

Integrating Conflict Analysis into Operations of
Canadian Junior Resource Companies in Africa

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Abstract

Africa holds significant deposits of mineral wealth alongside a significant proportion of the world's violent conflicts. Nearly every African country has preconditions for conflict, including poverty, high populations and ethno-linguistic diversity. Canadian junior resource companies are attracted to African resource wealth and are willing to accept the higher risks associated with operations in conflict-prone African states. Awareness and analysis of open or latent conflict is not widely considered within Canadian junior resource companies. Conflict analysis must be integrated into a resource company's investment decision process, resulting in the early understanding of the conflict risk of proposed mining operations. By adopting proactive conflict analysis and clearly understanding the conflict risk posed to exploration and mining operations, Canadian junior resource companies can reduce costs associated with destructive company/community conflict, and implement strategies to prevent conflict.

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Introduction

Africa holds a wide range of mineral, oil and gas deposits that are attractive to resource companies from around the world. Investment in Africa by Canadian mining companies represents 24% of total investment in the industry in Africa, and the majority of these firms are junior resource companies (Lagace, 2006). Junior resource companies have a higher tolerance of risk than larger firms, and explore, develop and extract resources from several politically and socially unstable African nations. Africa has more armed conflicts ongoing and more deaths from violent political conflict than any other region in the world (Human Security Centre, 2005). Countries affected by violent civil conflict such as Angola, Algeria, Democratic Republic of the Congo (DRC), Nigeria and Sierra Leone host Canadian resource activities. Civil war and insurgencies represent one aspect of violent conflict in resource-rich African nations, but Canadian junior resource firms also face challenges with local communities and the potential for company/community conflict: a growing concern for resource companies world wide. Resource exploration and extraction activities are coming under increased scrutiny from environmental and social advocacy groups, the Canadian public and government, and from within the resource industry itself. A number of initiatives have been proposed to better manage resource activities in developing countries, however there are continued instances of questionable company activities motivating company/community conflict. Proactive conflict analysis provides junior resource companies with the opportunity to limit their exposure to risks posed by conflict, while providing opportunities for equitable and transparent community engagement and the potential for benefits to both resource companies and communities. Conversely, if conflict is not considered early in resource

exploration and development planning, a company's activities may aggravate conditions for destructive conflict.

The purpose of this study is to determine how early analysis of conflict conditions can be integrated into existing business practices to minimize conflict risk to both company and community. If conflict analysis is integrated into resource activities at an early and effective stage, conflict risk is reduced. This paper has six main chapters. First, the research methodology is explained, along with definitions of key terms the reader must be familiar with. A brief discussion of Soft Systems Methodology (SSM), a key tool in this research, is also provided. A comprehensive explanation of SSM and systems analysis is further detailed later in the paper. The second chapter provides background information on the resource wealth of Africa, the connections between resource wealth and development (economic and social), and the relationship between resource extraction and conflict. The role of the extractive industry, and specifically the Canadian junior resource industry, is examined in chapter three, followed by a review of current theories and practices regarding resource extraction and conflict. This review also includes an examination of existing conflict analysis frameworks that are useful to resource companies working in unstable regions. Chapter five presents a systemic analysis of environmental conditions in Canada that are aligned toward mandatory regulation of resource company activities in developing countries. Chapter five also presents the Soft Systems Methodology analysis of junior resource decision-making, in order to determine where proactive conflict analysis can best integrate to support investment and operational decisions. This chapter examines conceptual and reality-based models of investment decision making in Canadian junior resource companies,

and provides recommendations for implementing feasible and desirable changes to current processes. The paper's conclusion provides a summary of key findings and requirements for further research.

Research Methodology

Research Questions

This research is a qualitative, grounded theory study of the systemic operating environment of Canadian junior resource companies with activities in Africa, and the potential for proactive conflict analysis to reduce their exposure to conflict risk. By reducing the potential for conflict, either existing or latent, Canadian junior resource companies realize a number of benefits, as do the communities they operate in. The primary research question of this study asks:

- How can conflict analysis integrate into junior resource company activities to minimize conflict risk for both companies and host communities in Africa?

Secondary research questions ask:

- What are the systemic conditions surrounding Canadian junior resource activities in Africa, notably at the pre-operational stage?
- What existing conflict analysis frameworks are most appropriate for integration into the systemic conditions?

The initial assumption of this research is that by analyzing the conflict risk of a resource activity prior to undertaking the activity, Canadian junior resource companies will realize a competitive advantage by avoiding conflict, creating good relationships with local communities, gaining a social license to operate, reducing risks to their operations, staff

and assets, and decreasing the potential for litigation arising from conflict. These advantages can save the company time and money in their operations, especially in regions where many preconditions for conflict exist. There are several terms used throughout this study that should be clear to the reader, and are defined below.

Definitions

Conflict: This research project defines conflict as “the interaction of interdependent people who perceive incompatible goals and interference from each other in achieving these goals” (Folger et al. as cited in Tidwell, 2003). This conflict may be actual or latent: an actual conflict being ongoing civil instability (political violence, inter-ethnic rivalries) and latent conflict refers to the potential for actual conflict because of the influence of resource activities (community resistance, involuntary resettlement).

Conflict Analysis: The comprehensive study of the conflict system, including historical, social, cultural, environmental and economic elements that shape an existing or potential conflict, as well as factors in the interaction of these elements (International Alert, 2005). Conflict analysis creates an understanding of factors contributing to conflict and provides options for their relief. Conflict analysis is sometimes called conflict assessment.

Conflict Risk: The influence a conflict or potential conflict may have on a company’s financial performance, reputation, and the safety and security of staff and assets (based on United Nations Environment Programme & International Institute for Sustainable Development, 2004).

Canadian Junior Resource Companies: Companies are defined as Canadian based on Natural Resources Canada’s criteria for Type 1 corporations:

- incorporated in Canada
- head office in Canada
- Canadian citizens as most of its officers
- primary listing is on a Canadian stock exchange
- officers can be prosecuted under Canadian law

A junior resource company will be involved predominantly in mineral exploration and development projects financed through equity raised based on their activities (Andrews, Fenhouliet & Harper, 1998).

Resources: For the purpose of this study, resources include ores, precious metals, gems, and mineral fuels, such as uranium. The focus of this study is on the extraction of minerals and ores, and does not include other resources such as petrochemicals or timber, although some examples from the petrochemical industry are pertinent.

Extractive Industries (EI): Includes companies active in the exploration, development and extraction of minerals.

EI Activity: This research uses the term as an umbrella, incorporating all stages of a mining project: exploration, development and extraction.

Primary Sources of Information

Originally, a seven question telephone or email survey (see Appendix A for survey questions) was implemented to gather baseline information into the conflict risk management practices of Canadian junior resource firms with activities in Africa. This survey was delivered by telephone and email in May of 2007. A total of 43 junior mining firms were qualified for the survey, based on the requirements that they are a Canadian

company with activities and assets in Africa. The response rate to the survey was too low (11%) to provide sufficient data, with some companies refusing to participate.

Through the survey attempt, however, a small number of company representatives chose to discuss in detail issues surrounding their operations, conflict, and the analysis of conflict risk. Other relevant actors who were not survey targets were also contacted for further information. These participants included NGOs, government sources and industry associations. The participants were assured that individual identities and company names would not be used in the research, in order to foster a more open environment for dialogue. Many of the participants insisted on anonymity as the topic of resource activities and conflict is a sensitive one. Participants' confidential input was primarily used to confirm or elaborate on issues covered within the literature.

Secondary Sources of Information

The conduct of Canadian business in general, and the extractive industries in particular, have come under increasing scrutiny over the last twenty years. Issues such as pollution, orphaned mines, conflict diamonds, and corporate complicity in human rights abuses have created a wealth of websites, studies, papers and news reports examining corporate conduct. Corporate social responsibility (CSR) is rapidly becoming an expected policy of large companies, and especially those in the extractive industry. Although the literature on CSR is extensive, issues regarding corporate activity and conflict are not as well studied. In fact, the study of corporate influences on conflict, especially in the developing world, has only become widely examined in academic literature over the past ten years. The greatest source of literature on extractive industries and conflict in developing countries comes from several non-governmental

organizations (NGOs), as well as bodies such as the United Nations (UN) and, more recently, from business organizations such as the World Business Council on Sustainable Development. The extractive industry itself, as well as a number of individual corporations, has been involved in initiatives to better understand their role in conflict and practices to avoid or mitigate conflict. The recent report of the National Roundtables on Corporate Social Responsibility (CSR) and the Canadian Extractive Industries in Developing Countries (Andrews et al., 2007), published in March of 2007, provided a number of important considerations for this study, as did a recent survey on CSR practices in Canadian resource companies. The review of existing literature examines conditions that lead to conflict, the merits of proactive assessment in a conflict system, and conflict assessment frameworks relevant to the extractive industry.

Soft Systems Methodology and Systems Modeling

Based on interviews with Canadian junior resource companies operating in Africa, and examination of the literature, systemic conditions of pre-operational influences will be identified and modeled. The systems modeling exercise is based on Soft Systems Methodology (SSM), a method of examining systems that have complex characteristics and are resistant to technical solutions. The system model will be designed by the researcher. Examining the systemic environment using SSM leads to the creation of both a conceptual model and a reality-based model. By comparing the two models, it is possible to determine how conflict analysis and assessment can fit into the existing system more effectively, or to create a place in the system where conflict is considered more methodically. It should be stressed that this process is not intended to

solve the problem, but to develop new ideas about the problem and the potential for feasible and desirable changes to existing systems (Checkland, 1999).

Scope

EI activities and their influence on conflict or potential conflict are as unique as the resource companies and communities involved. There is no single lens or viewpoint that is adequate to make broad generalizations about individual cases, as they are widely variegated. The scope of this study has been defined by selecting Canadian junior resource companies operating in Africa and examines issues specifically related to that continent. According to Natural Resources Canada, there are currently 48 Canadian junior mining firms that are active in Africa and have assets on the continent.

The number of junior resource companies working in Africa that were unwilling or uninterested in this research remains puzzling. The research was framed in a simple context, that proactive conflict analysis could provide competitive advantages to junior resource companies and provide an opportunity to avoid costly responses to open, hostile conflict. This research has been approached largely from the business side of the issue, looking for advantages to businesses that would also provide advantages to affected communities. The reluctance of resource companies to discuss issues related to conflict is a topic for further research.

The methodology is to collect data from a number of companies and examine it for a normative systemic environment which will identify leverage points for action at the pre-conflict and pre-operational stage. This research aims to verify the prevalence of proactive conflict assessment in Canadian junior resource operations, describe the systemic environment, and make recommendations on the integration of conflict

analysis at the early stages of planning. The ultimate goal is to integrate appropriate conflict assessment practices into the most effective and practical position within the systemic environment.

Extractive Industry Activities in Africa

Africa's Resource Wealth

The earliest evidence of mining on the planet is found in Swaziland, possibly existing 43,000 years ago (Miller & Wan Der Merwe, 1994). Ancient Egyptians were mining copper between 4,000 and 3,000 B.C.E., and in Ghana and Mali, iron working has been traced back to the first millennium. Mining continued to develop in Africa, and when the first Europeans began arriving in southern Africa, many viable mineral deposits were already being exploited by indigenous people (Miller & Wan Der Merwe, 1994). Widespread commercial exploitation of mineral wealth in Africa began with colonization by European powers, who quickly sought to control the extraction and trade of minerals in their new territories. The industrialization of mining in Africa began with diamond discoveries in what is now South Africa, and further expanded into extensive gold extraction and refining in that region (MMSD Southern Africa, 2002). The mineral wealth of Africa has historically been an attractive yet risky opportunity for foreign investors. A 1961 report on investment potential in tropical Africa expounded on the opportunities for wealth creation on the continent, but also noted a number of challenges, including lack of local supplies and trained labour, lack of entrepreneurial capacity, and social and political dangers (Marcus & Marcus, 1961). These challenges continue to pose risks to investments in Africa today.

Africa is the world's poorest continent, and all but one of its 55 countries is considered a Least Developed Country (LDC), with Botswana being the exception. LDCs are regions of low income, weak human assets and economic vulnerability (United Nations Conference on Trade and Development, 2006). Africa holds significant shares of the world's mineral and petroleum wealth, including diamonds, gold, oil and natural gas. Nearly 50% of the world's diamonds and 22% of its gold are produced from African mining operations, along with nearly two thirds of platinum production and numerous other minerals such as coltan, chromite, manganese and zinc (United States Geological Survey, 2004). Additionally, mineral fuels such as oil and uranium are major sources of revenue for some African nations, notably Angola, Nigeria, and Libya. Oil exports accounted for an estimated 24% of the Gross Domestic Product (GDP) of the top eight Sub-Sahara African oil producers in 2005 (Wurthmann, 2006). Although significant natural resource wealth is exploitable in a number of African countries, the number of Africans living in extreme poverty has nearly doubled between 1981 and 2001 (Sachs, 2005).

