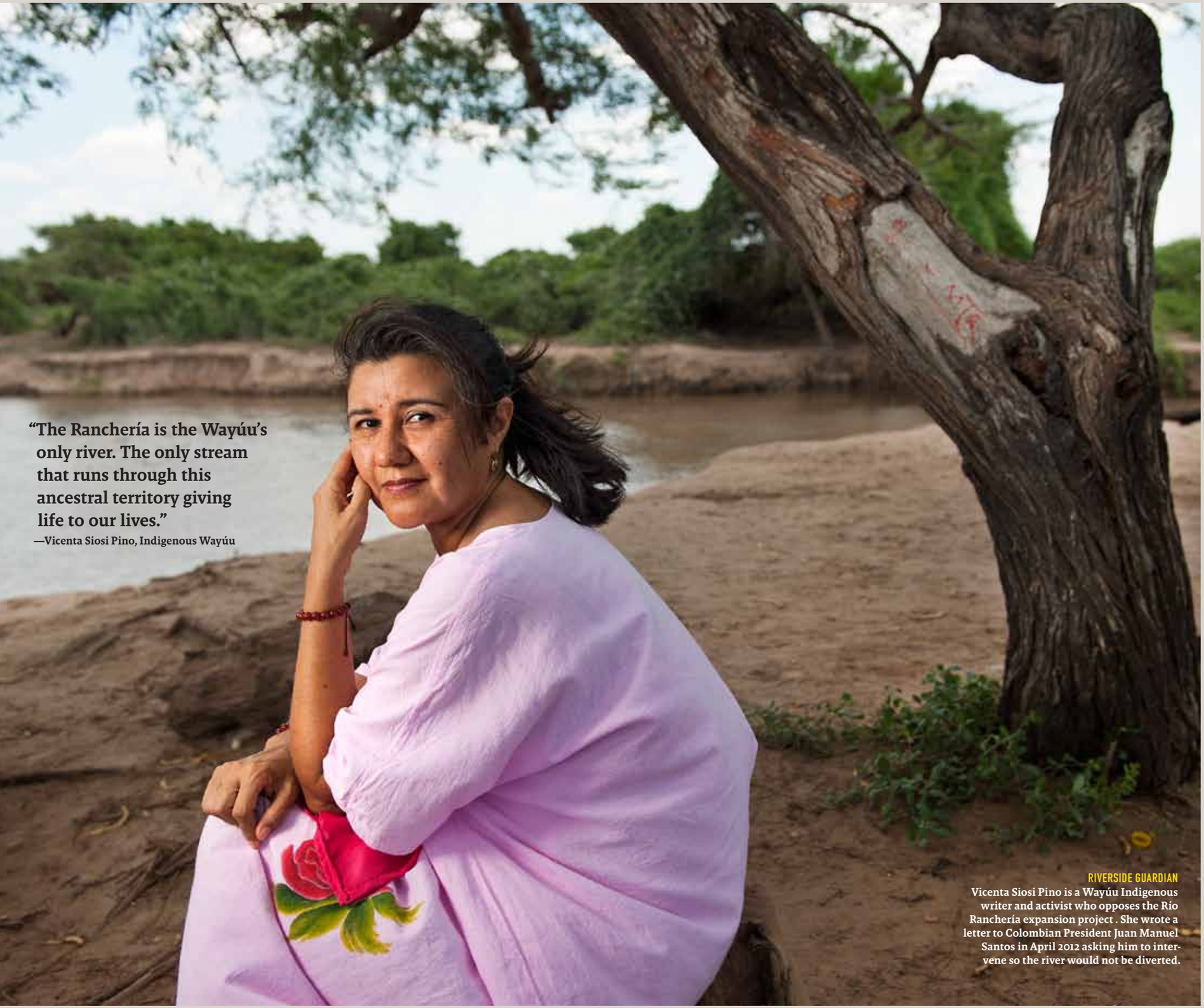
**Consultation should be seen as a regular process throughout the life of the project.** Early efforts to involve participation in an environmental impact evaluation should be finite—so as not to delay or create uncertainty for investors. Nevertheless, companies and governments should consider expanding the time to foster participation of communities, and building regular means to do so. To this end, the state and the investing company—as many did in this study—should build institutional consultative mechanisms.

**National and local governments must play a larger role in organizing and guaranteeing the consultative process.** Private investors would prefer the government—both local and central—to serve as a facilitator and guarantor of the *consulta previa* process. This will help strengthen the government's authority in often remote locations.

**The scope of prior consultation must also be expanded to include areas located beyond an extractive project's original impact zone** to ensure that communities outside the immediate vicinity are still protected from environmental damage.

**Governments and responsible NGOs should provide reliable scientific data** on the potential impact of an investment to enable communities to negotiate effectively. Communities are currently at a disadvantage, which breeds distrust and resentment.

**LET THE MUSIC BEGIN**
**Children fill the room with classical melodies in a concert hosted by *Sinfonía por el Perú*, funded by *Asociación Ancash de Antamina*. Boys and girls from low-income backgrounds are trained in classical music at a local elementary school in Huaraz.**



**"The Ranchería is the Wayúu's only river. The only stream that runs through this ancestral territory giving life to our lives."**
**—Vicenta Siosi Pino, Indigenous Wayúu**

**RIVERSIDE GUARDIAN**
**Vicenta Siosi Pino is a Wayúu Indigenous writer and activist who opposes the Río Ranchería expansion project . She wrote a letter to Colombian President Juan Manuel Santos in April 2012 asking him to intervene so the river would not be diverted.**

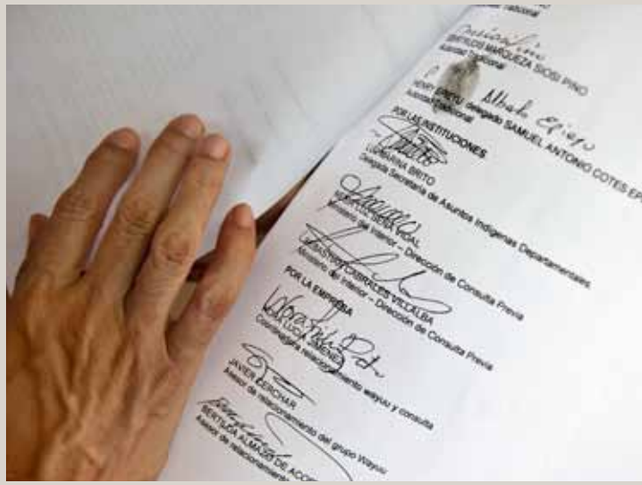
CONSULTATION

## Rio Rancheria

One of the poorest provinces of Colombia, La Guajira, is home to one of the country's most active and more progressive coal mining companies, Cerrejón. In the early 2000s, Cerrejón estimated that there were 500 million tons of coal deposits under the river bed. Getting it out, though, would require moving an entire river 16 miles (26 kilometers) affecting the Wayúu Indigenous community that lives alongside it, and for whom the river is its lifeblood. The process to convince local communities demonstrated the complexities of the *consulta previa* process: who speaks for whom and who determines impact.

