Promises and perceptions in the Guianas: The making of an artisanal and small-scale mining reserve

Nicole M. Smith, Jessica M. Smith, Zira Q. John, Benjamin A. Teschner

1. Introduction

In sparsely populated areas of the interior of the Guianas, artisanal and small-scale gold mining has become the primary economic activity for local and migrant populations over the last three decades. Because of the adverse environmental and social impacts often associated with artisanal and small-scale mining (ASM), these activities can be a source of unease for governments, and the question of how to confront the growing challenges of ASM has become a global concern. Formalization of the sector is increasingly being put forward as one strategy to mitigate the impacts associated with ASM, and there is a growing consensus that large-scale mining (LSM) companies have a role to play in this process. This article examines the perspectives of artisanal and small-scale miners on an initiative to formalize the ASM sector in a rural region in the interior of the Guianas. Through an analysis of a collaboration between a national government and a LSM company to create a reserve for artisanal and small-scale gold miners, we identify the major opportunities and limitations of this strategy. These opportunities and limitations demonstrate that although an artisanal and small-scale mining reserve could be one way to formalize the sector and support rural livelihoods, there are clear barriers to overcome to improve the interactions among governments, companies, artisanal and small-scale miners, and local communities.
began at the mine site, and in April 2015, a second eviction of approximately 200 artisanal and small-scale miners from a different area of the company’s concession took place, again with the assistance of the national government. As a potential solution to artisanal and small-scale miners’ alienation from the company’s concession, the company, in collaboration with the government, proposed that an area (hereafter called the reserve) be set aside for artisanal and small-scale miners to obtain legal rights to mine.

To accommodate the reserve, the company relinquished a section of their concession to the national government, and the government legally allocated a 5000-hectare ASM reserve in December 2012 for a 5-year period. The reserve is exclusively set aside for miners belonging to the ethnic groups who claim traditional authority over the land within and surrounding the company’s concession. Although the government has not yet granted any official permits to mine in the reserve, a letter of intent between the company and community representatives expresses the company’s commitment to supporting the small-scale miners. The letter states that the company will aid the miners in obtaining legal rights to mining concessions within the reserve and support their efforts to improve their mining and ore processing practices to be safer and less damaging to the environment. The creation of the reserve and the company’s commitment to help facilitate the formalization of artisanal and small-scale miners mark a collaborative attempt by government institutions and a corporation to move the ASM sector into a more legitimate arena and to mitigate some of the negative health and environmental impacts that are commonly associated with ASM activities. Although this collaboration represents a positive step toward legitimizing ASM, the artisanal and small-scale miners who were removed from the company’s concession and some of the communities near the concession are not satisfied with how the process of implementing the mining reserve has unfolded. In this article, we examine the perspectives of artisanal and small-scale miners on this initiative to formalize the ASM sector in a rural region in the interior of the Guianas. While the existing social science literature on ASM suggests that formalization is a crucial strategy for defining rural property rights and minimizing the adverse social and environmental impacts of ASM activities (Hilson and Vieira, 2007; Langston et al., 2015), it has yet to consider company-led creations of ASM mining reserves from the local ASM perspective. Through an analysis of a collaboration between a national government and a mining company to create a reserve for artisanal and small-scale gold miners, we identify the major opportunities of this strategy, including: 1) a way for LSM companies to aid countries in formalizing the ASM sector while supporting rural livelihoods; and 2) an approach to supporting social responsibility initiatives that help build and maintain a company’s social license to operate. Yet, ethnographic research with artisanal and small-scale miners in this region suggests that there are key limitations to this strategy including: 1) a lack of trust among artisanal and small-scale miners of both government and the company rooted in the historical marginalization of communities in the interior of the Guianas and exacerbated by the recent evictions of ASM from LSM exploration and mining permit areas; 2) a general disagreement between artisanal and small-scale miners and the company about the appropriate roles to be played by the company and the government; and 3) a lack of communication between the company and the displaced artisanal and small-scale miners. The opportunities and limitations identified through this study demonstrate that although an ASM reserve could be one way to formalize the sector and support rural livelihoods, there are clear barriers to overcome to improve the interactions among governments, companies, artisanal and small-scale miners, and local communities.