Resources and Development

The availability of natural resources and their influence on the economic development of African states (and other LDCs) is a topic of wide debate. Davis and Tilton (2002) describe two views of mining as the "traditional view" and the "new view". The traditional view is that minerals, including oil and gas, are part of a nation's stock of capital, and can play an important role in the development process if they are converted from in-situ resources into "a form of capital that contributes to the nation's economic output" (Davis & Tilton, 2002, p. 7). The traditional view further asserts that

developmental issues (such as education, health care, infrastructure) will be addressed out of the proceeds a nation realizes through mining activity, if they are invested wisely. Recent increases in the price of oil have created revenue conditions for oil producing states that can independently finance the achievement of their Millennium Development Goals, which are targets for development in areas such as education, health and environment (Wurthmann, 2006). In many African countries, resource wealth has not been effective in alleviating poverty, and this has given rise to the “new view” of resource wealth. The new view sees resource wealth connected to low or negative levels of development. Auty (1993, as cited in Jiwaji & Sarraf, 2001) gave this new view a name: the resource curse. The resource curse thesis holds that resource wealth of a developing nation is associated with low levels of developmental growth. Reasons for this inverse relationship range from rent-seeking behaviour of national governments, development of extractive sectors at the expense of other sectors, boom and bust cycles of commodities, and the concentration of national wealth into the hands of the elite (Davis & Tilton, 2002; Gylfason, 2001; Hamilton & Ruta, 2006; Jiwaji & Sarraf, 2001; among others). Controversy over the utilization of mineral wealth in developing nations has prompted calls for wholesale review of extractive industry activity in LDCs. Some proposals have been made for restriction of resource exploitation, including the elimination of international finance to extractive activities in countries lacking a democratic government and a commitment to poverty reduction (Ross, 2001).

Natural resources have played a positive role in a number of countries throughout the world, although more so in developed countries than LDCs. Botswana is an oft-cited example of a former LDC that has managed its resources appropriately. At

independence in 1966, Botswana was one of the world's poorest countries. Exploitation of the country's diamond wealth has moved Botswana from LDC status to that of an upper-middle-income country, and its GNP per capita is over 5 times greater than the sub-Saharan average (Jiwanji & Sarraf, 2001). Developing countries that harbour natural resources should end up better off for having them, and natural resource wealth should provide opportunities that would otherwise not be manifest (Davis & Tilton, 2002). The nature of resource extraction itself can create issues other than those linked specifically to economic development. Mining is a high profile and often environmentally disruptive activity requiring large investments, an influx of foreign expertise, extraction and removal of national or regional wealth, and extensive interactions with governments, communities, and a host of other interested actors. Extractive activities have become flashpoints in conflicts among parties claiming rights to benefit from resource extraction. Although the extraction of minerals provides a number of benefits for host governments and can create employment, infrastructure and other benefits for local communities, this is not always the case. Extractive industries operating in LDCs have been accused of contributing to intractable conflict between companies and communities.

Resources and Conflict

Africa has more armed conflicts ongoing and more deaths from violent political conflict than any other region in the world (Human Security Centre, 2005). The wealth potential of mineral and petroleum development can be a motivating factor in the willingness of groups or individuals to engage in violent or disruptive activities in order to gain control over the resource, and hence reap the rewards for a particular group. The

low living standards found in most African countries means that those with access to wealth can live vastly beyond the entrenched norms of poverty. Poverty is a widely cited precondition for conflict (Collier & Hoeffler, 1998; Human Security Report, 2005; Switzer, 2001; among others). Collier and Hoeffler (2002) found that Africa has “experienced a rising trend in conflict because its economies have performed so poorly” (p. 14). In *On Economic Causes of Civil War*, Collier and Hoeffler (1998) present natural resource deposits as one of four “significant and strong determinants” of civil conflict, in addition to low mean incomes, ethno-linguistic fractionalization, and population size (p. 1). If Collier and Hoeffler’s model is accurate, which some scholars question, the potential for civil war in resource abundant African countries is 22% over any 5 year period. Given that resource extraction investments are made over long time spans, perhaps 20 years, there is a high theoretical probability that resource extraction firms in African countries will find themselves operating in a conflict environment over the lifetime of their operation. According to a workshop report on minerals and armed conflict, it was widely agreed by mining industry representatives that “armed conflict could become a significant factor for the minerals industry in the future”, as the demand for minerals increases the likelihood of mining activity in unstable regions (International Institute for Environment and Development & World Business Council for Sustainable Development, 2001, p. 2). Extractive activity can contribute to conflict in a number of ways: through control of resource access, granting of rights to participate in decision-making, security measures, and social and environmental impacts (Switzer, 2001). Extractive activity has been implicated in the direct or indirect funding of military and rebel groups engaged in oppressive conduct. In Angola’s 27 years of civil war between

UNITA and MPLA forces, both sides were funded by revenues from resources. UNITA at one point controlled up to 70% of Angola's diamond production, and the MPLA earned its revenues from offshore oil discoveries (Smillie, 2002).

Resource extraction activities often manifest opposition from local communities, due to the intrusive nature of the industry. There have been a number of conflicts widely reported between communities and corporate interests in the extractive industries, providing radically different perspectives on the situations. Non-governmental organizations and advocacy groups present images of rampant corporate destruction wielded on pristine environments and impoverished, vulnerable local communities. Corporations are accused of direct or indirect instances of torture, murder, oppression, forced resettlement, and environmental contamination. In their defense, corporations respond to such accusations with their own facts of the situation, and in most cases absolve themselves of any wrongdoing. Corporations also respond to their critics by citing internal policies on environmental and social sustainability, their adherence to local law, positive impacts on local communities (such as schools or clinics built), and their separation from human rights abuses by state agencies, such as security forces. An example of this dichotomy can be found in Canadian mining firm TVI Pacific and its Canatuan operations in the Philippines. According to a field report introduced by Clare Short, a British MP, mining in the Philippines is "systematically destructive" with catastrophic effects on both the environment and people's livelihoods (Doyle, Nally & Wicks, 2007, p. i). In the report, TVI Pacific is alleged to be responsible for "numerous and serious violations of (indigenous people's) rights including forced displacement" (Doyle et al., 2007, p. 5). In response, TVI Pacific claims that the

majority of local indigenous people voted to support the mining project, and that it ensures sustainable development for the indigenous community as well as “furtherance of human rights” (Rocky Dimaculangan, 2007, p. 1). In a highly publicized incident involving Canadian oil and gas firm Talisman Energy Inc. and its operations in Sudan, Talisman was alleged to have contributed, indirectly, to attacks on civilians by the Government of Sudan (Patterson, 2005). It was alleged that Talisman was assisting the Sudanese government in a campaign to clear residents from oil rich areas to facilitate exploration and development (Seskus, 2003). A divestment campaign was launched with the support of a wide range of NGOs and government actors, and included an advisory report to the Clinton administration that recommended banning Talisman from raising funds in the United States (Carlisle, 2000). Talisman aggressively disputed the claims, responding that the company was “actively promoting respect for human rights in Sudan, and an end to the war” (Alden & Warn, 2001, p. 1). Talisman claimed its presence in Sudan provided benefits to local communities, including hospital access, fresh water and artificial limbs, as well as advantages to society as a whole created by foreign investment. Talisman’s president stresses on their website that he sees “corporate responsibility as an integral aspect of creating value throughout our operations, not an add-on to them” (Talisman Energy Inc., 2007). These different perspectives of resource companies and community advocates are amplified in the public view. Canadians do not consider mining companies to be a credible source of accurate information, while considering NGOs and the media to be credible providers of information (Mining Minerals and Sustainable Development, 2002). The divestment campaign against Talisman, as well as a \$1 billion lawsuit (subsequently dismissed by a

US court in September, 2006) was a watershed event influencing Canadian perceptions of resource company activities in developing countries.

Industrial activity in conflict-sensitive areas is influenced by a wide range of conditions, including indigenous rights, ambiguous land and mineral rights, grievances against national or local governments, insurgencies, and state governance issues. An expert group on natural resources and conflict states that primarily, natural resource issues are governance issues, and addressing these issues will require broad-based holistic approaches (UN Expert Group Meeting on Natural Resources and Conflict in Africa, 2006). As long as extractive industries operate in areas of poverty, social instability and ineffective government, conflict will continue to be a part of their operations and a risk to be considered appropriately. In the case of natural resource extraction, corporations are driven to the geological properties of the region, and often have to deal with a number of potential or existing conflict issues in order to access the resource.

This chapter has examined Africa's pre-existing potential for conflict and the role resource extraction activities play in exacerbating those conditions. Africa is economically and socially unstable, yet holds vast quantities of valuable resources. There exists debate regarding the value of resource development to least developed African nations and the ability of resource exploitation to provide economic development. There also exist a number of contrary perspectives on resource companies' role in human rights violations and other social and environmental malpractice. The combination of widespread poverty in Africa and the disruptive nature of mining operations are strong preconditions for destructive company/community

conflict. Junior resource companies are especially likely to encounter conflict conditions, as they may operate in areas where the more visible and accountable major firms will not invest, and Canada hosts more junior resource companies than any other country.

Canadian Junior Resource Companies and Extractive Activity in Africa

Canada's Extractive Industries

Canada is a world leader in natural resource exploration and development. Canadian resource firms account for \$50 billion in direct investment worldwide, and \$17 billion in projects are planned for the next five years (2005 figures) (Government of Canada, 2005b). Canadian companies work around the globe in a number of different environments, with over 600 companies working in 100 countries in 2006 (Prospectors and Developers Association of Canada, 2006). The Minerals Economic Group of Natural Resources Canada reports that 165 Canadian companies are active in 37 African countries, and were responsible for 25% of the total exploration on the continent (Natural Resources Canada, 2006). Of those 165 companies, only 48 were considered to have assets under exploration or development. Canada is home to the Toronto Stock Exchange (TSX) and the TSX Venture Exchange (TSX-V), which list more mining, oil and gas companies than any other stock exchanges in the world (Toronto Stock Exchange, 2007).

Although mining, oil and gas are responsible for a great deal of Canada's natural wealth, there are growing concerns within industry, government and the public regarding the conduct of Canadian extractive firms in developing countries. In response

to these concerns, the Canadian government's Subcommittee on Human Rights and International Development of the Standing Committee on Foreign Affairs and International Trade tabled a report to parliament regarding regulation of international mining conduct. The report indicated that Canadian "mining activities in some developing countries have had adverse effects on local communities" and called for "clear legal norms to ensure that Canadian companies and residents are held accountable when there is evidence of environmental and/or human rights violations associated with the activities of Canadian mining companies" (Government of Canada, 2005a, p. 1). The government response was to create an advisory group: The National Roundtables on Corporate Social Responsibility (CSR) and The Canadian Extractive Industry in Developing Countries (Andrews et al., 2007), a series of roundtables held across the country involving a diverse range of stakeholders, including civil society, NGOs, industry, and included expert testimony. This report presented a number of recommendations, notably the creation of a Canadian CSR framework for extractive companies working in developing countries.

According to industry representatives, binding government regulation of overseas operations presents a number of challenges involving host government sovereignty, interference in Canadian foreign policy objectives, and new trade and operational barriers. Industry considers existing legal frameworks, along with voluntary initiatives, to be sufficient "to ensure compliance with existing human rights and environmental standards" (Andrews et al., 2007). Voluntary guidelines may be effective in achieving outcomes related to social and environmental standards, but only if they are universally adopted by Canadian mining, oil and gas firms. As it stands, the majority of Canadian

resource firms do not adhere to any CSR guidelines. A survey conducted by The Canadian Centre for the Study of Resource Conflict (n.d.) petitioned Canadian resource firms (working outside the United States and Canada) listed on the Toronto Stock Exchange and the Toronto Venture Exchange for their CSR practices. The survey received a 66% non-response rate, despite an email invitation followed by phone calls to head offices asking for participation, in which “every attempt was made to contact a qualified representative” (Hassanein et al., n.d., p. 9). Of the respondents, only 27% of Canadian firms in the mining, oil and gas sectors have a CSR policy or an internal code of ethical conduct, with junior firms reporting a 21% adoption as compared to 50% for the major firms (Hassanein et al., n.d., p. 24).

Junior Resource Company Characteristics

The minerals industry is a complex network of multiple companies, often with holdings among each other, or with national governments. Although the industry is characterized as hugely profitable by its opponents, the mining industry, excluding oil and gas, has historically not met its cost of capital over the past 25 years (McDonald 2000, as cited in MMSD Southern Africa, 2002). This puts increasing pressure on mining firms to ensure profitability through highly efficient operations. Further, market volatility of commodity prices makes mineral, oil and gas exploration high risk to investors, who expect high returns. The minerals industry can be divided into two main categories based on their unique characteristics (Bray, 2003; MMSD Southern Africa, 2002):

- Major multinationals are represented by 30-40 large corporations that are highly integrated, operating exploration, mining and drilling, smelting and refining, and

end sales. These firms have high public profiles, are well-financed, are concerned about reputational issues, and generally have internal codes of conduct governing their operations.

- Junior resource companies are, predominantly, engaged in the exploration for existing but unexploited mineral, oil and gas resources and are willing to accept higher risks on investments than major firms. As juniors are not as well financed as majors, they will sell all or part of a discovery to a larger firm willing to finance extraction, although juniors may opt to develop the resource on their own.

In *Attracting Companies to Risky Environments: Petroleum and Mining Companies*, Bray (2003) provides further rationale for junior's involvement in regions with high conflict risk, notably that these socially unstable regions are avoided by many of the majors, and provide a niche for juniors to operate in. Additionally, as resource deposits in regions of low risk are developed and depleted, junior resource firms must explore in areas that were previously considered too remote or high risk for operations. In regions that are experiencing active conflict, some majors will choose to abandon or sell operations to avoid conflict and reputational risks entirely. This leaves the field open for smaller players, who may be less likely to adopt appropriate social and environmental safeguards (International Institute for Environment and Development & World Business Council for Sustainable Development, 2001). There remain wide discrepancies among junior companies on how they manage their social and environmental responsibilities. Some have implemented corporate social responsibility (CSR) programs, developed codes of conduct, and adopted external voluntary regulations. Some juniors have been

involved in conflict and paid the price in terms of higher operating costs in the region, and also in terms of legal costs and loss of market capitalization.