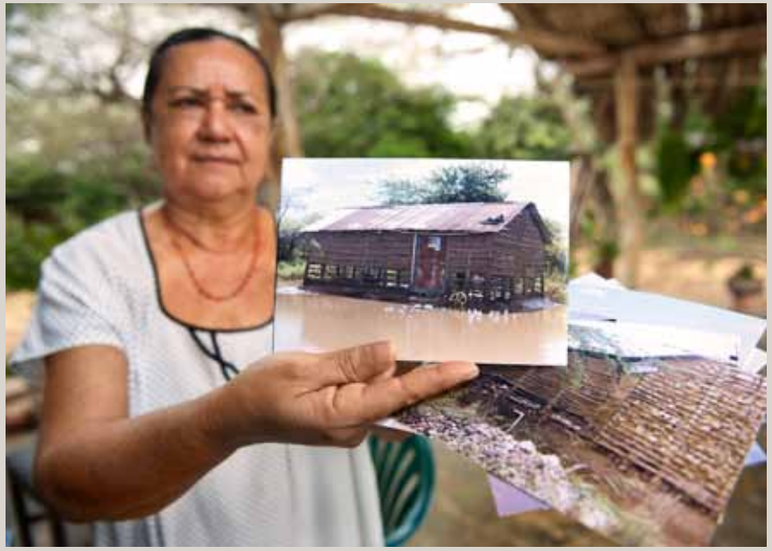
Since 1991, ILO 169—which guarantees the right of *consulta previa*—has been the law in Colombia. It required that before Cerrejón could implement expansion plans, the company would have to get the consent of the Wayúu community directly affected by the project.

Years of meetings from 2003 to 2012 between Cerrejón officials, environmental experts and the Wayúu resulted in the endorsement by 103 out of 113 community groups. (Each community or extended family is represented by one member.) In return, Cerrejón would compensate the community with investments in schools, clinics, livestock, and sports fields, to name a few. But despite the support of segments of the community, the expansion project became controversial, with charges that long-term social and environmental effects had not been communicated to the Wayúu during the consultative process; in 2011, 4,000 people protested the project. Never mind. On November 8, 2012, Cerrejón announced the postponement of the controversial project because a decline in international coal prices made it unprofitable.



CONSULTATION

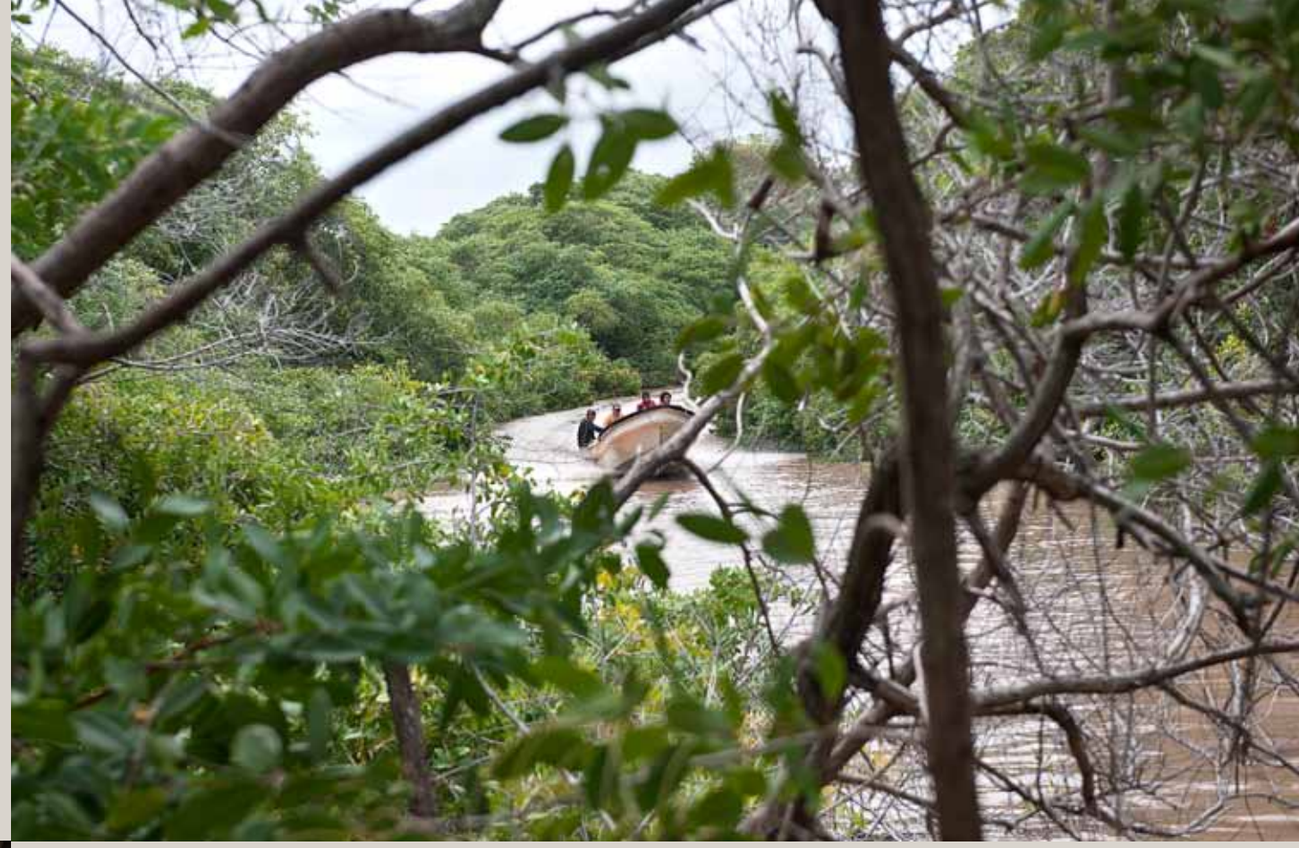
# Rio Rancheria

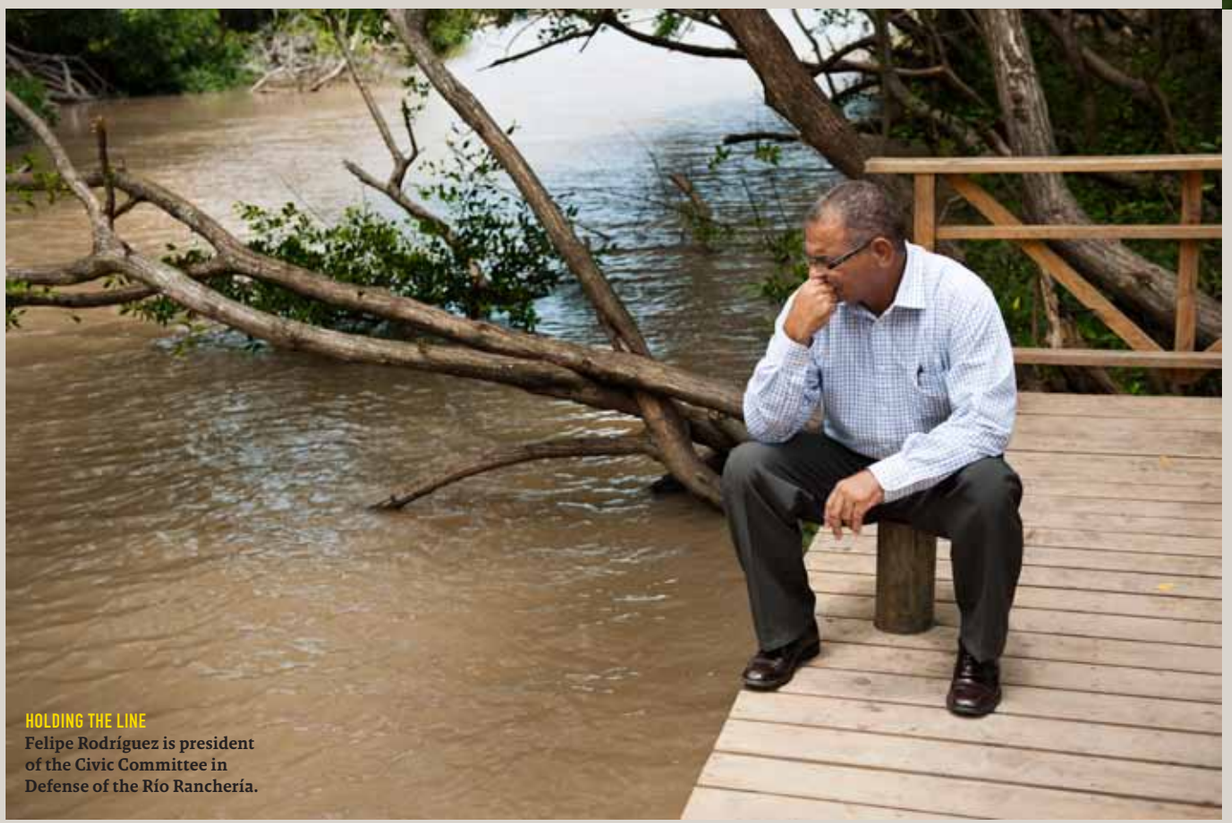


**"I'm 70 years old and all my life the river has flooded, and the government hasn't done anything to fix it. I accept the plan to divert the river because Cerrejón will build a canal so the water doesn't overflow."**

