

# A social conflict diagnostic tool for application in the mining industry: A case study in Peru

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## Abstract

In the mining industry, both the types of social conflict and the best practices to deal with them are diverse. However, best practices tend to be considered separately, and there is no integrated tool combining all relevant types of social conflicts and respective best practices for overcoming them. Therefore, this paper aims to devise a framework that integrates all best practices for preventing the main types of social conflict in the mining industry. For this purpose, a framework is formulated based on a comprehensive literature review and then tested in two mining companies in Peru. The resulting framework can be used in the mining industry to evaluate social conflict management and create strategies to improve outcomes.

## KEYWORDS

diagnostic tool, mining, social conflict, social responsibility

## 1 | INTRODUCTION

Social conflicts between mining companies and communities have proliferated during the last decade. Researchers have sought to understand the causes and consequences of these contentious episodes at the local level. Recent mining research has continued to investigate both the wide-ranging impacts associated with mines and the social license concept, with researchers advocating different, and often diverging, approaches to sustainable mining (Dare, Schirmer, & Vanclay, 2014; Owen & Kemp, 2013).

### 1.1 | Research gap

In the mining industry, there are many types of social conflicts and best practices to prevent them. These conflicts can be defined as a clash of community and mining corporate cultures. For example, disputes commonly arise over the distribution of benefits, the environment, land, livelihood, and the human rights of indigenous people; these are the main causes of social conflicts in the mining context. As a consequence, it is critical for companies to understand which factors provoke or reinforce opposition and how to gain acceptance. Rachel and Franks (2014) demonstrated that the costs of company-community conflict are both real and significant for

extractive sector companies. Greater awareness of this reality should contribute to a broader paradigm shift in the sector, which recognizes the critical importance of building sustainable relationships with local communities around extractive operations. A conflict is similar to an illness: In order to properly manage a social conflict, it should be properly diagnosed. Therefore, there is a need to integrate all the causes of social conflicts and the best practices to cope with those causes. The aim of this paper is to integrate into one framework all the best practices to prevent all of the main types of social conflicts common to the mining industry.

## 2 | LITERATURE REVIEW AND FRAMEWORK DEVELOPMENT

The aim of the literature review was to identify and examine a representative sample of studies describing the types of social conflict in the mining sector and recommended best practices to manage them. Therefore, the search was conducted through both commonly used web research engines and academic interdisciplinary databases, such as Scopus and Google Scholar. The key words used in the search were “social mining conflict,” “best practices in the mining industry,” and “social license to operate.” In total, 66 papers were reviewed; the process came to an end once no more types of social conflicts and best

practices could be identified. The types of social conflicts and best practices identified are listed in Tables 1, 2, and 3. Most of the studies are articles and papers published by journals (65%); the rest are best practice reports (35%).

Social impacts of the mining industry emerged from the literature review and are grouped into 16 categories (Table 3). The list of categories refers to main areas of social impacts, for which I report the representative ones.

Some examples of these types of social conflicts and best practices recommended are shown in Table 2.

The 16 main types of social conflicts and 102 best practices were combined in the framework presented in Table 3.

## 2.1 | Mining in Peru

Peru is one of the world's leading producers of copper, silver, lead, and zinc. The country is also a key producer of gold, iron ore, and molybdenum and has significant mineral reserves waiting to be exploited. As a result, new mining projects tend to provoke strong popular opposition on environmental and nationalistic grounds, as the large players are all foreign-owned mining companies. The Peruvian Office of the Ombudsman (2012) has tracked the incidence of social conflicts related to mining operations over time. Present-day social conflict factors include diverging positions on the appropriate development model for Peru, limited state presence in regions with high poverty, social exclusion, and vulnerability.

Throughout the years, many attempts have been made to resolve the conflicts, but these have generally been short-term, piecemeal solutions. In 2012, for example, the government approved the Prior Consultation Law, which requires prior consultation with indigenous communities before any infrastructure or projects, especially mining and energy projects, are developed in their areas. However, it is this very same law that froze two multibillion-dollar mining projects: Conga (gold) in the Cajamarca region and Tia Maria (copper) in the Arequipa region, leading the president to call a state of emergency. The situation surrounding mining conflicts is so complex that uncertainty and ambiguity prevail not only throughout the process of the conflict but also throughout the relationships among stakeholders.

