**Mining indigenous communities: the impacts of resource extraction on livelihood stability, environmental sustainability and the Peruvian economy.**

International Political Economy Summer Research Fellowship Report

Vienna Saccomanno

September 20, 2012

****

**Description of Research**

In the last two decades, Peru has experienced intense, neoliberal economic and political reforms and, with the help of transnational mining corporations, has been transformed into one of South America's principal exporters of precious mineral resources (Bury 2005; Arellano-Yanguas 2008). Peru, the newly proclaimed ‘tiger of the Andes’, is currently the world’s second principal producer of silver; the third of zinc, cooper and tin; the fourth of lead and molybdenum; and the fifth of gold (U.S. Department of State 2012). However, while this industry has facilitated powerful, state-level economic development, it has also reportedly created immense challenges for livelihood stability and environmental sustainability. These challenges are particularly relevant in the regions where extraction occurs (Bebbington and Bury 2009; Bury 2002; Clapp 1998; Davis and Tilton 2005; Bebbington 2000; Szablowski 2002).

In Peru, many mining sites are located in close proximity to regional watersheds as water is a crucial element in mineral extraction. One of the key concerns generated by this industry is the degradation in water quality and quantity for downstream communities. It is broadly cited that the chemical wastes and effluents flow beyond the operation site and rapidly disperse down rivers and aquifers (Bebbington and Williams 2008). Numerous community environmental organizations have attempted to address the issue of pollution as well as the need to divert some portion of mineral wealth to local social development and environmental restoration. Additionally, the past year and a half has seen tremendous indigenous protest against the mining industry. Nevertheless, the Peruvian government’s economic policy seems to encourage the swift and robust growth of mining investment. These circumstances illustrate the central government’s commitment to promoting foreign direct investments as well as the apparent limited concern for chemicals being introduced into the ecosystem via mining and extraction operations. It is possible that environmental costs (i.e. the costs to the environment not incorporated into the prices that consumers and producers spend on goods and services) need to be evaluated when determining the net economic benefits of this mining industry, as they may or may not impact net benefit. While increased global consumption motivates the expansion and growth of the mining industry in Peru, will the costs of water pollution remediation and social conflict resolution continue to increase alongside this development?

My summer research focused on documenting the relationship between the mining industry (both domestic and transnational mining operations) and Peruvian communities, economy and the environment. My guiding research objective, anthropological in nature, was to discuss Peruvian mineral extraction with a diverse spectrum of individuals involved in and associated with the mining industry. Prior to my departure to Peru, I carried out in-depth research on the primary actors in this industry and was able to establish four categories, or groups, of individuals. The first group included professionals involved directly in the mineral extraction industry, such as engineers, company employees, etc. The second group was comprised of professionals who work in the interface between the mining industry and the Peruvian public, such as non-profit workers, research scientists, and conservation workers. The third group covered members of the communities affected by the mining industry, such as farmers, students, families, miners, etc. The fourth and final group included politicians, both Peruvian and international politicians, whose decisions and actions impact the extraction industry. All interviews were recorded digitally when possible and occurred in either Spanish or English, depending on the interviewee. My research goals were to interview and talk with individuals from each of these four categories to develop a holistic perspective about the Peruvian mining industry and its impacts on livelihood stability, environmental sustainability, and the Peruvian economy.

To gather data from the first group of individuals, professionals involved directly in the industry, I prearranged several interviews at Ausenco Vector, a leading mine engineering firm in Peru. These interviews were difficult to organize due to communication barriers and corporate security issues. I began organizing interviews with Ausenco in early January 2012 and the scheduling of my meetings to take place in Lima, Peru were not finalized until a week before my departure. However, it was well worth the effort as my interviews at Ausenco were highly successful. They took place at the company’s headquarters in Lima and lasted for the better part of the morning and afternoon. I had the opportunity to speak with the Manger as well as the Assistant Manager of Environmental Services (the names of these individuals will remain anonymous upon request). Additionally, I was able to talk with several new employees and interns. All interviews I conducted at Ausenco Vector were in English.

