Integrating social and environmental sustainability into the operations of a multinational gold mining company

A case study of AngloGold Ashanti

By

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i. Abstract

Integrating social and environmental sustainability into the operations of a multinational mining company is increasingly important to its long term viability. Yet, the boundaries of what constitutes responsible social and environmental sustainability practices are contested with stakeholder governance expectations continuing to evolve, grow, and at times conflict. AngloGold Ashanti needs to navigate the complex terrain between its commitment to maximise returns delivered to shareholders, juxtaposed with those of respecting the environment, and communities being better off for the company having been there.

The dissertation includes a meta-synthesis of primary research undertaken over some five years and examines AngloGold Ashanti's social and environmental sustainability integration efforts from the perspective of a head office role, a critical realist ontology and grounded theory epistemology.

A mid-range grounded theory and CIMO design proposition argue for interventions that trigger mechanisms fostering mutual meaning between stakeholders regarding social and environmental sustainability and its integration, through a process of continual improvement, into company strategy, management structures (incorporating role clarity and functional capability), systems and processes. Out of which come locally rooted, internationally defensible operational practices with the intended outcomes of internalising costs and externalising benefits arising from exploration and mining, therein seeking to meet stakeholder governance expectations.

Keywords:

Meta-synthesis

CIMO design proposition

Critical realist ontology

Grounded theory epistemology

Integration of social and environmental sustainability

Stakeholder governance

Multinational mining company

Company viability

Company strategy

Management structures (incorporating role clarity and functional capability)

Management systems and processes

Continual improvement

Mutual meaning

Locally rooted, internationally defensible operational practices

Internalising costs and externalising benefits

Abstract word count: 200; Dissertation word count: 37 733 (excluding section i-vii, footnotes, text in box – Chapter 5, and annexes)

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v. Abbreviations

ASM	Artisanal and Small Scale Mining
CAFOD	Catholic Church with the Catholic Agency for Overseas Development
CESC	Community and Environmental Steering Committee
CSR	Corporate Social Responsibility
DRC	Democratic Republic of the Congo
EMS	Environmental Management System
ESG	Environmental, Social and Governance issues
EVP	Executive Vice President
FPIC	Free, Prior, Informed Consent
GRI	Global Reporting Initiative
ICMM	International Council on Mining and Metals
IMS	Integrated Management System
IFC	International Finance Corporation
IMS	Integrated Management System
SHE	Safety, Health and Environment
SHEC	Safety, Health, Environment and Community
Moz	Million ounces
NGO	Non Governmental Organisation
SVP	Senior Vice President
VP	Vice President
WACAM	Wassa Communities Affected by Mining

vi. Statement of original authorship

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is your own.

2. I have used a recognised convention for citation and referencing. Each significant contribution and quotation from the works of other people has been attributed, cited and referenced.

3. I certify that this submission is all my own work.

4. I have not allowed and will not allow anyone to copy this dissertation with the intention of passing it off as his or her own work.

Signed by candidate

Paul Michael Hollesen

February 2012

vii. Acknowledgments

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For all my relations...

1. Chapter one

1.1 Introduction and overview

This dissertation is based on research undertaken over the period June 2005 to October 2010 in two head office roles, the first until May 2008 as Community Relations and Social Development Manager being responsible for social sustainability, and then until October 2010 as Vice President Environment and Community Affairs being responsible for both social and environmental sustainably. Having left the company on very good terms at the end of October 2010[1] the meta-synthesis and final write up process of this dissertation took place in 2011 and early 2012.

Chapter 1 presents an overview of my managerial situation and concerns, and the question this dissertation seeks to answer. From the perspective of my managerial situation in a head office role having responsibility for social and environmental sustainability, the central concern sought to be addressed is ensuring AngloGold Ashanti's ongoing viability in the face of evolving, increasing, and often conflicting stakeholder governance pressures to both maximise profits and integrate social and environmental sustainability risks and opportunities. The dissertation question being: How can AngloGold Ashanti most effectively integrate social and environmental sustainability into its global operations?

Chapter 2 presents an explanation and justification of my research methodology. I explain my choice of a critical realist ontology and grounded theory epistemology, as well as the use of a meta-synthesis approach to synthesise my research findings.

Chapter 3 presents a review of the research results on two levels, i) that of the six primary research cycles, and ii) that of the meta-synthesis of the primary research and emergence of core concepts.

Chapter 4 presents a literature review on i) the parent discipline, sustainability, ii) the research topic and question and iii) the core concepts emerging from the meta-synthesis.

Chapter 5 provides an answer to the dissertation question through a process of theory building and synthesis that includes the development of a design proposition utilising the CIMO logic.

Chapter 6 closes with the implications and consequences of the research in four areas, these being i) for AngloGold Ashanti, ii) its significance for the parent discipline, sustainability, iii) an evaluation of the research considering its relevance, utility and validity, and iv) proposed areas for future research.

1.2 Managerial situation

[1] I worked for AngloGold Ashanti for close on eight and a half years, having joined the then AngloGold in May 2002 as the first corporate incumbent of a newly created community relations and social development function. Feeling a change was needed having achieved much of what I had set out to on taking on the new role I left on very good terms following a long hand over period to ensure continuity.

1.2.1 Introduction

In order to contextualise my managerial situation, a brief overview follows of the debate regarding business' role in society, the international mining industry, and the gold mining industry is provided respectively. Then my managerial situation at AngloGold Ashanti is reviewed, with an emphasis on the period post the arrival of a new CEO in September 2007.[2]

1.2.2 Business' role in society

Where a company's responsibilities to society begin and end is an old and seemingly increasingly unresolved, question with debates on the role of business in society going back to the very beginnings of the corporation (Frankental, 2001, p. 18). There is a long held mantra that 'the business of business is business' stemming from Milton Friedman's seminal position on the topic ((1962, p. 133) as quoted in (Nguyen & Slater, 2010, p. 8)) that

there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition, without deception or fraud.

Yet, over the last two decades, and particularly since the global financial crisis of 2007, there is an increasingly open questioning of business' role in society from all quarters with increasing societal discontent regarding business' negative impacts with a mushrooming of societal pressure groups, epitomised by the global 'Occupy' movement (Occupy, 2012). (Haque, 2011, p. 11) comments in this regard

Twentieth-century capitalism's cornerstones *shift costs to* and *borrow benefits from* people, communities, society, the natural world, or future generations. Both cost shifting and benefit borrowing are forms of economic harm that are unfair, nonconsensual, and often irreversible. Call it a great imbalance: not a transient event, like the 'Great [insert ominous synonym here]', but on ongoing relationship, a titanic glitch in the global economy's vast scales. You can think of the great imbalance this way: industrial era capitalism's cornerstones undercount costs (ignoring many flavours of loss and damage) and over count benefits (overstating how much products and services make people durably, tangibly and meaningfully better off). (emphasis in original).

And thus the so called 'envelope of acceptable business practices', and specifically as it relates to social and environmental sustainability, is contested, shifting and blurred in both conception and practice within society as a whole, business in general, and indeed within AngloGold Ashanti. Business accordingly has to rethink its role in society in order to ensure its ongoing viability. As (Visser & Sunter, 2002, pp. 28-29) put it

We are living through … a time of profound change, and no more so than in the business arena. The old ways, which have dominated for the past century or more, are no longer appropriate for a postindustrial, sustainability-driven society. Sustainability is not only a new scientific, political, social and legal concept, but an entirely new business philosophy based on a new mythology. It requires that business thinks differently about its role in society and

[2] Chapter 3 provides additional situational background for the entire period in contextualising the research results.

how it goes about what it does. … a world in which business is required to balance and integrate its economic, social and environmental goals – as well as its impacts.

And while it is becoming increasingly important for a company's ongoing viability to integrate sustainability into its operations, and therein the very way a company does business, such integration can pose its own viability challenges and threats in that certain of its business practices may be inherently unsustainable and not viable from a sustainability perspective. This being a perspective that mining, and other high impact industries, increasingly need to come to grips. (Csikszentmihalyi, 2003, p. 16) comments in this regard

a firm's survival is never guaranteed; year by year, month by month, a variety of hazards must be confronted – even when profit alone is the goal. The situation becomes even more difficult when the company is dedicated to achieving more than just financial gains.

1.2.3 The international mining industry

Mining is a major global industry comprising of over 3 000 stock exchange listed exploration and mining companies with sales averaging in the vicinity of US$450 billion per annum. Each commodity has its own characteristics, supply chain, and price drivers with the industry segmented into commodity and multi-commodity companies (Mining Journal Online, 2011).

The International Council on Mining and Metals (ICMM), represents 21 of the largest global mining companies, of which AngloGold Ashanti is a founding member, and employs some 800 000 of the estimated 2.5 million people formally working in the mining and metals sector (ICMM, 2011). Added to this is a very substantial and largely informal artisanal and small scale mining industry (ASM). Estimates are that up to 20 million people from over 50 developing countries are directly engaged in the sector with an additional 100 million more people dependent on it for their livelihood (Communities and Artisanal and Small Scale Mining, ud).

A key defining characteristic of mining, shared with the oil and gas industry, is that unlike many other economic activities, companies are constrained in having to set up their primary operations where economically feasible deposits of naturally occurring resources are found. Refining and beneficiation can however take place elsewhere, and often does to take advantage of economies of scale.

It is challenging to find new deposits with estimates being that for every 10 000 mineral prospects discovered; only one will yield sufficient economic benefits to become a mine (Natural Resources Canada, 2006). Mine life spans range from a few years to a decade for small deposits to multiple decades and, in rare cases, close on a century for very large deposits, for example South Africa's gold mines. Given that mining extracts non-renewable resources, some argue that by definition the industry is 'unsustainable', see for example (Kneen, 2007, p. 5). With the decisions taken during each phase of the project life cycle, these being exploration, pre-feasibility, feasibility, construction, mining, and closure (ICMM, 2005, p. 17), being fundamental to the legacy that mining companies leave behind.

In order to ensure their ongoing viability, mining companies need continually to find replacement ore bodies. This, coupled with an increasing global dependence on metals and minerals, makes it a rapidly expanding industry, increasingly entering parts of the world not

previously commercially exploited. At any one time it is estimated that there are 8 000 drilling projects underway, 1 500 reserve-definition studies, 800 feasibility studies and 400 mines under construction (Mining Journal Online, 2011).

This has, and will increasingly have, potentially profound implications for the social and environmental sustainability of these and surrounding areas. While many impacts are generalizable, such that common management approaches can be followed, each exploration and mine site is ultimately unique, even if in the same country (Kemp, Boele, & Brereton, 2006, p. 393).

There is a growing acknowledgement in the industry, although not universally, of no go zones based on social and environmental sustainability considerations. For example, a pre-requisite of membership to the ICMM (ICMM, 2011) is that members neither explore, nor mine in established World Heritage Sites. However, there are many more places that local communities and other stakeholders do not want to see disturbed including areas of high conservation value, which may or may not be protected, which are coming under increasing pressure from mining, and indeed other industries. There is not yet universal agreement when exactly 'no means no' and who has the right to say no especially when the government, through its legal licensing process, has given approval.

While there have long been pressures on companies to address social and environmental sustainability issues, attention to these business aspects has become substantially more marked since the early 1990s (Zadek, 2004) with "[w]hole industries, such as mining, hav[ing] made themselves targets due to their behaviour" (Ruggie, 2006, p. 5). And thus for the international mining industry to secure its ongoing viability it will need to increasingly take sustainability into account. The (ICMM, 2012) comments in this regard that it was established because

global mining firms accepted at the highest level that their sector was facing significant problems in reputation, sustaining profits, access to new assets and maintaining investor and employee confidence.

And the ICMM has thus since 2001 focussed on better defining what sustainability means to the international mining industry publishing a raft of Principles, Position Statements, and related Good Practice Guidance and thought pieces (ICMM, 2011).

1.2.4 The Gold mining industry

Gold is mined on every continent except Antarctica, where mining is prohibited, with several hundred large scale gold mines operating worldwide and a global supply averaging approximately 2 500 tonnes per year (World Gold Council, 2011).[3] Some 60% of gold off-take goes into jewellery, the other principle sources of demand being investment and central bank reserves (approximately 30%) and the technology sector (approximately 10%) (World Gold Council, 2011).

[3]It is estimated that some 166 660 tonnes of gold has been mined throughout civilisation and that 90% of this has been mined since the California gold rush of 1848 (World Gold Council: Numbers and Facts, 2011).

During late 2011 the gold price reached historic highs of over $1 700 an ounce (Goldprice.org, 2011) having increased some 30% during the year and over 600% over the last decade (World Gold Council, 2011). With the deepening Eurozone crisis some are predicting prices as high as $2 500 during 2012 (Farchy, 2011). Its price, combined with pressure on companies to replace mined out ounces makes increasing exploration activities, the expansion of existing mines, and the building of new mines, a certainty for the foreseeable future.

Gold mining finds itself particularly susceptible to criticism and public campaigns "since the utility of its product to the global good is often questioned" (McKibben & Waters, 2010) mainly due to such a large percentage of gold off-take being used in jewellery. Accordingly, the gold industry is finding itself under increasing pressure with campaigns such as 'No Dirty Gold' (2012) dedicated to challenging it and its practices.

1.2.5 AngloGold Ashanti

1.2.5.1 A multinational gold mining company

AngloGold Ashanti,[4] best described as a multinational company,[5] is Johannesburg, South Africa, headquartered and listed on the Johannesburg, New York, Accra, Australian, Paris and Brussels stock exchanges (AngloGold Ashanti, 2010a, p. 4). Its 20 operations span four continents and it is structured on geographic lines, these being South Africa, Continental Africa, Australasia and the Americas, each headed by an Executive Vice President (AngloGold Ashanti, 2010b, p. 14).

While principally a gold producer, and the third largest gold company by ounces mined, which totalled 4.52Moz in 2010 (2009: 4.60Moz) and generated $5.3bn in gold income in 2010 (2009: $3.8bn), the company also produces valuable by-products at certain operations including silver, sulphuric acid and uranium. In 2010 the company employed, including contractors, 62 046 people. Total capital expenditure in 2010 amounted to $1,015m (2009:

[4]A pictorial 'virtual tour' of AngloGold Ashanti can be accessed at: http://www.anglogold.co.za/subwebs/VirtualTour/menu.asp

[5]While the terms multinational and transnational are often used interchangeably (Sealy, Wehrmeyer, France, & Leach, 2010, p. 1083) a clear, albeit normative, distinction between them is provided by (Korten, 1995, p. 125) as follows:
"A multinational company takes on many national identities, maintaining relatively autonomous production and sales facilities in individual countries, establishing local roots and presenting itself in each locality as a good local citizen. Its globalized operations are linked to one another but are deeply integrated into the individual local economies in which they operate, and they do function to some extent as local citizens. [Whereas being a transnational involves the integration of a firm's global operations around vertically integrated supplier networks…. Although a transnational corporation may choose to claim local citizenship when that posture suites its purpose, local commitments are temporary, and it actively attempts to eliminate considerations of nationally in an effort to maximize the economies that centralized global procurement makes possible."
(Bartlett & Ghoshal, 1992, pp. 124-5) describe a that a trait of multinationals is their being structured along product or geographic lines.

$1,027m) and the company's ore reserve was 71.2Moz at 31 December 2010 (AngloGold Ashanti, 2010a, pp. 6, 7).

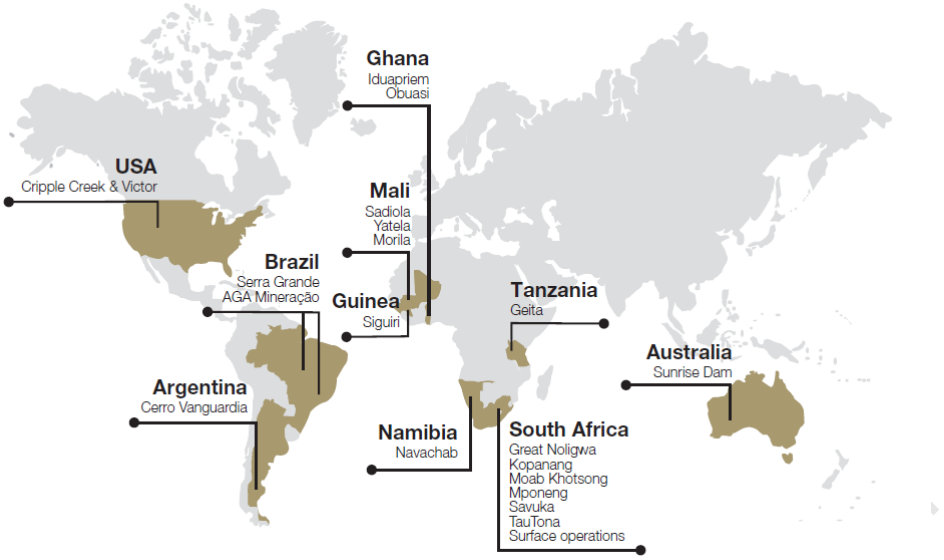

Figure 1 **AngloGold Ashanti: portfolio of mining operations as at 31 December 2010**

(AngloGold Ashanti, 2010b, p. 14)

AngloGold Ashanti has 33 exploration projects underway in both established and new gold producing regions of the world (AngloGold Ashanti, 2010a, p. 42).

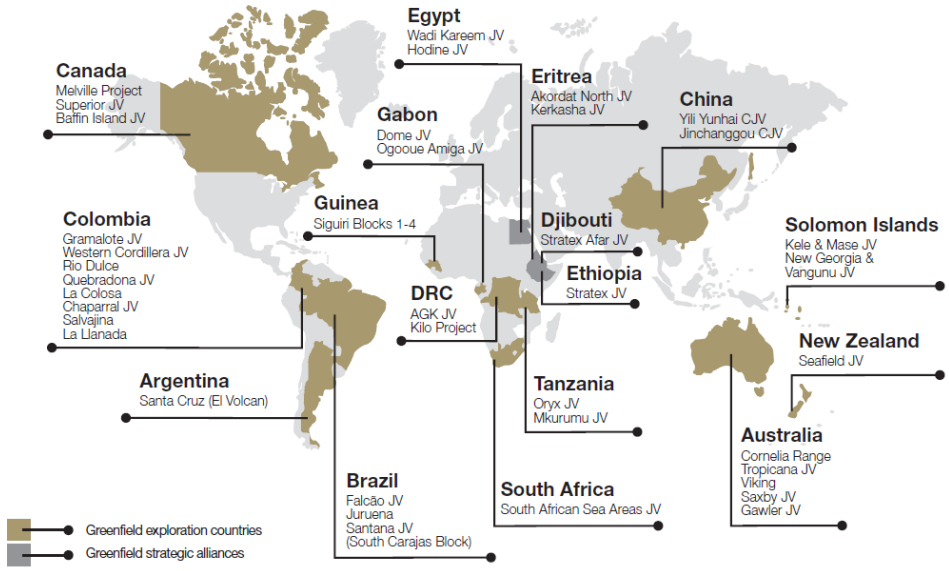

Figure 2 **AngloGold Ashanti: portfolio of exploration activities as at 31 December 2010**

(AngloGold Ashanti, 2010b, p. 42)

1.2.5.2 AngloGold Ashanti's vision, mission and values

The company's vision is

To be the leading mining company.

(AngloGold Ashanti, 2010a, p. 10)

And its mission is:

To create value for our shareholders, our employees and our business and social partners through safely and responsibly exploring, mining and marketing our products. Our primary focus is gold and we will pursue value creating opportunities in other minerals where we can leverage our existing assets, skills and experience to enhance the delivery of value. (AngloGold Ashanti, 2010a, p. 2)

The company has five values statements relating to i) safety; ii) treating each other with dignity and respect, and valuing diversity; iii) being accountable for ones' actions and delivering on commitments; iv) communities; and v) the environment (see Annex 1). The business values for community and environment are:

The communities and societies in which we operate will be better off for AngloGold Ashanti having been there. We uphold and promote fundamental human rights where we do business. We contribute to building productive, respectful and mutually beneficial partnerships in the communities in which we operate. We aim to leave host communities with a sustainable future.

We respect the environment. We are committed to continually improving our processes in order to prevent pollution, minimise waste, increase our carbon efficiency and make efficient use of natural resources. We will develop innovative solutions to mitigate environmental and climate risks.

(Emphasis in original) (AngloGold Ashanti, 2010a, p. 3)

1.2.5.3 An evolving company

Significant and ongoing changes to the company were catalysed by the appointment of a new CEO in September 2007. Those having the greatest impact on my managerial situation are briefly examined below, and focus on changes to the company strategy, management systems and structures.

1.2.5.3.1 Strategy and the 'business process framework'

Major revisions were made to the company strategy launched in March 2008 with the introduction of a 'business process framework' that sought to define

the policy, standards and operating framework necessary to establish a flexible and responsive work model within which people have the opportunity to be creative and realise their potential (AngloGold Ashanti, 2010a, p. 10).

Sustainability was formally made one of five strategic focus areas of the strategy with a commitment to: “Embrace sustainability principles – understand and focus on creating value for both business and social partners to manage risk and opportunity” (AngloGold Ashanti, 2010a, p. 10). For a summary of AngloGold Ashanti’s business strategy see Annex 2.

The ‘business process framework’ in turn set the context for the discipline specific management frameworks and systems including policy and standard setting, out of which a community and environment ‘framework’ was developed, encompassing an integrated community and environmental management system, which is discussed in greater detail in Chapters 3 and 5.

1.2.5.3.2 Structures

A human resources model based on Elliot Jacques’ requisite organisation work (Jacques, 2006) known internally as the ‘System for People’, a discussion of which is outside of the scope of this dissertation, was implemented over this period which sought to assign accountability for work in the context of ‘levels of work’ therein revising the company structures to seek to ensure ‘that the right person, does the right work, in the right way and at the right time’ (Jacques, 2006, p. 3).

Fundamental restructuring was undertaken from the executive down and a new structure was launched in January 2008 which for sustainability saw the consolidation of the disciplines previously split into a Corporate Affairs department and Safety, Health, Environment and Legal department respectively. This Business Sustainability department incorporated: Health, Safety, Community, Environment, Legal, Government Relations, Corporate and Public Affairs, Gold Marketing, and Security, headed by an Executive Vice President (EVP) sitting on the executive committee of the company. As part of the restructuring, I was promoted from Community Relations and Social Development Manager to Vice President Environment and Community Affairs effective June 2008. The new role focussed on ‘overseeing the ongoing development of environmental and social policy and ensuring an integrated and strategic response to the related key business risks, challenges and opportunities facing the business’ (AngloGold Ashanti, Internal Briefing Note, May 31, 2008).

The company structures changed again in 2009 with a spilt of the Africa Region into two regions, being Continental Africa and South Africa (AngloGold Ashanti, 2009, p. 2), and the introduction of a new managerial layer across the company, that of Senior Vice President (SVP). From March 2010 (Internal Corporate Briefing, Organisation Announcement – Phase II Reorganisation, 16 February 2010), I reported into a newly appointed SVP Safety, Health, Environment and Community, and a SVP External Affairs was appointed to oversee government relations and communications, both of whom reported into the EVP Business Sustainability.

1.2.5.3.3 AngloGold Ashanti and sustainability

Not having adopted a formal definition for sustainability, AngloGold Ashanti (2010b, p. 4), talks about it as “the creation of a better present and future for all of our partners, [that] can only be secured if we are navigating our future together with local communities”. From a

functional perspective the term sustainability was at its broadest used to include all the disciplines falling into the Business Sustainability department, and included employee issues managed by human resources. However, in practice, many in the company used the term more narrowly to refer to the community and environment functions. This was reinforced by the name of the Board Sub Committee overseeing these issues being the Safety, Health and Sustainable Development Sub Committee (AngloGold Ashanti, 2010b).

King III, a key corporate governance framework for the company, defines sustainability as:

conducting operations in a manner that meets existing needs without compromising the ability of future generations to meet their needs. It means having regard to the impact that the business operations have on the economic life of the community in which it operates. Sustainability includes environmental, social and governance issues (Institute of Directors, 2009b, p. 61).

A fuller discussion of the interrelated concepts of sustainability and sustainable development is presented in Chapter 4.

1.2.5.3.4 AngloGold Ashanti and social and environment sustainability

The CEO commented (AngloGold Ahanti, 2008, p. 19) that

At AngloGold Ashanti it is our firm view that if we cannot operate responsibly, we should not be in business. And it is on this basis that we will measure our success. Our experience continues to convince us that social and environmental responsibility is a necessary condition for ensuring productive operations...

And in essence, my role as Vice President Environment and Community Affairs sought to address the inherently conflicting priorities of the corporate strategy of "maximising the returns delivered to shareholders" (2010a, p. 6) with the values propositions that "communities will be better off for our having been there" and "we respect the environment" (2010a, p. 3). The head office's function, the perspective from which this dissertation approaches the topic, is to influence how the primary business of the company - finding and mining gold – is undertaken, and therein my role sought to oversee the integration of social and environmental sustainability into the company's global operations (AngloGold Ashanti, Internal Briefing Note, May 31, 2008).

Unlike many other managerial disciplines, the field of social and environmental sustainability is evolving relatively rapidly, making it challenging to bound. An evolution in thinking and terminology is taking place creating a new language and discourse along with emergent areas of professional expertise (Coleman, 2002, p. 22) which continue to evolve as new issues emerge on an ongoing basis. This said a bounding of the concepts and how they are used in this dissertation follows for social and environment sustainability and the related functional disciplines of community and environment.

1.2.5.3.4.1 Social sustainability and the community discipline

(Stiglitz, Sen, & Fitoussi, 2009, p. 11) speak of social sustainability in terms of the sustainability of 'current societal well-being'. They state that

Current well-being has to do with both economic resources, such as income, and with non-economic aspects of peoples' life (what they do and what they can do, how they feel, and the natural environment they live in). Whether these levels of well-being can be sustained over time depends on whether stocks of capital that matter for our lives (natural, physical, human, social) are passed on to future generations.

More narrowly, social sustainability relates to a company's interface with society and includes its impacts, both positive and negative, on its employees, customers, the community, supply chain and business partners (Zadek, 2001, p. 105). While acknowledging their fundamental importance to the business, the concept of social sustainability is more narrowly bounded in this dissertation to exclude employee issues relating to labour relations, employee benefits, and employee health and safety.

Community, in turn, is used in this dissertation to refer to actual communities of people, or the community functional discipline, depending on the context in which it is used. AngloGold Ashanti defines a community as

a group of people who are directly or indirectly affected by the operation, both positively and negatively, comprising local communities, including new arrivals, in which the operation is located (also called host communities) and communities from which it draws its labour (labour-sending areas); communities along the operation's transport routes, if applicable, and, in some cases, other groups, including former local residents and their families who have moved away but still have strong familial, business or other interests in the area (AngloGold Ashanti, unpublished draft stakeholder engagement management standard, October 31, 2009).

In addition, (Kemp, Boele, & Brereton, 2006, p. 393) provide a useful working description of community as follows

Communities differ significantly from each other in terms of such factors as the degree of cohesiveness, social and political structures and processes, cultural norms, economic well-being, strength and diversity of human capital, degree of prior experience with and knowledge of mining, and expectations of what projects will deliver. Because community impacts of mining are context specific learning from one operation may not necessarily apply to another, even in the same country. The scale and nature of impacts – and opportunities – can also vary depending on the stage of an operations life-cycle (for example, whether it is in start-up or closure mode)… making the management of the social dimensions of mining highly complex.

From a functional perspective, the community discipline's focus areas include: stakeholder engagement, land acquisition and resettlement, social investment, local economic development, cultural heritage and sacred sites, indigenous peoples issues, artisanal and small scale mining, security and human rights, community health and safety, community complaints and grievances, closure and rehabilitation, community due diligence for new projects and capital projects, climate change, and supply chain issues relating to purchasing and product stewardship (AngloGold Ashanti, unpublished Community and Environment Management Framework, October 31 2010, pp. 10-11).

Definitions of the terms used in this dissertation for stakeholders, social partners, civic and community-based organisations, advocacy NGOs, media, development partner, government, and industry, are provided in Annex 3.

1.2.5.3.4.2 Environmental sustainability and the environmental discipline

Environmental sustainability, and therein the natural environment's capacity to sustain life on an ongoing basis, is related to its carrying capacity which is defined as the "maximum impact an environment can sustain without degeneration of that environment" (Dostal, Cloete, & Jaros, 2005, p. 438). As it specifically relates to a company's interface with the natural environment, it includes impacts on air, water, land and biodiversity (Zadek, 2001, p. 105).

Environment, depending on the context in which it is used in this dissertation, refers either to the biophysical environment, or the company's environmental functional discipline.

From a functional perspective, the environmental discipline's focus areas include: water, land use, air quality, chemicals management including cyanide, waste management, closure and rehabilitation, biodiversity, environmental due diligence for new projects and capital projects, climate change, and supply chain issues relating to purchasing and product stewardship (AngloGold Ashanti, unpublished Community and Environment Management Framework, October 31 2010, pp. 10-11).

1.3 Managerial Concerns

1.3.1 Balancing evolving, increasing, and conflicting stakeholder governance pressures

1.3.1.1 Introduction

The overarching managerial concern was that of AngloGold Ashanti ensuring its ongoing viability in the face of evolving, increasing and often conflicting stakeholder governance pressures to maximise profits and incorporate social and environmental sustainability risks and opportunities.

(Pauli, 2010, p. 181) reinforces viability concerns stating

Mining is a risky business in more ways than one. Even with the world market price of gold reaching record levels, there is no guarantee that the extraction of this precious metal will remain profitable in the years to come, especially if all the external and remediation costs that burden the local communities surrounding the mines were fully recovered from the mining companies' existing revenue streams.

Mutual meaning is often lacking both within the company and between the company and its external stakeholders as to what the bounds of acceptable business practices are for social

and environmental sustainability. This said, globally agreed standards are in the process of being politically and socially constructed (IG Metall and Misereor, 2006, p. 5).

However, there is competition between them (Stark & Levin, 2011, p. 62) with no one globally agreed upon single standard, or suite of standards, which all stakeholders believe adequately cover the many aspects that are generated in the search for, mining, and subsequent closure of mines. Many standards are the product of voluntary attempts at self-regulation by business in general, as well as industry specific initiatives, but without harmonisation there is a danger of 'standards fatigue' in translating them into practice (Ligteringen & Zadek, 2005). See Annex 4 for an outline of the key international standards as they relate to the mining industry.

AngloGold Ashanti's key stakeholders concerns regarding social and environmental sustainability are now reviewed in turn.

1.3.1.2 AngloGold Ashanti's employees

AngloGold Ashanti is a major employer operating in many diverse local contexts with its employees having their own perspectives on the world manifesting in their practices. These practices may differ from the company's espoused corporate culture captured in its vision, mission, values and policy statements regarding social and environmental sustainability. Thus an accommodation needs to be found between global corporate aspirations and local realities without the company having, or perceived to be having, different sets of standards for different parts of the world.

Furthermore, if its employees do not view a company as being responsible, staff could leave or indeed not join in the first place (Paton, 2004).

1.3.1.3 Conflicting investor expectations

The company's investors are generally still seeking maximum profits, while also wishing to avoid controversy regarding their investments. Regarding the latter point, expectations for disclosure are becoming increasingly sophisticated and penetrating with some activist shareholders, for example (Norges Bank, 2012), pressing for improved social and environmental sustainability and threatening potential disinvestment should this, from their perspective, not be achieved.

This is a broader trend with (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 105) cautioning that "[i]nvestors are at the forefront of the scrutiny, and so ignoring social and environmental issues is putting investment capital at serious risk".

1.3.1.4 Increasing community pressure

Local communities are most directly impacted by mines and are becoming increasingly less tolerant of negative impacts while also wanting to see greater positive impacts. While

contexts differ, negative impacts include for example loss of access to land, changes in livelihood and social patterns, air, water quality and biodiversity issues while positive impacts include for example greater educational, health and infrastructure access.

Non governmental organisations (NGOs) and religious organisations are increasingly partnering with local communities, for example the NGO Wassa Association of Communities Affected by Mining (WACAM, 2012) partnering with communities in Ghana, and the Catholic Church and Catholic Agency for Overseas Development partnering with communities in the DRC (CAFOD, 2010). This is a trend also observed more broadly in the industry by (Ernst and Young, 2011) who note that "non governmental organizations (NGOs) [are] linking in with communities to create political pressure to overturn approvals".

Company management changes over the life of a project with it not always having a properly 'institutionalised' memory of past incidents and commitments that a community generally does. Trust takes a long time to build but can be destroyed relatively easily. This said issues often build up over time with tolerance levels and perspectives of the boundary limits of acceptable company behaviours differing from site to site. As the (International Council on Mining and Metals , 2009, p. 3) comments:

For any large-scale project with potentially significant impacts, even those managed to the highest standards, some local concerns are inevitable. These concerns can be expressed in the form of a complaint, either formally or informally, and can encompass relatively minor concerns as well as more entrenched or serious issues (that may be described as grievances).

And pressure can thus be expressed in many different ways and ultimately if not dealt with to the satisfaction of the community can lead to protests, potential violence and ultimately sabotage and production stoppages (Mining Web, 2008).

1.3.1.5 Increasing NGO pressure

Pressure is increasingly being put on the company to demonstrate responsible practices, in keeping with international standards, with perceived injustices being highlighted in detailed reports and NGOs lobbying for greater regulation and enforcement. AngloGold Ashanti has been taken to task in this way by a number of high profile international NGOs including (Human Rights Watch, 2005), (Action Aid, 2006), (Amnesty International, 2007), (IKV Pax Christi, 2009), and (CAFOD, 2010). Most recently the company was awarded the 2010 jury selected Public Eye Award (Public Eye Awards, 2011) for

enterprises whose social and environmental offenses expose the flip side of purely profit-oriented globalization… for the contamination of land and poisoning of people from gold mining [sic] in Ghana.

Some NGOs are, on the other hand, increasingly effectively partnering with local communities and the company to assist in providing wider societal benefits, for example PACT Congo which worked with the company in the DRC for several years. And there is also increasing pressure to undertake such positive initiatives from a range of stakeholders.

1.3.1.6 Increasing media attention

The international media, business media, and in some countries the local media, is becoming more interested in sustainability issues and starting to cover social and environmental sustainability issues more regularly, often focussing on less positive angles. Examples of this are to be found in a repository of articles on the company,[6] and many others, available from the (Business and Human Rights Resource Centre, 2012).

The speed with which issues are being picked up on and reported globally is increasing. An example being my discovery of a community incident via the press (Mining Web, 2008) six hours before it reached me via the company's official reporting system (W. Bannerman, email correspondence, November 13, 2008). In this way incidents in remote parts of the world can enter the global arena almost immediately and companies need to be able to respond quickly and credibly, something they are often not well placed to do.

1.3.1.7 Increasing government, regulator and institutional pressure on the company

Local and national government expectations may be in conflict with each other and other stakeholders. An ongoing issue is that of benefit sharing with revenue streams often going to the capital for re-distribution and not directly to local and regional governments which puts additional pressure on the company to provide de facto government services in many less economically developed areas (AngloGold Ashanti, Report to the Board Sub Committee for Safety, Health and Sustainable Development, 3rd Quarter 2006).

A dramatic increase in resource nationalism has been witnessed over the last years in a number of jurisdictions that the company operates in. This is a wider trend with (Ernst and Young, 2011) reporting it as the number one risk for mining and metals companies for 2011-12, citing at least 25 countries making demands to increase their 'slice of the profit pie' via increases or announced intentions to increase their taxes or royalties.

Pressures from regulators for better social and environmental sustainability performance is increasing, including in less economically developed economies with poor histories of enforcement such as Ghana where the Environmental Protection Agency (EPA) withdrew Iduapriem Mine's tailings deposition permit in February 2010 due to non-compliances leading to the suspension of operations at the mine for close on a month (AngloGold Ashanti, 2010a, p. 74).

Laws are also changing to encourage a wider sharing of benefits and environmental regulation is generally speaking also becoming more stringent. For example, the Broad Based Socio-Economic Charter for the South African mining industry (Department of Mineral Resources, Republic of South Africa, 2004) seeks to address historic imbalances and a perceived lack of local community development, amongst other issues. Furthermore, the Clean Air Act (Department of Environmental Affairs, Republic of South Africa, 2004) which came into effect in 2010 with more stringent emissions standards affected the ongoing

[6] As at 24 January 2012, 242 articles regarding AngloGold Ashanti were posted.

viability of the company's East Gold Acid Float plant at Vaal River, South Africa (AngloGold Ashanti, 2009, p. 33).

Institutional pressures include stock exchange listings requirements, principally the Johannesburg Stock Exchange and the New York Stock Exchanges, regarding social and environmental sustainability, amongst other governance issues (AngloGold Ashanti, 2012).

1.3.2 A legal and social licence to do business

Given rapidly evolving stakeholder expectations on business, legal frameworks, which are lagging indicators of societal expectations and norms, are not keeping up (Sustainability, 2004) and thus it can be argued that a legal licence is no longer suffice to operate successfully with a company also increasingly requiring a social licence to do business.

While (Maidment, 2010) comments that a social license is "no more than a fancy way of saying that a business must be accepted by the society in which it operates" (Black & Bice, 2011) propose that it relates to the "level of acceptance or approval continually granted to an organisation's operations or project by local community and other stakeholders". In an interconnected world, poor performance at one site can affect social licence at another (Kemp, Boele, & Brereton, 2006, p. 394) as the company witnessed, for example, with negative fall-out relating to the company's controversial activities in the DRC (Human Rights Watch, 2005) extending well beyond the borders of that country. This said exactly how the company obtains its social licence and goes about maintaining it at each site is not a clear-cut affair.

1.3.3 Role clarity regarding responsibilities for social and environmental sustainability

There were ongoing concerns throughout the research as to how well structured AngloGold Ashanti is to manage its response to, and be proactive regarding, social and environmental sustainability. This being intensified by i) a lack of role clarity between corporate, regional and mine sustainability structures and, ii) a lack of clarity regarding how all disciplines should go about incorporating social and environmental sustainability into their core business activities.

1.3.4 Functional capability in social and environmental sustainability

Functional capability relates to both having incumbents with the necessary knowledge, skills and technical capabilities, and having them in sufficient numbers to address the risks and opportunities faced by the business.

The environmental function, being an older and better established discipline, did not always have sufficient numbers of individuals in role given the significant challenges faced by the company. Whereas for community, being a relatively newer discipline it did not tend to receive the same professional status as the 'harder' disciplines and generally found itself modestly staffed with few qualified community development specialists trained and

experienced in the related fields in question such as development, anthropology, sociology, and economics. In practice, many community incumbents were previously in other functions, although this is not a problem in and of itself, and sometimes can even be an advantage by introducing new perspectives.

And thus while community has been described as being at the "bottom of the mining food chain of priorities" (Kosich, 2004) the scope, scale and complexity of the issues are growing, many of which require expert and often local knowledge to be dealt with adequately making this a serious concern.

An additional concern it that of functional silo mentality between the sustainability structures and other parts of the business where different parts of the business only have partial sight of the whole which can result in conflicting priorities and a lack of taking into account social and environmental sustainability considerations.

1.3.5 Legacy issues coming 'home to roost' and creating new legacies

The company is not starting from a blank slate and there are many social and environmental legacies which are increasingly 'coming home to roost', in part because of diminishing tolerance of various stakeholder groups, as raised above. To call management to account for the 'sins of the forefathers', even where these are very recent 'sins', is a challenge often compounded due to limited resources and capital constraints.