## 3 | METHODS

### 3.1 | Data sample

A convenience sampling of two mining companies in Peru was used. Convenience sampling is a type of nonrandom sampling in which the participants are selected because they are willing and available (Dörnyei, 2007).

### 3.2 | Instrument

A structured questionnaire was designed containing 102 statements, to which responses were given on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). All survey items were pretested by two

professors who research social conflicts and by two industry experts. The content of each item was finalized based on their feedback.

### 3.3 | Data collection

Once the questionnaire was developed, the companies were contacted and asked to select one respondent from each relevant department. Also, community leaders and other interested community members (farmers, in all cases) were asked to respond to the questionnaire. In the end, 20 individuals agreed to participate (see Table 4).

### 3.4 | Data analysis

A radar chart is used for comprehensive evaluation. Radar charts have existed for years as important descriptive tools for multivariate data. This radar chart is a circular graphing method and has 16 rays projecting from a central point, with each ray representing a different type of social conflict.

## 4 | DISCUSSION

### 4.1 | Finding 1: The framework can be used to diagnose the management of different types of social conflicts

#### 4.1.1 | Case Study 1

This mining company is a large gold mining project with a significant economic and environmental impact. The company had planned to dry some alpine lakes and create four artificial reservoirs, three of which would be solely destined to supply water for local agricultural activity. This has led to significant concern at the regional level, which has caused the social conflict to escalate into violent confrontations between police and protestors.

The results for the first mining company are shown in Figure 1.

For conflict type Number 1, "company attitudes toward community relations and conflict management," the first company's mean score was 2.8 (maximum 6). This means that the company does not listen to community complaints. A manager said: "In reality, the company thinks that they are upholding their obligations through their community relations policies by complying with the Peruvian government's requirements and the law, and by paying taxes." A company executive also commented: "We, as a private business, feel that we are managing everything well. As a private business, we have acquired the rights to operate at this site, and we do not know much about what happened before and why the community complains."

Furthermore, for Number 2, "engagement," the first company scored 2.9 on average, indicating that the company has slightly failed in its relationship with the community.

A community leader said: "At this time, the community has a lot of fights and discussions with the company. The company hardly pays attention to us. They do not have the understanding to give us help or support." A farmer also commented: "There is no trust because there

**TABLE 1** List of studies selected from the literature

Reference	Category	Types of social conflicts
1 ICMM (2016)	R	Land acquisition and resettlement
2 Alphabeta and Business and Sustainable Development Commission (2016)	R	Water
3 Arellano-Yanguas (2012)	P	Livelihood
4 Arellano-Yanguas (2011)	P	Social
5 ICMM (2012a)	R	Human rights
6 ICMM (2012b)	R	Community development
7 Bebbington and Bury (2013)	P	Agriculture
8 Bebbington (2012a)	P	Agriculture
9 Bebbington (2012b)	P	Supports nonmining activities
10 Bebbington et al. (2008)	P	Artisanal mining
11 Bury (2005)	P	Agriculture
12 Bury (2002)	P	Artisanal mining
13 Bury and Norris (2013)	P	Agriculture
14 Canel, Idemudia, and North (2010)	P	Artisanal mining, agriculture
15 Columbia Center on Sustainable Investment (CCSI), UN Sustainable Development Solutions Network (SDSN), United Nations Development Programme (UNDP), and the World Economic (2016)	R	Mapping mining to the sustainable development goals
16 ICMM (2012b)	R	Health and safety
17 ICMM (2008)	R	HIV/AIDS, TB, and malaria
18 Environmental law alliance Worldwide (2010)	R	Land, environment, cultural
19 Esteves, Franks, and Vanclay (2012)	P	Resettlement, human rights, social
20 Franks (2012)	R	Land, engagement, environment, human rights, cultural
21 GRI 303: Water and Effluents (2018)	R	Water
22 Turner (2012)	R	World heritage sites
23 Browne, Franks, and Kendall (2011)	R	Environment, stakeholder participation, social
24 Hinojosa and Bebbington (2008)	P	Agriculture
25 Franks, D. (2010)	R	Water, land, employment, social, environment
26 Humphreys Bebbington and Bebbington (2010)	P	Social
27 Franks (2011)	R	Water, land, employment, social, environment
28 Ivanova and Rolfe (2011)	P	Employment
29 Jul-Larsen, Kassibo, Lange, and Samset (2006)	R	Skills and education
30 Keck and Sikkink (1998)	P	Social
31 Kitula (2006)	P	Employment, land, environment
32 Kumah (2006)	P	Land, human rights, environment
33 Lockie, Franetovich, Petkova-Timmer, Rolfe, and Ivanova (2009)	P	Environment
34 Macdonald (2004a)	R	Environment, cultural
35 Macdonald (2004b)	R	Environment
36 Macdonald and Southall (2005)	R	Engagement, environment
37 Martin and Newell (2008)	R	Environment
38 Martin, Vettori, and McLeod (2005)	R	Engagement
39 McIntyre, Bulovic, Cane, and McKenna (2016)	P	Water
40 Mensah and Okyere (2014)	P	Land
41 MPFPR (2016)	R	Land, engagement, environment, human rights, free association
42 Nicholls (2009)	P	Social
43 O'Faircheallaigh (2008)	P	Livelihood, environment, land
44 Orihuela and Thorp (2012)	P	Social
45 Owen and Kemp (2015)	P	Engagement
46 Oyarzún and Oyarzún (2011)	P	Water