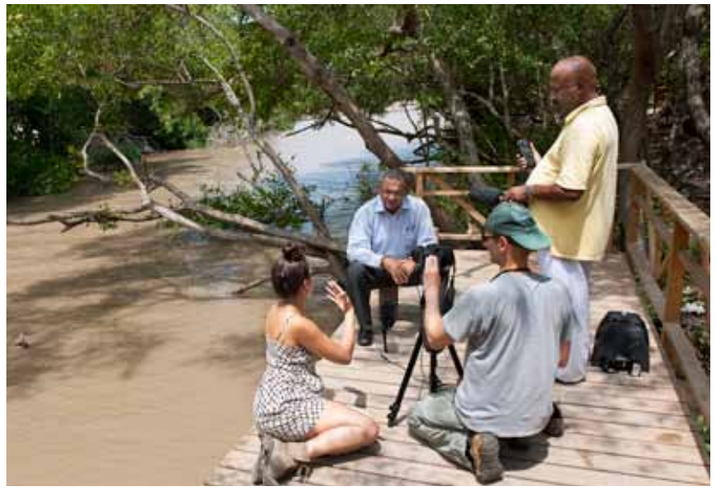
**—Marqueza Siosi, Indigenous Wayúu**

**A FAMILY DIVIDED**
**A Wayúu woman displays pictures of her house before and after it was flooded by the Río Ranchería, since there is no proper system to keep the water at bay. She supported Cerrejon's expansion plan, pitting her against her sister, Vicenta Siosi Pino.**





**HOLDING THE LINE**
**Felipe Rodríguez is president of the Civic Committee in Defense of the Río Ranchería.**



**A RIVER RUNS THROUGH IT**
**The *Americas Quarterly* team traveled throughout Colombia documenting through film and photos the expansion plan of Colombian coal mine Cerrejón to divert the Río Ranchería. They met with Wayúu Indigenous community leaders, Cerrejón officials and government representatives. The result is a 10-minute documentary by Boris Heger highlighting the varied perspectives of these relevant stakeholders, which can be found at www.americasquarterly.org/rio-rancheria-documentary**

**"Mining is robbing the province's agriculture. The small amount of agriculture that surrounds the Río Ranchería is going to disappear."**

**—Felipe Rodríguez, Civic Committee in Defense of the Río Ranchería, Colombia**

# Development

CHILEAN JURASSIC PARK

**The entrance to Pica, a small oasis in the Atacama Desert, boasts a dinosaur park funded by Collahuasi, the local mining company. The life-size sculptures pay homage to the Chacarilla Ravine 64 kilometers (40 miles) southeast of Pica, where fossilized footprints of seven different species of dinosaur were discovered during oil exploration in the late 1950s.**

RECOMMENDATIONS

## Value-Added Economic Development

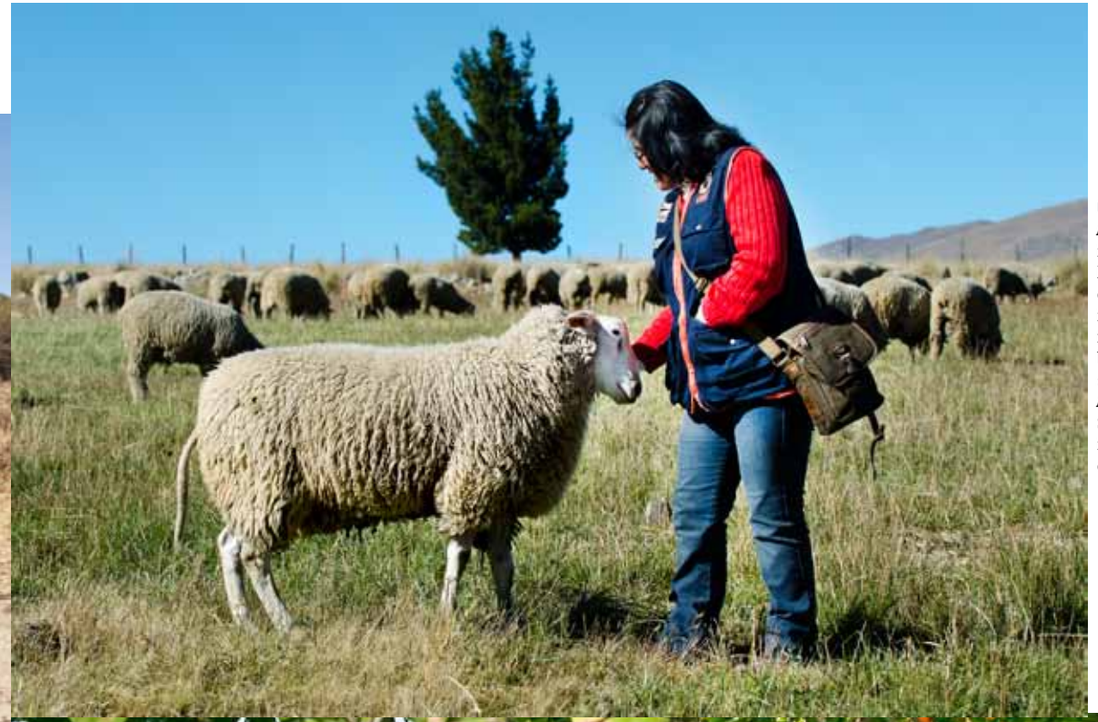
The risks of a resource-based economy are real. Without proactive policies by governments, excessive reliance on natural resource extraction can steer resources away from higher-end sectors of the economy; lead to an overvalued exchange rate, and thus hurt other non-resource exports; and widen socioeconomic divisions in the regions where extraction occurs and across regions. This is in addition to the narrow effects the natural resource extraction industry has on the broader national and labor markets.

There are steps, however, that governments and businesses can take together to ensure that the resource industry becomes more embedded in the national economy and produces beneficial spillover effects.

**Governments must leverage tax and royalty resources to spark innovation and business.** Chile has done an effective job through *Fondo de Innovación para la Competitividad* (Innovation Fund for Competitiveness—FIC), administered by the Ministry of Economy—as has Colombia—by dedicating mining revenue to support research and development. In these cases, the government has made a concerted effort to invest outside the resource sector. But such efforts require targeted investments in technical education, research and development and start-up capital for enterprises.

**Companies should invest in local communities to better link to the productive demands of their mines.** Given the poverty and exclusion in many of the areas where resource extraction takes place, there are a plethora of needs, including meeting basic human needs and education. Nevertheless, companies need to dedicate specific resources to build local capacities to ensure that producers and communities are linked to the economy of the project. In Antamina and Collahuasi, the companies provided support to farmers so that they could provide food for their large on-site cafeterias—but much more can be done to link specific productive needs to local producers.

