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# Environmental and organisational drivers for the nature of the relationship between illegal miners and mining companies

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## Abstract

Artisanal and/or illegal mining occurs throughout the African continent and is affected by government institutions and their policies, mining companies and their activities as well as the communities where it occurs. Mining companies, in particular, make significant investments in the communities around their mines via corporate social responsibility (CSR). Mining companies choose to either acknowledge that illegal miners are in fact a stakeholder in the community around the mine, and manage the relationship proactively, or they choose to accept that the activity is illegal and/or opt for the government and police to get involved in managing the relationship.

The research explores the possibility of mining companies and illegal miners cooperating with each other, instead of competing, and the nature of the mining companies CSR and stakeholder engagement (SE) strategies that make for a more transformational relationship. The research establishes the environmental and organisational factors that drive this relationship.

Ten interviews were conducted with CSR practitioners, sustainability managers, asset protection experts, consultants and geologists working for gold mining companies operating throughout Africa. Qualitative data was collected through the use of semi-structured interviews and the data was analysed using content analysis.

Through this research, a stakeholder identification and engagement tool has been developed for mining companies and their managers to use throughout their global operations. This tool can be used to report and manage the relationship with illegal miners globally, as the relationship is highly dependent on the country setting and context.

**Keywords**

Illegal mining

Corporate social responsibility

Stakeholder engagement

Cross-sector partnerships

Coopetition

## Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out the research.

**Gillian Williams** **14 January 2015**

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ASM: Artisanal and Small Scale Mining

CE: Community engagement

CSR: Corporate social responsibility

CSV: Creating shared value

MNC: Multi-national company

NGO: Non-governmental organisations

SE: Stakeholder Engagement

# Chapter 1: Introduction to Research Problem

## 1.1 Introduction

Artisanal and/or illegal mining occurs throughout Africa and is an issue that is becoming more prevalent as metal prices drop and mining companies' profit margins decrease. Illegal mining in Africa is strongly affected by the role of government institutions and their policies around artisanal mining or the country context where it takes place. How a mining company chooses to engage and respond to illegal mining is important. With their CSR initiatives, they are faced with the dilemma of forming relationships with illegal miners, even though what they are doing is illegal. Conversely, mining companies can refuse to identify the illegal miners and stakeholders and use the police or government to manage or enforce the relationship. Either way, communities around the mine are affected by the presence of the mining operations as well as the presence of the illegal mining activities.

This research will aim to explore and understand the environmental and organisational factors that drive the nature of the relationship between mining companies and artisanal/illegal miners. Stakeholder engagement, corporate social responsibility and inclusive business frameworks will be used to explore the issues.

## 1.2 Background to the Problem

It has been reported that over 40 illegal miners died in South Africa during the first six months of 2014 due to mine collapses, poisonous gases as well as gang-related violence related to 'turf wars' underground (Crowley, 2014). The South African government have estimated that over 14,000 people are now involved in illegal mining due to a drop in gold prices and ageing ore bodies being shut down. The illegal mining industry itself is valued at R6 billion ($566 million) a year in South Africa (Motala, 2014).

Illegal miners, known as zama-zamas in South Africa, are reported to come from Zimbabwe, Mozambique and Lesotho, as well as fired or retrenched workers from South African mines (BBC, 2014). Of the 14,000 illegal miners, 6,000 work underground – mining gold-rich pillars left by mining companies to prevent shafts from collapsing, and 8,000 mine the lower grade waste deposits on surface (Crowley, 2014). This is equivalent to 10 percent of the number of legal employees in the South African mining industry (Crowley, 2014), although Motala (2014) suggests that the number of illegal miners may now equal the number of legal miners in South Africa.

According to Thelwell (2014), about 70% of the arrested illegal miners in South Africa are illegal immigrants from Zimbabwe, Lesotho and Mozambique. Some legal mine workers are also reported to undertake illegal mining activities during their leave periods and Sibanye Gold, a South African gold mining company, reported spending R75million a year to try and contain the illegal mining problem.

While the unemployment rate in South Africa for the first quarter of 2014 is reported to be 25,20% (Taborda, 2014), the government's solution is to block up entrances to the abandoned mines (estimated at over 6000) and mining companies have been encouraged to increase security as well as increase convictions for illegal mining (Crowley, 2014). Although the deposits are no longer commercially viable, they still conatin enough deposits to attract high numbers of unemployed people (BBC, 2014). By closing holes and apprehending suspects, it may seem that the government and mining sector are decreasing the number of places avaliable for illegal miners to mine. However this has led to increased turf wars due to different illegal syndicates fighting and competing for space (Thelwell, 2014).

Illegal mining has become increasingly more violent in nature as shootings are reported to take place both above and below ground. Mine security personnel report that they feel powerless when dealing with this apparent organised activity (Motala, 2014).

During the latter part of 2013, in the Free State of South Africa, the MCCF (Mine Crime Combating Forum), was established to control and prosecute illegal miners. This is a partnership between mine management, organised labour, community leaders, police as well as various government departments (SAPA, 2014). The Department of Mineral Resources (DMR) report that they hold monthly meetings with Illegal Mining Stakeholder Forums in Mpumalanga, the Free State and Gauteng, where the stakeholders use tactics such as demolishing illegal equipment, making arrests, deporting immigrants, sealing shafts and cutting off water supplies (Thelwell, 2014).

With the fatal event of Marikana and the longest protracted platinum strike in South Africa causing the economy into a near recession and rating downgrades (Bisseker, 2014), as well as rumours that the strike will move to the South African gold industry, the mining industry is under increased pressure to change.

## 1.3 Lessons from Other Industry Sectors

There is little evidence from other industry sectors to suggest that a cooperative relationship, could in fact, be an alternative possibility with regards to illegal miners and mining companies. Some evidence from banks and micro-lenders, South African Breweries (SAB) and taverns is described below.

SAB (South African Breweries) realised that in order for their business model to work in South Africa, there had to be a foundation of cooperation permitting them to work well with taverners and shebeeners. These illegal taverners and shebeeners have traditionally bought their licensed SAB liquor, in bulk, from liquor wholesalers. SAB has been attempting to control the "environment at the point of sale" by bringing most of these businesses under their wing (Webster, Benya, Dilata, Joynt, Ngoepe, & Tsoeu, 2008). The integration of licensed taverns and shebeens operating with permits are assisted by SAB to brand their enterprises (for example, the name of the establishment on an SAB branded board and the supply of SAB branded fridges, chairs and glasses) (Webster, Benya, Dilata, Joynt, Ngoepe, & Tsoeu, 2008).

SAB implemented the Mahlasedi programme to specifically focus on upgrading the knowledge and business skills of shebeen owners, so that they can become better integrated into the SAB value chain. By 2007, 12400 shebeen and tavern owners from all parts of South Africa had been through this programme (Webster, Benya, Dilata, Joynt, Ngoepe, & Tsoeu, 2008).

There are few examples of constructive forms of co-operation which are beneficial to both banks and micro-lenders, with some of the relationships (particularly those between UK and US banks and micro-lenders) being quiet dynamic – being re-defined by banks as the partnership develops (Whiley & Kempson, 2000).

In terms of banks and microlenders, Whiley and Kempson (2000) identified three types of relationships that can occur, based on case studies of 8 micro-lenders in Europe, USA and England – outsourcing, co-operation with support microlending or commercial banks can learn from micro lending techniques in order to develop their own lending in this type of high-risk market. What governs the involvement of the banks is governed by the aims of the micro-lending scheme as well as its client group. Whiley and Kempson (2000) suggest that it is unlikely that it would be economic for banks to lend directly to the 'marginal self employment' group, and it therefore makes sense for the banks to pass on this type of business to micro-lenders.

Whiley and Kempson (2000) suggest that outsourcing may be an effective method of the banks initiating a relationship with the micro-lenders, where they are under social or political pressure to respond to the needs for credit that do not match their ethos. In the future these clients may become valuable to the banks themselves.

## 1.4 Business Relevance

The rationale behind this research is pertinent to the present South African and African mining situation. On a personal level, the researcher has had numerous opportunities to interact with artisanal/illegal gold miners throughout her career in gold exploration, particularly in Tanzania, Guinea and the Democratic Republic of Congo (DRC). During the exploration process, illegal miners are viewed as a valuable source of information – the location where they mine assists in understanding the vectors that may assist in the discovery of a potential ore body.

This is however in stark contrast to illegal miners mining on an operating mine – where there are usually security issues and a conflicting relationship between the mine and the illegal miners. Mine security staff are generally kept busy monitoring and controlling illegal mining activities.

Is it possible that due to increasing political and economic pressure, mining companies can in fact cooperate with illegal miners? There is little evidence from other sectors that the concept of co-operation instead of competition can be possible. Although competing for the same resource, illegal miners can economically mine areas that large mining companies find uneconomical due to their large overheads.

Many mining companies implement Corporate Social Responsibility (CSR) initiatives as a means to partcipate in socio-economic development withiin the areas that they operate throughout Africa. However these CSR initiatives do not benefit illegal miners and communities affected by illegal mining due to the fact that they are veiwed as illegal. Thelwell (2014) postulates that governments need to support illegal miners by formalising areas that are not used by the industry, or not deemed worth digging by the industry, and they could also provide support such as safety advice.

Mining companies' sustainable development and corporate social responsibility policies attempt to balance international business capabilities and localisation strategies. These policies have come under scrutiny recently due to being too generalised and vague. In addition to this mining companies face a dilemma in identifying illegal miners as legitimate stakeholders, as what they are doing is fundamentally illegal.

By exploring the business and community concept in the artisanal/illegal mining-mining company relationship - can the concept of inclusivity work when there is strong competition between the two parties? Socially friendly capitalism – is it possible in this situation?

## 1.5 Academic Research Motivation

This research aims to increase the body of knowledge on community and stakeholder engagement, corporate social responsibility strategy as well as inclusive business and cross-sector partnerships, specifically focussing on when stakeholders are doing something illegal. Illegal mining, although well researched in terms of alternative livelihoods and its effects (Tschakert, 2009; Saldarriaga-Isaza, Villegas-Palacio, & Arango, 2013; Hilson & Carstens, 2009; Clausen, Barreto, & Attaran, 2011), is under researched when applying stakeholder and inclusive business theories. Illegal miners can be seen as a stakeholder group that has been inhibited by context and history. What makes the situation worse is that overall it has been suggested that the mining industry does not see the role of sustainable development and corporate social responsibility as core to the mining business (Kemp & Owen, 2013).

Illegal miners and mining companies can be viewed through a lens of coopetition – two ‘organisations’ balancing competing and cooperating forces over the same resource (Raza Ullah, Bengtsson & Kock, 2014). While ‘firms’ pursue coopetition (cooperation and competition), tensions develop at individual, organisational and interorganisational levels.

Nel, Binns, and Gibb (2014) suggest that there is sufficient scope to explore the incorporation of artisanal-illegal mining into local government strategies and corporate social responsibility programmes of formal mining enterprises. They use a case study of artisanal coal miners in the Eastern Cape to show how a poor community used its own skills and locally available resources to form a networked local economic system based on the linked activities of coal mining, transportation, brick-making and house-building. Despite this being in existence for the past 10 years and overall being illegal in nature, it is now under threat from activities of government support for a large formal mining company in the district.

The corporate social responsibility program of the mining company, as well as offers of employment to local artisanal miners have been described as commendable, but there is however, still suspicion from the artisanal miners on what the corporate is doing, as well as a failure to appreciate that many of these miners were in fact previously retrenched by the formal mining sector, and that they require autonomy (Nel et al., 2014).

Nel et al. (2014) conclude that there is potential for either collaboration or tension between corporate mining and artisanal mining, and that despite the risks of conflict, potential synergies can indeed exist. They suggest that corporate mining companies could re-shape mining communities in general by drawing on the labour force with its associated skills.

Bowen, Newenham-Kahindi, & Herremans (2010) divide community engagement strategies into three, namely transactional, transitional and transformational. They state that a lot of work has been done on transitional and transformational community engagement, but that transformational community engagement strategies are lacking. Further to this, they suggest that communities can be identified by geography, interaction and identity. Illegal miners are usually not considered as part of the community because they operate illegally, yet they do form a significant part of the greater community around the mines, and therefore should be included in a mining company's community engagement strategy. They are there through geography, interactions as well as a shared identity.

Bowen et al (2010) developed a framework to determine which community engagement practices and strategies are appropriate to be used. Mining companies are usually defined by transactional community engagement strategies with the communities around them, and have no engagement strategies with illegal miners operating on their concessions besides the one of chasing them away or using security to monitor them. However there are cases where a mining company may hand over mined-out areas or low-grade pits to illegal miners.

Mitchell, Agle, & Wood (1997) define stakeholder typology based on a combination of relationship attributes: power, legitimacy and urgency. By possession of one or two or three of the attributes, different stakeholder classes are proposed which assist managers in prioritising stakeholder relationships. Because illegal miners are operating illegally, mining companies often identify them as nonstakeholders. However, mostly due to a relationship attribute of legitimacy (in most cases illegal miners have been there even before the mining company started mining or they have been retrenched from the mining company) they could be defined as discretionary stakeholders. In addition to this when the relationship turns violent, such as in South Africa, illegal miners can be defined as dangerous stakeholders (having both power and urgency).

Lee (2011) pg. 288 describes different CSR strategies as "obstructionist, defensive, accommodative or proactive", and introduces a theoretical framework to explain how firms chose their CSR strategy combining both institutional and stakeholder theories. He suggests that the firm's strategic decision for their CSR strategy also depends on external influences such as the role of institutions and the influence of stakeholders. He provides a framework of different configurations of institutional and stakeholder pressures and the corresponding CSR strategies. In some countries such as Mali and Tanzania, there are government policies around the artisanal mining sector, which therefore, using this framework, change a mining companies CSR strategy around illegal mining.

Campbell (2007) suggests that there is a relationship between corporate behaviour and economic conditions, which is mediated by institutional conditions. Therefore companies will focus less on CSR during times of weak financial performance and unhealthy economic environments. The mining industry is at present operating in difficult economic environments, and so when CSR strategies are drastically needed to support communities around mines, mining companies are operating in less socially responsible ways.

Shared value is defined as policies and operating practices that enhance the competitiveness of the company while simultaneously advancing the social conditions in the communities in which it operates. Shared value is said to lead to greater innovation, company growth and benefits for society. The advantages of shared value are reconceiving products and markets, redefining productivity in the value chain and building supportive industry clusters (Porter, & Kramer, 2011). Porter, and Kramer (2011) continue to claim that most companies are stuck in the CSR mind-set in which societal issues are not core.

Cross sector partnerships traditionally form to address a common or shared problem and are usually found in education, urban renewal, research, criminal justice, health care, job training and environmental protection areas (Gray, & Purdy, 2014). Countries such as Tanzania, Mali and South Africa have set up cross-sector partnerships around artisanal and illegal mining, however Gray, and Purdy (2014) suggest that these partnerships often fail due to large power differences. They also suggest that the role of context shapes the degree of conflict in a cross-sector partnership, with context including regulatory structure, political environment, power differences and scope and timing.

This research is deemed to be important in developing and exploring the nature of stakeholder engagement and corporate social responsibility strategies around illegal mining in Africa and aims to provide mining companies and their manager's tools to assist them in identifying and managing illegal miners.

## 1.6 Research Objectives

This study will attempt to gain a deeper understanding and explore the possibility of illegal miners and mining companies cooperating instead of competing. It will explore if mining companies CSR and CE or SE strategies can be both transformational and sustainable when it comes to illegal mining, and what can be done to improve the nature of the relationship.

The research will:

- Establish which environmental and organisational factors are the primary drivers for the nature of the relationship between illegal miners and mining companies;
- Establish how mining companies are managing the relationship with illegal miners through their CSR and CE initiatives;
- Establish in which countries and due to which policies the relationship is managed more effectively;
- Establish a framework that mining companies and their managers can use in their stakeholder identification and engagement throughout their global operations to report and manage illegal mining.

# Chapter 2: Literature Review

## 2.1 Introduction

For many rural people living below the poverty line in sub-Saharan Africa, artisanal gold mining provides a prominent source of income (Saldarriaga-Isaza, Villegas-Palacio, & Arango, 2013). Hilson and Ackah-Baidoo (2011, p.1191) define artisanal and small-scale mining (ASM) as "the labour-intensive mineral extraction and/or processing of mainly precious minerals using rudimentary equipment". In most cases these miners operate illegally, mining on multinational corporations mining licenses or concessions (Tschakert, 2009). Other issues such as the use of toxic mercury in extraction methods, social disruption from the temporary nomadic nature of the work, prostitution, aids, child labour and criminality are associated with artisanal mining (Tschakert, 2009; Saldarriaga-Isaza et al., 2013; Hilson & Carstens, 2009; Clausen et al., 2011).

The previous chapter introduced some of the issues around illegal mining throughout Africa, and the issues that illegal miners, mining companies and institutions face around managing this delicate relationship. This chapter deals with a review of previous literature covering some examples of the role of governments and institutions in artisanal and illegal mining as well as the issue of alternative livelihoods of artisanal and illegal miners. It will then expand on company CSR strategies and types of CSR leading into stakeholder theory and community engagement strategies. Common-pool resources are then defined followed by an introduction to the concepts of inclusivity, shared vale as well as coopetition. Finally this chapter will review cross-sector partnerships and their role.

## 2.2 Government Strategies- State Institutions

The rights of artisanal miners differ from country to country depending on government policies such as legalisation and decentralisation. Artisanal and small-scale mining is largely unmonitored and unregulated throughout sub-Saharan Africa (Hilson & Ackah-Baidoo, 2011) – this is an obstacle to reforming the sector (Clausen et al., 2011).

In Ghana, the government is focusing on decentralising natural resource governance, states Hirons (2013). He defines decentralisation as a change in the decision making process from central to local institutions. In addition, he suggests that the participation of traditional authorities such as chiefs is vital in the decentralisation process. Tschakert (2009) estimates that greater than 85% of Ghana's artisanal miners operate without an official license.

In Mozambique, the country has a rural development decentralisation policy, but in addition, government encourages the formation of miners associations so that the artisanal miners can set up businesses and promote new more efficient technologies (Dondeyne & Ndunguru, 2014).

Fold, Jonsson, and Yankson (2013) suggest that a significant part of the ASM sector is not based on legally registered mining licenses, and that the division into formal and informal activities is dissolved in the trading channel, where traders will buy gold from miners independent of whether they have a mining license or not. In Tanzania, complex and inconsistent government policies drive illegal marketing of gold (Imparato, 2010).

In the DRC artisanal mining issues have been found to be dependent on the location of the miners in terms of conflict areas (Maria & Taka, 2012).

## 2.3 Alternative Livelihoods and Conflicts

Once a person becomes an artisanal miner it is difficult for them to move to an alternative career. Tschakert (2009) found that in Ghana it was very unlikely for the current illegal miners to change to an alternative career. Brycesson and Jonsson (2010) suggest that movement away from smallholder agricultural work in Tanzania is due to the lure of small-scale mining as a potential career. Imparato (2010, p 463) suggests that artisanal gold mining can provide "poor, unemployed or unskilled workers 3-5 times what they could earn in alternative occupations" in Tanzania.

Hilson and Carstens (2009) describe tensions that exist between artisanal miners and large-scale mine operators in rural Tanzania. They term a series of disputes that have occurred between large scale mine operators and artisanal miners in sub-Saharan Africa as "grievance-based conflicts". They explain that many of the marginalised individuals who are involved in these grievenace-based conflicts are subsistence farmers who are struggling to compete in a "liberalised agricultural market and/or removed from their lands in order to accommodate the interests of foreign mining companies" (p. 305). This forces them into non-farming activities such as artisanal mining.

## 2.4 Sustainable Development and Corporate Social Responsibility

Sustainable development and the corporate social responsibility functions of multinational mining companies are described as the mechanisms that mining companies use to engage with and manage their relationships with "key stakeholder groups" (Kemp & Owen, 2013).

Through these mechanisms, development benefits and the protection of business interests are managed. Overall it has been suggested that the mining industry does not see the role of sustainable development and corporate social responsibility as core to the mining businesses, and that the degree to which these functions are integrated into the core mining business represents the mining companies overall commitment to sustainable development and corporate social responsibility (Kemp & Owen, 2013).

In a case study on Barrick Gold Mine in Tanzania, Lauwo and Otusanya (2013) highlight human rights dilemmas that arise from investment initiatives of multinational mining corporations within Tanzania. Multinational mining companies in Tanzania produce vague, generalised statements of social responsibility – that they will act in a socially responsible manner and that they are committed to respecting and promoting human rights. However no evidence or workable solutions to the negative social and environmental impacts of mining activities is ever supplied. Lauwo and Otusanya (2013) argue that by the Tanzanian government promoting foreign direct investment particularly in the mining sector, they have affected basic human rights in the country.

Maria and Taka (2012) suggest that in the Katangan province of the DRC, corporate social responsibility programs that could assist would be supporting new sustainable economic activities specifically where artisanal miners have been displaced by mining companies, and they would promote formal artisanal activities where mining companies are the artisanal miners' clients. Teschner (2013) postulates that the early stages of a mining project are crucial to establishing a legacy for a healthy long-term relationship with artisanal miners. Corporate social responsibility should be used already at the discovery-stage of a project - if a relationship that is based on trust can be developed as early as possible, the better.

From a case study conducted in Ghana it was found that mutual dividends were obtained through effective engagement between artisanal miners and mining companies, and that the parties could successfully coexist (Aubynn, 2009). This was achieved through a formalisation of the relationship and ceding parts of concessions, which were found to be not viable for the large mining company to mine but viable for the artisanal miners to mine. This may be because in Ghana, artisanal miners are perceived to have stronger political power than in other countries.

Perks (2012, p 252) suggests that there is an increased need for improved regulation from governments, lending institutions and international institutions due to "poor company behaviour in developing countries". He describes that Head offices in the mining industries of Canada, Australia, South Africa and America, have a general pattern of decentralisation towards the mine-site level and the decision-making regarding social responsibility issues and the implementation of the company's corporate social responsibility policies, relies on the project staff in each country. There is greater complication when a company is listed on a specific stock exchange with its own rules of corporate governance and reporting.

## 2.5 Types of CSR

Different CSR strategies have historically been described by organisational researchers as obstructionist, defensive, accommodative and proactive (Carroll, 1979; Carroll & Buchholtz, 2000; Fisher, 2004; Sauser, 2005; Wartick & Cochran, 1985; as cited in Lee, 2011).