The Business Case for Assessing Conflict Risk

Exploration, development and mining in regions of social instability and widespread poverty are common practices for Canadian junior resource companies. Clearly understanding and addressing their conflict risk can provide a number of tangible benefits to Canadian juniors, as well as reducing or eliminating the potential for litigation or unwelcome public accusations of involvement in local or regional conflicts. Conflict costs extractive industries time and money, and these losses can be reduced by proactively understanding conflict issues relevant to an operation. Different stages of extractive activities will be more likely to incur conflict costs than other stages. According to one industry risk manager, the impact of conflict rises exponentially as the project lifecycle advances. For example, at the exploration stage a company will not have as many fixed assets at risk as at the development or mining stage, although personnel exploring in remote regions could have a higher risk of harm than personnel at a working mine. Security costs can represent a significant expense to operations in regions with existing conflict. According to a May, 2000 article in *The Economist*, security costs for oil companies working in Algeria were 8%-9% of the total operational budget (*The Economist*, 2000). Regions of violent, armed conflict are not the only areas of concern, however. Some regions may not pose pressing security risks from existing conflict, but hostile local communities can impose their own costs on a company, including those of increased security. Informal miners attacked a guest house belonging to Anvil Mining's Kulu mine in the Democratic Republic of the Congo (DRC) in

April 2006, burning the house and killing two staff. The miners were protesting their removal from mining areas held by Anvil, and the events led the company to briefly shut down its operations in the area. Community grievances can be expressed in multiple ways that increase a company's operating costs. Theft and destruction of equipment and other assets, as well as damage to infrastructure such as roads and power lines, is another costly result of conflict. In a particularly famous example in Papua New Guinea, the Panguna Copper Mine was closed in 1989 due to clashes with local groups angry over a number of issues, including distribution of benefits and environmental degradation. The mine remained closed for 18 years, but Bougainville Copper Limited, the mine's owner, hopes to reopen the mine if it can now "obtain landowner support for exploration and mining" (Bougainville Copper Limited, 2007, p. 1). The opportunity costs for Bougainville Copper Limited have been enormous, as copper prices have tripled from 2004 to 2007. Litigation is another cost that can arise from company/community conflict, based on both the money required to pay for legal defense, and the time demands placed on a company seeking resolution to litigation. Serious human rights charges brought against former American oil giant Unocal's operations in Myanmar were initiated in 1996. US court decisions under the Alien Torts Act forced the company to settle the case in 2004, for an undisclosed amount. Unocal's legal costs alone were estimated at \$25 million (USD) (Campbell, 2004). Reputational damage is often cited as the most important reason to consider the impact of conflict on an operation. Reputation issues are not confined to large, public brands where consumer perceptions are important, although the issue is often less damaging to junior mining companies which tend to have low public profiles. But a compromised

reputation may make it difficult to attract new employees that prefer companies with sound social and environmental policies. Additionally, a company's executive and employees may be concerned about their personal integrity being compromised when claims are laid against the firm they work for, as work groups strongly influence individuals' social identity. A large and increasingly well-organized group of NGOs are quick to rally around irresponsible mining practices, and the advent of the internet has allowed rapid dissemination of information from remote areas of the world into the public eye. An ongoing conflict between indigenous San people and the Government of the Republic of Botswana has prompted widespread criticism of DeBeers, the diamond conglomerate. DeBeers is accused of complicity in the removal of San people from their ancestral homes in the Central Kalahari Game Reserve, a claim DeBeers denies. The merit of the claim may be less important than the existence of it, as a boycott campaign resulted in high-profile media coverage of the issue, including an endorsement of the DeBeers boycott by several celebrity models. If companies can proactively avoid conflict risk and the costs associated with destructive conflict, such as security costs, loss of assets, litigation and reputational issues, it would be beneficial to do so. Not only are losses due to conflict avoided, or at least mitigated, but companies can gain or maintain a social license to operate. The social license is the extent a company's activities meet "the expectations of local communities, the wider society, and various constituent groups" (Gunningham, Kagan & Thornton, 2004, p. 313). Overall project risk can be minimized with a credible social license, and the social license is especially important to reducing conflict risk between companies and local communities.

Canada has a long history of mining, oil and gas development and innovation, and Canadian stock exchanges list more of these companies than any other exchanges in the world. Canadian firms are responsible for 25% of total mineral exploration in Africa, and it is Canadian junior resource companies that are most likely to be active in regions of Africa with high conflict risk. The Canadian government and citizens are growing increasingly concerned regarding resource industry activities in developing countries and there have been widespread calls for binding regulations to govern their activities. Open, hostile conflict can be damaging to business operations by disrupting or stopping mine operations, revocation of company's social license, litigation and reputational issues. The systemic conditions examined in chapters one and two provide unique challenges to junior resource companies operating in the region. In order to protect mining operations operating under these conditions from losses due to conflict, a company has to understand conflict conditions and have the opportunity to assess the influence of their activities on these conditions.

Conflict Analysis for Corporations: Current Theory and Practice

Conditions of Conflict

Conflict takes many forms, and is motivated by a wide range of environmental, social and emotional conditions. Nelson (2000) presents four main causes of conflict: ideology-based causes, governance-based causes, resource-based causes, and identity-based causes. Ideology- and governance-based conflicts are largely beyond the ability of a single company to influence, although they can certainly influence a company. Ideology-based conflicts centre on a group's resistance to a company's

activities not based strictly on the activity itself, but on an associated motivation for the activity, such as capitalism or globalization. Governance-based issues regard governments' inability to carry out duties relating to administration, security, taxation, health and education, infrastructure and other state responsibilities. Weak and ineffective governments create an environment that promotes conflict through neglect of basic services to citizens, insecurity and economic instability. Both ideology- and governance-based conflicts are more readily identifiable than resource- and identity-based conflict. Newspapers, television, websites and sources of comprehensive information such as specialty magazines and journal articles provide detailed levels of information regarding existing ideological and governance conflicts. Resource- and identity-based conflicts are often more localized and require in-country study for reliable, comprehensive assessment. It must be noted also that conflict is not usually only one form or another, but a hybrid of all four forms dominated by one or the other. Company/community conflict is likely to be dominated by resource- and identity-based conflicts.

Resource-based causes are often cited in company/community conflict scenarios, as mining activity can severely impact local communities' abilities to access resources. It is common that local people pay the price for national development when governments seek to develop resource wealth. This wealth is too often removed entirely without benefiting local communities; however these communities must deal with issues such as increased immigration of employment seekers, reduced or eliminated access to informal mining properties, and the reduction of land available for agriculture and grazing. In regions of poverty, where arable land, water, and food as

well as employment, education, healthcare and security are scarce, there is strong motivation by people not to lose what little they have. Homer-Dixon and Percival (1998) consider resource scarcity in three forms: supply-induced scarcity caused by degradation of environmental resources, demand-induced scarcity caused by increasing populations and the resulting stress on resources, and structural scarcity where resources are distributed unequally among recipients. These kinds of resource scarcities are often found in developing countries and can be exacerbated by extractive activity that does not allow for environmental protection and equitable distribution of benefits. The fact that the preconditions already exist for conflict in most LDCs in Africa is a serious consideration for projects there. The addition of large footprint extractive activities can provide an unbalancing of local conditions and the motivation for conflict over grievances, whether a company deserves it or not. Additionally, responsible investment can have constructive influences on existing dynamics and promote the mitigation of resource-based causes of conflict, through community development initiatives and sound environmental stewardship.

Identity-based causes of conflict are motivated by people's needs and values. Rothman (1997) states that identity-based conflicts are driven by threats to "people's collective need for dignity, recognition, safety, control, purpose, and efficacy" (p. 7). Rothman suggests identity conflicts are difficult to recognize, as they are often manifest as conflicts over resources. Resource-based conflict drivers may be identifiable through indicators such as poverty rates, numbers of displaced people, and environmental degradation, among others, but indicators for identity conflicts centre on intangible and hard to define existential concerns. Understanding what the drivers of conflict are is

critical to formulating an approach for understanding how company activities might influence the situation. Rothman suggests that complex, identity-based conflicts are often misinterpreted as resource-based conflicts, and transformation of the conflict is based on relieving resource stress while leaving the deep, underlying identity drivers unaddressed (Rothman, 1997).

Conflict Prevention

In understanding the conditions and causes of conflict through proactive conflict assessment, it is possible to eliminate, avoid or reduce conflict conditions before conflict devolves into open and destructive hostility. This is a critical issue for any company faced with the potential of company/community conflict, and especially resource companies working in developing countries. Preventing conflict before it begins not only reduces a company's conflict risk, but also provides the opportunity for harm reduction in local communities. Conflicts tend to get increasingly difficult to manage as they progress, as positions get entrenched and tensions increase. Trust, a critical component of conflict transformation, is quickly swept away and mediation and dialogue efforts become more challenging. In *The Handbook of Conflict Resolution: Theory and Practice*, Fisher (2000) writes that groups in conflict develop negative stereotypes which are "oversimplified, inaccurate, rigid and derogatory beliefs about the characteristics of the other group" (p. 182). These beliefs are then applied to all individuals of a group, which fuels hostility between groups that blame each other for the conflict, and this leads to escalation. Fisher considers escalation to be the increasing use of "heavier methods of influence" by each group to achieve its goals, and this process is influenced by both fear and defensiveness (2000, p. 184). Kriesberg (1998) emphasizes that an

important stage in a conflict is the point at which adversaries “come to believe that they in fact are adversaries” (p. 25). Once this belief is entrenched, pursuit of incompatible goals begins and conflict escalates. Kriesberg adds that social conflict can be waged destructively or constructively, although notes that in either case there is opportunity for both destructive and constructive outcomes (Kriesberg, 1998). Coser (1956) asserts that conflict is a social function, and serves to delineate boundaries between social groups and provides a manner to express dissent. It is not strictly a negative aspect of human relationships, as conflict can often surface issues that would otherwise be left unaddressed. This is the productive aspect of conflict, and the conflict potential of a local community, based on conflict conditions and indicators, are signals to companies that there are issues to be addressed. The issues should be identified and addressed early.

Conflict Analysis Frameworks

There is both a business case and a social case for understanding and mitigating the influence a mining operation has on conflict. There already exist some regulatory conditions placed on mining projects financed both publicly and privately. The World Bank’s International Finance Corporation (IFC), which is the largest financier of projects in the developing world, requires comprehensive environmental impact assessments (EIAs) and social impact assessments (SIAs) as part of their funding conditions. The IFC’s *Guidance Notes: Performance Standards on Social and Environmental Sustainability* (2006) provides detailed guidelines on the assessment of environmental and social issues, including issues related to conflict. The IFC expects its clients to undertake comprehensive analysis of the impact of their operations on local

communities, and provide plans to reduce or eliminate those impacts. Some private lenders also place conditions on their project finance clients, through adoption of the Equator Principles (2006). The Equator Principles were developed by the banking industry in cooperation with the IFC, and serve as common guidelines (primarily based on existing IFC guidelines) for banks to assess social and environmental risks associated with projects in developing countries. In Canada, the government-owned Export Development Canada provides financing to Canadian companies investing abroad through its Canadian Direct Investment Abroad (CDIA) initiative. Canada is a signatory to the Organization for Economic Cooperation and Development's Guidelines for Multinational Enterprises, and CDIA investments are subject to considerations under the OECD's voluntary principles. In addition to international and home-country guidelines, there are also host-country requirements for social and environmental assessments to be completed prior to industrial activity. In countries with economic instability, ineffective governance and high levels of corruption, such as a number of countries in Africa, compliance with environmental and social regulations is weak or non-existent. Mining codes are a country's legal conditions governing mineral exploration and extraction, and are widely variegated throughout Africa. A country's mining code covers many technical issues related to mining activity, such as exploration rights, taxation, repatriation of earnings, and also can cover issues regarding social and environmental performance. Although the development of progressive mining codes in developing countries has been an ambition of the World Bank and has strong involvement from Canada, critics argue that new codes are too focused on attracting foreign investment at the expense of social and environmental protection (Campbell,

2003). Campbell (2003) reveals “incompatible logics” in designing mining codes that promote foreign investment often at the expense of high social and environmental standards (p. 9). The IFC Guidelines, the Equator Principles, host country mining codes and other conditions set performance expectations and create a regulatory framework for Canadian junior resource companies operating in Africa. These frameworks and the organizations that develop them have been widely criticized by NGOs for their ineffectiveness in governing multinational’s activities in developing countries. Even if flawed, these kinds of frameworks often have no influence on junior resource activities, as the majority of financing is raised through equity markets, especially projects at the exploration stage. Juniors work in countries that may or may not have sound mining codes in relation to social issues, including company/community conflict. This gives resource firms a wider range of options to choose from in the way they address social issues such as conflict potential. Some firms choose to forge ahead on an attractive venture with no consideration for conflict potential, and end up paying the price. Most small companies lack the capacity to clearly understand conflict potential, but there are some useful voluntary frameworks that would serve to increase a small firm’s conflict awareness, or help them to avoid the pitfalls of conflict altogether. The potential exists for Canadian junior resource companies to be better informed on the nature of conflict and their potential role in it, but not without effort on their part. There are no easy, one-size-fits all programs for understanding and analyzing conflict.