(Continues)

TABLE 1 (Continued)

Reference	Category	Types of social conflicts
47 Patrick and Bharadwaj (2016)	P	Water
48 Petkova-Timmer, Lockie, Rolfe, and Ivanova (2009)	P	Employment
49 Rees, Kemp, and Davis (2012)	R	Company attitudes toward community relations, engagement
50 Rodrigues (2011)	P	Social
51 Schueler, Kuemmerle, and Schröder (2011)	P	Land, environment
52 Shandro, Veiga, Shoveller, Scoble, and Koehoorn (2011)	P	Environment
53 ICMM (2015)	R	Components of social agreements
54 Urkidi and Walter (2011)	P	Social
55 Veiga, Scoble, and McAllister (2001)	P	Employment, education, environment
56 Walter and Martinez-Alier (2010)	P	Supports nonmining
57 Wang, Zhao, Yang, and Li (2017)	P	Land
58 Weitzner (2010)	P	Land, livelihood, environment
59 Weldegiorgis and Ali (2016)	P	Environment
60 Yáñez and Molina (2008)	P	Land, livelihood, environment
61 Bice, Bruecknerb, and Pforr (2017)	P	Actuarial (legal) and political risks
62 Owen and Kemp (2017)	P	Social management capability
63 Vivoda, Owen, and Kemp (2017)	P	Resettlement
64 Yang, Zhaoa, and Hoa (2017)	P	Resettlement
65 Saenz (2018a)	P	Water, the environment
66 Saenz (2018b)	P	Water, the environment

Note. P: journal paper; R: report.

TABLE 2 Examples of types of social conflicts and best practices recommended

Types of social conflicts	Best practices
Human rights	Companies must implement human rights impact assessments, develop cultural heritage management plans, consider inclusivity across operational activities in broad terms, respect the rights of indigenous people, and develop human rights awareness programs for the community (Columbia Center on Sustainable Investment et al., 2016).
Environmental	Companies must minimize mine inputs and waste, implement the environmentally sound management of chemicals and all waste throughout the mines' life cycle, reduce the environmental impact of mining, collaborate in local and regional planning, contribute to the development of green spaces, implement biodiversity offsets, preserve ecosystem services, and support projects specifically designed to involve community members in activities that increase biodiversity (Lockie et al., 2009; Macdonald, 2004a, 2004b).
Employment	The company must drive economic growth with local procurement and supplier development strategies, use convening power to create clusters, expand the inclusiveness of direct employment, establish business incubators and small business support centers, promote skills development, and support nonmining-related livelihood options (Browne et al., 2011; Veiga et al., 2001).

is always conflict. They come to us and say, 'What do you want? We will do this or that for you.' But they never really ask us what we want."