Issues left unattended generally become significantly larger problems to remedy over time. For environmental issues this is due to decreasing stakeholder tolerance levels coupled with physical properties. For example, a pollution plume is likely to become orders of magnitude more expensive to resolve over time than treating the pollution at source even if it is perceived to be expensive to do so in the short term. Similarly, by potentially endangering communities through such negative impacts, or say not meeting development commitments, or their being perceptions of the company as simply not doing enough, can all lead to an erosion of trust, building resentment, and serious incidents such as sabotage and blockades, and an eventual loss of the company's social licence to do business.

This will result in it becoming increasingly challenging to do business and potentially threaten the viability of a project should the manifestation of the community and stakeholder resistance intensify. For illustrative purposes, see Annex 5 for a table of indicators of i) when a company has a social licence to operate, ii) when that licence is compromised, and in turn iii) when it no longer has a social licence (Corporate Engagement Programme - CDA Collaborative Learning Projects, 2012).

1.4 Question for the dissertation

In the context of the research situation and concerns outlined above, the question that this dissertation seeks to answer is:

How can AngloGold Ashanti, a multinational gold mining company, most effectively integrate social and environmental sustainability into its global operations?'

1.5 Conclusion

Chapter 1 presented an overview of my managerial situation and related concerns and posed the question for the dissertation. Chapter 2 will now present an explanation and justification of my research methodology.

2. Chapter two: Research methodology

2.1 Introduction

Chapter 1 provided an overview of my managerial situation and concerns and posed the question this dissertation seeks to answer. Chapter 2 goes on to outline the research methodology to be followed in the primary research and its meta-synthesis. It provides an explanation of my choice of a qualitative research approach, critical realist ontology, grounded theory epistemology, and my approach to meta-synthesis. The research findings for the six primary research cycles and its meta-synthesis respectively are presented from Chapter 3 onwards.

2.2 Qualitative research approach

Given the nature of my intended research, a qualitative approach will be adopted as explained below drawing on (Perry, 1998, pp. 31-33) and (Neill J. , 2011)'s distinctions between qualitative and quantitative approaches.

My research will be undertaken in the context of a head office role in a multinational gold mining company. I will be seeking to ask how and why questions, rather than who/how many and what/how much questions, in order to better understand the subjective social processes involved in making managerial decisions regarding the relatively unbounded area of social and environmental sustainability, as opposed to a more 'objective' research area where more precise measurement and analysis can be undertaken.

While seeking to address underlying managerial concerns, given the nature of the problem field, the design of the study will need to evolve as it progresses, as outlined in the following section, rather than having a pre-determined design for the study. 'All' will be treated as data in this rich social context where I will be the principle data gathering instrument, as opposed to making use of more numeric and statistical data and research tools.

2.3 Research design for the primary research

(Maxwell, 2005)'s 'interactive' research design model will inform the design of each of the six primary research cycles. His model provides five components, each of which "form an integrated and interacting whole" (p. 4) where the researcher undertakes an ongoing process 'tacking' back and forth between different components. These components being i) Goals which establish why the study is worth doing; ii) Conceptual Framework being an outline of what is going on regarding the issues, settings, and people which will be studied; iii) Research Question(s), regarding what it is that the research will attempt to answer; iv) Methods, regarding how the research methodology to be adopted; and v) Validity, being aware upfront and throughout the research as to how the results and conclusions could be wrong. He also highlights the overarching importance of ethical considerations that should inform all components of the research design (Maxwell, 2005, pp. 1-14).

The research design relating to the meta-synthesis is outlined in the meta-synthesis section below.

2.4 A case study of AngloGold Ashanti

The research setting will be that of AngloGold Ashanti, a multinational gold mining company, from the perspective of my being employed at the company's head office in senior management roles with accountability first for social and then both social and environmental sustainability. A grounded theory, not case study, methodology will drive the research.

2.5 Critical Realism

2.5.1 Introduction

My ontological position is that of critical realism. While it resonates personally, I argue that it is appropriate for the research to be undertaken and brief explanation follows.

2.5.2 Explanation

Critical realism is based on a presupposition of an objective reality which is complex, multi-layered and made up of a multi-causal web of interacting forces which is independent of one's' mind, with any description of it necessarily being mediated through the filters of language, meaning making and social context (Oliver, 2011, p. 4). So while reality is socially constructed, these social arrangements and understandings are determined by underlying structures and mechanisms which one may or may not be aware of (Plant, 2001, p. 3).

Central to critical realism is the resolution of the so-called 'epistemic fallacy'. It being that "the empirical world of experience somehow allows us the licence to reduce questions about what there is (ontological questions) to questions about what we can know (epistemic questions)" (Plant, 2001, p. 1). Its resolution is sought by attempting to understand the nature of reality at increasingly deeper levels. Three overlapping domains are considered to constitute reality these being: i) the domain of the real - the level of mechanisms and structures possessing causal powers which produce events which may or may not be experienced directly; ii) the domain of the actual which is the level of the events themselves; and iii) the domain of the empirical, being the level of experiences (Plant, 2001, p. 4).

Its critical aspect comes from its drive to 'reclaim' reality where "one can be critical of the prejudices, errors, and philosophical false trails that have covered or disguised [reality]" (Plant, 2001, p. 4). Critical realism thus addresses some of the concerns of an anthropocentric philosophy pursued by positivists and post positivists (Patomaki & Wight, 2000, p. 217) and seeks to 'de-anthropomorphize' reality which has important implications for the connections between nature and society (Bayer, 1990, p. 769). This acknowledgement of the inseparability between people and nature can lead to a more holistic view which more readily incorporates social considerations, as well as technical ones, in approaching managerial decisions and dilemmas in the field of social and environmental sustainability (Plant, 2001).

A further practical implication of this philosophical approach is that research is not undertaken as a deductive process of attempting "to seek out constant event conjunctions", but rather one which "aims at identifying and illuminating the structures, powers, and tendencies that structure the course of events" (Patomaki & Wight, 2000, p. 223). And its success, being an explanation of the nature of reality, is thus judged by the logic of the links between the levels of reality rather than the number of times an expected event or experience is observed (Plant, 2001, p. 4).

2.5.3 Conclusion

Critical realism provides a sound ontological base for the use of grounded theory, an epistemology compatible with critical realism (Oliver, 2011), to seek to find an explanatory theory in my problem field that accounts for the causal mechanisms in the domain of the real world. This will be undertaken through the lens of the experience (empirical) of the events (actual) unfolding in my everyday management context and interactions with stakeholders.

Theory will be developed being conscious that critical realism does not seek *the* answer but rather, *an* answer, acknowledging that all beliefs are socially constructed and are thus fallible while still providing "justifiable grounds for preferring one theory over another" (Patomaki & Wight, 2000, p. 224).

2.6 Grounded Theory

2.6.1 Introduction

My epistemological position is that of grounded theory. I will adopt a principally Glaserian approach to grounded theory which will be applied to i) my primary research, and ii) to the meta-synthesis of the primary research once completed. A fuller discussion of the meta-synthesis process follows the discussion on grounded theory.

2.6.2 Grounded theory and its traditions

Grounded theory was developed as a practical approach to help understand complex social processes (Suddaby, 2006, p. 638) and is described by its founders Barney Glaser and Anselm Strauss as "the discovery of theory from data - systematically obtained and analysed in social research" (Gaser & Strauss, 1967, p. 1). They go on (p. 6). to state that

Generating a theory from data means that most hypotheses and concepts not only come from the data, but are systematically worked out in relation to the data during the course of the research. [Thus] generating a theory involves a process of research.

(Glaser, 2010, p. 6) makes a strong case for the use of grounded theory stating

Particularly in the world of business and health, people are very disaffected with preconceived evidentiary proof research because it is not producing findings that make business or health problems any better. These dependent variables, which are profit and

cure related, are very important. Answers that work are wanted. Grounded theory tells us what is going on, tells us how to account for the participants' main concerns, and reveals access variables that allow for incremental change. Grounded theory is what is, not what should, could, or ought to be.

Thus a key strength of grounded theory is its ability to "provide a theory that has the potential to explain, interpret and guide practice" (Breckenridge & Jones, 2009, p. 123).

Since Glaser and Strauss developed grounded theory in the 1960s (Gaser & Strauss, 1967) several schools have come into existence, the main two being that of Glaser, and Strauss and Corbin respectively. The principle reason for their split is accounted for by what (Fendt, 2007, p. 15) rather pejoratively calls 'theory emergence' advocated by Glaser versus 'theory forcing' by Strauss and Corbin. For Glaser, the researcher 'submerses' themselves in the data so as to let the theory emerge whereas Strauss and Corbin have developed a more systematic coding system taking the researcher through every stage of their research (Fendt, 2007, p. 15).

This results in a fundamental difference in the questions being asked of the data, with Glaser asking "what do we have here?" questions whereas Strauss asks "what if?" questions (Stern, 1994 cited in (Cutcliffe, 2000, p. 1482)). Put differently (Suddaby, 2006, p. 638) citing Lock (1996) explains their departure owing to Glaser favouring "creativity and openness to unanticipated interpretations of data" while Strauss and Corbin "became advocates of adherence to formal and prescriptive routines for analysing data". The difference is such that Glaser argues that the two methodologies should have different names, and that Strauss' version should be termed 'full conceptual description' rather than grounded theory (Glaser, 1978 as cited in (Cutcliffe, 2000, p. 1483)).

These debates noted, neither approach is right or wrong but rather it is a question of which is better suited for the circumstances of the research at hand and researcher predisposition. (Fendt, 2007, p. 15) citing Lock (2001) points out that in any event, most researchers no longer apply the grounded theory methodology in its 'pure or orthodox form' and rather what is important is to be clear about the terminology being used and what procedures will be followed. I do so below.

2.6.3 Skills needed

(Glaser, 2010, p. 4) argues

The grounded theory researcher must have three important characteristics: an ability to conceptualize data, an ability to tolerate some confusion, and an ability to tolerate confusion's attendant regression. [And that these] attributes are necessary because they enable the researcher to wait for the conceptual sense making to emerge from the data.

(Simmons, 2010, p. 17) points out that being an 'experiential method' the best way to learn it is by doing it. And (Roderick, 2009, p. 59) notes "[a]ll that is needed… is an awareness of how you see the world and the willingness to challenge it as you compare your beliefs with incoming data."

2.6.4 Data generation

Data will be generated through the undertaking of my day to day management practice, from the grounded theory perspective that "all is data" (Oliver, 2011, p. 9). I will employ participant observation; conversational interviewing; document review; and make use of the literature.

2.6.4.1 Participant observation: The stance of 'researcher as employee'

(Kawulich, 2005, p. 2) defines participant observation as "the process enabling researchers to learn about the activities of the people under study in the natural setting through observing and participating in those activities". Glaser as cited in (Patterson, Bottorff, & Hewat, 2003, p. 3) notes that participant observation provides an opportunity to collect data where it is important to capture human behaviour, in its broad natural context at several different times, and also from a multitude of perspectives.

In the language of traditional descriptions, I will adopt the stance of participant as observer, as a researcher who is a member of a group who is aware of the research being undertaken ((Gold, 1958) cited in (Kawulich, 2005, pp. 6-7)). This stance avoids many of the ethical dilemmas posed by 'full participation'. In Adler's terminology (1987) cited in (Diaz, 2005, p. 6) I will be in an 'immerged' role, going beyond where one participates and has responsibilities, to being a natural member and having the same feelings and goals as other 'actors in the field'. However, I believe (Vinten, 1994, p. 31)'s terminology will best describe my stance, being a 'researcher as employee', a role of total immersion where the researcher is one with fellow employees with the associated benefits of a longitudinal perspective.

2.6.4.2 Conversational interviewing

It is noted in the course notes (Graduate School of Business, 2011, p. 2) that to those unfamiliar with the methodology, a conversational interview may appear to simply be two individuals casually chatting about whatever comes to mind. However, (Crouch & McKenzie, 2006, pp. 486-487) note that a conversational approach can be undertaken in an open ended manner such that "without the constraint of a pre-determined grid of specific questions or issues to be discussed, the very scope of the inquiry can broaden or even shift in response to the emergent interview material". Thus, a conversational, or unstructured approach, to interviewing has the purpose of letting "the interviewee's offer interpretations of reality, without preconceived ideas developed by the interviewer" (Laws & Mc Leod, 2004, p. 13)

Another useful variant of the conversational interview is that of the 'corridor interview' (Laws & Mc Leod, 2004, p. 15) where useful data can be obtained through non-structured, nor planned discussions with colleagues and other stakeholders.

A conversational interviewing approach will be used in interactions and discussions with stakeholders in my every day management practice.

2.6.4.3 Documentation

Documentation will include public and internal company reports, letters, email correspondence, meeting minutes, and reports generated by external stakeholders. (Abbot, Shaw, & Elston, 2004, p. 261) point out that even 'aspirational documents' have value in that "they are deliberate and conscious statements of policies and strategies at particular points in time, and can at the very least be regarded as public avowals of commitment to certain objectives and even values." Policy documents and company management standards are examples of such documents. Documents are also useful in that they can be used as an important resource for triangulation of data (Miller & Alvarado, 2005, p. 348).

However, I will need to be mindful of potential bias in my analysis of documents given that I will be the author or co-author of many of them.

2.6.4.4 Literature

The literature includes the popular press, industry reports, newsletters and survey results, journal articles and books, particularly those drawing on practitioner perspectives. In searching for journal articles I will principally use the Emerald (http://www.emeraldinsight.com) and EBSCO (http://search.ebscohost.com/) databases.

Unlike many more traditional research methodologies which start with a literature review, the grounded theory methodology cautions that "a theory cannot be simultaneously emergent and built on concepts selected from the literature" (Heath & Cowley, 2004, p. 143)**.** Glaser (1998, p. 67) as cited in (Scott, 2009, p. 104) elaborates suggesting that one should not do a literature review in the 'substantive area' nor related areas where the research is to be done until the grounded theory is nearly completed i.e. once the core categories have been established, when the literature can be used as data for constant comparison. This does not preclude drawing on the literature until this time, the important points being that the emerging theory should not simply be built from concepts taken from the literature and that the research does not commence with a traditional literature review.

2.6.5 The grounded theory process

Grounded theory, as it will be applied in the research entails three high level interacting activities of i) abstraction, ii) conceptualisation and iii) theory building (Ryan, 2011). Within these activities its key components will be outlined, these being: iterative data collection, memoing, constant comparison, theoretical sampling, saturation, theoretical coding, and theory building.

2.6.5.1 Abstraction

The abstraction process leads to the development of a set of saturated categories populated by propositions abstracted from the data. This process is explained below.

In the context of my research design and my related management concerns and research question an iterative process of data collection will take place drawing on experiences of everyday events in my daily management situation. Data will be collected, as outlined above via participant observation, conversational interviewing, documentation, and the literature. In order to address issues of bias and draw in different perspectives, it will be important to attempt to draw on as many sources of data as possible, a process known as data triangulation (Oliver, 2011, p. 8). I will make use of memoing throughout the process of abstraction, conceptualisation and theory building.

Memoing is explained by (Elliott & Lazenbatt, 2005, pp. 3-4) as being a process whereby one writes down ideas that arise during the data analysis with these memos providing a track record of the analysis and eventually being used as the "analytical building blocks from which the new theory is developed." Furthermore it "encourages analysis that is grounded in the data because the researcher must consider how the codes and their properties relate to each other and provide evidence of this from the data."

Data will be collected and put into categories based on a process of constant comparison. A category being a label that best describes the data it contains. Initial categories will guide the ongoing iterative data collection process making use of theoretical sampling and ongoing constant comparison until saturation of the categories is achieved. In this process the categories and concepts will be adjusted and re-labelled as needed and new categories and concepts may also be created if the data doesn't fit into existing ones (Ryan, 2011).

In order that data is made meaningful it needs to be coded and propositions will be 'abstracted' from the experiences and events of my every day management practice and interaction with stakeholders (Ryan, 2011, p. 16). A proposition needs to contain a subject that has relevance to my managerial concern and a predicate that has impact on the phenomenon being sought to be influenced (Ryan, 2011, p. 9).

Constant comparison involves three levels of comparison i) data with other data ii) emerging categories and concepts with additional data, and iii) finally emerging categories and concepts with each other attempting to ensure that the categories are as mutually exclusive as possible (Holton, 2010, p. 28).

Glaser (1978, p. 36), as quoted in (Coyne, 1997, p. 625) defines **theoretical sampling** as "the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is controlled by the emerging theory." (Neill S. J., 2007, p. 436) points out that while theoretical sampling in grounded theory is "not a clearly prescribed process", in essence, once the research is underway the ongoing sampling process is directed by an analysis of the data already collected. The emerging categories and concepts become the focus of further data collection.

As regards where to start, researchers are advised by (Neill S. J., 2007, p. 436) to start "the study with a sample where the phenomenon occurs" seeking out "information–rich" cases fitting the focus of the research via a purposeful sampling approach. And while the divide between purposeful and theoretical sampling may not be a clear cut one in practice in the early stages of the study, as it progresses theoretical sampling increasingly replaces

purposeful sampling (Neill S. J., 2007, pp. 438,442). Glaser (1978, p. 45) quoted in (Coyne, 1997, p. 625) too acknowledges that theoretical sampling will involve the purposeful selection of a sample in the initial stages of a study commenting that researchers should "go to the groups which they believe will maximize the possibilities of obtaining data and leads for more data on their question".

Chenitz and Sanson (1986, p. 9) quoted in (Coyne, 1997, p. 625) stress the critical nature of simultaneous data collection and analysis and elaborate that that theoretical coding ensures 'representativeness' in a category and that

Each category needs to be tested against incoming data as a full range in a category is sought. Sampling proceeds to produce this range. Sampling to test, elaborate, and refine a category is done for verification or to test the validity of a category. Further sampling is done to develop the categories and their relationships and interrelationships.

An advantage of the method is that it allows for flexibility in the research process. Glaser (1978, p. 38) quoted in (Coyne, 1997, p. 626) points out that

when the strategies of theoretical sampling are employed, the researcher can make shifts of plan and emphasis early in the research process so that the data gathered reflects what is occurring in the field rather than speculation about what can or should have been observed.

Glaser (1978, p. 102) as cited in (Coyne, 1997, p. 625) outlines the relationship between theoretical sampling and saturation stating that

the general procedure of theoretical sampling is to elicit codes from the raw data from the start of data collection through constant comparative analysis as the data pour in. Then one uses the codes to direct further data collection, from which the codes are further developed theoretically with properties and theoretically coded connections with other categories until, each category is saturated. Theoretical sampling on any category ceases when it is saturated, elaborated and integrated into the emerging theory.

Saturation is sought in each category and is achieved: "(1) when no new or relevant data emerge for a category, (2) the category development is dense, and (3) the relationship between categories are well established and validated" (Bowen, 2009, p. 309). (Holton, 2010, p. 32) suggests that "[o]ne stops when one no longer needs to continue" but that "[t]he challenge is in how to recognize that the need no longer exists". Rather than presented as a fixed point, Clarke (2003, p. 571) quoted in (Oliver, 2011, p. 8) suggests that "analysis stops when 'you don't think you have missed much of anything. [And you] think these are the most important elements".

2.6.5.2 Conceptualisation

Conceptualisation is a process of identifying the patterns and trends of what is happening in the saturated categories with their category labels becoming the concepts emerging from the research and these concepts in turn being framed as variables (Ryan, 2011).

A process of **reduction sampling,** using an interrelationship diagraph, will be followed to reduce the emerging concepts into core concepts. While Glaserian grounded theory normally seeks out one core variable, three and in some cases four, core variables will be

sought to better assist in establishing causality. A selective **literature review** can be undertaken at this stage in order to better round out the concepts (Ryan, 2011).

(Holton, 2010, p. 31) also notes that selective sampling can take continue to take place once the core variable(s) have been identified with such ongoing data collection limited to the emerging conceptual framework i.e. the core category and those related to it.

2.6.5.3 Theory building

Finally a process of **theoretical coding** will be followed to produce the 'grounded theory' represented in a causal loop diagram i.e. a modelling of the causal mechanisms at play (Ryan, 2011).

(Hernandez, 2009, pp. 52, 54, 58) explains that theoretical coding is "simply detecting the relationships between two or more categories". And that

The theoretical code that emerges to integrate the substantive theory is not, itself, the core category; rather it is the conceptual model of the relationship of the core category to its properties and the other (non-core) categories. It is this relational model that integrates the substantive categories into a theory.

Glaser (1998, p. 164) quoted in (Hernandez, 2009, pp. 53, 55) cautions against the practice of "pet code overlay" such that "[t]heoretical codes must not be preconceived, rather they are emergent in the data, and therefore, 'earn their way into the theory.'"

Theoretical coding is important in that it assist in the explanatory power of the theory and increases its completeness and relevance which thereby increases its scope (Hernandez, 2009, pp. 55-56). While several theoretical codes may emerge in the study the one that is the most relevant will be the one that "provides the best fit for the data" in that it captures the relationships between the core category and all the essential categories (Hernandez, 2009, p. 59).

(Heath & Cowley, 2004, p. 149) point out that "[i]t is wise to remember… that the aim is not to discover the theory, but a theory that aids understanding and action in the area under investigation." Glaser and Strauss (1967, p. 32) make the distinction between 'middle-range' and 'all inclusive grand theories' stemming from grounded theory. The theory being sought to be developed through this research will be that of a middle-range theory which in their terminology falls between the 'minor working hypotheses of everyday life' and that of 'all-inclusive grand theories'.

2.6.5.4 Conclusion

A grounded theory approach as outlined above will be sought to be operationalised on two levels, that of the six research cycles, and in turn in the meta-synthesis which is outlined below.

2.7 Meta-synthesis

2.7.1 Introduction

On completion of the primary research, a process needs to be employed in order to synthesise the findings of the individual studies. An effective approach is that of employing a qualitative meta-synthesis.

Meta-synthesis is a process which seeks to bring together and interpret the findings of a collection of research studies in a chosen theme, or area of interest, with the aims of theory building, theory development, and seeking higher level abstraction (Finlayson & Dixon, 2008, pp. 59-60). The theories sought to be generated are termed 'mid-range' given that "explanatory efforts and theory generation are transitory and always open to revision, because phenomena are mutable and fluid" (Walsh & Downe, 2004, p. 205).

Meta-synthesis is distinguished from meta-analysis, which also seeks to combine and merge information from individual studies but is quantitative in nature employing statistical analysis (Finlayson & Dixon, 2008, pp. 59-60).

2.7.2 Explanation

2.7.2.1 The meta-synthesis process

Of the approaches to meta-synthesis outlined by Sandelowsky et al (1997) as cited in (Walsh & Downe, 2004, p. 207), that of integrating the findings of one researcher's multiple studies in a related field will be undertaken. The other two approaches outlined not being suitable given that one looks to synthesise the studies of different researchers in a related field, and the other to undertaking a quantitative summary of key elements across qualitative studies.

The parameters of a meta-synthesis are set by the primary objectives of the study, in this case a meta-synthesis of the six primary research cycles to be undertaken by myself. This clarifies the focus of the study, the number of research studies to be included, the timeframe which it will cover and resolves a key issue in meta-synthesis regarding the question of the inclusion or otherwise of studies based on quality issues in that I will have an intimate understanding of the quality of the work being synthesised. Furthermore, the potential concerns of merging studies from different methodological backgrounds will not arise given that the six research studies will be undertaken using the same methodology (Finlayson & Dixon, 2008, pp. 63-65).

An overall research question for the meta-synthesis must be defined as well as clarifying the method of synthesis to be employed. In this case it will be grounded theory which is an appropriate approach when seeking to develop theory from individual research studies (Finlayson & Dixon, 2008, p. 68), and is in keeping with the overall research method to be employed. In practical terms, the grounded theory process outlined below will be followed, the results of which will be presented in Chapter 3.

From the position of having completed the primary research I will establish if there is a redefined overall purpose of the study. And if so, the research undertaken will be viewed from this perspective. An overarching research question will be posed for the meta-synthesis and the data from the six research cycles will be revisited adopting a grounded theory approach.

The propositions making up the saturated categories of the six research cycles will be analysed as follows. The subject for relevance in the context of the redefined purpose of the study and either accepted or rejected. Where the subject is accepted as having relevance the proposition's predicate will in turn be analysed for impact in the context of the redefined purpose of the study and either accepted, modified (to clarify impact), or rejected (if there is no relevance to impact).

A process of reduction through categorisation by constant comparison will be embarked on attempting to keep the initial categories mutually exclusive. Based on the initial categories, a process of theoretical sampling will be embarked on to collect additional propositions relevant to the initial categories. The data from the six research cycles which will be collated in separate portfolios of work done (see also 2.8), will be revisited to achieve better saturation. A selective literature review will be undertaken at this stage to achieve better theoretical sensitivity to the emerging concepts. Ongoing memoing and refinement of the categories via constant comparison of categories with other categories will be undertaken.

The emerging concepts will be further reduced making use of an interrelationship diagraph to determine which concept is a subset others, out of which the core concepts will emerge. These results will be presented in Chapter 3.

2.7.2.2 Literature review and concept analysis

Chapter 4 will go on to present the findings of a fuller literature review undertaken at this stage on three interrelated levels, these being i) that of the parent discipline, sustainability, ii) the research topic and question and iii) the core concepts emerging from the meta-synthesis.

This will be augmented by a concept analysis undertaken on the core concepts using the method as described by Walker and Avant (1995) cited in (Johns, 1996) and (Speros, 2005). In this way, the core concepts' defining attributes, antecedents, and consequences will be identified.

Defining attributes are those characteristics that are most frequently associated with a concept and appear repeatedly in references to it. Antecedents are events or incidents that must precede the occurrence of the concept. And consequences are events or incidents that occur as a result of the occurrence of the concept (Speros, 2005, pp. 636-637). Antecedents and consequences are helpful to 'illuminate' the social contexts in which a concept is generally used and where the concept is applicable in a wide variety of situations in order for the antecedents and consequences to accommodate 'generalizability' their level of specificity will necessarily need to be low (Johns, 1996, p. 81).

Chapter 5 will report on the next step, a process of theoretical coding of the final concepts framed as variables, therein developing a mid-level grounded theory in answer to the overarching research question posed for the meta-synthesis. This will be augmented with the development of a design proposition, as outlined below.

2.7.2.3 Developing a design proposition

An objective of the meta-synthesis will be to develop a design proposition as advocated by (Denyer, Tranfield, & Van Aken, 2008). They highlight (pp. 394-397) that organisational and management research tends to focus on analysis and an explanation of problems and their causes, which is done at the expense of solving "field problems", being real problematic situations. They thus advocate (p. 394) undertaking research which

intends to add to analysis and explanation, specifications for interventions to transform present practices and improve the effectiveness of organisations… and [which] grapples with vexing questions faced daily by managers of 'how things should be?'

They accordingly argue for the development of design propositions making use of the 'CIMO logic'. The CIMO logic is constructed as follows: "in this class of problematic Contexts, use this Intervention type to invoke these generative Mechanism(s), to deliver these Outcome(s)" (pp. 395-396). They further expand on the CIMO components as follows (p. 397)

Context (C): The surrounding external and internal environment factors and the nature of the human actors that influence behavioural change.

Interventions (I): The interventions managers have at their disposal to influence behaviour.

Mechanisms (M): The mechanism that in a certain context is triggered by the intervention.

Outcome (O): The outcome of the intervention in its various aspects.

Of particular importance, the mechanisms thus indicate why an intervention in a given context produces a particular outcome and relates to the reasoning people use in choosing their response to the intervention, as well as their ability and resources to put the intervention into practice (Brouwer, Brekelmans, Niewenhuis, & Simons, p. 4). Put differently, this process seeks to identify and explore the mechanisms by which "inputs are converted inside a 'black box' into outputs", within a particular context (Ranmuthugala, et al., 2011, p. 2).

2.7.3 Conclusion: meta-synthesis

The meta-synthesis process employing a grounded theory methodology and generating a grounded mid-range theory augmented by a design proposition will be outlined in the remaining chapters of the dissertation.

2.8 Conclusion

Chapter 2 presented an explanation of the research methodology to be followed in both my primary research and the meta-synthesis. It provided an explanation of my choice of a qualitative research approach, critical realist ontology, grounded theory epistemology, and the approach to be taken to the meta-synthesis. The research findings for the six primary research cycles and the meta-synthesis respectively are presented from Chapter 3 onwards.

3. Chapter three: Research results

3.1 Introduction and overview

Implementing the research methodology outlined in Chapter 2, a review of the research results is provided on two levels, i) that of the primary research, and ii) the meta-synthesis up to the stage of the emergence of the final core concepts.

3.2 Timeline

3.2.1 Primary research timeline

Primary research took place over the period June 2005 to October 2010, five years and four months, and was undertaken in six research cycles:

From:	To:	Duration:
June 2005	**October 2010**	**5 years 4 months**
June 2005	December 2005	7 Months
January 2006	August 2006	8 Months
September 2006	September 2007	13 Months
October 2007	May 2008	8 Months
June 2008	June 2009	13 Months
July 2009	October 2010	16 Months

Table 1 Research timeline of primary research

3.2.2 Meta-synthesis timeline

During the course of 2011 and early 2012 the meta-synthesis and final dissertation write up was undertaken.

3.3 Research results: Primary research

From the vantage point of having completed the research, a brief summary of my managerial situation, the concern(s) which were sought to be addressed, the research question, and the research answer in the form of a causal loop diagram are presented for each cycle. While the principle focus of this section is on presenting the research results of the primary research, it also provides additional context for the meta-synthesis findings, as well as being a fuller description of the 'problem field' where I both 'field tested' elements of and developed the thinking informing the design proposition presented in Chapter 5.

As noted above, my role was expanded after cycle four to that of managing both social and environmental sustainability, which added richness to the research.

3.3.1 Research Cycle One: July 2005 to December 2005

3.3.1.1 Managerial situation, concerns and research question

In heading up the community relations and social development function[7] at the head office, a new role created in 2002, my managerial situation was one of this being a relatively new discipline still defining itself and modestly staffed and resourced.

My central managerial concern[8] was that while facing increasing societal expectations to behave 'responsibly', the company did not have a shared vision of what this fast evolving 'envelope of acceptable responsible behaviours', informed by multiple perspectives, meant for it strategically, managerially,[9] nor structurally.

The following research question was posed:

What strategic, managerial and structural interventions are required to manage social issues in a context of increasingly challenging societal expectations?

3.3.1.2 Answer

5 core concepts (Annex 6) were conceptualised from 50 propositions and making use of an interrelationship diagraph (Annex 7) the driver 'societal expectations on the company to behave responsibly' and outcome 'develop a shared vision of the evolving envelope of acceptable behaviours' were identified respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the balancing causal loop diagram below:

[7] Community relations and social development was the language used at the time for what was later referred to simply as community.

[8] This concern had been put into stark relief with the release in June 2005 of a damming report on the company's exploration activities in the Democratic Republic of the Congo by (Human Rights Watch, 2005), a prominent international human rights organisation, alleging support by the company for United Nations embargoed warlords, amongst numerous other concerns.

[9] I was using the language 'managerially' at the time to refer to 'managerial systems'.

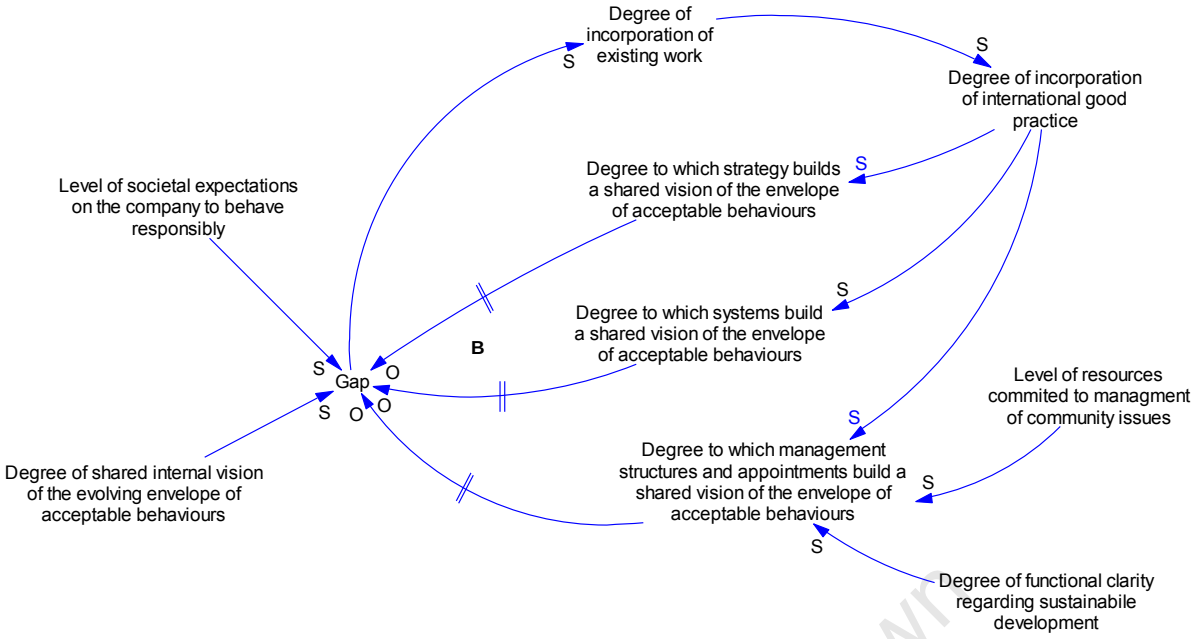

Figure 3 **A causal loop diagram representing grounded theory for research cycle one**[10]

This emerging theory is explained as follows:

The company acknowledged that it lacked and needed to develop a company-wide shared vision of acceptable behaviours regarding its interactions with communities. Furthermore, this understanding needed to be informed by and continue to evolve based on multiple internal and external perspectives. The gap thus being influenced by the level of societal expectations on the company to behave responsibly, with these expectations themselves being relatively unbounded and evolving. A gap existed between where it found itself and the actions it needed to take to build this understanding including the strategy, structures, and systems to operationalize it.

To address this concern, an important small win was a stated acknowledgement by the executive and board that community issues needed to be 'managed in the same way issues are managed in any other discipline' (AngloGold Ashanti, Board Sub Committee Report, 24 October 2005). And that to do this it was agreed that, a comprehensive community strategy, related management structure and system needed to be developed, drawing on international good practice, and put in place for the company. And that this would help bound a shared vision of the envelope of acceptable behaviours regarding community and therein, over time (indicated by a delay ll) narrow the gap between where the company was and societal expectations.

As a point of departure, it was acknowledged that the existing work undertaken in this area should be built on and formalised, and in turn that globally defensible international good

[10] In all the causal loop diagrams in this dissertation the normal conventions are followed in that S stands for 'Same' and O for 'Opposite' indicating the nature of the cause and effect relationships and ll for a time delay (Sherwood, 2002, pp. 28, 33).

practice[11] should also be incorporated. This would lead to and inform the strategy which would be designed to build shared vision. Following a time delay for implementation the strategy would contribute to a shared internal vision of the evolving envelope of acceptable behaviours regarding community.

Similarly, incorporating existing work and international good practice in the design of managerial structures and making managerial appointments would contribute, following a time delay, to building a shared vision of the evolving envelope of acceptable behaviours regarding community. And these structures would, furthermore, be influenced by the degree of functional clarity regarding the sustainable development discipline and the level of resources committed to the management of community issues.

Similarly, incorporating existing work and international good practice in the design of management systems would contribute, following a time delay, to building a shared vision of the evolving envelope of acceptable behaviours regarding community.

It was theorised that over time this gap would not fully close given that the concept of shared vision is a dynamic process which would necessarily continue to evolve given the ongoing interplay between societal expectations and the company regarding what exactly encompasses the envelope of acceptable behaviours.

3.3.2 Research cycle two: January 2006 to July 2006

3.3.2.1 Managerial situation, concerns and research question

My managerial situation was one of having a clear mandate from the executive and board to design a management system with the aim of creating a shared understanding of the boundaries of acceptable management practices regarding community in order to seek to influence on the ground practices across the company's global operations.

The principle managerial concern being to ensure that the management system was designed that it be internally bought into, while being internationally defensible, and accommodating cultural differences between the company's many different host countries and employees.

The following research question was posed:

What are the key drivers to be taken into account in the design of a company-wide community relations and social development management system?

[11]The international good practice which was taken into account included IFC Safeguards, guidance and tools, as well the Anglo American Socio Economic Assessment Toolbox (Anglo American, 2003)

3.3.2.2 Answer

8 core concepts (Annex 8) were conceptualised from 115 propositions and making use of an interrelationship diagraph (Annex 9) two drivers 'stakeholder and societal expectations' and 'host country cultures' and two outcomes 'end users' requirements' and 'process driven decentralisation of management' were identified respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the balancing causal loop diagram below:

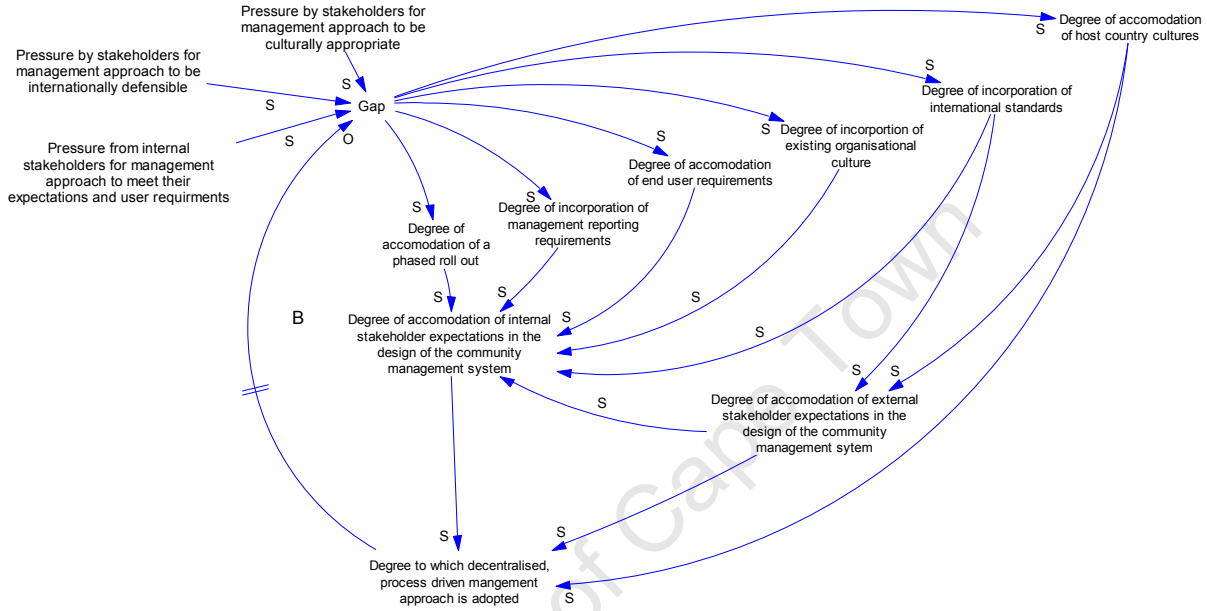

Figure 4 A causal loop diagram representing grounded theory for research cycle two

The managerial concern pointed to a desired state, from a head office perspective, where the company could meet both internal and external stakeholder expectations by having a culturally appropriate, internationally defensible, management system accommodating internal user requirements. A gap thus existed between where the company was and the actions it needed to take to incorporate these and other considerations into the design of a community management system.