The development of numerous frameworks and guidelines for analysis of conflict and conflict prevention has created tension between the desire for practitioners and analysts to seek out frameworks that could be considered as “standards” or widely

applied to different conflicts, and the reality that conflict is a complex, context-based occurrence that does not fit neatly into checklists or generic templates. This tension is illustrated in the *Peace and Conflict Impact Assessment: Critical Views on Theory and Practice* (Fischer & Wils, 2003). Fischer and Wils (2003) observe “generality versus specificity is the question of standard operation procedures versus open and flexible approaches” in the assessment of peace and conflict (p. 6). The British government’s Department for International Development (DfID) explains the issue of homogenous assessment frameworks in its own conflict assessment framework, *Conducting Conflict Assessments: Guidance Notes* (2002). DfID acknowledges that “Underpinning the conflict assessment methodology... is the supposition that there is no single explanatory framework for looking at such complex conflict systems and the challenge is to blend different conceptual elements” (Department for International Development, 2002, p. 9). This creates a potential barrier for adoption by businesses, especially those lacking resources to implement complex assessment methodologies. This barrier is surmountable, however, with the emergence of a number of frameworks that have elements that are adaptable to business operations, as well as frameworks that are directed specifically at business. Conflict analysis frameworks and assessments for business have become more prevalent as organizations struggle with the realities of operating in conflict-sensitive regions. There are common threads among all the different frameworks, especially as regards conflict analysis. Most frameworks try and go further than analysis, and provide guidance in areas of policy and strategy for engaging conflict actors. Engagement is beyond the scope of this paper, as is a comprehensive appraisal of existing frameworks for conflict analysis. Selection of

conflict analysis literature is based on (a) relevance to business and conflict relationships (b) focus on company/community conflict (c) evaluation of conflict conditions and (d) clarity of the framework and its utility across a wide range of business types with a variety of footprints (small and large companies, and exploration, development and extraction activities). Most of the existing literature, including assessment frameworks, is technically complex and difficult to integrate into business operations without prior expertise in the field of conflict management and analysis. A number of comprehensive, detailed conflict analysis and impact assessment frameworks exist for early warning of civil conflict, the influence of humanitarian assistance and development on conflict, country risk assessments and policy guidance (see Appendix B for a comprehensive list of frameworks). These frameworks are all valuable tools, but not designed for adoption by businesses, and their complexity signals a level of inaccessibility that hinders adoption. According to Goldwyn and Switzer (2004), Peace and Conflict Impact Assessments (PCIA) run into problems “when converting the concept of PCIA, often developed by academics and experts in isolation from the target users, into useable frameworks” (p. 7). This literature review is focused on those frameworks that are relevant to business, and specifically extractive industries.

Proactive conflict analysis is a valuable investment, as identifying conditions for conflict gives a company the opportunity to address those conditions, or develop operational practices that at the least do not aggravate conditions. The consequences of conflict to operations can be harsh, as noted earlier. According to International Alert (2005), most companies seek to avoid getting involved in conflict, but lack the

experience and skill to do so (International Alert, 2005). Formal conflict assessments may be outside the bounds of a resource company's conventional knowledge, and undertaking a rigorous conflict assessment requires a great deal of expertise.

But understanding conflict conditions, and the company's influence on those conditions, is possible even for small companies active in low footprint activities such as initial exploration. In the literature reviewed below, the focus is on finding analysis frameworks that strike a balance between accuracy and effectiveness on one side, and utility and complexity on the other. The review of conflict analysis frameworks is intended to determine which frameworks are most relevant to junior resource companies working in areas of existing or potential conflict, and which could most probably be adopted. The review is not strictly confined to conflict analysis literature designed for business alone, as the majority of literature is aimed at development and humanitarian issues. Some of these frameworks, however, offer good advice and sound methodology, in a manner that is understandable by organizations across sectors, and hence their inclusion.

The Voluntary Principles on Human Rights (*Voluntary Principles on Security and Human Rights*, 2000), a multi-stakeholder initiative to address human rights and security issues in conflict sensitive regions, is perhaps the most salient set of principles developed to address issues of conflict. The voluntary principles provide guidance to companies in their interactions with both public and private security forces. The Voluntary Principles make clear the need for proper risk assessment on a range of issues including human rights records, rule of law, the potential for violence and identification of security risks. The principles place a high importance on conflict

analysis in order to understand root causes of conflicts and provide options for addressing them. A report on the Voluntary Principle's website states that participants "have noticed a greater awareness among staff of the human rights risks faced by their companies and their operations" (*Voluntary Principles on Security and Human Rights*, 2000). Early analysis of conflict is critical to a company's awareness of conflict risk, since exploration, development and mining activities can influence conflict conditions once they are underway. International Alert's *Conflict Sensitive Business Practices: A Guide for the Extractive Industries* (2005) stresses that conflict at the local level is commonly initiated following the start of operations. Additionally, International Alert found that major investments can alter traditional social dynamics, and these dynamics would include traditional methods of dispute resolution. The discovery of gold, diamonds or other high value resources attracts outsiders to the community to attempt artisanal mining or pursue other opportunities. This means that companies operating in LDCs in Africa, all of which hold preconditions for conflict, must be proactive in assessing the potential for conflict even if there is no existing, open hostility. The conditions for conflict are going to be there, and they must be understood and addressed.

Conflict analysis is about information, and knowing what information is required is central to accurate analysis. Information on three key factors are widely considered the essential building blocks for conflict analysis: information regarding open conflict, or latent conflict conditions increasing the potential for conflict; information regarding the company's capacity to understand and engage conflict; and information related to the actors' influence conflict and its conditions. An extensive, two-year joint project created

by a consortium of peace and conflict groups is a good place to start in reviewing existing conflict analysis literature. *Conflict Sensitive Approaches to Development, Humanitarian Assistance and Peacebuilding: A Resource Pack* (2004) was developed for governments, civil society, and donor organizations in the development, humanitarian and peacebuilding fields. Africa Peace Forum et al. also suggests the Resource Pack may be of interest to the private sector. It offers plenty of further information to suggest this is the case. The Resource Pack is well-written and is concise in its handling of complex concepts. The motivation behind the Resource Pack was to synthesize current practices and ideas in a rapidly evolving field, and distill these into a tool useful to readers lacking “extensive knowledge of conflict transformation” (Africa Peace Forum et al., 2004, p. 1). Although much of the five-chapter, 124 page Resource Pack is about humanitarian intervention, much of it is relevant to business operations. The most relevant chapter to this research is dedicated solely to conflict analysis, and provides the most pragmatic, practical view of the process that was found in the literature. The Resource Pack breaks conflict analysis into four key elements: the conflict profile, the causes of conflict, the conflict actors and the conflict dynamics. These elements are important to understand as they are prevalent in most conflict analysis frameworks. The conflict profile is described in the Resource Pack as “a brief characterization of the context within which the intervention will be situated” (Africa Peace Forum et al., 2004, p. 3). This is an overview of the context and conditions that influence conflict, and this overview in turn informs analysis of the subsequent elements. Causes of conflict are defined as “those factors which contribute to people’s grievances”, and include the following:

- structural causes-factors that exist extensively throughout the society, culture and government policies that can contribute to conflict
- proximate causes-factors that motivate a climate predisposed to conflict or its escalation
- triggers-individual events, or their anticipation, that set off open conflict

(Africa Peace Forum et al., 2004, p. 3)

Conflict actors are those individuals or organizations that engage, influence, or are affected by conflict. Understanding issues and grievances related to different actors, as well as their relationships to one another, is critical to productive conflict analysis, as actors represent both source and recipient of conflict. A failing in the Resource Pack's guidance on conflict analysis can be found in its examination of actors, as it makes no effort in the analysis stage to integrate the analyst into the role of conflict actor. This is crucial for business-centred analysis, as the business itself must understand its role in conflict, and also its capacity to analyze, manage and adapt to conflict. The final element in the Resource Pack considers conflict dynamics, which is the interaction of all the elements in a whole, complex and dynamic system. The concept of systems dynamics is perhaps the most difficult of all issues regarding analysis. Actors, issues and causes are, to a large degree, researchable issues and lend themselves to investigation and understanding, but conflict dynamics are ambiguous and intangible, change rapidly over time, can be entirely unpredictable and are absolutely crucial to successful analysis.

Linkages among actors and issues are the most salient feature of a humanitarian and development framework created by the UK Department for International

Development (DfID). DfID's contribution provides a more detailed examination of analysis structure, while still remaining readable and useful to non-academics. The goal of conflict analysis in *Conducting Conflict Assessments: Guidance Notes* (2002) is clear: "to better understand what converts latent conflict into open conflict" (Department for International Development, 2002, p. 10). DfID's conflict analysis relies on structures, actors and dynamics, and the relationships among them. The value of the DfID work is its ability to bridge the complex and complicated frameworks offered by other humanitarian and development agencies, with the need to understand the conceptual underpinning of analysis. DfID presents not so much a framework for conflict analysis as an outline of basic tenets of successful analysis, and especially systems considerations, and urges a holistic view of a conflict system. There is no checklist here, but an insistence on a flexible methodology which includes adapting analysis to the needs and objectives of the end user, conducting analysis according to the nature and phase of the conflict, developing dynamic forms of analysis, and encouraging what DfID calls "joined-up" analysis, in which other actors' analyses are used as input. Although extractive industries may be unlikely to "join-up" with other industry actors, especially at the highly confidential exploration stage, it's possible that industry and non-industry actors can share information gathered from each other's analyses in order to provide a more comprehensive picture. DfID also provides a warning on conflict analysis, contending that it is not an exact science, and analyses carried out by humanitarian agencies (and this would apply to industry as well) is "no substitute for skilled regional specialists and analysts" (2002, p. 7). It is perhaps the case that business-focused frameworks, no matter how thoughtful or well-organized, are

insufficient to effectively analyze the conflict potential on the ground. However there are advantages to an internal approach to analyzing conflict, and the Collaborative for Development Action's Corporate Engagement Project (CEP) (2003) argues that companies do not build what they describe as the "critical internal support" necessary to deal with conflict until it's too late and conflict affects the company's operations (p. 4). The CEP found that most companies see peace-building and conflict resolution as beyond them, and consider conflict primarily in terms of nationwide conflict. Additionally, CEP suggests that most companies do not have the capabilities for addressing conflict, whether or not the company has a CSR policy (Corporate Engagement Project, 2003). By increasing a company's ability to assess conflict, the company can begin to build its internal capacity and incorporate awareness of conflict conditions more easily into its operations. Fortunately, there are some frameworks that focus specifically on businesses and conflict, and put the corporation squarely in the centre of things.

In *The Business of Peace*, Nelson (2000) provides a concise and well-written guide to conflict and the influence of business on conflict. A 2004 review of codes, guidelines and initiatives regarding business and conflict asserts that *The Business of Peace* is the "single first best reference in the field" (Switzer, 2004, p. 61). Nelson's (2000) work is focused primarily on business activity and armed conflict, as opposed to company/community conflict, however the logic still applies. Nelson provides a summary of questions that will provide required information for analysis of conflict: what are the conflict causes, what stage is the conflict at, where is it located, who are the actors and what are the company's characteristics (2000, p. 62). The assumption is that

by understanding the answers to these questions a company can understand the conflict system and the company's role in it. The author goes on to explain the nature of conflict triggers: an event (or events) that can lead to violence, and that in weak systems of governance, violence is more likely. Nelson's examples of conflict triggers range from ideological- and governance-based issues through to resource- and identity-based issues, and it is probable that each trigger is motivated by more than a single conflict condition. Notable trigger examples pertinent to company/community conflict are the actions of individual leaders, security activities, inequality, unemployment, and human rights abuses (Nelson, 2000, p. 42). The framework continues beyond the analysis stage and provides guidance for corporate engagement of conflict and management challenges for doing business in conflict-sensitive areas. Understanding the company's capacity for conflict is a strength of Nelson's work that is not included in most analysis frameworks, and she provides three key issues to consider in assessing conflict risk exposure:

1. The likelihood company operations will be a potential cause of violent conflict
2. The magnitude of costs of conflict to a company's industry
3. Flexibility of a company's operations in withdrawing from a conflict area

Based on these issues, Nelson considers the extractive industry to have the highest conflict risk profile of any industry sector (Nelson, 2000, p. 58). Nelson cites a survey by the Harvard International Review (Berman, 2000) which found the risk of conflict to large, multinational resource corporations is overshadowed by the "supply potential of the host country" (p. 31), whether conflict conditions exist or not. *The Business of Peace* focuses primarily on the role of business in areas of violent conflict and civil war, and

makes a well-presented case for companies to address structural causes of violent conflict at the macro-level, but provides limited information regarding micro-level issues. The work is too broad to be widely applied by some smaller companies with limited expertise and resources. Nelson confirms conventional wisdom in the field of conflict analysis, that the complexity and dynamism of different conflict contexts and different company contexts means it is not possible “to provide simple “checklists” or easy answers as to how companies can respond” to issues regarding actual or latent conflict (Nelson, 2000, p. 75). The challenge is to create a framework that informs a company of conflict dynamics and their role in it, but one that is streamlined enough to be put widely into practice at multiple levels in an organization. One framework has been created specifically for the extractive industries, and it is both comprehensible and comprehensive.

