



“Women and changing sociolegal landscapes in Rwandan mining formalization”

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ABSTRACT

Rwanda has closed artisanal and small-scale mining (ASM) in favor of larger corporate enterprises over the last decade. The government and companies argue that his increase in state legal regulation improves outcomes for the estimated 50,000 women near mining sites, including improved protection from discriminatory employment and gender-based violence. This study uses a framework of feminist critical legal pluralism (CLP) to explore how formalization impacts the sociolegal landscapes rural women navigate in extractive communities. Drawing directly from semi-structured interviews, focus group discussions, and participant observations, and indirectly from social mapping workshops, the qualitative data from six mine sites were analyzed in NVivo using content analysis. The results demonstrate how formalization changes the justice pathways for women to remedy their mining-related grievances. The key findings indicate that women perceive mining companies not to be regulated by law but to be *creators* of law and conflict resolution networks, with companies termed here as “legal architects” and “legal managers.” Thus, formalization has not necessarily given women better justice access for mining-related conflicts. Instead, it has altered their challenges from localized stigma and traditional norms with local leaders to unclear conduits vis-a-vis formal mining management. Considering the historical, geographical, and economic dynamics of this sociolegal change, this article contributes to the growing scholarship on the connections between natural resource economies and localized traditional authorities in post-colonies. It calls attention to the dynamic and delicate everyday legalities that determine behaviors and power dynamics in extractive spaces. It argues that such sociolegal realities must be mainstreamed in formalization policy and implementation to better account for rural women.

1. Introduction

During a group discussion, a female miner in Eastern Rwanda shared, “Even five years ago, the violence here was bad. A child could be assaulted, her family would hide that bad news, and no one could follow up on her case to get justice. Now, people understand their rights in cases of violence. Victims know where and how to report cases to the Rwanda Investigation Bureau (RIB), the police, or the company. We are safer.” Her co-worker quickly disagreed and said, “I think it seems that way if people are taken to jail because of that violence problem, but it immediately means that the company is in collaboration with the government. There is nowhere to report honestly or to get justice otherwise.” (Rwamagana, March 24, 2021). These two women work together in the same mine and live nearby in the same rural community, sharing “governable spaces” (Watts, 2004; 2017) or “governable orders” (Korf et al., 2010). Both these concepts refer to fluid spaces of government thought and practice, powered social interactions, and coinciding

temporalities, which may or may not reside within physical territories, and are essential domains for analyzing sociolegal ordering in extractive communities. Despite their shared environment, these two women perceive opposing outcomes from Rwanda’s decade-long mining formalization process, in which hundreds of artisanal and small-scale mines (ASM) have been closed or formalized in favor of larger-scale, mechanized extraction by regulated companies. These women’s differing accounts call attention to the varied ways workers in extractive communities perceive, navigate, and internalize shifting sociolegal terrain during increased mining regulation.

Rwanda is a leader in an Africa-wide ASM formalization effort, particularly for minerals such as tin, tantalum, and tungsten (3 T) necessary for the world’s electronics. ASM formalization is “a process that seeks to integrate the mining sector into the formal economy, society, and regulatory system” through licensing, legitimate business entities, strengthened policy, and compliance support for ASM actors (De Haan et al., 2020). After privatizing mining in 2006, Rwanda

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implemented a reform agenda based on revised legislation, development of policies, review of tax administration, and modernization of the permitting process (Perks, 2016). Formalization in Rwanda is codified in the 2014 Mining and Quarry Law, which focuses more on licenses, permits, and financial provisions and less on capacity-building within the sector (Nwapi, 2017). Rwanda's formalization has focused on helping informal extractive operators obtain permits or join with legalized operations, identifying extractive locations and actors to be better monitor and inspect their activities, and expanding tax collection from mining profits.

At the international level of formalization, the United Nations has issued a series of disparate mining policy interventions over the past four decades. The World Bank has made formalization a focus of its mining sector reform projects (Hilson et al., 2017). The global formalization agenda has come part and parcel with traceability initiatives such as Section 1502 of the 2010 Dodd-Frank Act and the ITSCI due diligence program, as well as regional efforts through the 2006 International Conference of the Great Lakes Region's Regional Initiative on Natural Resources (RINR) and the 2009 African Mining Vision (African Union, 2009; Schutte et al., 2015). Particular countries such as Mozambique, Ghana, Zimbabwe, Cameroon, and South Africa have joined Rwanda's national-level efforts (Hilson et al., 2021; Hilson et al., 2020; Ofori et al., 2021; Weng and Margules, 2022; Department Of Mineral Resources and Energy, 2021). This is part of what Hilson (2019) calls a large-scale mining "bias" across the continent or policies that favor only large-scale extraction. Within this bias, there is an implicit notion that mining formalization benefits women through greater codified legal protections from the gender-based discrimination and gender-based violence (GBV) documented in ASM activities (Buss, 2018; Danielsen and Hinton, 2020; Muniir, 2022).

Sizeable literature has done well in analyzing how to legalize mining operations so they can be better regulated, monitored, and supported to improve gender outcomes. Notable examples of Central African case studies can be found in the work of Geenen (2012, 2014), Perks (2016), and Hilson (2020). These three scholars offer compelling accounts of the challenging experiences of some of Africa's estimated nine million ASM workers that outline the drivers for informal income and the organizational structures of ASM activities, and all agree that Central African formalization fails to fully account for the everyday social and economic realities of miners. Hinton (2011), Perks (2011), and (Persaud et al., 2017) offer descriptions of women's mining employment to highlight their gender-specific burdens in the industry. Most scholarly formalization discussions focus on the challenges facing individual miners and why these challenges must be remedied, but without emphasizing local legalities (Buss et al., 2017; Hilson et al., 2017; Hinton, 2006; Maco-nachie and Hilson, 2011; Rustad et al., 2016).