The emerging theory indicated that degree of accommodation of internal stakeholder expectations in the design of the community management system would be influenced by the degree of incorporation and accommodation of: international standards; existing organisational culture (captured in the company's values and business principles, international commitments made including the ICMM and UN Global Compact, and previous community work); end user requirements (i.e. how user friendly it was); internal and external management reporting requirements; being rolled out in phased manner (such that it could be implemented in modules by the operations and not launched all at once); and external stakeholder expectations (also incorporation host country cultures of which local operations and their management were also a part).

The emerging theory indicated that degree of accommodation of internal stakeholder expectations in the design of the community management system would be influenced by the degree of incorporation and accommodation of: internationally defensible positions on community issues[12] as well as being flexible and not overly prescriptive so as to accommodate host country cultures.

And in incorporating internal and external expectations in the design of the management system a decentralised, process driven management approach would necessarily need to be adopted that would, subject to an implementation delay, seek to manage community issues subject to clearly articulated boundaries, therein providing operations the flexibility to develop locally appropriate responses.

Thus, it was theorized that in adopting such an approach that the gap would be narrowed towards the management system more and more closely meeting internal and external stakeholder expectations over time. Being a dynamic design process, in that the system would continue to evolve as it was implemented in a phased manner, it would also seek to continue to meet evolving stakeholder pressures over time.

A small win, achieved in line with the theory outlined above, was the finalisation of the management system's two core standards on Stakeholder Engagement and Integrated Development Action Planning. They sought to respectively clarify who needed to be engaged on what issues, out of which an integrated development action plan could be put in place, both being dynamic processes.

3.3.3 Research cycle three: August 2006 to September 2007

3.3.3.1 Managerial situation, concerns and research question

Cycle three commenced in August 2006 with the formal global launch of the community and social development management system by the then CEO, and followed its ongoing implementation and development through to the appointment of a new CEO in September 2007. My managerial situation focussed on supporting the implementation of the two core standards while overseeing the development of additional standards for roll out in an incremental manner.

The core managerial concern related to ensuring the actual implementation of the management system such that it would influence on the ground management practices at the operations. And making necessary changes to the system and how it was being implemented based on feedback from end users. Implementation took considerable head office managerial effort including numerous site visits where concerns were encountered regarding both a lack of managerial accountabilities for community well as a lack of capability to undertake the work. In sum, the organisation's capacity to implement the management system had been overestimated.

[12]In order to meet internal and external stakeholder expectations, the international standards which were taken into account included IFC Safeguards, guidance and tools, as well the Anglo American Socio Economic Assessment Toolbox (Anglo American, 2003) and the ICMM/World Bank Community Development Toolkit (ICMM and World Bank Group, 2006).

The following research question was posed:

What is the most effective and efficient means of rolling out the community relations and social development management system to the company's global operations, while continuing to develop and adapt the system based on stakeholder feedback?

3.3.3.2 Answer

8 core concepts (Annex 10) emerged from 101 propositions and making use of an interrelationship diagraph (Annex 11) two drivers 'managerial accountabilities in community function' and 'managerial capability in community function' and two outcomes 'incremental roll out' and 'locally tailored approaches to the implementation of the community management system' were identified respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the causal loop diagram below made up of a balancing (B) and two reinforcing loops (R1 and R2) below:

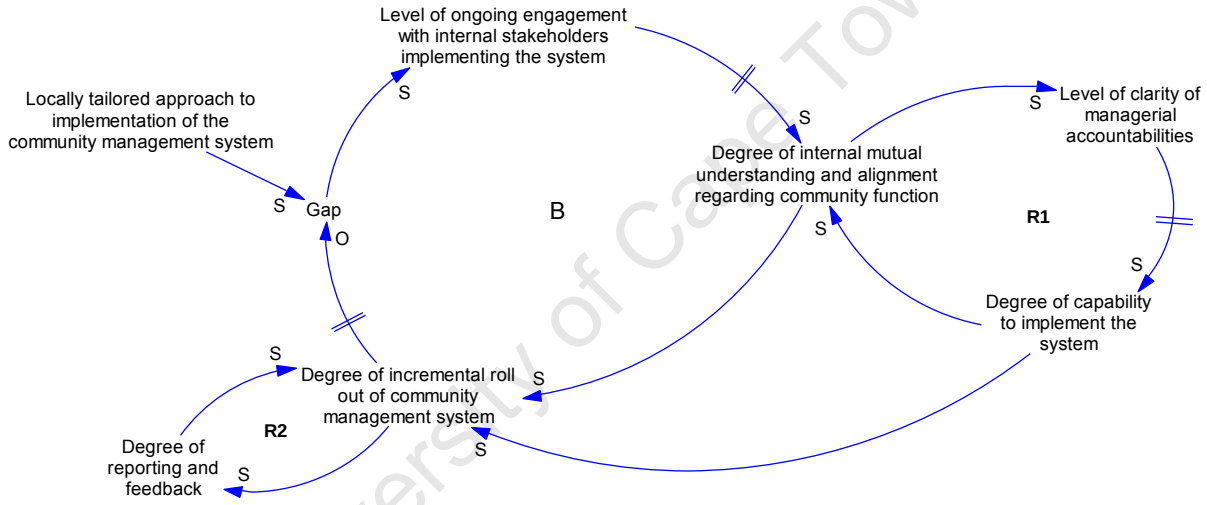

Figure 5 A causal loop diagram representing grounded theory for research cycle three

The desired state, from a head office perspective, was that of a locally tailored approach to the implementation of the management system globally. Tailoring of implementation does not imply different standards at different operations, but rather that approaches best suited to local dynamics would be implemented within the boundary limits set by the global standards.

And a gap existed between where the company was and the actions that were needed to be taken to close that gap. The emerging theory thus identified a number of key actions that the head office needed to embark on to attempt to close this gap within the company, as outlined below.

Ongoing engagement with the regional management and operations to keep up the implementation momentum was a crucial point of departure (taking place electronically, telephonically and most importantly face to face). This engagement and the operational

implementation process itself would therein lead, subject to a delay, to a degree of internal mutual understanding and alignment regarding the community function. Out of this understanding, and a key to driving the successful implementation of the management system, was the need for clarity regarding managerial accountabilities, from head office through to regions and sites; which also a key driver, would lead, subject to a delay, to the capability needed within the company to implement the system. This functional clarity and capability would both reinforce (R1)[13] mutual understanding and alignment of the function within the company, and provide the crucial capacity for the ongoing incremental roll out of the management system.

The incremental roll out of the management system also being driven by the degree of internal mutual understanding and alignment regarding community with the company. (It was also acknowledging that the quality of the implementation work and degree to which it was locally tailored would improve over time – a continual improvement philosophy. Also inherent in the incremental approach was the development of further standards in time, which due to capacity constraints did not happen as planned during the period).

The management system's incremental roll being further reinforced (R2) by ongoing reporting from operations regarding their performance and feedback as to the changes which may need to be made to improve the system's design, out of which the necessary changes would be made to the system and its standards.

It was theorised that this process would lead to a closing of the gap, subject to a time delay, towards a locally tailored approach being implemented in the roll out of the community management system. And it was also acknowledged that the cycle would repeat itself as the management system continued to be implemented over time.

3.3.4 Research cycle four: September 2007 to May 2008

3.3.4.1 Managerial situation, concerns and research question

Cycle four of the research took place over the period September 2007, with the arrival of a new CEO, through to my promotion effective 1 June 2008 into a newly created role in the head office of Vice President Environment and Community Affairs.

The period was characterised by: i) far reaching management changes across the company at both the senior and middle management level; ii) an asset review to evaluate the company's ongoing ownership of each asset; iii) the 'Safety is Our First Value' initiative launched as the key sustainability focus area; iv) the introduction of an overarching company-wide management framework; v) fundamental restructuring of the business sustainability function; and vi) my increasing disillusionment regarding the management of the changes followed by a decision to stay on in a newly created role.

[13] In practice factors such as staff turnover and a limited pool of available candidates will diminish this loops' reinforcing qualities

My core managerial concern was to ensure the continued implementation of the management system such that the work done to date was not lost in the transition.

The following research question was posed:

Given the ongoing fundamental changes within the company, how can the ongoing viability of the community management system be ensured?

3.3.4.2 Answer

6 core concepts (Annex 12) emerged from 35 propositions, and making use of an interrelationship diagraph (Annex 13) one driver 'restructuring' and one outcome 'adaptation' were identified respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the causal loop diagram below made up of the balancing (B) and reinforcing loop (R) below:

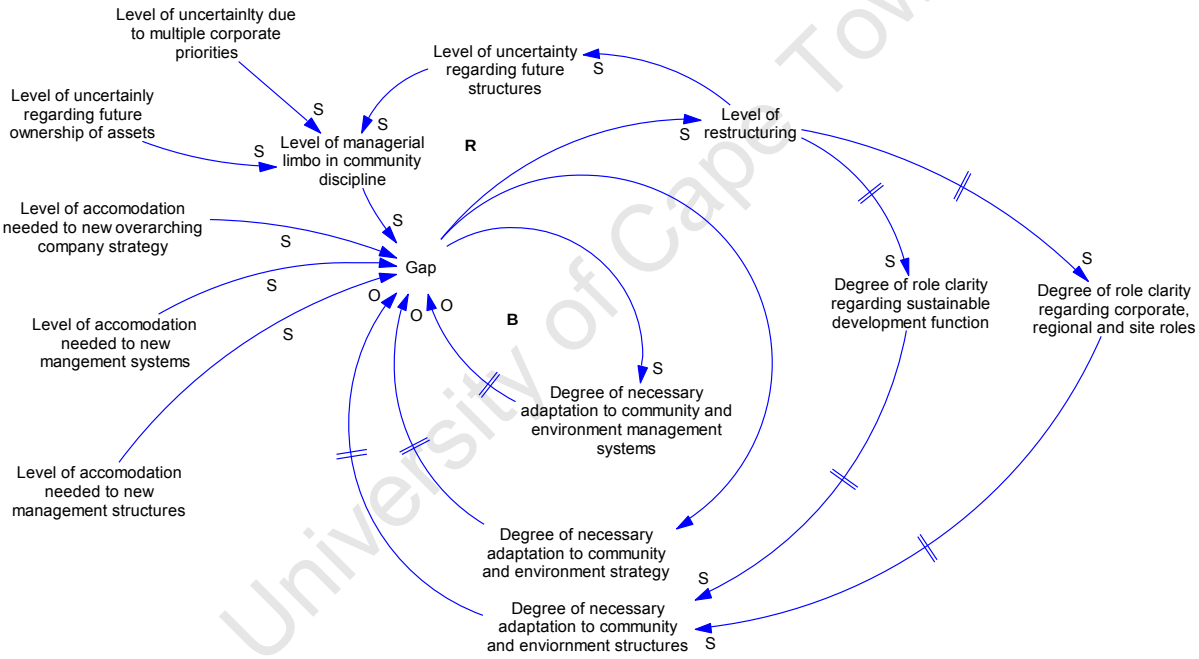

Figure 6 A causal loop diagram representing grounded theory for research cycle four

Stemming from the introduction of the new overarching company-wide strategy, structure and systems, these changes needed to be accommodated by necessary adaptations to the community strategy, structure and systems respectively. There was thus a gap which needed to be closed and the emerging theory below was developed to better understand what actions were needed from a head office perspective.

This was largely a period of 'managerial limbo' which made the gap larger. This being driven by uncertainty regarding the future ownership of assets (and therein a number of operations being inclined to move implementation forward); multiple corporate priorities (including for

sustainability a safety focus); and uncertainty regarding future structures as well as who would fill them, which was reinforced by ongoing restructuring (R).

Restructuring, subject to time delays, however, also lead to clarity regarding the sustainability function (including for myself), and role clarity regarding corporate, regional and site roles (although this was still an ongoing concern); which result, following further time delays, in necessary adaptations being made regarding community structures and those of environment following the agreement to integrate the disciplines.

While it was still unclear exactly what adaptations were needed to be made to the community and social development management system and strategy respectively, what was clear was that the integration of community and environment as a combined function (a small win) would be important to the future direction of the management system and the combined strategy going forward.

It was theorised that these adaptations would, subject to a time delay, close the gap between the community and environment function's strategy, structure and systems and the evolving company-wide strategy, structural and systems requirements.

3.3.5 Research cycle five: June 2008 to October 2009

3.3.5.1 Managerial situation, concerns and research question

Cycle five took place over the period June 2008, with my appointment into the newly created head office role of Vice President Environment and Community Affairs, through to the launch in October 2009 by the CEO of the Community and Environment Management Framework (AngloGold Ashanti, Community and Environment Management Framework, October 2009),[14] an important small win in the integration process.

It was a period of new beginnings with a twofold managerial concern from a head office perspective relating to (i) integrating the management of the community and environment functions, while maintaining their discipline specific technical depth and (ii) seeking to integrate the community and environment functions into the new company-wide management framework and therein to influence on the ground practices.

[14]The development of the Community and Environment Management Framework sought to integrate the key elements of the combined disciplines and provide a blueprint for the integration of the disciplines including the vision, mission and strategy, integrated policy, management standards, and governance procedures. This covering operational reviews, incident and risk reporting and management, corporate governance reviews, audit and reporting, and a process of setting 3 year rolling objectives for the discipline for budgeting and performance monitoring The policy, standards, and reporting requirements all being built on international good practice and company commitments in these areas drawing on the (International Finance Corporation, 2011)'s Performance Standards, the (International Finance Corporation, 2012)'s Environmental, Health, and Safety Guidelines for Mining, the (ICMM, 2011) Position Statement commitments and regarding reporting requirements, the (Global Reporting Initiative, 2011)'s guidelines and protocols.

The following research question was posed:

What is the most effective and efficient means of integrating the management of environmental and community aspects into AngloGold Ashanti's global operations?

3.3.5.2 Answer

8 core concepts (Annex 14) emerged from 189 propositions and making use of an interrelationship diagraph (Annex 15) two drivers were identified being 'community and environmental management framework' and 'building on existing systems and work' and the outcome 'locally tailored implementation of the community and environment framework' respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the causal loop diagram below made up of the balancing (B) and reinforcing loop (R) below:

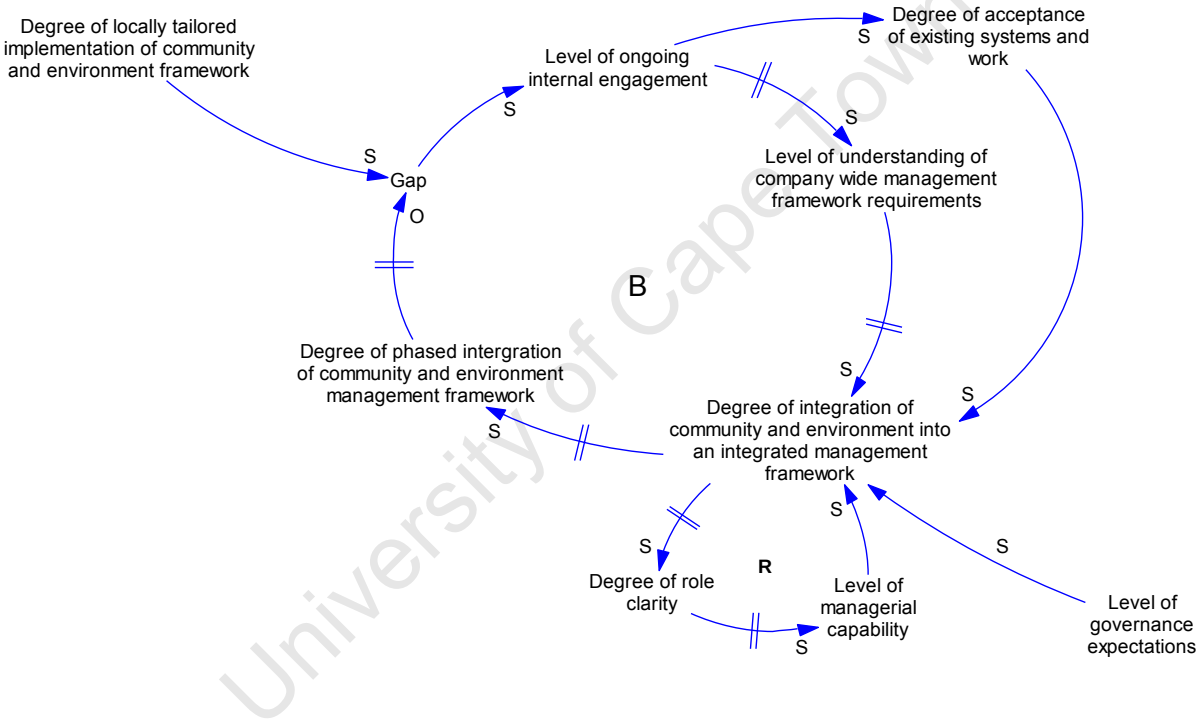

Figure 7 A causal loop diagram representing grounded theory for research cycle five

The desired state, from a head office perspective, was that of the operations implementing a locally tailored approach to the Community and Environment Management Framework (see footnote 14) such that an approach best suited to local dynamics would be put in place, within the bounds agreed by the company's global standards. It is explicitly noted that this does not imply different standards for different operations.

A gap thus existed between where the company was and the actions that were needed to close the gap. The emerging theory thus identified a number of key actions that were needed in order seek to close this gap within the company, as outlined below.

A point of departure was the need for head office to continue to engage on an ongoing basis with key internal stakeholders (principally but not exclusively in the community and environmental disciplines).[15] This leading to a process of agreeing the degree to which existing work would be integrated into the Community and Environmental Management Framework (including the community management system and ISO 14001 environmental management system initiated in 2006 and 2007 respectively).

And in order to develop this integrated management framework for the disciplines, an understanding, subject to time delays, coming out of the ongoing engagement process, was needed of the company-wide management framework, which too was evolving.

The Community and Environment Management Framework's would also be influenced by governance expectations and related concerns of external and internal[16] stakeholders, including the board.[17]

The Community and Environment Management Framework, in keeping with the overarching company-wide framework, also sought role clarity regarding the disciplines (and the split between corporate, regions and the operations that remained an ongoing concern), this being subject to a time delay. And in turn, subject to a further time delay, clarity regarding, and hiring of, the necessary capability to implement and meet the management framework's requirements (Capability also being an ongoing concern and identified as a key driver to the success of the process).[18] Functional clarity and having necessary capability at all levels would in turn reinforce (R) the integration process.[19]

And it was further theorised that the Management Framework would, subject to a time delays, in turn be locally tailored by the operations over time via a process of phased integration[20] with this, leading to a narrowing of the gap between where the company was

[15] The company-wide Community and Environmental Steering Committee was accordingly established.

[16] Included in governance concerns was the issue of the 'voluntary' withdrawal from the Cyanide Code due to not meeting the timeline for implementation due to capital not being allocated for changes in processes which needed to be made. (Cutifani, M., email correspondence, 30 April 2009)

[17] With the implementation of the management system dramatic increases in incident numbers were recorded with an increase in environmental incidents reported rising from 33 in 2007 to 104 in 2008 (AngloGold Ahanti, 2008). This prompted governance concerns from the Board Sub Committee on Safety, Health, and Sustainable Development as to how environmental issues in particular, but also community issues, were being managed.

[18] This was particularly the case for community, but there was also a lack of adequate capability of environmental staff in certain regions.

[19] In practice factors such as staff turnover and a limited pool of available candidates would diminish this loops' reinforcing properties.

[20] This especially needed given the differing levels of organisational maturity between the disciplines. Practically, the principle shifts in approach was that of the integration of the management of environmental and community aspects into the ISO 14001 management system, and the initiation of the integration of community and environmental departments. A modularised approach to introducing new management standards was also adopted.

and wanted to be. This while acknowledging that this cycle would continue to repeat itself as the integration process continued via a process of continual improvement.

3.3.6 Research cycle six: November 2009 to October 2010

3.3.6.1 Managerial situation, concerns and research question

Cycle six took place over the period November 2009 to my departure from the company in October 2010.

In my managerial situation, a number of problems that had been manifesting for many years emerged to take the mainstream of the executive and board agenda. Most serious of these being the temporary stoppage of Iduapriem Mine in February 2010 by the Ghanaian Environmental Protection Agency (AngloGold Ashanti, 2010a, p. 74). This and other challenges made it a difficult but positive period by creating the space to have many of the conversations that were needed to surface a range of fundamental concerns and seek their resolution, which was in and of itself a small win.

The core managerial concern being to ensure the ongoing integration of the disciplines and implementation of the management framework which was all the more important against the backdrop of management failures and ongoing concerns regarding the structures and systems not yet being adequately capable of dealing with the social and environmental challenges faced, most especially by legacy issues. There also was a considerable increase in investor pressure over the period, both related to the Iduapriem stoppage, and broader sustainability issues.

The same question was posed as in the previous research cycle:

What is the most effective and efficient means of integrating the management of environmental and community aspects into AngloGold Ashanti's global operations?

3.3.6.2 Answer

7 core concepts (Annex 16) emerged from 174 propositions and making use of an interrelationship diagraph (Annex 17) two drivers were identified being 'governance requirements', and 'stakeholder pressure' and one outcome being 'internalisation of community and environmental costs' respectively. Framing the concepts as variables and following a process of theoretical coding the interrelationship between them is demonstrated in the causal loop diagram made up of the balancing (B) and reinforcing loop (R) below:

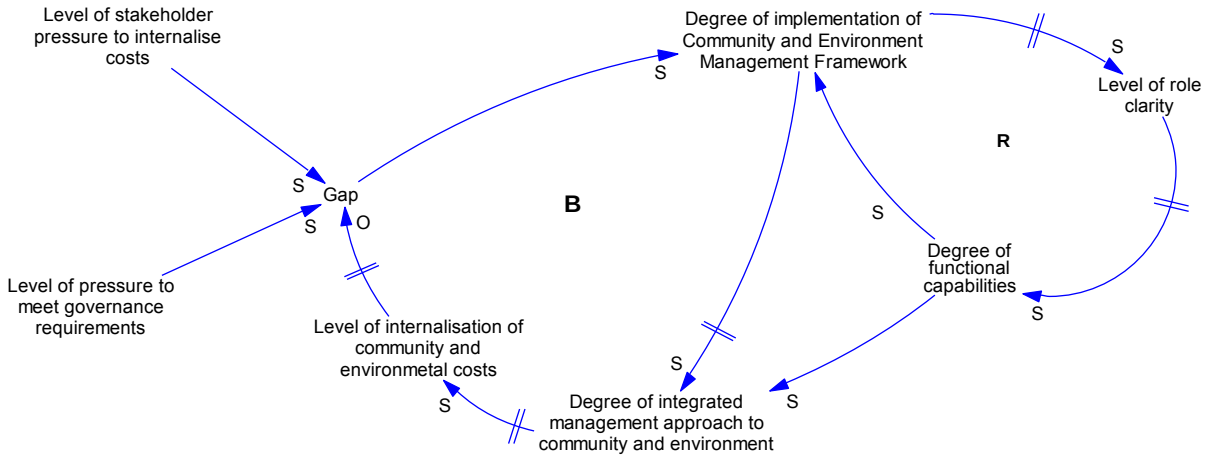

Figure 8 **A causal loop diagram representing grounded theory for research cycle six**

The desired state, from a head office perspective, was that of the internalisation of community and environmental costs in order to address stakeholder pressure to do so and meet governance pressures and requirements. (This included external governance requirements and internal processes around capital allocation, risk management, audit protocols and review mechanisms and most importantly acting on their findings).

And a gap existed between where the company was and the actions that were needed to be taken to close that gap. The emerging theory thus identified a number of key actions that the head office needed to undertake to influence the company to move in the direction of closing this gap, as outlined below.

The principle point of departure being the implementation the Community and Environment Management Framework which, subject to a time delay, would drive an integrated management approach to community and environment.

Also driven by the implementation of the Framework was, subject to time delays, role clarity (between head office, region and site roles) and, subject to further time delays, functional capability in these roles. Which in turn would drive the implementation of the community and environmental framework (R). Functional capability also driving an integrated management approach to community and environment. (Therein adopting a more holistic and systemic approach to the management of issues over a narrow discipline perspective).

It was theorised that implementing such an integrated management approach would in turn, subject to time delays, lead to the internalisation of community and environmental costs and therein, subject to time delays, a narrowing of gap between operational practices and stakeholder expectations and governance pressures. It was further theorised that particularly given legacy issues and that expectations continue to evolve that this cycle would continue over multiple iterations into the future.

3.4 Results from the Meta-synthesis

3.4.1 Introduction

A meta-synthesis of the six research cycles was undertaken as outlined below.

3.4.2 Meta-synthesis

From the position of having completed the six research cycles the first step of the meta-synthesis involved reviewing if, on reflection, there was a redefined purpose of the study. And if so, the research undertaken should be viewed from this perspective. As outlined above, the essence of my underlying managerial concerns remained relatively consistent over the research period with the research questions all variations on the theme of the integration into the management of the company social, and more latterly, also environmental sustainability issues.

3.4.3 Question for the meta-synthesis

The question for the meta-synthesis is:

How can AngloGold Ashanti most effectively integrate social and environmental sustainability into its global operations?

3.4.3 Grounded theory process

The data was reviewed from the perspective of this research question adopting a grounded theory approach as outlined in Chapter 2. Returning to the data from the each of the six cycles, the original propositions making up the saturated categories were analysed as follows: The subject was analysed for relevance in the context of the redefined purpose of the study and either accepted or rejected. Minor modifications were undertaken, where appropriate, to the subject of certain propositions to accommodate my changed management situation after the first four cycles to also encompass environmental sustainability.

Where the subject was accepted as having relevance, the proposition's predicate was in turn analysed for impact in the context of the redefined purpose of the study and either accepted, modified (to clarify impact), or rejected (if there was no relevance to impact). An example, for illustrative purposes, of this analysis is provided in Annex 18. A total of 664 propositions were reviewed in this way. Following revisions to 42 propositions and discarding 92 propositions as irrelevant to the revised overall purpose of the study 572 propositions remained.

Research cycle	Number of propositions
Cycle one: July to December 2005	50
Cycle two: January to August 2006	115
Cycle three: September 2006 to September 2007	101
Cycle four: October 2007 to May 2008	35
Cycle five: June 2008 to June 2009	189
Cycle six: July 2009 to October 2010	174
Total number of propositions for six research cycles	**664**
Revisions made to 42 propositions	
Propositions discarded due to lack of relevance to the revised study	(92)
Propositions remaining from first six research cycles	572

Table 2 Analysis of the propositions retained from the primary research cycles

A process of reduction through categorisation by constant comparison was then embarked on attempting to keep the 14 initial categories which emerged mutually exclusive. Returning to theoretical sampling additional propositions relevant to the initial 14 categories were collected. The data, and in particular memos[21] from the six research cycles, were revisited in this way to achieve better saturation. An additional 123 propositions were collected bringing the total number of propositions to 695. Following a further review of these propositions for duplication and relevance 66 propositions were discarded bringing the total number of propositions to 629.

Research cycle	Number of propositions
Meta-synthesis:	
Propositions remaining from first six research cycles	572
Additional propositions collected through process of theoretical sampling	123
Propositions discarded following additional review for duplication and relevance	(66)
Final set of propositions	**629**

Table 3 Analysis of the number of final propositions following theoretical sampling and review

[21] Including the position papers which were a form of long memo.

Through a process of constant comparison, seeking to ensure that the categories were as mutually exclusive as possible, 14 concepts emerged from the saturated categories. A selective literature review was undertaken at this stage of 44 research and practitioner articles focussing on the 14 concepts to achieve better theoretical sensitivity to them and in the process to seek out contrasting data and perspectives to balance researcher bias. Slight modifications were made two concepts in the process as follows: 'End users' was modified to 'employee empowerment' and 'phased implementation' revised to 'continuous improvement'. The 14 initial concepts being:

Employee Empowerment	Enabling corporate culture and practices	Role clarity and capabilities
Locally rooted	Personal connection to the issues	Integrated management
Continuous improvement	Internalisation of costs	Internationally defensible management system
Governance	Mutual meaning	Stakeholder expectations
Building on existing work	Legacies	

Table 4 The fourteen initial concepts emerging from the meta-synthesis

Ongoing memoing and refinement of the categories and concepts via constant comparison was undertaken reducing the number from fourteen to eight. A memo outlining the thinking informing this process follows below in table 5 which also provides further insights into the properties of these concepts. A table of the 629 propositions in the final 8 saturated categories is included as Annex 19.

Table 5 Memo on the constant comparison process leading to the final eight concepts

'Legacies' incorporated into 'Internalisation of costs'

The propositions contained in 'legacies' are all ultimately the result of a lack of the internalisation of costs over of time. At a higher level of conceptualisation 'legacies' can thus be incorporated into the concept of 'internalisation of costs' which relates to the company internalising (or otherwise) externalities of its business and taking a fuller responsibility (or otherwise) for all its impacts regarding social and environmental sustainability.

'Employee empowerment' incorporated into 'locally rooted, internationally defensible management system', and 'mutual meaning' respectively

'Employee empowerment' was not a well saturated concept. Furthermore, many of the propositions it contained pointed to the need to take into account the needs and requirements of employees implementing the management system i.e. the need to empower them to implement the management system in their local managerial context. Furthermore, they relate to the means of ensuring that the management system is locally rooted while

being internationally defensible. In this way, having an internationally defensible management system also empowers its users. These propositions are thus better categorised under the concept of 'locally rooted, internationally defensible management system'.

Moreover, a number of the propositions categorised under 'employee empowerment' related to the process of finding 'mutual meaning' between internal stakeholders and have thus been re-categorised accordingly. More broadly, 'mutual meaning' includes propositions highlighting the importance of internal and external communication and goes further to finding mutual meaning between stakeholder groups regarding issues and their potential solutions. A number of the propositions also relate to the company developing a shared vision of its envelope of acceptable corporate behaviours regarding social and environmental sustainability and continuing to adapt this understanding taking into account the multiple perspectives involved.

'Personal connection to the issues' incorporated into 'mutual meaning'

The propositions included under 'personal connection to the issues' are all elements of building mutual meaning regarding the issues and going beyond what they appear to be at face value. On reflection it is poorly saturated and I am concerned that having it as a stand-alone concept may be a case of me pursuing a 'pet theory'. I have strong resonance with the concept and there is no doubt that it is of vital importance to create in management a personal connection to social and environmental sustainability issues in order to increasingly take these considerations into account and ensure that they are better managed. Nevertheless, the propositions have been incorporated into 'mutual meaning'.

'Building on existing work' incorporated into 'internationally defensible, locally rooted management system', and 'continual improvement'

The propositions largely point to the importance of building on what is already in place within the company as a base for further work and not 're-inventing the wheel'. It is poorly saturated and I am once again concerned that having it as a stand-alone concept could be a case of me pursuing a 'pet theory'. The propositions relating to building on the existing management systems and processes have accordingly been absorbed into the concept 'internationally defensible, locally rooted management system'.

A number of the propositions included under the concept 'building on existing work' related more broadly to the concept of 'continual improvement' and have been incorporated accordingly.

'Governance' merged with 'stakeholders' to form a combined concept of 'stakeholder governance'

What is key about the propositions included in 'governance' is not governance per say, but that it is stakeholder led governance. The propositions point to the increasing demands for governance by a wide range of external and internal stakeholders. 'Stakeholder expectations' contained propositions relating to increasing expectations of a wide range of

stakeholders regarding an increasingly wide range of issues. The concepts of 'governance' and 'stakeholder expectations' have accordingly been merged into 'stakeholder governance'.

'Enabling corporate culture and practices' incorporated into 'mutual meaning'

On review these propositions point more to finding 'mutual meaning' than simply about being a corporate culture, or set of corporate practices per se. And in finding mutual meaning and communicating internally and externally a company's culture is better defined and clarified. The literature also interestingly points to a definition of culture being that of finding mutual meaning and a common language within an organisation (Seel, 2000). The propositions have accordingly been incorporated into this broader understanding of the concept of 'mutual meaning'.

'Role clarity and capabilities' split into two categories, that of 'role clarity' and 'functional capability'

Many of the propositions pointed to recurring issues regarding trying to make sense of what the community (and to a lesser extent environmental) role is given what a new discipline it is within the company. Also of importance is agreement on the bounding of the role and the issues it deals with and which structures in the organisation do what work i.e. corporate, regional or site level.

Regarding the bounding of the role, given that the issues and the discipline are emerging in parallel it can also be argued that as a new discipline it is in the process of being created such that as the role was clarified new issues would emerge. And given that these issues did not have a 'home' elsewhere in the organisation, issues such as product stewardship and human rights respectively, the bounding of the role continued to widen on an ongoing basis.

As regards capabilities, the propositions point to a key issue of having the necessary capability to discharge these emerging and complex roles, particularly that of community. It also points to there being enough qualified, experienced, and capable staff in role. And the challenges in this regard because of the tendency to transfer people in from other disciplines rather than engaging professionals qualified in the field.

Thus the issue of role clarity in the community and environmental roles is sufficiently discrete from the issue of functional capability that it is justified that they both be stand-alone concepts.

'Integrated management'

'Integrated management' has been retained as a stand-alone concept. It relates to the integration of the management of social and environmental sustainability issues into company strategy, structures, systems and processes. Those propositions relating more broadly to management systems have been incorporated into 'locally rooted, internationally defensible management system' with those specifically related to the integration of the management system retained under 'integrated management'.

Thus, the eight core concepts from the meta-synthesis are as follows:

Role clarity	Functional capability	Integrated management	Internalisation of costs
Continuous improvement	Locally rooted, internationally defensible management system	Stakeholder Governance	Mutual meaning

Table 6 The eight core concepts emerging from the meta-synthesis

These eight categories were further reduced making use of an interrelationship diagraph to determine which concept is a subset of the other. In each instance the question was asked if A is a sub-section/sub-component/sub-system of B, or if B is a sub-section/sub-component/sub-system of A. The interrelationship diagraph is presented in Annex 20. The four final core concepts established through this process are as follows:

Stakeholder governance	Integrated management
Locally rooted, internationally defensible management system	Internalisation of costs

Table 7 The final four core concepts emerging from the meta-synthesis

3.5 Literature review and concept analysis

Having established the final core concepts a fuller literature review was undertaken. As part of this process, a concept analysis was conducted on the four core concepts using Walker and Avant's (1995) method cited in (Johns, 1996) and (Speros, 2005). The core concepts' defining attributes, antecedents, and consequences were identified in this way with the process is reported on in Chapter 4.

These attributes, antecedents and consequences will in turn be used to better understand the interrelationships between the core concepts in the theory building and synthesis process which is reported on in Chapter 5.

3.6 Conclusion

Implementing the research methodology outlined in Chapter 2, this chapter provided a review of the research results on two levels, i) that of the primary research, and ii) the meta-synthesis of the primary research concluding with the emergence of the final four core concepts.

4. Chapter four: Literature Review

4.1 Introduction

In keeping with the grounded theory methodology, a literature review was undertaken at this stage of the meta-synthesis process to enhance theoretical sensitivity to the concepts at three interrelated levels, these being:

i) that of the parent discipline, sustainability;
ii) a review of the research topic and question for relevance to my management practice in my research context including my concerns and incorporating:
    - the core concepts of:
        - integrated management and;
        - stakeholder governance; and
    - the supporting[22] concepts of:
        - mutual meaning;
        - role clarity; and
        - functional capability;
iii) the additional core concepts emerging from the meta-synthesis being:
    - locally rooted, internationally defensible management system;
        - incorporating the supporting concept of continual improvement; and
    - the internalisation of costs separated into:
        - the internalisation of costs, and the externalisation of benefits respectively.

The literature review informed a concept analysis undertaken to identify the four core concepts' defining attributes, antecedents, consequences and is presented in Annex 21.

4.2 Sustainability and sustainable development

4.2.1 Introduction

(De Burgos Jimenez & Cespedes Lorente, 2001, p. 13)'s observation that the only agreement regarding sustainability is that there is neither a single definition as to what it actually is, nor an agreed upon process that will that 'confidently realize its achievement' points to its unbounded nature and use of the term.

As a point of departure, the vast body of literature relating to sustainability and its many facets is acknowledged with this review bounded to focus on literature relating to business and sustainability, particularly from a practitioner perspective.

[22] Of the 8 final concepts four were identified as 'core' and four as 'supporting'.

4.2.2 Bounding the concepts of sustainability, sustainable development and the triple bottom line

While the terms sustainability and sustainable development are often used interchangeably, sustainability can be understood to be a "capacity for continuance more or less indefinitely into the future" (Ekins, 1997, p. 1453) and sustainable development, as per the most widely accepted definition of the Brundtland Report of the (World Commission on Environment and Development, 1987, p. 1), "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Thus, when a process is sustainable "it can be carried out over and over again without negative environmental effects or impossibly high costs to anyone involved" (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 9).

(Zadek, 2001, pp. 105-113) tracks the evolution of the concept from the work of the World Commission, which focused primarily on environmental protection and resource allocation issues, to the shift in the 1990s to include social dimensions and their collective interplay with economic considerations giving birth in to the concept of the 'Triple Bottom Line'. He suggests that these three dimensions can be viewed as interdependent spheres within one overarching sphere given that the economic sphere comprises primarily of social processes, and that all social activities exist within the environmental sphere. He also notes that they have the potential for both mutually reinforcing effects as well as having trade-offs between, and within each sphere. This interrelationship is depicted in Figure 9.

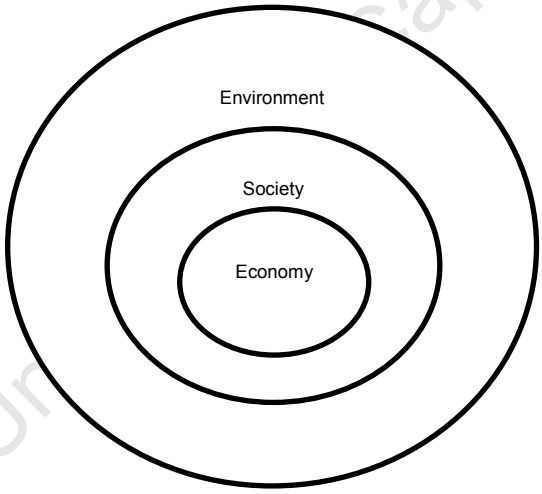

Figure 9 The interdependence between economic, social and environmental sustainability

Source: (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 102)

(Senge, Smith, Kruschwitz, Laur, & Schley, 2008, pp. 102-103) concur with this depiction and argue that a shift in thinking is thus necessary from the prevailing view that many still have of society and the environment being subject to economic considerations as depicted in Figure 10 below. They (2008, p. 103) cite Ray Anderson, CEO of Intel quoting former US senator Gaylord Nelson as saying that business needs to wake up to the simple fact that "the economy is a wholly owned subsidiary of nature, not the other way around".

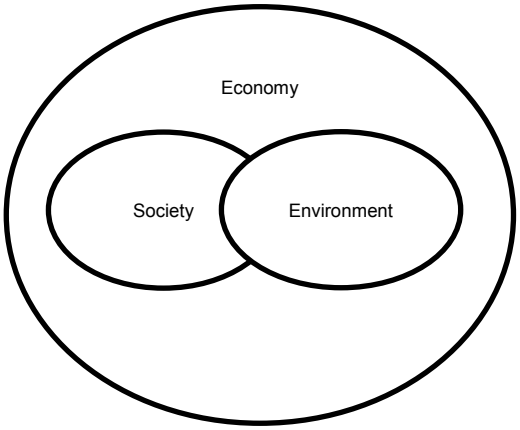

Figure 10 The 'traditional' view of the interface between the economy, society and the environment

Source: (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 102)

The 'establishment' is also arguing for change with King III (2009b, p. 9) acknowledging

Nature, society, and business are interconnected in complex ways that should be understood by decision-makers. Most importantly, current incremental changes towards sustainability are not sufficient – we need a fundamental shift in the way companies and directors act and organise themselves.