Lee (2011) further provides a summary of each of these terms as:

- An obstructionist strategy is one where any form of social or ethical responsibility lying outside of a firm's economic interest is rejected.
- A defensive strategy is where legal requirements are passively complied with in order to protect a firm's self-interest. There is no ethical responsibility.
- An accommodative strategy is where some form of ethical responsibility is accepted towards stakeholders, but in a minimal and passive approach. Legal requirements are complied with and there are attempts at listening to the voices of stakeholders, however there are rare voluntary initiatives to further social good.
- A proactive strategy is where both social responsibility as well as ethical responsibility is fully recognised. The firm carries out an active approach to engage in society to minimise negative impacts as well as to improve the welfare of stakeholders.

Lee (2011) introduces a theoretical framework to explain how firms choose their corporate social responsibility (CSR) strategy, combining both institutional and stakeholder theories. He suggests that external influences consisting of the influence of institutions and the influence of stakeholders are what cause different CSR strategies, and that CSR is not necessarily a product of an individual firms' CSR strategic decision. The CSR strategy is therefore due to a combination of institutional, stakeholder and firm interactions. In addition to this he suggests that CSR is not only the firms' responsibility but also society's responsibility.

Lee (2011) postulates that institutions affect a firm's social behaviour, as institutions define the macro-level incentive structure in a country as well as 'sources of legitimacy'. These are termed distal mechanisms. The institutional forces may be either amplified or buffered by stakeholders who act as mediators (proximate mechanisms). Stakeholders play a critical mediating role between organisations and institutional environments. Stakeholders are said to ‘draw power and legitimacy’ from institutions and institutions are said to be actualised through stakeholder mechanisms. Therefore the two forces act interdependent of one another (Lee, 2011).

**Table 1: Different configurations of institutional and stakeholder pressures and corresponding CSR strategies**

| Stakeholder pressure | Institutional pressure | |
|---|---|---|
| | Weak | Intense |
| Weak | Obstructionist strategy<br><br>Absence of external pressures | Defensive strategy<br>Institutional pressure without stakeholder support |
| Intense | Accommodative strategy<br>Stakeholder pressure without institutional legitimacy | Proactive strategy<br><br>External pressures are synchronized |

**SOURCE: Adapted from Lee (2011, p. 288)**

Campbell (2007) argues that a relationship exists between corporate behaviour and economic conditions, and this relationship is mediated by several institutional conditions. He suggests that corporations will be less likely to act in socially responsible ways when they are experiencing weak financial performance and when they are operating in relatively unhealthy economic environments. He also suggests that corporations will not act in socially responsible ways if there is either too much or too little competition.

Institutional conditions are namely public and private regulation, presence of non-governmental and other independent organisations that monitor corporate behaviour, institutionalised norms regarding appropriate corporate behaviour, associative behaviour among corporations themselves and organised dialogues among corporations and their stakeholders (Lee, 2011).

## 2.6 Stakeholder Theory

There are many different theories that can be used to identify the stakeholders of a firm. Mitchell, Agle, and Wood (1997) define a typology of stakeholders based on a combination of relationship attributes, namely power, legitimacy and urgency. They propose classes of stakeholders that can be identified by possession of one or two or three of the following attributes: the stakeholders power in terms of influencing the firm, the legitimacy of the relationship between stakeholder and the firm, and the urgency of the stakeholders claim on the firm. Stakeholders are dynamic and can shift from one class to another, which has significant consequences on managers and the firm itself.

Mitchell, et al.'s (1997) model explains how managers should prioritise stakeholder relationships, according to who are identified as the firm's stakeholders, as well as under which conditions managers consider certain classes of entities as stakeholders. They suggest that no single organisational theory can be used to identify stakeholders, and that through the use of power, legitimacy and urgency, this will capture most stakeholders as well as the salience (the degree to which managers give priority to stakeholders competing for claims). These terms are defined as:

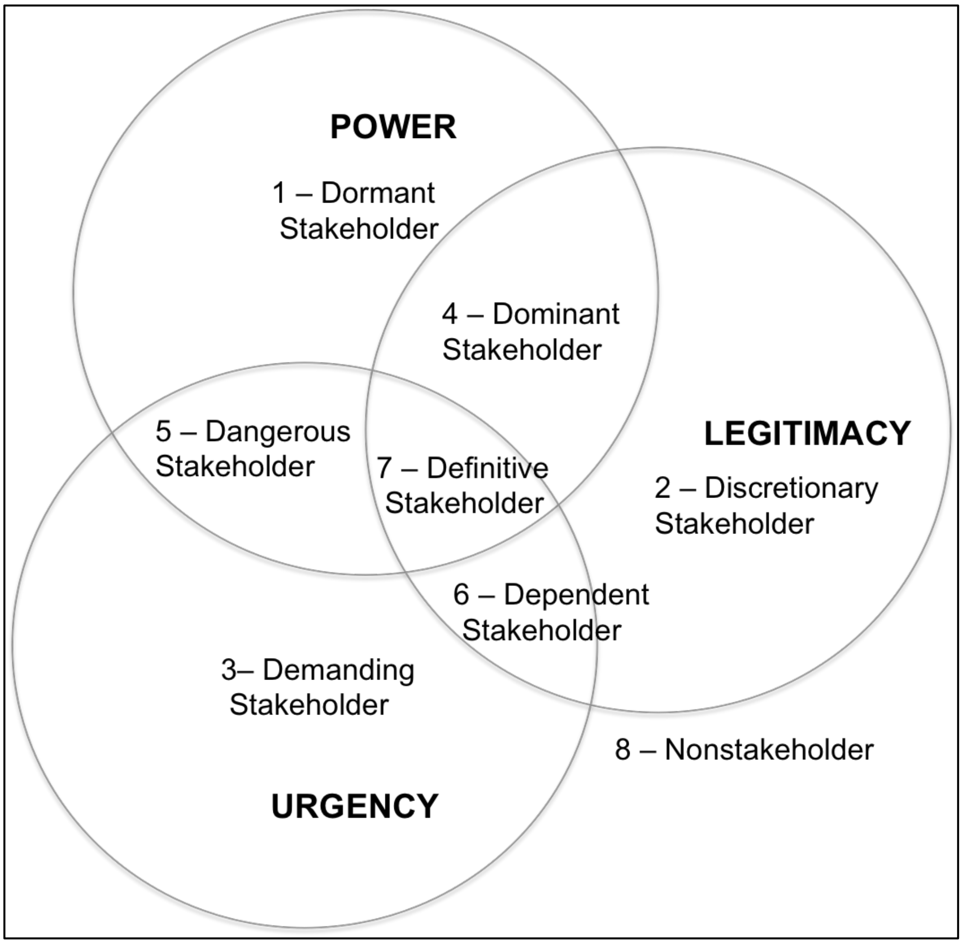
- Power – a party in a relationship has power if it can gain access to a "coercive, utilitarian, or normative means" (p. 865) in order to impose its will on the relationship. Power can be acquired as well as lost (Mitchell, et al., 1997).
- Legitimacy – a 'desirable social good' on multiple levels (individual, organisational as well as societal) (Mitchell, et al., 1997)
- Urgency – this is viewed as why a relationship is termed critical and includes an element of time. (Mitchell, et al., 1997).

Mitchell, et al. (1997) continue to discuss that central to this framework are the roles of managers, as they perceive these stakeholder attributes and prioritise resources accordingly. The characteristics of managers are therefore as a moderator of the relationship between stakeholder and organisation. What do the managers want to achieve? Who do they pay attention to? What is their perception that will dictate stakeholder salience?

Latent stakeholders or low salience classes (1, 2 and 3) possess only one of the three attributes. These include dormant, discretionary and demanding stakeholders. Managers may well do nothing about latent stakeholders, and may not even recognise their existence. Similarly the stakeholders themselves are not likely to give any attention or acknowledgement to a firm. These stakeholders have the potential to acquire a second attribute and can therefore become more salient to managers.

Figure 1 below outlines the typology of the stakeholders as identified by Mitchell, Agle, and Wood (1997, p. 874) and follows with a short definition of each stakeholder type as identified by Mitchell, et al. (1997).

**Figure 1: Stakeholder Typology: One, Two or Three Attributes Present**




**SOURCE: Adapted from Mitchell, Agle, & Wood (1997, p. 874)**

Dormant stakeholders (labelled as '1' in figure 1), possess power to impose their will on a firm, but do not have any legitimate relationship or urgency in their claim. Their power therefore remains unused. Examples of such power are coercive power (loaded gun), utilitarian power (those who can spend a lot of money) or symbolic power (those who command attention of the news or media).

Discretionary stakeholders (labelled as '2' in figure 1) possess the legitimacy attribute only. These stakeholders are often likely to be recipients of discretionary CSR (Carroll, 1991 as cited in Mitchell et al., 1997).

Demanding stakeholders (labelled as '3' in figure 1) possess the urgency attribute only and are sometimes described as mosquitoes buzzing in management's ears. Without power or legitimacy attributes the noise of urgency is insufficient to protect the stakeholder claim.

Expectant stakeholders or moderately salient stakeholders (labelled as ‘4’, ‘5’ and ‘6’ in figure 1) possess two of the three attributes. These include dominant, dependent, and dangerous stakeholders. The stakeholder has a more active stance than a passive stance due to the combination of two attributes instead of only one.

Dominant stakeholders (labelled as ‘4’ in figure 1) are both powerful and legitimate, and therefore can form a dominant coalition as they have legitimate claims and an ability to act on these claims. They therefore generally matter to managers and there may be a formal mechanism in place that acknowledges the importance of their relationship with the firm. Examples of this are board representation, investor relations and public affairs offices. Most stakeholder theories include these stakeholders as the only stakeholder of a firm, thereby receiving most of the manager’s attention.

Dangerous stakeholders (labelled as ‘5’ in figure 1) lack legitimacy but have both urgency and power, and can therefore be coercive and possibly violent. They often make use of coercive power, with examples including wildcat strikes, employee sabotage and even terrorism. The actions of these stakeholders are dangerous both to stakeholder-management relationship as well as to other entities and individuals. It is crucial to identify and acknowledge these stakeholders, as there may be missed opportunities to mitigate the risks.

Dependent stakeholders (labelled as ‘6’ in figure 1) have urgent and legitimate claims, but they depend on their stakeholders or the firm’s managers for the power necessary to carry out their will. These stakeholders can dynamically move by having their claims adopted by dominant stakeholders to increase their salience.

Definitive stakeholders or high salient stakeholders (labelled as ‘7’ in figure 1) possess all three attributes, and are the firm’s dominant coalition. Managers give priority to these stakeholder claims and have a clear and immediate mandate to attend to them. Usually, a dominant stakeholder will move to become a definitive stakeholder.

Individuals or entities that possess none of the attributes are termed non-stakeholders or potential stakeholders.

Lawrence (2010) developed a framework that examines how managers respond when confronted by the demands of ‘activist stakeholders’ over who they exercise no direct control. The role of the manager as well as the strategy they employ are becoming crucial to a firm's success as companies now compete globally and any damage to their reputation at one project site will potentially have effects on other project sites around the world.

Through reviewing case studies of managerial strategies in complex disputes with activist stakeholders, Lawrence (2010) developed the 4Ws framework where management may choose to wage a fight, withdraw, wait or work it out (see figure 2). The choice of which strategy is used is related to the firm's dependence on stakeholders for critical resources, the firm's power in the situation as well as the urgency of the contested issue. The 4W's are described as:

- Wage a fight – the response by management is conducted in an adversarial manner, where management proceed on their own path and oppose activist's demands. An example of this is environmental stakeholders and mining companies.
- Withdrawal – management makes the decision to withdraw from the area of dispute, by either pursuing a different course of action or by physically moving to a different location where they face less opposition, or even giving up and accepting defeat.
- Wait – management wait for the conditions of the dispute to shift. It is a conscious strategy and is not simply ignoring the stakeholder's demands. This strategy is inherently unstable because the matter will probably become more urgent or one of the parties will gain advantage.
- Work it out – there is active engagement to arrive at mutually acceptable solutions between management and stakeholders through an on-going process of dialogue. This is done through an active process of seeking common ground, which often involves the process of generating new opinions, often referred to as stakeholder engagement.

Usually this is a dynamic process and a firm is flexible in the strategies it chooses. According to Lawrence (2010) whichever  strategy is dominant is dependent on:

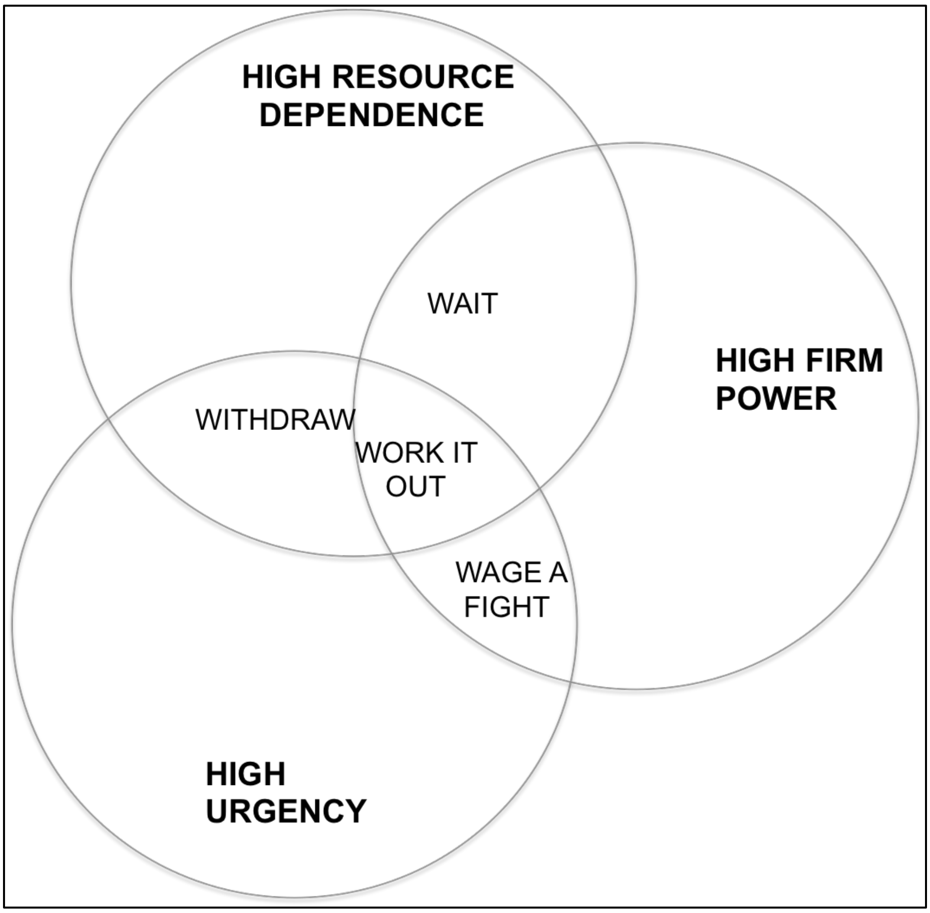
- Resource dependence: control over resources that are important, scarce and non-substitutable gives external actors' power in the relationship. Non-market stakeholders have indirect control over these resources (Frooman, as cited in Lawrence, 2010) through being able to prevail government regulators or political entities to change policies, lawsuits based on environmental or human rights, or block a project, or use the media to damage a company's reputation.
- Firm power: this is defined as the capacity to control the behaviour of others. Coercive power includes working with courts, police, and military forces to supress stakeholder

protest. Utilitarian power includes offering financial benefits or imposing costs. Normative power rests on the firm's ability to allocate and manipulate symbols, like the ability to influence others based on expert opinion.

- Dispute urgency: factors that can escalate the urgency of resolving disputes, such as investor pressure.

The relationship between the variables of resource dependence, firm power and dispute urgency as well as the 4Ws strategies can be represented graphically (figure 2). Where management have low resource dependence, high power and are facing an urgent issue, firms are most likely to wage a fight. Where management have high resource dependence, low power but are facing an urgent issue, firms are most likely to withdraw. Where management has high resource dependence and high power but the dispute is not urgent, firms are more likely to wait and where management has high power, but are facing an urgent issue and stakeholders on whom they depend for critical resources, firms will most likely work it out.

**Figure 2: Determinants of Managerial Strategies in Disputes with Non-market Stakeholders**




**SOURCE: Adapted from Lawrence (2010, p. 104)**

## 2.7 Types of Community Engagement

To implement effective CSR strategies in stakeholder groups, effective community engagement needs to take place. A stakeholder group can be defined as the geographical community that is affected by the presence of a company due to their proximity to the company operations (Lee & Newby, 1983 as cited in Bowen, Newenham-Kahindi, & Herremans, 2010). Bowen et al. (2010) define community engagement strategy as a subset of a firm's CSR activities that are directed toward individual citizens and community groups.

It is suggested that through a well-designed community-engagement strategy, firms can gain further legitimacy, manage social risk and could potentially co-develop innovative solutions to social problems (Carey et al., 2007; Lowndes et al., 2001 as cited in Bowen et al., 2010).

There are different concepts of community, which make it difficult to determine and identify a community to engage with (Bowen et al., 2010). Communities can be characterised by geography, interaction and identity. Communities that are defined by geography represent people residing in the same geographic region, however there is no reference of interaction between them. Communities defined by interaction represent a set of social relationships that may be dependent or independent of geography. Communities defined by identity represent a shared sense of belonging, which is built upon by a shared set of beliefs, values or experiences (Lee & Newby, 1983as cited in Bowen et al., 2010).

Bowen et al. (2010) carried out detailed analysis of over 200 academic, practitioner and knowledge sources to determine why and how firms and the community can benefit from community engagement strategies. From this, they developed a framework to describe when different community engagement strategies are appropriate to use. They define a 'continuum of community engagement' and represent this by categorising three different types of engagement strategies, namely, transactional, transitional and transformational engagement (Table 2).

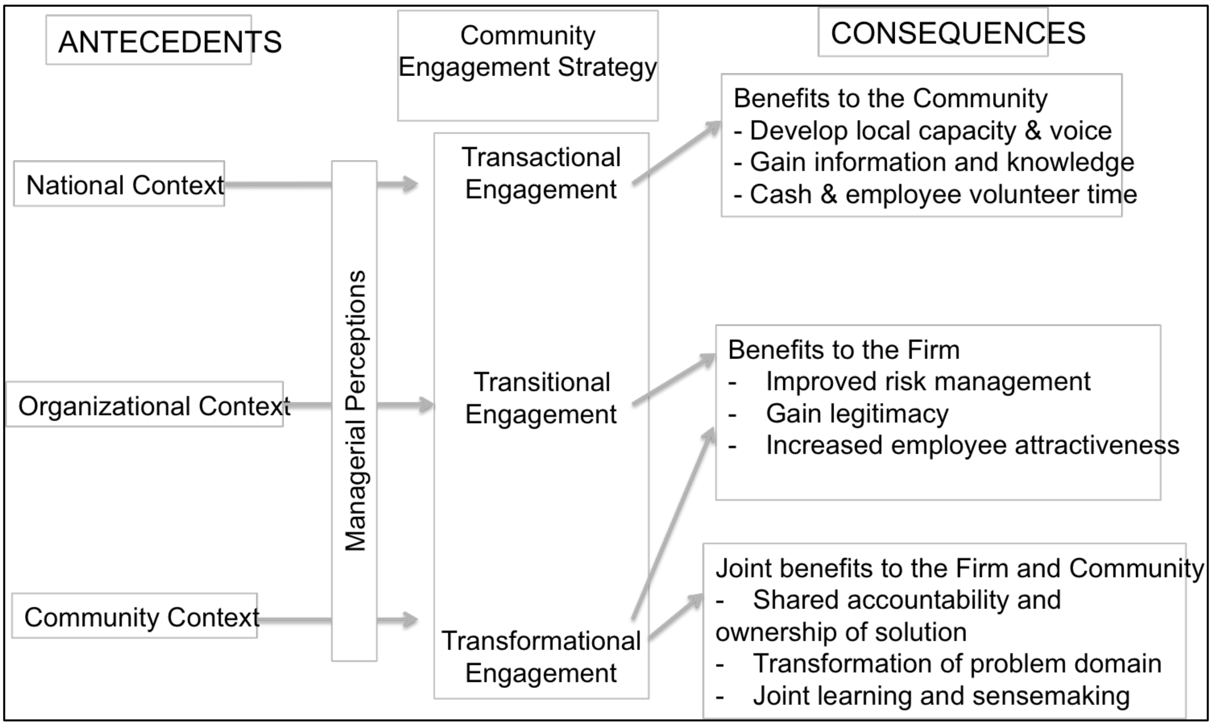
**Table 2: The Three Community Engagement Strategies**

| | Transactional engagement | Transitional engagement | Transformational engagement |
|---|---|---|---|
| Corporate stance | "Giving back" Community investment/information | "Building bridges" Community involvement | "Changing society" Community integration |
| | | | |
| Illustrative tactics | Charitable donations<br>Building local infrastructure<br>Employee volunteering<br>Information sessions | Stakeholder dialogues<br>Public consultations<br>Town hall meetings<br>Cause-related marketing | Joint project management<br>Joint decision-making<br>Co-ownership |
| | | | |
| Communication | One-way<br>firm-to-community | Two-way firm-to-community more than<br>Community-to-firm | Two-way firm-to-community equal to<br>community-to-firm |
| | | | |
| Number of community partners | Many | Many | Few |
| | | | |
| Frequency of interaction | Occasional | Repeated | Frequent |
| | | | |
| Nature of trust | Limited | Evolutionary | Relational |
| | | | |
| Learning | Transferred from firm | Most transferred from firm,<br>some transferred to firm | Jointly generated |
| | | | |
| Control over process | Firm | Firm | Shared |
| | | | |
| Benefits and outcomes | Distinct | Distinct | Joint |

**SOURCE: Adapted from Bowen, Newenham-Kahindi, & Herremans (2010, 305).**

Bowen et al. (2010) suggest that managerial perceptions on community engagement moderate the institutional, organisational and community context, and that the perceptions of management are in fact an important filter of signals of a broader context. In addition to this there are three main categories of benefits, those accruing primarily to the community, those shared jointly by the firm and the community, and benefits accruing to the firm. Payoffs from engagement tend to be focussed on the longer-term with enhanced firm legitimacy, instead of shorter-term cost-benefit improvements.

**Figure 3: The Antecedents and Consequences of Community Engagement Strategies**




**SOURCE: Adapted from (Bowen et al. (2010, p. 309)**

## 2.8 Common-pool Resources

Parts of a mine or deposit that cannot be mined profitably by mining companies and that are being mined illegally by illegal miners can be viewed as common-pool resources. Common-pool resources typically rely on some sort of social arrangement between users, in this case between legal miners and illegal miners as well as between illegal miners and mining companies.