Together, these scholars highlight how formalization policies may be blind to more significant socioeconomic and political problems, miners' different conceptions of property, legitimacy, and livelihoods when compared to state actors, and the unequal decision-making power between formalization agents and local community members. For example, Arthur-Holmes (2021) demonstrates how women in Ghanaian ASM must obtain "dig and wash" jobs through men's "gendered sympathy" towards them, which made it difficult for those women to raise mining-related concerns. This portrays the gendered contestations and power dimensions in ASM spaces. This solid foundation for inquiry needs to be expanded with a sociolegal lens. No published studies directly ask how women in formalizing/formalized ASM communities perceive law-making and their problem-solving options to overcome the abovementioned challenges. This study attempts to expand our understanding by innovatively galvanizing feminist critical legal pluralism (CLP) to address the main research question. *How does mining formalization, and the power and resource allocation it engenders, affect the sociolegal and conflict resolution pathways women navigate for disputes in extractive communities?*

This is an essential line of inquiry because the results may reveal how

ASM formalization fits into larger pictures of the rule of law, stable global supply chains of minerals, minimized environmental degradation, and the gender-based outcomes of extraction. Perhaps most clearly, it emphasizes the importance of all forms of mining in alleviating poverty and undergirding asset accumulation in Africa (Hilson and Hu, 2022; Arthur-Holmes and Busia, 2020; Ofori and Sarpong, 2022). To this end, this investigation uses new evidence from six 3 T mine sites to examine how women have experienced the transition from ASM to legalized company extraction in Rwanda. Specifically, it looks at how this process has impacted women's legal consciousness or perceptions of the law and their conflict resolution pathways. It demonstrates that although mining formalization may increase women's protections and reduce gender inequality on paper, it also moves them away from customary legal spaces with which they are familiar and positions them to navigate relatively new national laws, regulations, and justice conduits that may feel more nebulous to them. This article contributes to the growing scholarship on the connections between natural resource extraction and localized traditional authorities in post-colonies that host legal pluralism or the co-existence of multiple legal orders. It does not argue in favor nor against formalization but calls attention to the dynamic and often delicate everyday legalities that influence behaviors and power dynamics for women in mining economies; it does, however, argue that such legalities must be mainstreamed in formalization policy and implementation to account for the sociolegal worlds of women in extractive communities.

This article is organized into six sections. After this introduction, the following section presents a theoretical framework of CLP with a feminist lens. The third and fourth sections provide overviews of the study's methods and results. The results in Section 4 are divided into notions of "legal architects" and "legal managers" to demonstrate that women perceive mining companies not to be regulated by law but as *creators* of law and conflict resolution networks. Section 5 examines the possible historical, cultural, economic, and geographic explanations of these results. The last section provides a conclusion and policy-oriented recommendations for improving gender equity in African mining.

2. Critical legal pluralism

Female miners in Rwanda encounter varied and fluctuating conflicts in their mining work and economic activities in nearby rural communities. In doing so, they must choose how or if they wish to access specific justice pathways. If a supervisor withholds a woman's earned salary, is this grievance to be pushed up to a company owner, reported to the Ministry of Labor, or reported to a human rights NGO? Suppose a woman is an outside food supplier to a mine and suffers an injury while delivering her goods. Is this to be addressed by the company's safety officer, the Rwanda Mining and Gas Board (RMB) that oversees mining compliance, or a local *abunzi* ("those who reconcile" in Kinyarwanda) conflict mediator? In the case of workplace physical assault, does she report to a mining company's security guards, local police, or the federal Rwanda Investigations Bureau (RIB)? These complex questions lie in the legally pluralist nature of extractive spaces and call for a feminist analysis using a CLP framework.

To understand the importance of CLP, we must first acknowledge that "law" is a body of rules and norms created and enforced by those with the power to regulate behaviors. In the example questions above, several legal bodies interact in "particularized normative orders," borrowing a phrase from Darian-Smith (2013). The Rwandan government creates codified laws, local leaders draw from traditional power, NGOs can develop norms, and even private companies may function as government-like organs. When we account for these numerous legal planes and regularizing orders, we see how legal pluralism describes the existence of multiple legal systems in one place, typically in postcolonial settings that have hosted indigenous, colonial, and contemporary legal orders. Merry writes that a "legal system is pluralistic in the juristic sense when the sovereign commands different bodies of law for different

groups of the population varying by ethnicity, religion, nationality, or geography, and when the parallel legal regimes are all dependent on the state legal system” (Merry, 1988, p. 871). Beginning the late 1990s, legal pluralism studies became “critical” when they acknowledged the limits of state-centric views of legal orders and pushed forth the analytical relevance of “soft law” or non-codified norms and rules that have practical effects on behavior (Snyder, 2010).