Incorporating this thinking King III goes on to define sustainability as (2009b, p. 61)

conducting operations in a manner that meets existing needs without compromising the ability of future generations to meet their needs. It means having regard to the impact that the business operations have on the economic life of the community in which it operates. Sustainability includes environmental, social and governance issues.

4.2.3 Corporate Social Responsibility (CSR)[23] and Corporate Citizenship

The concepts of Corporate Social Responsibility and Corporate Citizenship are often used interchangeably when discussing business and sustainability. The (International Institute for Environment and Development, 2005) suggests that CSR can usefully be considered as shorthand for businesses' contribution to the larger, less bounded concept of sustainable development.

King III (Institute of Directors, 2009b, p. 51) argues that Corporate Social Responsibility and Corporate Citizenship advocate a fully integrated approach to sustainability proposing that

[CSR is] an important and critical component of the broader notion of corporate citizenship. One is a good corporate citizen, inter alia, by being socially responsible. Corporate responsibility is the responsibility of the company for the impacts of its decisions and activities on society and the environment…

[23]The concept of **Corporate Social Investment** is a specific manifestation of corporate responsibility relating to altruistic financial and in-kind donations (Institute of Directors, 2009b, p. 51) and a term widely used in South Africa, often interchangeably with CSR which often causes confusion.

But (Quinn & Dalton, 2009, p. 22) citing (Hart, 1997) argue that sustainability goes beyond the "traditional, differentiated view of corporate citizenship" which they posit treats social and environmental activities as add-on functions of the organization, with sustainability relating to a full integration of social and environmental considerations into the vision, values and operations of an organization.

(Prieto-Carron, Lund-Thomsen, Chan, Muro, & Bhushan, 2006, p. 977) argue for a broadening of the definition of CSR to include a role for business in relation to poverty reduction. But (Newell, ud, p. 3) suggests that beyond clear 'win-win' scenarios, such as for example building roads that both communities and the company can use, companies often perform poorly as social development actors.

4.2.4 Business and its (un)sustainability

There is an increasing acknowledgment that business' activities are "inflicting a substantial burden on both people and planet" (Coleman, 2002, p. 18), or put in much stronger terms that ''[q]uite simply, our business practices are destroying life on earth" (Hawken (1993, p. 3) quoted in (Quinn & Dalton, 2009, p. 22)). (Ekins, 1997, p. 1453) argues

it is now clear that, in aggregate, current human ways of life do not possess [the capacity for sustainability] either because they are destroying the environmental conditions necessary for their continuances, or because their environmental effects will cause unacceptable social disruption and damage to human health.

(Haque, 2011, p. 11) critiques the very economic system arguing

industrial era capitalism's cornerstones institutionalise what economists call negative externalities – or negative impacts excluded from market prices – making them systematic, and on the flipside, deinstitutionalise or limit positive externalities – benefits not included in market prices. Its institutions produce too much economic destruction for too little creation.

It is thus argued that for sustainability considerations to be taken into account a new approach is needed with considerable debate as to what this should look like.

4.2.5 New economic models – moving from the red, to the green, to the blue economy

(De Burgos Jimenez & Cespedes Lorente, 2001, p. 12) argue that balancing the three aspects of sustainability may require a shift from the "maximization of profit to something completely different such as the maximization of meaning." They compare the so-called 'green economics' perspective which argues for 'doing things better' with that of the 'whole system redesign' paradigm which advocates that we need to 'do better things'.

'Green economics' comes from the perspective that there is little wrong with the neo capitalist system itself, and rather that business needs to adopt production processes that are more efficient such that technological advancement will put off the challenges of exceeding the earth's carrying capacity. Whereas the 'whole system redesign' perspective

advocates that more fundamental change is needed in the way humanity lives, works, spends its leisure time and the likes as well as the values that it pursues. In the latter sustainable development necessarily "concerns system innovations that require an integrated redesign of products, lifestyles, processes and structures" (De Burgos Jimenez & Cespedes Lorente, 2001, p. 12).

To this debate, (Pauli, 2010) introduces the notion of the 'blue economy'. He argues (2010, pp. xxx-xxxi) that the while green economy approach assists in preserving the environment, it has required that companies invest more and consumers pay more to achieve the same or less, and that such an approach is not feasible, particularly in times of economic downturn. He refers to the current economic model as the 'red' economy arguing that it borrows from nature, humanity and the commons without repayment other than its postponement to the future and that instead what is needed is an approach moving 'beyond preservation' to 'engaging regeneration'. In essence, a 'blue' economy model seeks out natural solutions to social and environmental sustainability challenges by replicating ecosystem functions to solve environmental problems while creating (large scale) employment opportunities in the process.

Such an approach is also, broadly speaking, advocated by the thinking informing bio mimicry ('how would nature solve this problem') and 'cradle-to-cradle design' (where all waste is sought to be eliminated from the product life cycle) (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, pp. 285-286).

4.3 The research topic and question

4.3.1 Introduction

The research topic and question[24] are reviewed for their relevance to my management practice in my research context including my managerial concerns. This is done via a review of the core concepts of 'integrated management' and 'stakeholder governance'; and the supporting concepts (which related primarily to my management concerns) of: 'mutual meaning'; 'role clarity'; and 'functional capability'.

[24] My research topic and question respectively being: 'Integrating social and environmental sustainability into the operations of a multinational gold mining company: A case study of AngloGold Ashanti' and **'**How can AngloGold Ashanti most effectively integrate social and environmental sustainability into its global operations?'

4.3.2 Integrating social and environmental sustainability into the business: The core concept of 'integrated management'

4.3.2.1 Integrated management

'Integration' is generally understood to relate to combining separate parts into a whole (Beckmerhagen, Berg, Karapetrovic, & Willborn, 2003, p. 214) with (Asif, De Bruijn, Fisscher, Searcy, & Steenhuis, 2009, p. 261) describing it as "the complete harmony and alignment of strategy and operations of an organisation" and citing (Garvin, 1991) that "it means that different departments and levels speak the same language and are tuned to the same wavelength". And (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 25) observe that we find ourselves in the predicaments we do because of a way of thinking that focuses on parts and neglecting the whole.

4.3.2.2 Integrating social and environmental sustainability into the business

King III proposes that strategy, risk, performance and sustainability have become inseparable (Institute of Directors, p. 11) and (Riccoboni & Leone, 2010, p. 131) argue that environmental and social issues need to be incorporated into existing planning process, policy decisions, capital allocation process and performance evaluation. To which (Rake & Grayson, 2009, p. 397) add operating processes, (Jamali, 2006, p. 818) structures, (Walker, Pitt, & Jha, 2007, p. 52) formal reporting systems, and (Quinn & Dalton, 2009, p. 34) mainstream strategy.

In this way a company needs to treat its integrated sustainability strategy as being strongly tied to the business rather than 'non-core' (Riccoboni & Leone, 2010, p. 139), or a 'bolt-on' activity (Grayson, 2011, p. 1020), such that it "becomes hard to distinguish from the day-to-day business of the company" (Porter & Kramer, 2006, p. 89) and changes the very nature of the way business is conducted (Quinn & Dalton, 2009, p. 34). (Riccoboni & Leone, 2010, p. 131) caution that this process is more challenging for social than environmental issues because social concepts are 'tricky and elusive' and thus less amiable to objective and specific measures.

Such integration is challenging in practice, with a global survey by McKinsey and Co (2007, p. 7) observing that while 72% of CEO respondents believed that companies should fully integrate environmental, social and governance issues into their company's strategies and operations, only 50% indicated they were actually doing it.

4.3.2.4 Integrated management systems

Management systems can be designed as 'stand-alone systems' but (Walker, Pitt, & Jha, 2007, p. 58) note that it is increasingly considered best practice to integrate environmental management requirements with health and safety and quality management systems. They also note that corporate social responsibility and corporate governance issues are increasingly being integrated with other systems.

This approach is also observed by (Kemp, Boele, & Brereton, 2006, p. 392) who note that minerals companies are implementing management systems for community as an extension of occupational health and safety and environmental management systems. However, they caution that this approach raises important policy questions in that while working well for standardised processes and routine activities it may be problematic when applied to the "fluid often conflictual world of community relations". They also note that while internal efficiencies may be created in this way, it does not necessary translate into better outcomes for external stakeholders. They thus argue (p. 395) for a "modified extension" rather than a direct application of the conventional management systems approach to community, to ensure that stakeholder requirements are adequately taken into account.

(Beckmerhagen, Berg, Karapetrovic, & Willborn, 2003, p. 214) note that the degree of integration pursued typically varies depending on prevailing conditions, strategies and standards requirements. They distinguish three degrees of management systems integration: i) harmonization, which includes co-ordination of documentation; ii) cooperation, involving the broadening of the scope of the system making use of integrated audits and deployment of resources; and iii) amalgamation, being the full integration of management systems into a new and comprehensive integrated management system (IMS).

4.3.3 Balancing evolving, increasing, and often conflicting stakeholder governance pressures: The core concept of 'stakeholder governance'

King III (Institute of Directors, 2009b, pp. 60, 11-12) defines stakeholders as "any group affected by and affecting the company's operations" and advocates for an inclusive approach to governance that considers the "legitimate interests and expectations of stakeholders other than shareholders".

A useful working definition of corporate governance is provided by (Ruhanen, Scott, Ritchie, & Tkaczynski, 2010, p. 7) being

the whole system of rights, processes and controls established internally and externally over the management of a business entity with the objective of protecting the interests of all stakeholders.

At its most basic, companies need to balance 'profit, people and planet' (De Burgos Jimenez & Cespedes Lorente, 2001, p. 12). This being a relatively new challenge for business with environmental sustainability issues having received increasingly concerted international attention since the 1980s (Wheeler & Sillanpaa, 1997, p. 82). It is further observed by (Allee, 2000, p. 21) that it is only since around the turn of the century that addressing social issues has evolved into being considered vital to corporate success rather than as being an 'interference' with the business agenda.

Moreover, the importance of corporate environmental, social and governance programmes is 'soaring' (McKinsey and Company, 2009). Pressure is coming from multiple sources including internal stakeholders (investors, employees, customers and suppliers), external stakeholders (legislation, regulations and voluntary codes of practice) and institutional forces (of norms and expectations) (Hind, Wilson, & Lenssen, 2009, p. 385). Thus, businesses need to understand their significant environmental and social impacts via effective engagement with these internal and external stakeholders (Rake & Grayson, 2009, p. 398). King III notes that as a corporate citizen a company "has social and moral standing in

society, with all the responsibilities attached to that status" (Institute of Directors, 2009b, p. 22).

Governments, activists, and the media have all become adept at holding companies to account for the social consequences of their activities with such organizations also having grown much more aggressive and effective in bringing public pressure to bear on corporations (Porter & Kramer, 2006, pp. 78-80). The intensity of this pressure varying by country, industry, firm and market forces (Setthasakko, 2007, p. 155). Increasingly, to counterbalance activist NGOs influence, business roundtables have also been established (Cartwright & Craig, 2006, p. 748).

The nature of expectations on business are also changing. 95% of the CEOs surveyed in a global survey by McKinsey and Co (2007, p. 2) indicated that society had greater expectations than it did 5 years previously on companies to assume 'public responsibilities' while more than half of the respondents predicting that these expectations would increase 'significantly' over the next five year period. They argue (p. 3) that the "terms of the contract between business and society have undoubtedly become more extensive and complex" with companies affected by local interpretations of environmental, social and governance norms and needing to find ways to demonstrate 'local loyalties' while at the same time building a 'globally integrated system of values'.

A complication that companies face in taking into account the concerns of multiple stakeholders is that each has different expectations which require different approaches (Asif, De Bruijn, Fisscher, & Searcy, 2010, p. 570). Moreover, in trying to placate pressure groups, companies must be careful not to allow themselves to engage in "a never ending public relations palliative with minimal value" (Porter & Kramer, 2006, p. 82).

Furthermore, what is considered to be 'proper' corporate conduct is a social construct varying according to culture and time and companies need to monitor and respond to these changing expectations (Ihlen, 2008, p. 142). This is especially challenging where the company is considered to be accountable, but has little or no direct responsibility as an individual organisation, such as climate change or addressing social inequality (Hind, Wilson, & Lenssen, 2009, p. 16).

Thus there is a gap between companies understanding of the boundaries of their responsibility and how these boundaries are perceived by their own employees and the wider public (Prieto-Carron, Lund-Thomsen, Chan, Muro, & Bhushan, 2006, p. 983). The related adoption of governance practices and principles will thus differ depending on the corporation's view of their social responsibility obligations (Young & Vijaya, 2008, p. 100).

This said, three levels of stakeholder governance can be distinguished in (Ruggie, 2006, p. 18)'s observation that companies are

constrained by legal standards and social norms and moral considerations and in this way there are certain things that companies must do, things which internal and external stakeholders expect that they should do and lastly things that are desirable.

In widening the stakeholder approach beyond that of being anthropocentric, (Cartwright & Craig, 2006, p. 744) argue that a functioning biosphere is key to maintaining adequate

conditions for life, and hence a precondition for sustaining our society and economy. And that 'the Earth' should thus be admitted as a stakeholder with the necessary broadening of ethical understanding to include as measures of success not only shareholder capital but social and natural capital.

Formal structures with roles and accountabilities for operationalizing sustainable development are needed from the Board level down (Institute of Directors, 2009a). Companies also need to build sustainability reporting capability in order to meet intensifying public scrutiny and government regulation (Lubin & Esty, 2010, p. 49). These reports should be backed by a global or national framework certification (Hugh & Talwar, 2010, p. 389) and externally validated management and auditing systems (Watson & Emery, 2004, p. 924). Companies should also meet the demands for "more and better information" regarding the identification and management of social, ethical and environmental risks and how they affect the short and long term value of the company (Walker, Pitt, & Jha, 2007, p. 54).

4.3.4 The importance of mutual meaning between stakeholders: The supporting concept of 'mutual meaning'

A concern is the lack of mutual meaning, both within the company, between internal stakeholders, and between the company and its external stakeholders.

(Ackoff, 1993, p. 1) notes out that "[d]espite the role our worldview plays in our understanding of reality, few of us are conscious of the set of assumptions that informs this view." And, (Schein, 1993, p. 29) argues

[we] need technologies and mechanisms that make it possible for people to discover that they use language differently, that they operate from different mental models, and that the categories we employ are ultimately learned social constructions of reality and thus arbitrary.

Language including terminology, particularly regarding social sustainability is often not collectively understood. While in the so called 'hard' sciences there are universally accepted definitions, this is not the case in the 'social' sciences (Macdonald, Burke, & Stewart, 2006, p. 30).

(Seel, 2000, p. 2) goes as far as describing organisational culture as "the emergent result of the continuing negotiations about values, meanings and proprieties between the members of that organisation and with its environment" with it being "the result of all the daily conversations and negotiations between the members of an organisation". With attention thus needing to be focussed on these very conversations if one wants to intervene to seek to change the culture of a company.

(Albelda Pérez & Carrasco Fenech, 2007, p. 413) note that open dialogue with internal stakeholders allows for sharing of information among different departments and functions, and gaining feedback for decision making. And very practically, (Daily & Huang, 2001, pp. 1544-1546) argue for a constant flow of information from top management so that employees know what is expected.

Ones' 'personal connection' to the issues and how abstracted, literally (in air conditioned offices) and figuratively they are from what they are making decisions about is also important. In this regard, (Hassan, 2007, pp. 2-3) cautions against the dangers of entering "Flatland, a two-dimensional, self-referential, closed universe defined by the boundaries of reports and PowerPoint presentations".

4.3.5 Role clarity in the sustainability function: The supporting concept of 'role clarity'

An ongoing concern throughout the research was that of role clarity.

(Daily & Huang, 2001, p. 1542) and (Hugh & Talwar, 2010, p. 388) argue the importance of assigning individuals responsibility for sustainability and designing a structure staffed with qualified individuals. (Rake & Grayson, 2009, pp. 397-398), however, argue that that it has to be everyone's responsibility and not "hived off to a 'good works' department" and speak of the need to "hardwire" corporate responsibility into employees. (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 336) concur that to truly embrace sustainability it should become "everyone's job in different integrated ways" but most especially that it should be made line management's responsibility.

(Ganson, 2011, p. 27)'s research points to social practitioners believing that community responsibilities "cannot be turned over to a small sub team within the company" but rather need to be "broadly shared across the company". (Albelda Pérez & Carrasco Fenech, 2007, p. 416) similarly argue for the importance of making line managers accountable, including financially, for environmental impacts caused by their unit's activities.

(Grayson, 2011, p. 1025) proposes a middle way where a company retains a specialist sustainability function but that these specialist are not expected to implement the strategy and rather serve as internal change management consultants.

4.3.6 Having the necessary functional capability to manage sustainability issues: The supporting concept of 'functional capability'

An ongoing concern throughout the research was that of functional capability.

Social and environmental sustainability issues are, generally speaking, complex. Complexity's distinguishing features include that the link between cause and effect is uncertain and that there is not necessarily agreement on the fundamentals of the issue at hand (Chapman, 2004, p. 16).

And rather than just being 'difficulties' to solve, the issues are often 'messes'. Messes have no clear agreement as to exactly what the problem is, and uncertainty and ambiguity about how to improve the situation. They are unbounded in terms of the time and resources they could absorb, scope of enquiry they will need to be understood and resolved and the number of people who may need to be involved in this process (Chapman, 2004, p. 36).

(Hind, Wilson, & Lenssen, 2009, pp. 15-16) support this view arguing that unlike more traditional management disciplines such as finance or engineering, managing social and environmental complexity

requires a new form of complex reasoning which moves beyond the consideration of individual components and involves an analysis of the interrelations across the whole system, understanding how things interact with one another at the broadest possible level.

Interestingly, (Doppelt, 2003) as quoted in (Quinn & Dalton, 2009, p. 22) argues that the

lack of organizations fully embracing sustainability stems from the fact that most executives do not fully understand the issues and do not know how to devise the governance or strategies needed to adopt a more sustainable path.

(Jamali, 2006, p. 814) concurs noting that in pursuing integration of the triple bottom line in a company managers have to embrace ambiguity in dealing with diverse issues and values and that as the complexity of these decisions increases, the necessary expertise and capacity to make these choices in order to integrate these issues may be lacking.

(Prieto-Carron, Lund-Thomsen, Chan, Muro, & Bhushan, 2006, p. 984) also raise the concern as to if mining companies are sufficiently well equipped to take on community development roles requiring 'soft' social science skills given that they are often dominated by 'hard science' specialists such as engineers. Furthermore, (Kemp, Boele, & Brereton, 2006, p. 392) note

Historically, the community relations function has been marginalised and under resourced, especially comparison to production related functions… [Moreover, c]ommunity issues are also typically being dealt with in an, ad hoc manner, rather than as part of a broader strategy...

The importance of not only having good systems but perhaps even more importantly having necessary capabilities is noted by (Macdonald, Burke, & Stewart, 2006, p. 109) who comment that while systems should enact policy this may not be achieved in practice "if no one is familiar with the local culture, or speaks the language or is properly trained in the field of local community relations."

4.3.7 Conclusion

As demonstrated in the above review the research topic and question are relevant to my management practice in my research context incorporating my managerial concerns.

4.4 Core concepts emerging from the meta-synthesis

4.4.1 Introduction

A literature review of the core concepts not already covered which emerged from the meta-synthesis follows. These being 'locally rooted, internationally defensible management

system' - incorporating the supporting concept of 'continual improvement' - and the 'internalisation of costs' and 'externalisation of benefits' respectively.

4.4.2 Implementing systems and standards to integrate the management of sustainability: The core concept of a 'locally rooted, internationally defensible management system'

4.4.2.1 Management systems and standards

(Macdonald, Burke, & Stewart, 2006, pp. 105, 113) argue that policy and systems provide "the boundaries for the enactment of the how of turning intention into reality" with standards acting as "the ethics of the organisation" which help to "inform and create its culture". With (Ekins, 1997, p. 1459) noting that a management system includes policy; a strategy and action plan to give it effect; monitoring and management to measure success; appropriate internal and external communication; and formal accounting, reporting and audit processes.

(Kemp, Boele, & Brereton, 2006, p. 394) concur speaking of a management system's "plan, do, check, act" continual improvement approach and that a management system provides the mechanism for defining standards, monitoring performance against them and the necessary 'institutional memory' to help to maintain consistency within operations over their life cycle.

(Asif, De Bruijn, Fisscher, & Searcy, 2010, p. 571) posit that a management systems' systematic approach to addressing issues means a company no longer only has to rely on the perceptions and experiences of managers and (Quinn & Dalton, 2009, p. 30) argue that employees do not necessarily even have to believe in sustainability per se, as long as there are systems in place to encourage appropriate sustainable behaviours.

4.4.2.2 Locally rooted

The need for a management system to be robust enough to provide global consistency while being flexible enough to incorporate and conform to local requirements including diverse local cultures having a mixture of traditions, business practices, governance models, economic and political systems and according to (Morsing & Oswald, 2009, p. 89) "even personal demands" is strongly supported by (Sealy, Wehrmeyer, France, & Leach, 2010, p. 1085), (Hind, Wilson, & Lenssen, 2009, p. 16), (Ligteringen & Zadek, 2005, p. 2), & (Ragusa, 2011, p. 1006). (Chapman, 2004, p. 69) also notes that seeking such global consistency should lead to a 'levelling up' rather than a 'levelling down' while (Das, 1993, p. 38) argues that homogeneous solutions should not be imposed on a pluralistic world.

There is thus a need to balance centralisation of co-ordination and control with decentralisation which allows autonomy and adaptation to local realities (Riccoboni & Leone, 2010, p. 142), accommodating a company's "trans-cultural footprint" (Sealy, Wehrmeyer, France, & Leach, 2010, p. 1085) such that while leadership may come from a company's headquarters, the responsibility for implementation must lie in the field (Lubin & Esty, 2010, p. 48). (Ligteringen & Zadek, 2005, pp. 3-4) thus propose a framework, rather than a

"straightjacket" or "binding model" (Ragusa, 2011, p. 1006), which should also be capable of accommodating differing levels of employee experience (Walker, Pitt, & Jha, 2007, p. 58).

The (World Business Council for Sustainable Development, 2006, p. 26) argues

[w]hen companies have operations all over the world, traditional, centralised, command and control systems become less viable….[because] [p]eople in headquarters often simply do not know how to implement strategy in detail in local situations.

Moreover, (Chapman, 2004, p. 32) argues that such an approach is unethical in that it treats people in an instrumental way, assuming a directive model of institutional authority in which priorities, values and knowledge held at the centre are used to shape and control the behaviour of those making up the wider system.

4.4.2.3 Internationally defensible

In keeping with international good practice, (Ligteringen & Zadek, 2005, pp. 3-4) wisely suggest the normative framework, components of the management system, and its reporting guidelines should all be selected on the basis of what is most likely to make up the evolving global sustainability architecture, and therein be internationally defensible.

4.4.2.4 The ISO14001 management system and its limitations

Given the ISO 14001 management system's centrality to AngloGold Ashanti's locally rooted, internationally defensible management system, a brief review including its limitations follows.

By design, ISO 14001 does not specify levels of environmental performance. Rather the stated intention is to provide a framework for a holistic, strategic approach to an organization's environmental policy, plans and actions, providing generic requirements for environmental management whatever the organization's activity or level of environmental maturity. At a minimum, a commitment to continual improvement and compliance with applicable environmental legislation and regulations is required (ISO 14000 Essentials, 2012).

(Walker, Pitt, & Jha, 2007, p. 58) argue that it also provides the impetus to develop the necessary skills and culture "to fully understand the issues pertaining to sustainability and environmental management".

However, (Esquer-Peralat, Velazquez, & Munguia, 2008, p. 1028) citing (Steger, 2000) note that environmental management systems are bias towards environmental issues and therein pay inadequate attention to social and economic issues.

And (Sealy, Wehrmeyer, France, & Leach, 2010, pp. 1086-89) critique ISO 14001 in that there are large variations in the standard of performance needed to achieve certification; that it fails to deliver significant improvements in an organisation's environmental

impacts; and that certification is designed to test the adoption of the requirements of the standard rather than the success or effectiveness of implementation. (Walker, Pitt, & Jha, 2007, pp. 56, 59) add that it is left it to implementing organisations to set performance levels and timelines against which they will be judged and there is an overall concern that ISO 14001 implementation can become a paper chasing, box ticking exercise.

4.4.2.5 Continuous improvement as a management philosophy: The supporting concept of 'continuous improvement'

As noted above, ISO 14001 requires a commitment to continual improvement (ISO 14000 Essentials, 2012). Continuous improvement does not imply that there has to be improvement in all areas all the time, but rather that an organisation needs to be able to demonstrate year-on-year improvement in some areas, this being important given that quick and easy formulas for creating the necessary management systems and processes does not exist (Walker, Pitt, & Jha, 2007, pp. 51, 58-59). (Despain & Converse, 2003, p. 192) speak of continual improvement as a recognition of "everything we do as a process that can be eliminated, simplified, or improved".

(Asif, De Bruijn, Fisscher, & Searcy, 2010, p. 578) highlight the importance of learning processes to continuous improvement, and the longer term viability of a business. They cite (Argyris, 2007) arguing that continuous improvement draws on double loop learning where the underlying assumptions and governing values of mental models are challenged which leads to their modification. In contrast, in single loop learning, errors once detected are corrected, but without altering the governing values of the 'master programme'.

(Grayson, 2011, p. 1025) observes that embedding corporate responsibility and sustainability is a continuing journey, a work-in-progress, and that a systematic approach to promote a sustained, continuous improvement is needed. (Ekins, 1997, p. 1459) suggests that the process starts with a company understanding where it is at, where it needs to be, and how it is going to get there, measuring progress along the way and communicating accordingly. The (ICMM, 2012) also states a principle reason for its establishment being to pursue the continual improvement of sustainability practices in the industry.

4.5 The 'internalisation of costs' and 'externalisation of benefits'

4.5.1 Introduction and overview

To better reflect its properties, following the literature review and concept analysis undertaken and reported on below and in Annex 21, the concept 'internalisation of costs' has been separated into 'internalisation of costs', incorporating externalities and negative impacts, and 'externalisation of benefits', incorporating positive externalities and impacts respectively.

(Rake & Grayson, 2009, p. 396) sum up the essence of the interrelatedness of these concepts well stating "[a] responsible business seeks to minimize negative environmental and social impacts and maximize its positive ones".

Externalities are described by (Meyer & Kirby, 2010, p. 40) as “the side effects - or in the positive case, the spill over effects – of a business’s operations. They’re the impacts that a business has on its broader milieu, either directly or indirectly, but is not obliged to pay for or otherwise take into account in its decision making.” And that in addressing externalities, companies take ownership of issues that they are not legally obliged to address and that “the true measure of corporate responsibility – and the key to a business’s playing its proper role in society – is the willing, constant internalization of [such] externalities.”

(Ekins, 1997, p. 1449) acknowledges the purpose of a business being to create wealth but argues that it is only justifiable from a wider social perspective if it takes into account and internalises any social and environmental impacts that may arise in the process. (Watson, Klingenbert, Polito, & Geurts, 2004, p. 623) concur noting that companies are typically motivated to reduce organisational rather than social costs.

(Capra, 1996, pp. 292-293) supports these sentiments arguing that in the “so-called free market” air, water, soil and the “delicate web of social relations” do not fit into economists’ theoretical frameworks and are thus treated as external free commodities. He argues that “basic ecological literacy tells us that such a system is not sustainable.” (Watson & Emery, 2004, p. 917) concur and observe that the environment is generally viewed by companies as a free good “which will be consumed to the point where marginal utility is zero”.

(Setthasakko, 2007, p. 156) highlights that changing such corporate behaviour goes against the prevailing corporate culture of economically centred management. And (Porter & Kramer, 2006, p. 82) argue further that “[m]anagers without a strategic understanding of CSR are prone to postpone these costs, which can lead to far greater costs when the company is later judged to have violated its social obligation.”

4.5.2 A change in mindset is required

(Cartwright & Craig, 2006, p. 749) argue the need for a shift in “ethical stance” which embraces the requirement to value ecosystem services, instead of treating them as an external free resource. Hamel and Prahalad (1994) cited in (Walker, Pitt, & Jha, 2007, p. 51) also note that organisations are slowly acknowledging that to achieve sustainable business success and shareholder value a longer term responsible approach is required than that of solely maximising short term profit.

4.5.3 A change in systems is required

(Watson & Emery, 2004, p. 917) observe that changes in systems, including the development of management systems, to internalise environmental costs have increasingly been developed since the release of the Brundtland Report in 1987 and (Walker, Pitt, & Jha, 2007, pp. 51,58) posit that as the true financial costs of environmental impacts of doing business are realised over the coming decades, companies will increasingly link environmental performance with shareholder value and regard the environment as a financially material business risk or opportunity. And furthermore that methods of accounting for full environmental costs will need to be integrated into future capital budgeting and cost allocation as these costs are no longer treated as a free.

(Albelda Pérez & Carrasco Fenech, 2007, p. 418) argue that such an 'embedding process' is a long term endeavour in which (Riccoboni & Leone, 2010, p. 140) note greater progress has been made in the environmental field than the social.

4.5.4 Change does not generally happen without external pressure

(Steger, Ionescu-Somers, & Salzmann, 2007, pp. 162-163) argue that economic and social issues become economically relevant to companies depending on the degree to which regulation forces them to internalize externalities. But that this compliance will still not lead to the internalisation of all costs with resulting ongoing pressure from stakeholders which will need to be balanced with the business' economic viability. They argue that such a situation "appears to be more in tune with reality" than that of the triple bottom line where companies give equal weighting to economic, social and environmental issues.

(Ekins, 1997, pp. 1460-1462) similarly argues that companies "must" internalise costs voluntarily, or more likely via government intervention because "in competitive markets, if the option of externalizing costs is available, the baseline for business profitability will be set by taking advantage of that option".

Such a progressive internalisation of social and environmental costs is resulting in business becoming liable for its past and future impacts, bringing potentially large ongoing business costs as well as making companies vulnerable to legal action (Sustainability, 2004).

4.6 Conclusion

Having undertaken a literature review and related concept analysis, the concepts will be framed as variables and a process of theoretical coding will be undertaken to develop an answer to question 'How can AngloGold Ashanti most effectively integrate social and environmental sustainability considerations into its business?'

5. Chapter five: Theory building and synthesis

5.1 Introduction

Taking into account the situation and concerns outlined in Chapter 1, following the methodology outlined in Chapter 2, building on the research findings presented in Chapter 3, and the literature review and concept analysis undertaken for Chapter 4, this chapter seeks to provide an answer to the question 'How can AngloGold Ashanti most effectively integrate social and environmental sustainability into its global operations?' A mid-range grounded theory is developed and presented in the form of causal loop diagrams and further expanded upon in the form of a design proposition following the CIMO logic.

5.2 A mid-range grounded theory

5.2.1 Building the theory

As outlined in Chapter 3, the four final core concepts emerging from the meta-synthesis process are:

- Stakeholder governance;
- Integrated management;
- Locally rooted, internationally defensible management system; and
- Internalisation of costs.

Following the literature review and concept analysis leading to a better understanding of the properties of these core concepts; they are framed as variables, as outlined below.

- Stakeholder governance is expressed in the variables of:
    - level of stakeholder governance pressure to demonstrate responsible social and environmental sustainability practices; and
    - level of stakeholder governance pressure to maximise profits.
- Integrated management is expressed in the variables of:
    - degree of integration of social and environmental sustainability into company strategy;
    - degree of integration of social and environmental sustainability into company management structures; and
    - degree of integration of social and environmental sustainability into company management systems and processes.
- Locally rooted, internationally defensible management system has been framed as the variable:
    - degree of implementation of locally rooted, internationally defensible community and environment management system.
- Internalisation of costs is expressed as the variables of:
    - degree to which operational practices internalise social and environmental sustainability costs; and
    - degree to which operational practices externalise social and environmental sustainability benefits.

Following a process of theoretical coding their interrelationship is demonstrated in the balancing causal loop diagram below:

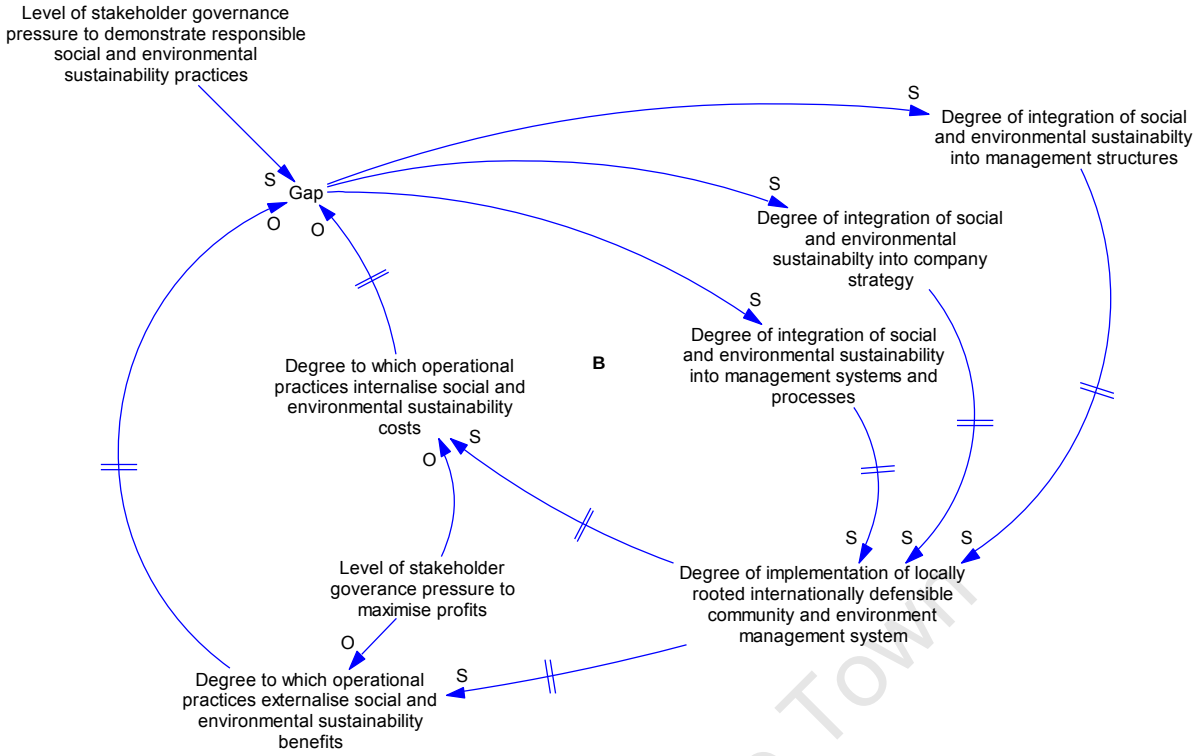

Figure 11 A causal loop diagram representing a grounded theory emerging from the core variables of the meta-synthesis

The theory is further built by including the supporting concepts emerging from the meta-synthesis. The four supporting concepts emerging from the meta-synthesis process being:

- Role clarity;
- Functional capability;
- Continuous improvement; and
- Mutual meaning.

They are framed as variables as follows:

- Degree of role clarity regarding social and environmental sustainability;
- Level of functional capability to manage social and environmental sustainability;
- Degree to which continual improvement philosophy is practiced; and
- Degree of mutual meaning between stakeholders regarding social and environmental sustainability.

Their interrelationship is demonstrated below in a balancing loop (B) and two reinforcing loops (R1 and R2):

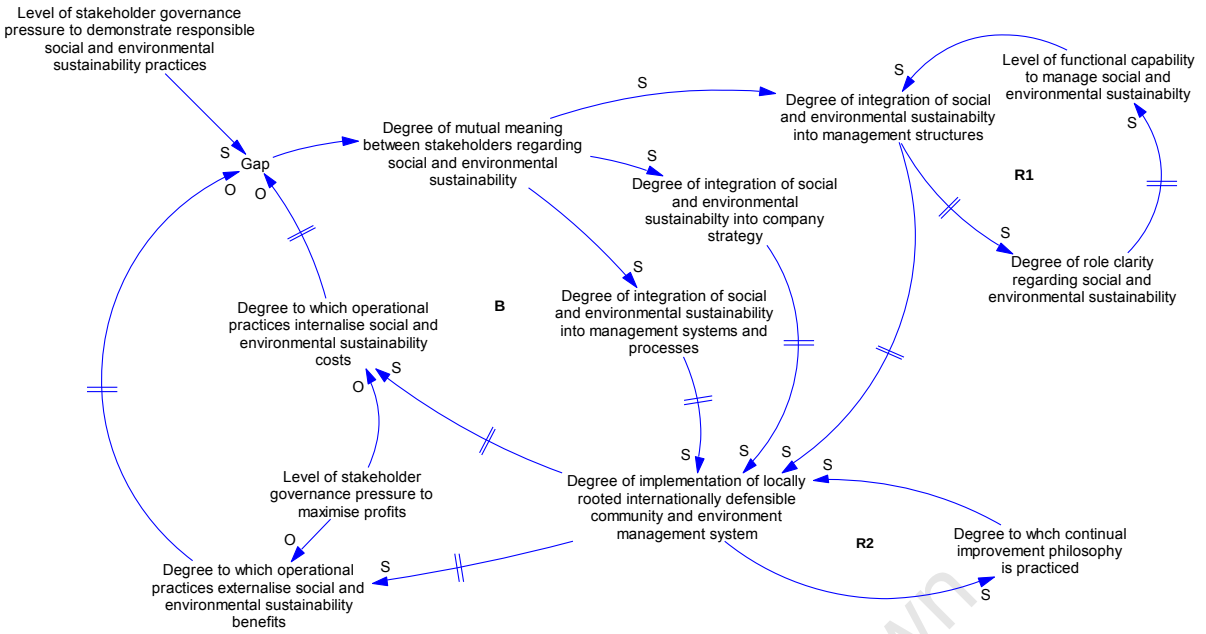

Figure 12 **A causal loop diagram representing a grounded theory emerging from the core and supporting variables of the meta-synthesis**

5.2.2 The essence of the theory

In essence, the head office seeks to influence how the company undertakes its primary business of finding and mining gold by encouraging locally rooted, internationally defensible operational practices that integrate social and environmental sustainability which accommodate, to the extent that it is possible, stakeholder governance pressures to demonstrate responsible social and environmental sustainability practices and those to maximise profits.

Given stakeholder governance pressure to demonstrate responsible social and environmental sustainability practices there typically exists a gap between these expectations and operational practices. Moreover, mutual meaning, to the extent that it is possible, between internal stakeholders, as well as the company and its external stakeholders is needed on what such responsible social and environmental sustainability practices entail the company doing, or indeed not doing. Building on this mutual meaning, the company can seek to integrate social and environmental sustainability into its strategy, management structures, and systems and processes respectively.