Common pool resources are defined as lakes or oceans, irrigation systems, fishing grounds, forests, or the atmosphere, and can be either natural or man-made resources from which it is difficult to exclude or limit users once the resource is provided. In addition to this consumption of a resource unit by one person makes those units unavailable to others (Ostroom et al., 1994 as cited in Ostroom, 1999).

In the famous article titled “Tragedy of the Commons”, Garrett Hardin states that: “the population problem has no technical solution; it requires a fundamental extension in morality”, and classes human problems as “no technical solution problems” (Hardin, 1968, p. 1243). This article has been used as a metaphor in many cases for the problems of overuse and degradation of natural or man made resources such as fisheries, timber and water resources (Ostroom, 1999). Hardin defines a technical solution as requiring a change only in the techniques of the natural sciences, with little or no change in human values or ideas on morality (Hardin, 1968).

For working out the tragedy of the commons, Hardin (1968) uses the example of national parks, which at the time he wrote the article were open to all, without limit. However, the parks themselves are limited in extent, whereas population growth is limitless and Hardin proposes several options to cease treating the parks as commons to prevent their deterioration. Solutions such as selling off as private property, rights allocation, auctioning, or allocating on the basis of merit, or as a lottery, or on a first-come first-serve basis have been proposed (Hardin, 1968).

Hardin's conclusion was that with regards to common pool resources, external authorities are needed to impose rules and regulations on local users, and that the resources users themselves are trapped in a tragedy of their own (Ostroom, 1999).

Ostroom (1999) suggests that the structure of an action situation can be analysed by identifying seven components: participants, positions, actions, outcomes, transformation functions linking actions and outcomes, information and payoffs (including both positive returns and negative sanction where relevant). However, he submits that national government agencies have been found to be unsuccessful in designing effective and uniform rules to regulate common pool resources and that, for example, in irrigation systems smaller, farmer-managed systems were more efficient.

Saldarriaga-Isaza et al. (2013) classify the extraction process used in artisanal and small-scale mining as a common pool resource. The extraction of gold may or may not be subject to a legal license issued by a government. When the extraction is illegal, the resource is under 'open access', and even when the mining activity is legal, the fact that the artisanal miner holds the license to exploit the resource does not mean that other illegal miners are completely excluded.

In artisanal and small-scale mining, miners are not concerned with the depletion of either the gold or the optimum sustainable extraction rate, but instead concern themselves with how to recover the gold. There is also an additional dilemma - the extraction is linked to the cheapest technique, mercury amalgamation. So the short-term benefit is to the miner (extraction) but the entire community is worse off due to mercury pollution in the environment (Saldarriaga-Isaza et al., 2013).

Saldarriaga-Isaza et al. (2013) suggest that companies involved in large-scale mining in developing countries have been in a permanent state of conflict with villagers (usually the artisanal miners), who are in principle excluded from the gold exploitation. They observe that in artisanal and small scale mining the intervention of an external authority or third parties may be required to promote best practices.

## 2.9 Inclusivity

It has been argued that companies have a greater responsibility that goes beyond using resources efficiently and maximising risk-adjusted return on capital or profit, and that the role of this is sustainable development (Hahn & Figge, 2011).

Hahn and Figge (2011) are of the opinion that most approaches of corporate sustainability result in environmental and social aspects that are adjacent to economic aspects, which lead to misguided signals and a focus on win-win cases. Therefore most sustainable strategies may not survive. They propose an inclusive nature of profitability to capture the sustainability of firm performance, by going beyond economic efficiency as the firms focus – and that profitability should be readjusted to address different forms of capital such as economic, environmental, and social.

Hart and Sharma (2004) suggest that remote groups that are at the ‘fringe’ of a firms current operations can find a common cause and exert increased pressure on the firm, which in turn may cause questions over the right of the firm to operate as well as its legitimacy. Hart and Sharma (2004) developed the Radical Transactiveness (RT) concept, which refers to a dynamic capability, which systematically explores, identifies and integrates stakeholder views on the ‘fringe’. Fringe stakeholders are defined as poor, weak, isolated, non-legitimate and even non-human. The RT approach assists firms in listening to and addressing these fringe voices. Secondly firms need to create a mechanism for complex interaction and empathy with fringe stakeholders. Through the integration of the fringe voices and reconciling the knowledge gained from them, firms will be able to execute a disruptive new business strategy and generate a competitive advantage (Hart & Sharma, 2004).

Prahalad and Hammond (2002) argue that large multinational companies (MNCs) are not going to solve the economic problems of developing countries themselves, and that it will take ‘targeted financial aid from the developed worlds as well as improvements in governance of the developing nations themselves to solve this problem. They argue though that direct and sustained involvement of MNCs is what will bring prosperity to the poorest regions, and that by doing this MNCs can enhance their own prosperity.

Porter and Kramer (2011) suggest that firms should look at decisions and opportunities through the lens of shared value. Shared value is defined as “policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the social conditions in the communities in which it operates” (p. 2).

Shared value is a concept that focuses on connections between social and economic progress, and is suggested by Porter and Kramer (2011) to lead to greater innovation, company growth as well as greater benefits for society. The responsibility is for companies to take the lead in bringing business and society back together, and is a new way to achieve economic success. Most companies are stuck in the social responsibility/philanthropy/ sustainability mind set, in which societal issues are not core. They postulate that shared value can be created by reconceiving products and markets, redefining productivity in the value chain and building supportive industry clusters at the company’s locations.

According to Porter and Kramer (2011) CSV should supersede CSR in guiding investment decisions that companies make in their communities. CSR programs focus on reputation and only have a limited connection to the business, which makes them hard to justify and maintain in the long run. In contrast to this, CSV is integral to the business in terms of both profitability and competitive position (table 3).

**Table 3: CSR Compared to CSV**

| CSR | CSV |
|---|---|
| Values: doing good | Values: economic and societal benefits relative to cost |
| Citizenship, philanthropy, sustainability | Joint company and community value creation |
| Discretionary or in response to external pressure | Integral to competing |
| Separate from profit maximization | Integral to profit maximization |
| Agenda is determined by external reporting and personal preferences | Agenda is company specific and internally generated |
| Impact limited by corporate footprint and CSR budget | Realigns the entire company budget |
| example: Fair trade purchasing | example: Transforming procurement to increase quality and yield |

**SOURCE: Adapted from Porter and Kramer (2011, p. 13)**

## 2.10 Coopetition

A common definition of competitors is actors who share an interest in some of the same resources (Ingram & Yue, 2008). Barnett (2006 as cited in Ingram & Yue, 2008) stated that rivals are in fact also roommates and Ingram and Yue (2008) suggest that cooperation is often a neglected aspect of a relationship between competitors.
The term coopetition is defined as the simultaneous pursuit of cooperation and competition between firms (Bengtsson & Kock, 2000; Brandenburger & Nalebuff, 1996 as cited in Raza Ullah et al., 2014). Coopetition seeks value creation, is a positive-sum game and results in shared benefits, while competition demands opportunistic behaviours, is a zero-sum game and involves private benefits (Raza Ullah et al. 2014).

Raza Ullah et al. (2014) suggest that while firms are simultaneously pursuing cooperation and competition between themselves, tensions develop at individual, organisational and inter-organisational levels. They suggest that to view coopetition, it is vital to view it through this paradox lens, which is usually responsible for huge failure rates in alliances as rival firms are engaged to collaborate with each other, and managerial complexities are raised. The paradox of coopetition is encompassed by two boundaries: internal boundaries that are referred to as divergent forces that encourage either/or thinking, and an external boundary that is defined by unifying forces.

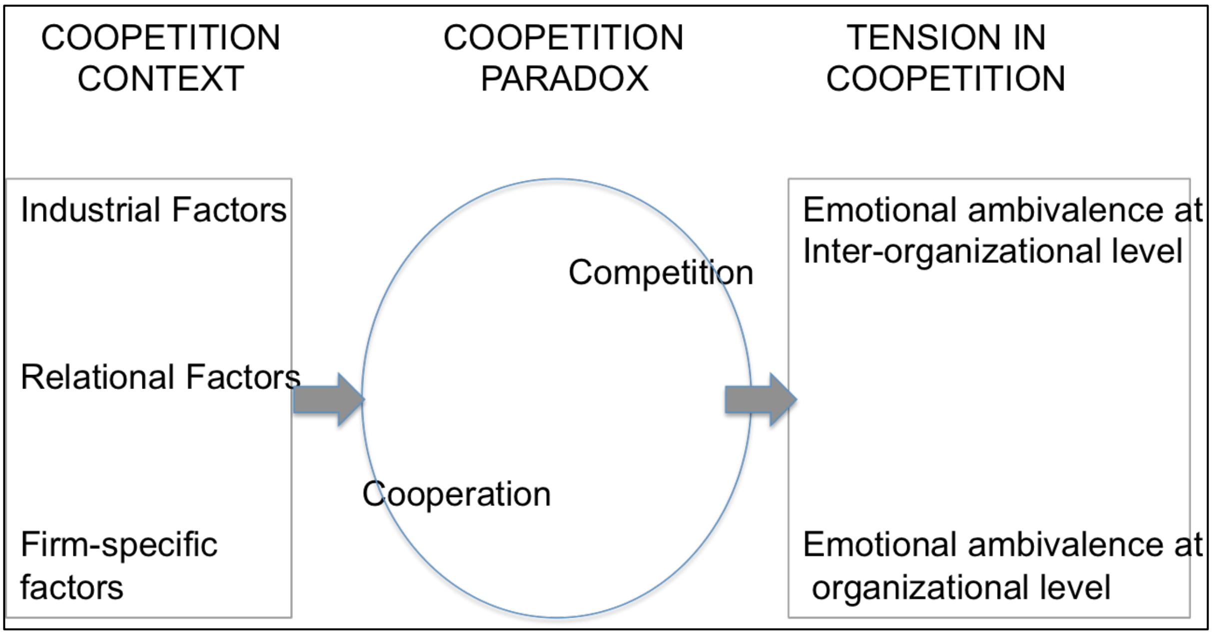
There are two ways that a coopetition paradox can materialise. Firstly, when two firms that are competitors at a point in time acknowledge the need to cooperate, the external boundary is the unifying force to collaborate, which is then juxtaposed with the internal forces, or diverging forces, to compete (the internal boundaries). Another way a coopetition paradox can materialise is where collaborating firms start to compete. This happens when conflicting interests develop between partners and mutual dependence in the relationship is decreased (Raza Ullah et al., 2014).

Raza Ullah et al. (2014) identified three broad factors in coopetition that simultaneously drive firms to compete and cooperate, namely industrial, relational and firm specific factors or drivers. Industrial drivers are maturity of the industry, symmetry of firms in the industry, high industrial cost structure and technology/market development in the industry. Relational drivers are similarities and complementarities that exist between firms and their resources. Firm specific drivers are firm's resources, their strategy and perceived vulnerability.

Examples of unifying forces, which drive collaboration, are high R&D costs, technological convergence or short product life cycles. Setting industry standards, gaining reputation and developing new markets also motivate competing firms to collaborate (Tsai, 2002 as cited in Raza Ullah et al., 2014). Diverging forces force partners to compete, with competing goals developing when there is an overlap of the firm's competitive strategies and competitive advantages, or business portfolios (Raza Ullah et al., 2014).

As the coopetition paradox materialises, actors begin to weigh up the benefits and the harms to their own and to the firms wellbeing. Positive emotions result from a feeling of collective interest, mutual benefit, value creation, which are associated with feelings of trust, confidence and happiness. Negative emotions result from evaluation of self-interest, harm or defection, and are associated with feelings of distrust, greed and fear. The simultaneous experience of both positive and negative emotions is termed emotional ambivalence (figure 4). This occurs at different levels, different intensities and can be either stable or dynamic in nature (Raza Ullah et al., 2014).

**Figure 4: Conceptual Model of Coopetition Paradox and Tension in Coopetition**



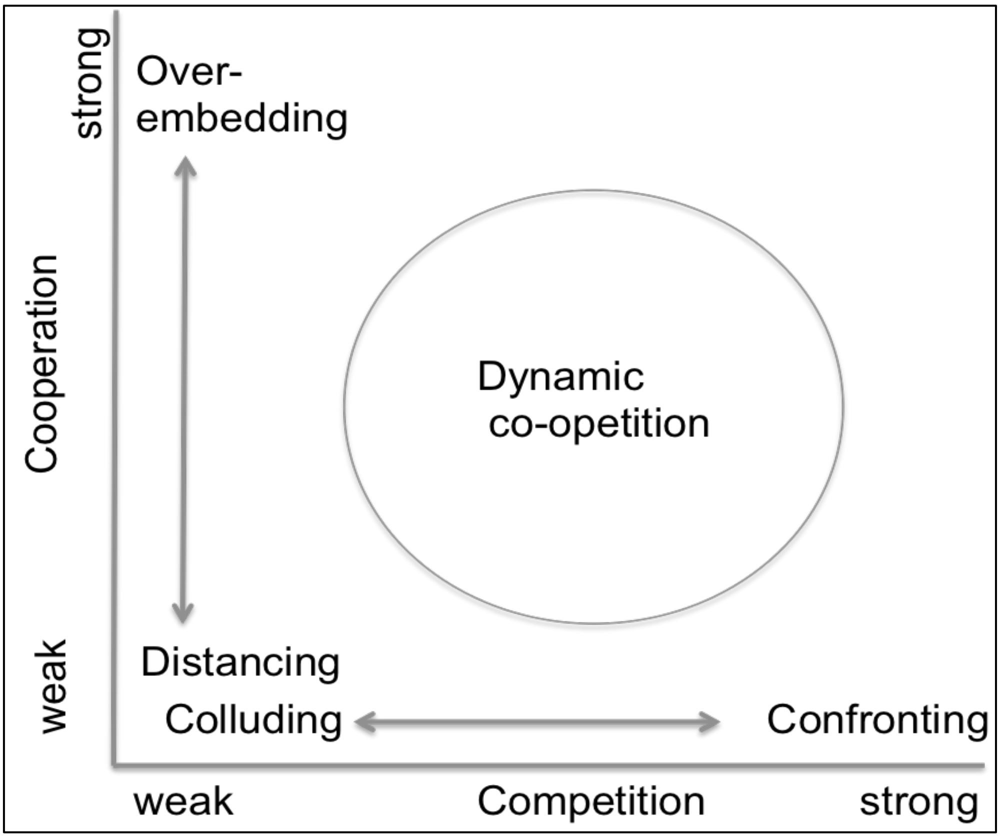

**SOURCE: Adapted from Raza Ullah et al. (2014, p. 24)**

Bengtsson, Eriksson, and Wincent (2010) outline how different types of coopetitive interactions result in typical situations where the dynamics of coopetition are present and in addition to where they are absent. They suggest that there are four coopetitive forces that drive development towards situations without dynamics, these four forces are: over-embedding, distancing, confronting and colluding.

Coopetition can be described along two continuums, namely the competitive continuum and the cooperative continuum. The competitive continuum in a coopetitive relationship can be weak to strong in terms of competition. The cooperative continuum in a co-coopetitive relationship can also span from weak to strong in terms of cooperation (Bengtsson et al., 2010).

Bengtsson et al. (2010) further suggest that, at the heart of coopetition is the potential that the negative consequences of competition and collaboration can be avoided by simultaneously engaging in competitive and cooperative interactions (see figure 5). They provide four combinations of strong and weak cooperation and competition in different coopetitive interactions as described below:

**Figure 5: The Arena for Dynamic Coopetition and Forces towards Static and Destructive Dynamics in Coopetition**




**SOURCE: Adapted from Bengtsson et al. (2010, p. 203 and p. 207)**

1. ***Weak cooperation and weak competition:*** Interaction is weak and the proposed advantages of coopetition will not be realised. In low competition, there is limited incentive to improve or to cooperate, which will create firm competitive advantage. This results in a situation that resembles collusive behaviour, that is, if weak competition is a result of deliberate choices of firms to avoid one another. Weak competition can also result from passive behaviour where there is a distancing force between firms due to lack of incentives to collaborate. Collusions and this distancing can therefore not form a positive dynamic state.

2. ***Strong cooperation and strong competition:*** This results in tensions that arise between rivals in activities. It is characterised by frequent moves and countermoves between competitors as well as high degrees of hostility. At the same time strong ties and a high level of trust between the actors, where firms cooperate, mean that firms do not experience much tension nor fear opportunism. This may seem like the ideal state of coopetition, but there are associated negative effects to the strong competition. Strong cooperation also has negative side effects because it lacks tensions that stimulate a dynamic and innovative environment. This state consists of over-embeddedness that stimulates group think even in an inter-organisational setting, which may make it difficult to end the relationship even though the benefits of the relationship are limited. If coopetition interaction results in a combination of over-embedding and a lack of novel information that can be used and explored and combined in new ways, then destructional and confrontational head-on competition may result and coopetition will be lost.

3. ***Weak cooperation and strong competition:*** This implies a situation where strong tensions arise from both cooperative and competitive interactions, but these tensions may be overly strong which allows the organisation to benefit from the dynamics arising from these tensions. Trust and ties strength is low, which makes it difficult to further explore complementariness that might be present, due to the distance of a very weak cooperation. Competitive tension is high and potential dynamics can be destroyed if the competition turns from intense rivalry to static confrontational type competition. This competition also decreases the level of transparency and trust. This is therefore short-lived as the weak cooperation is out forced by strong competition. Especially if cooperation is passive, meaningful exchanges are difficult in this situation and benefits of coopetition will not be seen.

4. ***Strong cooperation and weak competition:*** This situation has weak overall tensions and limited dynamics. Complementarity, tie strength and trust are high whereas symmetry, intensity and hostility are low. Information and knowledge exchanges are facilitated and

ensures there is a framework or set of practices that support the exchange between firms. Transparency is high but there will be limited newness due to this strong familiarity, and even a tendency to become overembedded. Weak competition and possible colluding behaviour means lack of competitive pressure. The possibility of sustaining this non-dynamic coopetition may be good, because of the dominating cooperation part, but the weaker the competition the increased likelihood that the relationship is destroyed as it lacks pressure to improve due to colluding tendencies, leading to stability with limited dynamics.

Bengtsson et al. (2010) therefore suggest a moderate combination of cooperation and competition to maintain dynamic coopetition for long terms of sustained competitiveness and innovation. In addition to this, imbalances between competitiveness and cooperation need to be relatively small.

## 2.11 Cross Sector Partnerships

Gray and Purdy (2014, pg. 205) define cross-sector partnerships as “dynamic interactions of voluntary participants around shared interests”. These are in contrast to relationships that are formed via contractual exchanges, which involve one party providing services for another. Traditionally these partnerships form to address a common or shared problem and involve public, private and NGO sectors. They are usually in the education, urban renewal, research, criminal justice, healthcare, job training and environmental protection arenas.

These types of partnerships form for many different reasons but, in particular suitable to illegal mining, they are formed to resolve conflicts that address action to critical problems (Susskind et al., 1991; Wondolleck & Yaffee, 2003 as cited in Gray & Purdy, 2014). Gray and Purdy (2014) argue however, that these Partnerships often fail due to significant power or other differences that exists amongst the different stakeholders. These factors erode the collaboration potential.

Partnerships can be defined and distinguished by the initial motivators for partners to join, as well as the desired outcomes. Initial motivators may be rooted on either conflict or opportunity. At some point however, a partnership will generate conflict and a resolution will be required. The source of the conflict may be structural and/or relational changes such as differential power, or a mandate to participate, or institutional logics such as participants coming from very different societal sectors (Gray & Purdy, 2014).

Gray and Purdy (2014) define four distinct types of partnerships (figure 6) as:

1. ***Appreciative planning*** – partners are motivated by opportunities and shared visions, and information sharing is encouraged and required. These types of partnerships can occur once or for an extended duration.

2. ***Collective strategies*** **–** partners are motivated by shared visions that lead to joint agreements and action plans to address problems or opportunities.

3. ***Dialogues*** **–** when partners are motivated to come together to address a conflict situation through the exchange of information.

4. ***Negotiated settlements*** **–** conflicting parties come together to try to reach an agreement on how to settle a dispute.

**Figure 6: Types of Partnerships**

| | DESIRED OUTCOME | |
|---|---|---|
| | Information sharing | Action |
| Opportunity | Appreciative planning | Collective strategies |
| Conflict | Dialogue | Negotiated settlements |

**SOURCE: Adapted from Gray and Purdy (2014, p. 207).**

### 2.11.1 The Role of Context

The nature of the context within where the partnership formed affects the initial development of a partnership as well as its functioning over time. Context shapes the degree of conflict in a partnership. Context includes the nature of the field or the problem domain in which potential partners are concerned, the regulatory structure and political environment in which the partnership is embedded, power differences amongst the partners, as well as the scope and timing of partnership efforts (Gray & Purdy, 2014).

### 2.11.2 Nature of the Field

Institutional fields are ‘communities of organisations joined by a common meaning system or formed due to physical proximity or issues’ (Gray & Purdy, 2014) pg. 209. Problems usually emerge when institutional fields are in transition (Dorado, 2005 as cited in Gray & Purdy, 2014). These fields are reconfigured or their boundaries are shifted by disruptive events such as hostile takeovers, new inventions, or new social movements (Gray & Purdy, 2014).

### 2.11.3 Regulations in the Problem Domain

Where a governmental participant has regulatory authority linked to the opportunity or the problem being addressed, the collaboration amongst partners is affected. Governmental organisations tend to dominate collaborative partnerships by exerting more control. When partnering is mandated, there is scepticism around the actual level of collaboration that can be achieved (Rodriguez et al., 2007; Genzkow, 2009 as cited in Gray & Purdy, 2014).

### 2.11.4 Scope of the Problem or the Issue

As the concept increase in scope from being a local cross-sector partnership to a national and even a global one, the amount of complexity that is introduced into the management of the partnership increases and hence the likelihood for conflict. Problems on a global scale are increasingly more complex as there is no government or overriding authority that sets the norms in such partnerships. Short-term partnerships may not be able to probe issues in as much depth as long-term partnerships (Gray & Purdy, 2014).

### 2.11.5 Power Differences

Differences in power among partners cause the different partners to have different expectations about the goals of the partnership as well as how the process of collaboration will unfold. There are also much deeper issues that cause conflict in partnerships. These are termed conflicting frames and logics (Gray & Purdy, 2014).

