The costs of conflict with local communities in the extractive industry

Rachel Davis
Corporate Social Responsibility Initiative, Harvard Kennedy School, Harvard University, USA

Daniel M. Franks
Centre for Social Responsibility in Mining, The University of Queensland, Australia

ABSTRACT
The extractive industry has the potential to significantly transform environments, communities and economies. At times, such transformation may manifest in conflicts or disputes between a resource developer and local communities, or even complete breakdown of the company’s social licence to operate—with associated costs for the company, local communities, and the broader public. This paper aims to build knowledge about whether and how extractive companies assess, aggregate and understand the costs of conflict with local communities around their operations, and the potential loss of value where they do not do so. The objective is to explore the business case for improved risk management and community relations in the extractive industry as a whole.

Through in-depth, confidential interviews with over 40 key individuals (primarily from extractive companies but also including industry bodies, corporate law firms, insurers and research institutes) on the costs of company-community conflict, the paper draws insights from how companies are responding to mitigate or avoid the occurrence, extent and costs of such conflict. From these interviews, and detailed case analysis, the paper identifies potential costs that can arise for extractive companies at different stages of a project’s life cycle (for example, costs to financing, construction, operations, reputation, etc.). A typology of costs is developed, tested and applied to 25 cases of company-community conflict in the extractive industry. The paper concludes by drawing on this evidence base to reflect on the business case for improved risk management aimed at preventing and mitigating company-community conflict.
INTRODUCTION

Extractive resource developments are intensive activities that bring significant economic, social and environmental change (Hilson, 2002; Bridge, 2004; Franks, 2011). Developments (including exploration and processing activities) have the potential to bring economic, social and even environmental opportunities through the conversion of natural resource into financial resources, the investment of those resources into environmental and social programmes, and the development of social capacities and skills, infrastructure and business (Franks, 2009; Kemp et al., 2010a). Conversely, they also can negatively impact the environments, communities and economies surrounding deposits, reservoirs and processing facilities.

Change is experienced differently by different stakeholders and this creates the potential for conflicts when costs and benefits are inequitably experienced or when developments are not compatible with interests and values—or when they are perceived as incompatible. This is a key issue for companies in the extractive industry (Kemp et al., 2010b). There is enormous pressure in and on the industry to get resources out of the ground. Yet it is still struggling with the associated challenges. A 2008 study of 190 projects operated by the major international oil companies shows that the time taken for projects to come on-line has nearly doubled in the last decade, causing significant increase in costs (Goldman Sachs, 2008). A confidential follow-up of a subset of those projects found that non-technical risks accounted for nearly half of the total risks faced by these companies, and that stakeholder-related risks constituted the single largest category (Ruggie, 2010).

Understanding and mitigating the potential for such conflict is not about adopting a simple cost/benefit approach to managing the company’s social impacts (Paine, 2003). Rather, it is an essential element of broader corporate risk management in the extractive sector (Herz et al., 2007).

Many companies are familiar with costing and managing various potential areas of conflict in their operations—including employee, consumer, ‘business-to-business’ and ‘business-to-government’ disputes. Responsible companies also understand the importance of the potential costs arising from failures in their health and safety and environmental systems. However, it is not clear that companies are as advanced in understanding the costs of conflicts with local communities or that they effectively analyse the costs that can arise at different stages in a project’s life cycle (for example, costs to financing, construction, operations, reputation etc), aggregate those costs over the full life of the project, and recognise the potential value that is at stake (for example, opportunities for early completion, additional revenue etc). Clear lines of accountability also may be lacking, especially where no single company is involved in the full life-cycle of the project—creating the potential for disputes and confusion over where responsibility lies for conflict arising from actions taken at earlier stages.

While communities, governments, and other actors can and do experience significant costs arising from company-community conflict, the focus of this research is on identifying the costs and value forgone by business enterprises, in order to help build the business case for improved risk management aimed at preventing and mitigating company-community conflict.

METHODOLOGY

In this research, ‘costs’ are considered to be the negative impacts on a company’s tangible and intangible assets from failing to avoid, mitigate or resolve conflict with local communities at an early
stage, as well as the potential value for e.g., one. ‘Conflict’ is defined broadly along a continuum, from low-level tension to escalated situations involving a complete relationship break-down or violence.
In this paper, we report on some of the main results of over 40 in-depth, confidential interviews with key individuals—primarily from extractive companies, but also including industry bodies, corporate law firms, insurers and research institutes—about the costs of company-community conflict. Questions focused on the most frequent types of costs that arise from such conflict; the methods used for identifying, assessing and aggregating them; where responsibility for managing them is assigned; whether information about such costs is used for the purposes of wider decision-making and/or incentive structures; and what the major incentives and disincentives may be for extractive companies to better understand such costs.