2. Methods

Data for this study were collected over twelve days in May and June 2015 in various locales including: the LSM company’s site; local villages; the town center that services the local mining activities; and active small-scale mines. Twenty-nine semi-structured interviews with open- and closed-ended questions were conducted with various stakeholders including: artisanal and small-scale miners, equipment owners, community leaders and other community members living near the company’s concession, shop owners, commercial sex workers, and company employees. In addition, several casual conversations were held during the study, and participant observation was carried out in the company’s camps, in local villages, and in the aforementioned town center.

Two members of the LSM company’s community relations team coordinated interviews with some of the members of the local population’s organizing committee, as well as with a few of the leaders of the recently formed ASM group. Other interviewees were found independent of the company either opportunistically or through snowball sampling, where interviewees identify other potential candidates (Bernard, 2011). A local research assistant also aided in participant recruitment and translated during interviews. In all cases the interviews were conducted in the language preferred by the interviewee and if necessary, translated by the research assistant.

3. ASM and formalization

Because of the lack of formalization, health and safety risks, and adverse environmental impacts of ASM activities (Hilson and McQuilken, 2014; Labonne, 2014), many countries have enacted legislation aimed at formalizing ASM or are currently reviewing their mining laws to include provisions for regulating ASM. Formalizing this sector has not been an easy task, and despite efforts to govern the sector, ASM continues to operate primarily in the extralegal sector (Langston et al., 2014; Siegel and Veiga, 2009; Teschner, 2012; Verbrugge, 2015). It is widely agreed that effective formalization requires a holistic approach, which includes improving miners’ access to new technologies and credit, issuing mining concessions, and enforcing environmental and occupational health regulations (Machenachie and Hilson, 2011; Teschner, 2012; Verbrugge, 2015). Yet, most countries struggle with formalization due to financial constraints and a lack of capacity for regulation and enforcement (Hentschel et al., 2002; Hilson and Potter, 2003; Smith et al., 2016; United Nations Economic Commission for Africa, 2011). In addition, governments are faced with the challenge of reconciling their ASM formalization objectives with prospects of foreign direct investment and tax benefits from LSM operations (Hilson and Potter, 2003). In the case of ASM in the Democratic Republic of Congo, Geenen (2011) explains that top-down decision-making, large gaps between law and practices, and weak regulatory frameworks hamper efforts towards formalization.

In rural areas where centralized states exercise limited control and provide minimal social services, it is not only artisanal and small-scale miners, their families, and their communities who rely on mining activities for sustenance. Government officials and rural institutions (both formal and informal) are increasingly invested in ASM, making formalization even more complex and problematic (Geenen, 2012; Van Bockstael, 2014). For example, after the March 2012 coup d’état in Mali, the Malian government stopped providing financial support to schools and medical clinics in rural areas. Officials and institutions were thus forced to rely on profits from ASM activities (Teschner, 2014). Poor management, corruption, and weak institutional frameworks often amplify these problems leaving regulations inadequately incentivized and largely ineffective (Teschner, 2012). Without strong institutional support, legislation intended to support and regulate ASM-based livelihoods may actually legitimize irresponsible mining practices and worsen the situation within ASM communities (United Nations Economic Commission for Africa, 2011).
3.1. Large-scale mining, ASM, and formalization

In many areas of the developing world, conflicts over land and resources between LSM and ASM are becoming more common. Companies often encounter informal ASM activities within or near their concessions and are confronted with the challenges of managing and/or mitigating these activities and their impacts. Disputes over land-ownership and resource rights between companies and artisanal and small-scale miners often lead to tense relations and may result in violent interactions, loss of property and lives, and costs to both companies and artisanal and small-scale miners from the loss of working hours and threats to safety and health of workers and their families (Amankwah and Anim-Sackey, 2004; Aubynn, 2009; Bebbington et al., 2008; ICMM 2010). In addition, LSM companies can experience reputational risks associated with ASM-related environmental damage and occupational health and safety concerns near the company’s operations (Hilson and Van Der Vorst, 2002; ICMM 2010).