Conflicting logics are defined by Gray and Purdy (2014) to be socially constructed, historical patterns of material practices, assumptions, values, beliefs and rules by which individuals produce and reproduce their subsistence, organise time and space, and provide meaning to social reality. Conflicting logics cause partners to frame problems differently from one another, and are derived from the societal sector they are in (public, private, non-profit), organisational fields they form around problem sets and nation states in which they are situated. Conflicting frames are interpretations we use to make sense of the worlds around us. New information is received and weighed up against previous interpretations.

## 2.12 Conclusion

The literature review outlines the issues around artisanal and illegal mining - that it is a prominent source of income for many in Africa (Saldarriaga-Isaza et al., 2013), and that in most cases a lot of these artisanal miners are operating illegally (Tschakert, 2009). In many cases, artisanal miners have been mining for generations and there is no alternative livelihood for them.

Artisanal and illegal mining is associated with the use of toxic mercury, social disruption, prostitution, aids, child labour and criminality (Tschakert, 2009) and a major obstacle to reforming the sector is that it is largely unmonitored and unregulated (Hilson & Ackah-Baidoo, 2011).

Mining companies have been criticised for their attitude to sustainable development and CSR initiatives (Lauwo & Otusanya, 2013). Mining companies do however have a significant impact on communities and environments around their operations, and try to make up for this by engaging in CSR with these communities. Most of these CSR activities are transactional in nature (Bowen et al., 2010).

In some countries there is more formalisation and regulation around the ASM sector and this presents itself as a dilemma to mining companies who operate globally on how they deal and interact with the sector. In countries where there is no formalisation of the ASM sector, mining companies identify illegal miners as non-stakeholders (Mitchell et al., 1997), as what they are fundamentally doing is something illegal.

The concept of coopetition was introduced in the literature review to explain how mining companies and illegal miners could potentially be rivals as well as roommates (Ingram and Yue, 2008). Coopetition seeks value creation and results in shared benefits, while competition is a zero sum game and involves private benefits (Raza Ullah et al., 2014).

Finally the role of cross-sector partnerships that form to address a common or shared problem, was introduced, to use as a lens to explore what, if any cross partnerships are present around illegal mining. These partnerships form different desired outcomes amongst the partners and the role of context within where this partnership is formed affects the initial development of the partnership as well as its functioning over time.

This research aims to explore the drivers that affect the relationship between mining companies and artisanal-illegal miners. What is stopping the 'coopetition' from taking place? What are the factors that mining companies take into account when identifying their stakeholders? In which countries have they been more successful? How have cross-partnerships worked in these countries? What CSR strategies are mining companies undertaking with communities around their mines? Are illegal miners part of those strategies?

# Chapter 3: Research Questions

## 3.1 Aims and Objectives

The literature review illustrated the intricacies around illegal and artisanal mining as well as the theory behind cross sector partnerships, CSR strategies, stakeholder theory, as well as introducing the concept of coopetition.

The study aims to investigate the possibility of an inclusive approach for mining companies in their relationship with illegal miners. It aims to understand what the factors are that are stopping mining companies from including illegal miners into their CSR and CE strategies, and where in Africa they have been more successful in managing the relationship.

## 3.2 Research Questions

The open-ended questions that will be answered in this research are:

**Research Question 1**: What are the environmental and organisational drivers for the nature of the relationship between illegal miners and mining companies?

This question attempts to explore the factors that affect mining company perceptions and their willingness to cooperate with illegal miners. Raza Ullah, Bengtsson and Kock (2014) and Bengtsson, Eriksson and Wincent (2010) supply frameworks around the concept of coopetition and introduce the concepts of the coopetition paradox and dynamic coopetition which is a fine balance between competition and cooperation.

Factors affecting coopetition in context are industrial factors, relational factors, and firm-specific factors. Tension in coopetition is caused from emotional ambivalence both at the inter-organisational and organisational levels (Raza Ullah et al., 2014). This question will aim to explore further and in more detail what these factors are.

**Research Question 2**: What are the different dynamics between mining companies and illegal miners in different countries?

This question aims to understand and explore the different dynamics of mining companies and illegal miners in different country settings.

Mitchell et al. (1997) outline stakeholder typologies based on a combination of relationship attributes namely power, legitimacy and urgency and provide a tool for managers to prioritise stakeholders based on this. These stakeholder typologies will vary for a mining company depending on the context, that is, if there are policies around artisanal-illegal mining in the specific countries it is operating in.

Lawrence (2010) expands further on Mitchell et al.'s (1997) work by introducing the 4 Ws framework, which enables management to make decisions on their SR strategy based on activist stakeholders.

In turn Gray and Purdy (2014) provide a framework around types of partnerships with illegal mining and their success will be different in different countries based on the role of context, as context will shape the degree of conflict in the partnership. Context includes the role of potential partners, the regulatory structure and the political environment, as well as power differences amongst partners.

**Research Question 3**: How are mining companies managing the relationship with illegal miners?

This question aims to develop an understanding of what types of CSR strategies mining companies are undertaking around artisanal and illegal mining, and what types of community engagement strategies they are undertaking. Company CSR strategies as outlined by Lee (2011) combines both institutional and stakeholder theory, and states that the type of CSR strategy a company chooses is dependent on a combination of stakeholder, firm and institution interactions.

Bowen et al. (2010) outline a framework on three forms of community engagement: transactional, transitional and transformational.

# Chapter 4: Research Methodology

The study was aimed at exploring the environmental, organisational and individual drivers that affect the nature of the relationship between illegal miners and mining companies. This chapter outlines the research methodology used.

## 4.1 Research Design

### 4.1.1 Design Chosen

A qualitative research design was chosen for this study. Narrative enquiry was used to understand and develop ideas around illegal mining. Narrative enquiry involved the description and analysis of experiences of managers and in touch experts when dealing with illegal miners.

### 4.1.2 Reasons for Choice

A qualitative exploratory approach was required in this study, as a deeper understanding and further insight was being sought on the issues and the nature of the relationship that exists between illegal miners and mining companies. “Qualitative research is designed to tell the researcher how (process) and why (meaning) things happen as they do” (Cooper & Schindler, 2014, p.144). Bloomberg and Volpe (2012) suggest that qualitative research promotes a deeper understanding of a social setting as viewed from the perspective of the research participants, and that it emphasises discovery, exploration as well as description. To permit exploration, the design of the research is proposed upfront, but it is open and emergent as opposed to fixed and rigid. Small samples are selected with a purpose (Creswell, 2003; Bloomberg & Volpe, 2012). Creswell (2014) describes how qualitatvie research is performed in a natural setting where up-close information is gathered by talking directly to people, and that the researcher is the key instrument as the researcher designs the research instrument by using open-ended questions.

Qualitative reseach usually involves complex reasoning through inductive logic: patterns, themes and categories are built from the “bottom up”. A comprehensive set of themes are established through the researcher working back and forth between themes and the database. Research questions are used to narrow the scope of the study (Creswell, 2014).

A theme developed in a qualitative study refelcts multiple perspectives of the participants of the study and not the meaning that the researcher or literature authors have brought to the study. The design is emergent in nature with the research plan not tightly prescribed and changes and shifts occur as more data is collected (Creswell, 2014).

Researchers poisiton themselves by conveying their background and how it forms part of the interpretation, while giving a holistic account, where a larger picture is presented by taking into account multiple perspectives or a complex problem or issue (Creswell, 2014).

## 4.2 Research Process

The research project took the form of a 2-phase qualitative study. Details of each phase were as follows:

*Phase 1:* This phase consisted of semi-structured interviews with Corporate Social Responsibility (CSR), sustainability, exploration or asset protection experts of gold mining companies, with head offices based in Johannesburg. The aim of this research phase was to determine what the views are of mining companies regarding illegal mining and to gauge whether they felt their CSR or community engagement policies are sufficient when managing the relationship with illegal miners. In addition to this, the interviews aimed to explore the possibility for a more inclusive model when dealing with illegal miners. When contacting the individual mining companies for interviews, it was intentionally left to the mining company to decide which department manager was most familiar with their company's management of illegal mining. This gave the researcher an initial idea as to the company's stance on illegal mining.

**Table 4: Mining Organisation's CSR/Sustainability/Asset Protection Managers**

| Respondent number | Company descriptor | Functional role | Country reference | Questionare |
|---|---|---|---|---|
| Respondent 1 | Global gold mining company | Exploration Manager | Mali, Guinea, DRC | phase 1 |
| Respondent 2 | Chinese gold mining company A | Asset protection manager | South Africa | phase 1 |
| Respondent 3 | South African gold mining company B | Asset protection manager | South Africa | phase 1 |
| Respondent 4 | Chinese gold mining company A | Project coordinator | South Africa | phase 1 |
| Respondent 5 | Global gold mining company | Senior specialist - sustainability, small scale and artisanal mining | Mali, Guinea, Tanzania, DRC | phase 1 |

*Phase 2:* This phase consisted of semi-structured interviews with consultants, geologists and/or people that are more 'in touch' with illegal miners.

**Table 5: "In-touch Experts"**

| Respondent number | Company descriptor | Functional role | Country reference | Questionare |
|---|---|---|---|---|
| Respondent 6 | Global gold mining company | Mine geologist | Tanzania | phase 2 |
| Respondent 7 | Global gold mining company | Exploration geologist | Gabon, Guinea, Mali, other West Africa | phase 2 |
| Respondent 8 | Global gold mining company | Exploration geologist | Tanzania, DRC | phase 2 |
| Respondent 9 | Global gold mining company | Exploration geologist | Guinea | phase 2 |
| Respondent 10 | Private | Community leader | South Africa | phase 2 |

## 4.3 Research Scope

The scope of this research was the exploration of the possibility of constructive cooperation between illegal miners and mining companies. Thus inclusive business theory and literature on coopetition, CSR strategies, CSV strategies, community engagement, cross-sector partnerships as well as illegal mining was considered to be pertinent.

## 4.4 Universe/Population

The population in this project is gold companies operating in Sub-Saharan Africa. Population subgroups for sampling included CSR or sustainability experts, asset protection managers or exploration managers working for gold mining companies, consultants and geologists dealing with illegal miners in the field as well as illegal miners.

## 4.5 Unit of Analysis

The unit of analysis was the opinion and perspectives of individuals, CSR or sustainability experts, consultants, geologists and illegal miners on the relationship that exists between mining companies and illegal miners.

## 4.6 Sampling

Table 7 indicates the data collection method, sampling technique and sample size used for each of the research phases. The sample was a non-probability sample (Cooper & Schindler, 2014). Samples in phase 1 were purposive (judgement) samples, as participants were chosen for their unique characteristics or their experiences working in corporate social responsibility or sustainability for gold mining companies (Cooper & Schindler, 2014). African and South African mining company head offices are all based in Johannesburg.

Samples in phase 2 were purposive or snowball samples, as consultants, geologists and journalists were chosen according to their unique experiences dealing with illegal miners. However, snowball sampling was sometimes required to be referred to the next participant (Cooper & Schindler, 2014).

**Table 6: Research Phase and Corresponding Sampling Information**

| ***Research Phase*** | ***Aim of phase*** | ***Data Collection method*** | ***Sampling Technique*** | ***Sample Size*** |
|---|---|---|---|---|
| **Phase 1** | Expert opinion regarding the issues around illegal mining and mining company's initiatives to manage it. Individual in-depth interview. | Semi-structured, narrative enquiry, inductive logic | Purposive (judgement) | **5** |
| **Phase 2** | Face-to-face interviews with geologists and consultants. Individual depth interview. | Semi-structured, narrative enquiry, inductive logic | Purposive/ Snowball | **5** |

## 4.7 Research Instrument / Measurement

The data collection and data analysis phase in a qualitative study is an iterative process that assists in gaining deeper understanding during the research process (Bloomberg & Volpe, 2012). Data analysis was continuous during the project (Cooper & Schindler, 2014). Semi-structured interviews were used in both phases. It was preferable to conduct these face-to face as the researcher was then able to record nonverbal as well as verbal behaviour (Cooper & Schindler, 2014). However, subjects that were not based in Johannesburg were interviewed via Skype.

The process for both phases was as follows:

- Interviewees permission gained before interview took place, consent form was signed;
- Interview conducted;
- Interview was transcribed;
- Researcher notes were captured, themes were developed using words that the respondent used;
- An overall sense of the data was sought, with meanings in the data discovered using a mind map;
- The interview process was repeated until no new ideas or themes emerged from further interviews (saturated);

- Data was synthesized into tables, hypotheses and propositions.

### 4.7.1 Data Collection

In qualitative research, the researcher purposefully selects individuals that will best help the researcher understand the problem and the research questions (Creswell, 2003). Interviewing is a major source of data needed in qualitative research (Bloomberg & Volpe, 2012). Semi-structured interviews were used in both phase 1 and 2. In phase 2 particularly, research was framed in terms of the narrative because different and sometimes contradictory layers of meaning emerged to understand more about individual and social change (Squire, Andrews, & Tamboukou, 2008).

### 4.7.2 Data Analysis

Qualitative analysis is an iterative, cyclical and on-going process. The challenge is for the researcher to depict the voices of all participants in an authentic way while remaining politically aware and reflective (Bloomberg & Volpe, 2012). Data analysis for this study made use of two analysis methods as described in table 8 below.

**Table 7: Data Analysis Methods for Research Study**

| ***Analysis Method*** | ***Rationale*** |
|---|---|
| Narrative Enquiry | This method was used in both phases where respondents relive their experiences through story telling (Squire, Andrews, & Tamboukou, 2008; Creswell, 2014) |
| Content Analysis | The raw material for this approach was the transcripts of the interviews from both phase 1 and phase 2. The data was examined for its content and re-occurring themes counted (Marshall & Rossman, 2006) |

A systematic procedure for data analysis as proposed by Bloomberg and Volpe (2012) was used:

i. Data was organised and prepared for analysis

   Interviews were transcribed as soon as possible, and identification codes were assigned to each transcript.

ii. Analytical approach decided on

The coding and categorising process involved the “constant comparison” method that continued throughout the study (Bloomberg & Volpe, 2012). This method involved the systematic comparison of sections of text by noting similarities and differences. The theory evolved through the emergence of major categories.

iii. Data review and exploration

Each piece of information was examined, and in addition insights as well as hunches from interviews were built on.

iv. Category development

Categories were developed that were based directly on the research questions. It was attempted that at least one category related to one research question.

v. Descriptors for each category

Descriptors reflected what was learnt from the literature review, as well as educated guesses and hunches about how people responded to each question. These descriptors tended to change as more data was collected.

Each category and descriptor was then assigned a code that mapped participant’s responses to research questions, thus forming categories and sub categories. These then become the headings and subheadings in the findings section.

vi. Data coding

Coding is defined as a classification system – which involves processing whether information is of interest or significance. Atlas.ti software was used to bring structure to the list of codes.

The first step involved considering big ideas or themes, with the second step dissecting and classifying the data (Bloomberg & Volpe, 2012). Coding the data was viewed as a reduction process where common patterns were identified in the data. Codes that described the common patterns were assigned to pieces of information in the conceptual framework (Bloomberg & Volpe, 2012).

vii. Quotations sorted and categorised

Quotes were placed in their appropriate analytical category.

viii. Presentation of findings as quotation categories

ix. Patterns and themes sought

### 4.8 Data Validity and Reliability

In qualitative inquiry, validity is essential in establishing the credibility of the study, with validity referring to inferences drawn from the data collected rather than the data itself (Creswell & Miller, 2000). The researcher carried out initial coding and content analysis, but in addition to this, transcripts were sent to a qualitative expert to independently perform content analysis and coding. This was to limit potential researcher bias in the interpretation as well as ensure that the researcher did not miss anything important.

The validity and reliability of the data is dependent of the lens the researcher used (Creswell & Miller, 2000). Qualitative research is interpretative, the researcher makes an interpretation and draws a conclusion about the meaning and uses theory to state the lessons learnt. The researcher filters the data collected through a personal lens, therefore personal interpretation in qualitative data analysis cannot be avoided.

### 4.9 Research Ethics

Informed consent letters, containing a clear description of the research objectives, were given to each respondent. Anonymity in terms of individual and organisational identification was guaranteed.

### 4.10 Research Limitations

The snowball sampling method is associated with an aspect of risk as reliance is placed on the ability to interview the following referral, and is therefore subject to 'community bias' or 'selection bias'.

Possible bias may exist by having interviewed 'Johannesburg head office' CSR and sustainability subjects only, as they may be more removed from the situation 'on the ground'.

It was assumed that these experts have had sufficient experience through their travels to their company's projects in Africa to mitigate against this.

Since the researcher purposively chose most of the subjects that were interviewed, the sample is not representative of the entire population, and therefore the results may not speak for the entire population.

Countries and institutions deal with artisanal miners in very different ways – this may have influenced the opinions of interviewees.

The researcher in this study has limited experience in conducting qualitative research, and therefore there is a risk of researcher bias.

# Chapter 5: Results

## 5.1 Introduction

This chapter presents the findings of the qualitative semi-structured interviews that were conducted across the two phases of interviewing. Phase 1 focussed on interviewing managers in the CSR, sustainability, exploration management and asset-protection roles, who were working for gold mining companies with operations in Africa. Phase 2 focussed on interviewing consultants and geologists (considered to be in-touch experts) who have worked with or encountered illegal miners. The purpose of Phase 1 was to understand how the context and company factors affect their relationships with artisanal/illegal miners while the purpose of phase 2 was to get an understanding of individual perceptions and experiences with illegal miners in different countries (table 9).

**Table 8: List of interviewees, company details, functional roles and reference countries**

| Respondent number | Company descriptor | Functional role | Country reference | Questionare |
|---|---|---|---|---|
| Respondent 1 | Global gold mining company | Exploration Manager | Mali, Guinea, DRC | phase 1 |
| Respondent 2 | Chinese gold mining company A | Asset protection manager | South Africa | phase 1 |
| Respondent 3 | South African gold mining company B | Asset protection manager | South Africa | phase 1 |
| Respondent 4 | Chinese gold mining company A | Project coordinator | South Africa | phase 1 |
| Respondent 5 | Global gold mining company | Senior specialist - sustainability, small scale and artisanal mining | Mali, Guinea, Tanzania, DRC | phase 1 |
| Respondent 6 | Global gold mining company | Mine geologist | Tanzania | phase 2 |
| Respondent 7 | Global gold mining company | Exploration geologist | Gabon, Guinea, Mali, other West Africa | phase 2 |
| Respondent 8 | Global gold mining company | Exploration geologist | Tanzania, DRC | phase 2 |
| Respondent 9 | Global gold mining company | Exploration geologist | Guinea | phase 2 |
| Respondent 10 | Private | Community leader | South Africa | phase 2 |

Coding and content analysis was undertaken to extract key elements from each interview. Similarities as well as differences between countries were noted, as well as similarities and differences between companies. In addition to this, interview transcripts were sent to a qualitative expert, who developed additional codes and a short top line report, to ensure that the researcher did not miss anything and did not bias the results.

Initial sentiment regarding the attitude of the mining companies that were interviewed, to illegal miners, can be noted via which functional role they suggested should be interviewed. Some mining companies position the role of managing the relationship with illegal miners onto asset protection, whilst others have a specific manager dealing with ASM and illegal mining issues in their CSR departments.

It was not planned to interview illegal miners in South Africa due to issues around access and possible harm to the researcher. However a community leader from an area where illegal mining is prevalent, was interviewed.

Some respondents were more able and willing to speak on a variety of issues (Respondents 3,5 and 8 in particular), whilst others tended to focus on more functional and company roles (Respondents 2 and 4). Story-telling from country experiences came mostly from respondents 1, 7 and 9). Respondents 2 and 10 may have had difficulty in answering some of the questions due to language issues.

## 5.2 Results: Research Question 1

**What are the environmental and organisational drivers for the nature of the relationship between illegal miners and mining companies?**

### 5.2.1 Introduction

Illegal mining has a direct impact on mining companies operations. The extent of these challenges are diverse and not only profit-related. This question attempts to explore the factors that affect mining company perceptions and their willingness to cooperate with illegal miners. Raza Ullah et al. (2014) propose that factors affecting coopetition in context and simultaneously driving firms to compete and/or cooperate are firm-specific factors, relational factors and industrial factors, and that tension in coopetition is caused from emotional ambivalence (simultaneously experiencing both positive and negative emotions) at both the inter-organisational and organisational levels.

### 5.2.2 Firm-specific Drivers

Firm-specific drivers are the firm's resources, their strategy and perceived vulnerability (Raza Ullah et al. (2014). From the interviews, five main categories of impact to the company were identified, namely community, environmental, health and safety, financial and reputational risk. These categories are interlinked with significant overlap between them. These are considered to be firm-specific drivers, as each company will have a different strategy around how they manage them.

**Respondent 5:** *"Ja, okay, so when one looks at the impacts of ASM on the mining operations, I think there are several categories that one has. You have the security angle, and that comes with the asset, there is theft of gold-bearing material, there is damage to infrastructure, there is re-doing of the environment rehab where it has been damaged, so there is financial loss related to that. Okay so it was security, financial, environmental, health, community. Then another key has to do with the reputational as well as legal"*

**Respondent 3:** *"…it's largely health and safety issues, it is the damage to the infrastructure and equipment, it is potentially putting the business at risk, you know, through stoppages, i.e. DMR stoppages, and it is a threat to the employees that are underground"*

#### 5.2.2.1 Community Risks

Mining companies want to have a positive effect on the communities affected by their mining activities. Illegal miners can originate from the local community around the mine but usually have migrated to the community around the mine in the form of a gold-rush or by being chased away from a previous mine by the authorities. These illegal miners are a source of income to the local community, but with the income comes issues such as prostitution, child-labour, xenophobic attacks, *et cetera*. They are usually not considered as part of the local community.

**Respondent 5:** *"…if you get a migrant type of labour for an illegal mine they are different because it is not their home, they are not part of the community"*

Illegal miners are often ex-mine employees that are forced into the situation because of an economic downturn and the mine has closed down. HIV-AIDS, TB and poverty often characterise illegal mining communities.

**Respondent 3:** *"But 45% of [company name] employees were foreign nationals. So if you go back over the years it was probably 60/70/80%. But as the boom died and people started shutting up and cutting costs et cetera, a lot of these people got retrenched. So they understand underground mines, they understand mining, they understand processing, they understand security around the mines; they have worked there"*

**Respondent 10:** *"Others got even cripples, others got accepted and in terms of that they are still working for those particular mines. Others have TB, asthma, there are so many types of illnesses that we would explore when we meet those particular guys, and then you have a look at how long, they are going to tell you for how long they have been exploited* *and working for those particular mines. But now they are shut, they have got nothing and that is the reason why they are trying to get something out of that"*

Another company's strategy around illegal mining in the same district can affect the influx of illegal miners on your mine property. Respondent 5 said, *"…and the things are changing because it was reported that African Barrick gold had become really tough from a security perspective there, and creating interventions. So people started drifting down from north Mara down to Geita (Tanzania), because I guess Geita (Tanzania) was probably seen as a softer hit"*.