The company scored 1.8 on average for Number 4, "corporate structures and hierarchy," which indicates, for example, that the

company on site has a different corporate culture from that in its headquarters. A community leader said: "The headquarters of this mine are located in Australia, and they have policies for sustainable development, safety, and the environment, and a code of conduct. However, those policies have not been implemented here."

Finally, for the category of "land," Number 11, the company's mean score was 1.5, which means it does not properly manage resettlement plans and livelihood restoration. A farmer commented: "We are humble people who have never traveled. In the case of my parents, they even lost their cattle. They were forced to sell their land. That is why they started drinking alcohol. This has been a very sad story indeed."

Overall, the first company received a 2.9 on average for all 16 types of social conflict.

Therefore, the company has a high risk of a social conflict and needs to implement various best practices to overcome these tensions with the community. Full legal compliance with state environmental regulations has become an increasingly insufficient means of satisfying society's expectations with regards to mining issues. There is now a recognized need for mineral developers to gain an additional "social license to operate" to avoid potentially costly conflict and exposure to business risks (Bridge, 2004).

#### 4.1.2 | Case Study 2

The mining company is located 30 km southwest of the city of Arequipa. The company has been a member of the multisectoral water users' committee since 1983. In 2006, the company signed an agreement with regional officials, elected representatives and social

**TABLE 3** Framework: Types of social conflicts and recommended best practices (a social conflict diagnostic tool)

Types of social conflicts/best practices	Sources
N	(as numbered in Table 1)
<p>1 Company attitudes toward community relations and conflict management</p> <p>The company:</p> <ul style="list-style-type: none"> <li>anticipates and prevents the risks of conflict with communities related to inequality; 15, 49</li> <li>conducts root-cause analyses of incidents of conflict with communities; 15, 36</li> <li>prevents company–community conflict; 15, 36, 50</li> <li>participates in conflict-free mineral certification schemes; 15, 36, 38,</li> <li>applies metrics for social performance to contractors; 15, 38, 52</li> <li>has shared, cross-functional responsibility for community relations, including social metrics for all functions or departments; 15, 36, 53</li> <li>considers the “social” aspect of mining as equally fundamental to success as the technical side; 15, 36, 45</li> <li>has some form of internal cross-functional (technical and social) committee in place to discuss community relations and conflict management. 15, 36, 55</li> </ul> <p>The cross-functional committee's main members are the managers responsible for the following functions: operations, environmental, legal, community relations, security, and safety. 15, 36</p> <p>This committee is a vehicle for joint decision making that shapes the actions of other relevant functions or departments. 15, 36, 38, 45</p> <p>The meetings aim to prevent community complaints. 15, 36, 38, 58</p> <p>There is internal alignment between the technical and social departments before taking action. 15, 36, 59</p>	
<p>2 Engagement</p> <p>The company:</p> <ul style="list-style-type: none"> <li>has a partnership-based approach to community relations; 45, 49</li> <li>empowers and builds the skills of communities; 15, 36, 38</li> <li>shares in participatory processes as a means to empower and work with communities to address issues that concern them; 49</li> <li>holds formal “dialogue tables” with communities; 15, 36, 38, 45, 49</li> <li>emphasizes the importance of spending time “face-to-face” with communities; 15, 36, 38</li> <li>expects all staff in different departments to participate in recreational events with local communities; 45, 49</li> <li>recognizes the challenges of engaging with certain groups within communities—notably women; 15, 49</li> <li>shares information about mining projects; 15, 36, 49</li> <li>participatory decision-making, leading to a greater sense of co-ownership of and fairness in decisions; 15, 36, 38</li> <li>maintains procedural fairness: for example, including opinion in decision-making processes or making those processes transparent. 38, 49</li> </ul>	
<p>3 Internal influence of community relations staff</p> <ul style="list-style-type: none"> <li>The project's social function has fully equivalent status to its technical function. 15, 49</li> <li>There is a balance between social time and technical time. 15, 49</li> <li>The company invests in community relations long before a project is “green-lighted” to proceed on technical grounds. 15, 49</li> <li>The tension between social and technical staff is minimal. 15, 49</li> </ul>	
<p>4 Corporate structures and hierarchy</p> <ul style="list-style-type: none"> <li>The general manager is based locally, rather than at another site. 15, 49</li> <li>There is no difference between local corporate culture and the culture of the mine's corporate parent or shareholders. 15, 49</li> <li>There is no tension between strong hierarchical structures and effective cross-functional decision making on site. 15, 49</li> <li>The company has devolved structures for responsibility and accountability, for example, a sustainable development committee. 15, 49</li> </ul>	
<p>5 Staff attitudes: Hiring and training</p> <ul style="list-style-type: none"> <li>The company hires personnel with certain skills and attitudes toward communities from the start. 15, 49</li> <li>The general manager is from the nearest major town and speaks the local indigenous language. 15, 49</li> <li>The company hires people from communities immediately around the site. 15, 49</li> <li>The company requires all staff to have the skills and training needed to effectively manage community relations and conflict. 15, 49</li> <li>The community relations staff all speak the local indigenous language. 15, 49</li> <li>The company operates a community relations management system to share knowledge of the local community, equipped with sufficient sociopolitical analysis tools. 15, 49</li> <li>The company identifies those who need training on social issues at both management and superintendent level. 15, 49</li> <li>The parent company prioritizes cross-site learning about community relations management. 15, 49</li> <li>Community relations staff receive training on the technical side of mining. 15, 49</li> <li>The company cross-posts community relations personnel to technical departments and vice versa. 15, 49</li> </ul>	
<p>6 Role of formal processes</p> <p>The company:</p> <ul style="list-style-type: none"> <li>has formalized systems for agreeing and recording all commitments to communities so that fulfillment can be tracked; 15, 49, 53</li> <li>has a unified system for handling community grievances and tracking commitments, complaints, and the company's responses; 15, 49, 53</li> <li>has processes for handling grievances that are simple, clear, and quick to inform community members of decisions; 15, 49, 53</li> <li>has an organizational learning system, rather than individual learning. 15, 49</li> </ul>	
<p>7 Role of the legal function</p>	