To further develop the perspective of professionals involved directly in the mining industry, I organized an interview with the Executive Director of Xstrata Copper’s Tintaya Foundation, Dr. Ramiro Valdez. This particular interview was very important to me as the Xstrata copper mine, located in the Espinar Province of Peru, has been the axis of much political turmoil and protest in the past month and a half. As was the case with the interviews with Ausenco Vector, this interview took much time and flexibility to organize. The interview was originally setup to take place at Xstrata’s regional office in Cusco, Peru. However, several complications occurred and the original interview was canceled. Luckily, it was possible to arrange a new meeting time and place mid-fieldwork. In the end, the interview took place and was successful. It was highly informative and well worth the initial complications. For this interview with Dr. Valdez, my Spanish language skills were drawn upon. While I am not fluent in Spanish, I was able to clarify potentially confusing topics by rephrasing sentences and re-listening to my recording of the conversation.

To address the second group of individuals, those who work at the interface between the industry and the Peruvian people, I prearranged an interview with Augusto Mulanovich. Mr. Mulanovich is the National Director of La Asociación para la Conservación de la Cuenca Amazónica (ACCA), Peru’s pioneering research and environmental conservation non-profit organization. I traveled to the Barranco District, near Lima Peru for this interview, which was conducted in English and held in a local café. This interview was highly informative and offered a unique perspective to those I collected from my interviews at Ausenco Vector. Additionally, Mr. Mulanovich was able to provide me with several literary resources he had access to that contributed to and supplemented the data collected for this category of individuals.

The third group, members of the local community affected by the industry, was the only category without prearranged interviews. The data I collected from this group of individuals was representative of the major regions of Peru (northern, central, and southern) as I conducted numerous interviews in Lima (central), Huaraz (northern), Caraz (northern), Cusco (southern), Ollantaytambo (southern), Aguas Callientes (southern), and Arequipa (southern). Additionally, these interviews spanned a wide spectrum of social and cultural groups. I interviewed protestors, miners, family members of miners, students, Peruvian individuals not formally affiliated with the industry, etc. This sampled included men and women, youth and adults, and individuals from many socioeconomic classes. My conversations with community members ranged from 2-45 minutes and generally took place in an informal environment such as a park, taxi, or simply on the street. Noteworthy experiences where I felt I obtained very informative information from this group in people include: participating in two large-scale, peaceful mining protests, doing a homestay in a politically active community with a well-informed family, and hiking out to a rural community within close proximity of a large-scale, transnational mine. Many of my conversations with local individuals were not digitally recorded based on requests of the interviewees. For all interviews that I had with people in this group, my Spanish language skills were drawn upon.

Unfortunately, I found it impossible to organize an interview with any Peruvian or international politicians. All of my requests for interview time led to a dead end series of emails or were simply ignored. While it is no longer possible to have an in-person interview with a Peruvian politician, I am still interested in other forms of data collection for this group, such as questionnaires, email correspondence, skype interviews, etc.

I valued the conversations I had within my first three groups very much as they offered contrasting views to one another, illustrating the complicated nature of this issue. Each category of individuals had a unique interview tone and atmosphere than the others. My conversations with professionals involved in the mining industry were very formal: official paperwork was traded, confidentially was discussed, and both parties wore business-casual attire. My interviews with Peruvian community members, however, were opposite in nature. When I attempted to offer paperwork or request to record a conversation with an individual, it generally resulted in a premature end to the conversation. Thus, while in the field it was crucial to discern how to make the interviewee comfortable while at the same time balancing a degree of professionalism. Additionally, keeping detailed and organized notes was very important as a soon realized that it was nearly impossible to differentiate conversations from one another without the help of concrete notes.