#### 5.2.2.2 Environmental Risks

In the past illegal miners used traditional mining techniques to extract gold and concentrated only on alluvial gold or surface gold that does not have to be extracted using chemicals. Increasingly, illegal miners are using chemicals such as mercury or cyanide to extract the gold. These chemicals are not disposed of correctly nor properly handled and are released into streams and the environment, resulting in severe impacts on the local community. Illegal miners do however usually mine in areas that are already mined out, so the environmental impact on these areas is less than that of pristine areas. Other environmental impacts include the deforestation and the chopping of trees for firewood, as well as the destruction of the topsoil layer and soil erosion. The environmental damage caused by illegal mining affects the mining company's environmental rehabilitation plan, as they are responsible for distinguishing the environmental damage brought about by them as well as those of the illegal miners.

**Respondent 1**: *"You know 10 or 20 years ago it was promising gold by panning, just using water and that stuff. But currently they are starting to use some chemicals"*

**Respondent 4:** *"…some people were naughty and mined straight from the surface. Normally we would stop thirty metres below the surface to protect the surface but these guys now have mined up to there"*

**Respondent 5:** *"…so the issues around the environmental impacts is that you have to go the extra mile to distinguish or disaggregate them from your own and the extra mile in terms of engaging the authorities so that it is still communicated that these are not your impacts"*

Regarding where the responsibility lies for these environmental impacts from illegal mining activities, there is a debate. Some respondents indicated that the mining company is responsible if these activities happened on their concession, and others felt that it is not the mining company's direct responsibility, but it is important in the bigger scheme of things and needs to be addressed.

**Respondent 1:** *"…you can have at least less impact on the environment. And if such things happened in your concession as a company you are still accountable, so we as a company haven't experienced this kind of thing but other companies did"*

**Respondent 5:** *"…so these kind of things, they are maybe not your direct concern but still we have to think about it in terms of the big picture"*

#### 5.2.2.3 Health and Safety

Apart from financial loss, health and safety is the most important factor for mining companies to manage as they are legally bound by their country's health and safety act of the mining code. Not only are the illegal miners affected by their contraventions of the respective country's mining health and safety act, but also the mining company employees. Most importantly if there is an accident on the mine, the mine will be closed down for investigation by the local authorities and local governmental departments. Destruction of mine infrastructure is of high concern to the safety practices of the mining company. Mining infrastructure both underground and on the surface is often destroyed, such as shaft pillars and other crucial support. On the surface illegal miners leave dangerous pits, which somebody could fall into. Explosives are also stolen from the mining company and used without following the safety procedures. The desperation of illegal miners causes them to want to risk their own and others lives to earn money.

**Respondent 3**: *"…they, on the other hand, have a don't care attitude and they risk their own life and limb so they have no respect for life and limb of others. They damage infrastructure, they use equipment underground, they steal copper, they damage cable infrastructure and you name it – it is a whole host of things from a health and safety perspective. They also intimidate employees at the mine that they might come across in the underground workings"*

**Respondent 4:** *"…well there is… they are mining safety pillars that are… like I explained 30 metres from the surface. We had to leave safety pillars by law. The plans show it is there but these people are mining it. The land could collapse and we are responsible for the rehabilitation"*

**Respondent 2:** *"…the explosives control is the main, important thing. Explosives which they use underground, that can close your mine down, that can stop you completely if there is a mistake on that"*

#### 5.2.2.4 Financial Loss

Direct financial loss occurs due to mine stoppages if there has been a health and safety incident on the mine. Other sources of expenses are security for monitoring illegal miners, the closing up of holes being dug by the illegal miners, gates, locks and other rehabilitation costs.

Financial losses also occur due to reputational damage that a mining company suffers when there is an accident on the mine.

**Respondent 4:** *"…we still have security monitoring it. They do nothing; they just look and report what they see. Putting a security guard there, one in the day and two at night, costs us over R50 000 a month and that is where the cost goes"*

#### 5.2.2.5 Reputational Risks

Usually as a consequence of a health and safety incident or an environmental incident, the mining company's reputation with their shareholders as well as government institutions, suffers. Mining companies often invest in infrastructure and other community facilities to offset this reputational risk. Currently illegal mining is a hot topic and so companies have to be careful of sensational news reports around anything concerning illegal mining activities on their licenses such as child labour and prostitution. In addition to this, when there is a security intervention, mining companies have to show that it was done according to human rights principles.

**Respondent 1:** *"And so we have been investing in a lot of infrastructure, road building materials, and other facilities in the community, and that builds a good reputation"*

**Respondent 2:** *"We are a Chinese company and immediately from all over the world and from China we were immediately phoned and 'listen, what are you guys doing to see to the safety of these people' and the press was in on this and almost everybody was in on this. What we were doing is we did everything: we got hold of the mine rescue services, and we took these guys to hospital on our costs and all that sort of things. So ja, we will definitely see that people don't get hurt. We will help"*

**Respondent 4:** *"The 200 were trapped and it was international. It was an embarrassment for the country; it was an embarrassment for the company. It was like we don't care"*

**Respondent 5:** *"There is child labour, for example, and if you are not using child labour but they will make a headline like 'child labour at Geita (Tanzania) gold mine' – so you think that they are working in our pit with our miners, but what they mean is that the artisanal miners are using child labour. So it has to be something we are concerned about, even if all we do is document and communicate and if we can make a contribution … to the corporate stakeholders"*

### 5.2.3 Relational Drivers

Relational drivers are similarities and complimentaries that exist between firms and their resources. These factors include alternative livelihoods, deep-rooted histories and economic significance of illegal mining, the role of syndicates as well as the physical environments such as underground or surface illegal mining.

#### 5.2.3.1 Alternative Livelihoods, Deep-rooted Histories and Economic Significance

In most cases artisanal or illegal miners have done this for many generations and it is all they know how to do. There is also usually no alternative means for them to earn income. In some countries like Guinea, Mali and Tanzania, there is a deep-rooted history of gold mining before mining companies ever started operating there. In these countries there is a feeling that the artisanal-illegal miners are being invaded when mining companies come to start mining. Governments are not all equally aware as to how much the illegal mining or artisanal mining contributes to their economy and usually chase the artisanal and illegal miners away from the site to a more unprofitable site when a mining company wants to start mining.

**Respondent 1:** *"….a part of this is North West of Guinea and Western Mali are known historically to be high centres for gold production in the world, so whenever you see in the history book Bule gold, that is North West of Guinea running across the border to Mali, and western Mali is Bambuk. So there is a lot up to Saudi Arabia, when they travelled there and to Mecca. So in those days they came on horse carrying gold and exchanged it to buy food and that stuff. So it is known as a gold production area and people are living off this activity since then, so it is something that needs to be more structured, controlled and monitored by the government but it is something that existed long before the industrial mining, so it is really difficult to… And in anyway it is supporting the government and the country as well"*

**Respondent 6:** *"Yeah, so it is a scramble sometimes because everywhere we go and see these illegals, because they have been here even before we came here*"

**Respondent 8:** *"…one relationship is that because the small scale miners were there before the large scale miners, in the areas around where the mines are, in most cases the small scale miners think they are being invaded. I mean these large mining companies are taking away their wealth"*

In a lot of cases, the actual mine was founded by small-scale miners. Their workings are what lead the governments and mining companies to the 'discovery'.

**Respondent 8:** *"…to them, they call them illegal miners, they are not illegal miners because they were the first ones to find it. They found it, they discovered it, okay"*

Artisanal and illegal mining activities can contribute significantly to the annual gold production in a country.

**Respondent 1:** *"And, for example, last year Mali as such produced 50 tons of gold and part of that, 7 or 8 tons came from the artisanal mining. So it is something that is well monitored by the government and is economically important. And an area like Mali West, probably 50 to 60% of people are living off artisanal mining, so it is a big thing that really needs to be monitored and organised – probably by the government and the mining company as well"*

#### 5.2.3.2 Syndicates

Illegal mining by its mere nature of being illegal, in some countries especially where there is no clear framework or policy around illegal mining, is run by crime syndicates. The syndicates are a well-organised networks and are multi-layered and levelled, involving mine personnel, the police and others. The illegal miners themselves do not earn a lot of the money and are sometimes mining just for food.

**Respondent 3:** *"…the crime syndicates hone in on the miners, bring them into the country, facilitate their movement into the mines, if there is training to be done, does the training, equips them with personal protection equipment and so on, and because the tentacles of organised crime stretches all over the show, to the highest levels et cetera, some of these guys have the best advocates appearing at the court, to be able to defend them"*

**Respondent 4:** *"…personally I believe there are so many… I mean they caught this Afrikaans high school teacher here on Carte Blanche. That shows you how involved it is. It is* *run by people that you trust. The syndicates are big. When we plan a raid we arrive there and there is nobody because they've been warned so they have connections"*

**Respondent 10:** *"Sometimes this gang will capture them and kidnap them for quite a number of days, and then when you ask what happens during that sort of imprisonment, they tell you that the instruction is to say to them that you are going to work for me for five days, or maybe for two weeks, or whatever time that they will stipulate. So in other words all your digging and all that will be taken directly to those leaders or those gang leaders who are being feared, and then they benefit and then they can start working for themselves"*

**Respondent 8:** *"So it is a syndicate which if you don't know where to cut it, you can't break it. It is difficult. I mean most of these are owned by generals in Kinshasa"*

#### 5.2.3.3 Type of Deposit and Stage of Mining

The type of illegal mining and the risks associated with it are highly dependent on whether it is taking place underground or on the surface. Generally underground illegal mining is considered more dangerous due to increased destruction of infrastructure, gang-related violence, theft and incorrect use of explosives as well as the dangerous mining of shaft pillars.

**Respondent 5***: "But when they are underground the conflict manifests much more frequently"*

**Respondent 9:** *"So that is obviously underground. In an open pit there is a massive difference because the people can go and hide underground but in open pit you can't go hiding"*

### 5.2.4 Industry Drivers

Industrial drivers are described by Razah-Ulla et al. (2014) as the maturity of the industry, symmetry of firms in the industry, high industrial cost structure and technology/market development in the industry. It is considered that governments and institutions drive the industry by putting in place laws and policy around artisanal and illegal mining.

#### 5.2.4.1 Institutions

Governments are responsible for the legal framework around issuing mining and exploration licenses to mining companies, as well as laws and policies around artisanal mining. They are also usually involved when artisanal and illegal miners are chased off a mining company's licensed area and moved, in some cases to another area. Foreign mining companies encounter difficulties in managing the artisanal and illegal mining sector. Sometimes companies will let the illegal miners mine the alluvial deposits that they are not mining, but once the artisanal-illegal miner's start using more advanced equipment or chemicals they will contact the authorities to remove them.

**Respondent 9:** *"We have had a few cases where, like obviously they go from artisanal to being more structured and actually using mechanical equipment which has happened before, and then you will start worrying and actually go to the government or to the prefecture and say 'okay there are these people, they are using cranes and all those type of things, can you please get them out of our license?'"*

**Respondent 8:** *"In Tanzania we have lost many, many companies, they have left – Australian companies, they have left because of this problem of small scale mining, because some of them have been invading their licenses and doing whatever they do, and when you go to the local authority from DC [District Commissioner] to LC to local and the village, they are not going to help you, they don't help you – the member of the parliament, MPs, LSCs, DC – all these guys, they don't, because they are close to these people, they see them every day"*

When there is a clear policy around illegal mining, what is then required is for the authorities to enforce the law. However due to capacity problems this is problematic.

**Respondent 5:** *"But of course one of the things that affects the relationship is the capacity of the government to enforce the law. In almost all the African countries, to different degrees, the capacity to manage the mining sector let alone the sub-sector, is very limited"*

**Respondent 3:** *"…the fact that SA has probably the best laws that regulate mineral resources et cetera, and not only that, it has some of the best laws in terms of preventing corruption and criminal law in general. The unfortunate part in my view, my perspective, is the actual application or enforcement. So there are two things, policy is one thing and law is the other"*

**Respondent 4:** *"…there is a desire to stop it but on the ground … I mean the police don't know what to look for and if they arrest a guy, it is for trespassing. He has a hand full of sand. To a cop what is that? It doesn't mean there is gold contained in that stuff, you can't prove it"*

In addition, the police are involved in the illegal mining process, either through accepting bribes or by using illegal miners to mine for them.

**Respondent 4:** *"And bribery – some information we have is these guys each carry R500 so if they get caught they pay the bribe. As a matter of fact somebody saw them. They called the cops to come and arrest the guys. The cops picked them up and drove away and when they drove here they saw the guys walking on the side of the road. The cops just dropped them off. They paid their bribe and they left"*

**Respondent 10:** *"…in other instances they are the so-called law enforcement who are using the same illegal miners for their own benefit, to mine for them. So in other words there are no any other stakeholders in terms of mining authorities management that are long involved, because that is why it is their concern, those mines are shut down and are not operational"*

Not only are the police involved in the collusion, but mine personnel as well, such as security and community relations' employees.

**Respondent 9:** *"…so that corruption at the mine and normally the community relations people are the people driving the biggest cars and so they will get from both sides and…So you don't only have that but you have the corruption inside your own"*

**Respondent 3:** *"The big concern is the illegal miners don't do this all by themselves, so there is a hell of a lot of collusion, bribery and corruption, where mine employees including security personnel, actually assist them to get into the restricted areas"*

There appears to be large grey areas between government and local or district government policy and intervention as well as between artisanal mining laws versus mining company laws. Another issue is that there is a general lack of consistency in decision-making and rulings that leads to confusion.

**Respondent 9:** *"I think obviously you will have to have, like I guess a governmental or like a higher input, and what not, but even like my relationship in West Africa, it is not run by say the government or the country, it is run by the chief of the village"*

**Respondent 5:** *"So there you are getting some kind of informal policy around managing the sector, and that creates conflict, definitely, because now there is grey, so as a mining company you can go to the government and say 'move them' and as a government you do act knowing that you are saying 'they can continue to mine'? What do you do?"*

**Respondent 8:** *"So these guys are told to go by the rules, and they are not. And that is like having two kids at home, if you don't treat them equally…. So you see everything goes back to the government hey?"*

**Respondent 3:** *"So the big thing is that artisanal mining all over the world is actually quite big and mostly it is licensed, it is regulated and it is acceptable – mostly. And even in some countries illegal mining is actually acceptable because in some countries there is a belief that the natural resources belong to the people and not to the company that has the concession"*

In some cases, the laws around artisanal and illegal mining are very clear, however politics and policies interfere with this.

**Respondent 3:** *"Policy on the other hand, which is largely unwritten, and probably pertains to the ruling party and the government, who we feel might have some kind of allegiance to our surrounding countries, particularly pre-democracy when the ANC was for example a banned organisation, and really functioned out of countries like Swaziland, Zimbabwe, Zambia, and somehow we feel there is still some kind of allegiance"*

**Respondent 5:** *"So you have the police wanting to remove them and then you have another political communication that says 'no, no, no, you don't move'. So we have an example of a situation where illegal miners were removed successfully and we wanted to backfill the voids and we were instructed by a local authority person to say 'no' because these people say 'we have a legal case'"*

In a lot of cases, specifically in South Africa, it seems that other policies that one would consider non-related affect the illegal mining sector, such as the immigration policy. Policies are not aligned.

**Respondent 4:** *"…if they get arrested they get released on bail the following day and they are back in. They have been deported to the border and they drop them off there and before the cops are back here the people are back here. It is an on-going process"*

**Respondent 3:** *"Our border control is actually quite pathetic, it is fraught with corruption, so you pay bribes, you come across – where am I going with this – you have an influx of a lot of undocumented foreign nationals that are just filtering into the country"*

**Respondent 10:** *"We are talking here about family men, we are talking here about people who left their own relatives back home, we are talking here about people who are coming* *from countries like Lesotho, Zimbabwe, Mozambique, and are staying in those particular areas"*

**Respondent 9:** *"Like we have thousands of people just coming in across borders and you don't even know where they come from. People don't speak the same language and it is just complete chaos"*

In cases where there is no policy or law around illegal mining, like in South Africa, companies rely on trespassing and the mines Health and Safety Act, to arrest illegal miners.

**Respondent 2:** *"What you can charge them for now is trespass and something on the Health and Safety Act, and that is it - nothing else! And that is what we are all fighting for, and the minister changed, so we haven't got [name] there anymore, we have got somebody new and it is a new message to a new person again and hopefully somebody listens at some stage"*

### 5.2.5 Conclusion

Many drivers that appear to affect the nature of the relationship between mining company and illegal miners have been identified through the interviews. These drivers are industry-related, relational or firm-specific drivers and these affect organisations and illegal miners from collaborating. Firm-specific factors are the community risks, environmental risks, health and safety risks, financial loss risks as well as reputational risks. Factors that mining companies and illegal miners deal with in an industry context are the role of institutions in establishing and monitoring rules and policies around artisanal and illegal mining. Relational factors are considered to be the role of alternative livelihoods, a deep-rooted history of artisanal gold mining and the economic significance to the country, the role of the physical location of the illegal mining as well as the role of syndicates.

## 5.3 Results: Research question 2

**Research Question 2**: **What are the different dynamics between mining companies and illegal miners in different countries?**

### 5.3.1 Introduction

This section focuses on the different dynamics around artisanal /illegal miners in different countries. The nature of the relationship differs from country to country, and overall seems to be dependent on the role of institutions in the country (in establishing policies and cross-sector partnerships) as well as the type of stakeholder the artisanal-illegal miners are classified as.

Mitchell et al. (1997) outline stakeholder typologies based on a combination of relationship attributes, namely, power, legitimacy and urgency and provide a tool for managers to prioritise stakeholders based on this. These stakeholder typologies will vary for a mining company depending on the context, that is, if there are policies around artisanal-illegal mining in the specific countries it is operating in.

Lawrence (2010) expands further on Mitchell et al.'s (1997) work by introducing the 4 Ws framework, which enables management to make decisions on their SR strategy based on activist stakeholders.

The presence and interpretation of the stakeholder attributes of illegal miners per country will be discussed in this section, however interpreted in terms of Mitchell et al. (1997) and Lawrence (2010) in the next chapter.

### 5.3.2 The Dynamics of Illegal Miners in Africa

Gray and Purdy (2014) provided a framework around the types of partnerships existing in illegal mining and their success will be different in different countries based on the role of context, as context will shape the degree of conflict in the partnership. Context includes the role of potential partners, the regulatory structure and the political environment, as well as power differences amongst partners.

**Respondent 5:** *"So the nature of the conflict then differs from country to country, it depends on first of all the dynamics that are actually prevailing in that country"*

#### 5.3.2.1 South Africa

In South Africa, illegal miners are generally considered as non-stakeholders. Most respondents would not even consider establishing a relationship with them. This is because they are carrying out an illegal act and in addition to this they are generally illegal immigrants.

In some cases there are issues around legitimacy as many illegal miners are retrenched mine workers. Illegal mining, specifically taking place underground, is associated with violence and syndicates, and therefore they may be considered as powerful - possessing coercive power and/or symbolic power (commanding a lot of attention from news or media).

**Respondent 7:** *"I know certainly for instance South Africa the Zama Zama's are a totally different story, they are very dangerous. You don't want to get involved with them too much. But certainly West Africa, very much a peaceful bunch, there are no real issues"*

**Respondent 3:** *"… so their intention is totally criminal from the start, they have the intent to steal, they have the means and they have the opportunity, they do that, they produce either gold or precious stones which they then sell directly in most cases to the illicit trade, and that feeds obviously the syndicated crime around these products"*

**Respondent 10:** *"…we are talking here about people who are coming from countries like Lesotho, Zimbabwe, Mozambique, and are staying in those particular areas. Some of them who have been working in those particular mines and then who have been retrenched where those mines had downfalls, and the mining was misused and then they had to lose their jobs, and they unfortunately have the skill and know-how as to how to get deeper"*

**Respondent 2:** *"I don't think, I don't think we must strive to improve it, because the moment you get involved, the moment you let these guys in, it's a crime"*

#### 5.3.2.2 DRC

Illegal miners are generally considered as non-stakeholders in the DRC. The syndicates however can be considered as possessing coercive or even utilitarian power, as well as possessing urgency.

**Respondent 1:** *"…like the Congo (DRC), I think it is from the civil war there because people come from different areas and are not necessarily controlled by the local community. So there must be some conflictual relationships between the mining company and the illegals, because there is nothing else you know, compared to West Africa, the artisanal miners there have other activities like agriculture and other stuff, but in the east part of the Congo the only survival is to dig a hole and get gold. So ja, it depends on the approach, the initial approach to the illegal miners"*

**Respondent 8:** *"So it is a syndicate which if you don't know where to cut it, you can't break it. It is difficult. I mean most of these are owned by generals in Kinshasa"*

#### 5.3.2.3 Tanzania

In Tanzania there are elements of both collaborative and conflicting relationships. The government legally sets aside areas for artisanal miners, but is involved with re-locating and evicting artisanal miners once a discovery is made or a mining license is issued to a mining company. So the artisanal-illegal miners are in fact legitimate stakeholders, but the mismatch between government laws and politics as well as central versus local enforcement, adds to confusion over legitimacy. Artisanal miners believe they are legitimate stakeholders because in many cases they were there before the mining company and have led mining companies to the discoveries, and this gives them a sense of entitlement. The government and the political involvement in the artisanal mining sector is the game-changer. They decide if the artisanal miners are legitimate, or powerful or urgent stakeholders.

**Respondent 5:** *"So in the country for example, like Geita [Tanzania] where you have political rhetoric that seems to encourage and make artisanal miners feel like this is our home, this our country, therefore you are in our place, we were here long before you were and sometimes it doesn't seem to be like a very clear government position about the legality. So there is almost a sense of entitlement, even if you are doing it you are not really doing anything wrong"*

**Respondent 8:** *"So when they were kicked out of there, they went to other places and when they went to other places they ended up finding new prospects, which now have led to new discoveries for the large scale miners"*

**Respondent 6:** *"Yeah, so it is a scramble sometimes because everywhere we go and see these illegals, because they have been here even before we came here"*

#### 5.3.2.4 Ghana

In Ghana there are surface areas set aside for artisanal miners. Respondents stated that on the surface operations, illegal miners seem to stay out of operating pits and are therefore considered as non-stakeholders. However underground at the Obuasi mine, there is more conflict, and illegal miners can be viewed as having both power and urgency.