On the basis of these interviews, related field research, and detailed case analysis, we develop a classification or typology of costs experienced by extractive resource companies as a result of conflict with local communities (Appendix A). We also present a dataset of 25 cases of conflict arising in the minerals sector, coded according to the typology. Material for the case analysis was drawn from primary and secondary data sources, including fieldwork, media, company reports, advocacy and industry organisations, academic literature, legal cases and other publicly available data. Case details have been anonymised and, where possible, sources have been triangulated to improve accuracy. Data collected for the case analysis include details on the operation and the relevant community (or communities); the issues in dispute (both proximate and underlying); the manifestations of the conflict; and details of the costs experienced by the companies involved. The coding does not differentiate between alleged and actual issues in dispute, partly due to the difficulty in reaching an objective assessment in any particular case, but also in order to capture the diversity of perspectives among the parties to conflicts.

RESULTS AND DISCUSSION

Results from interview-based research

The main findings from the interview-based research were focused around: the most frequent, greatest and most often overlooked costs arising from company-community conflict; whether quantification is a useful ‘language’ internally in this area; the extent to which such costs are taken into account in existing management systems relevant to company-community conflict; and the challenges posed by competing internal pressures and incentives when it comes to improved prevention and management of conflict.

What are the most frequent, greatest, and most often overlooked costs?

The most frequent costs identified by interviewees were the costs arising from lost productivity due to delay. The greatest costs were seen as the opportunity costs arising from the inability to pursue future projects and/or opportunities for expansion or for sale, as a result of company-community conflict. The costs cited by interviewees as the most often overlooked were those resulting from the additional staff time needed when conflicts arise or escalate.

In terms of lost productivity, the interviews confirmed that a major, world-class mining project with capital expenditure of between US$3–5 billion will suffer roughly US$20 million per week of delayed production in Net Present Value (NPV) terms. Even at the exploration stage, costs can
accrue. In the case of a serious exploration project for a new mine, around US$ 10 000 will be lost every day of delay in terms of wages, idle machinery and so on.

As noted, the most frequently overlooked cost cited by a significant number of interviewees was staff time devoted to managing conflict, especially at senior management level. For one company, the working assumption is that 5% of an asset manager’s time should be spent managing social risk; yet for one of their subsidiaries in an African country it is in fact 10–15%, and in one Asia-Pacific country it is as high as 35–50%. In other cases, senior management were estimating that assets worth 10% or less of the company’s income were demanding more than 80% of senior management time, including in one case, of the Chief Executive Officer’s.

The issue of personnel time is closely related to that of opportunity costs—generally regarded as the greatest costs arising from company-community conflict. As one interviewee recounted: “I had a meeting with the CEO and CFO [of a large mining company operating in a conflict-affected country] and they were very clear. They said ‘Listen, [Country X] is only 5% of our turnover. We have vast business opportunities in [neighboring Countries Y and Z] and in the rest of the world. We simply don’t have time to look at this stuff. Because [X] is absorbing all our time. It is not about money, it’s about opportunity cost’.”

Is quantification a useful ‘language’?

A range of views was expressed about the utility of assessing and aggregating costs related to company-community conflict. There was a broadly expressed opinion, however, that quantification can play a key role in reaching two different groups within the company: senior management and the financial team.

The interviews confirmed that stakeholder-related project risk is generally not aggregated across all operations; the focus is usually on the social issues raised by the most important projects, financially speaking, from the company’s perspective. A number of interviewees stated that improved understanding of the costs of conflict is essential to better communication about the value of community relations and sustainability functions. Several interviewees, from different departments within extractives companies, saw a real need for community relations staff to learn the ‘language of costs’ in order to better make the case for early mitigation and remediation planning.

