Documenting Accountability: Environmental Impact Assessment in a Peruvian Mining Project

Over the past two decades, practices of accountability have acquired a new presence in neoliberal governance and resource extraction in Peru. In the context of mining activity, accountability generally refers to public mechanisms of evaluation and record-keeping through which citizens can make corporations and governments answerable to them. However, I argue that these practices often prioritize mining interests by enabling corporations to define and ultimately enforce standards of performance. This article focuses on a key process in the making of social and environmental accountability in mining projects: Environmental Impact Assessment (EIA). I show that the form of the documents produced for the EIA (i.e., their required components, as established in legal frameworks) and the process of making them public (participatory meetings and public forums) can take precedence over their content. I examine two aspects of the EIA that make this possible. First, the risks that are identified in the EIA are those that a company deems to be technically manageable based on the solutions and interventions that it has to offer. Second, the participatory process of the EIA creates collaborative relationships among state agents, corporations, NGOs, and communities that strengthen the EIA’s claims of accountability while circumscribing the spaces for opposition to a proposed project.

Early one morning in April, 2006, a group of protesters gathered outside an auditorium in the city of Cajamarca to express their opposition to the expansion of the country’s largest gold mine. A large contingent of police officers guarded the building, where government officials, company representatives, mine workers, engineers, and other attendees were taking part in a public hearing to evaluate the proposed project. Outside the auditorium, tensions escalated as protesters (many of them campesinos, or peasant farmers, from nearby communities) considered whether their most effective form of resistance was to enter the auditorium and voice their opposition in the meeting, or to refuse to participate in a process they felt would inevitably lead to the project’s approval. This event was one of many protests in response to mining activity that have emerged in Cajamarca and other parts of the country in the past two decades. Popularly referred to as conflictos mineros (mining conflicts), these protests coincided with an intensification of resource extraction following neoliberal economic reforms in the early 1990s that sought to stimulate foreign private investment in mining and other sectors. These reforms, along with new technologies in the mining industry,
led to an expansion of extractive activity into areas formerly used for agriculture and farming.2

In the media and academic analyses, the proliferation of conflicts over resource extraction in Peru is often attributed to an “absent” or “weak” state (see for example, la Negra 2008; Alayza 2007; de Echave 2005; Defensoría del Pueblo 2005). Corporations, too, blame the state for its inability to resolve the conflicts or control its insurgent populations. An emphasis on the absence or weakness of the state, however, glosses over the complex ways in which the state and its legal structures operate in controversies over mining activity. As Mitchell (1991) has suggested, the state cannot be analyzed as a fixed, monolithic entity that stands apart from society; rather, it is the sum of structural “effects” that are continuously enacted (through the establishment of boundaries, policing, documentation, or other social practices) in ways that make the state seem both powerful and elusive. Although mining conflicts in Peru are often analyzed in terms of the state’s absence, I propose to take a different approach by examining how the state’s regulatory structures facilitate resource extraction in the context of neoliberal governance.

In the 1990s, neoliberal restructuring in Peru was aimed at liberalizing trade, privatizing the public sector, and deregulating the economy. Without suggesting that neoliberalism is a single, overarching, or uncontested political project,3 I contend that these economic reforms brought with them new knowledge practices, including mechanisms of accountability that have become central in state and corporate rhetoric on mining activity. Couched in a language of transparency, environmental management, and democratic participation, these practices are both pervasive and difficult to criticize (Strathern 2000a; see also Paley 2002, 2008; Murray Li 2007; Coles 2007). In this article, I will examine a key process in the making of social and environmental accountability in mining projects: Environmental Impact Assessment (EIA).4 According to the International Association for Impact Assessment, the EIA is a process of “identifying, predicting, evaluating, and mitigating the biophysical, social, and other effects of development proposals” (IAIA 1999). I will focus on the EIA for the “Yanacocha West Supplementary Project” (or PSYO, its Spanish acronym). This project would expand the gold mine operated by Minera Yanacocha, a joint venture of the U.S.-based Newmont Gold Company (which holds 51.35% of shares), the Peruvian company Buenaventura (with 43.65% of shares), and the International Finance Corporation, an arm of the World Bank (which holds the remaining 5% of shares).

In conflicts over mining, people often demand public mechanisms of evaluation and record-keeping that they can use to hold corporations and governments accountable to citizens. However, I argue that practices of accountability prioritize mining interests, and enable corporations to define the standards of performance that governments will use to establish compliance. I show that the form of the documents produced for the EIA (i.e., their required components, as established in legal frameworks) and the process of making them public (participatory meetings and public forums) can take precedence over their content. Two aspects of the EIA make this possible. First, the risks that are identified in the EIA are those that a company deems to be technically
manageable based on the kinds of solutions and interventions that the company has to offer. Second, the participatory process of the EIA creates collaborative relationships among state agents, corporations, NGOs, and communities. These forms of collaboration strengthen the EIA’s claims of accountability while circumscribing the spaces for opposition to a proposed project.