For this article, CLP becomes feminist when it recognizes that soft law is not just a driver for human behavior but *gendered* human behavior. This behavior impacts women and men differently, especially in rural contexts. At the fore, Manji (1999) first challenged scholars to move away from a dominant legal centralist paradigm that privileges state law to an enhanced focus on legal pluralism to embody women’s sociolegal experiences better. A feminist CLP sees that legal subjects are “law inventing” and not merely “law-abiding,” in the words of Kleinhans and Macdonald (1997), and this is particularly powerful for gender-based analyses of women’s experiences with the law and regulating organs over time when a sociolegal change like formalization takes place. Other scholars have demonstrated the value of CLP in examining gendered issues of natural resources and economic management, part of the growth of feminist geographies led by Benda-Beckmann (1997) (see also Ahlers and Zwartveen, 2009; Benda-Beckmann and Turner, 2019; Cuomo and Brickell, 2019; Kanabiran (ed.), 2022, Part I; Roth et al., 2015). CLP lends itself well to feminist analyses because both approaches focus on the power-imbued social construction of law and community members’ unequal agency and vulnerability within sociolegal systems.

Several key concepts within the CLP framework will help explain the Rwandan case. First, in opposition to legal centralism, this study defines individual and social control instruments, actors, and adjudicative bodies as forces for social ordering and behaviors (the same functions of codified laws), and everyday sociolegal interactions will, thus, be analyzed similarly to state legalities. Second, CLP will not be applied to define what law is near mines but to understand how legal and norm-generating activities constitute the *outcomes of interactive sociolegal processes*. Law is not only regulatory but dynamically discursive; therefore, in line with Macdonald, 2011, the CLP framework here is not itself an analytical model but a “way of portraying legal and social phenomena in relation to each other in their full richness of detail” (p. 326). When this article argues that private companies act as legal architects and managers, that does not mean companies must galvanize written laws, but rather that the effects of their power on behaviors and norms mimic the effects of government organs. Additionally, to integrate feminist analysis with CLP, gender will not be a variable to be considered but a unit of analysis. As an illustration, a similar investigation without this framework might analyze the number of legally employed underground miners who are female. In contrast, a feminist application of CLP codes to discover how everyday interactions determine what constitutes gender-appropriate work for women according to cultural norms and how this determines women’s access to the highest-paid underground mining jobs. These concepts help clarify how feminist CLP organizes this investigation’s findings on Rwandan women’s experiences.

3. Methodological notes

3.1. Study setting and design

Data was collected from six field sites across Rwanda during a qualitative field study conducted in January–June 2021. These six communities were spread across all five provinces and existed on a spectrum of formalization. To obtain a spread of degrees of formalization, two sites hosted large, international mining corporations with licenses issued over ten years ago, two hosted mid-sized, Rwandan-owned companies with licenses issued five years ago, and two hosted a combination of local cooperatives and small-scale operations in the gray

area of legalization (both had recently lost their licenses and were unsure if their renewed applications had been approved yet). These locations were chosen for their geographic distribution across the country, having at least a 10% female workforce, providing research ethics approval by the National Council of Science and Technology (NCST) in Rwanda, and continued (formal or informal) extraction on any scale for at least 20 years (longer than the term of Rwandan formalization efforts). All the sites extract at least one 3 T mineral, and three produce at least one other resource, such as gold, sand, or gravel.

3.2. Sampling and participants

In each community, the research design drew from ten one-on-one, semi-structured interviews with female miners and community women, three FGDs of eight-ten women, and two participant observations at mine tunnels, pits, worker commuting pathways, and cafeterias serving miners. Thus, there were 60 interviews, 18 FGDs with six different groups, and 12 observations drawing from 1/3 of women directly employed in legal mining, 1/3 informally employed in mining, and 1/3 working in farming nearby. Additionally, two mapmaking workshops at each site facilitated geospatial explanations of women’s experiences, and 12 key informant interviews enhanced data in Kigali. Interview and FGD data were collected via chain referral sampling. In the four legal operations, the first contact was the “women’s leader” identified by the company supervisor and confirmed by the local chief of the *umudugudu*, or neighborhood administrative division; in the two informal operations, the *umudugu* chief identified the female miner who had been engaged in mining the longest, with the assumption she would have a rich professional network, and then she served as the referring initial contact for other participants. All participants were between 18 and 62 and non-migratory locals of the district. Rwandan field enumerators conducted audio-recorded interviews in Kinyarwanda, and the author led bilingual FGDs in English and Kinyarwanda with an interpreter. Recordings were then translated from Kinyarwanda to English during transcription by field enumerators. The process was designed to help ensure confidentiality.

3.3. Instruments and data collection procedure

Protocols were very much informed by Ewick and Silbey’s (1998) groundbreaking book on the process through which people use cultural schemas to make sense of their sociolegal experiences or legality. Thus, prompts and questions focused on meanings, sources, authority, and cultural practices, the central components of legality. Early wording in each data collection session was phrased as prompts rather than interrogatives to allow for an open range of responses before more specific questions guided participants toward more direct answers about legal consciousness. Prompts fell into three thematic categories along the lines of a) “Tell me about mining here,” b) “Tell me about women in mining here,” and c) “Tell me about what a woman does when she has a problem here,” with enumerators later posing more specific sub-questions related to legal categories and concepts to elicit answers identifying types of disputes, conflict resolution actors, and steps in a conflict resolution process. It is important to note that enumerators led with the word for “problem” (*ikibazo*) and were instructed to allow respondents to first introduce stronger words with negative tones (*amakimbirane* for “conflict” or *ihohotera* for “violence,” for example) and then mirror the respondents’ word choice moving forward in the interview, FGD, or mapping workshop. This linguistic strategy facilitated data collection that was both scientifically valid and socially empowering (Yeong et al., 2018; Qu & Dumay, 2011).