The challenges of quantifying community support, as opposed to the costs of conflict with communities, was frequently raised. A comparison was made by more than one interviewee with the health and safety area, where ‘zero incidents’ can more easily be equated with good performance. Several felt it helpful to highlight the loss of value to a company in failing to secure the benefits of building sustainable community relationships, a resilient supply chain, or a secure local workforce, so as to frame the picture more broadly than a purely risk-based approach can. A number of interviewees stressed the importance of an ‘intelligent’ community relations spend that is distinct from the budget for community development. Of course, where a company has not assessed its costs arising from a problem it can be much harder to see the benefits in fixing the problem, as opposed to fighting it.

There was a general recognition that cost assessments are ‘only as good as the data’, and that this will vary by project and by the ability to isolate causal factors. A few interviewees queried the utility of group-wide aggregation, as opposed to on a country, operating environment, or issue basis. The real question, in their view, was which lens would best help make the business case to senior management.
How are the costs of conflict taken into account in existing systems?

A significant number of interviewees stressed the importance of avoiding taking a cost/benefit approach to managing social risk. They saw a clear need to distinguish efforts to assess or aggregate costs in order to help make a business case that is linked to the company’s values from a prospective and ongoing management model for company-community conflict, which may potentially lead to a cost/benefit approach. Rather, the focus should be on internalising the lessons derived through retrospective and illustrative approaches (such as root cause analysis).

A number of companies already integrate stakeholder-related concerns into initial social impact assessments, but the timeframe for addressing social risks is usually dictated by other project factors (in the words of one interviewee, “CSR follows the geological assessment”). Some are in the stage between planning to integrate social issues and actual implementation; others simply do not consider these issues sufficiently yet (according to those inside the company); and some see them as optional ‘add-ons’ to broader due diligence processes (for example, in brownfield projects).

There was real variation among companies’ approaches to including stakeholder-related risks in basic risk mapping processes. Variation was also seen in the use of grievance and commitment registers (which, it was acknowledged, can be critical tools for handling raised expectations, especially with the frequent rotation of staff during the production phase). Two companies were in the process of instituting standardised complaints and grievance procedures for social incidents throughout their operations. Interviewees predicted that it would take time to develop a corporate culture that was supportive of the new procedures, but that they would help the company identify trends and emerging problems.

Competing internal pressures and incentives

A number of interviewees felt that there was ‘no clear reward for getting it right’ in this area. There were, however, some potentially promising examples cited, such as: the creation of parallel reporting structures for technical and non-technical risks at the General Manager level; tying a country Vice President’s bonus to zero down days due to community unrest; and integrating social performance into the bonus structure for all local staff.

There was general agreement that responsibility for social issues needs to reside with the General Manager. Most operational staff and General Managers have bonuses that are driven by production and safety targets. Some companies are trying to introduce social KPIs, but they are a minority. The role of leadership was frequently cited as essential, and the danger of mixed messages from senior management identified as a significant challenge.

A common theme emerged around the pressures of quarterly or annual production targets. Short-term production targets were seen as incentivising individuals while potentially penalising the company in the long-term. Problems of timing were also brought up in relation to the discrepancy between the raised expectations that communities have early on in a project’s life cycle versus the reality of late liquidity, and in the difference between an early investment spend and an early investment of time in building sustainable relationships. Where a company fails to make the necessary front-end investments in managing these risks, this can lead to ‘downwards pressure’, once problems arise, from the commercial or business function on community relations and others to ‘just fix it’ – often leading to further escalation. A number of interviewees remarked on the fact that it had taken a ‘tipping point’ or major ‘disaster’ with real cost implications for their company to
see the value in better management of social risk. To the extent that quantification can help avoid the need for companies to reach such a ‘tipping point’ before this shift occurs, it was seen as particularly valuable.

**Results from case analysis**

Appendix A sets out the typology of costs developed through this research. Twenty-five cases of company-community conflict in the extractive industry were then analysed using it.

Cases were located in: South America (9), Oceania (9), Asia (3), Sub-Saharan Africa (3) and Central America (1). The commodities targeted for extraction included gold (11), copper (8), coal (2), platinum (1), diamonds (1), uranium (1), and oil shale (1). Ownership was predominantly by major (12) and mid-tier (8) companies, with a smaller number of state owned companies (1), operating juniors (3) and exploration juniors (1). The majority of cases were in the operations phase (15; of which one was abandoned) or construction phase (5; of which two were abandoned and one suspended). A lesser number were in prefeasibility and feasibility (3; of which two were abandoned), exploration (1; none abandoned or suspended), expansion (1; none abandoned or suspended), and closure phases (1; none abandoned or suspended).