“Accountability” relates to but differs from the broader notion of “responsibility,” a term that is commonly used in discussions about mining (i.e., Corporate Social Responsibility). Both terms are generally translated into Spanish as responsabilidad, though accountability could be more literally translated as rendición de cuentas, meaning a “rendering of accounts.” In this article I maintain a distinction between the two terms: “accountability” refers to a corporation’s obligation to answer to citizens and the state and provide evidence to show that certain outcomes have been achieved. By contrast, “responsibility” can refer to initiatives that do not necessarily require rendering accounts to a specific entity: for example, a company can claim to act responsibly by implementing voluntary social and environmental programs of its own design but not be held accountable for their outcomes. In other cases, corporate accountability can be transformed into a sense of shared responsibility as citizens, state institutions, and NGOs are incorporated into participatory forms of environmental monitoring, management, and audit.

My aim in this paper is not to point out the weaknesses of the EIA or to suggest that the state and corporations have failed to address the public’s concerns. Rather, I am interested precisely in those mechanisms of “good governance” that are being implemented in response to public pressure and in accordance with international guidelines aimed at transforming the state into an entity that is efficient, transparent, and accountable to the public (Anders 2008). Undoubtedly, the participatory component of the EIA has opened up the document to public scrutiny, and in some cases this has enabled activists to draw attention to their concerns. However, contesting the approval of an EIA has proved to be a difficult endeavor. To date, only one major mining project at the EIA stage has ever been halted due to public opposition: the Tambo-grande project in Northern Peru, in 2004. In this case, a North American hydrologist hired by an international NGO produced a report criticizing the mining company’s EIA. However, the Ministry of Energy and Mines cited the company’s inability to meet financial (not environmental) requirements as the reason for its failure.

In the next section of this article, I analyze the proceedings of a public hearing to show how the EIA defines the potential risks of mining activity. While the EIA is intended to guarantee environmental accountability, I suggest that what is contained (and not contained) in the EIA is defined by mining interests. I then turn to a workshop that took place 6 months before the public hearing to discuss the EIA’s preliminary findings and respond to questions from the public. I show that the EIA’s emphasis on “participation” can in fact limit public critique and disqualify opposition to mining activity. In the final part of the paper, I return to the public hearing to consider how techniques of accountability have led some activists to step outside the official document by adopting political strategies that resort to nonparticipation and a refusal to be informed.
Accountability and the Management of Risk

On the day that the EIA was to be presented in the city of Cajamarca, people arrived at the Ollanta Conference Center well before 7 a.m. and began lining up in front of the entrance. A group of about 20 campesinos from nearby communities had spent the night outside the auditorium where EIA public hearing was to take place, hoping to voice their opposition to a project they believed would further impact the region’s water resources. A team of police officers in riot gear soon arrived, and positioned themselves in front of the auditorium’s imposing wooden doors. The group of protesters grew as others arrived to join them, but they were vastly outnumbered by those forming long queues on both sides of the auditorium doors: Yanacocha engineers, mine workers, employees, and others that the protesters considered to be “allies” of the mining company.

Though delayed by more than an hour, the public hearing got underway even as people continued to demonstrate outside the building. Inside the auditorium, representatives of Minera Yanacocha were present, along with consultants from MWH (Montgomery Watson Harza), the firm that the company had selected, hired, and paid to conduct the studies that formed part of the EIA. Like mining itself, environmental consulting is also a transnational operation: MWH is based in the United States, but according to its website, it has over 6,000 specialists with a variety of disciplinary backgrounds working in 36 countries. Environmental consulting has grown alongside the mining industry, creating new professions and transforming existing ones (including those in the fields of environmental science, anthropology and sociology) as professionals are increasingly drawn to mining consultancy work.

In the auditorium, officials from the Ministry of Energy and Mines (MEM) and municipal and regional government officials made their way to the head tables set up on the stage. The presentation about to take place was the second of two public hearings, and was intended for Cajamarca’s urban residents. Another hearing had taken place two days earlier in a peasant community in the area that would be affected by the proposed project, and was also marred by protests. Presenting the EIA in the district that would be affected by the project was a recent modification to EIA legislation, since before 2003, public hearings were only held in the capital city of Lima. Because I chose to remain outside the auditorium with the protestors, the account that appears below is my translation and partial transcription from a videotape of the proceedings.

The moderator welcomed the attendees, and stressed the importance of this participatory aspect of the EIA. Participation and democracy are learned through practice, he stated, as he explained that the presentation of the EIA would be followed by oral and written rounds of questions. The moderator pointed out that the objective of these meetings was not simply to answer people’s questions, but to give people an opportunity to “improve the quality of their questions, allowing them to better participate in the decision-making process.” All questions would be recorded and addressed by the mining company in the final document submitted to the MEM, thus becoming part of the EIA dossier (expediente). Once the dossier had been submitted, the public would have 30 days in which to make observations. The company would
then have a chance to respond to those observations, and with all of this information, the Ministry would make its deliberation.