(Continues)



TABLE 3 (Continued)

Types of social conflicts/best practices	Sources
<b>N</b>	(as numbered in Table 1)
Legal personnel take a supporting role and allow the necessary space for dialogue with communities, even when conflicts have escalated.	15, 49
Legal staff spend time on community issues (even absent conflicts or other problems), including training community relations staff on legal issues to equip them to better react to challenges in the field.	15, 49
The legal department requests senior-level written consent before suing the community.	15, 49
The legal staff respond quickly when a conflict situation arises.	15, 49
There is fine-tuned communication between the legal and other departments.	15, 49
<b>8</b> Social The company: conducts a social study; improves infrastructures (telecommunications, road network, power and water supplies, etc.); improves access to health and education; implements, monitors, and evaluates community development agreements (CDAs); supports programs for reducing childhood malnutrition and hunger; considers shared infrastructure solutions.	4, 26, 30, 25, 23, 27 30, 42, 44, 50 4, 50, 54 4, 26, 30, 54, 53, 42, 44, 50, 54 4, 26, 30, 44, 50, 54
<b>9</b> Environment The company: minimizes mine inputs and waste; implements environmentally sound management of chemicals and all waste throughout their life cycle; reduces the environmental impact of mining; collaborates in local and regional planning, and contributes to developing green spaces; implements biodiversity offsets; preserves ecosystem services; supports projects that link communities and biodiversity; keeps farmland and livestock free from contamination and dust; has established a participatory environmental monitoring committee and a surveillance committee for meaningful engagement at community level.	35, 37, 52, 59, 53 35, 37, 52, 59, 53 33, 34, 35, 59,65,66 37, 52, 59,65,66 35, 59, 53, 25, 23, 27 33, 34, 35, 37,65,66 33, 34, 35, 37, 52, 59 33, 59, 53 33, 34, 35, 37
<b>10</b> Water The company: reduces water supplies; reduces water contamination; avoids competing with other users (e.g., agriculture); shares water with the community; develops new water sources (rainwater reservoirs, desalination plant, etc.); supports planning and infrastructure for potable water and sanitation; ensures transparency in water management.	1, 2, 47,65,66 1, 2, 47,65,66 2, 39, 46, 47 1, 47, 25, 23, 27 1, 2, 39, 47 1, 2, 39, 46, 47 1, 2, 39, 46, 47
<b>11</b> Land The company: plans early for land access, resettlement, and livelihood restoration; complies with international and national regulations related to requirements for compensation and resettlement; ensures that inhabitants are resettled on suitable land, with due regard to their economic well-being and social and cultural values and that the resettlement is carried out in accordance with the relevant urban planning laws; respects free, prior and informed consent (FPIC) and the special status of indigenous peoples; has dispute resolution mechanisms and other grievance mechanisms in place for the resettlement process; encourages and participates in landscape-scale planning; makes long-term land use plans that cover the entire life span of the mines	20, 27, 32, 40, 41, 1 36, 49, 53, 63, 64 36, 49, 53, 63, 64 36, 49, 53, 63, 64 36, 49, 53, 63, 64 36, 49, 53, 63, 64 32, 40, 41, 51, 60 18, 20, 27, 25, 23
<b>12</b> Human rights and culture The company: implements human rights impact assessment; develops cultural heritage management plans; considers inclusivity widely across operational activities; respects the rights of indigenous people; develops human rights awareness programs for the community.	6, 19, 25, 41 6, 19, 25, 20, 53, 22 27, 32, 41 6, 19, 53, 5 6, 19, 41, 25, 23, 27
<b>13</b> Labor The company: improves occupational health and safety, including road safety; prevents noncommunicable diseases; anticipates, mitigates, and monitors for infectious diseases; combats HIV/AIDS, TB, and malaria among employees; ensures equal opportunities for women; ensures gender-sensitive work environments; allows freedom of association and collective bargaining.	5, 33, 55, 22 5, 22, 29', 22 29, 33, 55 33, 55, 22, 17 5, 22, 55 5, 55 33, 41, 55
<b>14</b> Employment The company: drives economic growth with local procurement and supplier development strategies; uses convening power to create clusters; expands the inclusiveness of direct employment; establishes business incubators and small business support centers;	5, 55 55, 25, 23, 27 31, 48, 55 17, 23, 48, 55