3.4. Data analysis

Textual data from interviews and FGDs underwent conceptual content analysis in NVivo. Alves and Lee (2022) define content analysis as

“the systematic study of a defined body of communication content to draw inferences about contexts, meaning, and intentions.” It is a flexible yet systematic research method that compresses words or segments of text into coded categories that lead to replicable inferences about the speakers’ meanings (White and Marsh, 2006). Specifically, conceptual content analysis focuses on concepts—here, creating and enforcing mining laws—and then quantifies the number of times a word or phrase related to those appears in the text (Sabharwal et al., 2018). In line with Krippendorff (2004), counting was not a sole prerequisite of content analysis here; verbal categories and the listing of quotes were considered as valid as numbers, and counting functioned to triangulate the quantification. The goal was to examine the frequency occurrence of explicit and implicit terms (“word senses”) in the data related to the three themes. It was a selective reduction process to understand the concepts, categories, actors, and processes most salient to respondents.

The central goal was to examine the frequency occurrence of explicit and implicit terms (“word senses”) in the data related to the three themes. These target concepts allowed the four trained coders to stay focused while also incorporating implicitness (“I was too scared to walk to the mine” would be coded as “economic violence” although the respondent did not say “I lost income because I was afraid”); this was essentially a process of selective reduction for the units of analysis, 60 semi-structured interviews and 12 FGDs (two per six sites). Although not coded in NVivo, each site yielded one collaborative hand-drawn map created in an FGD and 60 hand-drawn maps (one per participant) illustrating the physical and social geography of the community. The maps were not units of analysis but functioned as a conversation facilitation tool and method for comparing textual data. Conceptual content analysis proved a potent tool for close data examination combined with ethnographic observations at mining sites for six months, along with cooperative, private company, NGO, and government documentation of mining operations.

3.5. Ethical considerations

These methodological notes merit a mention of the author’s positionality in Rwanda. Reyes (2020) describes a researcher’s ethnographic toolkit as having visible (nationality, race) and invisible (social capital, researcher status) instruments. However, as a white researcher in rural Rwanda, this author endeavored to make her invisible capital visible to ensure an ethical balance of power/knowledge with participants and fully informed verbal consent (which they preferred over written consent). The author openly discussed how much she had to learn from participants, spoke elementary Kinyarwanda during introductions, gave participants written interviews and FGD questionnaires in Kinyarwanda to review privately before agreeing to participate, and ensured they gave their consent in Kinyarwanda to both the author and at least one Rwandan team member. This methodological approach helped ensure that feminist inclusivity practices informed all data collection and analysis.

4. Seeing like a mining company: rural private sector governance

The following argument that women may perceive private mining companies as subsuming state-like functions in extractive communities must first be contextualized. First, some study responses within sampled communities, or even within single interviews, were paradoxical. Like most people, these research participants navigate a complex, evolving, and in Gramscian terms, sometimes contradictory legal consciousness and a sociolegal world in flux as they push back against “multiple sites of oppression” as described by Gramscian feminist Margaret Ledwith (2009). When we consider the intersectionality component of feminist analysis, we can understand how Rwandan women’s sociolegal perceptions may not be perfectly consistent. They describe experiences that may be uneven responses to the intersectionality of exclusions and

subordinations created during a legal change, which is common among indigenous women globally (Sieder and Barrera, 2017). If legal pluralism creates sociolegal realities discursively as the result of interactions that naturalize certain hierarchies and forms of violence among community members, it is logical that this collective discussion is not always orderly.

For example, although the results show salient themes in coding, there were also some paradoxes. Within transcripts and maps from a single respondent, answers varied from dynamic and detailed accounts of a mining company’s conflict resolution hierarchy to later answers coded as the participants not knowing how to respond. Additionally, 15 women reported forced transactional sex between female miners and male supervisors but replied that they did not know about sexual violence. Meanwhile, 19 women described in both interviews and FGDs harassment, physical violence, and workplace discrimination but responded at least once that they did not know about any problems or conflicts in mining. This does not mean the women are unreliable narrators of their experiences, but rather that the legal consciousness of most exploited people is turbulent and fluctuating (Glassman, 1991). However, despite such fluctuations, analysis indicates these rural women see private companies as establishing and enforcing all mining-related laws. One participant concluded, “Don’t you know? The management team is responsible for establishing laws and regulations in the mine. The company security guards are the ones who solve small mining-related problems and conflicts and report to the manager of the company. That’s how it is” (Kamonyi woman, 2021).

4.1. Mining companies act as legal architects

A clear majority of coding demonstrated that women view their local mining company as the primary, or only, legal actor in creating mining laws in their community (see Appendix). Compared to the answers about the national government, coding density was three times higher for responses that “the company establishes laws” and almost six times higher for the reaction that “laws are made jointly by the company and government” (Ngororero woman, June 16, 2021; Rwamagana woman, March 24, 2021). Half of the participants who believe in a company-centric legal world referred to the company as an organization, the entire entity, while the other half identified the singular company owner or an operations supervisor, a single actor, as the driver behind law-making. For example, one participant said, “I think the company owner is the one to set the laws, pass them through the security guards who in turn pass to miners/diggers, and they told us that we have to follow certain rules” (Kamonyi woman, June 3, 2021).