MAKING IT GREEN
**In Chile, Collahuasi has invested in an irrigation system that helps fresh water get to the citrus groves—where Pica's cash crops grow The "Made in Pica" brand of limes, lemons, oranges, and mangoes are distributed across the country and sold to local mines for use in their dining halls.**

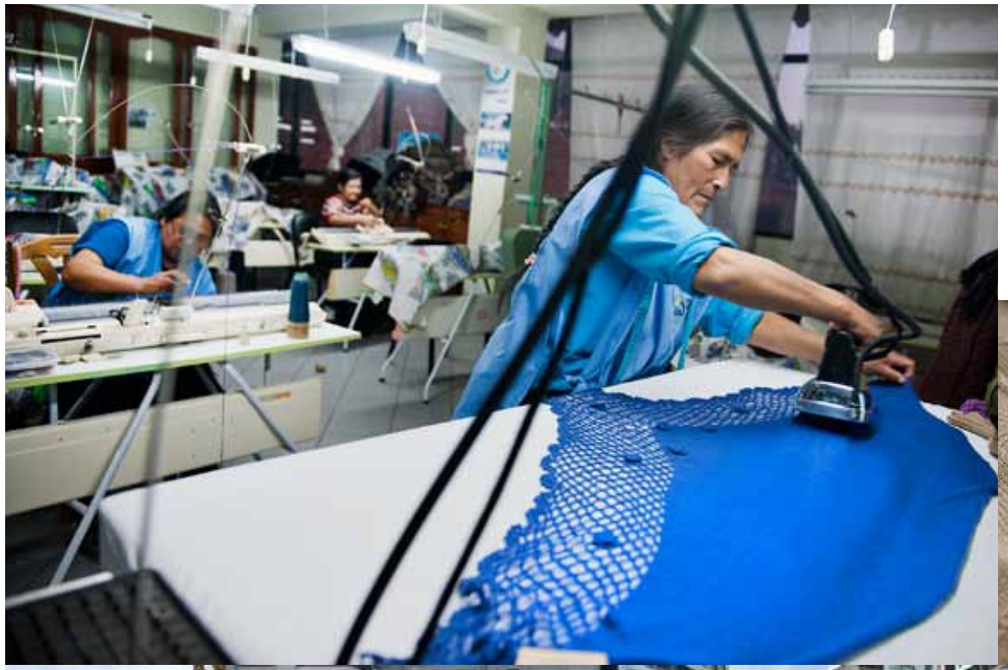


G'DAY, MATE
**A shepherd introduces herself to one of the herd imported from Australia by CARE, sponsored by Antamina's Social Fund in the district of Cátac.**

**"Neither my grandfather nor my father had the opportunity that I have today as part of the farmers' association—to sell directly to companies like Collahuasi without a middleman."**

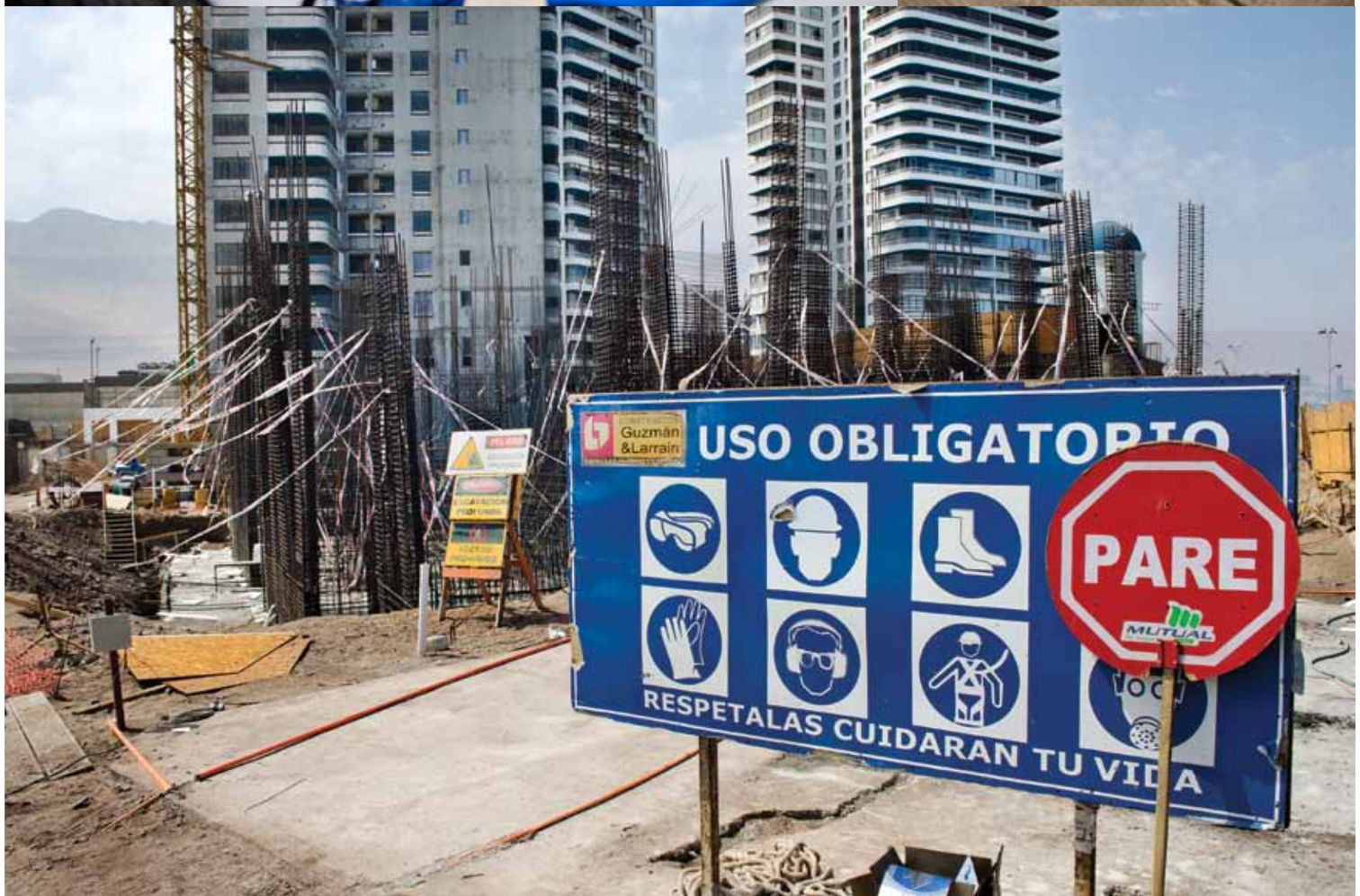
**—Eduardo Arroyo, *Asociación Propietarios Agrícolas de Pica,* Chile**

DESTINED FOR MINERS
**Right: Eduardo Arroyo, president of Pica's farmers' association, inspects his oranges.**



**A STITCH IN TIME**
**The association *Arco Iris*, supported by Antamina, opened a local store in Ancash, *Tejido Turmanye*, to provide training in embroidery. Right: Women place the finishing touches on the sweaters sold in local hotels.**

**WEAR IT WELL**
**Made of the finest wool, a baby alpaca sweater is labeled and ready for sale.**




**READY FOR BUSINESS**
**Investments by Collahuasi and other mines in Iquique, the capital of the Tarapacá region, have contributed to the port city's construction boom.**

## International Conventions

It's no coincidence that many of the companies that demonstrate the highest commitment to corporate citizenship and seek to meet local environmental and developmental needs are signatories to a number of human rights and good governance protocols.

For example, Colombian mining company Cerrejón S.A. has publicly committed to the Universal Declaration of Human Rights, the UN "Protect, Respect and Remedy" Framework for Business and Human Rights, the UN Global Compact, and the Sustainability Framework of the International Finance Corporation of the World Bank. Cerrejón also adheres to the conventions of the International Labour Organization (ILO), as well as the Global Reporting Initiative, the Voluntary Principles on Security and Human Rights, and the Sustainable Development Framework of the International Council of Mining and Metals (ICMM).