The hearing began with an overview of the EIA and legislative frameworks pertaining to mining activity. The EIA was first established in the United States in 1969, and has since been implemented in many countries around the world. Indeed, the EIA is a global tool of accountability, having been adopted by multilateral development banks, bilateral donor agencies, and United Nations agencies. Two key events contributed to the international dissemination of the EIA: in 1989, EIAs became a requirement for all World Bank-financed projects, and in 1992, the Earth Summit resulted in a series of international laws and policies that encouraged signatories to undertake the EIA as a national instrument (Sadler 1996). The transnational reach of these practices of accountability means that they are not restricted to a particular part of the world or to a single set of institutions (Strathern 2000a; Power 1994).

In Peru, the EIA came into existence in 1990, when the Peruvian government implemented legal and economic reforms to attract foreign investment. In particular, the Law for the Promotion of Investment in the Mining Sector guaranteed a series of benefits for mining investors (fixed tax and exchange rates, freedom of capital movement, etc.). As part of the conditions set by international financial institutions that backed these reforms, the government was also required to introduce new environmental regulations including the EIA, which was put under the jurisdiction of the Ministry of Energy and Mines (Echave and Torres 2005).

Moving on to the specific objectives of the EIA, a woman representing the MEM’s Environmental Affairs Division explained:

What an EIA seeks to do is to identify what the place where the investment project would be developed is like. The baseline study is [...] a description of this particular place: flora, fauna, socioeconomic activities, all the physical characteristics of the place. . . This description of the project [will serve to] identify what would be the positive and negative impacts or effects that the project could have and then see what technical measures are necessary to correct or prevent these impacts. [Partial transcript from videotape]

The studies conducted for this EIA resulted in a document comprising a 530-page “Technical Component” and a 130-page “Social Component,” as well as numerous appendices with additional maps, figures, survey results, interview guides, and other data.

One of the main functions of an EIA, then, is to map out the terrain. In a literal sense, this involves creating maps that indicate the location of water springs, canals, monitoring stations, and archeological sites. Other maps indicate soil types and land use patterns, air quality, underground and surface water flows, and other features of the landscape. These maps (more than fifty in total) are based on studies carried out by the mining company and its consultants. Though they are produced for and become property of Minera Yanacocha, the information acquired through mapping, measuring, and classifying elements of the landscape contributes to the sense of
technical rigor that the EIA is intended to convey, allowing it to circulate as an “objective” source of scientific knowledge (cf. Latour 1988, 1999).

In addition to mapping the physical terrain, baseline studies conducted for the EIA provide an inventory of the area’s natural resources and local communities, and establish the characteristics of an area before a mining project begins. Social baseline studies are an inventory of the communities within the project’s area of influence and their socio-economic features: medical posts, educational institutions, common illnesses, availability of basic services, etc. Biological baseline studies enumerate animal and plant species, and identify sensitive habitats and vulnerable or endangered species. Water baseline studies establish flow levels in irrigation canals and streams, subterranean water levels (using modeling technology), and the presence of heavy minerals in the water. This information can be crucially important in disputes with local communities. For example, to counter claims that mining operations are contaminating water sources, the company can turn to the baseline studies to argue that concentrations of copper, iron, lead, and other trace minerals are not the effect of the mine but are naturally occurring, since they were present before the development of the mining project. Creating this inventory makes the socio-natural landscape quantifiable and intelligible in scientific terms, and thus subject to mechanisms of environmental audit (e.g., periodic water monitoring) that contribute to an image of corporate accountability and stringent government control.

The second function of an EIA is to identify the “impacts” that an activity will produce. The term impact has become ubiquitous in discussions on the environment, but it has acquired a specific meaning in the context of Minera Yanacocha’s mining operations. In public presentations and environmental educational materials, the mine’s environmental specialists differentiate between “contamination” and “impacts.” They point out that every human activity generates an impact; by contrast, they define contamination as a deleterious, critical, and irreversible effect on the environment:

The word “contamination” tends to be confused with the concept “impact.” The latter is a change in nature provoked by any type of human activity, which, if it is not significant, can be absorbed by nature. It is possible to speak of contamination when this impact becomes significant or critical, the point in which nature itself cannot cope with the changes produced around it and this has a negative repercussion on the established “natural order.” (Minera Yanacocha 2007:4; translation by the author)

From this perspective, the changes produced by mining activity are not considered “contamination,” but “manageable risks”; and for every potential risk described in the EIA, there is a mitigation plan in place.

In the Technical Component of the EIA, the “potential impacts” that are identified include things such as “Alteration of habitat for flora and fauna,” “Changes in subterranean water levels,” “Change in the quality of groundwater,” and “Soil erosion” (Minera Yanacocha 2006). Each of these impacts is classified as being of “major,” “moderate,” or “minor” importance (or “without importance”). This designation is
based on a set of criteria including: probability, magnitude, duration, and reversibility. None of the fifty-seven potential impacts for the PYSO are classified as being of “major” importance, while only eight are considered to be of “moderate” importance. An example might help to illustrate how “potential impacts” are made visible and neutralized through the EIA.