Integrating social and environmental sustainability into management structures will, following a delay, (indicated by ll on the arrow lines) lead to role clarity out of which, following a further delay, will follow the functional capability needed to manage social and environmental sustainability. This, further driving the integration of social and environmental sustainability into company management structures, as depicted in R1. In practice, this reinforcing loop will be diminished due to there being a limited global pool of candidates with the required capability to draw on coupled with employee turnover.

Integration of social and environmental sustainability into company strategy, structures, and management systems and processes will following respective delays in these activities, all drive the implementation of a locally rooted, internationally defensible community and environment management system.

The implementation of the management system is further reinforced by the adoption of a continual improvement philosophy in all aspects of the integration of social and environmental sustainability in the company and its global operations, as depicted in the reinforcing loop R2.

The implementation of a locally rooted, internationally defensible community and environmental management system is designed to encourage operational practices that, subject to an implementation delay, internalise social and environmental sustainability costs, and externalise social and environmental sustainability benefits respectively. However, the implementation of such practices will be diminished by the level of stakeholder governance pressure (typically although not exclusively through investor pressure) to maximise profits.

These practices, following a delay for implementation and acknowledgement by stakeholders, will lead to a narrowing of the gap in meeting stakeholder expectations to demonstrate responsible operational practices. It is theorised that in practice the gap will not fully close due to the vast number of different stakeholder expectations, as well as their evolving nature, such that even as the company meets them, the gap will once again widen as yesterday's successes become today's benchmark for good social and environmental sustainability practices.

The remainder of this chapter explains and builds on this mid-range theory in developing a design proposition based on the research findings supported by the literature.

5.3 Design proposition

As outlined in Chapter 2, a design proposition provides a general template for creating solutions for given problems using a CIMO logic constructed as follows: "in this class of problematic Contexts, use this Intervention type to invoke these generative Mechanism(s), to deliver these Outcome(s)" (Denyer, Tranfield, & Van Aken, 2008, p. 395). A design proposition building on the CIMO logic follows below.

5.3.1 A summary of the CIMO design proposition developed in this chapter

From the perspective the head office of a multinational gold mining company, in a **Context (C)** where:
Mining is a high impact, location constrained activity with company operations spread across diverse operating contexts;
Each operation has positive and negative social and environmental legacies, or 'messes', which influence perceptions;

Mutual meaning regarding social and environmental sustainability and what constitutes responsible business practices is often lacking between internal stakeholders and between the company and its external stakeholders;

Internal, external and institutional stakeholders are becoming more assertive regarding responsible social and environmental sustainability practices;

Investors generally expect profit maximisation while wanting to avoid controversy regarding their shareholdings;

Boundary limits of what are considered acceptable business practices differ between operations;

There are competing international standards to which the company's operations are expected to adhere;

And there is limited employee capability to address social and environmental sustainability which is complex and requires systemic thinking.

The intended O**utcome(s) (O)** is that of having fewer operational practices perceived to be outside of the bounds of stakeholder expectations by internalising social and environmental costs; and more operational practices perceived as positive by stakeholders by externalising social and environmental sustainability benefits. Therein contributing to reduce stakeholder pressure, a better securing of the ongoing legal and social licence to mine, and the company's future viability. This being sought to be achieved by the integration of social and environmental sustainability into the company's global operations through the following **Interventions (I)** and more importantly the **Mechanisms (M)** they generate, while avoiding the potentially disabling mechanisms where possible:

Mutual meaning between stakeholders regarding social and environmental sustainability

- Proactively engage with external stakeholders to know what they expect of the company and find mutual meaning to the extent that it is possible;
- Participate in international leadership organisations and roundtables to shape the global debate, benchmark with peers, and find mutual meaning regarding expectations.

The integration of social and environmental sustainability into company strategy

- Integrate sustainability into the overarching company strategy making it part of the way it does business;
- An integrated sustainability strategy should address areas of concern and seek competitive advantage for the company fostering a mind-set of sustainability being core to the business.

The integration of social and environmental sustainability into management structures

- Empower employees by having the right person in the right role at the right time;
- Clearly define roles and develop an understanding of the capability required to integrate social and environmental sustainability into the company's operations;
- Encourage the integration of specialist functions to build a cohesive team of cross functional experts working to find mutual meaning, and holistic solutions to challenges and opportunities;
- Don't wait for issues to reach boundary limits before giving them attention;

- Centralise policy making and governance while fostering learning between, and mutual meaning across operations;
- Decentralise servicing responsibilities to the regions;
- Decentralise decision making to foster locally rooted ownership of both problems and solutions;
- Foster a personal connection to decisions;
- Avoid shifting the burden through specialisation;
- Avoid 'spin-doctoring' when 'doctoring' is required;
- 'Get the system in the room' to solve 'messes' and seek out opportunities;
- Secure sufficient agreement to resolve challenges and 'messes';
- Reward the integration of social and environmental sustainability;
- Facilitate, through training and group processes, the incorporation of sustainability thinking within all functions and at all levels;

The integration of social and environmental sustainability into management systems and processes

- Let systems maturity guide the integration of function specific management systems;
- Ensure requisite variety in the management system to manage complexity;
- Build formal systems off the mutual meaning which exists in the company through shared systems of organisational beliefs and values;
- Encourage integrated management thinking regarding social and environmental sustainability aspects;
- Gain credibility and buy in for the system by ensuring its international defensibility;
- Engage with internal and external stakeholders to find mutual meaning regarding the boundaries of acceptable social and environmental behaviours to be articulated in policy, standards and guidelines;
- Avoid protracted consultation regarding the design of the management system by bounding the process;
- Encourage local rootedness and ownership through decentralised decision making within mutually agreed boundaries;
- Clearly defining boundaries empowers operational staff and provides legitimacy for the resources needed to do their work;
- Foster collective ownership through engagement and ultimate executive approval of the management system's components;
- Be mindful of form becoming more important than substance in the implementation of the management system;
- Encourage learning through reflection;
- Build relationships and foster learning opportunities through socialising the management system and its related processes;
- Build the credibility and defensibility of the management approach through internal and external assurance and certification;
- Foster collaboration, knowledge creation and learning through virtual and face to face networks;
- Decide where the company wants to go collectively, drawing on where operations are coming from individually;
- Encourage holistic decision making which takes context into account;
- Trade-offs between competing desirable sustainability interventions are inevitable, pick them carefully;
- Do not allow perpetual-trading off against the future of social and environmental sustainability considerations;

- Do not defer dealing with messes in the hope that technology will be found to resolve them;
- Resources should be allocated to address both risks and opportunities;
- Encourage a philosophy of continual improvement in all that is done;
- Encourage the adoption of operational practices that internalise social and environmental costs; and
- Encourage the adoption of operational practices that externalise social and environmental benefits.

5.3.2 Problem context

The managerial problem context has been substantially elaborated on in Chapters 1, 3 and 4, the latter of which included a review of elements of the broader problem context for business in general, and mining in particular. A brief summary is provided below. It is observed that many aspects of the problem context are not unique to AngloGold Ashanti.

5.3.2.1 Mining is a high impact, location constrained activity with company operations spread across diverse operating contexts

Every site will be different in terms of the level of local development, cultures, laws and regulations, governance models, business practices, and economic and political systems.

5.3.2.2 Each operation has positive and negative social and environmental legacies, or 'messes', which influence perceptions

Each site is different regarding stakeholders' perceptions and what is needed to remedy issues and/or build on successes. Furthermore, local managements' approach to issues will differ from site to site.

5.3.2.3 Mutual meaning regarding social and environmental sustainability and what constitutes responsible operational practices is often lacking between internal stakeholders and between the company and its external stakeholders

Differing worldviews and perspectives is an obstacle to finding mutual meaning and is compounded by differing mother tongues, the use of language and terminology which is not collectively understood, as well as generational, gender and cultural differences. The words used may be the same but their meaning isn't necessarily.

5.3.2.4 Internal, external and institutional stakeholders are becoming more assertive regarding responsible social and environmental sustainability practices

Employee pressure for responsible business practices is growing.

Communities are becoming less tolerant of poor performance and more demanding of positive benefits. Some NGOs are partnering with local communities to launch increasing effective local and global campaigns which include questioning the utility of gold to the 'global good', while others are increasingly effectively partnering with local communities and the company to assist in providing wider social benefits. Governments at all levels are seeking a larger slice of the benefits 'pie', while regulators are seeking greater internalisation of externalities.

Institutional governance pressures are growing for the integration of social and environmental sustainability into the business.

5.3.2.5 Investors generally expect profit maximisation while wanting to avoid controversy regarding their shareholdings

5.3.2.6 Boundary limits of what are considered acceptable business practices differ between operations

Perceptions regarding boundary limits are dependent on the perspective adopted (Chapman, 2004, p. 53) and an operation may thus be perceived to be over the boundary limits of acceptable practices in one jurisdiction, whereas one doing the same thing in another may not be perceived as such. For example, the perceived boundary limits of acceptable operational practices are on most counts far narrower in Australia than in Ghana.

5.3.5.7 There are competing international standards to which the company's operations are expected to adhere

While international standards exist they are not yet globally bought into, there is competition between them, and they continue to evolve and mushroom with new 'voluntary' initiatives, standards and guidelines regularly being launched. Moreover, they are often challenging to translate into practice, particularly in a multinational context such as AngloGold Ashanti.

5.3.5.8 Limited role clarity and employee capability to address social and environmental sustainability which is complex and requires systemic thinking

Clarity on sustainability responsibilities both for dedicated specialist departments and for mainstream operational functions is needed and often lacking. Capabilities relate to both having incumbents with the necessary knowledge, skills and technical capabilities as well as their being employed in sufficient numbers to address the social and environmental sustainability risks and opportunities faced by the business.

5.4 The mechanisms triggered by interventions

5.4.1 Introduction

The mechanisms triggered by the overarching head office interventions seek to influence the integration of social and environmental sustainability into the company's global operational practices, through i) company strategy, ii) managerial structures, and ii) its management systems and processes. First, the mechanism of mutual meaning is explored as it relates to stakeholder governance pressures.

5.4.2 Mutual meaning between stakeholders regarding social and environmental sustainability

5.4.2.1 Proactively engage with external stakeholders to know what they expect of the company and find mutual meaning to the extent that it is possible

Engaging with stakeholders on their concerns and expectations is a key mechanism to shift thinking regarding social and environmental sustainability and take it into account at all levels of the company. This engagement can be involuntary when forced on the company and those who have been through a challenging engagement tend to be more aware of, if not open to, other perspectives.

5.4.2.2 Participate in international leadership organisations and roundtables to shape the global debate, benchmark with peers, and find mutual meaning regarding expectations

Active engagement in international leadership organisations including the ICMM, the Council for Responsible Jewellery Practices, the Voluntary Principles on Security and Human Rights and the World Gold Council enables the company to both be able to influence the international debate as well as being influenced through benchmarking of sustainability standards and practices. (Quinn & Dalton, 2009, p. 33) note that in this way what was previously considered 'radical' can increasingly become the norm. Such participation can reinforce a mind-set of 'others are doing it, so should we' and provide increased mutual meaning between the company and external parties regarding sustainability expectations on the business.

5.4.3 The integration of social and environmental sustainability into company strategy

5.4.3.1 Integrate sustainability into the overarching company strategy making it part of the way it does business

Making sustainability a stated strategic objective of the company influences thinking regarding the way the company goes about undertaking its business (Annex 2) & (AngloGold Ashanti, 2010a, p. 10).

5.4.3.2 An integrated sustainability strategy should address areas of concern and seek competitive advantage for the company fostering a mind-set of sustainability being core to the business

The strategy should address competitive advantage and areas of concern (AngloGold Ashanti, 2010b, p. 5). As social and environmental sustainability viability threats to the business are better understood, and/or manifest, mind-sets will evolve with sustainability issues considered increasingly core to the business.[25]

5.4.4 The integration of social and environmental sustainability into management structures

5.4.4.1 Empower employees by having the right person in the right role at the right time

The 'System for People' human resources intervention is a company-wide intervention seeking to ensure that 'the right person is in the right role at the right time'. (Jaques, 2006, p. 3) sums up its mechanisms stating that it

enable[s] people to work together effectively, with mutual trust, and thereby to provide the opportunity for the full expression of accountable and authoritive managerial leadership and creative effort.

The essence of the intervention is described by (Jaques, 2006, p. 3) as follows

The first step is to get the right structure including the right number of layers, and well-defined accountability and authority not only in manager-subordinate working relationships, but in cross-functional working relationships as well. Then … match people to the complexity

[25] For example, AngloGold Ashanti's attempts to reduce its CO_2 emissions is illustrative. South Africa experienced a power supply crisis during 2008 (The Economist, 2008b) which lead to an historic 5 day shut-down of most of the country's underground mines, government mandated targets for reductions to 90% of mines' normal power usage and substantive power price increases. Energy efficiency became a core operating issue and "AngloGold Ashanti ultimately used the crisis as a catalyst to review its energy efficiency performance, to explore new initiatives to decrease its electricity usage, and to speed up implementation programs," and therein reduced CO_2 emissions faster and deeper than originally planned. (AngloGold Ahanti, 2008, p. 1)

of the roles to which they are appointed, including also their skilled knowledge and commitment.

5.4.4.2 Clearly define roles and develop an understanding of the capability required to integrate social and environmental sustainability into the company's operations

Role clarity is required i) within the sustainability discipline and its various levels of functional organisation, including head office, region, (sometimes also country) and site level and, ii) within each functional discipline such that sustainability is not only perceived to be the responsibility of a specialist sustainability department (AngloGold Ashanti, Community and Environment Management Framework, October 2009).

Given the rapid evolution of social and environmental issues the company needs to keep ensuring that the right people are in the right roles at the right time while also becoming better capacitated through a process of continual improvement in integrating social and environmental sustainability into the business.

Social and environmental sustainability interventions are prone the disabling mechanism of commitments been made without clarifying accountability, nor resourcing. For example, the company committed to comply with the (Cyanide Code, 2011) but accountability for overseeing the process and ensuring sufficient resources were applied were not clarified with the company subsequently not meeting its scheduled commitments (Cutifani, M. email correspondence, 30 April 2009).

5.4.4.3 Encourage the integration of specialist functions to build a cohesive team of cross functional experts working to find mutual meaning, and holistic solutions to challenges and opportunities

A common functional configuration in mining companies comprises of Safety, Health, Environment (SHE) and External Affairs clusters respectively. In 2008, the company consolidated these functions at a head office level into a Business Sustainability department[26] and encouraged the adoption of this structure across the company. This said there is no perfect nor one size fits all structure.

The integration of the corporate sustainability team fostered more collegial working relationships between functions, more informal interaction and greater teamwork, resulting in a more holistic and mutual understanding of the sustainability challenges and opportunities facing the business.

[26]This included Health, Safety, Community, Environment, Legal, Government Relations, Corporate and Public Affairs, Gold Marketing, and Security, headed by an Executive Vice President.

5.4.4.4 Don't wait for issues to reach boundary limits before giving them attention

A disabling mechanism of the integration of the disciplines is that issues closest to, or over the boundary limits, tend to get most managerial attention. For example, the company's unacceptable safety performance absorbed most executive attention until other issues approached or crossed boundary limits, such as when reportable environmental incidents spiked (AngloGold Ahanti, 2008, p. 166) causing concern at the executive and board level.

5.4.4.5 Centralise policy making and governance while fostering learning between and mutual meaning across operations

Head office should principally focus on interventions which can only meaningfully be undertaken at a company-wide level. Thus there was a centralisation of i) the development of social and environmental policy and standards; ii) company-wide governance requirements including social and environmental reviews and reporting and iii) overseeing overall 'discipline health' including ensuring ongoing learning between sites (AngloGold Ashanti, Community and Environment Management Framework, October 2009). This included an ongoing process of engagement to seek mutual meaning with internal stakeholders regarding social and environmental sustainability risks and opportunities facing the operations.

A disabling mechanism occurs if head office continually steps in, whether invited or not, to attempt to solve other structures' challenges therein creating less incentive to build their capacity and fostering less local rootedness. For example, Continental Africa, the Region with the most serious sustainability challenges, did not appoint a head of community during my time at the company, calling instead on the head office which in turn diminished our capability to undertake our primary responsibilities.

5.4.4.6 Decentralise servicing responsibilities to the regions

By design, head office left the 'servicing' of operations to the regional structures to act as internal consultants, and oversee the implementation of policy and related performance reporting (AngloGold Ashanti, Community and Environment Management Framework, October 2009).

5.4.4.7 Decentralise decision making to foster locally rooted ownership of both problems and solutions

Ultimately, responsibility for the management of social and environment sustainability must be locally rooted in site based management structures with each function's responsibilities clearly understood. The site manager has ultimate responsibility (AngloGold Ashanti, 2012) and the senior management team must include adequate specialist knowledge of social and environmental sustainability. Local functional experts also need to be employed in sufficient numbers to address operational risks and opportunities.

Ownership of the problem and for implementing its solution (Zadek, 2004) must be locally rooted as close as possible to where the aspect is generated. While community and environmental staff provide expert advice to find solutions, ownership should not be fully 'shifted' onto them (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 20) e.g. metallurgy must be responsible for pollution it generates, not environment (see for example footnote 28). Environment and community may assist in developing an integrated solution, but must not own the problem. This is unless it makes sense to have managerial ownership, such as the community department overseeing the implementation of a community development project.[27]

5.4.4.8 Foster a personal connection to decisions

Decision makers can become abstracted from the consequences of their decisions and the trade-offs they generate. Thus fostering a personal connection to the issues can assist in the process of a greater integration of social and environmental sustainability. For example to sensitise the executive to the background context to a company-wide climate change study a copy of a film on climate change (Guggenheim, An Inconvenient Truth, 2006), was made available to each of them. One member of the executive who had become a strong supporter of the company's climate work commented that an added motivation for his support was his wanting to have a world for his children to live in (Company executive, personal communication, 26 March 2009).

5.4.4.9 Avoid shifting the burden through specialisation

A potentially disabling mechanism brought about through specialisation is that of shifting the burden. It occurs when the responsibility for dealing with difficult problems is shifted to 'experts' or 'others' such that they become 'someone else's problem' with a resulting focus on addressing symptoms, which while easier to do, seldom solve the underlying problems and can mask them making matters worse over time (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 20). This being a potential disabling mechanism for dedicated specialist sustainability departments throughout the company.[28]

5.4.4.10 Avoid 'spin-doctoring' when 'doctoring' is required

This disabling mechanism was a particular challenge prior to the separation of corporate affairs from community in 2008. The company needs to both be able to manage complex social processes, and to skilfully communicate to external stakeholders. (Kemp, Boele, & Brereton, 2006, p. 392) sum it up well noting

[27] However, ideally the company should not 'own' such projects either, but rather undertake them in partnership with stakeholders.

[28] For example, through corporate governance processes a situation was encountered where process water discharges outside of the mine permit conditions were being meticulously recorded by the environmental department. However, they did not appear to have the necessary authority or capability to ensure that the metallurgical and related departments made the necessary changes to resolve the underlying pollution problem (AngloGold Ashanti Community and Environment Review Process, 2008).

[c]ommunity relations has often been equated with public relations, in which organisational self promotion and protection, rather than community development engagement, have been seen as the primary goals.

5.4.4.11 'Get the system in the room' to solve 'messes' and seek out opportunities

While employing social and environmental sustainability experts can cultivate a culture of 'deference to expertise', in 'messes' there is no one expert with *the* answer. As (Chapman, 2004, p. 36) points out, in dealing with a difficulty those who claim to have a solution are an asset, but they are usually part of the problem when claiming to have one for a mess. Instead, as (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 234) put it, one needs to 'get the system in the room'.

Messes, and taking advantage of opportunities, often require holistic management rather than a narrow discipline perspective. Such a view seeks to pull in all the actors who have an influence, positive or negative, on the aspect. Implicit to the integrated management approach being advocated by head office was such a mind-set that did not seek to provide all the answers to the operations, but rather to better ensure that the right questions were being asked of operations to find the best locally rooted answers, informed by a global perspective. And where appropriate, addressing issues at a global level, such as undertaking a global climate change study in 2008/9 (AngloGold Ahanti, 2008, p. 160).

Diversity, as (Hind, Wilson, & Lenssen, 2009, p. 16) point out, can thus be a potential answer to complexity, as heterogeneous groups will view the complexity of situations from different perspectives, therein providing a better appreciation of it and its potential solutions.

However, diversity can also be a disabling mechanism and part of the problem due to a lack of mutual meaning between different role players. And work therefore needs to be undertaken with (De Burgos Jimenez & Cespedes Lorente, 2001, p. 16) arguing that to accommodate a diversity of perspectives mutual respect, trust and co-operation is required.

5.4.4.12 Secure sufficient agreement to resolve challenges and 'messes'

A disabling mechanism particularly prevalent in 'messes' is that of not having 'sufficient agreement'[29] where there is little incentive for any one individual or department to push for a resolution. While there may be agreement that there is a problem and even broad agreement on the way forward, it may not be "sufficient" to move to concrete action, especially where an individual or group may be concerned that it may be held accountable for any negative consequences resulting from seeking its resolution.

For example, the head office was drawn into trying to resolve a business confidential community 'mess', resulting from an environment aspect rated as a top company risk over period of several years. While it appeared that there was agreement to proceed with a plan outlined at a meeting where we had 'got the system in the room', it transpired that there was,

[29] Sufficient agreement emerged as a concept in research cycle six.

however, not sufficient agreement to move forward. Instead, experts from the various sustainability departments focussed on obtaining a better and better understanding of the problem without any one party or department pushing for the implementation of the more fundamental solution which had been agreed. The solution was finally implemented after executive intervention two years after the initial discussions (Hollesen, P. Business confidential correspondence, 1 April 2010). Not having sufficient agreement undermines moral and confidence in the structures, systems and processes and potentially increases liability.

5.4.4.13 Reward the integration of social and environmental sustainability

Performance management and financial incentives to take into account social and environmental sustainability need to be put in place at all levels of the company.[30]

5.4.4.14 Facilitate, through training and group processes, the incorporation of sustainability thinking within all functions and at all levels of the company

Executive and senior operational management were regularly put through the Prince of Wales Business and Sustainability Programme (University of Cambridge Programme for Sustainability Leadership, 2012) in order to expose them to sustainability issues with peers from a cross section of industry and other sectors.

Opportunities were also created to for those already in community and environmental roles, including participating in the Post Graduate Diploma in Strategic Engagement offered by the University of Cape Town's Graduate School of Business.

5.4.5 The integration of social and environment sustainability into management systems and processes

5.4.5.1 Let systems maturity guide the integration of function specific management systems

Until 2008 AngloGold Ashanti had function specific management systems for community and environment when they were integrated, as expanded on below. An Integrated Management System (IMS) approach, while being viewed as premature for the company as a whole, was implemented in Australia combining Health, Safety, Environment and Community systems (Leroy, M., email correspondence, 3 December 2008).

[30] Performance management and financial incentives were under discussion but not fully implemented regarding social and environmental sustainability outside of for those employees directly working in the sustainability discipline.

5.4.5.2 Ensure requisite variety in the management system to manage complexity

Acknowledging the high levels of complexity in the company's operating environment, as a point of departure the management system was designed to have requisite variety. (Dostal, Cloete, & Jaros, 2005, p. 57) describe requisite variety below stating

[a]s the complexity in the environment increases, systems need to match this in their own functioning. To do this, they must be able to increase the range of choices regarding their functioning…. It implies that if complexity increases in the environment, the system also becomes more complex.

5.4.5.3 Build formal systems off the mutual meaning which exists in the company through shared systems of organisational beliefs and values

(Riccoboni & Leone, 2010, p. 132) capture it well when they argue that in order to achieve social and environmental sustainability goals both the objective and visible control systems, and the informal less explicit controls of shared systems of organisational beliefs and values need to work together, either reinforcing or undermining each other.

The design of the management system built on the existing culture and systems work already undertaken within the company. ISO 26000, under development at the time, was considered but it was decided in 2008 to instead integrate the community management system with ISO 14001. It already had buy in and traction, being implemented from 2007, and supported an integrated management approach to social and environmental sustainability (AngloGold Ashanti, Output of Community and Environmental Biennial Gathering, Nova Lima, Brazil, 3-6 November 2008).

5.4.5.4 Encourage integrated management thinking regarding social and environmental sustainability aspects

The integrated policy (Annex 22) and management standards (Annex 23) articulate the key performance requirements for the ISO 14001 management system. They were written to incorporate, to the extent possible, social and environmental sustainability aspects in an integrated manner such that they are viewed and approached managerially more holistically, drawing in multiple perspectives (Hollesen, P., Note to the Executive: Integrated Policy and Management Standards, June 2009).

5.4.5.5 Gain credibility and buy in for the system by ensuring its international defensibility

The management standards are based on the (International Finance Corporation, 2011)'s Performance Standards, the (International Finance Corporation, 2012)'s Environmental, Health, and Safety Guidelines for Mining, the (ICMM, 2011)'s Position Statement commitments and advocate to the (Global Reporting Initiative, 2011) guidelines and protocols.

The design of the management system thus takes into account the global architecture of standard setting (Ligteringen & Zadek, 2005) incorporating those standards related to mining which that have the greatest international buy in. Issue specific standards have also been incorporated, such as the (Cyanide Code, 2011) for cyanide management and transportation, and the (Voluntary Principles on Security and Human Rights, 2011) for human rights and security considerations.

An internationally defensible management system will lead to internal buy in if it is also perceived as being flexible enough to accommodate local realities.

5.4.5.6 Engage with internal and external stakeholders to find mutual meaning regarding the boundaries of acceptable social and environmental behaviours to be articulated in policy, standards and guidelines

Consultation on the management standards included those who would ultimately be implementing them, or be held to account by them, including site operators and disciplines such as finance, geology, engineering, and metallurgy.

External stakeholder perspectives were also sought. For example a respected international conservation organisation assisted in developing the biodiversity standard, therein also increasing its' internationally defensibility (Business confidential communication, 21 May 2010)

Furthermore, attempts were made to strip away unnecessary complexity and ambiguity in the language used in these documents.

5.4.5.7 Avoid protracted consultation regarding the design of the management system by bounding the process

While finding mutual meaning is important, the consultation process needs to be bounded as a lack of closure thereof can become a disabling mechanism (Hollesen, P., email correspondence, 5 October 2010).

5.4.5.8 Encourage local rootedness and ownership through decentralised decision making within mutually agreed boundaries

Locally rootedness and ownership is fostered by operations having discretion to adopt approaches best suited to their local context, within mutually agreed boundaries of acceptable practices. Ongoing internal and external dialogue is required to continually refine these boundaries in a local context. And while head office needs to balance the design of the global framework with respecting local diversity, local actions outside of these bounds can also impact on the company globally. For example, international reporting on operational practices in Colombia perceived to be causing potential harm to local communities by the international NGO (IKV Pax Christi, 2009) created global reputational issues.

Local context is accommodated in this process driven approach where, for example, while community engagement is a requirement of the management standard, the means of engagement is determined locally in line with local practices, norms and context. For example, a town hall meeting appropriate in South Africa was less so in post conflict DRC where smaller group interaction took place.

Similarly, for example, the water management standard set "common requirements for managing water resources, broadly in terms of water quality and consumptive use." Furthermore, it requires that quality parameters "must include an appropriate suite of physical, chemical and biological constituents" noting that appropriate means "to the local geological and topographical setting, prevailing human population activities, the probable mine design and in conformance with host country expectations" (AngloGold Ashanti, 2012, p. 7). Furthermore, operations we also directed to draw on the (International Finance Corporation, 2012) Environmental, Health, and Safety Guidelines for Mining, as appropriate.

Thus, as per figure 13 below, operations are given discretion in how they go about operationalizing the integration of social and environmental sustainability to achieve outcomes within a range of acceptability falling within the boundary limits articulated by the policy and management standards.

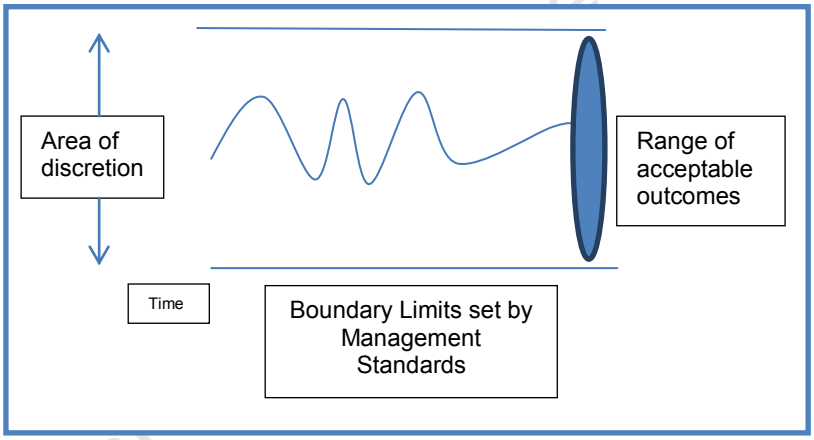

Figure 13 **The management system provides the boundary limits of acceptable behaviours and range of acceptable outcomes being sought**

Source: As adapted from figure 8.2, The process of work (Jaques in Systems Leadership), in (Macdonald, Burke, & Stewart, 2006, p. 40)

5.4.5.9 Clearly defining boundaries empowers operational staff and provides legitimacy for the resources needed to do their work

Clearly defined boundaries empower local staff legitimising their work, clarifying what is expected and depersonalising decision making and resourcing decisions (Sidibe, I. personal communication, 17 August 2007).

5.4.5.10 Foster collective ownership through engagement and ultimate executive approval of the management system's components

The consultation process and ultimate Executive Committee approval for the policy and each management standard sought to foster a sense of collective ownership of their being companywide standards, not only 'belonging' to the community and environment functional disciplines (Hollesen, P., Note to the Executive: Integrated Policy and Management Standards, June 2009).

5.4.5.11 Be mindful of form becoming more important than substance in the implementation of the management system

ISO 14001 has important limitations. Its certification, by design, focuses on 'system health' i.e. how well the management system is being implemented, rather than 'performance health' i.e. what impact its implementation is having on the environment (including the community) per se. Form can become more important than substance if system health is focussed on at the expense of performance health.

For example, Iduapriem Mine was recertified ISO14001 compliant in January 2010, yet operations were temporarily suspended by the EPA a month later (AngloGold Ashanti, 2010a, p. 74). (Watson & Emery, 2004, pp. 923, 925)'s caution has merits when they state that in many respects ISO14001 illustrates

one of the worst trends in environmental management. They may create the illusion to executive management that all is well because the process is in place; management's attention may shift from improving performance goals to completing a procedure and getting the box checked. Essentially, environmental concerns are reduced to a binary question, 'Are we certified or not?' Furthermore, they absorb and waste management time in this process which could be better directed elsewhere.

5.4.5.12 Encourage learning through reflection

The management system was designed to streamline internal and external reporting requirements including an incident reporting and review system, and was integrated into the company wide risk management system (AngloGold Ashanti, Community and Environment Management Framework, October 2009).

Such reporting systems can be the 'tail that wags the dog'. This being the case given that individuals will generally only become more open to a new way of thinking when they have become sufficiently convinced that their previous approach has not and is unlikely to succeed (Chapman, 2004, p. 65) and that we learn from reflecting on our experiences, rather than the experiences per say (Goleman & Albrecht, 2003, p. 12). Formal and informal reflection on the outcomes achieved, positive and negative, can lead to the making of the necessary changes. Most especially when double loop learning takes place such that not only is the problem corrected, but the underlying assumptions and governing values of mental models are challenged also leading to their modification ((Asif, De Bruijn, Fisscher, & Searcy, 2010, p. 578) citing (Argyris, 2007)).

5.4.5.13 Build relationships and foster learning opportunities through socialising the management system and its related processes

An internal biennial governance review process was put in place (known as the Community and Environment Review Programme (CERP)) whereby every site was visited in a two year rolling cycle. The team was lead by the head office and made up of regional and site staff based on the skills needed to assess each site, while seeking learning opportunities for those undertaking the review (AngloGold Ashanti, Community and Environment Management Framework, October 2009). The intervention sought to socialise the standards and find collective solutions to their integration challenges.

5.4.5.14 Build the credibility and defensibility of the management approach through internal and external assurance and certification

The management system was designed to be assureable by internal and external audit and externally certifiable by ISO 14001 auditors (AngloGold Ashanti, Community and Environment Management Framework, October 2009). Sites were given, from executive approval of the standards, two years for internal compliance and three years for external certification (AngloGold Ashanti, 2009, p. 32). Assurance and certification is an increasing important consideration for internal stakeholders monitoring institutional governance requirements and it provides some comfort to external stakeholders regarding claims made by the company regarding its social and environmental sustainability performance.

5.4.5.15 Foster collaboration, knowledge creation and learning through virtual and face to face networks

Regular, ongoing dialogue with internal stakeholders is important especially as the head office is sometimes perceived as being distant and not wanting to 'get its hands dirty'. The Community and Environmental Steering Committee (CESC) accordingly met virtually monthly, and in person biennially. Smaller working groups were established to progress work - such as the issue specific interventions of a global climate change and closure study respectively - which in turn fed into the larger group on a regular basis (AngloGold Ashanti, 2009, p. 42).

Made up of representatives from corporate, region and country level its mandate was: i) to share and consult on group level initiatives and decisions that impact on the operations, ii) to play a role in identifying emerging environmental and social issues facing the business, and iii) guiding the development of company responses, as appropriate (Hollesen, P., Note to the Executive: Mandate of the CESC, September 2009).

Through the CESC trust, mutual respect and social capital was built between colleagues and other disciplines who were invited to participate on issues of mutual interest therein also building relationships across functions. Furthermore, its recommendations could be put forward with 'one voice', that of the company's social and environmental sustainability experts.

A disabling mechanism was its lack of regular face to face interaction and the benefits such personal interaction brings.

5.4.5.16 Decide where the company wants to go collectively, drawing on where operations are coming from individually

An inclusive process involving key decision makers was initiated to set three year rolling targets and objectives in consultation with those who would have to contribute to meeting them (AngloGold Ashanti, 2009, p. 13) & (AngloGold Ashanti, 2010b, pp. 8-11). This provided a better collective understanding of site and regional goals and perspectives on priorities and resource needs. Medium term intentions were clarified and processes were better aligned to the budgeting and business planning cycles. This resulted in their improved collective buy in and resourcing.

5.4.5.17 Encourage holistic decision making which takes context into account

Holistic, and therein effective decision making draws in as full a context[31] as possible to understanding the background to, interrelatedness between, and consequences of decisions. Context is often lacking, or ignored, in the decision making process around social and environmental sustainability resulting in sub-optimal decisions, not capitalising on possible opportunities, and potentially leading to the generation of externalities. The head office must continually seek to ensure as full a context as possible is being taken into account at all levels of decision making. This is closely interrelated with trade-offs.

5.4.5.18 Trade-offs between competing desirable sustainability interventions are inevitable, pick them carefully

Limited 'managerial bandwidth' and 'absorptive capacity' within the company to assimilate new initiatives coupled with limited financial resources will result in trade-offs needing to be made between two or more desirable social and environmental sustainability initiatives. For example, the difficult decision was made not to proceed with a companywide biodiversity partnership with an international conservation organisation, and instead to focus on implementing existing interventions (Confidential email correspondence, 10 October 2010).

5.4.5.19 Do not allow perpetual-trading off against the future of social and environmental sustainability considerations

Resource constraints and profitability pressures result in trade-offs between social and environmental sustainability considerations and other company interventions. The head office needs to monitor such trade-offs to counter the mind-set of production related issues always 'winning', because without them 'there is no business'.

[31] The concept of 'management by default agreement' emerged in research cycle six. The CEO (Cutifani, M. Close out interview, 18 October 2010) viewed it as the problem behind many of the social and environmental sustainability challenges facing the company where decisions were being made without adequate background context, such that 'default agreements' were being made on decisions.

This logic can become the default with an unintended (I like to believe) pattern of externalisation emerging where no one ever chooses not to take social and environmental considerations into account, rather they are simply 'deferred' to the next budget cycle where trade-offs are faced once more. For example, the head office had to intervene to address a business confidential environmental legal non-compliance which came to light having manifested in this way for close on a decade (Confidential email correspondence, 19 January 2010). Moreover, generally speaking, it is easier to take into account sustainability considerations when the business is doing well financially.

5.4.5.20 Do not defer dealing with messes in the hope that technology will be found to resolve them

A potentially disabling mechanism was occasionally encountered in the mind-set that technological solutions will be found in the course of time to solve environmental messes, for example groundwater pollution, and that it is essentially 'business as usual' until that time (Business confidential communication, 9 October 2009). As raised elsewhere, such problems only tend to become more challenging over time, rather than less so.

5.4.5.21 Resources should be allocated to address both risks and opportunities

Non-events are often an indicator of success in social and environmental sustainability. But this is not always understood when allocating resources which normally follow 'problems'. The functions are generally, although not necessarily exclusively, value preserving rather than revenue generating and resources need to be committed to ensure greater resources do noting time need to be committed to remediate what could have been avoided, and to take advantage of possible opportunities. Head office and operational budgets need to be allocated informed by such an understanding.

5.4.5.22 Encourage a philosophy of continual improvement in all that is done

5.4.5.23 Encourage the adoption of operational practices that internalise social and environmental costs

Many experience the less positive impacts of exploration and mining through the externalities it creates. Operational practices need to be put in place, in conjunction with stakeholders, to consciously seek to internalise social and environmental costs and externalities that mining can generate.[32]

[32] Examples of positive and negative socio economic impacts of mining can be found in Anglo American's Socio Economic Assessment Toolkit (Anglo American, 2003, pp. 31-33) and environmental impacts in the environmental section of the IFC's Health, Safety and Environmental Guidelines for Mining (International Finance Corporation, 2012, pp. 2 - 14). Further examples can be found in (Pauli, 2010)'s book the Blue Economy which provides a range of innovative ways companies can and have turned socio economic and environmental challenges into opportunities, and specifically addresses mining in Chapter 11 (pp. 179-196).

5.4.5.24 Encourage the adoption of operational practices that externalise social and environmental benefits

Mining typically leads to benefits for some such as those who receive taxes and dividends, get work, supply the mine, and benefit from the infrastructure that supports mine. But many stakeholders are increasingly expecting mines to provide wider benefits and to act as an even greater catalyst for broad based socio economic development, infrastructure and social service provision. Operational practices need to be put in place, in conjunction with local stakeholders, to consciously build on the positive impacts that mining can bring.

This does not mean that the mine will or should provide all such social services, but rather that it needs to work in partnership with others based on affordability and appropriateness and in keeping with its capabilities to deliver on such commitments. These interventions need to create a support structure around the mine without creating dependencies as well as being viable beyond the life of mine. In many environments they could have linkages to the Millennium Development Goals (United Nations, 2012). But such an approach is also applicable in more economically advanced countries where mines are often in isolated less developed areas (Hollesen, P. Note to the Executive: New Socio Economic Models for AngloGold Ashanti – A Preferred Operator Strategy, October 2009).

As regards infrastructure and social service provision the company could expect to incur higher capital costs in setting up mines to assist in partnerships for provision of such services as roads, power, clean water, health and educational services. Depending on the mine this could add anything up to 15% to capital. And anything up to 5% for ongoing running costs. Key to this strategy would be the sourcing of funding from other sources, ideally at least half of the costs should be borne by other parties. If done correctly it could secure a strong social licence to operate and be structured to limit closure liabilities upfront. Given that the mines typically have large land holdings which are seldom put to productive use, in many environments they are a logical starting point for such initiatives (Hollesen, P. Note to the Executive: New Socio Economic Models for AngloGold Ashanti – A Preferred Operator Strategy, October 2009).