This didn't happen overnight. It began with a decision in 2007 to alter the company's corporate culture as a result of confrontations with the Indigenous Wayúu and other social groups in La Guajira, where the company has operated since the 1970s.

Other companies have followed suit.

Compañía Minera Antamina S.A., which operates Proyecto Antamina in Peru's Ancash region, is an active participant in the Extractive Industries Transparency Initiative.

Consorcio Camisea, which operates Proyecto Camisea in Peru's Urubamba region, has agreed to a list of 21 commitments with the IDB (including ILO Convention 169) after complex negotiations with Indigenous groups and environmental activists.

Although the project remains controversial, it serves to showcase the innovative "offshore island" model that reduces the environmental impact.

Xstrata Copper, Anglo American PLC and JCR, which operate the Collahuasi mine in Chile's Tarapacá region, produce a sustainability report and adhere to the Ramsar Convention on Wetlands, the Sustainable Development Framework of the ICMM, the Universal Declaration of Human Rights, and are part of the Chilean Chapter of Transparency International.

Antofagasta Minerals and Nippon Consortium, which operate the Pelambres mine in Chile's Coquimbo Region, produce a sustainability report in accordance with the standards of the Global Reporting Initiative.

AngloGold Ashanti Colombia, which operates in Colombia's Tolima, Antioquia, Cauca and Nariño provinces, belongs to the UN Global Compact, the Voluntary Principles on Security and Human Rights, the Global Reporting Initiative, the Sustainable Development Framework of the ICMM, and International Cyanide Management Code for the gold mining industry.

While such adherence to international norms may not be perfect, it indicates a commitment to principles and standards, and serves as an example.

# Governance

**STANDING GUARD**

**Security personnel man the entrance to former Mayor Oscar Ugarte Salazar's office in San Marcos, Peru.**

RECOMMENDATIONS

## Governance/Public Management/Social Policies

The resource bonanza has brought a flood of resources to local governments, which are often ill-prepared managerially and administratively to handle the fiscal and policymaking responsibilities that come with them. Many of these governments are on the front lines of state programs to reduce poverty and address social conflict in some of the poorest, most marginalized regions. In all three countries, stories of local government mismanagement and corruption were legion, though in Peru's hyper-decentralized federal system they were particularly rife.

For the extraction companies this presents a particular dilemma as they watch their tax and royalty payments frittered away by local governments. At the same time, they often bear the brunt of public frustration over unmet socioeconomic needs. Indeed, the lack of effective, transparent governance at the local level that can identify priorities and direct resources to social policies remains one of the critical—and knottiest—problems facing the natural resource extraction sector today.

**National governments need to set clearer priorities for social policy and investment at the local level.** While respecting the policy prerogatives of sub-national public offices, national governments need to better articulate national goals in socioeconomic development—recognizing ultimately that these are national priorities. In the case of Peru, this should also include changes to legislation that discourages investments in key operating costs and instead favors public infrastructure investment.

**Improve capacity of local officials.** In the case of Peru, this should mean the creation of a local civil service that can maintain institutional knowledge and policy consistency across elected governments. In Colombia and Chile, training and technical assistance in key areas will also help ensure resources are better directed and projects evaluated.

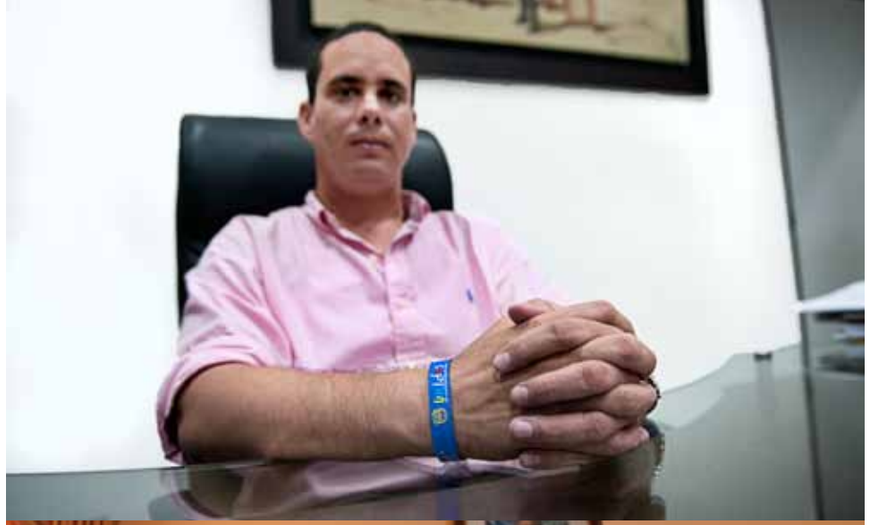
**Companies can do a better job of tracking the investment of public resources at the local level.** Currently, extractive companies recognize the problem, but because of fear of retribution, do little to address it. Instead they prefer to support their own projects directly in parallel with the local government. While their position is understandable, social policy and development are public responsibilities, and continued mismanagement will only breed more resentment of the companies. In this regard, companies should support NGOs—such as Revenue Watch—that monitor the policies and spending of sub-national governments and inform the public.

**Ensure more equitable investment of public resources across the areas where natural resource extraction takes place.** A disproportionate share of the resources that pass to subnational governments are often invested in the semi-urban provincial capitals—leaving the rural areas unattended and unable to develop accordingly.

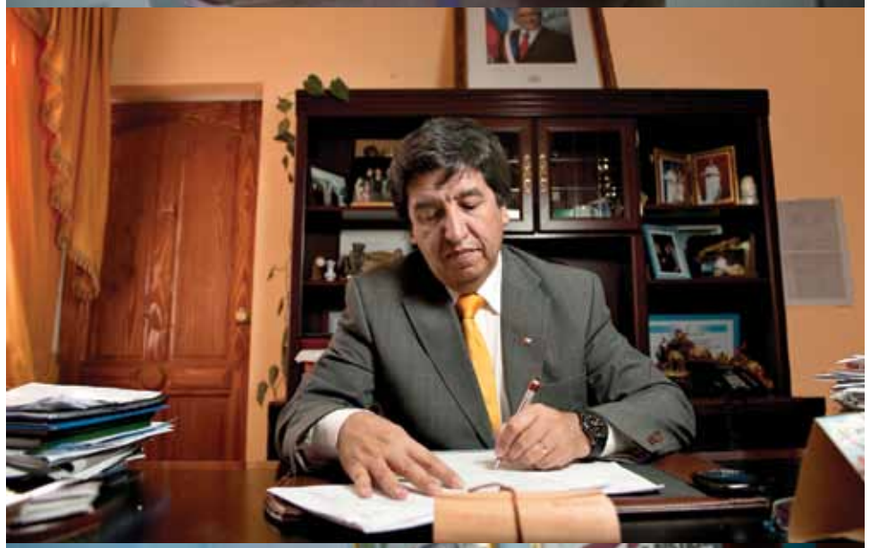
**"We are a region rich in minerals, which has influenced the development of our province immensely due to the resources we have received from royalties."**

—Juan Francisco Gómez Cerchar, Department of La Guajira, Colombia

LA GUAJIRA, COLOMBIA
Juan Francisco Gómez Cerchar, governor of La Guajira, at Cerrejón's Patilla resettlement community.



URIBIA, COLOMBIA
Mayor of Uribia Abel José Giacometto Rominaya expressed concerns over the high levels of poverty faced by his community. He wears a blue bracelet representing *Unidos por la Prosperidad de Todos* (United for the Prosperity of All) to remind himself of the cause.



**"When the mine first came to Pica, there were high expectations for work and a better quality of life. But after all this time, the mine hasn't developed anything substantial in our community."**

—Iván Infante, Municipality of Pica, Chile

PICA, CHILE
Pica's former Mayor Iván Infante was adamant that Collahausi has not invested in the community or cooperated with the city government.