(Continues)

TABLE 3 (Continued)

Types of social conflicts/best practices		Sources
N		(as numbered in Table 1)
	promotes skills development; supports nonmining-related livelihood options; finds synergies where mining and agriculture can operate together; supports artisanal and small-scale mining.	5, 16, 25, 23, 27 5, 16, 17, 55 5, 16, 17, 23, 28 17, 23, 28, 55
15	Legal license to operate The company complies with regulations in the following cases: environmental licenses emission permits project approvals occupational health and safety standards Social and Environmental Impact Assessment recommendations	15, 61 15, 61 15, 61 15, 61 15, 61
16	Political license to operate The company: aligns with the government's social development programs; provides training to build the technical and management skills of government staff; creates and sustains a national organization of private companies in order to foment sustainable development.	15, 61 15, 61 15, 61

TABLE 4 Information on the participants

	Description	Company 1	Company 2
Company	Community Relations Department	1	1
	Human Resources Department	1	1
	Environment Department	1	1
	Legal Department	1	1
	Operations Department	1	
	Operations Department	1	
	Community Relations Department	1	1
Community	Community Leader (farmer)	1	2
	Other farmers	2	3
	Total	10	10

movements to work together to support investment in water infrastructure. In 2008, the company began to plan for an expansion of the mine. The project expansion team knew that attempting to triple

production while operating in an area with scarce water had the potential to create social conflict of the type that could impose risk to the project's schedule and budget, impede existing operations, create legal challenges, and damage reputational capital.

The results for the second mining company are shown in Figure 2.

For conflict type Number 9, "Environment," the second company's mean score was 3.8 (maximum 6), indicating that the company is managing an environmental plan and allows community participation. A community leader said: "Environmental work is ongoing and permanent; we are monitoring water, land, pastures, animals, even human health—everything."