5.5 Outcomes

(Denyer, Tranfield, & Van Aken, 2008, p. 407)'s observation is important that, within a given context, it is all the interventions collectively, and more importantly the generative mechanisms that they invoke, that lead to particular outcomes. In this context, the outcome being sought is that of having fewer operational practices perceived to be outside of the bounds of stakeholder expectations by internalising social and environmental costs; and more operational practices perceived as positive by stakeholders by externalising social and environmental sustainability benefits. This reducing stakeholder pressure, resulting in a better securing of the ongoing legal and social licence to mine, and the company's future viability.

5.6 Conclusion

This chapter has provided a grounded theory and design proposition using the CIMO logic in answer to the question of: 'How can AngloGold Ashanti most effectively integrate social and environmental sustainability into its global operations?' The implications of the research are now examined in Chapter 6.

6. Chapter 6: Conclusion and evaluation

6.1 Introduction

Chapter 6 examines the implications and consequences of the research in four areas, these being:

1) For AngloGold Ashanti;
2) Its significance for the parent discipline, sustainability and management;
3) An evaluation of the research considering its relevance, utility and validity;
4) Proposed areas for future research.

6.2 The implications and consequences of the research for AngloGold Ashanti

6.2.1 Introduction

Things have naturally moved on since my departure from the company at the end of October 2010 with my no longer having the same access and intimate knowledge as when I was an 'employee as participant'. This born in mind, the implications and consequences of the research are presented at a sufficiently high level to not impact on their validity.

In recent follow up with former colleagues and a consultant to the company (J. Viljoen, personal communication, 12 February 2012; T. Njoko, personal communication, 17 February 2012; P. Satyapal, personal communication, 17 February 2012, & P. Kapelus, personal communication, 17 February 2012) it was noted that the integration efforts initiated by colleagues and myself and documented here continue to be 'built on' and gain traction within AngloGold Ashanti. A continual improvement philosophy is being followed with the community focused management standards having found sufficient mutual meaning to be approved by the Executive Committee in October 2011 as drafts for implementation, and the first ISO recertification audits, incorporating the management standards approved three years before, due to be undertaken from June 2012 onwards (AngloGold Ashanti, 2009, p. 32). Role clarity continues to be refined and functional capability has been increased with the appointment of community and environmental staff with the necessary training, skills and experience.

6.2.2 AngloGold Ashanti and the integration of social and environmental sustainability into its global operations

(Zadek, 2004)'s framework of social responsibility integration is useful as a reference in which to locate where AngloGold Ashanti has come, and where it still needs to go, by examining its journey on this five stage continuum, these stages being defensive, compliance, managerial, strategic and civil which are examined in turn.

The **defensive stage** is characterised by a rejection of allegations, 'it did not happen' or denials, 'it was not our fault' and a mind-set of 'its not our job to fix that'. While never experienced as the prevailing culture of the company in my time with it, on embarking on my

research in 2005, I regularly encountered pockets of such attitudes, particularly in the former Ashanti assets.[33]

Addressing challenges and opportunities is difficult when there isn't agreement on the fundamentals, which was the case when the company did not have globally agreed standards and mutual meaning within the company regarding its sustainability responsibilities. Much effort has been and continues to be put into this process as attested to in this dissertation.

So, while such attitudes were still encountered from time to time, as will no doubt be the case in many large multinational companies, AngloGold Ashanti's prevailing corporate culture was always beyond this stage. This said, there is still work to be done to better clarify what the company's responsibilities are – and it wishes to do - in a number of areas, especially those regarding emerging social and environmental sustainability issues, such as climate change (Hind, Wilson, & Lenssen, 2009, p. 16) and human rights.

In the **compliance stage** corporate policy is set and observed with the intention of protecting the company's reputation and reducing the risk of litigation with a mind-set of 'we will do just as much as we have to do'. AngloGold Ashanti's values, mission, vision, policies, strategy and management system approach meets and well exceeds the requirements of the compliance stage. And while there still are no doubt pockets of compliance thinking in the company, it is certainly not the prevailing culture.

In the **managerial stage,** there is a realisation that these issues are a longer-term challenge that cannot be addressed by a compliance or public relations strategy and line managers are given the core business responsibility for both problems and finding their solutions. A mind-set is adopted of 'its just the way we do business'.

AngloGold Ashanti's interventions regarding its strategy, systems, structures and processes for social and environmental sustainability seek to integrate, at a minimum, a company culture at the managerial stage. And while not there on all counts, mutual meaning and the mind-set of 'its just the way we do business' is in the process of being socialised. This being a long term project requiring a continual improvement approach.

In the **strategic stage** companies realign their strategy to address responsible business practices, with a mind-set of 'it gives us the competitive edge'. And in the **civil stage** a company promotes collective action to address societal concerns which may or may not be directly linked to the company's strategy with the mind-set of 'we need to make sure that everybody does it'.

AngloGold Ashanti's strategy of being a 'preferred operator' by governments, communities, business partners, investors and other stakeholder groups in finding and developing ore bodies puts its thinking in the strategic stage where responsible business practices play a leading role in giving the company a competitive edge (AngloGold Ashanti, 2010b, p. 5) &

[33] Ashanti Goldfields included: Iduapriem Mine, Obuasi Mine, Siguiri Mine, and the corporate office in Accra.

(Hollesen, P. Note to the Executive: New Socio Economic Models for AngloGold Ashanti – A Preferred Operator Strategy, October 2009).

Furthermore, AngloGold Ashanti's stated intention, articulated in its vision, "to be the leading mining company' (2010a, p. 10) commits the company to the strategic and arguably even the civil stage. As *the* leading mining company it should seek to bring others along with it both in areas of direct relevance to its strategic areas of interest, but also regarding broader sustainability issues.

Given its multiple operations and that it is more advanced in dealing with some issues than others, the company will in practice span more than one stage, but its over-riding corporate culture commits it to at least the strategic stage and arguably the civil stage. As (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 334) note "its not what the vision is, its what the vision does" and with the vision pointing the company in the right direction, 'the divide between intent and delivery' must continue to be bridged (M. Cutifani, email correspondence, April 30, 2009).

6.2.3 Social and environmental sustainability - an ongoing integration process in partnership with stakeholders

As regards this continued bridging process, (Asif, Searcy, Zutshi, & Ahmad, 2011, p. 355) highlight that sustainability is a dynamic concept with the specific environmental, economic, and social aspects and priorities an organisation focuses on continually changing due to internal and external environmental factors. Moreover, given this continual evolution, (Senge, Smith, Kruschwitz, Laur, & Schley, 2008, p. 181) advise that leading companies need to continually envisage the future and what the business environment and the societal forces at play could look like.

Thus as publically acknowledged, AngloGold Ashanti needs to continue its integration efforts. As the CEO put it

We will only achieve [our] vision if we can prove our ability to operate sensitively to and with our host communities, to demonstrate that we will partner with them to create 'enduring value'. We recognise that 'enduring value' is a relative concept and can only be defined in the eyes of each partner – the challenge is to find common ground upon which we both see enduring value as it relates to our respective needs…. In the shorter term we need to develop appropriate responses to the many sustainability challenges that we face in operating across geographically and culturally diverse landscapes…

[Furthermore, r]esponsible environmental stewardship and the effective management of scarce natural resources are important to us in living to our value of respect for the environment… The sustainability challenges that we face are as significant as they are varied and require a considered strategic response…. [And while] AngloGold Ashanti's sustainability vision will take time to fully realise, [we] believe that success will allow us to provide a better set of outcomes for our industry and its stakeholders (AngloGold Ashanti, 2010b, pp. 4-5).

To create this 'enduring value' the company will need to - in partnership with stakeholders through a process of finding mutual meaning - take increased responsibility for externalities,

past and present, and seek to externalise the benefits exploration and mining can bring to the wider community and society. Furthermore, AngloGold Ashanti will need to continually revisit and adapt to rapidly evolving expectations, and the viability threats they bring, and therein work to narrow the gap between actual operational practices and stakeholder expectations thereof which will "assist in securing the long term future of [its] operations" (AngloGold Ashanti, 2010b, p. 5).

6.2.4 Conclusion

In conclusion, (Ruggie, 2006, p. 19)'s advice to adopt an approach of 'principled pragmatism' is sensible. In the context of social and environmental sustainability, it would involve an ongoing commitment to the principle of improved social and environmental sustainability performance, based on the approach outlined in this dissertation, coupled with a pragmatic attachment to what works best on the ground.

6.3 The research's significance for the field of sustainability and management

6.3.1 A contribution to research focussing on the integration of social and environmental sustainability into a multinational company

The research focuses on the integration of the management of social and environmental sustainability into a multinational gold mining company from a head office practitioner perspective. In so doing it provides a potentially original contribution to the field through the development of a design proposition constructed using the CIMO logic.

Furthermore, against a backdrop of many companies, beyond just mining, exploring a management systems approach to better integrate sustainability considerations - while also acknowledging their limitations - the research examines the understudied area of the formal integration of environment and community aspects into the ISO 14001 environmental management system in the context of a multinational gold mining company.

6.3.2 The importance of finding mutual meaning regarding sustainability, and fostering a personal connection to the issues

This dissertation has argued the importance of finding mutual meaning regarding sustainability as an important point of departure in the management of sustainability. It also argues for the fostering of a personal connection to the issues in order to shift company practices towards being more sustainable. Without such a connection it is all the more challenging, and ultimately, as (Cartwright & Craig, 2006, p. 748) argue, the most committed pathway to sustainability is one where the changes arise from a personal conviction that moving towards sustainability is the "right thing to do'" rather than from seeking to be compliant or responsive.

6.3.3 A new kind of leadership is required to shift to sustainability

This dissertation argues that the integration of sustainability needs to take place at all levels of the organisation, and that central to this is having committed leadership from the very top - the board, the CEO, and the Executive Committee. And this has implications for the kinds of leadership that mining companies will seek to put in place at all levels. Technical capability alone will increasingly no longer be suffice to take on leadership roles, with incumbents increasingly being sought who are capable of managing the complexity of, and transition to, sustainability.

6.3.4 Addressing the stereotypes and symbols of 'corporate power' and the 'love camp'

Martin Luther King, as quoted in (Kahane, 2010, p. 8), warned that

[p]ower without love is reckless and abusive. [And l]ove without power is soppy and sentimental.

(Kofman, 2006, p. 283) comments

[m]any business people consider 'love' to be a personal matter, certainly nothing that belongs in the corporation, yet love forms the foundation of all human interactions.

He further notes that he is naturally not talking about romantic love, but rather what he refers to as 'agape' – 'a commitment to the other's well-being' (2006, pp. 283-284).

Power and love stereotypes and symbols abound in the field of sustainability management. The symbolical corporate power of a multinational mining company digging deep into the earth and literally moving mountains to recover ores is universal and there are increasingly vocal societal and stakeholder concerns regarding the perceived abuse of that power – in the context of this dissertation, specifically at the expense of the environment and communities. Similarly, from a 'love' perspective, how a company acts as a corporate citizen is fundamental to its attempts to 'win the hearts' of those directly and indirectly impacted by its activities and how 'green' it is perceived to be.

This dissertation argues that those in the stereotypical 'love camp' of environmental and social sustainability must work to ensure that their efforts to change company practices are not perceived as 'sloppy and sentimental'. They must seek to gain more power through the integration of social and environmental sustainability into company strategy, structures, systems and processes and in so doing also stop 'reckless and abusive' practices, something the industry, and indeed AngloGold Ashanti, has been accused of all too often.

Furthermore, this dissertation demonstrates that social and environmental sustainability is becoming increasingly core to the ongoing viability of companies and not just something for the love camp of 'tree huggers' and the 'socks and sandals brigade'[34] to manage.

[34] 'Tree huggers' being the term used by many to refer to environmental practitioners and 'the socks and sandals brigade' being one of many not particularly endearing terms sometimes used to describe community practitioners.

6.3.5 Mindfulness of the future: a practical contribution

(Sachs, 2011, p. 176) observes

[we] profess our commitment to 'sustainability'…[y]et we don't really know what sustainability entails as we continue to plunder the planet for resources and continue to hope for the best.

Thus he argues for the concept of "mindfulness of the future" which involves taking moral and practical ownership of the long term consequences of actions and tracing their consequences "as carefully as possible into the far future" (2011, p. 176).

The grounded theory and design proposition generated in this research provides a practical managerial approach for a multinational gold mining company, and perhaps others, to follow in seeking to become more 'mindful of the future'. This being achieved by integrating sustainability into its business and therein encouraging operational practices which take into account the long term consequences of its actions, both positive and negative, by internalising externalities and externalising benefits.

6.3.6 Companies are part of the sustainability problem, and must be part of the solution

The research concurs with the argument proposed by (Quinn & Dalton, 2009, p. 22) citing (Dunphy and Benveniste, 2000) that companies, while being part of the sustainability problem will also be an important part of the solution. Citing (Hawken, 1993, and Shrivastava, 1995) they note (p. 22) that companies have the financial resources, technological knowledge and institutional capacity to implement sustainable solutions, but that in order to become more sustainable there must be a reform, redesign, and restructure of organizations to minimize their negative. They propose that solutions must be both sustainable and economically profitable, or, more radically that the organizational view of success must change "from an economic-based measurement to a sustainability based measurement".

(Pauli, 2010, p. 181) comments specifically regarding mining

Could this ever be sustainable? Could mining companies ever conduct their operations and leave the local community better off than when they arrived? ... Though we may lack the knowledge and skill to undo the errors of the past, it is within our ability to do better in the future. We may not currently be capable of transforming mining into a benign operation, yet we can at least design a strategy that assuages the environment and social pain that mining inflicts.

And it is apparent that a very different way of doing business is possible with the grounded theory and design proposition developed in this research providing a practical managerial approach to seeking to integrate social and environmental sustainability into a company's global operations, therein seeking to minimise negative impacts and to externalise the positive impacts exploration and mining can bring.

6.4 An evaluation of the research considering its relevance, utility and validity

6.4.1 Relevance

The overriding managerial concern sought to be addressed is that of ensuring AngloGold Ashanti's ongoing viability in the face of evolving, increasing and often conflicting stakeholder governance pressures to address social and environmental sustainability risks and opportunities and to maximise profits. Indications are that these concerns are likely to grow in importance as stakeholder expectations evolve and become less tolerant of perceived irresponsible practices, and more demanding of responsible practices, including the generation of positive impacts.

Such concerns have far reaching relevance with Gary Hamel in the forward to (Haque, 2011, p. x)'s book stating that there is a threat to the very capitalist system itself stemming from

the inability (or unwillingness) of executives to confront the changing expectations of their stakeholders about the role of business in society.

Sustainability has been called "the primary moral and economic imperative of the 21st century" and "one of the most important sources of both opportunities and risks for businesses" (Institute of Directors, 2009b, p. 9). It has been declared 'an emerging megatrend' that "managers can no longer afford to ignore … as a central factor in their companies' long term competitiveness" (Lubin & Esty, 2010, p. 44). (Arenas, Fosse, & Murphy, 2011, p. 1034) posit that sustainability is "the key driver of future business models in a prosperous society." And (Porter & Kramer, 2006, p. 78) support these sentiments stating that "CSR has emerged as an inescapable priority for business leaders in every country".

Integrating social and environmental sustainability is core to AngloGold Ashanti's medium to long term viability and a key tenant of its vision to become "the leading mining company".

6.4.2 Utility

This dissertation provides an answer that comprehensively deals with the managerial concerns and opportunities raised in my managerial situation. Furthermore, it is hoped that this answer has greater utility than the AngloGold Ashanti context, although no such claims are made.

6.4.3 Validity and trustworthiness

While the validity and trustworthiness of this research must necessarily be assessed by the reader (Rolfe, 2006, p. 305), a number of observations are made regarding credibility, transferability, dependability, confirmability, and ethical considerations.

6.4.3.1 Credibility

6.4.3.1.1 Introduction

The credibility of the research was enhanced by its in depth and prolonged nature over several years which included a deep engagement with internal and external stakeholders exposing me to multiple perspectives and worldviews. This engagement included seven years of participation in the meetings of the Board Sub Committee on Safety, Health and Sustainable Development, ongoing interaction with the Executive Committee and head office colleagues from the full spectrum of disciplines, as well as regional, country, and site based colleagues.

A prolonged engagement with industry participants took place through my representation of the company on the Executive Working Group of International Council on Mining and Metals (2003 to 2010) which included chairing two of its Task Forces, that of Community and Social Development (2007 to 2009) and Mining Partnerships for Development (2009 to 2010). Engagement on issues with practioners from other industries was facilitated through my participation in the United Nations Global Compact Human Rights Working Group (2009 to 2010).

Engagement with external stakeholders took place in the course of my work dealing with NGO engagement, especially regarding grievances and complaints, as well as periodic direct engagement with communities. This external perspective was enhanced through my representation of the company on the Voluntary Principles on Security and Human Rights (2008 to 2010), a roundtable of mining, oil and gas companies, governments and NGOs focussing on security and human rights considerations. I furthermore acted as liaison person regarding the Extractive Industries Transparency Initiative, an initiative aimed at promoting revenue transparency in the extractive industry (2008 to 2010).

The data collection methods employed are briefly reviewed below, followed by observations regarding grounded theory and meta-synthesis.

6.4.3.1.2 Participant observation: adopting a stance of 'researcher as employee'

I am aware that my experience of events, and other participants' experiences, were influenced by my being a participant observer (Sandler, 1973, p. 52). This is to be expected given that I was both a researcher and an employee in a senior management role where I was actively engaged in trying to shape the research environment, while also reflecting on my management practice within it.

However, I needed to remain aware of this dynamic given the potential biases in wanting to see and categorise data the way that I wanted it to be, rather than the way it was (Dury & Stott, 2001, pp. 54-55). In particular, vigilance had to be practiced when things did not go as hoped and setbacks were experienced. As noted in chapter 3, a number of 'pet theories' were observed finding their way in, and had to be abandoned along the way.

(Vidich, 1955) observes that the social position of the observer determines what one is likely to see. And (Kawulich, 2005, p. 5) notes

[p]articipant observation is conducted by a biased human who serves as the instrument for data collection; the researcher must [therefore] understand how his/her gender, sexuality, ethnicity, class, and theoretical approach may affect observation, analysis, and interpretation.

My 'social' position in the company was that of a senior management role at the company's head office and I can be self-described as a married, middle class, white male South African in my late thirties, tertiary qualified (in economics and management), having gained all my professional experience working in managing social and environmental sustainability issues in the mining industry.

I am aware that these attributes bring with them certain perspectives, world views, and potential biases in the way I see the world. While data triangulation, sweeping in multiple perspectives and as suggested by (Suddaby, 2006, p. 640), ongoing reflection, assists and mitigates to some extent, there are likely to be biases that I am not even aware of my having and there were no doubt things that I was unable to 'see' in undertaking my research.[35]

A further potential concern is that of becoming so caught up in participation that one is not able to properly undertake the research (Dury & Stott, 2001, p. 62). This was a challenge in needing to balance my demanding role with undertaking the research. (Schwarts & Shwarts, 1955, pp. 345-346) caution in this regard that the time interval between the event and its final recording is important in that reworking of the representation of phenomenon as it was initially registered takes place, knowingly or otherwise. And that this has both positive attributes in that the observer now has the space to make sense of what was going on in reflecting on the event or situation, but it also allows for potential distortion and misinterpretation as conscious or otherwise retrospective reworking goes on.

This has inevitably occurred in balancing my work and research and while acknowledging this, I do not view it as being a serious validity threat. While acknowledging my bias in this regard, I would also prefer to highlight the positive attributes of having had more time to make sense of events.

I had originally intended to complete my research after the first three research cycles following the initial implementation of the community management system when the company underwent the fundamental changes described above. A fourth cycle was added to examine the ongoing viability of the community management system in this period of change. A fifth cycle followed examining the integration of social and environment sustainability into company structures, systems and processes. And a final sixth cycle was embarked on focusing on the ongoing integration effort which included rich data stemming

[35] On reflection, I have noted that a component of the grounded theory emerging in my research includes thinking advocated by economists which was my field of prior postgraduate study (the internalisation of costs and externalisation of benefits). It has now become clearer to me how one can be bias towards particular concepts and avenues of enquiry based on ones training and background, without necessarily realising it at the time.

from the serious challenges facing the company at the time, ending with my resignation on good terms in October 2010.

My respective roles in the company gave me wide and ongoing access throughout the research. (Suddaby, 2006, p. 640) notes the value of an extensive and ongoing "commitment to a line of theoretical research and an empirical site" which also leads to high levels of "self-learning". On the latter point, ongoing reflection on my management practice over the extended research period provided me invaluable insights and learning that improved my management capability.

In this vein, (Coleman, 2002, pp. 17,24) argues convincingly that

corporate citizenship is concerned with brining about change and, if those working within it intend to be effective in this regard, a greater level of reflexivity is required: an awareness of their own social practice and an ability to see themselves both as challenging social patterns, at the same time, as part of them… This involves developing the capacity to comment on what is going on around us and at the same time recognising ourselves as subject to the very systems and structures we are commenting on and seeking to change.

6.4.3.1.3 Conversational interviewing

While conversational interviewing has been criticised for being too ad hoc and concerns have been raised about 'interviewers' leading and misleading 'respondents' in their interactions (Conrad & Schober, 1999, p. 2) I found great value in conversational interviewing with it providing a rich source of data stemming from my many managerial interactions in the course of my every day management practice.

As mentioned above, I was not a passive researcher given my managerial role in which I was actively seeking to shape the research environment and thus vigilance was needed regarding the above concerns as to how this could influence my data collection. This said, such concerns are not viewed as serious validity threats, and once again the value of data triangulation is noted.

6.4.3.1.4 Documentation

Documentation used as data included public and internal company reports, email correspondence, letters, meeting minutes, and reports generated by external stakeholders as well as 'aspirational' documents such as policies and the management standards. Given that I was an author or co-author of a number of these documents I needed to remain aware of potential biases that this could lead to in the data and once again the value of data triangulation is noted.

6.4.3.1.5 The use of the literature

In grounded theory a theory cannot simultaneously emerge from the data and be built off models and theories from the literature (Heath & Cowley, 2004, p. 143). And to completely ignore the work of others is not practical, nor sensible, nor the intention of grounded theory

(Suddaby, 2006, p. 633). Thus the literature, most especially practitioner literature, was made use of relatively consistently throughout my research as an important data source and the literature review was undertaken for the meta-synthesis following the emergence of the concepts. Most importantly, the requirement of not simply lifting the theory from the literature was adhered too.

6.4.3.1.6 Memos

Memoing was an important part of the process and formed a particularly valuable data source.

6.4.3.1.7 Grounded theory – some additional observations regarding validity and trustworthiness

Grounded theory, while acknowledging that researchers set out with prior and tacit knowledge in undertaking research, is concerned with how this knowledge affects the development of theory. And inherent in the method, unless manipulated, are mechanisms for checking the authenticity and representativeness, such that when searching for additional data to substantiate the emerging concept or category it will become apparent if it is substantiated or not thereby increasing trustworthiness (Cutcliffe, 2000, pp. 1479-80). In practice I observed up a number of pet theories in this way, an indicator being their poor saturation regardless how hard I tried to find data to substantiate them.

More broadly, I found the grounded theory methodology both intuitive, and challenging, in that one needs to proceed trusting that the theory will emerge.

6.4.3.1.8 Meta synthesis

A critique of the meta synthesis process used in this dissertation is that in only synthesising my own multiple studies the approach does not seek out multiple perspectives in the way that other meta syntheses' would (Walsh & Downe, 2004). While the concern is partially addressed in making use the literature which included seeking out divergent views, it is acknowledged, as this is by design a single researcher meta-synthesis.

Critique aside, the meta synthesis process provided a structured and helpful method of synthesising my work. And it is my intention that (Walsh & Downe, 2004, p. 205)'s observation is applicable that the findings from individual qualitative studies are synthesised so that they can inform policy, strategy and practice.

6.4.3.2 Transferability

While the reader will ultimately judge the degree of transferability i.e. how transferable the answer developed here is to other situations within their own unique contexts, one comment follows in this regard. The research was undertaken in the context of a head office role in a multinational gold mining company having global responsibility for policy and governance of social and environmental sustainability. I was thus seeking, by design, generalizable

interventions and mechanisms such that a global approach could be put in place within the company that could accommodate vastly differing operating contexts. For example, Cripple Creek and Victor Gold Mine in the United States of America, and Siguiri Gold Mine in Guinea, while both open pit mines operate in very different contexts and both needed to be accommodated.

6.4.3.3 Dependability and confirmability

An electronic 'portfolio of work done' was maintained throughout the research in order to keep a record of the research process and key data sources. In this way, observations, memos, conversational interview notes, email messages, meeting reports and minutes, electronic documents, categorised tables of propositions, interrelationship diagraphs and causal loop diagrams and the likes have been stored as working documents. Given the sensitive nature of some of the material, three years following the dissertation's acceptance by the University, it will be deleted. Until then they will be securely stored on an external hard drive.

6.4.3.4 Ethics

From an ethical perspective, it can be argued that the entire research project is one of applied ethics examining the concept of 'responsible' business practices relating to social and environmental sustainability. The theory which emerged seeks to provide an ethically sound approach to integrating social and environmental sustainability into the company's global operations by taking into account legitimate stakeholder demands and interests by putting in place a strategy, structures, systems and processes which seek to internalise externalities, and externalise benefits.

Within the dissertation itself attempts have been made to avoid unnecessarily referring to individuals or specific business confidential issues. Grounded theory, through its processes of abstraction and conceptualisation also goes some way to addressing such ethical concerns.

6.5 Proposed areas for future research

6.5.1 Introduction

Social and environmental sustainability is a rich and expanding area of management practice and research. While a wide range of research possibilities exists, a number of specific observations are presented for future research building on the work undertaken here. As a point of departure, while examined separately for practical purposes, these proposed areas of research are interwoven such that a clean separation between them in practice would be artificial.

6.5.2 Mutual meaning and a personal connection to the issues

Mutual meaning between stakeholders, both internal and external, is a fundamental tenant of the theory presented here. Research could be undertaken to better understand the processes by which companies can practically go about seeking to find mutual meaning regarding sustainability on an ongoing basis with their multiple internal and external stakeholders.

This research has also highlighted the importance of decision makers being connected to the issues. This includes having as full a context as possible to make holistic decisions, getting the system into the room when necessary, ensuring sufficient agreement, being clear on boundaries, and being mindful of the future. Research into how companies can best practically foster such a personal connection to decisions being made and how they impact on social and environmental sustainability would be of value.

6.5.3 Strategy

Further research into the role that strategy, and a dedicated sustainability strategy, plays in integrating sustainability into company operational practices would be of value.

6.5.4 Structures

Further research could be undertaken into the role that company structures and role clarity plays in integrating sustainability into company practices. Allied to this is the issue of what kinds of sustainability capability individuals in key roles, as well as dedicated sustainability departments, should have in order to operationalize sustainability considerations.

Furthermore, it would be of value to have a better understanding of if and how sustainability capability can be instilled via training, experiential placements and other interventions so as to accelerate the integration of these issues and the pool of available practitioners.

Given that many mining companies continue to retain a functional separation between their environment and community functions, a further avenue of research could focus on to what extent the functional integration of these disciplines, versus maintaining them as stand-alone functions, aids in integrating social and environmental sustainability into operational practices.

6.5.5 Systems and processes

Research into mining companies differing approaches to management systems integration and the related success or otherwise in integrating sustainability into their operations would be of value. Specifically this could examine the merits of the formal inclusion by mining companies (and others) of social issues into the ISO 14001 management system.

Modelling of social costs and benefits related to mining is not a well developed area. Research into ways of better capturing these costs and benefits, both qualitatively and quantitatively, and therein their impact on a company's ongoing viability would be of value and potentially assist in better integrating such issues into the mainstream management of companies.

Research into financial modelling of the 'real' NPV of mining projects which includes an internalisation of social and environmental costs and therein also accounts for legacies (and/or potential legacies) over the full life cycle of mines would be beneficial, especially given anecdotal evidence of legacies beginning to affect the industry more profoundly, sometimes many years post closure.

Research into the capital allocation process and how it helps or hinders the objectives of integrating social and environmental sustainability into mining companies would be beneficial. The capital allocation process is particularly important given that many legacy issues, particularly environmental ones that often also have profound social impacts, are the result of a lack of capital being timeously made available.

6.5.6 Operational practices internalising sustainability costs and externalising benefits

Further research into how mining companies are, in practice, internalising sustainability costs and externalising benefits would be of particular value.

6.5.7 Viability threats

While viability threats to mining companies are relatively well understood from an environmental perspective - although there is room for further research into this area too, research into those posed by social sustainability issues would be most beneficial given the increasing anecdotal evidence that this is indeed the case.

6.6 Conclusion

In closing, (Patomaki & Wight, 2000, p. 227) remind one that

[n]o synthesis can ever be absolute and final: reality is constantly changing, and so there can only be a 'dynamic' synthesis that is constantly being reformulated.

This no doubt being the case as my understanding, learning and synthesis of my management practice at AngloGold Ashanti has, and continues to evolve.

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Annex 1

AngloGold Ashanti Values Statements

Safety is our first value.

We place people first and correspondingly put the highest priority on safe and healthy practices and systems of work. We are responsible for seeking out new and innovative ways to ensure that our workplaces are free of occupational injury and illness. We live each day for each other and use our collective commitment, talents, resources and systems to deliver on our most important commitment ... to care.

We treat each other with dignity and respect.

We believe that individuals who are treated with respect and who are entrusted to take responsibility respond by giving their best. We seek to preserve people's dignity, their sense of self-worth in all our interactions, respecting them for who they are and valuing the unique contribution that they can make to our business success. We are honest with ourselves and others, and we deal ethically with all of our business and social partners.

We value diversity.

We aim to be a global leader with the right people for the right jobs. We promote inclusion and team work, deriving benefit from the rich diversity of the cultures, ideas, experiences and skills that each employee brings to the business.

We are accountable for our actions and undertake to deliver on our commitments.

We are focused on delivering results and we do what we say we will do. We accept responsibility and hold ourselves accountable for our work, our behaviour, our ethics and our actions. We aim to deliver high performance outcomes and undertake to deliver on our commitments to our colleagues, business and social partners, and our investors.

The communities and societies in which we operate will be better off for AngloGold Ashanti having been there.

We uphold and promote fundamental human rights where we do business. We contribute to building productive, respectful and mutually beneficial partnerships in the communities in which we operate. We aim to leave host communities with a sustainable future.

We respect the environment.

We are committed to continually improving our processes in order to prevent pollution, minimise waste, increase our carbon efficiency and make efficient use of natural resources. We will develop innovative solutions to mitigate environmental and climate risks.

Source: (AngloGold Ashanti, 2010a, p. 3)

Annex 2

AngloGold Ashanti's Business Strategy

"AngloGold Ashanti's business strategy is reviewed regularly to determine progress in its implementation against the backdrop of a dynamic operating and regulatory environment. These evaluations allow for tactical adjustments necessary to achieve the ultimate goal of becoming "**the leading mining company**".

AngloGold Ashanti has defined its strategic focus in five parts:

Recognise that "People are the business" – organisational development is a strategic value driver for the group;

Maximise margins – manage both revenue and costs to ensure delivery and protection of returns throughout the economic cycle;

Manage the business as an asset portfolio – use capital deployment optimisation approaches to support delivery of return targets;

Grow the business – have a definite strategy for both organic growth and growth by acquisition and be opportunistic in seeking value accretive targets; and

Embrace sustainability principles – understand and focus on creating value for both business and social partners to manage risk and opportunity."

Source: (AngloGold Ashanti, 2010a, p. 10) (Emphasis in original)

Annex 3

AngloGold Ashanti's definitions outlined below inform how the terminology is used in this dissertation.

Stakeholders: persons or groups that are directly or indirectly affected by a project as well as those that may have interests in a project and/or the ability to influence its outcome either positively or negatively. Stakeholders include locally affected communities and individuals and their formal and informal representatives, government, politicians, religious leaders, civic organisations, and other groups with special interests, the academic community, employees, their families and employee representatives, other businesses, shareholders and joint venture partners.

Social partners are stakeholders with whom we have or are building mutually beneficial relationships and partnerships. By definition, some of those with whom we engage prefer not to be referred to as "social partners" in order to maintain their impartiality and independence.

Civic and community-based organisations: religious groups, educational organisations and organisations serving vulnerable and special interest groups such as children, the elderly and the disabled.

Advocacy NGOs: human rights, social justice, environmental, or other group that seeks to influence political decisions.

Media: the local, national and international press.

Development partner: non-profit organisation, government aid agency or multilateral development agency that assists the site in achieving its societal aims.

Government: national, state/provincial and district/local authority. In some locations (e.g. tribal areas) it may be appropriate to distinguish between elected and traditional forms of administration.

Industry: Chamber of Mines (or an equivalent industry association) and other mining companies.

Source: (AngloGold Ashanti, Unpublished draft stakeholder engagement management standard, October 31, 2009)

Annex 4

Key International Sustainability Standards Used in the Mining Industry

International Standards and guidance: overall sustainable development performance i.e. human rights, health, safety, environment and community, governance and ethics:

The United Nations Human Rights Commission 'Protect, Respect, Remedy framework' and Guiding Principles for its implementation (Ruggie, 2011)

OECD Guidance for Multinational Companies(Organisation for Economic Co-operation and Development, 2011)

IFC Performance Standards (International Finance Corporation, 2011)

The Equator Principles (Equator Principles, 2011)

ICMM Sustainable Development Framework and Good Practice Guidelines

Responsible Jewellery Council(Responsible Jewellery Council, 2011)

International standards and guidance: Exploration specific

Prospectors and Developers Association of Canada E3Plus Framework for Responsible Exploration including Principles, Guidance and Toolkits (Prospectors and Developers Association of Canada, 2011)

Issue specific international sustainable development standards and guidance:

Chemicals management: The International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold(Cyanide Code, 2011)

Revenue transparency: the Extractive Industries Transparency Initiative(The Extractive Industries Transparency Initiative, 2011)

Security and human rights: The Voluntary Principles on Security and Human Rights(Voluntary Principles on Security and Human Rights, 2011)

Conflict minerals: World Gold Council Conflict Gold Standards(World Gold Council, 2011)

Reporting on sustainable development performance

Global Reporting Initiative (Global Reporting Initiative, 2011)

Annex 5

Indicators: Company-Community Relationship and Social Licence to Operate

When a company has a Social License to Operate	When the Social License to Operate is compromised	When a company does not have a Social License to Operate
• People wave back when greeted • New notices from the company remain on the bulletin boards without being torn off • Recognition in the community that the company is bringing together opposing groups and parties that otherwise would not meet • Low, or decreasing, theft levels, destruction of company property • People associate improvements in their quality of life with the company presence • Anti-corporate advocacy groups get no local support • Community requests focus on personal skills development instead of material things. • No or low public outrage following accidents • Communities identify trouble makers and inform company staff about (security) rumours in the community • Communities say they have access to corporate decision makers	• Visible change in community behaviour e.g. people stop greeting (waving to) company staff • Community leaders, elders stating they do not feel respected • The same problems arising over and over • Evidence that individuals, rather than the community, benefit from company-community interaction • Staff feels unsafe visiting Communities • Accusations of company association with a repressive government • Disproportional negative reaction compared to the nature of an accident • Proliferation of groups that each claim the company should deal with them.	• Rising trends in theft (company is seen as target) • Work stoppages • Increased demands and hostile tone of community • No leniency when accidents happen • Bad press • Increasing crime in the area of operations • Increased conflict between communities or within communities • Kidnappings, targeted assaults toward the company • Sabotage • Increasing reliance on police/army • Communities say the company is “stealing” resources

Source:
(Corporate Engagement Programme - CDA Collaborative Learning Projects, 2012, p. 23)

Annex 6

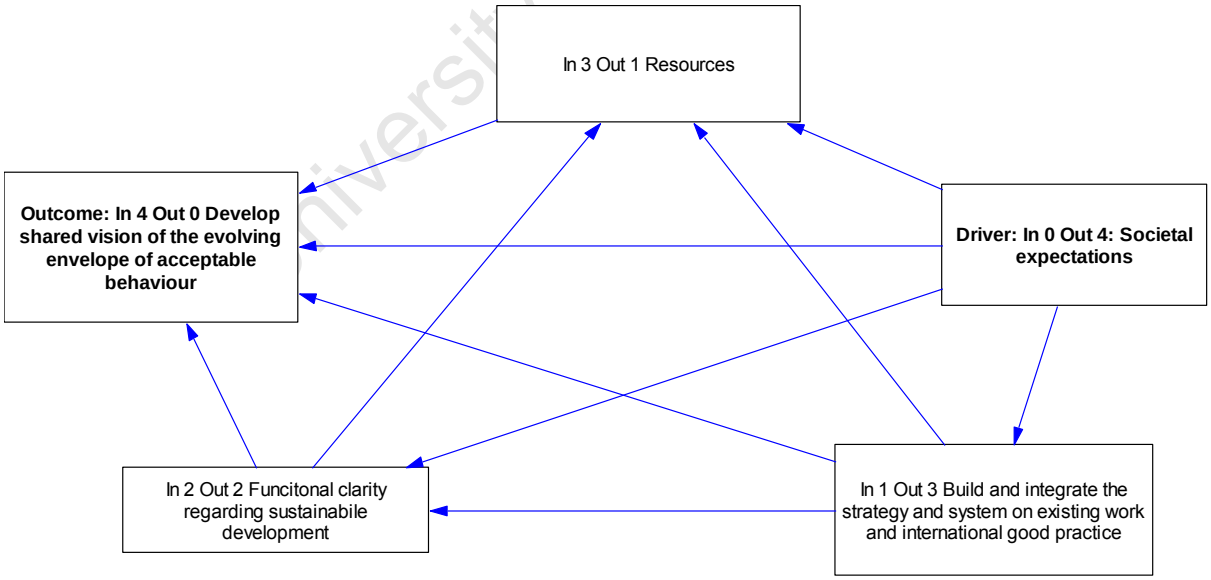
Core concepts from research cycle one: July 2005 to December 2005

5 core concepts were conceptualised from 50 propositions, these being:

Resources committed to managing community function	Societal expectations on the company to behave responsibly	Build and integrate the strategy, structure and systems off existing work and international good practice
Functional clarity regarding sustainable development	Shared vision of the evolving envelope of acceptable behaviours	