While details on the issues in dispute, the manifestations of conflict, and the existence of certain types of costs to the company were relatively easy to identify from secondary data sources (except for costs such as increased insurance premiums, staff retention, the ability to raise new capital and share price instability), data on the magnitude of costs were very difficult to source from information in the public domain. Where detailed cost data were available, contextual information was often missing (such as the currency the cost was incurred in or whether the cost was insured). Such data are therefore not reported here.

**Issues in dispute**

The most frequent issue in dispute was that of pollution, with 21 of 25 cases exhibiting pollution as a proximate issue in the conflict (see Figure 1). Of the remaining cases, pollution was identified as an underlying issue in two conflicts. Access to, and competition over, resources also featured highly with 10 of the 25 cases exhibiting it as a proximate issue and an additional 10 as an underlying issue. Community health and safety was identified as a proximate issue in nine cases, and an underlying issue in additional nine. Seven of the cases featured resettlement as a proximate issue. Resettlement was not identified as an underlying issue in any cases, suggesting that where resettlement issues were in dispute they were at the forefront of expressed concerns. Similarly, where consent was identified as an issue, it was also mostly characterised as a proximate issue (in nine of 25 cases; with an additional two cases where it was an underlying issue). This contrasts with the distribution of benefits, which was identified as a proximate issue in only three cases but as an underlying issue in 18 of the 25 conflicts. Consultation and communication featured as a proximate issue in 12 cases, and an underlying issue in an additional 6 cases. Fourteen of the 25 cases involved indigenous peoples as one of the social groups affected by or involved in the conflict.

**Manifestations of conflict**

The dataset reveals that in the vast majority of cases conflict manifested in part as procedure-based actions, such as submissions (to government or to the company; 23), administrative proceedings
(17), litigation (16) and publicity campaigns (23; see Figure 2). Many of the cases also featured physical protests such as demonstrations (22) and blockades (14). A minority but still significant number of cases involved violence to property (9) or violence to persons (9), with eight cases involving one or more deaths.

**Figure 1** Issues in dispute

**Figure 2** Manifestations of conflict
**Types of costs to the company**

The findings of the case analysis concerning the types of costs experienced by the companies involved are generally in accordance with the interview data. The most frequent costs identified were staff time spent on risk and conflict management (21) and disruption to production (14; see Figure 3). Approximately one third of the cases involved the loss of the value of the property (in part or full; 9). A number of cases also involved damage to private property (9), the discontinuation of the operations or development (6), and, in a few instances, injuries and/or deaths of staff (5).

![Figure 3 Types of costs to the company](image)

**CONCLUSIONS**

Conflict with communities clearly has the potential to lead to serious costs to the companies involved—as well as to the communities themselves, governments and broader society. The case analysis and interview-based research both confirm that some of the most significant costs to companies relate to disruptions to production, lost opportunities, and the amount of staff time spent managing existing or escalating conflict.

The findings from the case analysis run counter to literature that describes local communities as ‘powerless’ in their relationships or interactions with large business enterprises. While power imbalances are often stark, this aspect of the research suggests that mobilisation by social groups in
opposition to extractive sector activities, when those groups perceive that their interests and values have not been addressed or otherwise taken adequately into account, can generate a wide array of costs to industry actors.

Community relations approaches can help shape extractive companies’ actions so that they are more socially, culturally, and environmentally responsive to the communities they impact. By addressing real and perceived community concerns, including by helping to resolve disputes before they escalate, the practice of community relations has the potential to reduce the risk of actions such as blockades, protests, campaigns, legal suits or sabotage, thereby also reducing the costs to the company that such actions can generate.

Relevantly, the findings from the interview-based research suggest that quantification of the costs of company-community disputes can be a powerful (though not the only) ‘language’ within a company to help generate heightened understanding and support for the community relations function. However, they also revealed significant variance in the extent to which these potential costs are factored into existing management systems relevant to company-community conflict, as well as the challenges posed by competing internal pressures and incentives. Interviewees highlighted the potential for greater understanding of such costs to help speed up learning within individual extractive companies, and within the industry as a whole, about the importance of improved prevention and management of conflict.

Taken together, the case analysis and interview research suggests that improved understanding of the value forgone by extractive companies through conflict with local communities has the potential to translate into a strong business driver for greater attention to social, environmental and economic issues.

REFERENCES


Goldman Sachs (2008) 190 projects to change the world, Global Investment Research, April 25.