The fact that ASM can provide relatively high wages to local communities and is often integrated into local and regional socioeconomic systems makes displacing ASM a contentious issue (Hilson and Yakovleva, 2007; Hilson et al., 2007). The eviction of artisanal and small-scale miners from LSM concessions has serious implications for rural livelihoods and can pose additional security threats to a company’s property and its employees (Hilson and Yakovleva, 2007; ICMM 2010; Teschner, 2013). Forcefully evicting artisanal and small-scale miners from their concessions using military, police, or company security officials, also threatens the integrity of a company’s concession. Nevertheless, security and force-based activities continue to play a role in many companies’ approaches to ASM management and governments’ efforts to protect foreign companies from ASM encroachment (Hilson and Yakovleva, 2007; Teschner, 2013). These eviction events, even if initiated by the government or law enforcement rather than the company, are frequently associated with the company, and consequently, their ability to gain and maintain a social license suffer (Teschner, 2013).

Corporate social responsibility (CSR) programs are gaining traction as a means for companies to manage social risks (Rolston, 2015; Kemp et al., 2012) and commonly frame their approaches to ASM management (Hilson et al., 2007; Teschner and Aidoo, 2012). These schemes generally recognize the importance of ASM as a rural livelihood strategy and attempt to replace it with other options, such as improved agriculture or semi-skilled, small-scale entrepreneurial opportunities. Research in this area shows that these efforts are unlikely to draw people away from ASM in meaningful ways (Hilson et al., 2007; Teschakert, 2009). The expectation that miners who pursue alternative employment options in the agricultural and entrepreneurial sectors is usually based on two false assumptions: first, that ASM does not pay well and can therefore be replaced with other low paying employment; and second, that artisanal and small-scale miners want to leave the sector (Hilson et al., 2007). The reality is that ASM can be quite lucrative and therefore difficult to replace with lower paying alternatives (Hilson et al., 2007; Teschner, 2013). In addition, many people engaged in ASM have developed skills specific to the trade, and in some areas of the world, ASM has been practiced for generations and represents an important component of group identity and belonging (Teschakert, 2009).

A number of organizations and institutions recognize the role LSM companies can play in supporting and formalizing the ASM sector (Basu et al., 2015; IIED 2001). Hilson and Murck (2000) propose that companies should help artisanal and small-scale miners adopt more sustainable mining techniques. Companies have also been encouraged to provide credit to artisanal and small-scale miners so they can purchase more efficient and less environmentally harmful mining and processing equipment (Beyene, 2013; Mvakaje, 2012). Veiga and Beinhoff (1997) advocate for companies to provide mercury amalgamation centers where artisanal and small-scale miners can safely and efficiently process their gold.

In an attempt to coexist with ASM on their mining leases and reduce violent episodes, a few companies experimented with company-led formalization programs in the 1990s and early 2000s (Davidson and Wotruba, 2003; Keita, 2001; Teschner, 2013). These programs all showed elements of success, particularly in the short term, but were plagued by sustainability problems. The most promising of these cases could have been the Las Cristinas mine in Venezuela where, in the late 1990s, a collaborative agreement among the government, community members, and the mining company designated a working area for artisanal and small-scale miners on the Las Cristinas concession. Identifying a mining area that was acceptable to the local miners and of little interest to the company allowed Placer Dome (the large-scale operator at the time) to begin development of a large-scale mine (Davidson and Wotruba, 2003; Heemskerk and Van Der Kooye 2003: 643). The sustainability of the relationship between ASM and Placer Dome was never thoroughly tested, as stagnant gold prices and a legal battle between Placer Dome and Crystallex, the company who took over ownership of the mine, forced Placer Dome to abandon the property in 2001 (Wall Street Journal, 1997; Werbowski, 2008), and large-scale production never began in earnest.

News reports more recently note that unregulated ASM activities have returned to Las Cristinas and are periodically evicted by the Venezuelan army (Agoracim, 2009). One of the best-documented company-led formalization cases is that of the Damang Mine in Ghana (Amankwah and Anim-Sackey, 2004; Aubynn, 2009; Teschner, 2013). In 1996, Goldfields Limited instituted a program at Damang, shortly after the mine entered production, called “Live and Let Live”.