Then, conceptions of mining laws fell into two distinct categories: economic rights/economic violence protections and safety rights/physical violence protections from bodily harm caused by the company. One woman reported, “I think mining has laws and regulations, like when the company owner orders people to supply all minerals to him, even the ones we pick behind washers. Before we worked with permits, he used to tell us to take all the tin to his office and said that the price of 1 kg was this. Aren’t these laws?” asked one respondent (Kamonyi woman, June 3, 2021). Among all six communities, the most common explanations of the purpose of laws involved fair pay and compensation, but female participants were divided if legal formalization had financially benefitted them. About 1/3 of codes described how Rwanda’s move away from ASM created financially favorable legal protections, with one participant explaining, “Imagine a woman who gets fired when mining is her only source of income. That is violence. I think other types of violence may exist, but all suspected related to it are punished now” (Rwamagana woman, March 24, 2021). Across responses, there was a call for fixed salaries over production-based incomes as part of the legal entitlements they seek.

An almost equal number of female respondents said that compared to a decade ago when ASM was more prevalent, they perceived formalization as improving their physical safety but reducing their incomes.

Women at two locations agreed in their FGDs that they preferred earning more money illegally than they currently make legally, even with company security and concurrent legal safeguards (Rulindo FGD, March 10, 2021; Rwamagana FGD, March 24, 2021). In the words of one FGD discussant, “Illegal miners and buyers were many and made money available to many people. For example, if the company could buy [your minerals] at 5000 RWF per kilogram but an illegal buyer could offer 12,000 RWF, the circulation of money to many different people was very easy” (Rwamagana woman, March 23, 2021). With a utilitarian approach to the local economy, one interviewee said,

In terms of money generation [before formalization], the community as a whole had access to money in many ways. For example, one man could produce 100 kg of cassiterite at the time, and his family’s living standards could be significantly improved. He could build a nice house, even though he was one person who managed to make that money. Others benefitted from mining while managing food and construction businesses that gave jobs. At the sites, people sold food, sambusas, and local beer. Whatever investment you made, you could make a profit. I had a bar. Therefore, on my side, I prefer the mining of the past, ignoring the risks of accidents because those who survived could serve the whole community (Rwamagana woman, March 23, 2021).

The company-centric view of the law eclipsed participants’ understanding of the national government being the legal body responsible for regulating private sector outcomes. Moreover, specific concerns about economic rights under (company) law centered on perceived control over one’s production, the option of choosing the best prices from local buyers, and the accessibility of wealth to as many community members as possible, which all seemed better under ASM—despite the general agreement that formalization made mining physically safer. One respondent summarized her FGD with, “I think the company works closely with the government to fix orders between the company and the

community. We used to see national police coming to the field with company staff. Maybe this means maybe laws are made by the company in partnership with the government?” (Rulindo woman, March 10, 2021).

4.2. Mining companies act as legal managers

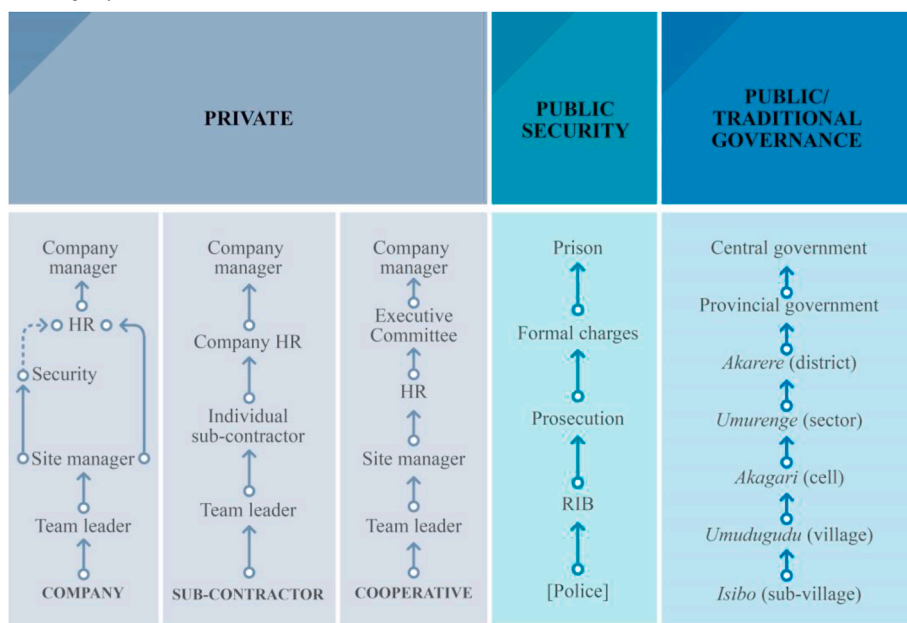
Mining formalization’s goals often include increased security, fairness, and labor predictability. The Rwandan government strives for these through the procedural and legal codification of operations in combination with the checks and balances national laws provide on private extraction. When such rules fail to prevent conflicts, they must provide pathways for disputants to peacefully resolve their grievances (see Table 1). Since rural Rwandan women perceive mining companies as creating laws, it is not surprising that they also view companies as the primary conflict resolution actors. According to one interviewee, “When you have a mining-related problem, you approach the company owner, and he can help you resolve conflicts. No other laws I know” (Kamonyi woman, June 2, 2021).

Three dispute categories emerged in classifying the types of problems women said they might encounter. In their answers, all conflicts related to economic and physical violence: (a) monthly salary and payment disputes with mining supervisors, (b) unfair dismissals from the company, and (c) harassment and GBV at work or while commuting. A female washer related the following.