SAN MARCOS, PERU
San Marcos Mayor Oscar Ugarte Salazar was ousted in September 2012 after revelations that he hired family members.

# Environment

**A TREE GROWS IN CERREJÓN**
Cerrejón's Land Rehabilitation program in Colombia incorporates all aspects of local biodiversity.

**THE DANGERS OF THE JOB**
One of the many graves near an informal coal mine on the side of the road in Peru.

RECOMMENDATIONS

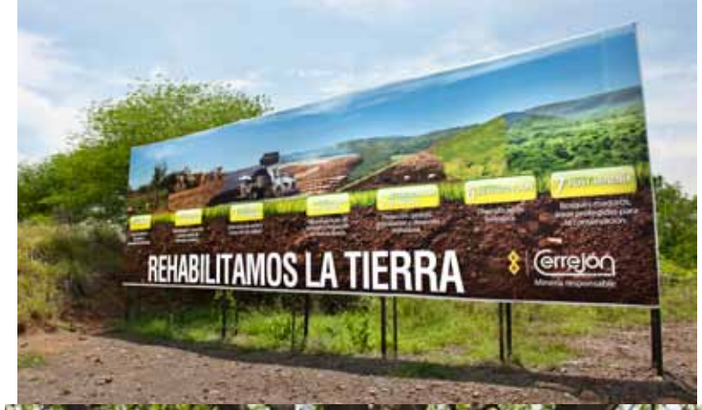
## Environment

Even with industries' goodwill with regard to community development, environmental contamination is still a source of major concern among watchdogs and community members. Under the best of circumstances, mining exploration can pose a variety of dangers to the environment: water contamination; air pollution; devastated agriculture; and major catastrophes that affect the health of entire communities located close to mining operations.

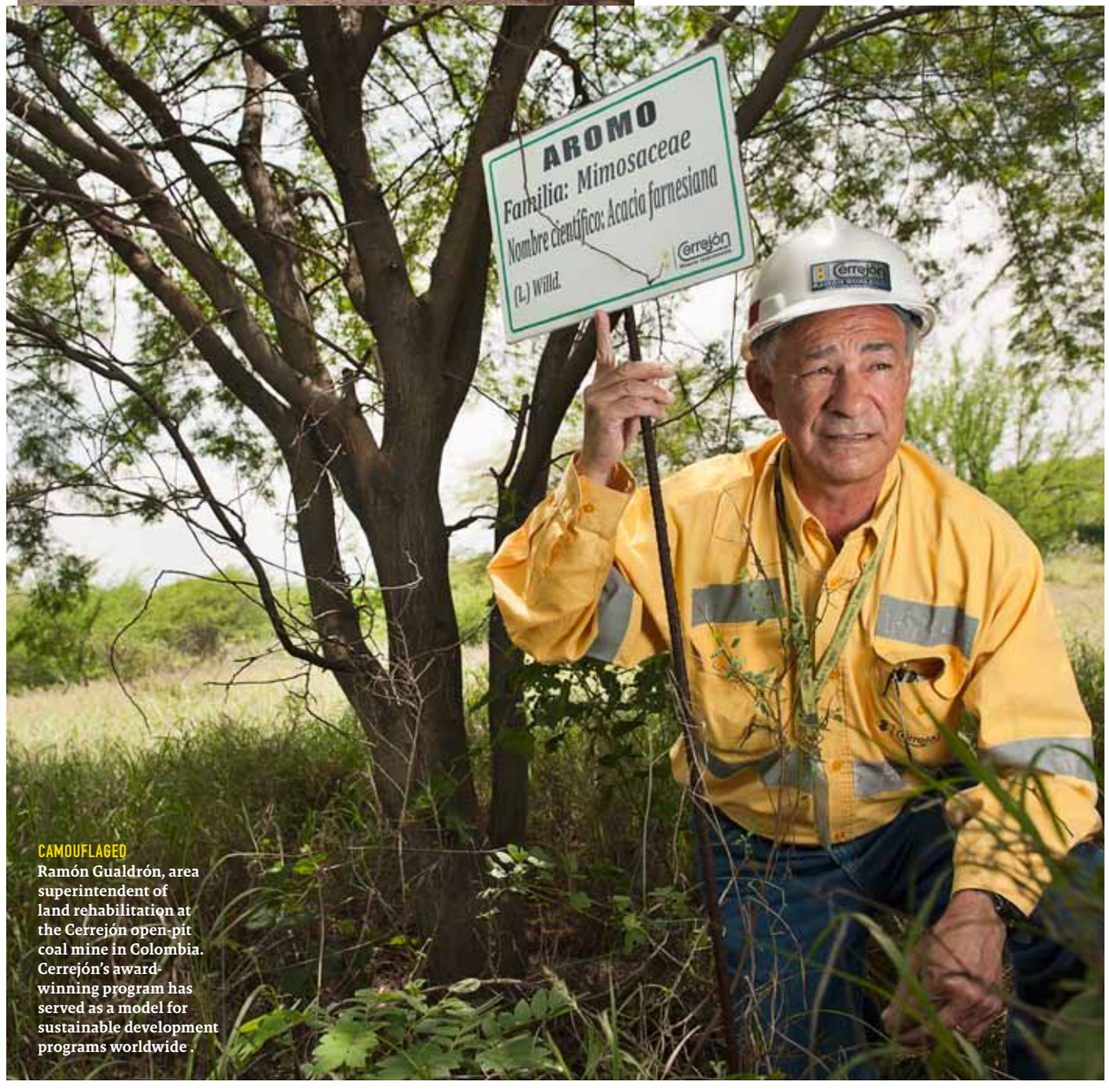
**Strengthen government agencies and ministries charged with environmental issues.** In all three case-study countries, environmental ministries and offices are still a relatively new phenomena with often weak enforcement powers. For example, since its creation four years ago, Peru's *Organismo de Evaluación y Fiscalización Ambiental* (Organization of Environmental Evaluation and Oversight) is nominally intended to enforce environmental standards, but lacks authority to address concerns. These weaknesses—across all three countries—stem from gaps in laws and regulations, low levels of capacity and authority within environmental offices and ministries, and fragmented lines of responsibility.

**Governments and companies must also expand their impact assessments to areas beyond the immediate area of the project site.** Concerns—some legitimate, others less so—can emerge downstream or downwind of the extraction site during the life of the project. This is also true of aquifers around the site, which may share the same water table as the extraction site. In all of these cases, governments and companies need to use a wider lens in evaluating environmental impact.

**Extractive firms should also be cognizant of their energy consumption, and seek innovative ways to reduce it.** A large-scale mining operation requires a huge amount of electrical voltage, raising the question of how mining companies can invest in renewable energy in the future. As part of this, companies' environmental officers should attempt to include energy usage as part of the companies' carbon footprint and seek ways to use renewables to provide their energy needs.