**Budget**

With care and a bit of thriftiness, departmental funding was sufficient to carry out this research project. I allocated some funding to trip preparation, such as purchasing a high quality voice recorder, several notebooks, guidebooks and dictionaries, and travel gear to better prepare me for the diverse terrain that I would be visiting. During the research, my funds were mainly spent on transportation, as it was of high priority to travel to a variety of provinces to obtain diversity in my interviews. This goal of visiting several regions within Peru came from my prior research concerning the mining industry, which indicated that certain regions were impacted more heavily by extraction due to the non-even distribution of ore deposits while others were more politically aware and politically active. I wanted to visit communities with all levels of extraction and political activity. I mainly traveled by bus and taxi, however, to make the most efficient use of my time abroad, a few domestic plane flights were necessary. I also used funds for room and board purposes. I attempted to remain conservative when spending funds for room and board, however, health and safety were factored into this budget. My room and board “splurge”, a three-night homestay in Ollantaytambo, Peru resulted in some of my most informative interviews. Some unexpected expenditures include fees for visiting specific regions of Peru, antibiotics in response to an intense episode of food poisoning, and the inevitable “gringo tax”.

**Preliminary Findings**

From my various interviews, it became clear that there exists a broad range of sentiments towards the mining industry in Peru. For the individuals who work directly for or with the industry (including those who worked for the ACCA), mineral extraction is generally viewed as a positive activity for Peru. It was echoed numerous times that this industry is responsible for Peru’s current economic boom and emerging prosperity. Additionally, my interviewees felt that the mining industry has placed Peru on the map for foreign direct investment as well as provides valuable infrastructure in the form of roads, irrigation etc. in the regions where extraction occurs. It was acknowledged by all interviewees who work directly for or with the industry that extraction has inevitable side effects but as technology improves, the ecological footprint becomes smaller and smaller. Additionally, all interviewees who work directly for or with the industry mentioned that artisanal, or illegal/ small-scale, mining has a much more severe ecological impact than that of the large-scale, professional mines. Finally, multiple interviewees stated that they believe the Peruvian mineral extraction industry is “here to stay” and that public protest and activism will not significantly impact the prosperity of the industry.

My conversations with individuals who work directly for or with the industry were all in agreement that the current national resistance to the mining industry is due to residual sentiments from the previous decades when governmental regulations on social responsibility and environmental sustainability were weak if at all present. Additionally, it was mentioned numerous times that local leaders heavily influence the opinions of community members and that corruption runs strong in many local governments. These interviewees frequently drew upon the example of the protests in the Espinar province of Peru. In this province, Xstrata Mining Company extracts copper. The company voluntarily donates 3% of profits to the region for social development (approximately 10 million US dollars per year) in addition to financing multiple community infrastructure projects. In 2011, the governor of Espinar, Oscar Mollohuanca, supposedly launched a campaign claiming massive contamination and manipulation of the local communities by the Xstrata mine and demanded that 30%, as opposed to 3%, of Xstrata’s profits be donated to the local government. Local communities immediately responded with massive protests and strikes resulting in the death of two individuals and the injury of many others. The chaos prompted Peru's government to restrict civil liberties in a month-long state of emergency. After investigation, Governor Mollohuanca was accused of inciting violence under false charges and using public funds to pay for the protest. This example, repeated independently in multiple interviews I had with people professionally associated with the industry, was used to illustrate that public resistance to the industry is also possibly due to miscommunication and corruption at the local level.

The numerous conversations I had with Peruvian community members were unanimous in the opinion that the mining industry is a problem for Peru and results in social and environmental instability. Every individual I spoke with stated that the mines produce a great amount of contamination and that the communities close to the mines suffer from health issues and water shortages. Additionally, it was echoed numerous times that there exists much corruption between the government and the mining companies. Many interviewees independently stated that the taxes paid by the mining companies are intercepted by the local government and never make it to the communities for remediation. An additional reoccurring claim was that mining companies consistently conduct “under the table” transactions with the government to compensate for, and cover-up, contamination and environmental damage. Finally, multiple interviewees who were, or knew, people who worked for the mines stated that the working conditions were poor and that the average salary should be greater based on the strenuousness of the work.