“Inside the company, some injustice affects certain people, especially women, like being fired from work without a specific reason and unexpectedly. For example, we have been fired from our job position even if we received the company certificate of appreciation and had an employment contract. Based on our contract agreement, we have been fired without even being compensated for the rest of the money. At that time, we didn’t advocate for that injustice because we knew

Table 1

The column on the left (purple) shows the conflict resolution pathways most commonly navigated by women who choose to try to remedy their mining-related grievances, even when those grievances are caused by the private actors themselves. The columns on the right (green and blue) show alternate pathways available but which almost no women reported considering for mining-related problems. At any point, women may opt-out of these pathways and engage with the Rwanda Extractive Workers’ Union (REWU) but none reported knowing anyone who had done so.



RIB - Rwanda Investigation Bureau / HR = human resources.

the company was more powerful than us, so we decided to remain quiet about our safety issues. They used the strategy of updating the contract we had for a long time and replaced it with a short contract. Then after that short time contract ended, they told us they would call us again to come to work" (Rwamagana woman, March 23, 2021).

Then, half of the women who named one of the above types of problems also viewed the mining company as contributing to harassment and GBV that occurs on mining peripheries. Most commonly, they said this is payday binge drinking that drives GBV and the hiring of sex workers at the end of each month. At least one respondent from each community also mentioned chronic mining-related injuries. However, none voiced the notion that they could or should hold the company liable, as companies were seen as only responsible for acute injuries (which tend to be borne by men doing more dangerous tasks).

A majority of codes (61/73) suggest that the company always manages mining-related conflict resolution to some degree, even when the company is seen as the driver of the conflict. Within this majority, over half of women see the company as the sole conflict resolution channel. To the understanding of one mine cleaner, "The [mining] leaders who make these laws are the one who solves mining-related problems. When problems arise, they are reported to the team leader, from team leader to supervisor, supervisor to mine superintendent and safety officer, and finally to the general manager for final approval of either being warned or fired. That is how their management organization is structured" (Rwamagana woman, March 23, 2021). Her co-worker added, "There are conflict resolution managers in the company for problems to be solved. For example, fights at the sites get solved through a team leader who reports to the supervisor and later to the Director when the two can't solve the case" (Rwamagana woman, March 23, 2021). A minority of codes (12/73) express that local and national agencies can be approached in combination under some conditions, primarily for issues of sexual assault by a non-family member. Revealingly, no respondents in any community named just a local leader, abunzi mediator, or a national agent alone, e.g., RIB, as a conflict resolution actor they would approach for help. The mining owners established the mining laws under the government's direction. The company's site manager and security guards were responsible for implementing these laws and helping solve mining-related problems and conflicts" (Kamonyi woman, June 3, 2021).

5. Boundaries without fences: sociolegal and physical geographies limiting state governance

Women's conflation of company policies with government laws sometimes stemmed from a belief that state actors follow the directives of companies and other times from a sense that the state and the company are the same. A woman living near Rwanda's largest foreign mining company said, "I think the company works closely with the government to fix orders between the company and the community. I used to see national police coming to the field with company staff, so I didn't know where I could report problems and who could solve them. Maybe laws are made by the company in partnership with the government." When prompted to explain further how she would seek a remedy for a potential dispute, she explained, "With a problem, I couldn't insist [on a just remedy]. This is especially true for women who are more vulnerable single mothers and widows (there is a large number of widows here due to mining) who do not have someone to stand for them or to advocate for them" (Rutongo woman, March 10, 2021). There are several reasons private companies may replace the national government as legal drivers in formalized extraction. As outlined in the three subsections below, these may include gender-differentiated land access and geographic realities in mining communities.

5.1. Gendered legal protections and access

First, feminist legal historians have demonstrated how land governance has customarily been based on user rights rather than individualized ownership on paper in sub-Saharan Africa. Land has been considered communal property, and individual access and usage claims have been embedded in social relations within kinship groups (Djurfeldt, 2020; Yngstrom, 2002). For better or worse, African women have often gained land rights vis-à-vis their relationships with men, namely husbands and fathers (Chigbu, 2019; Doss et al., 2014). However, Oppermann (2006) reminds us that legal pluralism alone does not necessarily disadvantage women. Customary law that discriminates against women can be detrimental, but since traditional law is often the only form of law known to many nonurban people, allowing this body of law to continue to operate per international standards vis-à-vis women can bolster gender equity (Oppermann, 2006). With the formalization and privatization of extractive concessions, especially foreign holdings, traditional rural understandings of land governance are overturned. Customary claims to extractive rights no longer apply based on intergenerational tenure, current occupancy, or marriage (which could have benefitted women).

To help facilitate women's property ownership and control, Rwanda trailblazed gender equality in land titles. It passed the 1999 Inheritance and Marital Property Law, which codified women's ownership over all land also titled to their husbands, and the 2004 National Land Policy and the 2005 Organic Land Law (Daley et al., 2010). However, such legal support for women does not always translate for those in today's mining communities, even when combined with national labor protections for women. The Rwandan laws only accounted for certified, monogamous marriages after 1999 and were drafted to protect small landholders rather than regulate land governance and conflict resolution in large-scale mining. No woman in any sampled communities knew of these laws. A female leader expressed,

"Having the spirit of a woman who lives under men's control is not easy to think about. It is somehow scary for her to ask permission. I think if she even managed to get to work in mining, she would have to hand all the money she earned to her husband. Better not even go there. With farming, see how hard farming is, and in the end, a man who contributed less is controlling everything until the point that he can take everything, like a big sack of corn or beans, and sell it just for himself to buy drinks and other luxurious life needs. Imagine a woman who contributes to everything but who can't participate in the decision-making of what to do with it" (Zinga woman, April 21, 2021).