APPENDIX A—TYPOLOGY OF ISSUES, MANIFESTATIONS OF CONFLICT, COSTS TO, AND RESPONSES BY EX extrACTIVE COMPANIES ARISING IN RELATION TO COMPANY-COMMUNITY CONFLICT

Issues in Dispute

1. Social and cultural change (potential ‘p’ or actual/alleged ‘a’)*
   a. Population and demographics: e.g., migration, social inclusion, growth/decline of community/town, workers camps;
   b. Social infrastructure and services: e.g., housing; skills shortages/retention; health; education and training;
   c. Crime and social order: e.g., corruption, domestic violence, sexual violence, substance abuse and trafficking, prostitution; change in social norms;
   d. Community health and safety: e.g., disease; vehicle accidents; spills; controlled release; pollution; disruption of traditional food supply;
   e. Labor issues: e.g., health and safety; remuneration; freedom of association; discrimination;
   f. Security issues: e.g., behavior of security personnel (government, company, contractors); targeting/repression of activists; suppression of demonstrations;
   g. Culture and customs: e.g., breakdown of traditional roles; changing production/employment base; community cohesion; effects of cash economy; ‘sense of place’; community leadership; cultural heritage;
   h. Vulnerable and marginalised groups: e.g., disproportionate or particular effects on women, children, disabled, elderly, ethnic minorities, indigenous peoples, artisanal and small-scale miners etc.

2. Economic change (potential ‘p’ or actual/alleged ‘a’)*
   a. Distribution of benefits: e.g., employment; profit flows; royalties and taxes; training; procurement; supply chain; community development; compensation; managing expectations; equitable distribution (across state/regional/local/ethnic/class/family or other lines); effects of cash economy; technology transfer; corruption;
   b. Inflation/deflation: e.g., housing (ownership/rents); food; access to social services;
   c. Infrastructure: demands on/investment in roads, rail, ports etc.

3. Socio-environmental change (potential ‘p’ or actual/alleged ‘a’)*
   a. Pollution (source of or sink for): e.g., air (dust); water (acid and metaliferous drainage, cyanide, tailings seepage, riverine and submarine disposal); soil; noise; scenic amenity; vibration; radiation; traffic etc.
   b. Resources (access to/competition over): e.g., land; water (groundwater, river, ocean); mineral resources; cultural heritage; forest resources; human; biodiversity;
   c. Resettlement: e.g., consent and consultation in relation to resettlement; compensation; ties/relationship to land; equity; adequacy of resettlement housing and facilities; livelihoods;
   d. Disturbance: e.g., disruption (including exploration); consent and consultation in relation to land access; frequency and timing; compensation.

4. The Process of Change (potential ‘p’ or actual/alleged ‘a’)*
   a. Consultation and communication: e.g., transparency; timing; inclusiveness; clear reporting; access to decision-makers; respect for customs and traditional authority structures;
   b. Consent: e.g., sovereign consent (indigenous/FPIC or governmental); community consent (non-sovereign);
   c. Participation: e.g., development of programmes; monitoring; selection of alternatives and technologies; planning operational aspects;
   d. Redress: e.g., dispute resolution; company-level grievance mechanisms; accessibility; transparency; dialogue and engagement; third party mechanisms;
e. Agreements: e.g., equity; clarity of obligations; duress; capacity and governance; honoring commitments/performance; new corporate entity/transfer of obligations; cross-border projects; corruption;
f. Community development: e.g., participation; adequacy; appropriateness; capacity to deliver; prioritisation; corruption.

*Potential ‘p’ refers to conflict over what might happen; Actual/alleged ‘a’ refers to conflict over current projects/activities/issues (alleged events are taken as actual for the purpose of this typology).

Manifestations of Conflict

1. Procedure-based (generally non-violent)
   a. Submissions: e.g., to government (national, state, regional, local) or company (local subsidiary or parent company); petitions;
   b. Administrative proceedings: e.g., formal complaint through state-based or IFI mechanisms; other international bodies;
   c. Litigation: e.g., claim brought in jurisdiction where company operates; claim brought in jurisdiction where parent company/majority shareholder is domiciled; class/group action; representative proceeding; injunction; damages;
   d. Publicity: e.g., public meetings; use of media; campaigns; involvement of NGOs;

2. Physical protest (may be violent or non-violent – see 3 and 4 below)
   a. Demonstration: e.g., local/state/regional/national; involving mining personnel also or only (strike);
   b. Blockade: e.g., entry to site; road; access route; railway line; port;

3. Violence to property
   a. Private property: e.g., damage or destruction of equipment/installations/buildings; interference with private infrastructure; small/large-scale;
   b. Public property: e.g., damage or destruction of equipment/installations/buildings; interference with public infrastructure; small/large-scale;

4. Violence to the person
   a. Injuries: e.g., to community members; to company employees; involvement of company security forces; public security forces (police or military);
   b. Deaths: e.g., of community members; of company employees; involvement of company security forces; public security forces (police or military).