In the public protests I attended, water conservation and pollution was the main theme and concern of the protestors. In one protest, the activists chanted, “water is a treasure that is worth more than gold”. In several conversations that I had during protests, the absolute necessity of clean, abundant water was discussed. In these conversations, it was stated by the interviewees that mining irreversibly destroys water resources that innately belong to the communities that have inhabited the land for multiple centauries. Numerous people stated that their government cares more about the growth of the economy than the health of the people and the land. A general sentiment was betrayal by the current president, Ollanta Moisés Humala Tasso, who supposedly campaigned as an adversary to the transnational mining industry and changed his policy upon obtaining office.

Based on my conversations and observations, the pros and cons associated with the Peruvian mining industry are many and diverse. It remained undisputed in all conversations that the industry is beneficial to the economy and has resulted in growth and development that would not have otherwise occurred. Politically, however, the divide was great. While the greater Peruvian community felt that the mining industry is infiltrated with corruption and greed, the professional community asserted that the industry is responsible and is held accountable for its actions and transactions. Environmentally, it was acknowledged by all groups that extraction is ecologically damaging. The professionally community, however, was certain to point out the improvements in environmental sustainability over the past two decades while the Peruvian community members discussed fears and frustration with contamination. For the greater Peruvian community, it was commonly stated that the impact the mines make on their land and water resources is irreversible and not worth the money made from extraction. Individuals who work for the mining industry responded to the issue of natural resource degradation as one that is compensated by taxes as mandated by the government. It was commonly stated that it is up to the communities that receive the industry’s taxes to properly use these funds for remediation.

**Reflections**

In general, my field research went incredibly smoothly. However, in reflection there are several elements that I would have changed had I had the opportunity to do so. While I was able to visit communities located near larger mining operations, I was unable to physically tour any mine sites due to company security regulations. I think that tours of multiple mines of various types of ore extraction would have been extremely educational and interesting. Peru is home to some of the largest mining operations in the world, making it an ideal country to visit mine sites. Should I have had the opportunity, I would have visited as many mines as possible and interviewed employees working on the sites. Additionally, I would have liked to visit artisanal mining sites where undocumented extraction occurs. I think that people who participate in this alternate form of extraction would have offered a new prospective to that of the general extraction industry of Peru. However, many individuals warned me that artisanal mining can be very territorial, making it dangerous to travel in regions where it occurs. Additionally, I did not travel to the communities where the headlining protests have been occurring, based on government warnings as well as safety recommendations from numerous people I spoke with. These individuals, especially those who work professionally with the industry, mentioned that the conflict of the past few months has resulted in much injury and, in a few cases, death. However, I would have loved to conduct interviews in these cities, specifically Cajamarca and Espinar, as I feel I would have obtained more first hand information from people who are directly dealing with the mining industry. Finally, my interview sample is lacking opinions from politicians who have dealt with the mining industry and/ or public resistance. To me, this group of individuals plays a very important role in shaping the dynamics of the mining industry as well as how the Peruvian public perceives it. Interviews with politicians would have provided an additional perspective and contributed to a more holistic picture of the Peruvian mining industry.

One surprise I encountered in Peru was the degree of slang used in everyday conversation and the speed at which people spoke. Initially, I found it difficult to follow what people were saying in our conversations due to the large amount of foreign vocabulary that was being used. However, I soon caught onto the more commonly used words and was able to better understand people. Additionally, my Spanish language skills improved with time making it easier to follow what people were saying. Another surprise was the general sentiment towards the mining industry of the non-profit workers I spoke with. I was expecting to have conversations very similar to those I had been having with Peruvian community members about the multiple negative impacts of the industry. However, the non-profit workers’ opinions about the industry were more similar to the professionals who work for the industry in that they felt mineral extraction has greatly improved in regards to environmental sustainability and is continuing to do so.