Under this scheme, Goldfields demarcated areas of their concession for ASM operators to work and established a system to purchase the gold they produced. They tried to exclude migrants from the sites by only registering local artisanal and small-scale miners and issuing them ID cards. The miners were then taught improved mining and processing methods to increase mercury use and limit environmental degradation, and reducing slope failures and cave-ins (Aubynn, 2009; Teschner, 2013). Although there were documented gains in safety and environmental practices, as well as a temporary uptick in trust between Abosso Goldfields and the ASM community, the scheme eventually collapsed.

Under “Live and Let Live,” workers were supposed to sell their product to the large-scale mine. However, they smuggled gold out of the sites to locations where they could attract higher prices. This enabled them to repay debts to local gold buyers who had given them loans to purchase crushing machines and pay their employees’ wages. The number of miners registering to work on the sites steadily declined, and controlling access to the site proved to be problematic, as unregistered people from distant areas were caught working amongst the locals. Moreover, the gold price increased, making the ASM sites profitable for large-scale exploitation. In 2002, the program was terminated when Goldfields elected to remove ASM from these sites and begin preparing for large-scale production. The major long-term consequence of the program is that it serves as a lasting memory of exactly the distrust the company was trying to combat (Aubynn, 2009; Teschner, 2013).

These cases demonstrate some of the issues involved with relocating artisanal and small-scale miners and the difficulties of instituting a recognized area where they can mine. While Placer Dome and Goldfields intended to support the ASM sector, unexpected changes in ownership and shifts in the market and the mine plan ultimately hindered these efforts. The research presented here not only confirms these studies by highlighting the challenges involved with

---

3 Crystallex has since filed an investment arbitration request with the World Bank’s International Center for Settlement of Investments claiming the Venezuelan government has unlawfully terminated the company’s mining permits (Crystallex 2011).

4 At the time of the “Live and Let Live” program, Ranger Minerals owned Goldfields Ltd. Now, Gold Fields Ghana owns Goldfields Ltd.
managing ASM activities on or near a company’s concession, it also extends them by focusing on the perspectives of local artisanal and small-scale miners and their communities on company-as-government-led relocation and development schemes. By providing critical insights during an on-going initiative similar to those employed at Las Cristinas and Damang, this research illustrates the importance of building trustworthy relationships, clearly defining expectations and outcomes, and maintaining transparent communication systems. It therefore indicates some of the ways in which a company can improve their relationships with the ASM sector and more effectively engage with local stakeholders.

Whether a company chooses to support an ASM formalization program or not, international best practices mandate that the company engage ASM and community stakeholders in negotiations before disrupting ASM-based livelihoods (Communities and Small-Scale Mining 2009; ICMM 2010; International Finance Corporation 2007). The success or failure of negotiations is commonly a function of the communications and relationships between the company and the ASM community (Hilson, 2002; Hilson and Murck, 2000). Companies that have few other areas of conflict with communities and that have consciously built “trust capital” (Castelfranchi et al., 2006: 20) with local leaders and community members are able to better endure the relationship strain that ASM brings and are more likely to achieve sustainable results (Davidson and Wotrub, 2003; Teschner, 2013). In addition, it has been shown that the initial interactions between large and small-scale mining stakeholders set the tone for ongoing interactions (Hilson and Murck, 2000; Teschner, 2013). Existing tensions between LSM companies and artisanal and small-scale miners may hinder meaningful company-led efforts towards formalization. Regardless of the approach used by a company to co-exist with artisanal and small-scale miners, it is crucial that companies implement bottom-up strategies that are economically, socially, and technically feasible for artisanal and small-scale miners, their families, and their communities (Aubyn, 2009; Heemskerk, 2011).