For peasant farmers who rely on dairy farming and small-scale agriculture for their subsistence, the mine’s effects on water quantity are a primary concern. They argue that mining activity reduces flow levels in their canals and the water springs that feed them. In the Technical Component of the EIA, “Change in water flows” is identified as a “probable” impact, since in order to mine safely, groundwater must be pumped from beneath the mining pits to lower the water table and prevent flooding. Lowering the water table reduces the amount of groundwater that discharges into surface water sources such as springs, marshes, and streams (Minera Yanacocha 2006:385). However, this potential impact is classified as “reversible,” since the company promises to return the same volume of water that it pumped out of the ground to the affected water basin. This water would come from the mine’s treatment plant, and would have to meet the legally established water quality standards in order to be released into the environment. Since “returning” the water makes this impact “reversible,” it is classified as being of “minor significance.”

As this example shows, the EIA is an instrument through which risks become visible and are introduced to the public. However, the risks that are disclosed in the document are those that engineers deem to be technically manageable. As Beck (1992:29) points out with reference to nuclear reactors, safety studies “restrict themselves to the estimation of certain *quantifiable* risks on the basis of *probable* accidents. The dimensions of the hazard are limited from the very beginning to *technical manageability.*” At the public hearing, the environmental consultant presenting the EIA assured the audience that if an irrigation canal’s flow was to decrease, the company would pump water from its treatment plant and return the flow to previous levels (as defined by fixed, uncontestable measurements recorded in the baseline studies). Another mitigation plan he presented was the construction of the San Jose reservoir (made out of an old pit no longer being mined) that would accumulate water during the rainy season in order to make it available during the dry season.

By linking each risk to the availability of a mitigation plan, the EIA’s way of diagnosing potential problems is contingent on the kinds of solutions and interventions that experts have to offer (Murray Li 2007; see also Ferguson 1990). But as critics have pointed out, the EIA conceals other risks that are more difficult to ascertain, quantify, and control. *Campesinos* complain that water springs they used to rely on have disappeared, and that canal flows have not returned to their previous levels. Other critics worry about the long-term effects of the mine’s cyanide leach pads and waste deposits, and wonder how the company will continue to chemically treat the water and pump it into the canals “in perpetuity” (as it promises to do in the EIA) once the mine closes.

The EIA is intended to guarantee a company’s environmental accountability to local communities. However, by entrusting companies to create an inventory of the
socio-natural landscape, establish the “baseline” characteristics of the site, and link each potential risk to a mitigation plan, the form of the EIA implicitly facilitates a project’s eventual approval. Furthermore, as one of the few public sources of technical, ecological, and demographic data, company-sponsored studies often became a definitive source of technical information about a region. EIAs and related studies conducted for one project became references for future projects, thus reinforcing the information that becomes part of a company’s vast library of publications. These libraries are “open” and accessible to the public, as Minera Yanacocha’s “Documentation Center” (CENDOC), located in Cajamarca’s city center, demonstrates. The CENDOC, frequented by schoolchildren, high school students, and the general public, hosts mining-related and academic talks, holds a collection of books, EIA documents, reports, and magazines, and has computers to access the company’s digital library. These materials are also used by academic researchers, journalists, and NGOs.

The CENDOC and other strategies for disseminating information were part of the company’s efforts to make mining operations more transparent. At the same time, these practices enable the corporation to define and ultimately enforce the terms of accountability. The EIA sets the parameters that the state’s regulatory institutions will use to evaluate environmental performance, which will be measured against data from studies the mining company funds and oversees. The EIA’s explicit function of establishing an environmental management plan “shapes public perception of the very problems for which it is the solution” (Power 1994:7). In the EIA, science becomes an instrument that allows corporations to create an image of “clean” modern mining and establish the standards of “good practice” in the industry, all while claiming neutrality.

By making explicit the ways in which a mining company will manage the risks revealed in the document, the EIA produces the conditions necessary for corporations to check themselves—in terms that they themselves create. This is an effect of neoliberal governance, where the state’s concern is not to impose day-to-day direction, but to ensure internal controls, in the form of monitoring techniques, are in place (Strathern 2000a:4). Practices of accountability, from public hearings to participatory studies and the dissemination of information, must be made explicit in order to allow people (and in this case, corporations) to monitor themselves. It is not that the state is absent, since its intervention has already taken place “in the social adjustment which corporations, public bodies and individuals have already made to those self-checking practices now re-described as evidence of their accountability to the state” (Strathern 2000a:4).

The EIA serves as a self-regulatory regime that contributes to state legitimacy while limiting the regulatory responsibilities of its institutions (Szablowski 2007). Through participatory mechanisms like the public hearing, the role of ensuring compliance shifts from the state, to corporations, and eventually to communities and individuals who are called upon to monitor and safeguard “their” natural resources. The responsibility to care for the environment becomes a shared concern. Meanwhile, mining companies are able to shape the terms of accountability, leaving the state with the
“perfunctory role of checking indicators of performance” (Strathern 2000a) that the EIA helps define.