**Respondent 5:** *"In Ghana, I am not sure what the reason is, they seem to not have competing manifest conflict, and the levels of illegal mining are much less, they don't have an underground mine, I have not heard of reports of occasions into the pits or that, they* *seem to stay somewhere else – still on the concession but somewhere else, dredging the rivers and mining the quarries and that sort of thing"*

#### 5.3.2.5 West Africa

West Africa in general stands out as a more 'accepting' area of the artisanal and illegal mining sector, with far less conflict. Artisanal and illegal miners come from many West African countries and mix into a community. Due to their long deep-rooted history of gold mining, historic gold trade routes and it being accepted as a livelihood, in most cases artisanal and illegal miners are considered as legitimate stakeholders. Legitimacy however, is argued over if you are a local artisanal miner or a 'foreigner'.

**Respondent 9:** *"Like in West Africa you don't really have a country context because all the countries are… it is one big community"*

**Respondent 7:** *"There are miners there but they come from other parts of Burkina Faso and therefore they don't really have any rights. So dealing with them is, for instance, much easier. There is just one guy in charge of the whole lot and you go and speak to him and they say you want to work here, and he just clears them out. And because they are not actually from there it is not the same as you going and taking the local guys, because they are not interested. So there are definitely variations"*

#### 5.3.2.6 Guinea

In Guinea, artisanal and illegal mining is generally accepted by the authorities and mining companies, as a livelihood. Mining companies are sometimes not sure how to treat the artisanal-illegal miners because the government cannot see themselves enforcing the law and removing them. In these terms artisanal-illegal miners posses legitimacy – but it is unofficial. These stakeholders are often unofficially given pits to mine that the mine cannot profitably operate. It can be considered that illegal miners have power as well, because the government cannot see themselves enforcing or removing them, and allow them to mine illegally even though the mining law says no. Mining companies feel like they are not in control.

**Respondent 5:** *"In Guinea there seems to be an attitude of live and let live approach because I think the authorities acknowledging that it is a livelihood for many, many people, and cannot see themselves enforcing the law, and because of that situation I think the company is kind of not sure what to do"*

**Respondent 7:** *"So it is also important to be able to put aside areas that you are not particularly interested in, that they can focus on. We usually leave the alluvials to them, so they can go and take out the alluvials because we don't really process it"*

**Respondent 8:** *"Yes, Guinea I saw them working side by side, but it is ten years, but there they have a very good relationship, they work side by side, they are in the pit, but sampling and the bulldozer takes it all to the mill, the women are keeping the aggregate, people passing by say 'hello, how are you?' - no problem!"*

**Respondent 9:** *"…it is so well structured and their whole organisation is, so you will have like, I said you will have the whole thing, from people selling water to apples to transport to buyers of the gold, everyone in the day's activity around a certain area, and it is run the same, outside and inside, and obviously in the mine area. I think in Guinea they have a certain relationship where they give the old pits back to the community, so obviously then it is not illegal anymore, and then because ja, you can't control them"*

#### 5.3.2.7 Mali

In Mali there are areas set aside by the government for artisanal mining and in addition to this, the laws around where they can mine are adhered to – people listen to the law. The laws around artisanal and illegal mining are very clear. In these terms the artisanal-illegal miners are legitimate stakeholders, but lack power and urgency, as they do not encroach on mining licenses and the relationships between the mining company and artisanal miners is in many cases termed non critical. Although the Mali government is taking steps to introduce a cross-sector partnership around artisanal mining, the relationship may become more critical and hence more urgent to mining companies.

**Respondent 1:** *"…in Mali mining they live in what they call a mining corridor, a legal mining corridor, one that is called Operash Corridor, which is where they are supposed to go and mine"*

**Respondent 5:** *"…the people in Mali seem to listen to the law or they don't go into head off collision with the authorities; so if they are told 'you don't go there' they don't go there. So you find that the activities are not happening in areas of the mine, as you do find in Geita, where people are actually in the pit"*

### 5.3.3 Cross-Sector Partnerships

Most respondents are of the view that for any collaboration to take place between mining companies and artisanal/illegal miners, government has a critical part to play by either establishing a legal framework around artisanal-illegal mining or by enforcing it. In addition to this government's need to be clear in their policies.

Mining companies in turn need to show that they are in support of the artisanal mining sector in each country they operate in. Mining companies need to engage with government by investing in capacity building for both national governments and local governments.

**Respondent 5:** *"And because the legislative frameworks provide for legal ASM; if the mining companies are seen not to be against ASM, to be against illegal activities on their concession but not about the sector – to say actually if ASM is being done legally and properly we are all for it!"*

**Respondent 8:** *"…so it is very important with capacity building that the local government people, those people in the districts, so that they understand the difference between a small scale deposit and a large scale deposit"*

#### 5.3.3.1 South Africa

In South Africa there is an Illegal mining forum that has been established by the government. This forum has representatives of mining houses, the national prosecuting authority, the department of mines and energy as well as the police services. Respondents are however of the view that this forum is only a conversation tool and that no proper action takes place around issues. The forum is reactive in nature and all they are concerned with are managing incidents. Their other focus is to change the law so illegal miners get heavier penalties; however there appears to be an issue with the actual implementation. Respondents are of the view that illegal mining is not going to stop, and that policy changes and radical thinking are the only things that will assist the situation. The government and mining companies appear to be 'out of sync' in terms of where they want this to go.

**Respondent 4:** *"To improve the relationship… no. One of our directors asked what the possibilities of legalising the mining are. The South African policies do not allow for that. There will have to be major constitutional changes"*

**Respondent 3:** *"So it is totally out of sync in terms of where industry wants this issue to go and how it should be resolved, and what the laws and the government and the policies and talk shops that govern, they have many talk shops on illegal mining, but it is just talk shops, it is politicking"*

If illegal mining were in fact legalised in South Africa, other issues would have to be addressed by the government, such as the gold production value chain, so that there is a market where the gold can be legally sold. In addition to this, the sector would still need to be regulated as a mining company cannot be sitting with an uncontrollable gold rush on its operations. Police would have to get involved due to the sector now being legalised and the crime syndicates will not be happy.

**Respondent 3:** *"…eradicating illegal mining for [company name] doesn't necessarily mean catching every single one of them, throwing them out, killing them, whatever the case might be; eradicating illegal mining might be that program that I spoke to you about, where it is no longer illegal mining but it is actually a partnership in terms of the whole gold production value chain"*

**Respondent 4:** *"Zimbabwe has got it… Mozambique has got it. They call them artisanal miners and they are supposed to sell the gold to the government, which they don't do. There is so much to do to change it. You have to change the laws to be able to legalise it. You see we are so regulated, overly regulated, by different laws by the Mine Health & Safety Act"*

When it is the policy of the government to support the artisanal mining sector, it is a lot easier for mining companies to get involved in cross-sector partnerships, such as in Mali and Tanzania. Mining companies only get involved because ASM is provided for in the legislation, and they can therefore make ASM part of their country strategy.

#### 5.3.3.2 Tanzania

In Tanzania, there is a cross sector partnership that was set up to support ASM formalisation. The cross sector partnership involves the World Bank and mining companies and is led by the Tanzanian government. It is funded both through the Tanzanian government as well as the World Bank. Tanzanian gold mining companies now make ASM part of their strategy and business plan. One of the companies interviewed have an ASM team that works on the mine to assist artisanal-illegal miners on their license through educating them around the laws and more efficient and safer methods to mine.

**Respondent 5:** *"And because it is the policy of the Tanzanian government to support formalisation of the ASM sector we simply say 'okay, we would like to help you in doing this'"*

**Respondent 6:** *"…we have now ASM, which is for small scale mining, and we have a team here and they look at getting GGM (Geita Gold Mine) and the small scale people, because the small scale might be legally allowed, but there are also some illegal ones in the small scale that are not allowed. So we take an initiative to address them all so that they can know their rights and even to assist them technically, where if they have the land then we can assist in terms of technical and even funding at some stage"*

**Respondent 8:** *"So that would also help us to distinguish between corporate strategy, so they come in, they want to mine, they want to do whatever – and government strategy, they have to be there – and local government strategy. So all these three need to sit together and communicate with each other to be able to make sure the main stakeholders, who are the people, understand what is it, and then they will support, and once they understand what is going on they will support"*

#### 5.3.3.3 Mali

In Mali, one of the companies interviewed indicated that because it was their company approach or strategy of being involved with the ASM sector either formally or informally, they started a conversation with the government after the government recently made an announcement that they were reviewing the ASM sector.

**Respondent 5:** *"…so because they made this public announcement we started an engagement to say 'okay, this is what you want to do, we would like to be there with you'. They have established an ASM forum, and we will support any efforts in ASM formulation"*

### 5.3.4 Conclusion

Respondents indicated that there was a clear difference in mining company strategy around artisanal and illegal mining, depending on whether the sector was more formalized or regulated in each country. In countries such as South Africa and DRC where there is no formalisation around the sector, mining companies are involved with other mining companies and government in trying to get rid of the illegal miners. But South African companies interviewed accept that illegal mining is not going to go away, and what is required is a radical change in thinking around it, which includes legalization. The syndication and enforcement around the rules is a limitation to legalization.

In countries like Tanzania, Mali and Guinea, the sector is more widely accepted amongst communities, mining companies and governments. In Guinea, although the law is lacking, it is generally accepted as a major source of income, and people have no alternative source of income – its what they do.

In Mali and Tanzania, there are more formalized policies in place, although in Mali the people respect the laws, and enforcement is not an issue. In Tanzania there appears to be a grey area in the law as set out by the central government and the local district government, as well as a lack of consistency in interpreting the law possible due to interference of politics.

## 5.4 Results: Research question 3

**Research Question 3**: **How are mining companies managing the relationship with illegal miners?**

### 5.4.1 Introduction

This question focuses on mining company CSR strategies and community engagement policies around Illegal mining. Overall, respondents described the relationship between the mining company and illegal miners as being conflicting. It is however accepted that illegal mining is not going to cease, and that building and developing relationships with the artisanal and illegal miners would be beneficial to all parties, but that the government and institutions have a significant role to play.

This question aims to develop an understanding of what types of CSR strategies mining companies are undertaking around artisanal and illegal mining, and what types of community engagement strategies they are undertaking. Company CSR strategies as outlined by Lee (2011) combines both institutional and stakeholder theory, and states that the type of CSR strategy a company chooses is dependent on a combination of stakeholder and firm and institution interactions.

Bowen et al. (2010) outline a framework on three forms of community engagement, namely transactional, transitional and transformational forms of community engagement.

This question also deals with suggestions from individuals as to how best companies can develop and maintain the relationship with artisanal and illegal miners. There appears to be a difference in the respondent's views, depending on the phase of mining, that is, exploration or active mining, as well as surface or underground deposits.

**Respondent 5**: *"…okay, over all countries it isn't an easy relationship, it is a relationship that is fraught with conflict, and so if I go country by country - so really it is a conflict situation most of the time because the company has an asset. They are licensed by the government, that is their asset, and you have illegal miners encroaching on their property"*

**Respondent 2:** *"The underground illegal mining is conflicting, that is absolutely conflicting because of a couple of factors: They are stealing our explosives, they stop our people from doing their work, they stop work at some stages, ag, there are a lot of things – they really stop our operations underground and they are so organised"*

**Respondent 7:** *"There are obviously some issues and there are clashes, especially when the miners come into the pits, but most of the time where I am working there has been exploration. We see people are not associated with the pits and we get along very well with them"*

### 5.4.2 Community Engagement

Mining companies feel that illegal mining activities severely affect the sustainability of their business and how much they can contribute to their legitimate stakeholders and communities around the mine. What complicates the community factor is that in some countries, like South Africa and Tanzania the artisanal and illegal miners are not from the community around the mine – they are seen as outsiders. The community can assist mining companies in their interaction with artisanal and illegal miners, if engaged properly.

During the exploration phase respondents mentioned that it is important that cultural practices are respected and that, for example, the chief should be approached to mine or explore in that area. The community should be clear where the mining and or exploration would occur and the potential benefit for the community.

**Respondent 10:** *"…it is going back to the basics. The basics in this case would be the engagement of the relevant stakeholders, and stakeholders here I am talking about the community who are the sole and the rightful beneficiaries of those mines"*

**Respondent 1:** *"And the other thing, in West Africa most of the illegals are from the Sierra Leone community, and in most cases they have very basic or non-existent infrastructure, like drinking water and other stuff. So the company might sometimes invest in community development by providing some facility, water and other things like medical facility, so that is something that needs to be taken into account as well, to improve the relationship"*

**Respondent 9:** *"…there are so many of our projects where if you didn't have the backing of the community, because still each community controls their little area of influence between other communities, so like if they don't want you as artisanal miner to mine in their area of influence, then you won't be able to mine there because they will chase you away and we have the comfort of having a very good community relationship with a few of our communities where artisanals were coming in and we just said 'okay, like they are very close to some areas that was very interesting to us, and can you please remove them' – and like two days later they were gone"*

A way to engage with artisanal and illegal miners is through knowledge sharing. Artisanal and illegal miners have little knowledge of modern, safe and more effective mining methods as well as safer methods of extraction and mining law. Knowledge sharing already takes place between different groups of illegal miners such as those coming from another country or district bringing different techniques of mining.

**Respondent 1**: *"For instance in our project in West Africa we established a sort of approach that sometimes we go and talk to the illegal miners because they can give us some knowledge of the ground. They might not be technical but they will tell you that you can go in 'this direction'; you will definitely get something having a collaboration with them, definitely that can benefit the company as well"*

**Respondent 7:** *"We went to one project the one time and they had been there for a while and we went and had a look and the guy came up and said 'no, we have been waiting for you to come and have a look!'*

Educating these miners on the law and policy of the country and explaining that mining companies have been given the right from the government to mine, and by them being there and paying taxes, the community around the mine will benefit. Mining companies can teach ASM and illegal miners how to legalise their activities, how to obtain a license, how to get better yields and also by providing them designated areas on their mine where they can mine safely. In turn, asking advice from the artisanal and illegal miners could improve the relationship and benefit the mining company as these miners have a thorough knowledge of the area and where the best places are to get high grades.

**Respondent 5:** *"And also I think maybe one of the things that happens is that this attitude of 'it is them that come and take our gold resource' – obviously it is not true because we are licensed, we pay taxes. Do the community people know you are actually paying a lot of* *taxes? They have this idea that this company is taking their gold and probably not paying anything – So all that communication would help that"*

**Respondent 8:** *"I will help you to move on, I will help you to mine environmentally friendly, I will help you to maximise"*

**Respondent 6**: *"…to take education to these illegal people. Because they are mining without any license, and you can't if someone does not know the law, it is not a question of being in jail or being accused, but because we know more, it is to engage them, and tell them the right procedure, the right procedure where they should go"*

Mining companies may not realise that they have added to the body of knowledge through the retrenchment of employees. These employees have the skills and knowledge to mine already and they are what is feeding the illegal mining actors in South Africa.

**Respondent 10:** *"Some of them who have been working in those particular mines and then who have been retrenched were those mines the downfalls, and the mining was misused and then they had to lose their jobs, and they unfortunately have the skill and know-how as to how to get deeper into that soil and what is it that they are looking for"*

### 5.4.3 CSR Strategy

The interaction with artisanal or illegal miners usually starts when mining companies start exploring in an area, before a mine is even developed. There will therefore be different combinations of stakeholder and possibly institutional pressures depending on the stage of the project and depending on the country. The approach taken, seems to be directly related to the timing of the discovery or the mine. It is easier during the exploration phase to have a more significant relationship with the illegal and artisanal miners; this is probably due to nothing being discovered yet, so nothing of real significance to compete for. Usually a simple conversation with the artisanal or illegal miners goes a long way in establishing ground rules and explaining to them what you are interested in mining. Setting a project up correctly by following a good CSR strategy in the exploration phase will enable the success of the mine and relationship down the road.

**Respondent 1**: *"The relationship depends on the issue you know, from starting when you approach the artisanal miners to set up, because the conflict might come if they feel you are coming to chase them away. But when you just approach them and explain… because what they are mining and what you are looking for is different. So it depends on the approach you* *know, and taking into account the cultural side of things. So it is just to go to them, have a meeting, explain the nature of your work, and the agreement you have got from the local government and so on. So you can even get some input from the artisanal miner you know: It can be a sort of collaboration and partnership relationship"*

When illegal miners are actively mining on a mining concession, even then it cannot be viewed as competing for the same resource as illegal miners can mine uneconomic areas that the mine can't. Some respondents mentioned that a conversation and explanation is more productive than involving the authorities.

**Respondent 1:** *"Or even you can find something that is not economically minable to you, that they can be allocated to the illegal miners. So there are different ways of tackling the issue but it depends on each company. So the company must say okay we are going to talk to these people, deal with the government, but that might result in some conflict. But if you approach them and try to do it diplomatically you might end up with a nice settlement"*

**Respondent 7:** *"Well obviously I think it is just communicating and letting them know what you are planning to be doing. From our side we always let them know exactly where we are going and we want to come in and we want to drill and we won't drill exactly on what they are working on, we will make a plan to go around it, so we don't bother them too much"*

### 5.4.4 Conclusion

All respondents interviewed acknowledged that there are opportunities for the relationship between mining companies and the artisanal and illegal miners to improve. Ways in which this can be done is for the mining company to identify them as a stakeholders and to acknowledge that they have a direct influence on communities around the mine. Through community engagement and an approach based on open communication and respect, mining companies can succeed in managing the relationship with artisanal and illegal miners – even without getting the local authorities involved. Another way to improve the relationship is to acknowledge that by collaborating in terms of sharing knowledge, the relationship will improve. Finally in terms of a bigger picture, governments have a very strong role to play in terms of legalising and establishing frameworks around the artisanal mining sector because mining companies are more willing to get involved in a cross-sector partnership and even make it part of their strategy.

## 5.5 Conclusion

In conclusion, mining companies face a dilemma in managing the relationship they have with artisanal-illegal miners that are operating on or around their mines, be it on the surface or underground. The main challenge they face is should they accept and identify these artisanal-illegal miners as a stakeholders, even though what they are doing is illegal?

Underground illegal mining seems to be fraught with conflict, no matter in which country it takes place, due to it being more dangerous and involving a lot more theft and destruction of infrastructure. What adds to this conflict is the presence of syndicates and gangs.

The literature review in chapter 2 as well as the interviews highlight that there are many factors or drivers that affect mining companies in their relationship will illegal miners. These are safety and health, community, environmental, financial and reputational risk. These factors are also governed by institutional capacity – such as, is there a legal framework around illegal mining and artisanal mining and how well is it enforced? Deep-seated histories as well as alternative livelihoods play an important part too.

Respondents generally agreed that to recognise illegal miners as stakeholders and to work together on improving or developing the relationship with them is a win-win situation. Ways of doing this is around knowledge sharing, communication and by following a good approach. Mining companies also have a responsibility of capacity building, assisting governments with understanding the impacts of mining and its laws. Governmental institutions have a lot of work to do in developing legal frameworks and policies around illegal and artisanal mining as well as enforcing the law.

# Chapter 6: Discussion of Results

## 6.1 Introduction

The previous chapter presented and highlighted the findings from the research questions that were identified from the literature review. The research was carried out in two phases namely interviews with CSR, asset protection or other managers, which allowed a broad, high-level overview on illegal mining and how mining companies are managing it. The second phase consisted of interviews with "in touch experts" who have encountered and worked with illegal miners.

This chapter will discuss the findings with respect to the research questions outlined in chapter three, according to the literature review in chapter two. This discussion will cover cross sector partnerships, company CSR strategies, stakeholder theory and coopetition (the theoretical frameworks presented in chapters two and three).

## 6.2 Discussion of Research Question 1

Research question one was aimed at exploring and developing an understanding of the factors that affect mining company perceptions of illegal mining. This was done using a coopetition framework as outlined by Razah-Ullah et al. (2014) as well as Bengtsson et al.'s (2010) competition paradox framework.

Using Razah-Ullah et al.'s (2014) theoretical framework, factors affecting coopetition in context are industrial factors, relational factors and firm-specific factors. They also suggest that tension in coopetition is caused from emotional ambivalence that occurs both at the inter-organisational (i.e. in this case between illegal miners and mining company) as well as the organisational level (i.e. within the mining company, or within illegal miners group).

Bengtsson et al. (2010) provide a framework on different types of coopetitive interactions resulting from typical situations where the dynamics of coopetition are present or absent. Their framework lists four coopetitive forces that drive development towards situations without dynamics, namely over-embedding, distancing, confronting and colluding.

### 6.2.1 Coopetition Paradox and Tension in Coopetition

Razah-Ullah et al. (2014) suggest that there are two possible ways for the coopetition paradox to materialise. Firstly, when two firms acknowledge they are competitors, but at some point realise and acknowledge the need to cooperate. Unifying forces are the want or need to collaborate (external forces), which are juxtaposed with diverging forces to remain competing (internal forces). Another coopetition paradox is described where firms are already collaborating, but they start to compete, as conflicting interests develop between the partners. In this state firms are described as acting opportunistically and seeking distance from each other, and end up becoming hostile towards each other. Therefore, collaborative firms begin to distance each other whilst collaborating and start to compete.

From the interviews it can be interpreted using this framework that in countries where there is no policy around artisanal mining, mining companies and artisanal/illegal miners are in competition with each other. In this situation mining companies acknowledge that the problem is not going to go away, and they need "out of the box thinking' to unify and collaborate. In countries where there are policies around artisanal mining, one could suggest that mining companies and artisanal-illegal miners are in some sort of collaboration with each other, but the relationship is incredibly sensitive, as artisanal-illegal miners do often act opportunistically by mining in the pits, or using equipment, and therefore this may drive hostility (they start to compete).

Razah-Ullah et al.'s (2014) framework has three primary features, namely, coopetition context (forces that create internal and external boundaries); coopetition paradox that develops as boundaries are created, and the tension that transpires at different levels. The coopetition context drives competing firms to collaborate (countries where there is no policy around artisanal mining) or cooperating firms to compete (in countries where there is a policy around illegal mining). This creates the external and internal boundaries that result in the coopetition paradox. Tension results from conflicting feelings both inside and between mining organisations and artisanal-illegal miners.

The interviews provided good insight into the coopetition context of mining companies and artisanal-illegal mining.  Opinions from both the managers and in touch experts interviewed, highlighted factors that can be grouped under the themes proposed by Razah-Ullah et al.'s (2014) framework.