4. The political economy of ASM in the Guianas

In the Guianas, government regulation of the ASM sector takes a variety of forms ranging from rather robust policy frameworks with a dedicated authority and laws that address different aspects of the ASM sector in Guyana (Clifford, 2011), to national mining laws that lack provisions for managing or regulating the ASM sector in Suriname (Heemskerk, 2011). In all cases, the guiding policies and laws do not clearly stipulate any compensation for people who claim traditional ownership over land contained in mineral concessions (de Theije et al., 2014; Heemskerk, 2011). The non-existence of vital regulations in mining law is often compounded by the lack of effective enforcement of existing laws (Hammond et al., 2007; Hilson and Vieira, 2007). Political office holders frequently violate mining regulations especially regarding land concessions for mineral exploration (Heemskerk, 2011; Heemskerk and Duijves, 2013). Political allies who own these concessions do not adhere to the legal requirements for reporting and are not penalized for noncompliance (Heemskerk, 2011).

In the Guianas, the mining regulatory status quo generally favors LSM companies over ASM operations, and governments have historically allowed artisanal and small-scale miners to operate outside the legal framework (Broosjus et al., 2005; Heemskerk, 2011). While this approach fails to accrue greater revenue for the government, ASM provides clear economic benefits to poor populations in the interior (Hilson and Vieira, 2007), and in some areas it is speculated that political allies and office-holders are heavily invested in ASM (Heemskerk, 2011). In the particular region of this study, the relative neglect of the interior is also linked to the war (1986–1992) fought between the state and ethnic minority communities of the interior who demanded improved economic development and greater representation in state affairs (Kambel and MacKay, 1999; Marin and Roth, 1994). During this time, schools closed and access to the state’s legal tender was extremely difficult; gold became the de facto currency for all means of trade in the interior (Heemskerk, 2011).

The neglect of the interior by the state left a legacy of distrust towards the government among many communities of the interior (Heemskerk et al., 2014). During fieldwork, community respondents often referred to the relative lack of educational services (schools terminate at grade 9), poorly maintained roads, and intermittent access to electricity as evidence of decades of inattention by the national government. Gold is still accepted, alongside the national currency, in the communities visited for this study for the purchase of goods and services including dry goods and fuel and as payment to sex workers.

In many areas of the Guianas, there is little to no government recognition of land rights for communities living in the interior, even though these communities have lived in the area for over three centuries (Pearce, 2016). There are also different systems of defining access to land and resources (Heemskerk and Duijves, 2013). Among many communities, the forest is considered a communal resource, and land is designated for farming, mining, and other activities according to traditional land tenure systems (Haalboom and Campbell, 2012). These traditional land-tenure systems help organize resources for the benefit of communities. For example, in some areas local individuals lease land that they claim traditional ownership over and allocate informal mining rights to other local residents (de Theije and Heemskerk, 2009; Heemskerk, 2011). In general, Brazilian miners and artisanal and small-scale miners have had great success in achieving tenure rights, allowing for land use and mining activities to continue. However, there is a lack of formal recognition of land rights for communities living in the interior, even though these communities have lived in the area for over three centuries (Pearce, 2016). In some cases, local individuals lease land that they claim traditional ownership over and allocate informal mining rights to other local residents (de Theije and Heemskerk, 2009; Heemskerk, 2011). These systems are not typically recognized by states, and state-sanctioned alternatives are generally not enforced.

Although a multitude of foreign miners migrate among the countries of the Guianas, perhaps the most important (and certainly the most visible) migrants are Brazilians. It is not clear exactly how many Brazilian miners are operating in the interior of the Guianas, but in some areas, it has been estimated that 75% of the ASM workers are Brazilian (de Theije and Heemskerk, 2009; Heemskerk, 2011). In general, Brazilian miners and artisanal and small-scale miners have had great success in achieving tenure rights, allowing for land use and mining activities to continue. However, there is a lack of formal recognition of land rights for communities living in the interior, even though these communities have lived in the area for over three centuries (Pearce, 2016). In some cases, local individuals lease land that they claim traditional ownership over and allocate informal mining rights to other local residents (de Theije and Heemskerk, 2009; Heemskerk, 2011). Many ASM sites are “leased” to Brazilian mining groups by local community members according to informal land tenure systems.

Conflicting land tenure systems in rural areas of the interior of the Guianas, compounded by the environmental and social impacts associated with ASM have driven governments to take initial steps toward defining land rights and formalizing the sector, thereby promoting smoother coexistence with LSM companies (Gurmendi, 2012). To date, however, the most obvious impacts of the government’s activities in the study area can be seen in their collaboration with the police to evict small-scale miners from a large-scale mining company’s concession on two occasions – in 2011 and most recently in 2015.