Collaboration in the Making of the EIA

In the hope of preventing the kinds of conflicts that mining activity had been generating, state institutions placed particular emphasis on public participation, and Minera Yanacocha made this a key aspect of its social and environmental programs. The participatory nature of the EIA was part of these larger efforts to incorporate public participation into corporate and state practices. A ministerial resolution from the MEM outlined the participatory requirements at each stage of the process: Prior to the elaboration of the EIA, the MEM was responsible for carrying out information sessions to inform citizens of their rights and obligations, environmental legislation, and technologies to be used in the proposed project. During the elaboration of the EIA, the project proponent were to inform the public of its progress, while the Regional office of the MEM were to inform about relevant legislative frameworks. After the EIA had been presented to the MEM, the project proponent had to inform the authorities and general public of the contents of the study. For the PSYO EIA, Minera Yanacocha organized 49 workshops (32 in the city and 17 in rural communities, involving a total of 1,676 participants) prior to the elaboration of the EIA. An additional 3,489 people participated in 67 participatory workshops during the elaboration of the EIA.

In October 2005, approximately six months before this EIA was completed and presented in the public hearing, I attended one of the workshops in which Minera Yanacocha presented its preliminary findings. This particular workshop was held in one of the city’s large hotels, and was intended for NGOs (including some of the mine’s strongest critics), educational institutions, governmental organizations in the city, and others that the company had invited. There were 42 people in attendance, and a team of about a dozen Yanacocha engineers were on hand to present the EIA and answer questions from the audience. The workshop began with a presentation by the newly appointed Regional Director of Energy and Mines, who spoke about the legal requirements for mining projects and highlighted new laws that had led to more stringent environmental standards. Visibly nervous, the Director admitted that he was not very articulate but was good with numbers. He proceeded to illustrate his points with a series of formulas, and commented on the state’s dependence on mining revenues. Though the Regional Director opened the event, the dominance of Minera Yanacocha’s team was evident—not only in the dynamics of the meeting, but in the contrast between the state’s representatives (local professionals) and the mine’s personnel (mostly from Lima, with one engineer from Canada, and thus of a higher status in Peru’s racialized socioeconomic hierarchy). Using PowerPoint slides, the team of engineers described new modeling technology to measure changes in groundwater levels and progress with water monitoring and baseline studies. But these explanations did not favorably impress the audience, which included a local priest who was also an NGO-leader and had gained notoriety for criticizing the mine’s social and environmental record. This audience member initiated the question-and-answer period with the following comment:
I understand that my participation here is for you to listen, to make notes, but what citizens and institutions might have to say is not in any way [legally] binding...You say that everything is within the permissible limits—so who is lying?...Just recently, results from the CAO [Compliance Advisor Ombudsman]9 water monitoring program were published showing that there are heavy metals in the water, and you have just said that there are no such problems... Our constitution guarantees the right to a healthy environment. How can you guarantee this, when at this moment we know that the water from various irrigation canals has either disappeared or is being contaminated?... If the Ministry has not been able to guarantee the quantity and quality of the water, how will you be able to do so with this new project? These problems will only deepen and intensify. If the norms don’t change, if the legislation doesn’t change, this project will not represent an opportunity for development, but an environmental threat. [Transcription from tape recorded by author at workshop]

An engineer from the mining company responded:

This is a space in which we need everyone to participate. Maybe the meeting is going to take us four hours in total, but that’s the idea. The only way to obtain participation is by conversing with everyone. With regard to the [water] study that was mentioned... This is the result of collective work that is being done. It’s very good that it was published. This opens up spaces where we can talk about these issues. The strange thing would be if nothing was published, what would be bad is if we didn’t have that access to information... But in this [water study] perhaps there are many points that need clarification: One important point is that the problems cited were isolated problems, and the month in which they occurred is specified. It would have been good to note that these problems were resolved immediately.... But what’s redeemable about this study is that the information is being given out, it’s not being hidden. Now, is this in Yanacocha’s best interest or not? That doesn’t really matter, what matters is that the information is being published, and it’s allowing us to resolve problems that might exist. [Transcription from tape recorded by author at workshop]

The comment from the audience member was a direct critique of the EIA’s participatory process, since it implied that company and state representatives were there to “listen and make notes,” but the public’s participation did not have any concrete effects. His questions simultaneously addressed the company and the state, accusing Minera Yanacocha of presenting false information about water quality while criticizing the state’s inability to protect citizens’ right to a healthy environment.

The engineer’s answer to the question evaded the critique of the mining project by emphasizing the importance of public participation: everyone must be heard and included in the process, regardless of how long it takes. Significantly, the engineer dismissed the water quality problem as an isolated incident that had been managed and
was no longer cause for concern. He never addressed the audience member’s critique of the project (that it posed an “environmental threat”), choosing to focus instead on lauding the company’s efforts at transparency. What was important, according to the engineer, was that information (whether favorable to the company or not) was being disseminated.