Types of Costs to Company

1. Security
   a. Higher payments to state forces or company contractors;
   b. Increased operational costs of security: fences, patrols, escorts, transport, alarm/leak monitoring systems, reduced mobility;
   c. Increased security training and management: staff time, lost production, cost of programmes;

2. Project modification
   a. Design modification costs: application; redesign; legal;
   b. Additional works

3. Risk management
   a. Insurance: higher premiums and coverage; risk rating; withdrawal of coverage;
   b. Legal and conflict expertise: specialist training for staff; additional staff;
4. **Material damage**
   a. Damage or destruction to private property or infrastructure;
   b. Damage or destruction to public property or infrastructure;

5. **Lost productivity**
   a. Operations discontinued: voluntary closure or enforced through injunction;
   b. Temporary shutdown of operations;
   c. Lost opportunity for future expansion and/or for new projects;
   d. Disruption to production: delays, temporary or indefinite, absenteeism;
   e. Delays in deliveries/supplies;
   f. Greater regulatory burden/scrutiny;

6. **Capital**
   a. Loss of value of property: full write-off, other depreciation, sale at a loss, theft;
   b. Inability to repay debt or default on debt;
   c. Difficulty raising new capital;
   d. Share price instability/loss in value (within relevant time period);

7. **Personnel**
   a. Staff time spent on risk and conflict management;
   b. Costs of remediation: mediators, meetings, negotiations;
   c. Hostage-taking: ransom payments, rescue operations, compensation;
   d. Arrests of staff;
   e. Injuries to staff and deaths;
   f. Low morale and stress-related effects;
   g. Retention: higher salaries, compensation packages, bonuses;
   h. Recruitment: advertising positions, screening, interviewing, induction training;

8. **Reputation**
   a. Higher expenditure on public relations: consultants, dissemination of information;
   b. Competitive loss/disadvantage: impact on brand, investor confidence;

9. **Redress**
   a. Compensation (out of court payments);
   b. Fines;
   c. Increased social and environmental obligations: health care, education and training, provision of other services, clean-up and remediation costs;
   d. Costs of administrative proceedings or litigation: costs of proceedings themselves; judgment/settlement costs.

**Company Responses to Conflict**

1. **Short-term response: containment and mitigation**
   a. Implementation of emergency response plan;
   b. Increased use of security personnel (government, company, contractor);
   c. Legal/administrative action against claimants, e.g., injunctions, counter-claims;
   d. Immediate remediation efforts: e.g., clean-up; treatment of affected individuals;

2. **Dispute resolution**
   a. Participation in dialogue with claimants after dispute has arisen (employees, community members, other stakeholders); convening community/public meetings; negotiations;
   b. Providing redress: e.g., undertakings; compensation (out of court payments); changes to existing agreements/arrangements;
c. Financing expert/independent studies or audits: e.g., water/air/soil quality assessments, medical assessments, investigation of recent conflict;
d. Implementing recommendations of expert studies or audits: e.g., revision of internal policies;

3. **Conflict management**
   a. Development and implementation of a grievance mechanism;
   b. Assignment of internal responsibility and budgeting for conflict management;
   c. Development of policies, reporting, due diligence, root cause analysis and other systems to identify potential sources and impacts of conflict;
   d. Recruitment and training of community relations personnel;
   e. Training of security personnel.

**Stage of Operations**

1. **Planning** (including government approval of leases)
2. **Exploration**
3. **Pre-feasibility and feasibility** (including government approval of permits)
4. **Construction**
5. **Operations**
6. **Expansion** (under existing licence)
7. **Closure**
8. **Post-closure**

Note: at each stage if **suspension** (‘s’) or **abandonment** (‘a’) occurs.

**Distinguishing Factors**

1. Indigenous
2. Conflict zone
3. Post-conflict zone