5. Evictions and livelihoods

The removal of ASM from the company’s concession represents the most salient impact of the LSM company’s activities on local livelihoods. The government is a key player in managing the company’s coexistence with the ASM sector. As mentioned, the government and the company formally evicted small-scale miners from the company’s concession on two separate occasions (2011 and 2015). The history of ASM evictions goes back even further though, to before the company acquired the concession. In 2002, the government forcefully evicted local gold miners from the same concession that was then owned by a joint venture between the state and a US-based mining company that was exploring for bauxite. The eviction was designed to keep local gold miners from interfering with exploration activities.

Small-scale miners are cognizant of these evictions and view them as state-directed and threatening to their lives and property rights. A few miners and community members recounted that the government
agency mandated to regulate the ASM sector brought in an ambulance and a hearse as part of the 2011 eviction convoy. During interviews, miners and community members complained about their alienation from the company's concession and detailed the impacts. The people most affected by the evictions were community members and miners of the village located closest to the company's project area and people who reside in the town center that supplies goods and services to the ASM sector. People in villages located further from the company's project area claim that they have not been as directly impacted by the ASM evictions but that they support the plight of the displaced miners.

At the time of this research, many artisanal and small-scale miners in the area did not have a place to mine. One miner claimed that there were at least 100 ASM-owned excavators sitting idle, and one small-scale miner who also leases land for mining activities remarked, "I have four kids in higher education. I can’t pay for them because I can’t work; I can’t pay laborers or pay my bills." Similarly, the people who provide auxiliary goods and services to the ASM sector have been impacted because artisanal and small-scale miners generate income and buy goods and services locally. One woman used to sell mangoes, cassava, and coconuts to the miners in the area, but since the evictions she has not been able to purchase rice or repair her generator. She lamented that her children now had to eat pounded cassava instead of other more nutritious foods, and there was no light for them in the evenings because she could not afford to repair her generator. A local shopkeeper remarked, "My business has slowed down because the miners go work in other places and they are not spending money here." Finally, a local political representative stated that the region had not received any funding from the government in the last five years, and therefore, gold mining, independent of government control, has been the mainstay of the local economy, especially since the cessation of the war. These sentiments demonstrate the wide-ranging impacts land and resource alienation can have on local individuals and community members and how they experience dramatic shifts in ASM-based livelihoods.

5.1. A proposed solution: the mining reserve

As a proposed solution to the eviction of artisanal and small-scale miners from the company's concession and under the banner of corporate social responsibility, the company relinquished a portion of their concession to the government to be allocated as a small-scale mining reserve. The reserve was officially designated in December of 2012, yet at the time of this writing, no official permits to mine in the reserve have been granted. Small-scale mining rights in the reserve are to be preferentially granted to local miners and leasing land would be forbidden. To mine in the reserve, an individual would be required to submit a letter of application, a certified map completed by a surveyor, a work program, and a budget to the Ministry of Natural Resources. The company will support them with this process if: (1) they agree to mine in an environmentally conscious manner by using no mercury, implementing erosion control mechanisms, and minimizing rainforest destruction; (2) they implement some safety practices; and (3) they ensure reclamation after the life of their mining operation. A miner would then be granted a two-year mining permit for a plot of land within the reserve. The company has also stated that it is willing to contribute funding toward mercury-free gold processing methods and a service center where miners could learn skills and access resources to support safer and more effective mining practices.

Some miners look forward to mining legally because they believe it would legitimize their activities and equalize power relations with the company. One miner explained, "The benefit of registering is that the government recognizes you as a small-scale entrepreneur; you are registered at a chamber of commerce. Then the [government] can back you that you pay your taxes. The moment we are recognized as legal small-scale entrepreneurs the power relationship between the company and the miners will change. The company will have to recognize us as equal partners." This optimistic perspective on formalization is complicated by concerns about regulation and the process of becoming formalized. Some of the local miners view the stipulations set out for ASM in the proposed reserve as cumbersome and unreasonable.