Annex 7

Interrelationship diagraph for research cycle one: July 2005 to December 2005



Annex 8

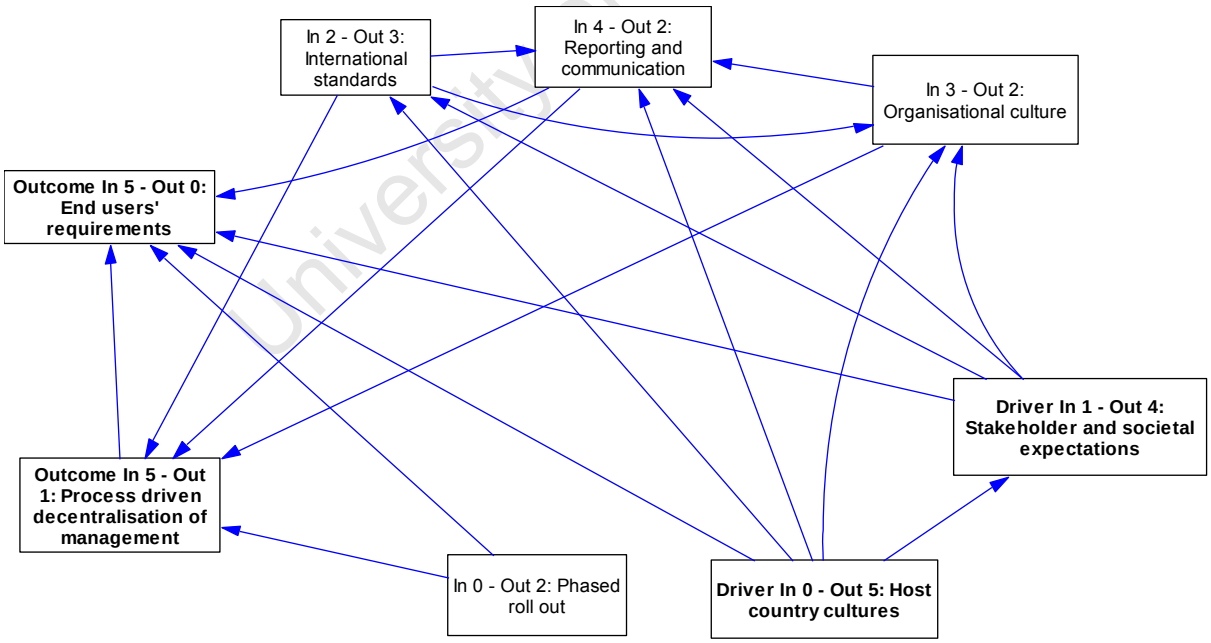
Core concepts from research cycle two: January 2006 to July 2006

8 core concepts were conceptualised from 115 propositions, these being:

Organisational culture	Stakeholder and societal expectations	Host country cultures
Phased roll out	Process driven decentralisation of management approach	Management reporting requirements
End users' requirements	Internationally defensible standards	

Annex 9

Interrelationship diagram for research cycle two: January 2006 to July 2006



Annex 10

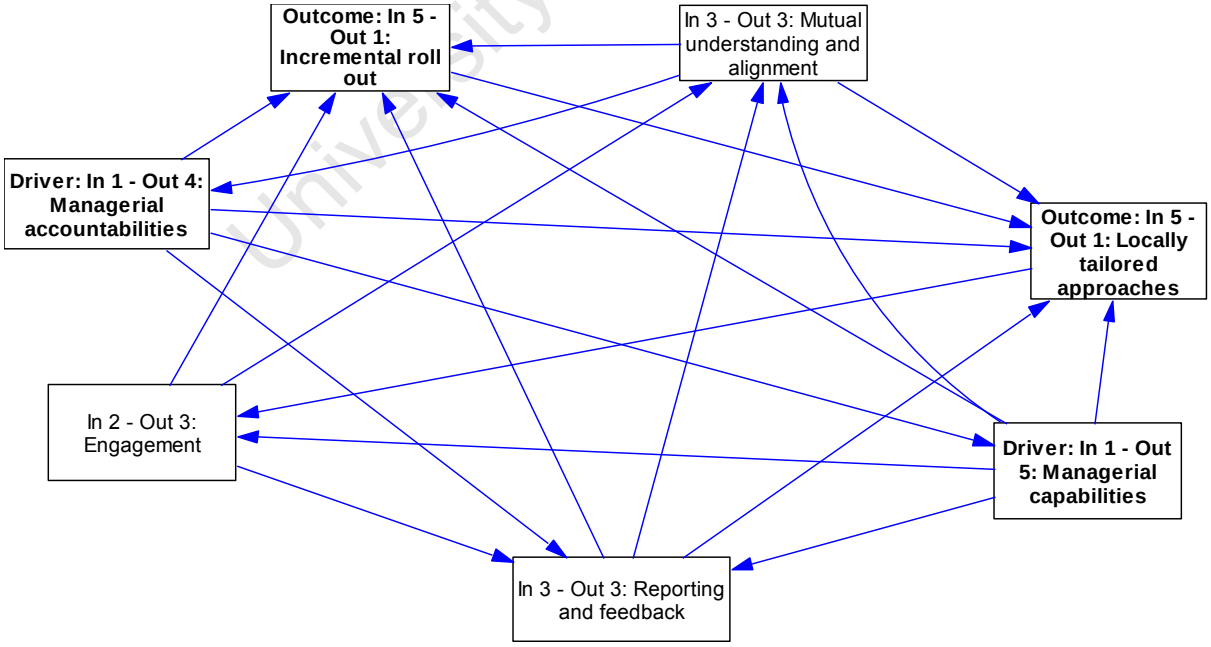
Core Concepts from research cycle three: August 2006 to September 2007

8 core concepts emerged from 101 propositions, these being:

Capability in community function	Reporting and feedback	Local partnerships
Clarity of managerial accountabilities in community function	Engagement with internal stakeholders	Incremental roll out of management system
Mutual understanding and alignment regarding the community function	Locally tailored approaches to the implementation of the management system	

Annex 11

Interrelationship diagram for research cycle three: August 2006 to September 2007



Annex 12

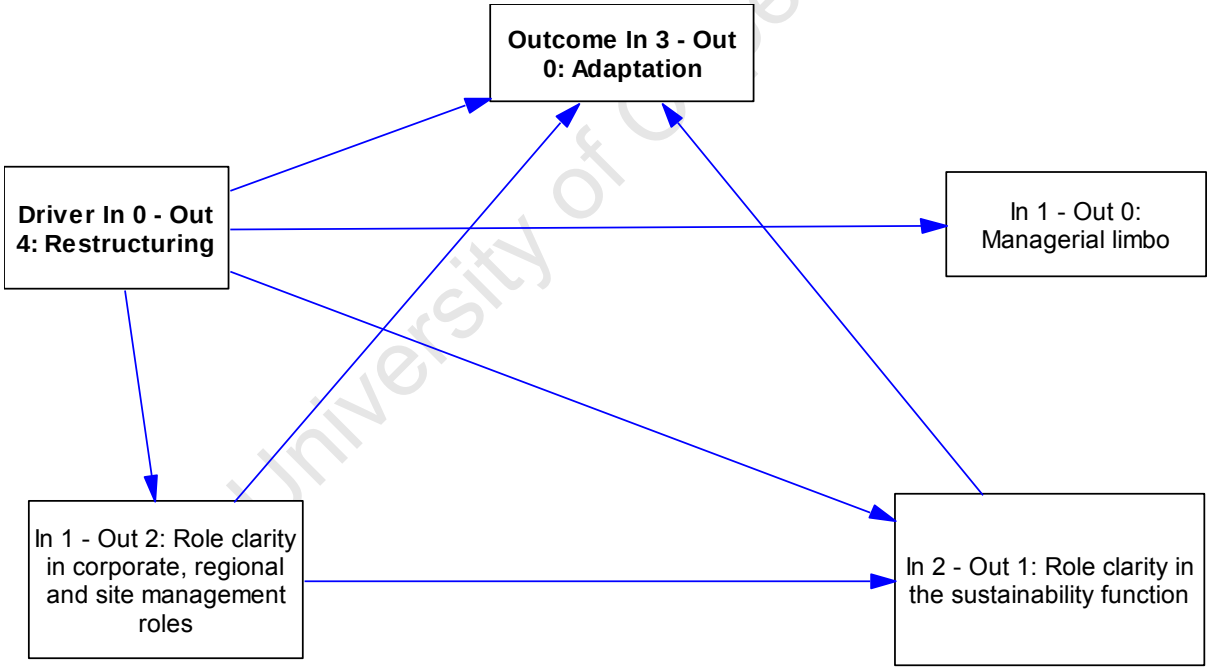
Core Concepts from research cycle four: September 2007 to May 2008

6 core concepts emerged from 35 propositions, these being:

Managerial limbo	Role clarity in the sustainability function	Role clarity in corporate, regional and site management roles
Restructuring	Adaptation	

Annex 13

Interrelationship diagraph for research cycle four: September 2007 to May 2008



Annex 14

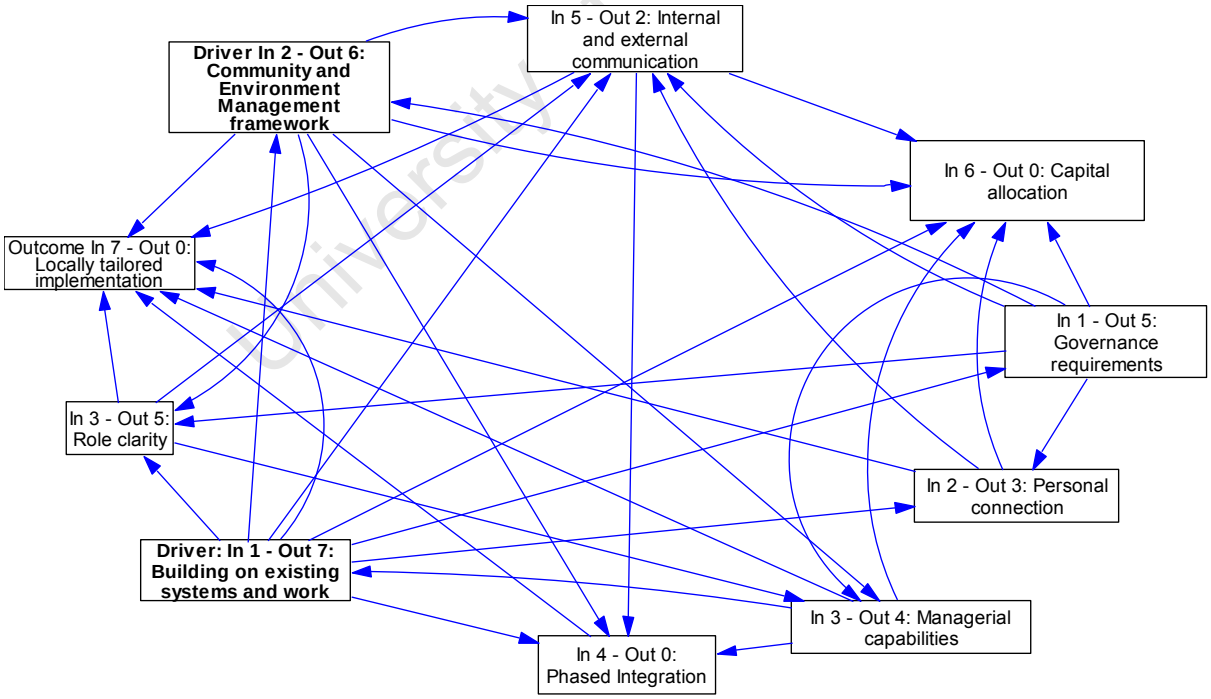
Core Concepts from research cycle five: June 2008 to October 2009

8 core concepts emerged from 189 propositions, these being:

Ongoing internal engagement	Community and environmental management framework	Governance expectations
Locally tailored implementation of community and environment framework	Managerial capabilities	Phased integration of community and environment framework
Building on existing systems and work	Role clarity regarding community and environment	

Annex 15

Interrelationship diagraph for research cycle five: June 2008 to October 2009



Annex 16

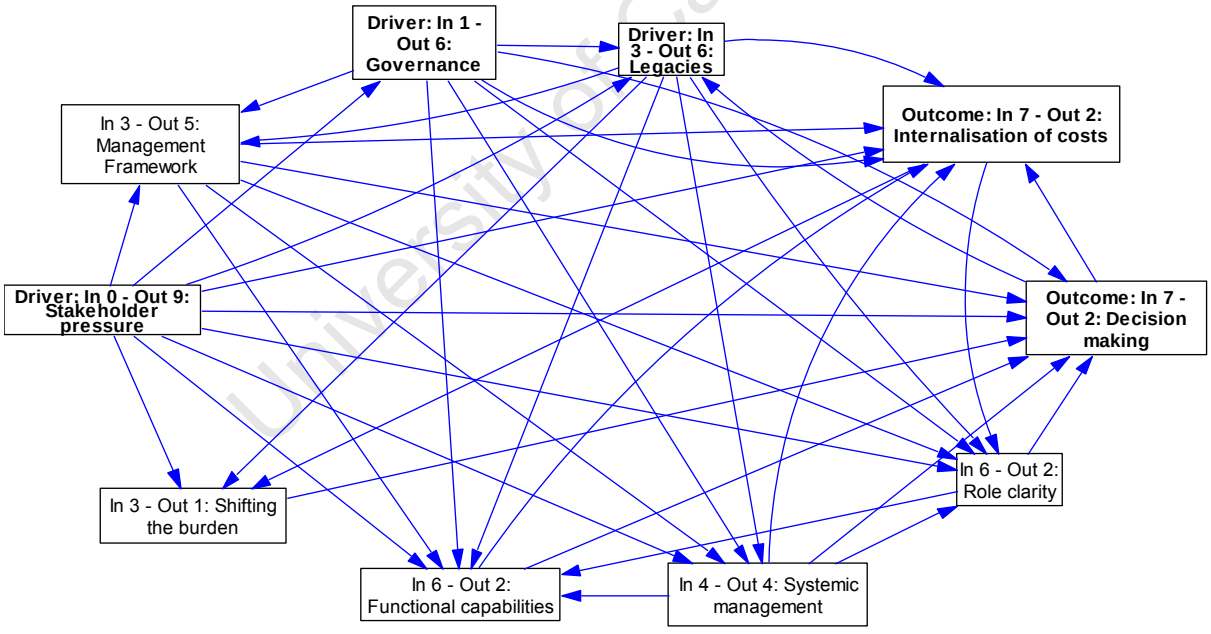
Core concepts from research cycle six: November 2009 to October 2010

7 core concepts emerged from 174 propositions, these being:

Role clarity	Integrated management of environment and community	Stakeholder pressure
Functional capability	Governance requirements	Internalisation of community and environmental costs
Community and environment management framework		

Annex 17

Interrelationship diagram for research cycle six: November 2009 to October 2010



Annex 18

Module 4: Table of Propositions

	Proposition	Subject's Relevance	Predicate's Impact	Revised Proposition – if applicable
	Restructuring	Y = Yes N = No M = modified		
1.	Restructuring can lead to an approach of "survival" rather than moving forward boldly	N		
2.	Restructuring can be undertaken in a manner which feels disrespectful and upsetting	N		
3.	Restructuring, accompanied by uncertainty and change can make one consider leaving	N		
4.	Restructuring can lead to community issues been given less managerial attention	N		
5.	Restructuring can lead to the work undertaken being lost	Y	Y	
6.	Restructuring can lead to changes in roles and a lack of clarity on who to work with to take a management system forward	Y	Y	
7.	Restructuring is leading to managerial limbo and the management system not moving forward	N		
8.	Restructuring can lead to blurred lines of responsibility and accountability between the executive management team			
9.	Restructuring can lead to greater functional clarity throughout the company	Y	Y	
10.	Restructuring can lead to the business case for the community and social development management system needing to be resold	Y	Y	Restructuring can lead to the business case for the community and environment management system needing to be resold
11.	Restructuring can lead to the business case for the community and social development management system potentially			Restructuring can lead to the business case for the community and environment management system

	needing to be repackaged to ensure its ongoing viability			potentially needing to be repackaged
	<u>Role clarity in the sustainability function</u>			
12.	Splitting out the executive management of connected disciplines results in less integration in their management	Y	Y	
13.	The Community discipline can be made functionally discrete from the Corporate Affairs function	Y	Y	
14.	Managerial integration of sustainability function can lead to a consolidation of disciplines under the broad sustainability rubric including: Health, Safety, Community, Environment, Legal, Government Relations, Corporate and Public Affairs, Gold Marketing, and Security and headed by an Executive Vice President: Business Sustainability	Y	Y	
15.	The more a company hires people who are first and foremost skilled in the functions it wants them to discharge the better the managerial outputs should be	Y	Y	
16.	Technical expertise in a discipline results in the incumbent being better able to discharge its functional requirements	Y	Y	
17.	The greater the focus on building a team and succession the better equipped staff are to take on bigger roles	N		
18.	The greater the community function is seen as a key area for a business the more managerial attention it will attract	Y	Y	The greater the community and environment functions are seen as a key area for a business the more managerial attention it will attract
	<u>Role clarity in corporate, regional and site management roles</u>			
19.	A lack of alignment between corporate, regional and site management leads to a lack of alignment on roles, responsibilities and timelines	Y	Y	
20.	Clear roles and accountabilities can lead to greater shared understanding and alignment between colleagues working in the same disciplines and across functions	Y	Y	
21.	Managerial attention can be paid to site based activities when there is increased confusion regarding	N		

	corporate and regional mandates.			
22.	Managerial attention can be given to clearly defined functions in times of role uncertainly	Y	Y	
23.	The more silos are broken down the greater the working relationships between the sustainability function and the other disciplines will be enhanced	Y	Y	
24.	Managerial focus on the crossover of issues between disciplines can lead to better managerial outcomes	Y	Y	
25.	An increase in bureaucratic authority can lead to an increase in ability to get the job done	Y	Y	
26.	Clearly articulated policy and expectations on the bounds of acceptable behaviours should be signed off by EXCOM for implementation	Y	Y M	A management system should be signed off by the executive committee
	<u>Adaptation</u>			
27.	The company's evolving understanding of its bounds of acceptable behaviours needs to be taken into account to get traction and buy in for the management system	Y	Y	
28.	The ongoing viability of the development and implementation of a management system can be increased by making adaptations to accommodate the change brought about by a new management, strategy and structure	Y	Y	
29.	An overarching management framework for a company can provide context for the regions and disciplines for their frameworks	Y	Y	
30.	Taking a public position on social policies can aid in driving their implementation	Y	Y M	Taking a public position on community and environment issues can aid in driving their implementation
31.	Understanding the new and emerging company wide management framework will clarify what work needs to be done to "repackage" the work done to date	N		
32.	Redrafting of the community materials could increase the possibility of formally integrating the community relations and social development discipline into the ISO 14001 methodology	N		
33.	Mandatory reporting criteria on key issues and an integrated reporting	Y	Y	

	system for HSEC and Government Affairs can lead to better reporting of incidents			
34.	Understanding of the community issues and the risks they pose to the business will lead to a greater focus on them	Y	Y M	Understanding of community and environmental issues and the risks they pose to a business will lead to a greater focus on them
35.	Benchmarking on what the social and community development management system should contain can lead to a more defensible management system.	Y	Y M	Benchmarking on what a community and environment management system should contain can lead to a more defensible management system

Annex 19

Full table of propositions in final saturated categories labelled with concepts

Functional capability

1. A management system seeks to develop the functional disciplines to attract appropriately qualified and experienced incumbents
2. Social complexity requires expert, and often local knowledge, to be dealt with adequately
3. A business model of going into “new frontiers” requires a company to have specific capabilities to do business in the more challenging parts of the world
4. Community is at the bottom of the mining food chain of priorities not tending to receive the same professional status, nor respect as “harder” disciplines
5. The community discipline tends to be modestly staffed with few qualified and experienced individuals having specialist qualifications
6. Technical credibility involves having the necessary knowledge and technical competencies to discharge a role
7. The environment function is generally staffed with individuals with the necessary knowledge and technical competencies
8. There need to be adequate capabilities in the environmental and community function relative to the challenges faced by a company
9. Common sense is not suffice to discharge the environmental and community roles
10. “Soft” areas involving people are often highly complex
11. There is a lack of relevant managerial training for community practitioners
12. Different skills sets are required managing a technical discipline to that of managing technical issues
13. In a technically dominated environment “operational credibility” is important
14. If one is not perceived to have "done their time at the operations" one’s perspectives may be less respected
15. Having diverse skills sets and perspectives will become all the more important for high impact mines
16. It is important for the Community and Environment function to have power in a company
17. It is important for the Community and Environment function to be able to curb those with power in a company from being “reckless and abusive”
18. Understanding and managing social processes is critical for mining companies
19. Leadership roles should be filled by people who are technically skilled, intellectually able and have good social skills
20. A company needs to be clear on what capabilities it needs
21. Management capability, experience and technique are needed to implement a management system
22. The environmental discipline is more professionalised as a discipline relative to community
23. The environmental discipline is technically oriented and better defined relative to community
24. The greater the business risks the better a company's managerial and technical capabilities need to be
25. Consultants can provide a useful independent view on issues
26. Consultants are able to say things that it may be difficult for management to say
27. Consultants can assist in meeting objectives
28. Capability is required to construct a community and environment management system
29. Incumbents with experience and skill in the issues should be brought in to do the work
30. Limited managerial “bandwidth” to absorb all the issues can lead to a lack of focus on environmental and community issues

31. Competent, skilled employees in the community and environment function leads to less need for detailed guidance and provisions in a management system
32. Unqualified qualified staff in the community and environment function will lower the effectiveness of the implementation of a management system
33. Individuals who “know best” are less likely to learn and be open to other perspectives
34. The absorptive capacity of a company to deal with new initiatives is limited
35. The more a company hires people who are first and foremost skilled in the functions it wants them to discharge the better the managerial outputs should be
36. Technical expertise in a discipline results in the incumbent being better able to discharge its functional requirements
37. It is not possible to deal with all issues simultaneously on taking on a role
38. Battles need to be picked to ensure one is not fighting on every front
39. It takes technical expertise to discharge the functional requirements of community and environmental
40. The community and environment functions have a rich technical body of professional knowledge
41. An awareness is needed of the reputational issues around community and environmental issues
42. Minimum required competencies to fulfil a community practitioner role should be defined
43. Having competent employees in place to run a function is more important than having a management system
44. Public relations and community development require two discrete skill sets which sometimes collide
45. Multinational companies with diverse operating conditions constantly making new acquisitions and expanding and contracting will find it difficult to ever be "there" on community and environmental performance
46. Dedicated departments and experts provide capacity to deal with challenges
47. Management of community requires an understanding of social dynamics and an ability to manage them mindfully
48. The process of assessing individuals competencies should not be a subjective process

Role clarity

49. Strategic work needs to be undertaken centrally to develop globally defensible positions, policy, good practice guidance and facilitate alignment of strategy and practice around a common social purpose
50. Corporate guidance and advice is needed to implement a community and environmental framework
51. “Shifting the burden” entails shifting the locus of responsibility for dealing with difficult problems to various “others” or “experts”
52. Changes in management and structures can lead to delays in the implementation of a management system
53. The more abstracted from the issues management is the less they are able to properly address accountability issues
54. A management system seeks to help professionalize the community and environmental disciplines
55. A management system seeks to manage the existing scarce human capital resources more optimally
56. Operations loose ownership of risks when they are bundled up into to centralised departments
57. The corporate office is accountable for staff development and training
58. Accountabilities for risks must be properly understood
59. As the community discipline gets more integrated into the company its professional status should increase
60. A company needs to apply the same management approach that is applied to other

aspects of the business to community

61. Community and environment need to be incorporated into line management's responsibilities
62. Community issues cannot be managed by social and environmental practitioners alone
63. Community is increasingly evolving into a line function as other disciplines have
64. Restructuring can lead to the business case for the community and environment management system needing to be re-motivated
65. Restructuring can lead to the work undertaken being lost
66. Restructuring can lead to changes in roles and a lack of clarity on who to work with to take a management system forward
67. Restructuring can lead to blurred lines of responsibility and accountability between the executive management team
68. Restructuring can lead to greater functional clarity throughout a company
69. A lack of managerial continuity to drive an implementation process can lead to delays
70. Each change of management requires new buy in for Community and Environment
71. Multiple management structures with unclear responsibilities, accountabilities and mandates leads to delays and inefficiencies in the design and implementation of a management system
72. Functional silo mentality leads to conflicting priorities and inefficiencies
73. Clarity on accountabilities between disciplines and their cross over leads to better managerial outcomes
74. The corporate office is accountable for developing policy, standards and guidance
75. The corporate office is accountable for ensuring learning between operations
76. The corporate office is accountable for overseeing alignment with a community and environment management system
77. A corporate mandate is needed to drive the design and implementation of a management system
78. Human resources systems should seek to ensure "the right person in the right role at the right time"
79. Human resources systems should seek to ensure that the organisational structure fits the business needs
80. Regional servicing roles provide technical and human resources support to operations
81. Community relations has often been equated with public relations, in which organisational self-promotion and protection, rather than community development engagement, have been seen as the primary goals
82. Community issues are typically dealt with in an ad hoc manner, rather than as part of a broader strategy
83. An environment and community functional cluster can be clearly distinguished from occupational health and safety, and human resources clusters
84. In Board Sub Committee meetings the corporate office should not answer on behalf of the operators as regards their environmental and community performance
85. Clarity is needed regarding expectations and delivery timelines
86. The Community function can be functionally discrete from the Corporate Affairs function
87. Managerial integration of the sustainability function can lead to a consolidation of disciplines including: Health, Safety, Community, Environment, Legal, Government Relations, Corporate and Public Affairs, Gold Marketing, and Security and headed by an Executive Vice President: Sustainability
88. Corporate functions tend to be replicated across a company
89. Community can be clustered with Government and Corporate Affairs
90. A close working relationship between Community and Government Affairs is needed
91. Environment, Community, Government and Corporate Affairs functions form a coherent functional cluster
92. Safety and Health form a coherent functional cluster
93. There is no "right" or "prefect" answer as to how to structure the sustainability discipline
94. One size does not fit all as to how to structure the sustainability discipline

95. Functions are sometimes clustered based on personality and interests rather than functional coherence
96. Community can be managed under Human Resources
97. Government Relations can be managed under Human Resources
98. The more traditional Safety, Health and Environment structure can be comforting to management
99. Role descriptions signed off by the executive ensure clarity and alignment as to what the corporate role is relative to other roles
100. A human resources system can become susceptible to boxing people in at certain levels
101. Being held accountable without authority is an uncomfortable and exposed place to be
102. All role players need to be clear who plays what role in crisis management
103. A policy custodian needs to review failures to learn and avoid them in the future including policy and procedural changes
104. If policy custodians are also doing operational servicing work it makes it difficult to focus on their core work
105. Congestion can occur if it is not clear who is accountable for what
106. Policy and assurance functions can be separated from technical oversight and servicing roles
107. Policy and assurance incumbents need to stay close to operational realities
108. Alignment between corporate, regional and site management can lead to alignment on roles, responsibilities and timelines
109. Clear roles and accountabilities can lead to greater shared understanding and alignment between colleagues working in the same disciplines and across functions
110. Managerial attention can be given to clearly defined functions in times of role uncertainly
111. The more silos are broken down the greater the working relationships between the sustainability function and the other disciplines will be enhanced
112. Managerial focus on the crossover of issues between disciplines can lead to better managerial outcomes
113. An increase in bureaucratic authority can lead to an increase in ability to get the job done
114. Accountabilities for social and environmental performance need to be clarified between the corporate, regional and mine structures
115. Organisational structure should follow corporate strategy
116. Ultimate responsibility for Community and Environmental performance must rest with the mine management teams supported by functional experts
117. The Sustainability function it is generally understood to relate to the Safety, Health, Environment and Community - SHEC -functions
118. The Sustainability function is sometimes bounded to only refer to environmental and community issues
119. The Sustainability function is sometimes bounded at its narrowest to refer only to the community dimensions
120. Issues falling between functional disciplines are more difficult to resolve
121. Without clarity on accountabilities and resources challenges can be left unresolved
122. Line managers at every level of the organisation should be made responsible for community and environmental performance
123. Focus effort on a few key initiatives
124. The role of the corporate centre should be to ensure decentralisation while laying down standards and seeing that they are being met

Integrated management

125. A key challenge of leadership is to make sustainability issues mainstream
126. Splitting out the executive management of interrelated disciplines results in less integration in their management
127. Implementation of the management system at operations can lead to community and environment increasingly becoming “a part of the way the company does business”

128. For a company to be successful the divide between intent and delivery must be bridged
129. The design and roll out of a community and environmental management system assists in making their performance a strategic part of the way the company does business
130. Community and environment are increasingly being recognised as core operating issues with subsequent increased focus on them
131. Strategy, risk, performance, and sustainability have become inseparable
132. A company it is also a corporate citizen and has social and moral standing in society, with all the responsibilities attached to that status
133. Community and environmental aspects need to be managed systemically rather than from a narrow discipline perspective
134. A systemic view seeks to pull in all the actors who have an influence, positive or negative, on the aspect
135. A mine stoppage on environmental or community grounds is a core operating issue
136. Substantive traction on environmental and community issues can be achieved when approached as a business continuity issue
137. The environment and community functions are typically value preserving in nature
138. The environment and community functions are typically not revenue generating
139. Integration of environmental and social policy leads to integrated management of community and environmental aspects
140. Integrated management of community and environmental aspects leads to a strategic response to the related key business risks, challenges and opportunities facing the business
141. Integration of the management of the Environment and Community functions leads to a holistic integrated approach to strategy, structure and operational practices
142. Integration provides an opportunity to take the best of both the environmental and community functions successes into a combined function
143. Integration of the management of the Environment and Community functions must not sacrifice their discipline specific technical depth
144. There is a natural convergence of community and environment issues at many mine operations
145. The only way to make community a routine part of operations, not something additional or special, is to integrate community into existing systems
146. The management of community and environmental aspects needs to be holistic to be managed effectively and efficiently
147. Environmental and social impacts of a business are inextricably linked
148. Management Standards should advocate a holistic approach to the management of aspects
149. Predicaments are gotten into because of a way of thinking that focuses on parts and neglects the whole
150. Focusing on immediate goals – such as short-term profits – and neglecting the larger systems of which quarterly profits are but one small part leads to legacy issues
151. The more managerial appointments and structural changes to include community issues in the company the better its integration into the company
152. Having a community strategy and related management system will lead to better integration
153. A company has to be ready for integration in the form of an increase in the scope of ISO14001 to cover community issues
154. Thinking regarding the integration of environment and community into the ISO14001 management system has evolved
155. The Triple Bottom Line differentiates sustainability's three interrelated dimensions of Economic, Social and Environmental
156. Economic aspects include the creation of material wealth – in a company context financial income and assets and the creation and distribution of wealth
157. Social aspects include the quality of people's lives and equity between people, communities and nations

158. Corporate activities have an impact on society including employees, customers, community, the supply chain and business partners
159. Environmental aspects include the utilisation of and the conservation of the natural environment
160. Companies create environmental impacts ranging from the local, regional, and national to the international
161. Environmental impacts include air, water, land and biodiversity issues
162. If a company does not get the economic leg right then the rest is academic
163. "Dynamic complexity" exists where cause and effect are far apart in time and space and therefore cannot be solved through a piecemeal approach, but rather require systemic interventions
164. "Generative complexity" exists where the situation is fundamentally undermined and they cannot be solved simply by using rules of thumb from the past of "best practice" but need to be figured out as they go along
165. "Social complexity" exists where different stakeholders have fundamentally different beliefs, interests and mental models and there isn't necessarily agreement on what the problem is
166. The function must be mainstreamed rather than creating a sustainability ghetto
167. Having the strategic vision of the whole in place one can focus with confidence on its parts
168. Philosophically sustainability can be described as an approach or mind-set to doing business rather than an add on to the way a company does business
169. Sustainability can provide the basis upon which value is increased through balancing cost reduction and value enhancement
170. Sustainability can be a long term competitive advantage for a company
171. Complex implies that the link between cause and effect uncertain and there is not necessarily agreement on the fundamentals of the issue at hand
172. Complex relations abound in the social domain
173. A difficulty has broad agreement on the nature of the problem and some understanding of what the solution could look like, being bounded in terms of the time and resources needed to resolve it
174. Messes have no clear agreement as to exactly what the problem is and uncertainty and ambiguity about how to improve the situation as well as being unbounded in terms of the time and resources they could absorb, scope of enquiry they will need to be understood and resolved and the number of people who may need to be involved in this process
175. When dealing with a difficulty those who claim to have a solution are an asset, but they are usually part of the problem when claiming to have one for a mess

Internalisation of costs

176. The belief in technological solutions to problems being found in the future can lead to their current resolution being deferred
177. As long as a liability cannot be reliably measured it stays off the books
178. Centralising risks can result in aspects no longer being an operating cost but rather a risk to be justified being resourcing
179. Continual deferral of management action to resolve issues is a form of non-compliance
180. The belief in technological solutions to problems being found in the future can lead to criticisms of over-reacting if their current resolution is sought
181. "Shifting the burden" entails avoiding dealing with underlying problems and challenges
182. Symptoms are easier to address but can mask the problem and make things worse over time
183. The longer environment and community aspects are left the greater the likelihood that they will grow exponentially more difficult and costly to manage
184. The longer the lead time to resolve an issue the greater the likelihood that its resolution will be deferred in the short-term

185. Deferral of expenditure on environmental and community costs year after year leads to a pattern of externalisation
186. Without a punitive response from regulators or communities there is little incentive to internalise costs over the medium to long term
187. Delays in dealing with issues due to capital allocation process can create a disconnect between the concern and those who are concerned about it
188. Environmental and community costs compete for capital against other production and legislative issues
189. Once a cost has been externalized it becomes an increasingly difficult to internalise
190. The true measure of corporate responsibility – and the key to a business's playing its proper role in society – is the willing, constant internalization of externalities
191. To internalize costs is challenging when times aren't considered good for the industry
192. Quarterly and annual reporting cycles provide a disincentive to internalize costs
193. Externalising costs could include breaking the law
194. Externalising costs may be attractive if there is no perceived risk of enforcement
195. Externalising costs may be attractive where the sanctions are not perceived as material compared to the costs of internalisation
196. Following money flows can ascertain if commitments made are kept
197. An essential ingredient necessary for change to occur is dissonance - an experience where our expectations or predictions are challenged
198. A mine stoppage creates dissonance and forces action
199. The gold mining industry is has relatively low margins with relatively high impacts which results scarce resources to address large challenges
200. It is a myth that companies have a fiduciary duty to maximise profits
201. Companies have an obligation to make "acceptable" returns protecting the value of an investment and therein the ability to continue making returns
202. A progressive "internalisation" of social and environmental costs results in business becoming liable for its past and future impacts
203. Internalisation of costs potentially creates large ongoing business costs
204. Association, rather than ownership, is becoming suffice for legal liability
205. There are long lead times in resolving many community and environmental issues
206. If management believes it has a special relationship with the government it may be less concerned about non-compliance issues
207. It is challenging to call management to account for the "sins of the forefathers"
208. Deferring solving problems compounds them
209. Problems can manifest for many years before surfacing
210. Legacy issues arise from management failures over many years
211. There is a brief window in a new role to challenge the status quo before one is considered part of it
212. One can become compromised by legacy issues when taking on a new role
213. Even if the status quo is widely considered problematic, changing it can be very challenging
214. Company employees do not wake up in the morning and set out to do bad things or make decisions that cause harm
215. There are complex histories leading to legacies
216. Limited resources can lead to legacies
217. Multiple perspectives on the challenges and their potential solutions can lead to legacies
218. For most people a predictable, stable environment, and even a relatively unhappy one, is preferable to an unpredictable one
219. Habitual patterns of behaviour are hard to break, especially if they appear to be underpinned by economic necessity
220. Capital cuts can result in operations not being able to meet their compliance requirements
221. Legacy issues can create challenges to implementing a management system

Continuous improvement

222. Buy in for initial modules of a management system can lead to an incremental uptake of additional modules
223. Focussing on immediate issues can lead to less focus on medium to long term strategic initiatives
224. An increased focus on long-range strategic issues can lead to a decreased focus - managerial distraction – on serious current issues facing the company
225. Jumping into strategic, important and topical issues that many forward looking companies are given attention to can be done at the expense of dealing with more immediate issues and concerns
226. Dealing with strategic issues bypassing current realities can give the sense that the company is already "there" with other leading companies
227. Over time the quality of a management system can be incrementally improved in keeping with the ISO principle of continual improvement
228. An incremental process of improvement is encouraged rather than a specific goal or target
229. Try multiple approaches and let the direction emerge by gradually shifting towards those things which appear to be working best
230. Modularisation of the Management System allows a phased roll out
231. Getting "prototypes" of the management system out leads to an increase likelihood of finding what works
232. A phased process can be followed to integrate environment and community management systems at each operation
233. Increased implementation of a management system can lead to better alignment of resources
234. Managerial and operating failures increases the pressure to implement and monitor a community and environment system
235. Restructuring can lead to the undoing of integration work
236. Draft management standards should start to be implemented even if not yet official company documents
237. Management systems should be built on the work already undertaken within a company
238. By expanding on an existing system the work done in a Community Management System can be adapted and incorporated into Environmental systems that already have buy in
239. Work already undertaken within the company and externally should be built on in developing a community and environmental strategy and management system
240. Community and environmental issues should be managed in the same way issues are managed in any other discipline in the company
241. Strategy does not arise out of a vacuum with existing work having taken place
242. The business needs to work from where it finds itself developing short, medium and long term community and environmental remediation plans
243. Balance is needed between addressing more immediate legacy issues and longer term strategic issues

Locally rooted, internationally defensible management system

244. Through the ongoing implementation of a management system individual practices can increasingly be brought into alignment with lots of small actions leading to larger collective outcomes
245. Understanding the intentions behind a company's corporate values informs the design of a management system
246. A management system should build on existing corporate culture
247. A management system should take into account individual employees cultural nuances and perspectives
248. A management system should be user friendly and building on existing information

technology platforms and systems

249. A management system helps to increase common practices within the company as adapted to their individual and cultural nuances
250. Internationally defensible corporate practices will be bought into more readily by employees
251. The more the management system is geared to the end user, the greater its operational buy in is likely to be
252. Processes and practices are bigger than individual personalities
253. Formalising an organisational culture via a management system will entrench a desired culture
254. A business should operate in a manner that reflects its mission, vision, values and strategy, particularly as they relate to community and environmental performance
255. Communities differ significantly from each other in terms of such factors as the degree of cohesiveness, social and political structures and processes, cultural norms, economic well-being, strength and diversity of human capital, degree of prior experience with the knowledge of mining, and expectations of what projects can will deliver
256. To write good policy one needs to be in touch with operational realities
257. Operations may view international NGO partnerships as an intrusion
258. As site based systems to monitor and measure environmental and community aspects are improved there may be increases in incident numbers
259. Accurate information on key risks and a plan to manage them by line management is needed
260. A management system legitimises operational colleagues interventions and work
261. As site based systems to monitor and measure environmental and community aspects are improved managerial confidence in them being correct will increase
262. Managerial boundaries provide operational discretion with management standards implementation determined locally in keeping with local context and circumstances
263. Management standards should be process driven to accommodate multiple jurisdictions
264. Standards are adopted by sites into their ISO 14001 management systems as “other requirements’ and thus become part of the ISO recertification audits
265. Management Systems help to maintain consistency within operations over time providing a level of institutional memory
266. Implementation of a management system will be improved by undertaking gap assessments at operations against its management standards
267. The greater the perceived benefit in adopting a new management system, the greater its likely uptake
268. The more employees involved in the design and implementation of a management system the greater its potential buy in
269. The more employees involved in the implementation of a management system the more difficult an exercise it is to get buy in
270. Principled pragmatism is a commitment to the principle of increasing social performance coupled with a pragmatic attachment to what works best on the ground
271. Operations are encouraged to develop partnerships with reputable non-governmental development actors to assist with on the ground provision of development interventions
272. Co-ordination with local government and donor agencies can lead to improved development co-ordination
273. As companies become more global they need to tolerate and support a certain amount of cultural differentiation
274. A common set of practices can reconcile being consistent with decentralization and devolved authority and decision making
275. Internationally defensible standards need to be reconciled with diverse local cultures
276. Taking into account host cultures needs will lead to increasingly effective local implementation of a management system
277. Community impacts of mining are context specific and thus learning from one operation may not necessarily apply to another, even in the same country