It was found that firm-specific drivers which are defined by Razah-Ullah et al. (2014) as the firms' resources, strategy and perceived vulnerability, could be listed as risks associated with the mining companies' policies and strategies around the community, environment, health and safety, reputation as well as financial loss.

In general, these firm specific drivers, if anything, drive competition and not collaboration, and hence will increase the size of the internal boundary in the coopetition paradox. Of most concern are the health and safety risks as these affect all other factors such as the community, environment, and reputational as well as financial status. These factors will drive competition even in countries where there is a policy around artisanal mining (like Tanzania, Mali and Guinea).

From the interviews, three drivers were identified and grouped under relational drivers. Relational drivers are defined by Razah-Ullah et al. (2014) as similarities or complimentaries that exist between firms and their resources. From the interviews, there seemed to be complementariness: Illegal miners usually have deep-rooted histories related to mining and in addition to this have no other alternative livelihoods. According to most artisanal-illegal miners, they were the ones to discover the ore bodies that mining companies are now mining and therefore, they are legitimate stakeholders. There is also the fact that in some circumstances illegal miners were once mine employees who were retrenched. Mining companies in turn want it made known to illegal miners how much tax they pay to the government and how many community projects they support. This driver affects the size of the internal boundary and increases the chances of mining companies and illegal miners competing with each other.

Another relational driver can be considered to be the presence of syndicates. Mining companies find it extremely difficult to stop illegal mining due to the presence of syndicates. These syndicates have links to the mining company employees, the police, as well as government officials. The presence of syndicates will decrease the size of the external boundary (unifying forces to collaborate), and increase the size of the internal boundary (diverging forces to compete).

The last relational driver that could be considered is whether illegal mining is taking place underground or on the surface. Underground illegal mining is far more dangerous and involves the destruction of infrastructure, the theft of explosives and the mining of pillars. Therefore there will be increased pressure to compete if illegal mining is taking place underground as opposed to on the surface.

Razah-Ullah et al. (2014) list the maturity of the industry, symmetry of firms in the industry, high industrial cost structure and technology-market development in the industry, as industry drivers. From the interviews, it emerged that the role of institutions was considered to be the most relevant in driving the industry and the nature of the coopetition paradox by establishing laws and policies around artisanal and illegal mining, as well as by managing cross-sector partnerships. If institutions have clear policies in place; they are able to enforce these policies; there are no grey areas between central and district-scale enforcements and rulings; there is no political interference; and other policies are aligned, then the external unifying boundary would be large enough to encourage collaboration between mining companies and artisanal miners. In terms of Razah-Ullah et al.'s (2014) industry drivers, it can be added that the gold industry itself is under extreme pressure due to poor economic performance and gold mining companies are cutting costs, retrenching and closing down under-performing mines, and therefore this would cause the size of the internal boundary to increase, and therefore increase the competing forces.

In conclusion, from the research it appears that there are more drivers for mining companies to compete with artisanal-illegal miners than to cooperate. However, it appears that the role of context, specifically the role of institutions which influence the industry via their legislation and policies, has the most significant role on the coopetition paradox. There may however be some nuances around company motivation to engage in CSR. The greater the pressure that induces cooperation, that is, policies around artisanal mining and cross-sector partnerships, the stronger the external boundary becomes, and it is believed that this will drive both other industry drivers, relational drivers as well as firm-specific drivers.

### 6.2.2 Dynamic Coopetition

Bengtsson et al. (2010) describe coopetition along a competitive continuum and a cooperative continuum. In their framework they provide four combinations of strong and weak cooperation and strong and weak competition to describe four coopetitive interactions.

In relation to illegal mining and mining companies, it can be interpreted that only one of Bengtsson et al.'s (2010) scenarios may be represented from the interviews, namely weak cooperation and strong competition. There are however some country nuances that increase the strength of cooperation due to institutional policies around artisanal-illegal mining.

In weak cooperation and strong competition, according to the theoretical framework, there are strong tensions as well as a decreased level of transparency and trust (Bengtsson et al., 2010). The interviewees all stated that the relationship between the mining companies and artisanal-illegal miners is generally conflicting. Most importantly, Bengtsson et al. (2010) state that in this situation, if cooperation is passive, meaningful exchanges are difficult and the benefits of cooperation will not be seen.

In some countries there may however be a stronger sense of cooperation between mining companies and artisanal-illegal miners such as in Guinea and Mali. Mali seems to be the closest to a state of dynamic coopetition, where competition is not as strong between mining companies and artisanal-illegal miners due to there being clear policies around artisanal mining and them being well enforced. In Mali, the strength of cooperation between mining companies and artisanal-illegal miners could increase by the government initiating talks with mining companies around the sector. In Guinea, competition is slightly stronger due to policies not being that well known. Even though there seems to be a live and let live approach, policies are still not clear.

In conclusion, Bengtsson et al.'s (2010) theoretical framework is adaptable to the mining company-artisanal/illegal mining relationship, and can be used as a broad-based tool in understanding the dynamics that affect possible collaboration.

## 6.3 Discussion of Research Question 2

This question was aimed at exploring and understanding how different country settings affect the nature of the relationship between mining companies and artisanal-illegal miners.

This question was explored using three theoretical frameworks namely Mitchell et al.'s (1997) stakeholder typologies, Lawrence's (2010) 4W's strategic framework as well as Gray and Purdy's (2014) cross-sector partnerships theoretical framework which were all outlined in chapter two.

### 6.3.1 Stakeholder Identification

Mining companies battle to identify illegal miners as stakeholders because of their overall involvement in illegal activity as well as the damage to mine infrastructure and non-accordance of the mining health and safety act. Mitchell et al. (1997) provide a theoretical framework where different classes of stakeholders can be identified and prioritised based on the stakeholders power in influencing the firm, the legitimacy of the relationship between stakeholder and the firm, and the urgency of the stakeholders claim on the firm.

The findings of the research agree with Mitchell et al.'s (1997) statement that no single organisational theory can be used to identify stakeholders. From the research it is clear that for the mining companies in this study, their identification and prioritisation of stakeholders per country is mostly governed by institutional legislation.

Mitchell et al. (1997) suggest that central to the framework are the roles of managers in the perception and prioritisation of stakeholders. From the research it emerged that the role of managers and their perception was not crucial in the framework. Perceptions over illegal mining are framed mostly by the institutional policies in each country and mining companies seem to prioritise stakeholders as a company. Mining companies in this research assigned different departments the role of managing illegal miners based on the country context. In South Africa, mining companies assigned the responsibility to asset managers and project coordinators. In Tanzania, Mali and Guinea the role was assigned to exploration managers, CSR departments and in one case an actual artisanal small scale mining manager. The role of the manager is to manage company and country perceptions, not individual perceptions.

Using the framework, the research suggests that overall the biggest dilemma that mining companies face is around the legitimacy of the artisanal-illegal miners. The research found that artisanal-illegal miners have deep-rooted histories in gold mining, and usually have been mining in areas long before mining companies are established, and they often led mining companies to the deposit. This is the first hurdle for mining companies to recognise – that in most cases artisanal-illegal miners are indeed legitimate stakeholders. Even in situations where there is not a deep-rooted history of illegal mining, the mining companies can have some sort of responsibility as a result of them retrenching the now, illegal miners.

In terms of urgency, the research revealed that stakeholder claims may become more urgent when artisanal-illegal miners do not have alternative livelihoods, or when they invade an already operating mine or pit. In addition to this, artisanal-illegal miners can be termed urgent stakeholders when there is an accident on the mine involving them (the mining company needs to manage their reputation), or a breach in the health and safety code.

From the research it emerged that In South Africa and the DRC, illegal miners are generally considered as non-stakeholders. In terms of power, the research showed that artisanal-illegal miners could be considered as having power over the mining companies by possessing coercive power (due to violence) and/or symbolic power (commanding attention from news or media), and therefore could be considered as dormant stakeholders.

In other countries included in the research, artisanal-illegal miners can be considered as possessing one of the three attributes, and therefore can be termed latent stakeholders or low salience classes, where the model predicts that managers may not even recognise their existence.

Artisanal-illegal miners in Tanzania can be classified as discretionary stakeholders (legitimacy attribute only), where there are institutional policies around artisanal miners. In Tanzania, the artisanal-illegal miners have no power or urgency in their claims due to the grey areas discussed in chapter five (inconsistency between central and local government enforcement and decisions and political interference). They may be recipients of discretionary CSR (Carol, 1991 as cited in Mitchell et al., 1997).

The model predicts that latent stakeholders may increase their salience by moving from bearing one attribute to bearing two attributes. For example in South Africa, they could move from a dormant stakeholder (power only) to become a dangerous stakeholder (both urgency and power attributes) if there is a health and safety incident or accident on the mine. Mitchell et al. (1997) suggests that this class of stakeholder can be coercive and possibly violent and their actions are dangerous to other entities and individuals. This is exactly what is happening in South Africa (as mentioned in chapter one) and therefore Mitchell et al.'s (1997) framework can be used as a tool for managers to further understand artisanal-illegal miners behaviour.

In Mali, artisanal/illegal miners can be defined as dependent stakeholders where artisanal/illegal miners have both urgent and legitimate claims, but they depend on the mining companies for their power.

In Guinea, they can also be termed dependent stakeholders, although their legitimacy is more unofficial, and their urgency less than that of artisanal-illegal miners in Mali.

In conclusion the research fully agrees with Mitchell et al.'s (1997) theoretical framework, as it explains the granular nuances in stakeholder identification theory, when artisanal-illegal miners as stakeholders may not be legitimate. The research did however find that the legitimacy attribute should be used by mining companies as the foundation to their community engagement and CSR approach. However for mining companies to acknowledge that artisanal-illegal miners are legitimate stakeholders, they do require institutional policies and support around the ASM sector.

### 6.3.2 Responding to Activist Stakeholder Demands

Lawrence (2010) provides a theoretical framework based on Mitchell et al.'s (1997) stakeholder identification and prioritisation framework on how managers respond to activist stakeholder demands and which response is more effective under which conditions. He suggests that the choice of the firm's strategy in dealing with stakeholders is dynamic in nature, and the firm is generally flexible in the strategy it chooses. Firms do however usually have a dominant strategy which hinges on resource dependence, firm power and dispute urgency (as outlined in chapter two).

The research suggests that the mining companies' strategy around artisanal-illegal mining is generally dynamic, and that there is no dominant strategy in the industry. The strategy is however highly dependent on the country policies around artisanal-illegal mining.

An example of dispute urgency could be when there is an accident or incident on the mine involving artisanal-illegal miners or when there is some sort of violent interaction. Urgency in this case is defined as the sense of urgency experienced by management to resolve a dispute quickly. In Mitchell et al. (1997) urgency is defined as the degree to which stakeholders demand immediate action.

Lawrence (2010) defines the firm's power as the capacity of the firm to control the behaviour of others. Coercive power includes the company working with courts, police and military forces to suppress stakeholder protest. The research indicates that mining companies in Mali and Guinea often prefer to manage the relationship themselves, before getting the authorities involved. Mining companies generally feel that authorities lack capacity.

Resource dependence is defined by Lawrence (2010) as having control over resources that are important, scarce and non-substitutional. Control over such resources gives external actors a source of power in the relationship. In terms of mining companies they generally have control over the gold resource, however artisanal-illegal miners who by definition do not have market power, may have direct control over the resourced by having control over government regulators or political entities to change policies. They can also bring lawsuits based on human rights or environmental law to block a project, or can influence the moral preferences of shareholders. Artisanal-illegal miners therefore do have an economic impact on the mining company. As discussed in chapter five artisanal-illegal miners can use media to damage a company's reputation due to accidents that occur or human rights violations.

By applying the framework to the research, the strategy for mining companies to follow when dealing with artisanal-illegal miners would be to wait. Waiting is a conscious strategy and should not be seen as ignoring stakeholder demands. The mining companies interviewed can be interpreted as following this strategy – they are waiting, especially in countries where there are no policies around the ASM sector. Lawrence (2010) predicts that this is an unstable strategy because of urgency - it will become more urgent when one of the parties gain advantage.

It can be interpreted that in South Africa, mining companies are waging a fight – where management responds in an adversarial manner and are proceeding on their own path and oppose illegal miners' demands. For this to occur the model predicts that there needs to be high firm power, and high urgency. This could however be argued:- mining companies in South Africa do not have high firm power (coercive power) with their links to authorities, they feel powerless, as illegal miners are arrested for trespassing only, and are out on bail the following day.

In Mali, it could be interpreted that the mining companies strategy would be to 'Work it out' – where there is active engagement on mutually acceptable solutions between mining companies and stakeholders through an ongoing process of dialogue.

### 6.3.3 Cross-sector Partnerships

Gray and Purdy (2014, p. 205) define cross-sector partnerships as "dynamic interactions of voluntary participants around shared interests, which stand out in contrast to relationships constructed around purely contractual exchange relationships in which one party provides services for another". Using their definition, a cross sector partnership would exist if mining companies and institutions jointly developed and implemented a plan to alleviate the issues of illegal mining, as opposed to mining companies carrying out their typical transactional community engagement (as discussed in Bowen et al.'s 2010 framework).

Of importance to this study and the cross-sector partnerships that were discussed in chapter five (South Africa, Tanzania and Mali), Gray and Purdy (2014) suggest through their research that these partnerships often fail due to large power differences that may exit between the stakeholders.

Gray and Purdy (2014) provided a framework that defines four types of partnerships: Appreciative planning – where partners are motivated by shared visions and opportunities, and information sharing is encouraged; Collective strategies – where partners are motivated by shared visions that lead to joint agreements and action plans to address problems; Dialogues – where partners are motivated to come together to address a conflict situation through the exchange of information; and negotiated settlements – where conflicting parties come together to try reach an agreement. They suggest that context plays a vital role on the partnerships, as it affects the initial development of the partnership as well as how it functions over time, as well as governing the degree of conflict in the partnership.

Examples of cross-sector partnerships that exist in South Africa, Tanzania and Mali will now be discussed using Gray and Purdy's (2014) theoretical framework.

In South Africa, the cross sector partnership or forum, as it was termed by respondents in chapter five, can be defined using Purdy and Gray's (2014) framework as a dialogue – where the stakeholders like the NPA, police, DME and mining companies have come together to address a conflict situation through the exchange of information. Respondents agreed that illegal mining was not going to disappear and that dialogue was not useful in managing the situation. What is needed is action plans and alignment of strategies.

One could argue that the situation in South Africa is now critical and what is probably required is for a negotiated settlement to occur – where conflicting parties (mining companies and illegal miners) come together to try to reach some sort of agreement. This however is governed by context and the regulatory structure.

In Mali, a cross-sector partnership was described by one of the respondents where the government initiated a conversation around reviewing the ASM sector. This could be described by the framework as a dialogue, although mining companies are motivated to join the cross-sector partnership and could therefore be described as appreciative planning – where partners are motivated by opportunities and shared visions, and information sharing is encouraged. Gray and Purdy (2014) suggest that these types of partnerships can occur for a period of extended time. From the research it seems this is possible due to the strength of the institutions in Mali – where policies are already set in place around the ASM sector and they seem to be working.

In Tanzania, the research revealed that one of the mining companies interviewed was involved in a cross-sector partnership with other mining companies, the government and the World Bank. It is difficult to define what type of cross-sector partnership this is, according to the model, but it could possibly be defined as a collective strategy where partners are motivated by shared visions that lead to joint agreements and action plans to address the problems.

What didn't emerge from the research was any conflict in these partnerships, although South African respondents were all of the opinion that the illegal mining forum was not working.

Gray and Purdy (2014) suggest that conflict in a partnership is shaped according to context. Context includes the potential partners concerned, the regulatory structure, the political environment in which the partnership is embedded, and power differences amongst the partners. It also governs the functioning of cross-sector partnerships over time. This tool could therefore be used as a predictor for the success of the cross-sector partnerships discussed.

Therefore in Tanzania it can be predicted that due to the political environment and political interference in policies around artisanal and illegal mining, the cross-sector partnership may be doomed to fail.

In Mali the cross-sector partnership has the highest chances for success, as the regulatory structure and political environment, as well as power differences amongst the partners are mostly optimal.

In South Africa, due to high power differences between mining companies, syndicates, police as well as the timing of the efforts, this forum is already predicted not to succeed. In terms of timing, this forum was established after the mining houses have retrenched thousands of staff. The research suggests that illegal mining has increased in South Africa due to all these retrenchments.

In South Africa one could argue that institutional fields are in transition, especially around immigration polices, which according to Gray and Purdy (2014) also affects the functioning of cross-sector partners.

Gray and Purdy (2014) also suggest that where the government is a partner in a cross-sector partnership and where they have regulatory authority linked to the problem, the degree of collaboration is highly affected. This is due to the overall domination by government organisations in collaborative partnerships. In addition to this, the level of collaboration is also affected by partners being mandated to join the cross-sector partnership. In Mali, the respondents stated that after the government released news that they were reviewing the ASM sector, their mining company volunteered to be part of the discussions, this is also a good sign for collaboration.

On the other hand Gray and Purdy (2014) do caution to stay away from cross-sector partnerships where there is no government involved, as the government is responsible for setting the norms. They also caution that the collaboration potential becomes more limited, the more partners that are involved. This can be used as rules for cross-sector partnerships in the mining industry – what not to do.

Another area where the research agrees with the theoretical framework is described by Gray and Purdy (2014) as 'conflicting logics' – which are defined as socially constructed, historical patterns of practise, assumptions, beliefs, values and rules by which individuals reproduce their subsistence. From the research it emerged that artisanal-illegal miners do have conflicting logics to mining companies as they believe they are legitimate stakeholders by being there before the discovery, and also by a deep-rooted history in artisanal mining.

In conclusion, the research agrees with Gray and Purdy's (2014) theoretical framework on cross-sector partnerships. The framework also provides information for the future success of the cross-sector partnerships discussed, and can therefore be used as a tool for mining companies when entering into cross-sector partnerships or evaluating the future success of them.

## 6.4 Discussion of Research Question 3

Research question 3 was aimed at developing an understanding of the types of CSR strategies mining companies follow, specifically when dealing with artisanal or illegal miners.

Lee (2011) provides a framework explaining how firms choose their type of CSR strategy as seen in table 1. These strategies are either obstructionist, defensive, accommodative or proactive strategies, and include the combined effects of stakeholder and institutional pressures. Bowen et al. (2010) outline a theoretical framework around three forms of community engagement that companies can undertake, namely transactional, transitional and transformational.

The mining companies that were interviewed are analysed in this section according to these frameworks.

### 6.4.1 CSR Strategy

Lee (2011) suggests that there are two external forces that directly affect a company's CSR strategy – institutional pressure and stakeholder pressure. Institutional pressure is described as a distal pressure that establishes regulations, social norms and cultural preferences to favour CSR. If this institutional pressure is successful, firms will embrace CSR to ensure their continued legitimacy. Stakeholder pressure is defined as being a more proximal pressure and related to how salient stakeholders influence companies CSR choices and behaviour. Institutional forces are buffered or amplified by stakeholder pressure. Stakeholders are said to ‘draw power from institutions and get their legitimacy from them’.

Using Lee’s (2011) framework, one can define the mining companies CSR strategy per country they operate in.

#### 6.4.1.1 South Africa

Due to there being weak institutional pressures around the artisanal mining sector, the mining companies CSR strategies could be defined as being obstructionist strategies. Lee (2011) defines an obstructionist strategy as one where both institutional and stakeholder pressures are weak, in other words, a general absence of external pressures. In this case firms have little incentive to act with social responsibility towards illegal miners and they completely reject any form of responsibility lying outside of their economic interest. From the research it emerged that mining companies operating in South Africa are responding in a more proactive way and want to take the initiative in strengthening their CSR with illegal miners, even though what they are fundamentally doing is something illegal. This will only however be possible for them if the institutional pressure is changed and becomes more aligned. For illegal miners to even be considered as stakeholders, they need to stop the violence, destruction of infrastructure and disregard for health and safety in general. The illegal miners draw power from the institutions in South Africa, but the wrong type of power, an illegal, dangerous power.

#### 6.4.1.2 Guinea

Mining companies operating in Guinea can be defined as following accommodative strategies around artisanal-illegal miners. An accommodative strategy as defined by Lee (2011) is where stakeholder pressure is intense and institutional pressure is low (termed stakeholder support with institutional legitimacy). Firms accept some ethical responsibility towards their stakeholders by complying with legal requirements and try to pay attention to various stakeholder voices. However their approaches are minimalist and passive in nature, and rarely take voluntary initiatives to further social goods.

From the research it emerged that there was no set policy around artisanal-illegal mining, but it is a socially accepted norm due to long deep-rooted histories of gold mining in the area. The mining companies' unofficial acceptance of the norm is by giving pits away to the artisanal-illegal miners that they cannot profitably mine anymore. Illegal miners as stakeholders draw power not from institutions but from it being a socially accepted norm.

#### 6.4.1.3 Tanzania and Mali

From the research it emerged that institutional pressure around artisanal-illegal mining is generally strong in both Mali and Tanzania. In Mali, illegal miners can draw power from the institutional strength and can therefore amplify the pressure on mining companies for CSR. Mining companies are therefore more readily able to follow a proactive CSR strategy. Lee (2011) defines a proactive strategy as one where the firm fully recognises its social responsibility and actively engages in society to minimise the negative impacts and improve the welfare of stakeholders. Institutional and stakeholder pressures are well synchronised.

In Tanzania however, the pressure from institutions and illegal miners are not perfectly synchronised. On paper they appear to be but from the research there are many grey areas, where there is confusion and uncertainty over the strength of the institutional and stakeholder pressure. It is inconsistent.

#### 6.4.1.4 Conclusion

The research generally agrees with Lee's (2011) theoretical framework. However mining companies seemed to place more importance on institutional pressure than stakeholder pressure. For the mining industry, institutional pressure could therefore be more proximal than distal. If institutional pressure is aligned and there are policies around the ASM sector, mining companies will more readily include artisanal-illegal miners in their CSR strategies.

### 6.4.2 Community Engagement Strategy

Bowen et al. (2010) suggest that it is still not clear when different community engagement strategies are appropriate to use and how these strategies may benefit both the firm and the community. In their theoretical framework, they provide an engagement strategy typology as well as suggest antecedents and consequences of community engagement strategies.

Mining companies are typically criticised for their transactional community engagement strategies. This is probably due to the nature of mining itself – it is not a sustainable activity, deposits are finite in their nature. Transactional community engagement strategies are where firms communicate with communities on a transactional basis. It is based on giving back to the community through information and community investment.