Thus, when land control agents switch from local male owners within traditional legal systems to urban, state, or international ones during mining formalization, this may distance women from customary land governance, contemporary legal protections, and accessible conflict resolution mechanisms historically more familiar. In this study, exactly half of the participants reported having their name on a land deed in conjunction with a male family member, but none owned land independently. This is a higher ownership rate than expected before 1999 and in neighboring African countries today, but it falls short of gender equity goals, especially when considering the importance of not just legal ownership but women's actual decision-making power over land use. Moving forward, the question is how to best support women as they contribute to everything while they also, in the words of the Zinga respondent, "participate in the decision-making of what to do with it."

5.2. Gendered geographies

In addition to the waning of customary land laws, the physical geography of rural environments may also isolate mining companies from state authorities. Mining formalization may transform legal actors and conflict resolution arbiters from accessible community neighbors, such

as local leaders or abunzi mediators nearby, to nebulous company officials who often live on gated company property in private housing with security agents. Ample research from political economy, particularly on the resource curse in Africa, has demonstrated how rurality may propel conflict and impede fair conflict resolution (and increase a commodity's price volatility) through physical distancing from exogenous control mechanisms (Vahabi, 2018; van der Ploeg and Poehlhekke, 2009). Gates (2002) and Buhag et al. (2009) have shown that disputes located at a considerable distance from governing bodies and in mineral-rich regions may have a longer duration because state security agents exert diminished power farther from their operational base, which is most often in capitals. Before COVID-19's economic impacts, there were over 250 registered mining and exploration companies in Rwanda but only five with extractive sites within urban Kigali Province, leaving the vast majority of mines hundreds of kilometers from central government officials in Kigali City (Kuschminder et al., 2017). Suppose companies are seen as making and enforcing the law, and company authorities are fewer in number and less geographically accessible than an abunzi mediator nearby. When applying a feminist CLP lens, one sees that women could be less able to access company-based conflict resolution to remedy their mining-related grievances and unable to access state agents at all because of rural distancing.

Rural geography and physical distance between mining communities and government actors help explain the disjoint between mining conflicts and state mediation that leaves companies at the conflict resolution fore. Roseveare (2013) defines legal pluralism as “the existence of multiple sources of law (both state and non-state) within the same geographical area.” However, the further the distance between extraction sites and state actors who govern that extraction, the less likely it is that all parties will share the same legally pluralist geographic space with universally clear conflict resolution rules, procedures, and norms. For example, when prompted with a question about where to take mining-related problems when they could not find a resolution in their community with either the company, cooperative, or local leaders, no respondent in any interview or FGD knew how or with whom to seek help with sociolegal actors outside their community or in Kigali. The lack of state presence in rural extractive spaces makes it difficult to share a single legality.

When we combine geography analyses with feminist economics, we perceive how physical distance interacts with economic factors to inhibit women's interactions with state pathways for remedying their grievances. First, rural households are more likely to experience the migration of a male breadwinner seeking employment, often to urban or more commercially active areas. This may leave the female head of household without a male partner to facilitate resolution-seeking with local leaders or company officials in male-dominated arenas. Then, despite significant gains in livelihoods recently, rural households in Rwanda continue to have higher rates of poverty than urban ones, potentially leaving rural women with less time and material resources to seek justice (Carter, 2018; NISR, 2018). Additionally, rural populations and women have lower literacy rates than their urban and male counterparts in Rwanda, meaning that women in mining communities may be less likely to read or file papers related to their grievances (NISR, 2021, p. xiv). Rural-to-urban migration, poverty rates, and literacy rates are, in part, a function of the higher costs incurred by long physical distances for rural dwellers seeking justice, including the higher costs of transportation, lost wages, lodging away from home, and potential childcare expenses in the process of conflict resolution.

6. Conclusion and recommendations

By drawing on a feminist CLP in this analysis, we can observe that women perceive mining companies not to be regulated by law but to be *creators* of law and conflict resolution networks vis-*vis* their role as social and economic resource gatekeepers. Companies function as “legal architects” and “legal managers.” These findings push back against the

notion that formalization is necessarily legalization and that legalization always improves protections for vulnerable workers and residents like women in mining communities. These results indicate that formalization has not automatically given women better justice access for mining-related disputes and may cloud their sense of conflict resolution conduits. They still navigate soft law, norms, standards, and expectations of behavior in their grievances.

Based on the findings above, several recommendations may be favorable for improving rural women's legal status in mining in Rwanda and beyond. In particular, on-the-ground legal trainings, empowering women as legal monitors near mines, standardization of measurable gendered expectations across companies, and a portable model of improved legal operations are promising. First, the translation of mining laws begs for grassroots education campaigns in rural areas. These could take the form of annual workshops led in the local language of participants to interpret the meaning of codified laws into realistic and accessible standards for behavior at mine sites. NGOs or government agencies are positioned to lead such workshops, making the gatherings an ideal instance for gender mainstreaming. Women could lead group discussions, feedback sessions, and micro-workshops to facilitate long-term sustainability and capacity-building.