My greatest insight about this research project is that the quality of one’s information and data increases with sample size. I was very much swayed by my initial interviews and took what my interviewees said at face value. As I spoke with more and more people, I realized that every individual’s perspective is highly subjective. By the end of my fieldwork, I began to see trends in my conversations with people and commonalities in responses. With these observations I was able to parse out information that was highly subjective and perhaps completely false. My greatest insight about field research in general is that it pays to be flexible. For me there were times when an interviewee didn’t show up, I was late for an interview because I was lost or stuck in traffic, or I felt I was wasting time in an interview that was not yielding using information. In all of these situations, it was important to remain calm and collected. I realized that there is always an alternative approach; it is just up to the researcher to be creative with the situation at hand should something not go as planned. I also learned that, when working with people from a different culture than your own, it is very important to make a sincere effort to immerse yourself in their traditions. My strongest interviews happened when I was participating in an activity endemic to Peru while talking about this issue. Whether I was eating a Peruvian meal or riding a *collectivo,* my interviewees were more comfortable when in their natural element-which meant that I was not in mine.

After conducting fieldwork in Peru, I have developed a set of entirely new questions about the mining industry. One key question addresses comparing the actual quantity of contamination that results from the mines and comparing this number to the claims that I recorded from both the mining industry and the Peruvian public. Is it true that the large-scale, transnational mines still produce enough pollution to cause the illnesses that so many community members told me about? Or is it actually the case that the pollution from the mines has decreased significantly in the past two decades and currently makes a negligible mark on the environment? Due to the subjective nature of personal interviews, it was difficult to discern the actual impact of contamination associated with mining operations. To answer this question in a quantitative way, I intend to stay abreast of the recent literature published on the Peruvian mining industry.

Another important, new question addresses determining what role, if any, corruption plays in the mining industry. The professionals I interviewed firmly stated that corruption in the mining industry is a thing of the past. They assured me that they are held to an international standard of business and are proud to be working with the Peruvian government. The general Peruvian public, on the other hand, broadly claimed that political corruption is still a prominent issue. I would like to be able to determine whether or not political corruption is still occurring in the Peruvian mining industry. To gain better insight into the role of corruption and the present political climate, I am reading domestic and international newspaper articles available on the web. In the future, I would like to return to Peru to continue my work with this issue as well as begin research on new issues I learned about during my fieldwork.

**References:**

Arellano-Yanguas, Javier. 2008. “A thoroughly modern resource curse? The new natural resource policy agenda and the mining revival in Peru.” *The Institute of Development Studies* 300: 5-51.

Bebbington, Anthony J., and Jeffrey T. Bury. 2009. “Institutional challenges for mining and sustainability in Peru.” *Proceedings of the National Academy of Sciences of the United States of America* 106:296-301. doi: 10.1073/pnas.0906057106.

Bebbington, Anthony, and Mark Williams. 2008. “Water and mining conflicts in Peru.” *Mountain Research and Development* 28:190-195. doi:10.1659/mrd.1039.

Bury, Jeffrey. 2002. “Livelihoods, Mining, and Peasant Protests in the Peruvian Andes.” *Journal of Latin American Geography* 1:3-19. doi: 10.1353/lag.2007.0018

Bury, Jeffrey. 2005. “Mining mountains: Neoliberalism, land tenure, livelihoods, and the new Peruvian mining industry in Cajamarca.” *Environment and Planning A* 37: 221-39. doi:10.1068/a371

Clapp, Jennifer. 1998. “Foreign direct investment in hazardous industries in developing countries: Rethinking the debate”. *Environmental Politics* 7:92-113. doi**:**10.1080/09644019808414424

Davis, Graham A., and John E. Tilton. 2005. “The Resource Curse.” *Natural Resources Forum* 29:233–242. doi: 10.1111/j.1477-8947.2005.00133.x

Szablowski, David. 2002. “Mining, displacement and the world bank: A case analysis of compania minera Antamina’s operations in Peru.” *Journal of Business Ethics* 39 : 247-73. doi: 10.1023/A:1016554512521

U.S. Department of State, Bureau of Western Hemisphere Affairs. 2012. “Background note: Peru.” Last modified January 1. Retrieved from Bureau of Public Affairs website: http://www.state.gov/r/pa/ei/bgn/35762.htm