With the stone debris of the mine in the background, the approach to Antamina with its green facilities dotting the mountainside.
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.
Cases, Comparisons and Conclusions

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: Aracoto Forestry, Caserones, Collahuasi, and Los Pelambres in Chile; Caimisea, Compañía Minera Antamina, Tintaya, and Toromocho in Peru; and AngloGold Ashanti, 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 America’s 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 $353 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 tried 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 the 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 30 percent and 40 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 30 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 Caimisea (Peru), Cerrejón and Ango-Gold Ashanti (Colombia), and Caserones and Collahuasi (Chile), invested in local enterprises engaged in activities such as sheep farming, microenterprise, agriculture, and tourism (including a dolphin 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 Inversión para la Competitividad (FIC) and Colombia’s earmarking of 10 percent of royalty payments for a national research and development program are aimed at converting windfall profits from commodities into a more diversified and robust 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 representations and input from communities through direct and regular discussions—in other words, consulta previa 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 Rio Rancheria 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 dialogues with local communities. 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—one 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.
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.
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.

“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

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CONSULTATION
Rio Rancheria

“T’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.”
—Marqueta 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 Cerrejón’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 Rancheria.

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 Rancheria is going to disappear.”
—Felipe Rodríguez, Civic Committee in Defense of the Río Rancheria, Colombia
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.
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 spill-over effects. Governments must leverage tax and royalty resources to spark innovation and businesses. 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.

**Value-Added Economic Development**

“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 Agropecuarios de Pica, Chile

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.
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 Ucayali 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 Consor- tium, which operate the Petambres 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

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

Natural resource extraction
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 socio-economic 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.

RECOMMENDATIONS
Governance/Public Management/Social Policies

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Environment

Cerrojón’s Land Rehabilitation program in Colombia incorporates all aspects of local biodiversity.

One of the many graves near an informal coal mine on the side of the road in Peru.
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 Gualdron, Cerrejón, Colombia

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

“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 Indigena 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 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 Indigena 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.
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 healthcare. 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.
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 Magaña Carrion, local resident of Santa Rosa, Peru