New practices of accountability like the EIA are based on the assumption that the spread of information will help to build more positive relationships among state, corporate, and community actors (and thus enable mining to continue unimpeded). The giving of information is equated with “participation,” and “transparency” with trust. Yet as Strathern points out, the term “accountability” implies that “people want to know how to trust one another, to make their trust visible, while (knowing that) the very desire to do so points to the absence of trust” (2000b:310; see also West and Sanders 2003). In Peru, it is precisely the lack of trust in mining companies and the state that has led to an emphasis on transparency. This is why Minera Yanacocha’s constant attempts to produce more information (in the form of newsletters, magazines, radio shows, internet resources, participatory monitoring programs, workshops, etc.) have not corresponded with an increase in trust. Instead, for many people with a critical stance on mining, the question that remains is: what does transparency conceal? Making information explicit masks the absence of trust, uncertainty of risks, and outright rejection of mining projects that is expressed by mining’s critics. The EIA’s participatory process invalidates these criticisms even as it is intended to show a company’s openness to critique and desire to improve performance.

The use of the EIA as a practice of accountability has multiple consequences. It could be argued that the quest for the manageability of risks drives companies toward some improvements in their environmental practices. There is no doubt that companies are focusing unprecedented attention on environmental management, in large part as a result of public pressure. It is also the case that growing public awareness of EIA regulations has helped mobilize local communities, whether to demand employment opportunities and better environmental safeguards, or to oppose mining activity altogether. At the same time, however, the language of “impacts” and “risk management” creates a process in which the very form of participation and critique are circumscribed from the moment in which the risks become visible in the EIA. After all, as long as they are “manageable” risks, they are not an impediment to mining development. But how does the EIA—from its very conception—acquire the authority to define a region, predict the consequences of mining activity, and “manage the risks involved?”

I would suggest that the scientific and political legitimacy of the EIA results in part from the collaborative process that goes into making it, which involves the participation of government institutions, corporations, NGOs, local communities, and even the mining company’s staunchest critics. The collaboration that I refer to does not simply imply a sharing of information, nor does it assume that all participants have the same interests and goals (Tsing 2004:13). Rather, collaboration refers to the way the EIA enfolds individuals and institutions into itself regardless of whether or not they agree with its content. In spite of (or perhaps because of) the
diverse and sometimes conflicting interests among the actors involved, the language of public participation, transparency, and risk management contributes to an image of consensus.

At the workshop, this collaborative process was evident in the way that questions and criticisms got incorporated into the EIA. During the question period, Minera Yanacocha’s most outspoken critics did not hesitate to voice their questions and concerns: How much water will be used for this new project? How will irrigation canals be affected? What does “participation” really entail? One of the objectives of the workshops is to record all of the public’s questions, concerns, and demands so that they can be taken into account in the elaboration of the final document presented to the MEM. Every person in attendance at this meeting received a CD containing 122 questions selected from previous workshops, along with the company’s responses. The questions were grouped by themes (water, air, chemical products, social impacts, employment, development projects, etc.), and each question specified the name of the institution or community that posed it. The EIA regulations stipulate that questions collected from participatory workshops must be included as an appendix. In this way, every attempt to challenge or oppose the information presented risks being transformed into another page in the document.

The questions posed at the workshops illustrate how the EIA has contributed to new ways of talking about mining in Peru. Water flows, maximum permissible limits, impacts, baseline studies, and the EIA itself have become incorporated into political debates over mining, and have even influenced the language of protest against it. Increasingly, activists and NGOs must challenge mining corporations on issues that they helped bring into the debate, but that corporations ultimately define (such as water quality and participatory monitoring programs). For mining’s critics, the EIA has the potential to be used as a political tool, and can provide the foundation for what Beck (1992) calls “solidarity science.” For example, activists used information from Yanacocha’s EIAs to calculate the amount of water that mining processes require, and these estimates became a key argument in campaign materials and antimining protests.

I do not wish to discount these possibilities for creative forms of activism and the importance of science as a strategic tool embraced by local and international NGOs. Indeed, NGOs and activists are increasingly relying on scientific expertise to produce counter-information in their solidarity work. However, the use of science to produce counter-information inherently creates an uneven playing field where small organizations with limited resources face corporations that spend incomparable amounts of money conducting scientific studies. The only option for local NGOs is to rely on volunteer assistance, student interns, and professional willing to work for a reduced fee. When larger international NGOs or foreign universities fund environmental studies or independent EIA reviews, such studies (because of budgetary and human resource constraints) may not be able to match the level of investment that goes into the information produced by the mining sector.

The EIA, including baseline studies and environmental monitoring, increasingly rely on the language and tools of large-scale, capital intensive science. The need for costly
scientific studies and expert knowledge has changed the terms of the debate around mining, channeling activism toward scientific counter-arguments. As a consequence, campesinos and NGOs are often put at a disadvantage, since their arguments can be dismissed as “uninformed” and “unscientific” in the case of campesinos, or “biased” and “inaccurate” in the case of NGOs. Both campesinos and NGOs may be forced to reduce a wide range of political, economic, and social demands and discontents into arguments that will be evaluated based on their “scientific” validity.

The dominance of science as a tool of accountability has helped direct the actions of NGOs and local activists toward scientific counter-arguments in ways that may limit the effectiveness of their efforts. At the same time, the participatory emphasis of new processes of accountability leaves activists with few alternative courses of action, since not participating can be taken as an affront to the democratic principles that these processes claim to promote.