278. The scale and nature impacts – and opportunities – from mining can vary depending on the stage of an operations life-cycle
279. The ability of the industry to transfer knowledge at a practical level is limited due the social dimensions of mining being highly complex
280. With a plethora guidelines in the broad area of corporate responsibility it appears possible to standardise and systematise some of the management requirements for community relations where ever the company operates, and whatever stage of the operation
281. The more supportive the local community the greater the company's defence against criticism
282. Although minerals companies have made considerable progress at the level of policy and language, translating these policy commitments into improved practices at the site level remains one of the industry's toughest challenges
283. It is all well and fine to talk about human rights, social responsibility and such – but to put it in practice is where the real challenge starts
284. It is patently unfair and practically incomprehensible to expect operations to put into practice human rights and social responsibility frameworks on their own
285. Company's must manage impacts on the environment and build community, institutional and political relationships so as to deliver mutually beneficial value creation
286. For global companies, poor social performance at one site can affect the attainment of a social licence at another
287. Priority should be given to intervening in those operations that are perceived to be closest to the relative limits of the boundaries of acceptable behaviours
288. The greater the focus on the process being followed to get to particular outcomes the less the focus needs to be on putting rules in place
289. Existing social knowledge should be fully exploited within a company in developing a management system
290. Accommodating sites different social environments can lead to increasingly localised approaches
291. Tailoring of the implementation of the management system can lead to approaches best suited to the local dynamics while maintaining a global standard
292. Globalization increases the need to take into account other language requirements for the management system
293. Implementation of company values should be supported by a comprehensive management system
294. A community and environmental management system should define how a company implements corporate strategy
295. Implementation of a management system can lead to an increase in desired on the ground practices
296. Differing perspectives and contexts lead to acceptable corporate practices being differently perceived from operation to operation
297. A management system should focus on overall performance rather than over emphasising single measures of performance which could lead to an overall sub optimal outcome
298. Operations should be given the space to demonstrate improvement on their own terms within given parameters
299. Geographic spread of operations makes it more complex to roll out a management system
300. Decentralise the management of community and environmental subject to clearly articulated operating guidelines, norms and expectations
301. A process driven management system articulates the desired outcomes with the means of achieving them left to local operating circumstances
302. A management system can focus efforts and resources on outcomes rather than inputs
303. The greater the global reach of companies, the less viable traditional, centralised, command and control systems are

304. A command and control approach treats people in an instrumental way, assuming a directive model of institutional authority in which priorities, values and knowledge held at the centre are used to shape and control the behaviour of those making up the wider system
305. As understanding grows that a command and control approach is not optimal a different approach is emerging
306. Mining operations tend to have large but localised physical, environmental and socio-economic impacts
307. Doing business in conflict or potential conflict zones brings with it a range of complexities
308. Doing business in conflict or potential conflict zones exposes a company to numerous challenges from a security, moral and social licence to mine perspective
309. Artisanal mining is a serious health, safety, environmental and security issue
310. Meeting local economic and more general community development aspirations is an increasing challenge for companies
311. 3rd party fatalities taking place on lease areas under the control of a company is cause for concern
312. People in headquarters often simply do not know how to implement strategy in detail in local situations
313. There is no one right answer but rather only a best answer at the time which will be replaced by a better one which will always exist
314. Each site will be at a different place requiring different interventions
315. Land issues are complex and emotive regardless of how well they are managed
316. Key risks and opportunities must be owned locally
317. Local practices should not arbitrarily be replaced with a set of practices developed by the corporate centre according to their own perspective on the world
318. In contrast to other industries minerals companies are bound to operate in those areas where the resources are located
319. Social and environmental closure plans must be put in place
320. Health and safety of surrounding communities requires that each mine has in place community response to any mining related emergency or disaster
321. A management system needs to provide a practical framework and related toolkits ideally based on open source documents
322. A management system informs the “way we do what we do” influencing decisions being made
323. A hybrid of polycentric and geocentric management philosophy’s is being pursued in that different approaches best suited to the local dynamics are being implemented while maintaining an emerging global company standard
324. A Management system gives guidance on how to do what needs to be done
325. A Management system is a means by which organisations can formalise, document and improve management practices
326. A management system needs to be aligned to the normative frameworks to which the company subscribes
327. Dealing with resettlement and compensation issues requires an internationally defensible approach
328. A management system needs to be internationally defensible
329. Using international standards most likely to make up the future global sustainability architecture will lead to a globally defensible position
330. Standards can be incorporated into the management system based on practical needs
331. Standards can be incorporated into the management system based on strategic needs
332. Standards can be incorporated into the management system based on operational areas
333. Standards can be incorporated into a management system by including a combination of global, national and regional frameworks
334. Standards can be incorporated into the management system by making use of issue specific standards where they exist
335. The company’s evolving understanding of its bounds of acceptable behaviours needs to

be taken into account to get traction and buy in for the management system

336. Benchmarking on what a community and environment management system should contain can lead to a more defensible management system
337. The ongoing viability of the development and implementation of a management system can be increased by making adaptations to accommodate changes
338. An overarching management framework for a company can provide context for the regions and disciplines for their frameworks
339. Policy and systems provide the boundaries for the enactment of turning intention into reality
340. Diversity increases the number of perspectives on what management standards should contain
341. A Management Systems approach provides a mechanism for defining minimum standards from policy, values and related commitments and monitoring performance against those standards
342. The design and implementation of a Community and Environmental Management Framework should avoid a “tick box approach” to implementing the ISO14001 Management System
343. Successful implementation of a management system will be increased through ensuring consultation on Management Standards before sign off
344. Executive Committee approval of the policy and standards increases their credibility in the organisation as company-wide management standards
345. System health is important in the ISO 14001 management system
346. Actual performance health is important in the ISO 14001 management system
347. Systems should enact policy
348. Systems may not accomplish the enactment of policy in practice
349. A modification extension is recommended, rather direct application of, the conventional management systems approach to community
350. It is better having a 90% effective system than a 100% no system
351. Executive Committee approval of policy and standards increases their likelihood of being properly resourced
352. Management Standards provide the boundary limits of acceptable behaviours for a company regarding Environmental and Community aspects
353. Management Standards can be made compliant with the International Finance Corporation’s Performance Standards and International Council on Mining and Metals Position Statement Commitments
354. The balance needs to be managed between being overly prescriptive versus vague and practicing “corporate arse covering” in the design of the management standards
355. Management standards should be developed on an as needed basis
356. Guidance documents in support of the standards should be developed as necessary
357. The focus of the management standards should be on the management processes that must be in place
358. Community and Environment management standards must provide clarity on all commitments made by the company
359. Environment and community aspects can fall into the scope of an operations’ ISO14001 environmental management system
360. Integrated policy sets the terms of reference for site-based ISO 14001 Environmental Management Systems (EMS) which in time should migrate to CEMS – Community and Environmental Management Systems
361. Three year rolling objectives are good from a budgeting perspective
362. Three year rolling objectives better clarify intentions both internally and publically making it possible to track performance against objectives
363. A management system’s operational performance requirements should be defined before rollout
364. The ISO 14001 management system’s operating requirements are defined by management standards

365. The environment and community function is guided by a company's Mission, Vision, Values and Policy
366. A policy is a high level mandatory statement of the organisation's beliefs, goals and objectives for a discipline
367. An integrated policy should be a basis for more detailed standards, procedures and guidelines
368. Management standards should take each of policy undertakings and define the context and set the requirements to meet these undertakings at a site level
369. A standard is a mandatory statement of design or implementation, where performance to specific measurement is required
370. Standards must support and complement policy statements
371. The extent of adherence to standards is a measure of conformance to policy requirements
372. Management standards should take into account the global architecture of standard setting specifically ICMM commitments, IFC Performance Standards and the GRI
373. Management standards should be assureable both by internal and external audit
374. Time must be given to put the necessary procedures, systems and practices in place before there is an expectation that they will be subjected to external certification
375. Management standards should be brief
376. Guidelines are how to instructions that allow for some level of local option and management interpretation
377. Guidelines must not conflict with established policies, standards or procedures
378. In defining community and environment companies need to be very aware of international definitions and meanings
379. The IFC performance standards were not designed for developed jurisdictions which raises issues for global implementation
380. The IFC performance standards are quite vague in some areas
381. The IFC performance standards terminology is open to interpretation
382. Don't ask for a Rolls Royce solution when a Beatle would do
383. There are considerable resource commitments in operationalizing management standards
384. Plans need to be resourced and most importantly implemented
385. A management system is not a silver bullet
386. There should be as little a gap as possible between the espoused and "lived" values and business principles
387. A management system is a means by which organisations can formalise, document and improve management practices

Mutual meaning

388. A Management System can provide a common language for community and environment
389. Commitments made that aren't kept can lead to a decrease in buy in
390. Critics of social responsibility argue that managers will misappropriate corporate resources by diverting them from their rightful claimants the owners
391. A company needs to develop a shared vision of its envelope of acceptable behaviour and continue to adapt this understanding and related behaviour balancing multiple perspectives
392. Critics of social responsibility argue that it leads to misallocation or inefficiency by diverting resources best used for economic purposes to advance purposes for which those resources are poorly suited
393. Critics of social responsibility argue that this kind of corporate activity encroaches on the role of the government and usurps authority
394. Critics of social responsibility argue that there are negative implications of doing neither well when of asking managers to focus on dual objectives of advancing economic performance and being socially responsible

395. A management system must speak the language already in place within a company
396. The greater the alignment between management the more effective the design and implementation of a management system
397. A group can be demographically diverse but still homogeneous in perspective
398. The more people involved in a given situation, the more perspectives on the situation and what action should be taken
399. Internal consultation on the management standards should not go on for too long
400. A company needs to have an internal debate about what community really means to build these social constructs
401. There is a lack of shared language in the community function with few universally accepted definitions
402. The core Community and Environmental messages need to be continually re-enforced
403. Given multiple perspectives it is not always clear that everyone is having the same conversation
404. Discussions regarding issues can become very intellectualised
405. Face to face discussion can help to move contentious issues forward
406. Shared meaning and practices implied by the corporate values matter less than the actual words
407. The less internal managerial interface the less internal cohesiveness is displayed to internal and external stakeholders
408. A community and environment steering committee can be made up of representatives from corporate, region and country environmental and community staff
409. A community and environment steering committee can be a representative leadership group consulted on and contributing towards ensuring the overall health of the discipline and collectively developing company-wide positions and targets
410. Corporate Office can be perceived as being distant and not wanting to get its hands dirty
411. Face to face contact can be telephonic, especially where colleagues are more geographically dispersed
412. Consultation leads to more buy in and better understood boundaries of acceptable behaviours
413. Regular communication with all key incumbents in the environmental and community function can help to build a broader leadership team
414. Successful implementation of a management system will be increased by undertaking consultation before sign off
415. Communicate and consult on activities throughout the lifecycle of operations making policies publicly available
416. Regional resistance and a “not invented here mind-set” can occur
417. Different stakeholder perspectives can create implementation problems for a management system
418. Individuals will only become more open to a new way of thinking when they have become sufficiently convinced that their previous approach has not and is unlikely to succeed
419. Clear and simple language in a management system increases understanding
420. A management system should seek to find mutual meaning across cultural and language differences
421. Common understanding of concepts and language can lead to clarity about what is expected to be delivered on the ground and less “speaking past each other”
422. A management system should seek to find mutual meaning across mechanical versus systems thinking
423. A management system should seek to find mutual meaning across gender differences
424. Clearly defining the meaning of language and terminology used in a management system will increase its collective understanding
425. Differences in background and function tend to lead to different worldviews on what constitutes appropriate development and different stakeholders roles
426. Diversity brings a variety of perspectives and can allow for faster access to more diverse information

427. Face to face interaction in rolling out a management system can lead to increased effectiveness in its implementation
428. Knowing who to talk to and what to talk to them about – stakeholder engagement - can lead to an increase in social performance
429. Appropriate managerial actions need to be taken coming out of a stakeholder engagement process
430. Engagement in dialogue and presenting perspectives on issues raised can lead to improved stakeholder relations
431. A recognition of each other's legitimate right to operate can lead to improved relationships with adversarial stakeholders
432. In order to achieve alignment of organisational culture attention needs to be focussed on the day to day conversations taking place
433. Communication across divides and cleavages improves managerial outcomes
434. Taking into account a diversity of perspectives in developing a management system will make it more robust
435. "Undiscussible issues" are where big challenges just aren't talked about and then the perception that the issue is undiscussible is also made undiscussible
436. Personal values are invisible other than through their effects on peoples' behaviour
437. Alignment of practices around a shared social vision of what makes a company a company is an iterative process taking place at all levels of an organisation
438. The greater the emotional connection to an issue – feeling it in ones' gut – the greater the likelihood one will do something about it
439. Without an emotional connection to an issue it is easy to rationalise it away with aggregation, rankings and management plans
440. Management meetings are intellectual exercises, looking at "hard data", numbers, spread sheets, reports and PowerPoint presentations in offices and boardrooms abstracted from the reality of the operations
441. Problems become abstracted from reality when they are aggregated, allotted risk rankings and abstract management interventions are proposed
442. If there is no personal connection to the issue and what it could mean for the individual in question it is easy to gloss over them
443. Getting an "emotional" response from the board or executive can be a career limiting approach
444. There needs to be sufficient agreement regarding resolution of issues to act on them
445. Decision makers need to understand the issues and their potential ramifications
446. Default agreements are sub optimal ones made without the necessary context and information
447. Context is required for effective decision making
448. Context is required to understand the seriousness of the challenges
449. Personal values are cultural and resilient to change
450. Practices are visible ways of behaving
451. Practices are superficial and easy to change
452. Corporate practices which are culturally acceptable will be bought into more readily by employees
453. Individual practices in discharging ones duties are intended to be brought into an envelope of acceptable alignment
454. People do not start with a blank sheet when considering social processes
455. The users of a management system should be consulted on its development
456. A management system should focus on instilling shared corporate practices across a company rather than trying to influence value sets per se
457. The values and business principles are the espoused and desired organisational culture
458. The container that a management system provides can lead to an increasing alignment of company practices
459. When boundaries and the area for discretion are clear, people feel truly "empowered" to get on with their work

460. Clarity and agreement on corporate practices will clarify a company's position on issues
461. Collective agreement on the globally acceptable corporate behaviours and practices will establish a "curriculum" and practical approach to community and environmental issues
462. Every organisation has a unique culture exemplified in its shared practices and behaviours
463. It is important to maintain consistency to ensure the company has one set of principles.
464. A shared vision of the envelope of acceptable behaviour regarding community and environment will improve company practices
465. An iterative process is needed to gain clarity on the variables whose behaviours are being sought to be influenced or maintained in the bounding of the envelope of acceptable corporate behaviours
466. All management is about either maintaining or changing the behaviour of a set of variables within a particular envelope of acceptability
467. There needs to be clear alignment between what a company says and on-the-ground practices
468. Company-wide Policies, Management Standards, Procedures and Guidelines provide greater clarity on a company's envelope of acceptable behaviour
469. Practices based on individual whim can lead to short term solutions but potentially longer term challenges and unintended consequences
470. Corporate values are both an account of where a company is at and aspirational as to where it wants to get to
471. Formalisation of an organisational culture will lead to increased clarity as to how it should behave as a corporate citizen
472. An organisational culture of positive values and practices reinforces further positive practices and values
473. An organisation culture of conflicted values and dysfunctional behaviours reinforces further dysfunctional behaviours and values
474. Codes may be written, or unwritten and prescribe "how we do things around here"
475. Cohesive management practices lead to a cohesive organisational culture
476. Regardless of their training, experience and background, many comment robustly on what they think should be done in the community and environmental disciplines
477. The longer one has been with a particular company the more likely they are to come at issues from that company's organisational perspective
478. In instilling a corporate culture, a company should seek to attract those whose personal value sets are compatible with the company's stated value set
479. A lack of global cultural coherence is reinforced by an inward-looking mining culture
480. Saying you don't understand our culture can be used as an excuse to not do things that need to be done
481. In instilling a corporate culture, a company should seek to have those who don't subscribe to it leave or not join it in the first place
482. Deciding on what constitutes 'corporate responsibility' is as much a cultural and political challenge as it is a technical one
483. Sever imbalances between the scope of markets and business organisations on the one hand, and the capacity of societies to protect and promote the core values of social community on the other, are not sustainable.

Stakeholder governance

484. A company must at a minimum be in legal compliance
485. Understanding of community and environmental issues and the risks they pose to a business will lead to a greater focus on them
486. Mushrooming of "voluntary" initiatives, codes and guidelines leads to a greater need for clarity as to a company's position on community and environmental issues
487. Board competency to deliberate on key environmental and community issues is fundamentally important

488. The board must be capable of evaluating the management responses and plans, and judging their credibility
489. King III has made sustainability a central governance issue
490. King III proposes an integrated risk management approach
491. The board is not merely responsible for the company's financial bottom line
492. Boards, like management, in time become implicated in all that has gone before
493. Once management has information regarding risks it is obligated under stock exchange requirements to disclose them and put in place mitigation strategies
494. Audit findings need to be acted on
495. External legal compliance audits should be undertaken at all operations as a matter of course
496. The rotation of ISO auditors should be practiced
497. Internal and external audits should be harmonised
498. Risks must be added to the risk register
499. Risks must be monitored and followed up on where there are perceived shortcomings
500. Risks that have implications for other risk areas should be adequately captured under all appropriate risk categories
501. The Community and Environmental function should have oversight of the capital allocation and business planning process as it relates to key functional risks
502. Planning without action is not a sufficient risk mitigation
503. Ambiguity on what is reportable; who it is reportable too; alignment between risk management, incident reporting and crisis management; and deliberate avoidance of reporting will lead to less accurate incident reporting
504. Environmental and community incident classification criteria should differentiate the severity of different types of incidents and align with company's risk systems
505. The more often managerial data is restated the less confidence users will have in the data
506. Incidents can be picked up in the press before being reported via incident reporting systems
507. You don't know what you don't know until you discover it
508. It isn't possible to give the full picture if one doesn't have it themselves
509. There can be great disincentives to seek out and present the full picture of the situation and concerns
510. When serious concerns are raised there is often a sense that management should have been informed sooner regardless when they are informed
511. There can be push back to adding to existing audit and review mechanisms
512. A Community and Environment system should align company objectives with reporting and budgetary cycles
513. Integration requires the combination of corporate environmental and community governance reviews into a single process
514. A global incident reporting system should clearly outline a company's policy on reporting of incidents incorporating into one process: risk management, incident reporting and crisis management
515. Implementation of anticipatory as well as reactive risk management systems are needed
516. Emerging issues and risks need to be monitored and strategies developed for a company to address them
517. A company manages community and environmental risk by identifying risks to the sustainability of its business and putting strategies and management plans in place to proactively manage them
518. Performance reporting can lead to increased community and environmental performance
519. Internal Audit should integrate community and environmental considerations into their standard audits protocols
520. A company is a "complex adaptive system" and needs feedback systems so that it can deal with challenges within the system before they escalate endangering the system as a whole

521. Reporting leads to reflection on what worked and didn't and who is accountable
522. A Management System can meet internal audit and external audit requirements
523. A Management System can streamline internal and external reporting
524. The Corporate office should review community and environmental performance
525. Assurance provides feedback on how well a company is doing
526. King 3 requires more integrated reporting of financial information with sustainability issues of social, economic and environmental impacts
527. King 3 advocates an inclusive approach to stakeholders, whereby the legitimate interests of stakeholders are considered and recognised over and above solely the shareholders' interests, in a manner which befits the long term sustainability of the entity
528. A board should lead a company ethically for sustainability in terms of the economy, environment and society, taking into account its impact on internal and external stakeholders
529. A board should strategically direct, control, set the values, align management to the latter and promote a stakeholder–inclusive approach of governance
530. A board should ensure that a company is and is seen to be a responsible corporate citizen
531. A board should ensure that a company's ethics are managed effectively through building an ethical culture, setting ethics standards, measuring adherence and incorporating ethics into its risk management, operations, performance management and disclosure
532. The role of a Board Sub Committee is to review if the company is doing what it should be doing
533. There are increasing numbers of initiatives on materials stewardship
534. There are increasing environmental requirements on management of chemicals used by, and chemical waste produced by mining
535. There is an increasing sophistication, formalisation and visibility of CSR initiatives in mining, including CSR reporting
536. There is increasing standardization of CSR and SIA, and emergence of legal requirements regarding CSR and ESIA
537. There is increasing use of third-party verification in CSR and ESIA
538. Use of the Alien Tort Claims Act against multinational corporations is increasing
539. There is increasing attention to indigenous peoples' issues, including indigenous land claims and demands for relocation and compensation
540. The importance of post-closure plans is growing
541. There are increasing expectations for the development of certification standards for responsibly produced or green gold
542. Voluntary corporate adoption and reporting of carbon reduction initiatives is taking place in advance of regulation
543. There is an increase in voluntary initiatives on improving energy and water efficiency
544. Local and international stakeholder interest necessitates a management system articulating the company's position
545. Host communities are often in a position to disrupt and even halt operations if they feel they are being impacted negatively
546. Local community stakeholders are becoming increasingly powerful
547. Mines need constructive relations with national and local government and civil society
548. There is an increasing willingness of some NGOs to collaborate with mining companies
549. Securing access to land to explore and mine is becoming an increasingly material issue
550. Support from international NGOs and other social movements has encouraged local mobilisation
551. Social license is commonly considered an ongoing process of approval from the community that is given at a point in time but not necessarily for the future
552. Obtaining and maintaining a social licence to operate from local communities and other stakeholders requires consistent performance
553. Communities around mining operations are more often than not treated as 'potential problems', rather than seen as the places of family and culture, where worker's attitudes

and norms are nurtured and communicated as a source of insight and inspiration for solving problems
554. Pubic site and country specific reporting and comparison should be encouraged
555. The use of the police and the military to deal with security issues can lead to human rights issues
556. Companies are open to allegations of adverse health effects of mining
557. Allegations of adverse health effects of mining are difficult to refute without having baseline community health assessments
558. Companies need to be responsive to internal and external groups which have a vested interest in responsible business practices
559. Committing to initiatives without meeting them opens companies to allegations of green wash
560. In an increasingly interconnected world actions in a remote part of the world can increasingly have implications for operations in other parts of the world
561. Management systems may lack a stakeholder-based approach to identifying and managing issues
562. Adoption of management systems does not necessarily lead to better outcomes for external stakeholders
563. It is easy to be a leader in word but very challenging in deed
564. Increasing development expectations including resource nationalism require a clear management approach
565. Culturally acceptable corporate practices will be bought into more readily by stakeholders
566. Internationally defensible corporate practices will be bought into more readily by stakeholders
567. There can be pushback from internal stakeholders about letting an NGO in to assess where the company stands on issues
568. Companies have to earn their "operating credibility" from a social licence perspective
569. Investors are at the forefront of the scrutiny, and so ignoring social and environmental issues is putting investment capital at serious risk
570. There is a considerable increase in shareholder and NGO queries regarding Environment, Social and Governance issues and practices
571. Questions from investors regarding Environment, Social and Governance issues and practices are becoming increasingly detailed and informed
572. Investors are increasingly going straight for the Achilles Heel of company poor performance
573. Increased legal and government action to force compliance leads to changes in practices
574. Investors are becoming more discerning regarding their investments
575. Community protests focus mine operators' minds
576. Most SRI funds, indexes and rating agencies require that organisations establish a systemic approach to managing the social dimensions of corporate responsibility
577. Community pressure regarding social and environmental practices is increasing
578. While management changes often, the community living around a mine doesn't
579. Societal expectations on business are growing exponentially and the more a company lags the more difficult it is to catch up
580. A company's social licence to operate is increasingly dependent on meeting both the law and stakeholder expectations
581. Increasing scrutiny of company policy relative to on the ground practices is highlighting incongruence and perceived differences in operating standards in different parts of the world
582. The court of law is increasingly moving into the court of public opinion
583. The legal and moral framework is shifting from compliance to an accountability driven one
584. There is less and less tolerance for poor social performance and increasingly severe sanctions
585. Societal expectations are leading to increased demands for the mindful management of

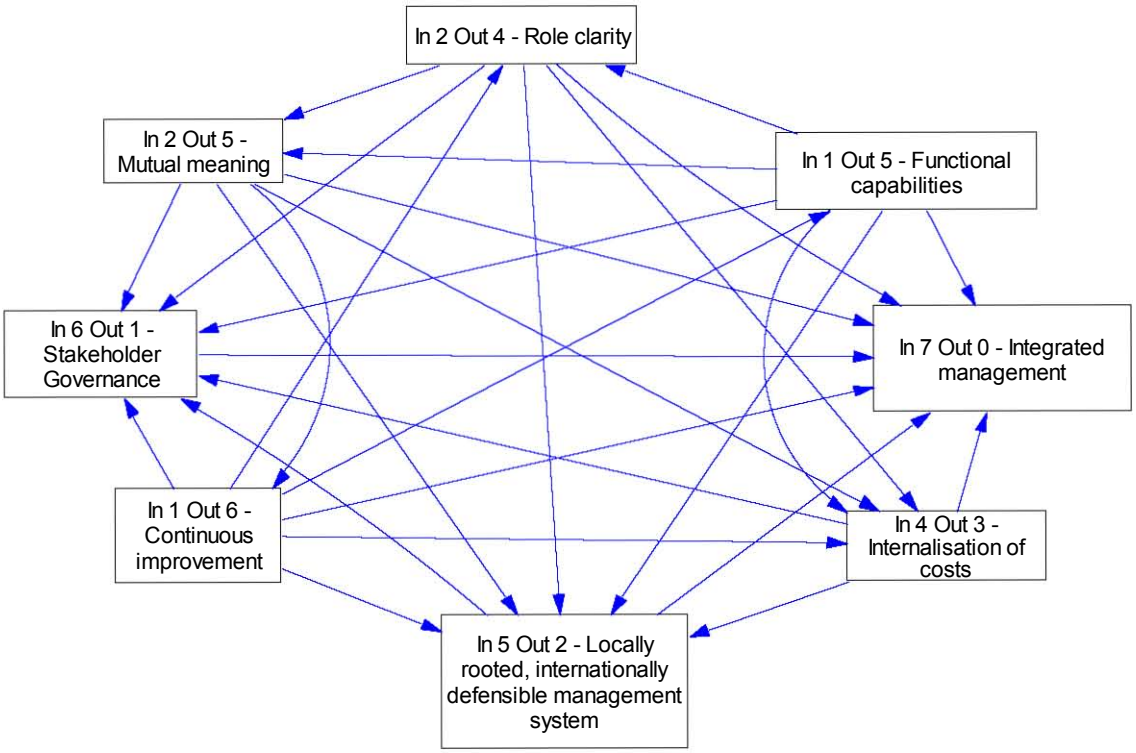
social and environmental issues

586. Sustainable development and CSR is the interplay of the growth of societal expectations and the change in companies behaviours in meeting them
587. An expectations gap exists when societal expectations and company behaviour diverge
588. The legislative process tends to be a lagging indicator of what society thinks, values and expects with legal compliance being an obligation under local, national or international regulation or law
589. “Moral liability” increases when a company violates stakeholder expectations of ethical behaviour
590. A growth in the emerging and fast evolving “rules of the game” encompassing increasing expectations on business in general and extractive companies in particular is demanding a change in behaviour to be ethical, responsible and to contribute positively towards society
591. Moral liability is witnessed in the mushrooming of “voluntary” initiatives, codes and transparency requirements or “soft law” which is both an indication of the direction of things to come and a clear attempt by business to self-regulate
592. The legal and moral framework is growing from a compliance driven to an accountability driven one
593. “Moral liability” is emerging and hardening which affects a company commercially before it is felt as a trading or balance sheet liability via accounting regulation or in law
594. The more stakeholder perspectives included in the bounding of the envelope of acceptable behaviour the more robust it will be
595. The envelope of acceptable behaviour is fluid and fast changing as business and societal perspectives interact and shift
596. The envelope of acceptable behaviour is contracting due to expectations not to do certain things
597. The envelope of acceptable behaviour is expanding due to expectations to do certain things
598. Taking policies and a public position of being a leading company in the industry leads to a company needing to improve on the ground practices
599. Adopting leading positions in the industry results in needing corporate level systems to meet them
600. A gap between espoused behaviours and on the ground practices can lead to a risk of the positions and policies not being internally and externally credible
601. Society expects companies to be able to demonstrate they have the same business practices globally, and in particular in less economically developed countries
602. Analysts put pressure on companies for a globally defensible position on community and environment
603. NGOs put pressure companies for a globally defensible position on community and environmental issues
604. The media put pressure on companies for a globally defensible position on community and environmental issues
605. A management system needs to be widely bought into by a range of stakeholders
606. Standards can be incorporated into a management system based on stakeholder concerns
607. Universally agreed standards of management practice for multinationals are in the process of being politically and socially constructed
608. Drawing in as diverse a stakeholder perspectives as possible will lead to a greater understanding of the needs of a management system
609. In some jurisdictions companies are expected to perform quasi-governmental functions in the social sector
610. An understanding of the evolving global “culture” of societal norms and expectations on multinationals will lead to increased clarity on the needs of a management system
611. Stakeholders include those groups who have a direct stake in company or who are directly affected by it in one way or another

612. Interest groups are those who are interested in a company but not necessarily directly affected by it such
613. Principal company stakeholders include: Shareholders; Employees and their Families, Employee Representatives; Communities; Business Partners; and Governments
614. Stakeholders themselves need to be involved in defining and solving problems with the processes required being inclusive, systemic and emergent
615. There are certain things that companies must do, things which internal and external stakeholders expect that they should do, and things that are desirable to do
616. Companies cannot successfully engage with predetermined answers and solutions that are stuck to regardless of feedback from stakeholders
617. It can be wise to draw potential detractors in and ask them what they would do to deal with the challenge at hand
618. Most acknowledge that mining is going to take place and the question then is how it can be done to meet the needs of all stakeholders, especially those most directly impacted
619. The Millennium Development Goals are 8 UN negotiated global development goals for which governments have agreed to collaborate together with the development community and civil society
620. There are increasing expectations for multi-stakeholder involvement in the development of corporate responsibility standards and guidance
621. Increasing prevalence of protected areas
622. Increase in initiatives on biodiversity within the mining sector
623. Increasing issues surrounding water use and pollution from mining companies
624. There is increasing awareness of the role of mineral resources in fuelling and financing conflict, and in impeding development in certain cases
625. There is increasing importance being placed on human rights
626. Company success depends on practices being informed by values developed through shared vision, actions and responsibilities with communities and other stakeholders.
627. The NGO sector is better organised, politically sophisticated and more influential than ever before
628. Minerals companies face significant risk if the operate without the consent of affected communities
629. The unintended consequences of mining developments must be contained within a socially acceptable framework

Annex 20

Interrelationship diagraph establishing final four core concepts in the meta-synthesis



Annex 21

A concept analysis of **stakeholder governance** follows:

Antecedents	**Attributes**	**Consequences**
Conflicting stakeholder expectations	Stakeholder - any group affected by and affecting the company's operations	Sustainability is a central governance issue
Inclusive approach to governance considering the legitimate interests and expectations of all stakeholders, including the natural environment	Governance - system of rights, processes and controls established internally and externally to protect the interests of all stakeholders	Legal compliance
Pressure to maximise profits	Proper corporate conduct is a social construct varying according to culture and time	Monitoring
External regulation	Differing understanding of the boundaries of responsibility	Auditing and reporting internally and externally
Voluntary standards, codes and corporate values and commitments	Still evolving	Clear roles and accountabilities from board down
Internal, external and institutional stakeholder pressure becoming more aggressive and effective	Accountability	Self-regulation via management systems, standards and procedures
Intensity of scrutiny varies by firm, industry, country and market forces	Transparency	Regulation
Engagement internally and externally	Responsibility	Corporate citizen with social and moral standing in society
	Fairness	Companies held to account for the consequences of their activities
		Expanded view of success in terms of lasting positive impacts for business, society and the environment – the Earth as a stakeholder
		Importance of both short and long term value of the company
		Things companies must do, should do, would be desirable to do
		Local loyalties while building a globally integrated system of values

A concept analysis of **integrated management** follows. While the integrated aspect of management systems is touched on, a separate concept analysis for 'management system' follows:

Antecedents	Attributes	Consequences
Community and environment recognised as core operating issues	Complete harmony and alignment of strategy and operations	**Integration of community and environment into the business**
Environmental and social impacts of a business inextricably linked	Combining separate parts into a whole.	Integrated sustainability strategy strongly tied to the business rather than a non-core activity, or 'bolt-on', such that it becomes hard to distinguish from the day-to-day business
Predicaments are gotten into because of a way of thinking that focuses on parts and neglects the whole	**Integration of community and environment into the business** Strategy, risk, company performance, and sustainability are inseparable Community and environment integrated into: • planning process • policy decisions • capital allocation process • performance evaluation • operating processes • structures • formal reporting system • and mainstream strategy	A change in the very nature of the way business is conducted Different departments speak the same language and are tuned into the same wavelength Integrated planning, policy, capital allocation decisions, performance evaluation, operating process and reporting systems Clearly defined roles and necessary capabilities
	Integrated management systems Integration of function-specific management systems Integration into a single integrated management system (IMS)	**Integrated management systems** Degree of management system integration dependent on prevailing conditions, strategies and standards requirements

A concept analysis of locally rooted, internationally defensible management system follows:

Antecedents	**Attributes**	**Consequences**
Holistic, strategic approach	Plan, Do, Check, Act	Locally rooted, internationally defensible management system
Local context: culture, laws, governance models, business practices, economic and political systems	Policy	Commitment to compliance and continual improvement
Stakeholder expectations of international good practice	Strategy and action plan	Systemic approach
Mushrooming of “voluntary” initiatives, codes and guidelines	Monitoring of success Internal and external communication	Formalise, document and improve management practices in a practical framework
Normative frameworks and existing global architecture of standards and issue specific standards	Formal accounting, reporting and audit processes	Greater internal efficiencies
Company mission, vision values and commitments	A global framework respecting local diversity	Assureable practices by internal and external audit
Operational performance requirements	Centralisation of co-ordination and control	Monitoring performance against standards
Ongoing evolution of society and company understanding of the bounds of acceptable behaviours	Autonomy and adaption to local realities	Leadership from headquarters, responsibility for implementation, local management
	Policy and systems define the boundary limits of acceptable corporate behaviours	Institutional memory and consistency within operations
	Defining minimum standards	Accommodate differing levels of employee experience
	Standardise and systematise management requirements	Levelling up of standards
	Based on international good practice	Sustainable practices encouraged

A concept analysis of the **internalisation of costs** follows. In undertaking the concept analysis it became apparent that a fuller understanding of 'externalisation of benefits' was also needed as a related but separate concept to that of 'internalisation of costs'.

Antecedents **Internalisation of costs**	**Attributes** **Internalisation of costs**	**Consequences** **Internalisation of costs**
Negative side effects	Beyond compliance	Reducing social and environmental costs
Impacts not legally obligation to pay for	Internal agreement to internalise costs	Increasing community benefits
Impacts not obliged to take into consideration in decision making	Increasing organisational costs	Linking environmental and social performance with shareholder value as a financially material business risk or opportunity
Internal, external and institutional stakeholder pressure		Environmental and social costs internalised into capital budgeting, cost allocation and other decisions
Regulation and government intervention		Business taking a responsible approach to the environment and society
Risk of legal liability		
Voluntary initiatives		
Ethical stance inherently embracing value of ecosystem services		
A strategic understanding of issues		
A change in mind-set, culture and systems		
Managerial and other systems to identify and value costs		
Ethical stance inherently embracing value of ecosystem services		
Pressure of capitalist system to continue externalising costs		

Antecedents Externalisation of benefits	Attributes Externalisation of benefits	Consequences Externalisation of benefits
Positive spill overs	Beyond compliance	Increasing community benefits
Positive impacts not legally obligation to pay for	Increasing organisational costs	Linking environmental and social performance with shareholder value as a financially material business risk or opportunity
Positive impacts not obliged to take into consideration in decision making	Externalising social and community benefits	Environmental and social costs internalised into capital budgeting, cost allocation and other decisions
Internal, external and institutional stakeholder pressure		Business taking a responsible approach to the environment and society
Regulation and government intervention		
Voluntary initiatives		
A strategic understanding of issues		
A change in mind-set, culture and systems		
Pressure of capitalist system to avoid externalising positive impacts		

Annex 22

Integrated Environmental and Community Policy

We will, in keeping with our environmental and community policy:

- comply with all applicable laws, regulations and other requirements.
- communicate and consult on our activities throughout the lifecycle of our operations and make this policy available to the public.
- manage efficiently and safely the resources under our stewardship and respect the values, traditions, and cultures of the local and indigenous communities in which we operate.
- contribute to biodiversity protection in our areas of operation.
- work to prevent pollution and minimise waste from our activities.
- mitigate our greenhouse gas footprint and climate change risks.
- acquire and use land in a way which promotes the broadest possible consensus among interested people.
- avoid resettlement to the extent feasible and minimize and mitigate its adverse environmental, social, cultural and economic impacts.
- undertake initiatives in partnership with the societies in which we operate with the aim of contributing to a sustainable future for host communities.
- ensure financial resources are available to meet our closure obligations.
- establish, maintain, continually improve and audit management systems to identify, monitor and control the environmental and community aspects of our activities.
- ensure that our employees and contractors are aware of this policy as well as their relevant responsibilities.

Annex 23

Community and Environment Management Standards as at 31 October 2010

Document Number	Document title	EXCOM Approval date	Date for full compliance	ISO14001 Certification Scope
STD 01	Water	23 June 2009	23 June 2011	23 June 2012
STD 02	Land Use	23 June 2009	23 June 2011	23 June 2012
STD 03	Air Quality	23 June 2009	23 June 2011	23 June 2012
STD 04	Chemicals	23 June 2009	23 June 2011	23 June 2012
STD 05	Waste	23 June 2009	23 June 2011	23 June 2012
STD 06	Closure and Rehabilitation	30 July 2009	30 July 2011	30 July 2012
STD 07	Biodiversity	In draft	2 years after approval	3 years after approval
STD 08	Land Acquisition	In draft	2 years after approval	3 years after approval
STD 09	Stakeholder Engagement	In draft	2 years after approval	3 years after approval
STD 10	Social Investment and Local Economic Development	In draft	2 years after approval	3 years after approval
STD 11	Cultural Heritage and Sacred Sites	In draft	2 years after approval	3 years after approval
STD 12	Indigenous Peoples	In draft	2 years after approval	3 years after approval
STD 13	Artisanal and Small Scale Mining	In draft	2 years after approval	3 years after approval
STD 14	Community Complaints and Grievances	In draft	2 years after approval	3 years after approval
STD 15	Cyanide	In draft	Required under the Cyanide Code	Already included
STD 16	Incident Classification and Reporting	23 June 2009, SHSD 28/07/0909	28 July 2009	Immediate.
STD 17	Purchasing and Product Stewardship	To be drafted	To be advised	To be advised
STD 18	New / Capital project planning	To be drafted	To be advised	To be advised

Document Number	Document title	EXCOM Approval date	Date for full compliance	ISO14001 Certification Scope
STD 19	Business Development/ Due Diligence	To be drafted	To be advised	To be advised