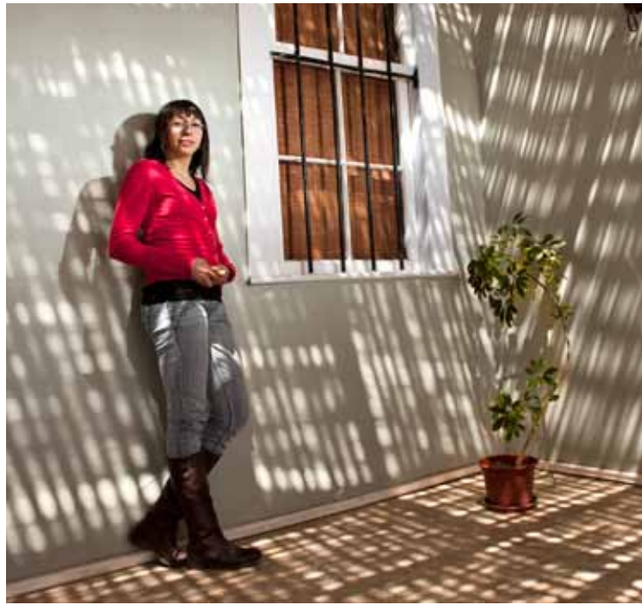



"Over the past 25 years, we have taken exploited land and transformed it into vibrant ecosystems. As of August 2012, there were 3,104 hectares of land in rehabilitation and over 2,500 of these now contain forest-like vegetation."
—Ramón Gualdrón, Cerrejón, Colombia



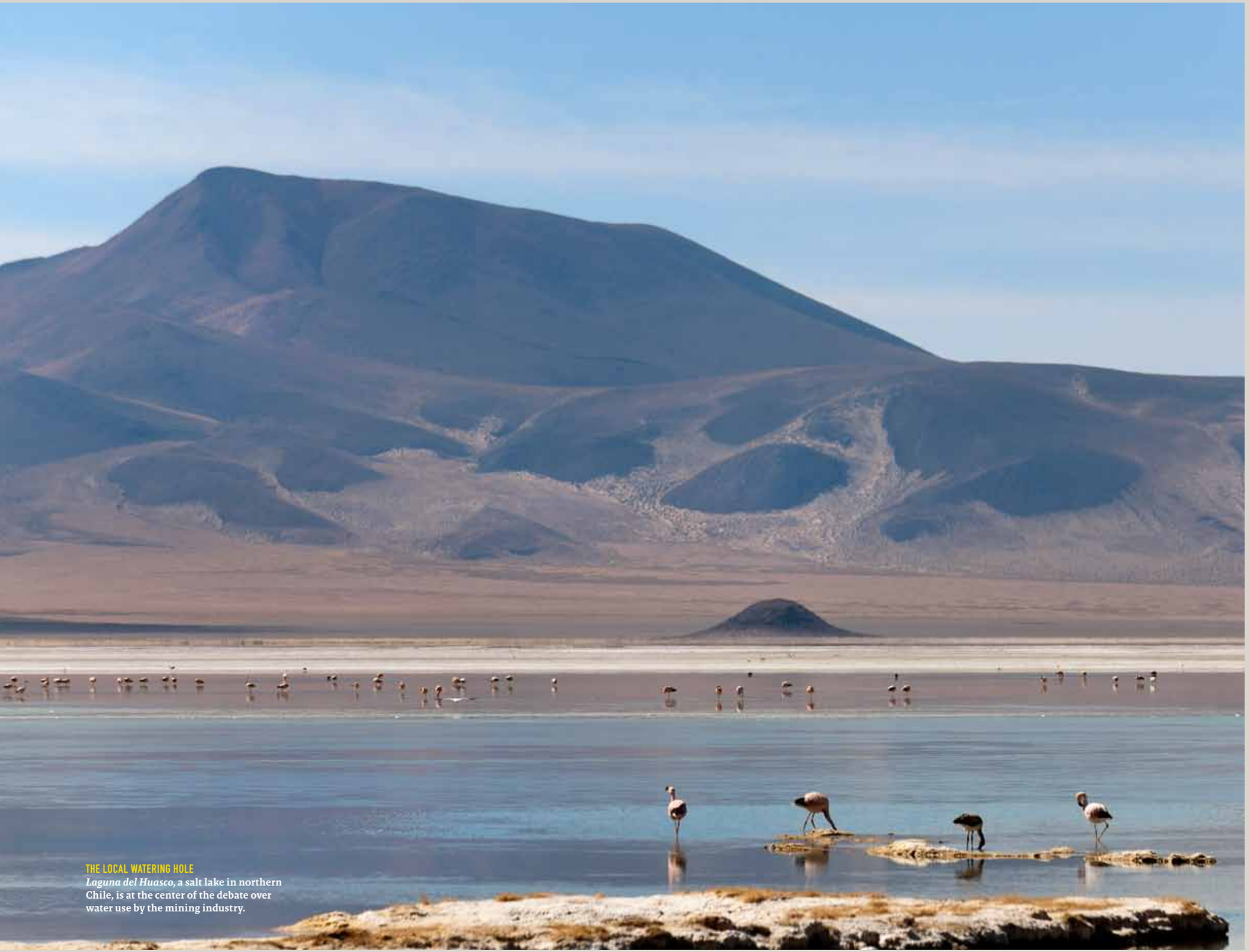

CAMOUFLAGED
Ramón Gualdrón, area superintendent of land rehabilitation at the Cerrejón open-pit coal mine in Colombia. Cerrejón's award-winning program has served as a model for sustainable development programs worldwide .

"It's important to debunk myths about how these mines are negatively affecting local ecosystems."
—Carolina Vera, *Centro de Estudios de Humedales*, Chile



BUTTING HEADS
Environmental researcher Carolina Vera (above) and Indigenous leader Catalina Cortes hold conflicting views on Collahuasi's use of water from the Laguna del Huasco salt lake.

"The mining companies fund studies that say there's no impact, and we don't have the resources to refute them. But still we see the lake drying."
—Catalina Cortes, *Area de Desarrollo Indígena Jiwasa Oraje*, Chile



THE LOCAL WATERING HOLE
***Laguna del Huasco*, a salt lake in northern Chile, is at the center of the debate over water use by the mining industry.**

THE ENVIRONMENT: WATER

## An Oasis In The Desert

The mining industry's impact on water sources is often a point of conflict. In the case of the Collahuasi copper mine in northern Chile, the body of water in question is the *Laguna del Huasco*—a salt lake 3,800 meters (12,400 feet) above sea level. Carolina Vera (previous spread, top right) of the *Centro de Estudios de Humedales* research center in Pica, says that water from the lake is not being syphoned off for Collahuasi's operations—and she has the scientific studies to prove it. As director of community outreach and education, Vera uses the center's research—which is funded by Collahuasi through 2014—to organize information sessions in the community and dispel what she calls the "myth" of water abuse. But Catalina Sanchez (previous spread, bottom right), an Indigenous leader from the *Area de Desarrollo Indígena Jiwasa Oraje*, is not buying it. Sanchez says she has witnessed a consistent drop in *Laguna del Huasco*'s water levels and believes Collahuasi is responsible for draining it, albeit indirectly. Whether through scientific analysis or eyewitness accounts, water and mining will continue to be sources of contention in northern Chile—and across the region.