In addition, there is a general consensus among local interviewees that the allocation of the reserve has taken too long, and at this point it will be difficult to persuade the miners to adopt mercury-free processing techniques. One retired miner commented, "If everything started after the first eviction [in 2011], the company and the government would have all these years to train them [the local miners] and they could start mining. But after four years it will be very difficult to convince them to do training and change their methods." A community leader remarked, "The agreements are taking too long; they [the government and the company] are not being serious. Because of the history of what happened with [our people], it makes it even worse." Others commented that the swiftness of evictions by the company and the government is not replicated in their approach towards formalizing the ASM sector. While these perspectives damper the optimism surrounding formalization, even more damaging is the uncertainty and distrust the interviewees expressed towards both the government and the company.

5.2. Mining reserve reservations: uncertainty, distrust, and disagreement

Local interviewees unanimously voiced feelings of distrust toward the company and the government (specifically the agency that was formed to manage and regulate the ASM sector) and expressed hesitations about the proposed mining reserve. Some of these sentiments are rooted in years of distrust between communities of the interior and the state. In addition, the local population is acutely aware of the conflicts that have been occurring since the 1960s between communities and a multinational mining company at a nearby site. Small-scale miners and community members resent the company and the government for the delay in instituting the reserve and feel that promises have been broken. One community leader recalled that in 2011, the government publically promised communities that small-scale miners would have a place to mine. He stated:

The government evicted the small-scale miners, and they went willingly and did not protest. The small-scale miners moved the first time and went elsewhere, but the area they moved to was also given to the company. They are still waiting for an area to mine. Now it’s really about the promises, and the company said they would be fair in how they conduct business with miners. It’s not happening.

Many local people are under the impression that the government is responsible for allocating concessions in the reserve and for providing them with services to improve their mining activities, and they are counting on the company to facilitate prospecting and provide support to both the government and the small-scale miners throughout this process. Others believe it is the company’s job to allocate the concessions in the reserve and suspect that the company is using the government as a scapegoat for their inefficiencies. One miner remarked, "Do you think people believe it is the government’s responsibility to allocate the reserve?" Either way, the prevailing narrative among local interviewees suggests that they are frustrated with the lack of action toward establishing a system that guarantees a mining concession to artisanal and small-scale miners.

Local interviewees felt that that the government and the company could not be trusted. They accused the government of being corrupt and believed that “formalization” initiatives were more focused on securing land for influential political figures based in the capital city.
Community members are aware of the company’s legal right to mine in the area, and it most of the interviewees had come to terms with the fact that the government allocated the concession to the company. However, there is confusion and disagreement over whose role it is to facilitate the entry of the small-scale miners to the reserve. One miner stated, “The [company] says that taking me to the reserve is the government’s responsibility. From my understanding the government have access to any mining areas. One miner noted that the concession, and that in the near future, local people would not have access to any mining areas. One miner noted that the first item in the company’s letter of intent acknowledges that the company is operating on ancestral lands of the local community. While he reflected that this was a step in the right direction, he expressed fears that this recognition lacked substance. “We recently heard that the company’s concession is getting bigger, they are expanding... Maybe after ten years we won’t be able to go where we want because they are there. They are treating us the same way the government is treating us.” It is obvious that the circumstances surrounding formalization and the creation of the mining reserve are tenuous. The location and viability of the reserve are also a source of anxiety for the local miners.

5.3. Communication breakdown: where is the reserve and is there any gold?

All of the miners interviewed claimed to have a vague idea of the location and were doubtful about the viability of the reserve ceded by the company for ASM activities. None of the local community members interviewed during this study, including the leaders of the newly formed ASM group and the members of the local organizing committee, formed ASM group and the members of the local organizing committee, a group of representatives appointed by the village chief to negotiate with the company, claim to have ever been brought to the area. Following are several interview excerpts that demonstrate this lack of information:

I have heard about it [the reserve], but I don’t know where it is. I have seen it on a map, but according to a conversation with ... [a company employee] ... I do not think the map is valid. I have asked [the employee] fifteen times to go to the reserve but I haven’t been taken. They are very secretive. I think miners would go there [to the reserve] if they knew where it was. I would like to be present with the company when they prospect to see if there was gold there. My concern is that there is no gold there; it’s remote but this shouldn’t be a problem. I do not know where it [the reserve] is. The company has not taken us there. If it has gold we will work there. I have heard about the reserve and have discussed it with ... [a company employee] ... because they were trying to get ASM out of this area. I could find the reserve if I had a map and a compass. I have seen a map, but I do not have a copy. I have asked for this but I have not gotten it. We have heard the reserve is far; we were promised the reserve 5 years ago; things will escalate if we are not given a place to mine. In the excerpts above, people claim to know little about the reserve; none of the interviewees had been to the reserve nor did they know where it was exactly. During field research, members of the research team traveled on a section of the road leading out to the proposed reserve. The road was in poor condition and obviously not maintained. Interviews and conversations with both artisanal and small-scale miners and company employees revealed cautious optimism and even skepticism regarding the viability of the gold deposit in the proposed reserve. A few artisanal and small-scale miners think the reserve may have some gold in it, and they would mine there if there were no other options. One miner held the company accountable by stating that he would notify them if he found no gold. A community leader emphatically stated, “The results of the gold content in the reserve were never revealed to the miners. The company should take them there and show them there is gold there. There are ASM leaders. If they start mining in an area, others will follow them.” According to a company employee, the company did some sampling in the area set aside for the reserve, but they did not conduct rigorous exploration activities in the area. For this reason, it was difficult for this employee to be confident that the area slated for the reserve would be a worthwhile location for ASM activities. A different employee reasoned that there must be gold in the reserve because he had heard that people were mining in the area (a claim that the research team was unable verify in person). However, this same employee believed that the people mining in the area slated for the reserve were Brazilian migrants, and he feared that they would mine all the gold before the local miners were officially allowed in the area. Aside from the legitimate concern about the activities in the proposed mining reserve, this observation also raises an interesting point about land rights. The fact that Brazilians do not mine in this region without permission from and an agreement with a local “landowner” suggests that there may be individuals or families who claim traditional authority over the land in the reserve. This topic warrants further investigation. The company has indicated that they are considering relinquishing a second portion of their concession to the government for an alternative location for the reserve. This implies that they are uncertain about the viability of the original reserve for ASM activities, but it also shows their commitment to finding a place for ASM activities to take place.

6. Conclusion

The case presented here highlights the opportunities and challenges associated with an attempt by government and a company to formalize the ASM sector, support rural livelihoods, and mitigate the potential for conflict between large- and small-scale operations. In developing areas of the world, where mining companies are increasingly encountering artisanal and small-scale miners on or near government-allocated concessions, a collaborative approach draws on the institutional strengths of governments and the company’s commitment to social responsibility and their need to maintain a social license. However, the challenges identified in this research related to trust and communication demonstrate that there has been a general lack of engagement with the miners and local communities in designating and implementing the reserve and ultimately determining their future. Clearly there has been a lack of buy-in to the idea of the reserve and the stipulations set out for ASM activities to take place there. The future of the reserve and local mining-based livelihoods are uncertain. As of now, it is the government’s turn to act and it is unclear to what extent the company, the artisanal and small-scale miners, and local community members will be involved in this process.

Role of the funding source

This study was made possible through a charitable gift and in-kind support from the company featured in this study. An agreement was made between the company and the researchers before the project began that the researchers would keep the raw data confidential and not share it with the company. The company does not have access to the data and the intellectual property rights belong to the Colorado School of Mines.
Acknowledgements

The authors extend their gratitude to the individuals who contributed to this study by taking the time to share their stories and answer our questions. We would also like to thank the company for supporting this research, as well as the anonymous reviewers for their insightful comments and suggestions. All of the views, findings, conclusions, or recommendations expressed in this publication do not necessarily represent those of the company. Any shortcomings are that of the researchers.

References


Brosius, P.J., Tsing, A., Zemer, C., 2005. Maps power and the defense of territory: the maps power and the defense of territory: the maps power and the defense of territory: the maps power and the defense of territory: the maps power and the defense of territory: the maps power and the defense of territory: the maps power and the defense of territory: the... in South America. Ambio 36 (8), 661–667.


N.M. Smith et al.