The research revealed that in general the mining companies interviewed feel that engaging with a community is achieved through providing information to the community on their exploration or mining plans as well as by donating and paying for infrastructure upgrades. The information is ultimately there to reduce transaction costs. Respondents involved in exploration activities indicated that through communicating to the community they were able to show respect as well as to develop a good relationship where the community may be able to manage illegal miners themselves. Bowen et al.'s (2010) framework defines that in this case, information flow and communication is one-way, which the research agrees with. Of importance is that the model predicts that in this case the nature of trust in the relationship is limited. Respondents indicated that their companies monitored artisanal-illegal miners to form part of their baseline studies, this is also an example of transactional community engagement.

In Mali and Tanzania it can be interpreted that some community engagement strategies may well be defined as transitional engagement. Communication in this case is more two-way, mostly firm-community but also some community-firm. Bowen et al. (2010) suggests that in this case, the nature of trust is evolutionary. A key word that emerged from the research was engage – Bowen et al. (2010) suggests that this is linked to transitional engagement. A shared decision and problem framing of transformational engagement is never reached in this situation as control of resources remains with the firm rather than being fully shared in the community. Transitional engagement strategies are not sustainable as there is always a dependency on the mining company for its resources.

South African respondents thought that a transformational engagement strategy with illegal miners was 'out of the box thinking', but admitted to it being the only strategy that will improve the illegal mining situation in South Africa. Bowen et al. (2010) states that this type of community engagement is characterised by joint learning and joint project management. Mining companies however would typically find it difficult to give up control and indicated they need the government to 'come to the party'.

Bowen et al. (2010) suggest that transformational engagement is distinctive because organisations are able to achieve outcomes that were unattainable without the engagement. The research indicates that mining companies may be confused between transformational and transitional engagement strategies, and that in some cases transformational strategies end up becoming transitional.  As in Gray and Purdy's (2014) framework, Bowen et al. (2010) suggest that true collaboration and transformational engagement is only possible with few partners. The building up of trust is based on affect and personal relationships and not only on the number of interactions.

The research is in agreement with Bowen et al.'s (2010) list of antecedents – namely national, community and organisational causes. Where national antecedents include regulations, structure of social and political organisations and public policy.

## 6.5 Conclusion

In conclusion, mining companies are generally engaging in transactional community engagement strategies with communities around their mine. In most cases it is difficult for them to engage in community engagement strategies with artisanal-illegal miners especially if there is no institutional policy in place around the ASM sector. Attempts at transformational community engagement are considered as far fetched thinking, and often confused with transitional engagement strategies which are more likely taking place in Tanzania, Guinea and Mali. Without institutional legislation and alignment of policies around the ASM sector, the mining companies' motivation to get involved in CSR with illegal miners is limited and their strategy is generally to wait. Mining companies generally want to be involved in CSR initiatives with the ASM sector but they require a dedicated effort and strength of institutions. Cross sector partnerships are generally framed around context too. The involvement of governments in cross-sector partnerships is sensitive – as they need to be part of the relationship but should not be seen to be dominating it.

Mitchell et al.'s (1997) theory on stakeholder identification and prioritisation is seen to have the most explanatory power in describing the relationship between mining companies and artisanal-illegal miners. The most important attribute in his framework however is legitimacy.

# Chapter 7: Conclusion

## 7.1 Introduction

Chapter 6 discussed the findings of the research in the context of stakeholder and community engagement, CSR strategies, cross-sector partnerships and coopetition frameworks. This chapter aims to provide an overview of the background to the research problem and the objectives that were established prior to the research, as well as how and where the research findings fit into the frameworks. Key findings and recommendations are discussed as well as research limitations.

## 7.2 Research Background and Objectives

Artisanal/illegal mining is a means of earning income for many throughout Africa. Artisanal/illegal miners often have no other source of income or alternative livelihood, and have been mining for generations. Illegal mining is an issue that is becoming more prevalent as mining companies encounter challenges around metal prices and declining profits, are retrenching staff and closing under performing operations. It is associated with gang-related violence, illegal immigrants, environmental destruction as well as prostitution and child labour.

Mining companies choose and prioritise their stakeholders based on stakeholder theory. Mining companies invest in CSR activities in communities around the mine in order to meet shareholder and government expectations. It is seen as their social license to operate. These CSR activities are generally transactional in nature.

The aim of this study was to investigate the possibility of a more inclusive, shared value approach for mining companies and artisanal-illegal miners. The research set out to explore the factors that inhibit mining companies from including artisanal and illegal miners into their CSR and CE strategies, and where in Africa and why they have been more successful.

This study attempted to gain a deeper understanding and explore the possibility of illegal miners and mining companies cooperating instead of competing. It explored if mining companies' CSR and CE or SE strategies can be both transformational and sustainable when it comes to illegal mining, and what can be done to improve the nature of the relationship.

The research aimed to:

- Establish which environmental and organisational factors are the primary drivers for the nature of the relationship between illegal miners and mining companies;
- Establish how mining companies are managing the relationship with illegal miners through their CSR and CE initiatives;
- Establish in which countries and due to which policies the relationship is managed more effectively; and
- Establish a framework that mining companies and their managers can use in their stakeholder identification and engagement throughout their global operations to report and manage illegal mining.

## 7.3 Main Findings

The willingness of mining companies to engage with artisanal/illegal miners is largely governed by the institutional legislation around the artisanal/illegal mining sector in each country they operate in. The institutional legislation serves as the main hurdle for mining companies to recognize artisanal/illegal miners as legitimate stakeholders.

If there is well-defined legislation around the sector, mining companies are more likely to identify artisanal/illegal miners as legitimate stakeholders and get involved with cross-sector partnerships and more transformative community engagement.

In countries such as Mali, the institutions and legislation around the ASM sector have been most successful. Mining companies volunteer to be part of cross-sector partnerships, and legislation is well known and enforced. There is no confusion amongst mining companies, artisanal/illegal miners and the institutions over who mines where.

In Guinea, the legislation around the sector is not as strong and consistent as in Mali, however due to the communal nature of the society and the general acceptance of artisanal/illegal mining as a livelihood with a deep-rooted history, mining companies recognize artisanal/illegal miners as legitimate stakeholders.

In countries such as South Africa, where there is a lack of legislation, mining companies generally do not recognize illegal miners as legitimate stakeholders, eventhough a large percentage of them are retrenched ex-mine workers. Institutions establish forums as a means to deal with the illegal mining issue, but mining companies feel that the 'talking' is not of any advantage. Mining companies acknowledge that the problem is not going to go away, and that what is required is a change in the legislation. In cases such as these, mining companies need to focus on capacity building in the institutions.

There are however grey areas – in countries such as Tanzania, where there is legislation around the sector, and where mining companies are therefore willing to identify artisanal/illegal miners as legitimate stakeholders, the relationship is under pressure due to inconsistency of decisions between national and local government, as well as due to the interference of politicians. The artisanal/illegal miners are moved around like pawns.

Using legitimacy and institutional policies as two main constructs, a tool that managers can use in managing artisanal/illegal miners in countries they operate in has been developed through this research (Figures 7 & 8). This tool can advise managers on how best to focus their attention and company resources in managing the relationship. From the research it emerged that possibly the biggest stumbling block in the nature of the relationship is the legitimacy of the illegal/artisanal miners as stakeholders. In most cases even where there is no artisanal mining sector framework or institutional legislation around the sector, artisanal/illegal miners believe that they have legitimacy in their claims due to a deep-rooted history of mining, having no other alternative livelihood, or having once worked for the mining company but then being retrenched.

In countries like South Africa, mining companies do not recognize illegal miners as legitimate stakeholders, and there is no institutional legislation around the sector. In addition to this legitimacy of the illegal miners is affected by the fact that most of them are illegal immigrants. The only law that mining companies can make use of in South Africa is the mine health and safety act. Mining companies need to focus on capacity building the institutions, so that they are equipped with information and skills to put in place the legislation that is required for the sector to flourish and for mining companies to be protected and still earn profits. This can be done through dialogue, although negotiated settlements would be better suggested, as mining companies have indicated that dialogues and forums are not constructive, and that action needs to take place.

The optimal case is that of Mali, where there is strong legislation around the artisanal mining sector and the laws are enforced, and artisanal miners are recognized by mining companies as legitimate stakeholders, due to a deep rooted history of mining, as well as a communal culture. In this case mining companies and managers can focus their time on transformative CSR practices, shared value and cross sector partnerships that have motivation for an opportunity, either through information sharing (appreciative planning) or for a desired outcome of an action (collective strategies).

Tanzania can be used as an example of where eventhough there is legislative framework around the artisanal mining sector, due to inconsistency in decisions, and artisanal miners being moved from deposit to deposit, their legitimacy is affected through this. They feel mining companies do not recognize them as being responsible for leading them to economic discoveries. In this case mining companies need to focus on capacity building the institutions, but also through appreciative planning or a collective strategy, including the artisanal miners.

In countries such as Guinea – it is accepted by mining companies that illegal miners are legitimate stakeholders through them acknowledging that it is a way of life for many, there are no other alternative livelihoods, and that the region has a deep rooted history of mining. In terms of institutional polices and enforcement, they are not sufficient, but due to the general acceptance this doesn't really affect the problem. Mining companies need a collective strategy with institutions to address the lack of legislation.

**Figure 7: Artisanal/Illegal miner's legitimacy versus quality of institutional legislation per country**

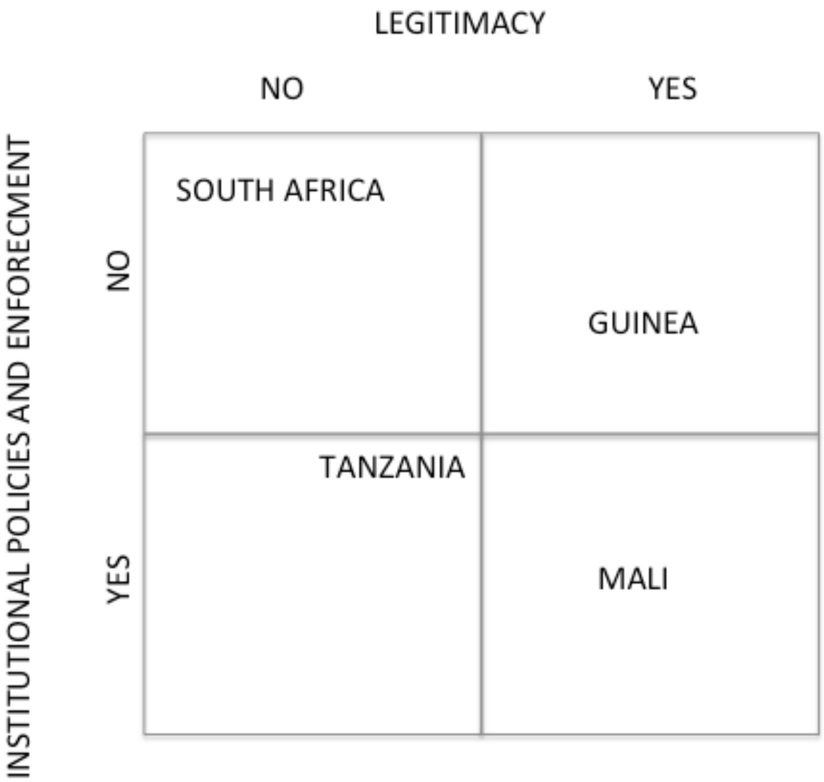
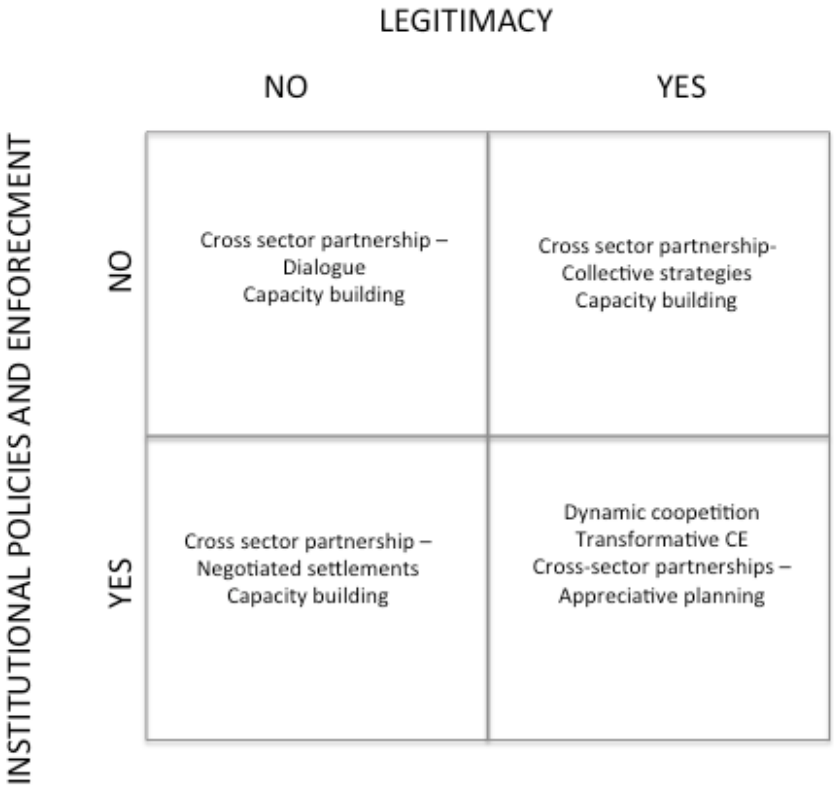


**Figure 8: Manager's toolbox for managing the relationship with artisanal/illegal miners using legitimacy and quality of institutional legislation**




## 7.4 Recommendations

The research findings from the three research questions provide insights from mining companies and individuals who interact with artisanal and illegal miners. Through this research, a stakeholder identification and engagement tool has been developed for mining companies and their managers to use throughout their global operations to report on illegal miners globally, as managing the relationship is different for different countries and requires different actions.

Three scenarios are presented that can be used as a framework in different countries according to the characteristics of the illegal miner stakeholders in terms of their legitimacy as well as in terms of the presence and quality of institutional regulations.

The key recommendation for mining companies is that transactional and transitional community engagement is not sustainable, and that the best solution for managing the artisanal/illegal sector is through transformational engagement. However mining companies will only do this if there is sufficient institutional legislation and regulation around these policies. This is useful for governments where mining forms a significant part of the economy. Institutional legislation and frame is a significant context setter and motivator for mining companies to engage further with artisanal miners.

The findings in relation to the role of institutions as either an overall barrier or an enabler in governing mining companies willingness to get involved in more transformational CSR with the artisanal/illegal sector can be useful for governments in establishing regulations and legitimacy around the sector

## 7.5 Limitations of the Research

The purpose of this study was to explore and understand the illegal mining problem, and to build a theory using stakeholder engagement and coopetition frameworks. However, due to the use of the qualitative research method, findings cannot be generalised across the population. The population was defined as gold mining companies operating in Sub-Saharan Africa.

The model proposed for understanding how mining companies can manage the relationship with the artisanal/illegal mining sector across their global operations is based on interviews from 10 individuals, either working in CSR, Asset Protection or individuals that work more directly or interact more directly with artisanal – illegal miners. In addition to this, the purposive sampling method may have caused bias response.

Three of the respondents were not from South Africa, and their accents and understanding of the English language may have been a limitation to understanding questions and relaying their stories.

Illegal miners themselves were not interviewed - this may be a limitation due to their views not being included in the overall study.

## 7.6 Implications for Future Research

The research added value by expanding on stakeholder theory, specifically when there are issues around their legitimacy. Further research can be carried out across other sectors in this regard.

More detailed research can be carried out in countries where there is legislation around the ASM sector, what are the policies that best enable the relationship between mining companies and the artisanal/illegal mining sector? These enablers can then be ranked in terms of importance and success.

Some of the frameworks used to describe cross-sector partnerships and CE strategies predicted failure and instability in the relationship. Case study research could be carried out on these cases to understand and explore what fundamentally led to the failure.

The role of the manager was not thoroughly explored in this research, but further research could be undertaken to explore what characteristics of the manager or individual enhance the success of interacting and dealing with these types of stakeholders.

## 7.7 Conclusion

The context in which mining companies engage with artisanal/illegal miners is largely governed by the role of institutions, and legislation around artisanal and or illegal mining. Mining companies are more willing to acknowledge and build a relationship with artisanal/illegal miners as stakeholders if the laws are there and are easily enforced. In countries where there are no clear laws on the artisanal/illegal mining sector, mining companies have a responsibility in capacity building governments and institutions around the sector.

In countries where there are clear frameworks and consistency around the artisanal/illegal mining sector, mining companies prefer to rely on the strength of the relationship that has developed with the artisanal/illegal miners in openly communicating with them, instead of making use of the authorities around certain issues. In addition to this, mining companies are more willing to get involved with cross-sector partnerships that have developed around the sector.

It is however not a definitive exercise - in countries where there are frameworks and laws around the artisanal/illegal mining sector and mining companies acknowledge the artisanal/illegal miners as legitimate stakeholders, due to a lack of consistency in decisions made by the government, and the interference of politics, the relationship is disrupted.

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# APPENDICES

## Appendix I: Consistency Matrix

| Propositions/ Questions/ Hypothesis | Literature Review | Data Collection Tool | Analysis |
|---|---|---|---|
| **Research Question 1**: What are the environmental and organisational drivers for the nature of the relationship between illegal miners and mining companies? | This question attempts to explore the factors that affect mining company perceptions and their willingness to cooperate with illegal miners. This question deals with competition and cooperation between illlegal miners and mining companies<br>Rza Ullah, Bengtsson & Kock (2014): The competition paradox - cooptition context (industrial, rleational and firm-specific factors) and tension (emotional ambivalence between organisations and within organisations<br>Bengtsson, Eriksson & Wincent (2010): Dynamic coopetition (competition and cooperation strenghts) | In-depth, semi-structured interviews with company representatives, Illegal miners and in-touch experts | Content analysys on open-ended questions, narrative enquiry, inducive theory |
| | | | |
| **Research Question 2**: What are the different dynamics between mining companies and illegal miners in different countries? relationship? | This question aims to understand and explore the different dynamics of mining companies and illegal miners in different country settings.<br>Mitchel et al (1997) outline stakeholder typologies based on a combination of relationship attributes namely power, legitimacy and urgency and provide a tool for managers to prioritize stakeholders based on this. These stakeholder typologies will vary for a mining company depending on the context i.e. if there are policies around artisanal-illegal mining in the specific countries it is operating in.<br>Lawrence (2010) expands further on Mitchel et al (1997) work by introducing the 4 Ws framework, which enables management to make decisions on their SR strategy based on activist stakeholders.<br>Gray & Purdy (2014) provide a framework around types of partnerships around illegal mining and their success will be different in different countries based on the role of context, as context will shape the degree of conflict in the partnership. Context includes the role of potential partners, the regulatory structure and the political environment, as well as power differences amongst partners. | In-depth, semi-structured interviews with company representatives, Illegal miners and in-touch experts | Content analysys on open-ended questions, narrative enquiry, inducive theory |

| Propositions/ Questions/ Hypothesis | Literature Review | Data Collection Tool | Analysis |
|---|---|---|---|
| **Research Question 3**: How are mining companies managing the relationship with illegal miners? | This question aims to develop an understanding of what types of CSR strategies mining companies are undertaking around artisanal and illegal mining, and what types of community engagement strategies they take part in.<br>Bowen et al (2010) outline a framework on three forms of community engagement: transactional, transitional and transformational.<br>Lee (2011)combines both institutional and stakeholder theory, and states that the type of CSR strategy a company choses is dependent on a combination of stakeholder and institution interactions | In-depth, semi-structured interviews with company representatives, Illegal miners and in-touch experts | Content analysys on open-ended questions, narrative enquiry, inducvie theory |

## Appendix II: Questionnaire Matrix

| Research question | Frame | Reference | Prompts |
|---|---|---|---|
| **Research Question 1**: What are the environmental and organisational drivers for the nature of the relationship between illegal miners and mining companies? | Coopetition paradox and tension | Ullah et al, 2014 | Phase 1 and Phase 2 |
| | Competition and cooperation continuuim | Bengtsson et al, 2010 | Phase 1 and Phase 2 |
| | | | |
| **Research Question2**: What are the different dynamics between mining companies and illegal miners in different countries? Does context or legal framework shape this relationship? | Managing disuptes with non market stakeholders: wage a fight, withdraw, wait, work it out | Lawrence, 2010 | Phase 1 and Phase 2 |
| | Cross sector partnerships - desired outcome vs opportunity/threat | Gray & Purdy, 2014 | Phase 1 and Phase 2 |
| | | | |
| **Research Question 3**: How are mining companies managing the relationship with illegal miners? | Community engagement strategy: transactional, transitional, transformational | Bowen et al, 2010 | Phase 1 and Phase 2 |
| | CSR strategy - combined effects of Stakeholder and Instituitional pressure | Lee, 2011 | Phase 1 and Phase 2 |

## Appendix III: Consent Statement

I am an MBA student conducting research on illegal mining and would like to explore the environmental, organisational and individual drivers that potentially affect the nature of the relationship between mining companies and illegal miners.

Our interview is expected to last about an hour. ***Your participation is voluntary and you can withdraw at any time without penalty***. Of course, all data will be kept confidential. Individuals as well as organizations will not be associated with findings or views expressed.

If you have any concerns, please contact me or my supervisor. Our details are provided below.

Researcher name: Gillian Williams

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Research Supervisor Name: Anthony Prangley

Email: prangleya@gibs.co.za

Phone 011 771 4325

Signature of participant: ________________________________

Date: ________________

Signature of researcher: ________________________________

Date: ________________

## Appendix IV: Phase 1 Semi-structured questions

**Mining companies**

Can you describe the nature of the relationship with artisanal miners/ illegal miners in the different countries you operate in?

How does the context or country policy affect this relationship?

In your opinion what more can be done to improve the nature of the relationship?

What are the major issues your company faces regarding illegal miners?

Are there any individuals in your company that you feel manage this relationship well? If there are what do you think the reasons for this are?

How does your company's reputation influence the nature of the relationship with artisanal/illegal miners?

## Appendix V: Phase 2 Semi-structured questions

### In-touch expert

Can you describe the nature of the relationship you have seen between mining company and illegal/artisanal miners?

In you opinion what factors do you feel are critical to the success of maintaining or improving this relationship?

Have you interacted with artisanal miners/illegal miners in more than one country or working for a different company? If so how does country context or company context affect the nature of the relationship?