Secondly, Rwandan women are poised to be monitoring agents for legality at mines. For example, the wildlife conservation field has done well in identifying, training, and supporting local community monitors to observe and report on poaching and illegal environmental activities in protected areas across East Africa. In Northern Rwanda specifically, local women living near Volcanoes National Park have been trained in mountain gorilla monitoring activities in collaboration with the state (Bush et al., 2010). This community-led legal monitoring and accountability model could be modified for the mining sector. In line with the notion of women as legal monitors, Rwanda's Gender Monitoring Office (GMO) has pilot-tested a “gender certification seal” for 3 T minerals at one mine site (Rwanda Gender Monitoring Office, personal communication, 2022). Akin to the free trade certification on Rwandan coffee, this seal means the participating mining company has agreed to adhere to specific standards of gender mainstreaming in their operations and periodic inspections. Once the company passes, their minerals receive this seal, and consumers and companies may have greater confidence in the ethical extraction of the product they are buying and using. After legal trainings, women would be positioned to monitor gender-mainstreamed extractive activities and serve as agents for companies' gender quality certification programs.

Conducive to creating pilot sites for gender mainstreaming programs, Rwandan 3 T mine sites exist in clusters that lend themselves to being centralized “ethics hubs.” Hilson et al. (2020) conceives of “formalization bubbles” that provide a framework for bridging the gap between Africa's informal ASM operators on the one hand and government officials on the other, facilitating much-needed dialogue. These spaces provide a decentralized platform for licensing casual ASM operators, fostering environments to support anchored services for the sector, and stimulating innovation. They gather critical stakeholders where they can be held accountable for their business practices.

Drawing from Hilson's notion, Rwanda 3 T ethics hubs could be physical spaces or online ones for communities with the ICT infrastructure, where miners can go to ask questions about legal compliance, garner guidance, and report violations of legal standards. Each hub could also offer a hotline via a secure mobile number in which community members could anonymously report mining violations via voice calls, SMS, or WhatsApp messages. Such hotlines are currently in use in Rwanda, Tanzania, South Africa, Botswana, and Nigeria for other legal violations, and this idea could be expanded to include those violations in mining. In considering a holistic approach to translating higher-level law on the ground, these ethics hubs would be ideal hosts for the local accountability monitors, gender seal inspectors, and workshop leaders, bringing together multi-leveled components of comprehensive mining education and accountability to bolster gender-equitable outcomes in

mining.

These recommendations are compatible with cost-efficiency. The salary paid to locally-trained ethics monitors and ethics hubs teams could come from a “Pavlovian tax” placed on companies by the relevant national government agency. Pavlovian taxes place duties on producers for adverse side effects for society. In this case, the negative impact of mining companies is women’s marginalization in mining work, displacement, and GBV. Alternatively, the hubs’ funding could come directly from government agencies or mining regulatory bodies as part of their typical programming. Likewise, the gender certification seal initiative has a low start-up cost. It would require little more than a handful of salaries for those who plan and implement it and could be supported in part by an NGO partnership. Considering the relatively low cost of local capacity-building for local leaders to gender mainstream on the ground and the untenable cost of the gender wage gap, discrimination, and GBV in the mining sector, the need for translation of high-level laws and policy into local action is clear for extractive industries in Africa. These research outcomes help expand and add nuance to the global conversation on gender and natural resources and positively inform practical law and policy-making on sustainable and ethical minerals worldwide.

Mining formalization has demonstrated measurable positive outcomes for women across Africa. However, any well-informed formalization policy must account for the intricacies of ASM’s socio-legal terrain. ASM hosts complex governable orders that have evolved in tandem with complex rights, duties, and legal conceptions at the local level over time. Rural women in mining communities acclimated to this evolution and, like marginalized people everywhere, developed their repertoire of adaptive strategies in the face of conflicts. Swift formalization of extraction that does not account for pre-existing sociolegal realities may diminish women’s power and agency in resolving their mining-related disputes. Gender mainstreamed formalization efforts must include ground-up approaches to integrating women’s needs during the process.

Ethics

The Republic of Rwanda’s National Council of Science and Technology approved this research on September 26, 2020 (approval no. NCST/482/197/2020). It was conducted under the University of

Rwanda’s College of Science and Technology (CST) and CST’s Center for Excellence in Biodiversity and Natural Resource Management. It adheres to the ethical guidelines of the Helsinki Declaration (updated in 2018). All participants were verbally informed of their rights as human subjects and provided informed consent.

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Declaration of competing interest

The author reports no potential conflict of interest.

Data availability

Data will be made available on request.

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Appendix

Code frequencies from NVivo that were referenced in Section 4.1 can be seen below.

“Who makes the (mining) laws in your community these days?”	Kamonyi	Ngororero	Ruli	Munyaga	Rwamagana	Rulindo	TOTAL
Mining companies	4	3	1	3	4	3	18
National government	2	0	2	0	1	1	6
Mining companies + national government	1	4	2	3	3	4	17
Other	0	0	0	0	0	0	0
“Where do you take your (mining) problems these days?”							
Company security guards	6	0	5	2	2	0	15
Company management	1	7	1	4	8	6	27
National authorities	0	0	0	0	0	0	0
Local leaders	0	0	0	0	0	0	0
Local leaders + company management	11	0	0	6	1	1	19
Local leaders + national authorities	1	2	2	3	1	3	12
Do not take problems anywhere/“I do not know.”	10	1	5	0	0	1	17

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