In 2005, International Alert published *Conflict-Sensitive Business Practice: Guidance for Extractive Industries* (2005). This guidebook has the advantage of focusing strictly on the extractive industries and being clear and readable, although it scales up rapidly in complexity. The International Alert guidebook has a concise introduction to conflict and extractive industries that is well-informed but an easily digestible 14 pages. A thoughtful read of these 14 pages by decision makers in junior resource companies would lay out the motivation for conflict-sensitive business practices, and bring a heightened awareness to firms that choose to ignore the consequences of their involvement in conflict-sensitive regions. Perhaps most importantly, this guidebook addresses the issue of conflict prevention and is not solely focused on operations in areas of open conflict. International Alert confirms the

importance of conflict conditions at the pre-operational stage, stating that the “absence of violence in a project area is no guarantee of what might happen in the future” (International Alert, 2005, p. 13). This is a point too often missed in other conflict analysis frameworks or in risk assessments conducted by junior resource companies. It is untrue that the absence of conflict eliminates the need for conflict analysis and this is especially the case in Africa, with so many of its countries harbouring preconditions for conflict.

International Alert’s guidebook is organized based on all stages of mining operations: exploration, pre-feasibility, feasibility, field development and construction, operation and production, and mine closure. The Screening Tool is a list of country-based conflict indicators for resource companies, and this means International Alert has gone where few others in the field have dared to go: creating an actual checklist. The merits of a checklist approach have been widely questioned in the literature, and conflict analysts rightly insist that conflict is far too complex to be reduced to a simple checklist. But they are missing the point. Resource companies, and especially small junior firms which may have only a handful of staff, don’t have conflict analysts available to understand and examine the complexities of conflict. And at the exploration stage, where success is unlikely and costs must be strictly contained, there may not be enough incentive to hire a qualified analyst. This is even more likely when considering an exploration venture in a region that does not exhibit open conflict. International Alert’s guide does what no others do, and provides an opportunity for Canadian junior resource companies to be informed on conflict conditions and potential in a country at the pre-operational stage, based on desk research and the International Alert Screening

Tool. The caution is once again raised, that given the complexity of conflict the screening tool is not a comprehensive assessment, and that the presence of conflict indicators listed in the tool can not reliably predict open conflict, just as the absence of indicators does not assure peace.

The Screening Tool is broken into four sections of questions related to governance, economy, socio-cultural and security issues, and provides web links that lead to information sources to answer those questions. Completing this 37 point checklist on country conditions would be an effective manner to raise awareness of conflict conditions at the pre-operational stage, and prevent junior resource companies from committing too early to a project surrounded by conflict conditions that they don't understand and could be costly to deal with later in the project cycle. The major drawback of the Screening Tool is its relevance to company/community conflict: the tool is designed specifically to examine country risk indicators. A version of the Screening Tool focused on local conditions would be helpful for assessing conflict risk at that level, but this presents one major problem. Most of the information required for the Screening Tool at the country level is widely available and can be accessed via the internet, and this is not the case for community information. In fact, getting information on local conditions in remote regions of Africa poses a huge challenge to proactive analysis, especially at the exploration stage. Conditions are only assessable in any meaningful way through an on-site investigation, and this requires resources. A comprehensive analysis, including stakeholder mapping, community engagement and conflict management planning requires yet more resources and time: up to two years for the core analysis and it is recommended as an ongoing activity (International Alert, 2005).

International Alert offers two tools for comprehensive conflict analysis, that of the Macro-level Conflict Risk and Impact Assessment tool (M-CRIA) and the Project-level Conflict Risk and Impact Assessment tool (P-CRIA). The M-CRIA is designed to provide a more detailed country analysis, and the P-CRIA is aimed at understanding local conditions and the influence of company activity on those conditions. These two tools are a good escalation of the Screening Tool, and provide the ability to move from an overview of conflict potential into a more comprehensive analysis and engagement. This is an important feature for small companies with limited resources, allowing them to scale up the resources dedicated to conflict analysis as they scale up their need for more comprehensive analysis.

Awareness of conflict potential is the first step of analysis, as without awareness the need for further analysis will not be recognized. An industry-led initiative developed by The Prospectors and Developers Association of Canada (PDAC) provides practical information on mining activities and the potential for conflict. The e3 (*Environmental Excellence in Exploration, 2002-2003*) initiative (e3 stands for Environmental Excellence in Exploration) is a free, subscriber-based online compendium of best-practices and current issues of CSR in the Canadian mining industry. e3 is not focused strictly on conflict and provides no formal conflict analysis methodology, but its value lies in pragmatic conflict awareness information that is a good first step in determining company influences on communities, and strictly from the perspective of Canadian mining companies. An additional benefit of e3 is its usefulness to exploration companies, which are often the first line of contact with communities. PDAC's e3

emphasizes a variety of issues that are not examined in other initiatives, and are particularly relevant to conflict prevention.

The role of community expectations in their relationships with mining companies is a critical point. Expectations are created within the community by exploration activities, and these expectations can be negative (environmental damage) or positive (employment). e3 acknowledges that most exploration projects fail to develop into full scale mining, and communities should be aware of this. According to Natural Resources Canada, the success rate for preliminary exploration is extremely low (Natural Resources Canada, 2006, p. 5). With success rates being so low, it may not be attractive for an exploration company to undertake conflict analysis prior to exploration. Exploration is also considered a low-impact stage of the mining cycle having less direct influence on communities. In this respect, e3 cautions exploration firms that “perceptions and opinions created during exploration will strongly influence” the community’s acceptance or rejection of potential development activities (*Environmental Excellence in Exploration, 2002-2003*). If a junior exploration firm is planning on developing a mine itself, selling the mineral rights, or partnering with a larger company to develop a mine, proactive conflict analysis lays the groundwork for a productive company/community relationship, or at least provides the opportunity to avoid strictly negative relationships. e3 contends that the past history of the mining industry can be a liability for positive company/community relationships, based on prior instances of irresponsible environmental and social performance, and this leads to suspicion of mining activities. e3’s coverage of conflict is not comprehensive by any means, and it does not offer conflict analysis tools, yet it does offer practical, industry-

focused information on working with communities and should be a motivator for companies to consider conflict analysis more carefully, even at the exploration stage. e3's comparison of exploration industry characteristics and community characteristics is particularly relevant, and is a first step in understanding some of the conditions influencing the conflict potential of extractive industries and communities. Most of the conditions that motivate exploration are diametrically opposed to effective community engagement. Exploration companies are comfortable with high levels of risk, they need to move quickly in their operations, tightly control costs while generating negligible income, and value secrecy and confidentiality (*Environmental Excellence in Exploration, 2002-2003*). This doesn't create a good foundation for open and transparent communication, which is a hallmark of community engagement. This identifies systemic problems rarely approached in current conflict analysis frameworks: the nature of resource exploration is not congruous to conflict-sensitive practices due to time, money and secrecy considerations; exploration activities hold high probabilities of failure, so investing early in conflict analysis is not a wise use of resources; and exploration activities, at least at the early stages, tend to have a small social and ecological footprint. There remains the fact that proactive conflict assessment at the earliest stage of an extraction operation is the most effective time to develop conflict prevention strategies but this is the least likely stage analysis will be conducted.

Conflict is a complex and dynamic issue and is difficult even for trained analysts to understand. Conditions for conflict between resource companies and communities are primarily based on identity issues and resource issues, and awareness of these underlying conditions is crucial to preventing destructive conflict. Early analysis of

conflict conditions is also centrally important to preventing hostile conflict. Analysis must be initiated prior to the start of exploration or extraction activities in order to have a chance to prevent conflict. Open conflict is most likely to erupt once a company has begun activities on the ground, at which point they have more to lose if the conflict escalates. Understanding the conflict potential of a resource activity is a complex task, but it is not beyond the reach of even small companies, using some of the tools reviewed here. A summary overview of conflict conditions in LDCs in Africa is infinitely more productive than initiating a project with no considerations of conflict. At the least, a general understanding of conditions ensures companies are not rushing in to an investment that will end up badly, not only for the company and its investors, but for the communities where the project is located. Ultimately, the reviewed frameworks offer a range of diversity and complexity to suit multiple situations based on a company's capacity and expertise. Most of the frameworks are better suited to organizations that have the resources to dedicate to prolonged and intensive analysis and ongoing engagement. Some provide an opportunity to simply raise a company's awareness of conflict conditions in a pragmatic, practical way. Given the complexity of the mining industry, social issues in developing countries, and conflict itself, it is unlikely that any framework, no matter how prudently crafted, will be adoptable by the small, aggressive exploration and development firms willing to accept high levels of risk in return for commensurate profits. Making the link between good business practices and conflict-sensitive practices may be difficult to do with mining companies that are more amenable to dealing with conflict issues through the blunt instrument of increased security and exclusion of local stakeholders. But for those firms prudent enough to reduce conflict

risk at the community level, and make an effort to better understand it, available frameworks make it possible for small companies to understand the consequences of open, destructive conflict with local communities. At a minimum, companies should read and understand the introduction to conflict analysis found in *The Resource Pack* reviewed earlier, as well as International Alert's introduction to conflict and extractive industries, found in their conflict-sensitive business practices literature. Using the International Alert Screening Tool for country conflict conditions would be a prudent step in greater understanding of potential conflict risk at the national level, and will provide greater insights into issues the company may face at the local level. Going further by adding a thorough read of Nelson's (2000) *The Business of Peace* will give any firm, no matter how small, a solid overview of conflict risk, conflict analysis and conflict conditions. *The Resource Pack* (Africa Peace Forum et al., 2004) reviewed earlier makes the benefits of conflict analysis clear, emphasizing that "some analysis, no matter how imperfect, is better than no analysis at all" (p. 3).

Modeling Conflict Analysis in Junior Resource Operations

A Systems Approach

Academic literature on conflict analysis refers widely to the concept of systems, and the importance of the interaction among individual elements of a system. When considering a system, it is not the individual parts that are most critical, but the interactions and relationships among those parts. In systems thinking, the most important aspect is the property of emergence: the individual entities of a system that exhibit different properties when considered as a whole (Checkland, 1999). This

research examines two systems based on Canadian junior resource operations in Africa. The first system has emerged from the examination of individual elements that influence considerations of binding regulation to prevent irresponsible mining activity in developing countries. The second system examined, using Soft Systems Methodology, is the potential for proactive conflict analysis to be integrated into Canadian junior resource activities in a feasible and desirable manner.

Factors Influencing Binding Regulation

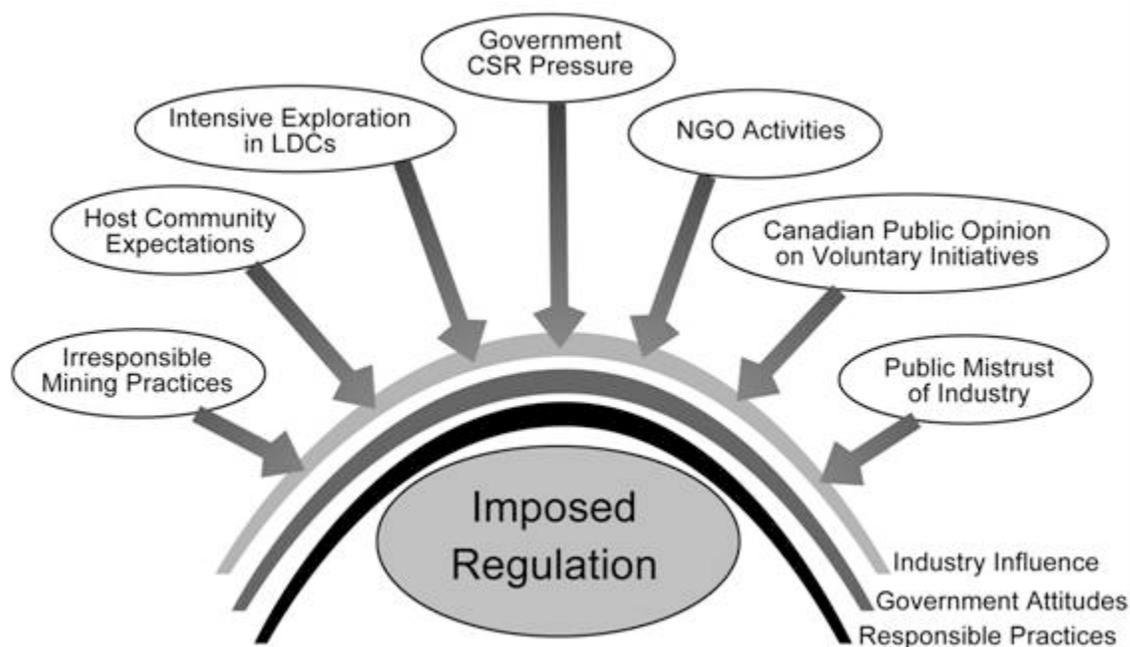
Canadian junior resource companies operate in a systemic environment that contains a number of concrete issues influencing binding regulation of corporate activities in developing countries. Mining companies themselves need to take the lead in developing credible, verifiable processes for ensuring their industry does its best to mitigate its influence on conflict in developing countries. The world was quick to act against “blood diamonds” when a small, persistent NGO linked the sale of diamonds to financing of violent, maniacal rebel groups in Africa. The mineral and petroleum industry is next in line, based on a unique combination of factors. It is somewhat remarkable that an industry that consistently proves its ingenuity, tenacity and ability to manage challenging operations in the most demanding environments on the planet has failed to come up with their own industry-wide initiative to analyze and manage conflict in their operations. A paper on the Prospectors and Developers Association of Canada website agrees that the “socio-political pressures on mineral exploration and mining are going to increase” (Joyce & Thomson, 2000, p. 6). The fall of Bre-X, a fraudulent Canadian junior mining company, caused losses of billions of dollars to investors, and resulted in stricter regulation of public disclosure of scientific and technical issues for

mining companies. A violent conflict between a Canadian junior firm and community that is widely covered by the Canadian media has the potential to initiate new regulations on mining conduct. The systemic environment in Canada is currently stacked against the resource companies.