The second company scored highly for Number 2, "Engagement," (mean of 4.9), suggesting that it has a good relationship with the community. As a community leader explained: "Together we decided to look for support, so we could build the community's capacity for engaging in this kind of dialogue. And when this capacity building was finished, the process of negotiation began to run

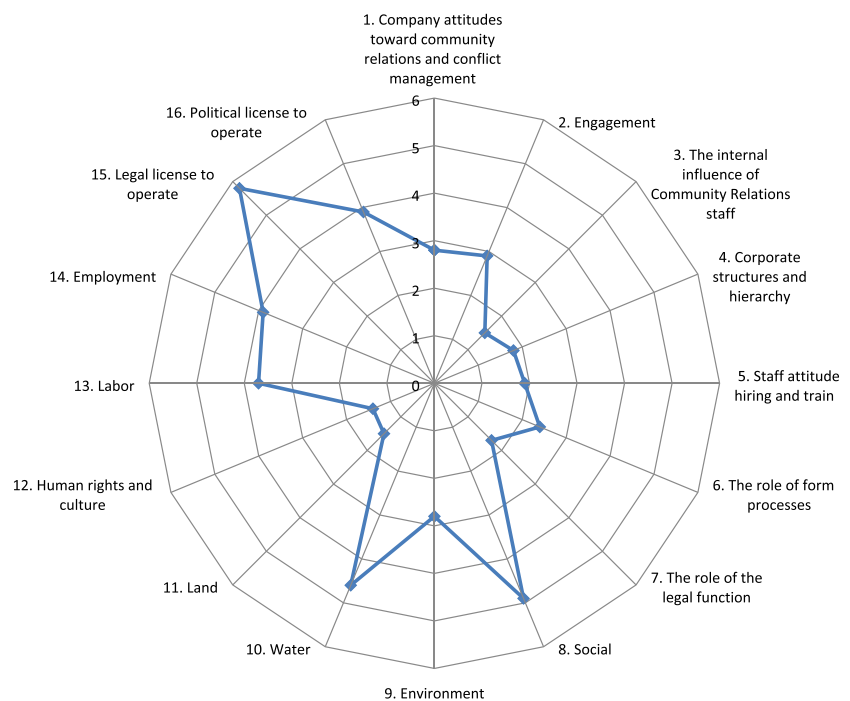
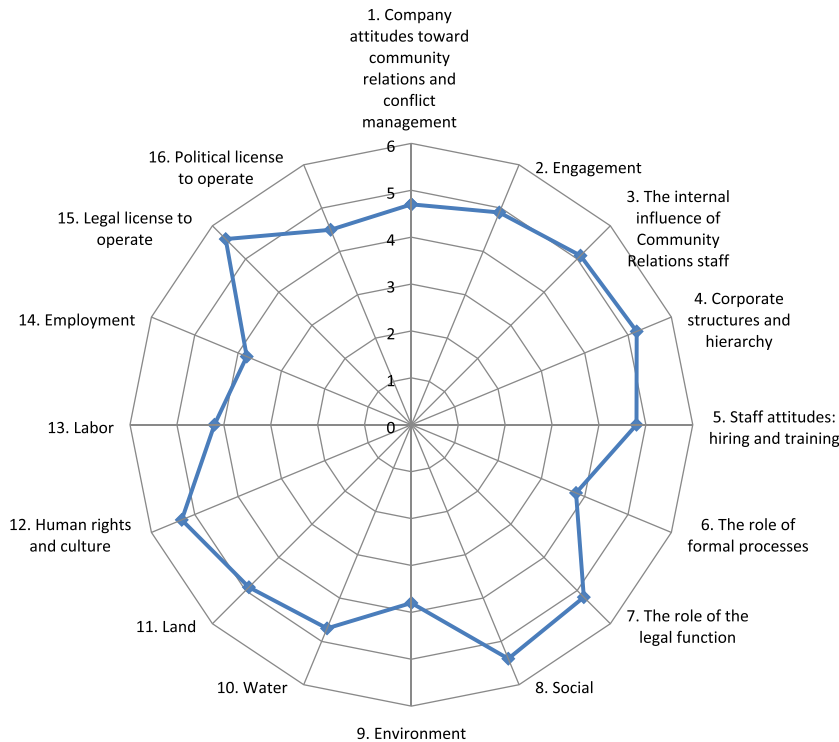


FIGURE 1 Results for the first mining company [Colour figure can be viewed at wileyonlinelibrary.com]



**FIGURE 2** Results for the second mining company [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]

smoothly.” A community farmer also commented: “We have formed a development table where we identify our community’s social problems and then try to find the best solutions by working together.” Finally, a company executive said: “Now, all future issues between the company and community will be dealt with through the development table” through which “we have a high level of communication.”