**The Limits of “Participation”**

In communities affected by mining activity in Peru, people often feel that the very processes that elicit their participation actually disempower and exclude them. It is in these cases that they seek alternative ways of voicing their opposition, even if these avenues are often considered more radical and in some cases, more violent. At the Ollanta Conference Center, confrontations between protesters and the police delayed the start of the public hearing. In the turmoil, a police officer hit a female protestor on the head with his baton, further angering the crowd upon seeing the woman’s head covered in blood. When people began to enter the auditorium, the protestors did not do so. The MEM representative who was presiding the hearing came outside to personally invite them into the meeting, but they refused to participate—not with an auditorium full of mineros, they argued, referring not only to mine workers but Minera Yanacocha supporters more generally.

While people inside presented the technical aspects of the mining project, people outside continued to protest. There was even an attempt made to set up large speakers to transmit the proceedings to the people outside, but the protesters’ response was to throw rocks at the speakers until they were removed. The protestors’ statement was clear: they were not interested in the information that was to be presented or the meeting’s proceedings, because nothing they could say would prevent the EIA from being approved. Not only would their intervention in the meeting be futile, but the company would use their attendance to legitimate the EIA with the claim that it was democratically accepted. They decided that their best course of action was to step outside the document.

By stepping outside the document, protesters were rejecting the EIA’s way of defining them and their communities according to what they are deemed to lack: education, basic services, and employment opportunities. To elaborate the EIA’s Social Component, consultants visit local communities to ask people about their “vision of development,” “expectations,” and “suggestions for improving the relationship with the Yanacocha mining company” (Minera Yanacocha 2006). In the same way that
each of the “impacts” revealed in the EIA correspond to an environmental management plan, people’s needs are defined by what the mining company can offer. Social baseline studies describe, quantify, and map socioeconomic conditions in local communities in ways that come to define extreme poverty, unsustainable agricultural practices, and inefficient social organization; in other words, a way of life that must inevitably give way to mining’s progress.

Inside the auditorium, the EIA presentation was followed by a round of written questions. Some people also signed up to ask questions orally, and took their turn at the microphone upon being called by name, institutional affiliation, and place of residence. Some speakers (including the Mayor of one of the districts within the PSYO’s area of influence) implored the company to keep its promises, but emphasized the economic benefits and employment opportunities that could be derived from responsible mining. One of the few critical questions was posed by a regular participant in anti-mining protests, who brought up the issue of water quantity and the disappearance of water springs. His question was abruptly dismissed by a Yanacocha engineer: “It’s very easy to say this but it has not been proven,” the engineer replied, and repeated that the mine was not affecting water quality in communities downstream. Few of the speakers referred to the EIA information that had been presented, and many did not pose questions at all; instead, they took the opportunity to speak favorably of the company’s accomplishments to date. Addressing the audience rather than the presenters, one speaker made the following comment:

Today, we Cajamarquinos bear the enormous responsibility of deciding if Cajamarca shall become a prosperous town, with education and employment, or if we will deny it this opportunity. What has happened outside has been regrettable and embarrassing. If [the protestors] had come inside they would have listened, and they would have understood; there would have been dialogue… [partial transcription from videotape]

The participatory aspect of the EIA is more than an opportunity to ask questions. What the EIA “maps” as well are the relationships of individuals and organizations vis-à-vis the corporation: their attendance at meetings, their concerns, and their willingness to cooperate. Along with other mechanisms of surveillance (such as attendance sheets, filming company events, photographing people at protests, etc.), the information collected and made public through the EIA is essential for the establishment of alliances. These corporate strategies are often considered coercive and intimidating, and many people feel that speaking against Minera Yanacocha would put their jobs at risk or lead to other negative repercussions. Furthermore, making these alliances visible to the public reinforces the polarization between those with a purportedly “pro” or “anti”—mining stance, pitting these groups against each other. As a result, the role of corporations and the state fades to the background while individuals and local organizations take it upon themselves to monitor the activities of their fellow citizens and discipline them accordingly.

The day after the public hearing, local newspapers and Yanacocha’s own communiqués reported that the event was a success, and that only a handful of protesters (depicted as troublemakers with political interests) attempted to violently disturb the
Proceedings. These representations of the protests constructed an opposition between the “irrational subject” (driven by selfish interests, ignorance, or misinformation) and the “informed subject,” who embraced participatory knowledge-making practices in order to come to an informed decision.

In the context of modern mining, corporations, governments, and other actors operate on the logic that more information equals more public knowledge and therefore, more transparency. But public documents and hearings do more than create an image of transparency. Their effects are twofold: on one hand, they reinforce the corporation’s alliances by giving people the arguments and the language to respond to criticisms against the mine. On the other hand, this same information can be used by critics such as NGOs to generate activism. While this counter-information is fundamental for antimining campaigns, some local people feel that contestation through existing channels of public participation is largely ineffective. Sometimes, their best chance to voice their opposition is to take this counter-knowledge outside the document. It is in these cases where the refusal to engage in dialogue and a stance of nonparticipation become the most appealing forms of political action.