Social and environmental expectations of mining activities across all stages of the mine cycle have changed over the past decade. Liberalization of mining codes in many developing countries has provided access to a wealth of new properties, resulting in more intensive exploration in LDCs. Conflict between mining companies and communities become likelier as NGOs and other interested actors, as well as communities themselves, have gained confidence in their ability to exhibit control over the “timing, direction and process of social, political and economic development” (Joyce & Thomson, 2000, p. 2). NGOs are well-connected and able to expose practices they consider irresponsible, and the Canadian public sees NGOs as a more trustworthy source of information than mining companies. Canadians as a whole do not believe that voluntary CSR standards are sufficient to govern overseas mining operations, and a 2006 poll found a majority think the Canadian government should enact laws to govern overseas operations of Canadian companies (Amnesty International Canada, 2006). Most Canadian junior resource companies do not adhere to voluntary standards such as existing CSR frameworks or codes. Recent government initiatives, notably the National Roundtables on CSR, call for a more comprehensive approach to monitoring corporate behaviour in developing countries, and recommend implementation of a voluntary national CSR framework with a compliance and grievance factor. A parliamentary standing committee also recommended closer investigation of the TVI-

Pacific conflict in the Philippines, and an earlier government panel investigated the actions of Talisman Energy in the Sudan. All of these elements working together are stimulating a climate that is predisposed to regulation (see Figure 1.1 below). What counterbalances these elements is the industry's traditional ability to influence government for regulations or guidelines that are favourable to them, the pro-business attitude of the current government (and previous governments), and the mining industry's existing, although limited, capacity to responsibly mitigate conflict in their operations.

Figure 1.1: Systemic Environment Influencing Binding Regulations



The current practices of responsible resource companies and their attitudes toward conflict is an important feature of this model for the industry as a whole. A small number of Canadian junior resource firms have CSR policies and are therefore predisposed to take an informed view of their potential influence on conflict. These firms will be punished by the public and governmental backlash that will ensue if one of the

industry's more irresponsible players is exposed as exacerbating a local conflict. The industry as a whole is not moving quickly enough to manage this unique risk, and current responsible practitioners should be at the forefront in developing conflict-sensitive Canadian business codes.

Soft Systems Methodology and Conflict Analysis

The diversity of Canadian resource companies and their activities makes establishing norms for conflict analysis, even voluntary ones, difficult at best. Culture in mining companies varies widely: some companies have extensive CSR policies which they are proud of, others consider that "CSR is an airy-fairy concept that is meaningless in our business" (Hassanein et al., n.d., p. 22). The nature of the mining cycle is another pointed challenge: conflict analysis is most effective at the earliest stages of contact with local communities, which is in the exploration stage of mining. However, exploration is a transient, low impact stage with a high likelihood of failure. According to an industry risk manager, exploration companies are reluctant to dedicate resources to exploration activities that are likely to fail. Additionally, exploration activities can take place over years, with short bursts of activity followed by long periods of nothing. Finally, there is the issue of transfer of exploration rights from company to company, and the hiring of subcontractors to carry out field activities. If there is no consistency in conflict analysis and subsequent engagement, the whole process of conflict prevention will suffer at the weakest link: a single company in the chain that acts irresponsibly and exacerbates conflict conditions. This is a complicated, ambiguous system.

Soft Systems Methodology is a good tool for investigating such complex systems and inherent problems that are not suited to strictly technical solutions. Soft systems

are ill-defined systems with no clear alternatives of action, and the methodology is designed to clarify the problem situation and the relevant system involved, look at the operations of that system, and compare conceptual systems with actual systems. The aim is then to identify systemic changes that are both feasible and desirable to address the problem situation. SSM is most beneficial when used as a participatory tool which includes those parties that must implement change. In this study, it is not possible to work collaboratively on an industry-wide level, as there are far too many and too varied industry actors. SSM is used in this research to identify broad issues identified by industry, government and NGO participants in this research, as considered and incorporated into SSM by the researcher. SSM provides the opportunity to study systems in five different manners: systems design, improving an ambiguous problem situation, historical analysis, surveying a particular subject of concern, and clarification of concepts (Checkland, 1999). This study is focused on improving an ambiguous problem situation, notably how to integrate conflict analysis into Canadian junior resource activities in Africa. The process is carried out over seven stages:

Stage 1 & 2 Expression: consists of a review of issues related to changing how an activity is done, and a description of the problem situation.

Stage 3 Root Definitions of Relevant Systems: expressing the core purpose of the human activity system being examined.

Stage 4 Conceptual Models: a model of the human activity system using the minimum set of activities required to complete the activity.

Stage 5 Comparison of Conceptual Model with Reality: determining how the conceptual model and reality are different and what makes them different.

Stage 6 & 7 Implementing Desirable and Feasible Changes: identifying a range of changes to structure, procedure and attitude that may remedy the problem situation.

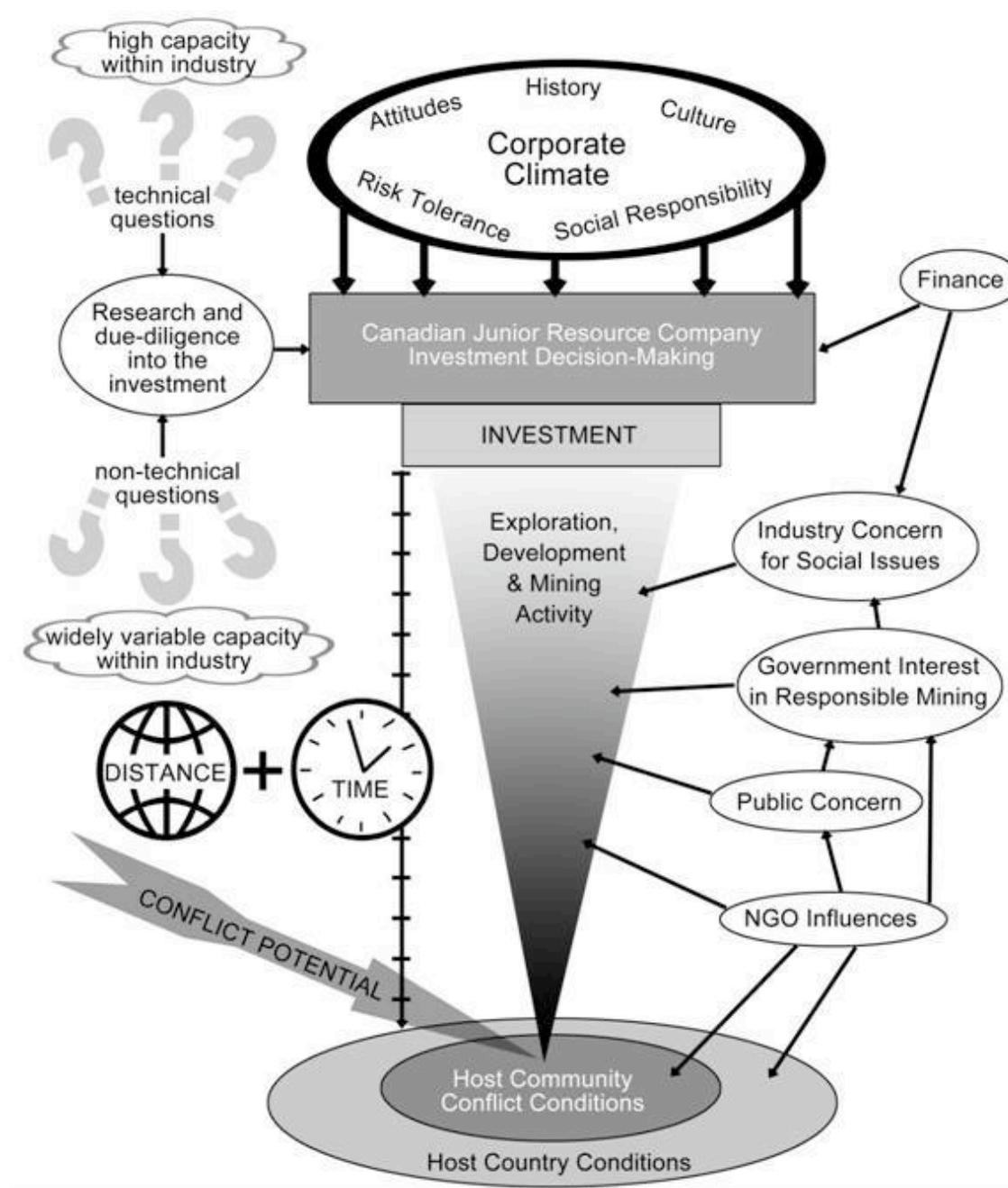
The outcome of this SSM analysis is not intended to be the optimal solution to the integration of conflict analysis and junior resource operations, but a discovery of barriers to integration, and some suggestions on removing those barriers. The end result is a determination of what might be done to integrate conflict analysis more closely with decisions on resource exploration and development.

Stage 1& 2: Expression

This paper has provided a wide range of information regarding the problem situation inherent in conflict analysis and its use by Canadian junior resource companies. There are benefits to be gained to both host communities and resource companies by proactively analyzing the conflict risk of resource operations, especially at the early stages of the mining cycle. There are some useful tools available for resource companies interested in learning more about the nature of conflict and the information required to understand the company's role in conflict, and in conflict prevention. It is widely considered outside the industry that resource companies do not take seriously their role in conflict prevention or in socially responsible practices as a whole. Adoption rates of any form of CSR policy are extremely low in Canada, especially among the juniors. These factors are responsible for creating a system that is unlikely to integrate conflict analysis into operations. There is certainly room for improvement, even from the industry perspective. One junior mining representative suggested that standards related to CSR in general and conflict management in particular would at least let mining companies know where they stand, and what the expectations of them are.

Based on the information gathered in this research, the problem situation can be more clearly expressed. Stages 1 & 2 serve the function of displaying the problem situation to reveal a range of potential choices for addressing it (Checkland, 1999). This stage is based on observations regarding structure, process and climate of the problem situation, and these observations are gleaned from the literature, as well as discussions with industry, government and NGO actors. SSM suggests the best way to provide expression to the problem situation is not with words, but with “rich pictures”. Rich pictures aggregate information and provide a model to “help the analyst to gain an appreciation of the problem situation” (Couprie, Goodbrand, Li & Zhu, n.d., p. 5). The rich picture of this study’s problem situation is presented in Figure 1.2 below. Structural elements incorporated into the rich picture are related to the hierarchy of resource investment decision making and its path to host communities, process is represented by the gathering of information related to both technical and social information of a particular resource investment, and climate incorporates issues of corporate culture and attitudes toward risk and social responsibility. This is a broad overview of the process and factors related to the integration of conflict analysis in Canadian junior resource companies. The challenge now is to select a notional system that can be considered most relevant to the problem.

Figure 1.2: Rich Picture of Problem Situation



Stage 3: Root Definitions of Relevant Systems

Close examination of a relevant system from the rich picture provides insight into the problem situation that may lead to feasible and desirable changes. There are many systems at work in the rich picture, and although these systems are influencing factors

in the overall situation, the analyst's job is to select a particular relevant system that is most salient to the problem. To clarify and define the relevant system, root definitions are created to provide a simplified version of a complex system. Modeling this system provides an opportunity to understand not how the real world works, but how the system *might* work in a logical and coherent manner to achieve its goals, and comparing that in a further stage to how the system *actually* works. Root definitions are based on transformation processes, which serve to take an input and convert it into an output. In this stage of SSM, the area of the rich picture to examine more closely is focussed on information gathering at the pre-operational stage of resource decision-making. The input of this system is information and the output is the decision to invest responsibly in a particular resource activity. The system can be described as "a system to invest in a resource activity, by properly understanding the influence the investment and subsequent activities will have on conflict conditions, in order to avoid exacerbating conflict conditions and create an operating environment that reduces negative impacts and increases positive impacts of the investment, adding value to the investment."

Six elements are included in the root definition of this system, based on the mnemonic CATWOE.

Table 1: CATWOE elements

Customer	Everyone who gains or loses from a system
Actor	Those who perform activities within the system
Transformation Process	A conversion of input to output
Weltanschauung	The worldview of the transformation process
Owner	The proprietor and controller of the system
Environmental Constraints	External elements to the system

CATWOE elements are described as follows.

- Customer: Canadian junior resource companies and their investors
- Actor: Risk managers, geologists and other relevant specialists charged with examining an opportunity to explore, develop or mine a resource deposit.
- Transformation Process: the input of information and the output of sound investment decisions.
- Weltanschauung: the belief that investments can be more successful by mitigating the potential for company/community conflict.
- Owners: executives and managers at Canadian junior resource companies
- Environmental constraints: investment climate, including home and host governance issues, commodity prices, preconditions for conflict and reputational issues concerning the extractive industry.