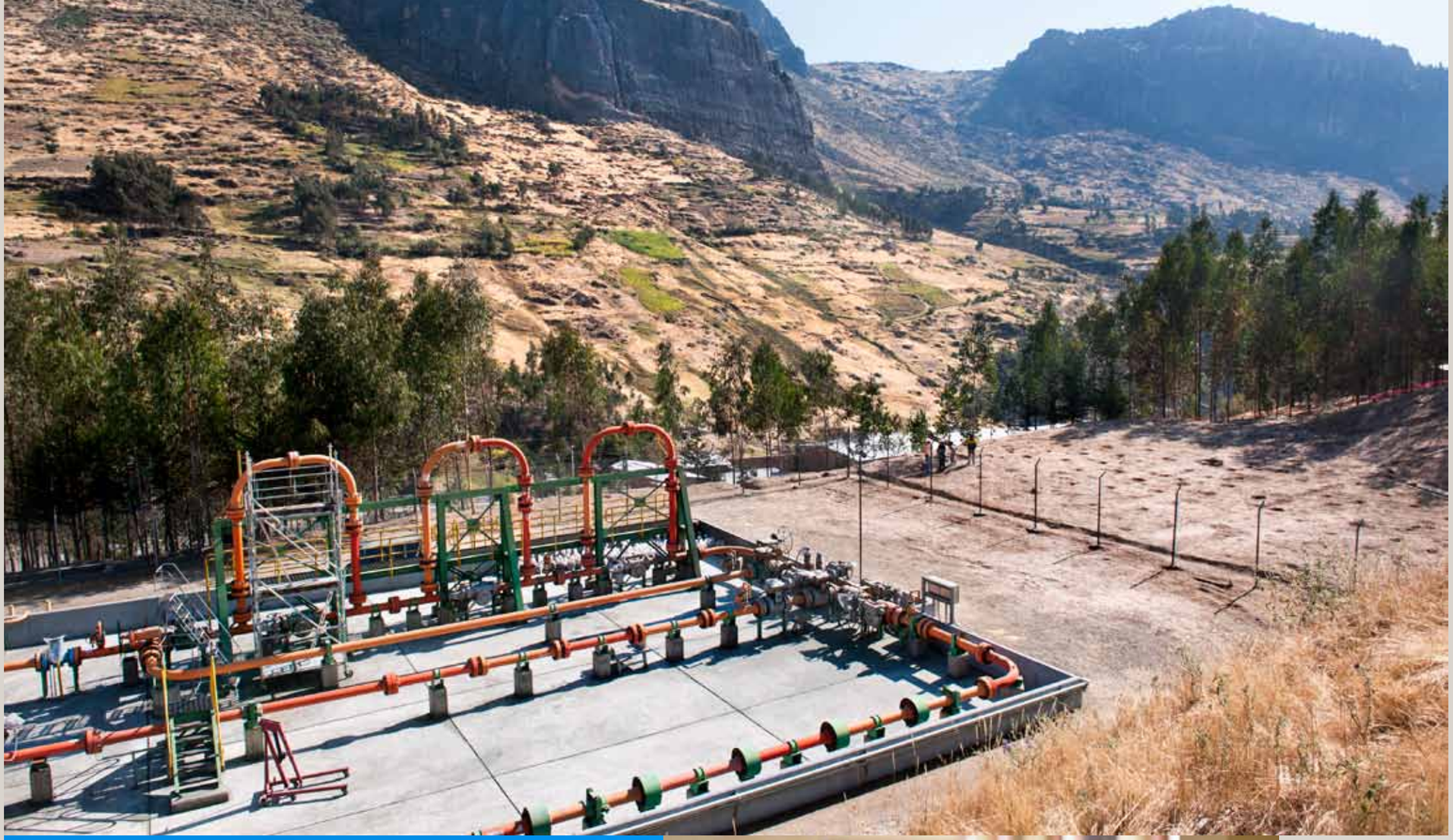
THE ENVIRONMENT

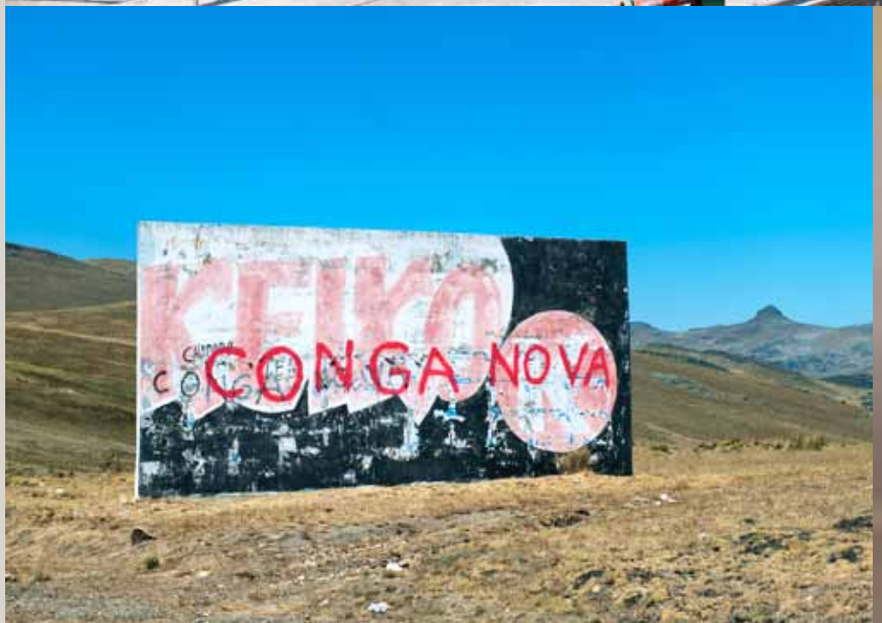
## Santa Rosa Spill

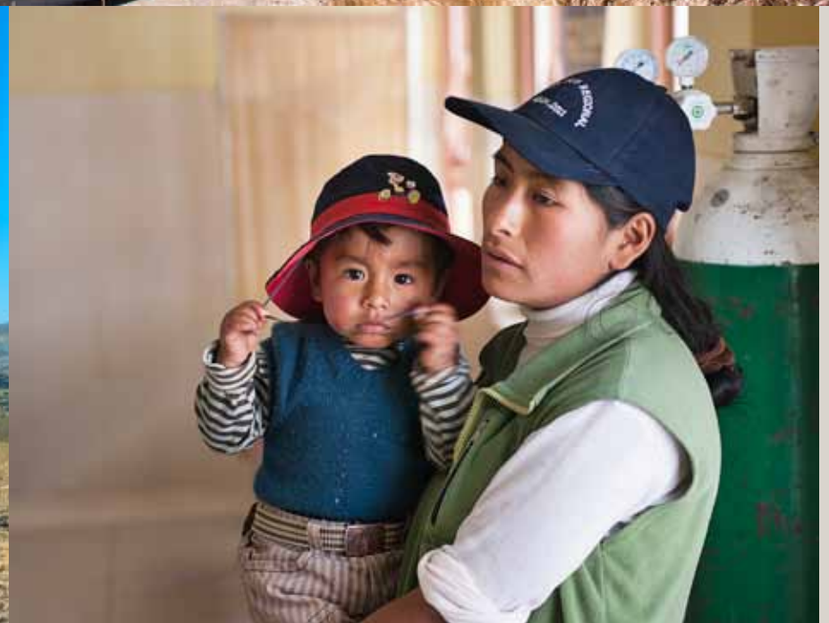
For years, Antamina mine in Peru had been considered a good citizen of the community around its mining site in Ancash and a responsible environmental steward. It invests millions in local development and community projects, employs 5,300 workers and contractors in the mine—many from the surrounding area—has developed techniques to reduce water use by recycling, and restores the land and its flora after its use.

But in July 2012, a toxic copper slurry spill occurred in the town of Santa Rosa along the pipeline that carries Antamina's product to a port on the coast. Antamina was quick to respond in cleaning up the damage and providing health care. Nevertheless, the combination of processed copper and chemicals that burst through the pipeline sickened over 200 locals.

Such disasters should not be treated as inevitable or unfortunate byproducts of mining operations; it is the responsibility of the government to strengthen environmental oversight, implement penalties for companies that do not rehabilitate exploited land, and both establish and enforce rigorous standards for the proper disposal of toxic chemicals.





MINING'S UNINTENDED CONSEQUENCES

**Top: Eucalyptus trees burned to their roots serve as a reminder of the damage caused by the Antamina spill.**

**Bottom left: A roadside panel en route to Santa Rosa reads "Conga won't happen" in protest of a multibillion-dollar project in Cajamarca.**

**Bottom right: A woman waits with her child at a clinic for the results of her toxin levels after the Antamina spill. The clinic is operated with Antamina's funds.**

**“On the day of the spill, everybody went out to help clean with our hands and with stones. They didn’t give us gloves or boots; we just had to go out and clean.”**

**—Libia Maguina Carrion, local resident of Santa Rosa, Peru**

**IN THE PATH**
A mother and her three children sit in the Antamina spill zone in the community of Santa Rosa, Peru.