Conclusion

In Peru, controversies over mining activity have generated much discussion about promoting democratic participation and transparency as a way to resolve conflicts. Yet the introduction of mechanisms of accountability such as the EIA, including recent modifications to incorporate public participation and community consultation, have not eliminated the tensions generated by the continual expansion of extractive activity. In communities affected by mining, some people argue that the EIA only provides them with an opportunity to ask questions and make comments, which may lead to some modifications in the company’s environmental mitigation plans, but cannot stop a proposed project from being approved.

The EIA for the PSYO was indeed approved by the Ministry of Energy and Mines on September 4, 2006. Since the project involved the expansion of an already existing mine (rather than the construction of a new mine), the EIA’s approval attracted little attention beyond Cajamarca. In a newsletter, Minera Yanacocha stated that the EIA’s approval gave communities a guarantee that the company’s commitments would be met, and provided the state with a tool for environmental monitoring and control. The proposed expansion went ahead as planned, and the San Jose Reservoir that was central to the company’s water management plan was inaugurated by President Alan García in April 2008.

Conflicts still surface repeatedly in communities around the Yanacocha mine, and critics continue to fault the company’s lack of transparency, inadequate processes of community consultation, and the absence of the state. As the EIA demonstrates, however, mechanisms of accountability require a different analysis of the role of the state, corporations, NGOs, and community actors. I have argued that the EIA entrusts corporations with the task of creating an inventory of natural resources and local communities that establishes the characteristics of a place and makes it knowable
in scientific terms. The EIA reveals the potential risks of a proposed project, but making these risks visible is contingent on the company’s ability to make them technically manageable. Once the company has established a management plan, the state is left with the perfunctory role of monitoring environmental indicators and checking standards of performance that corporations themselves have helped define. Nevertheless, the form of the EIA and the process of making it public create an image of consensus, cooperation with local communities, and state avowal.

This is the essence of collaboration that the EIA embodies, as it incorporates state institutions, corporations, consultants, communities, and civil organizations into its elaboration and evaluation. By including a wide range of “participants,” collaboration deflects authorship, and shifts the focus from corporate accountability to shared responsibility. The participant becomes complicit in the co-production of the document, and is thus expected to share in the benefits—and the risks—of the knowledge that it contains.

Notes

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1. Though focused on a single EIA, this analysis is informed by two years of ethnographic fieldwork conducted in 2005 and 2006 in the city of Cajamarca, surrounding communities, and other Peruvian mining regions.

2. Open pit mining and cyanide leaching technologies have made it profitable to extract low-grade ore containing microscopic traces of gold. Between 1993 and 1997, investor interest in Peruvian mineral deposits resulted in a sixfold expansion of surface area allocated to mining activity (from 10 million acres to 59 million acres) (de Echave and Torres 2005:10). In the 2000s, the high price of metals contributed to the continued expansion of areas under mining concession, which overlapped with more than half of Peru’s approximately 6,000 campesino communities (de Echave and Torres 2005).

3. Certainly, neoliberalism has been challenged within Peru, but in contrast to neighboring countries such as Bolivia, it remains the predominant economic model under its current president, Alan Garcia.

4. Following Peru’s EIA framework, mining companies must commission and pay for a written technical evaluation that outlines the company’s mitigation plans. My discussion of the EIA considers this document as well as the knowledge practices that both shape and result from its elaboration and approval. This approach is inspired by a body of literature that treats documents as “paradigmatic artifacts of modern knowledge practices” (Riles 2006:2), and takes an ethnographic approach that moves away from a textual or discursive analysis (e.g., Strathern 2000b,
Hull 2004) to focus on what a document *does*—the actions that it anticipates and enables (cf. Riles 2006).

5. Other projects have been interrupted before the EIA stage. The Quilish project in Cajamarca was halted during the initial exploration phase due to local opposition, and the fate of the controversial Majaz project in Piura is yet to be determined.

6. The protest was loosely organized through community ties, canal users’ associations, and *Rondas Campesinas* (peasant “patrol” groups, one of the backbones of rural political organizing in Peru). Other supporters who joined the protest included urban professionals, students, and journalists. Since mining activity tends to create divisions within communities, it is likely that people from the same communities were inside and outside the auditorium, either as workers supporting Minera Yanacocha or as protestors opposing the project.

7. EIA regulations stipulate that the hearing must be filmed in its entirety and made available to the public; Minera Yanacocha complied with my written request for a copy of the footage.

8. The social dynamics of the meeting were similar to those of other mining-related events: key participants (e.g., mining engineers and community leaders) are predominantly male, but women play an important role in many NGOs and government institutions. In this particular workshop, the audience was almost entirely made up of urban professionals. In other workshops intended for a rural audience, high rates of illiteracy (particularly among women) would have added another barrier to the dissemination of the EIA’s technical information. All EIA proceedings were carried out in Spanish, which is the primary language spoken in Cajamarca (only a small percentage of the rural population speaks Quechua).

9. The Compliance Advisor Ombudsman was created by the International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA) to respond to complaints from communities affected by projects with IFC involvement, such as the Yanacocha mine.

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