For Number 6, “the role of formal processes,” the second company scored an average of 3.8, indicating that it has a unified system for handling community grievances and tracking commitments, complaints, and the company’s responses. A company executive said:

*We have learned from the past mistakes. Now, we have a system to track all the commitments we have made and monitor them and our responses. But still, it's a lot to do with attitude. You can have all the processes you want, but if you don't have the right attitude in individuals, it will not happen.*

Overall, the results suggest that the second mining company has a low risk of a social conflict due to its efforts to maintain the social license to operate.

#### 4.2 | Finding 2: It is important to start with a good attitude toward the relationship with the community

Donaldson and Preston (1995, p. 72) have stated that normative stakeholder theory is quite categorical in that it argues, “Do this or that because it is the right (wrong) thing to do (from a certain moral point of view).” According to Donaldson and Preston (1995), one of the most important types of social conflicts would be those involving

company attitudes toward community relations and conflict management, because this topic reflects the beliefs, attitudes, and values of the company. Indeed, by starting with a good attitude toward community relations, the company could obtain better results regarding the other types of social conflicts. For example, in Case Study 2 (see Figure 2), the company got a grade of 4.7 in company attitudes toward community relations and conflict management. Due to this attitude toward community relations, the other types of social conflicts also got very high grades (Provasnek, Sentic, & Schmid, 2017), such as a 4.9 in engagement, a 5.1 in the internal influence of Community Relations staff, a 5.2 in corporate structures and hierarchy, a 4.8 in staff attitudes: hiring and training, a 5.2 in the role of the legal function, and a 5.4 in social. In summary, higher levels of company attitudes toward community relations and conflict management tend to be associated with better outcomes for affected communities.

On the other hand, Owen and Kemp (2017) have stated that the mining industry has positioned itself in response to contentious social and environmental challenges. This statement is true in general, but a mining company could also technically work without a social license to operate. For example, in Case Study 1, Figure 1, the company achieved good grades in legal license to operate (5.8), social (4.9), and water (4.6); however, it had very low grades in company attitudes toward community relations and conflict management (2.8), engagement (2.9), the internal influence of community relations staff (1.5), corporate structures and hierarchy (1.8), staff attitudes: hiring and training (1.9), and the role of the legal function (1.7). This result is related to instrumental stakeholder theory (Donaldson & Preston, 1995, p. 72), which states, “(Instrumental stakeholder theory) establishes a framework for examining the connections, if any, between the practice of stakeholder management and the achievement of



various corporate performance goals." In Case Study 1, the practices of stakeholder management regarding topics such as legal license to operate (5.8), social (4.9), and water (4.6) are instrumental means to achieve corporate performance goals. This result has demonstrated that a mining company could technically operate with very low levels of community approval.

## 5 | CONCLUDING REMARKS

The framework presented in this research combines 16 types of social conflicts and 102 best practices for preventing them. It is designed to be used as a social conflict diagnostic tool in the mining industry, enabling mining companies to evaluate their social conflict management and create suitable strategies based on recommended best practices in this industry.

The first half of the 16 types of social conflicts (1 to 7) are internal factors, which companies have control and power to align strategies and reduce risks. The other factors are external, which companies can influence to stakeholders to work together in order to maintain the social license to operate.

The study has several limitations. First, the sample size is small, so the convenience sample often suffers from biases of many different kinds. The second limitation is that the literature regarding the types of social conflicts is in a constant state of development, so perhaps even as this study was being written, it is possible that new types of social conflicts in the mining sector could have been appearing, meaning this framework should be updated. Finally, the instrument was tested in the mining context alone, so caution should be exercised when interpreting the results.

Further research should be conducted to improve the generalizability and validity of the framework, ideally using a larger sample of mining companies. Nonetheless, this research contributes to providing a new instrument for evaluating social conflict management in the mining industry. Also, future research could explore the following avenues: (a) assigning a weight to each type of social conflict to indicate its relative importance for the successful management of social conflict in the mining industry; (b) finding a correlation between factors, for example, the hypothesis could be that higher levels of company attitudes toward community relations and conflict management tend to be associated with better outcomes for affected communities; and (c) applying the framework in other sectors, such as oil, gas, and energy.

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