The root definition of this system is:

“A process within Canadian junior resource companies, directed by key personnel and supported by the executive, that gathers and analyzes technical and non-technical information at the pre-investment stage to create sound investment decisions that mitigate company/community conflict within the constraints imposed by the investment climate.”

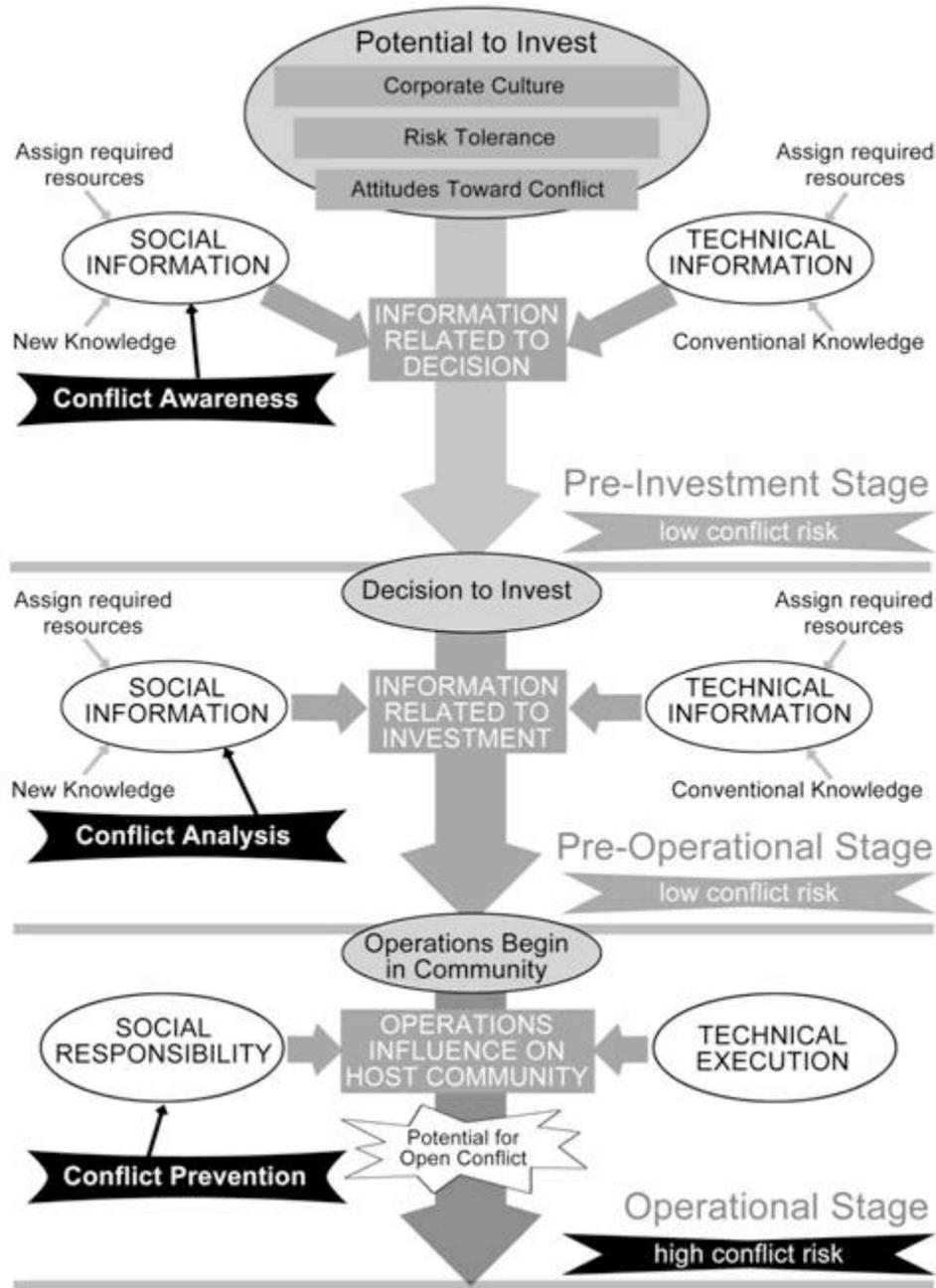
Stage 4: Conceptual Models

What kind of system can accomplish what has been described in the Stage 3 root definition? A conceptual model accounts for the activities the system must *do* in order to satisfy the root definition (Checkland, 1999). The conceptual model shows logical and potential activities for the system’s activities (Department of BIT, 2005). The

system is described in the minimum number of activities required to achieve its outcome, and must be evaluated through the three SSM criteria of efficacy, efficiency and effectiveness. Efficacy asks “does the conceptual system work?”, efficiency asks “do the resources required justify the outcome?”, and effectiveness asks “does the system achieve its long-term goals?” (Couprie et al., n.d.). In the conceptual model shown in Figure 1.3 below, it is possible that it meets the efficacy criteria by providing informed analysis of factors influencing an investment decision prior to that decision being made.

Efficiency is possible if the scope of technical and non-technical information required at the pre-investment stage is manageable for appropriate analysis, yet not beyond the resources allocated to it. Effectiveness is possible if the system supports informed decisions that influence activities at the pre-operational and operational stages of the investment in order to avoid destructive conflict when operations begin. If the conceptual model is a reasonable description of a system that would achieve the goal of the root definition, the next stage compares the conceptual model to the real-world model.

Figure 1.3: Conceptual System Incorporating Social Information



Stage 5: Comparison of Conceptual Model with Reality

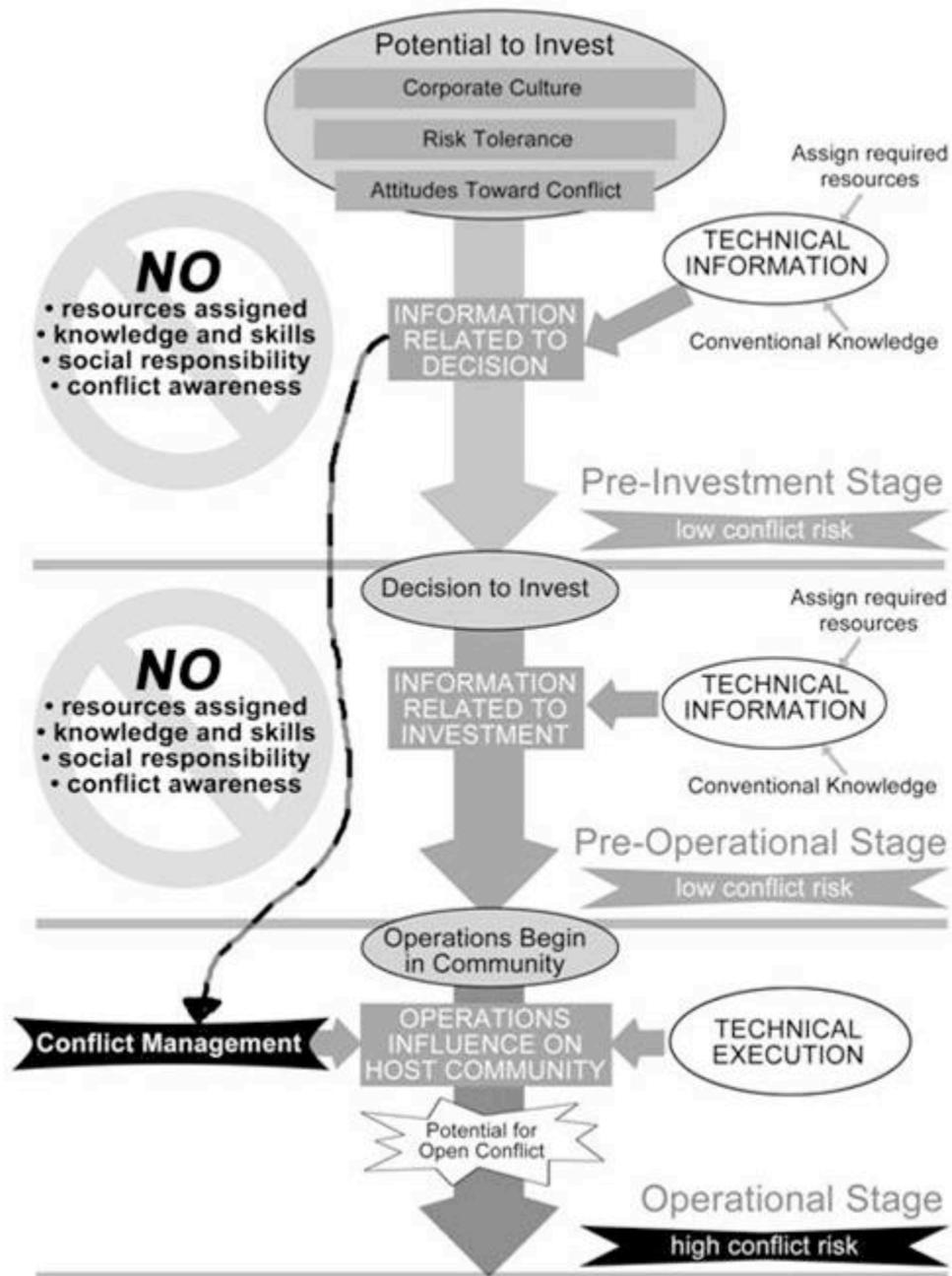
Checkland (1999) identifies four different methods of comparing conceptual models with reality. This comparison uses the “model overlay” method, which allows the analyst to directly compare the conceptual model to a real-world model with similar

form, in order to determine what is missing from the real-world model. This creates some problems regarding Canadian junior resource companies and their decision-making processes, since they vary widely across companies. As noted earlier, some firms conduct rigorous analyses of both technical (financial and geological issues) and non-technical information (social and environmental concerns), and some are notably less diligent. Some companies do not consider social considerations to be important aspects of investment decisions, and ignore conflict issues altogether. The conceptual system does in fact closely align to one research participant's methodology in determining conflict risk, alongside a range of other issues that influence their investment decisions. The reality model (see Figure 1.4 below) used in this comparison stage, however, is based on a company's consideration of strictly technical issues and the exclusion of non-technical issues such as conflict. Although this system describes the worst case for companies ignoring conflict concerns, there are examples of companies who have been caught completely unaware when local communities revolt against company operations. Joyce and Thomson (2000) affirm this reality model by declaring that in the exploration community's "knowledge of social and socio-economic matters is limited and the skills required...are not normally present" (p. 5). The differences between the two models are clear, and the effects on conflict potential are important.

The salient difference between the optimal model and the reality model is found early on, in gathering information relevant to the investment, whether an exploration activity or development of a mine. The reality model, if describing the least socially concerned Canadian junior mining companies, shows an absence of awareness and

concern for conflict conditions until they are manifest in open conflict, most likely after the operational stage begins.

Figure 1.4: Reality Model of System



Traditionally, decisions to invest in an exploration venture were made strictly on technical considerations, primarily centred on geology. Over time, mining codes in host

countries have adopted more stringent environmental regulations, although in some countries, such as Zimbabwe, these are easily circumvented. It has been suggested that technical and environmental issues lend themselves more easily to investigation as they are largely addressable through scientific activities, which are well-entrenched within the mining industry (Joyce & Thomson, 2000). Social considerations, mostly through the growth of CSR initiatives and the general movement toward more responsible corporate practices, still lag behind both technical and environmental considerations. Issues regarding conflict potential may be unaccounted for entirely in this system. Motivations for determining the technical feasibility of an investment are straightforward: investors are looking for the best return on their investment from resource exploration and reserve extraction. Environmental issues are regulated by host country mining codes, although the quality of environmental regulation can vary widely. Social issues may be regulated by a mining code's requirement of a social impact assessment. Rationale for assessing economic and environmental considerations is clear, and in some instances mandated, but social issues remain secondary considerations. There is little or no awareness of company/community conflict potential at this early stage.

The issue of awareness is critical at the early stages of investment decisions for two main reasons. First, ignorance of conflict conditions and the prevention of conflict can compound as a project progresses through the mining cycle. Ignoring conflict analysis entirely as an investment is pursued pre-empts the ability of a company to be proactive in assessing the conflict risk, and early analysis and engagement is central to conflict prevention. The company is moving forward with an investment with no idea

how that investment will influence existing conflict conditions and no idea what the negative effects of that influence might hold for its investment. Simply having an awareness of conflict conditions will help the company make effective choices in determining what kind of conflict potential exists, and how to analyze that potential. This prevents the company from being forced into a conflict management role once operations begin, a role that is far less cost efficient than conflict prevention. Second, once a company commits to an investment, a number of influences come into play. The company is often under intense cost pressure to move quickly in identifying mineral resources, and this motivates exploration firms to pursue that goal exclusive of other concerns. This is at their own peril in those cases where communities take action to interrupt exploration or mining activity due to unaddressed concerns. In the reality model, there is no connection between the potential influences of resource operations on conflict conditions prior to the operational stage, where conflict risk will be highest.

Stage 6 & 7: Implementing Feasible and Desirable Changes

What kind of changes would be required in the operations of Canadian junior resource companies to move from the reality model to the conceptual model of integrating conflict analysis into investment decisions? Using SSM, three types of changes can be recognized: changes to structure, changes to process and changes to attitudes. From the perspective of conflict prevention, these changes are both feasible and desirable. Given the wide variability of attitudes and practices within the Canadian mining industry, however, it is unlikely that these changes could be considered feasible or desirable by all actors. Barriers to change are discussed in greater detail following the options for change presented below.

Changes in Structure

Pre-investment decision making is based on a number of technical and non-technical issues related to the probability of locating, developing and exploiting mineral resources in an economically viable manner. There are regulations that Canadian junior resource companies must follow when making public claims regarding potential mineral deposits, and there are regulations that mandate certain environmental practices that must be accounted for in considering an operation. There are no regulations regarding social issues, other than those required under a social impact assessment. There have been calls from various interested parties to implement regulations governing corporate conduct of Canadian firms operating overseas, but these are, unremarkably, strongly resisted by the mining industry. There are two major structural changes in the reality model that would motivate Canadian junior resource companies to take into consideration conflict analysis prior to making investment or operational decisions. First, companies could leverage existing practices of conflict-aware members of its own industry to develop guidelines for conflict prevention. This would give industry a proactive role in developing changes to existing decision-making processes based on best practices. The Prospectors and Developers Association of Canada (PDAC) has recently made CSR one of their central areas of concern, and sets a goal of providing leadership in developing a CSR framework for the Canadian exploration and development industry. Given the low adoption rate of CSR policies of any kind by Canadian junior resource companies, it is unlikely that voluntary adoption of conflict analysis practices will be successful. It remains to be seen how effective PDAC is at changing their members' attitudes towards CSR in general and conflict prevention

in particular. PDAC's attention to these issues at its 2007 conference may signal the beginning of that change. Second, regulation imposed by the Canadian government would motivate closer scrutiny of conflict conditions, just as new regulations following the Bre-X fiasco changed how information on resource deposits was presented and verified. A new regulatory environment could force awareness of conflict issues at the earliest stages of decision-making, and make conflict prevention more likely. With the systemic pressures already aligned against the mining industry for voluntary initiatives, regulation is a possibility. Most industry actors, however, do not consider regulation of either CSR or conflict sensitive practices to be likely or necessary. One exploration manager contended that the greatest barrier to mandatory guidelines would be enforcement. At this point, the Canadian government, which would be the relevant regulatory body, finds a number of "practical policy challenges in translating (CSR) recommendations into practice" (Prospectors and Developers Association of Canada, 2007, p. 1). There is, however, concern within both the government and Canadian citizens over irresponsible practices by Canadian mining companies, as the recent national roundtables on CSR in the extractive industry have shown. Increased demands from public, NGO and government actors for industry accountability would provide the incentive to overcome the practical policy challenges currently restraining government regulation.

A key leverage point for ensuring responsible conflict analysis in decision making is the financial sector. Some lending institutions subscribe to the Equator Principles, a series of ten principles related to responsible investments that integrate environmental and social impact assessments into finance agreements. Adherence to these principles

is limited to signatory banks providing project finance greater than \$10 million, and will not have a broad influence on Canadian junior decision making. The Toronto Stock Exchange is a major leverage point in the overall system that Canadian juniors operate in, however it is not feasible that this bastion of free-market entrepreneurship would consider regulating its clients' conflict analysis practices. Providers of political risk insurance could be more tightly integrated into early decision making, recognizing risk reduction inherent in proactive conflict analysis. Many smaller companies find the costs and documentary burden of political risk insurance too high to bear, and this limits the relevance of political risk insurance's influence on junior resource conflict analysis practices (Lovric & Wexler, 2005). Whatever the leverage point, it is clear that some Canadian junior mining companies need a strong incentive to conduct their operations in a way that minimizes the potential for conflict.

Changes in Process

Industry-wide process changes in the Canadian junior resource sector are unlikely unless some of the structural changes above are implemented. One process change would be the adoption of frameworks for conflict analysis and management, or the development of a new framework specifically tailored for the needs of the Canadian junior resource industry. A new framework should be more scalable than existing frameworks, providing the opportunity for the widest range of companies to utilize it. Although simplified conflict analysis frameworks are less likely to provide accurate information on conflict conditions, they can serve to raise awareness of conflict issues at the pre-investment stage. Most importantly for process is ensuring stronger linkages between conflict conditions and prudent investment decisions. Conflict considerations

need to be moved up in the assessment of exploration, development and mining impacts and not be left until operations begin, or worse when conflicts begin. Latent conflict becomes active conflict most often after operations have commenced, and it is conflict at the latent stage that must be considered and addressed before it becomes active and impacts operations on the ground. This means that resource companies must pre-emptively analyze conflict, when in fact they may see no conflict to analyze. Since conflict conditions can be strongly influenced by mining operations, these influences must be recognized in early due-diligence processes. Changes to current investment assessment processes in order to integrate awareness of conflict conditions will create an opportunity to understand how mining activity may exacerbate conflict conditions. This should happen at both the pre-investment and pre-operational stages to be effective. Further research is required into the concrete links between lower operating costs and conflict prevention, and this information could motivate investors to demand greater awareness of conflict conditions at the pre-operational stage of a resource investment. Open conflict can erupt once an insufficiently planned project is underway, but the potential for the conflict exists much earlier, when decisions to invest are made. A closer linking of the influence of the investment decision with the potential for conflict ensures investment decisions take into account negative consequences of ignoring conflict conditions before resource activities provide a trigger for them.

Changes in Attitude

Changes to structures and processes in the existing decision-making system are challenging to address, but changes in attitude are often the most reluctant to take effect. This widely variable industry requires greater cohesion in social practices if it is

to be successful in analysing and preventing conflict in the future. One prominent change is in understanding the relationship between conflict conditions in host communities and the conflict risk posed to a company's operations. Conflict analysis can be directly linked to economic and operational concerns, and should not be considered strictly a social responsibility issue. There are real, tangible benefits to be accrued to prudent conflict analysis, as identified earlier in this paper and by other research, including from within industry. Early thought to the influence of operations on the host community could prevent costly errors, yet the practice is not widely entrenched. Many mining companies lack the skills to conduct any form of conflict analysis, although these skills can certainly be contracted. Developing the skills required to be aware of conflict issues should be covered in the mining schools and geology departments of Canadian colleges and universities, thus providing the skills and expertise the industry currently lacks.

Barriers to Change

The Canadian resource industry is amazingly innovative, leveraging tremendous ingenuity in its ability to economically locate and develop mineral resources under the most demanding circumstances. This reliance on technical ability and a can-do attitude have not positioned the industry well to respond to pressing social concerns. There are also a number of pragmatic reasons Canadian junior resource companies do not integrate conflict analysis into their activities. Although Canadian companies work in many conflict-prone regions, open conflict between communities and companies in Africa remains either rare or unpublicized. This reduces the incentive for companies to commit resources to conflict analysis, based on the perceived low probability of open

conflict. Companies who are exploring for minerals also lack incentive to ensure their operations do not influence conflict conditions, as they are highly mobile and itinerant at the exploration stage and do not perceive grave risks from latent conflict. Finally, proactive conflict analysis in any form is no guarantee of conflict prevention. Mining companies with a high degree of operational competence may just as well decide that dealing with conflict when it arrives is a more effective manner than preventing it before it begins.

This chapter has examined, from a systems perspective, the potential changes required in the Canadian junior resource sector to adopt more prudent and successful strategies for understanding and mitigating conflict in their operations. The existing systemic environment in Canada regarding junior resource operations in developing countries will lead to some form of regulation in the future, especially given a violent and well-publicized conflict somewhere. The junior resource industry, and mining in particular, are poorly positioned to deal with any form of regulation, whether mandated by government or voluntarily imposed by an industry organization. Junior resource companies and their operations represent complex, ambiguous systems with a wide range of diversity among companies, skills, attitudes and host-country conditions. The changes to structure, process and attitude identified in this research are not simple to implement. Changes in structure require a more concerted government or industry mandated regulatory framework to promote best practices and punish those firms that exacerbate existing conflict conditions in developing countries. This will provide the motivation for the process changes identified, which require adoption of existing conflict analysis frameworks or development of a new, “made in Canada” conflict analysis

framework. Of utmost importance is to make junior resource companies aware of the benefits of proactive conflict analysis, and to provide the tools to conduct conflict risk assessments prior to beginning operations. Being proactive with conflict analysis, and integrating analysis into early business decision making, will reduce the opportunity of junior resource companies to begin operations only to come under threat from local communities. Conflict prevention will replace conflict management, and create opportunities to build positive relationships with local communities. This provides resource companies with bottom line benefits over and above operating as a socially responsible company. Changes in attitude require a rethinking of the nature of conflict and business, and a move away from considering conflict impact as a socially responsible business practice. Certainly, there are a number of socially positive aspects to conflict prevention, but in the junior resource industry, many companies are not concerned with the social responsibility of their operations. Understanding that there are also clear operational and economic benefits to proactive conflict analysis will make the concept more attractive to even the most profit-oriented companies.

Conclusion

The influence of Canadian junior resource activity on existing conflict conditions in Africa can range from marginal to profound. Pre-operational systemic conditions in many regions of Africa mean that the addition of mining activities creates emergent properties that can quickly exacerbate conflict conditions. It is critical that resource firms working in developing countries clearly understand the impact their operations will have on a region's existing or potential conflict. Many different factors are increasing

the conflict risk posed to Canadian junior resource companies operating in Africa. The industry as a whole does not effectively consider the influence of their operations on conflict conditions at an early enough stage in their planning cycle. Conflict analysis at the pre-investment and pre-operational stages provides the greatest opportunity to identify factors likely to aggravate open conflict, and allows time for development of strategies to mitigate these factors. Although Canadian junior resource activities may not be widely influenced by conflict, except in particular highly publicized cases, the impact of conflict on operations can have serious economic and reputational effects on the company. A stronger link needs to be made between conditions for conflict on the ground and the economic advantages to analyzing those conditions at the pre-investment stage. Making the case for proactive conflict analysis should be based more squarely on sound business practices and less on social responsibility issues. What is clear is that investing into a project in a conflict-sensitive region without prudent analysis can lead to increased costs, hold up of operations, delays in production and possibly plant shutdown.

The systemic influences of mining operations on conflict conditions need to be understood and mitigated at the pre-investment stage, but this stage is primarily concerned with technical issues. There is a low-level of awareness of social issues at the pre-investment stage, and most firms lack the skills and resources required to undertake a useful analysis of conflict conditions. Conflict analysis tools available for the extractive industries favour large corporations with resources to allocate to conflict analysis. Smaller players would be unlikely to wade through the wealth of literature on conflict analysis, or even adopt one of the more approachable frameworks. Raising

awareness of conflict issues is the first step in integrating conflict analysis into Canadian junior resource decisions, and that awareness can then be leveraged toward more detailed analysis. Without greater awareness of the benefits of proactive conflict analysis and the disadvantages of company/community conflict, few firms will be willing to invest time, money and effort in any form of analysis. In reality, the most likely adopters of conflict analysis at the pre-investment stage are either companies concerned with reputational issues, companies that currently pride themselves in their socially responsible practices, or those companies that have invested too quickly in a conflict-sensitive region and suffered the consequences. Given the pressures on resource companies and the opportunities they seek in unstable African nations, the combination of a poorly researched mining investment and conflict conditions on the ground will inevitably create another convert to proactive conflict analysis. But at what cost?

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Appendix A

Survey of Canadian Junior Mining Companies Active in Africa

First, I want to establish some information on your company.

1. Is your company a Canadian company with interests in Africa?
 - a) Yes
 - b) no
2. Your company has
 - a) fewer than 25 employees
 - b) fewer than 100 employees
 - c) more than 100 employees
3. What are your primary activities in Africa
 - a) exploration
 - b) development
 - c) mining
 - d) combination of above

Survey Questions:

4. Does your company conduct conflict impact assessments, or otherwise assess conflict risk, as part of its business planning for projects in Africa?
 - a) yes (move to section A)
 - b) no (move to section B)

5B. Section B (no)

Which of the following best describes why your firm does not assess conflict risk in business planning for projects in Africa:

- a) there is little or no conflict where you operate
- b) your firm lacks the expertise to carry out conflict risk assessments
- c) it would be too expensive to assess conflict risk
- d) conflict risk assessment doesn't add value to what you do
- e) other:

5A. Section A (yes)

How does your company assess conflict risk?

- a) informally, through public information from web sites, newspapers, etc.
- b) you hire outside consultants to assess conflict risk
- c) you use an internal conflict assessment process specific to your firm
- d) you rely on an externally developed conflict assessment process
- e) other

6. Has conflict risk ever been a factor in your company choosing to:

- a) avoid operations in a region
- b) abandon operations in a region
- c) both
- d) either

7. Do you think it's likely that the Government of Canada will implement binding CSR regulations governing the conduct of Canadian resource companies in developing countries?

- a) yes
- b) no

Appendix B

Conflict Analysis Frameworks Considered for This Paper

Benefits/Harms Handbook: CARE

Better Programming Initiative & Resource Pack: IFRC

Conducting Conflict Assessments, Guidance Notes: Department for International
Development

Conflict Analysis Framework: World Bank

Conflict Assessment Framework: USAID

Conflict Sensitive Business Practices: A Guide for Extractive Industries: International
Alert

Corporate Engagement Project: Collaborative for Development Action

e3: Prospectors and Developers Association of Canada

EC Checklist for Root Causes of Conflict: European Commission

Manual for Conflict Analysis: SIDA