

The Role of Business in Sustainable Development: A Study of Corporate Social Responsibility and the Australian Mining Sector

By

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Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any tertiary institution, and to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference is made in the text.

This thesis is an uncorrected text as submitted for examination.

A handwritten signature in black ink that reads "Deepa Punnoose". The signature is written in a cursive style with a double underline beneath the name.

Deepa Punnoose

16th October 2009

Abstract

This thesis explores the role of business in sustainable development. The study reviews much of the academic literature on sustainability, sustainable development, corporate social responsibility and related practices. The study then focuses on the interpretation and implementation of sustainable development, corporate social responsibility and related practices in the Australian mining sector. The case study of a leading Australian mining company is analysed to comprehend the stance on corporate social responsibility, sustainable development and the steps taken towards it. The findings indicate that the company has a commitment towards sustainable development and initiatives are being taken towards achieving it.

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Chapter 1

Introduction

1.1 Overview of the Thesis :

In today's ever changing and complex world the interactions of business with the environment and society in which they operate is of growing significance. Unlike earlier years, where profit maximisation was the primary concern, in today's societies the business sector has a wider role with more responsibilities. Rising awareness and demand among consumers for more ecologically sustainable products as well as increasing consciousness among investors and stakeholders towards the non financial risks taken by business have altered the role and responsibilities of businesses. The emergence of concepts such as sustainable development, sustainable environmental management and corporate social responsibility have redefined the role and responsibilities that businesses have towards the environment and the society in which they operate and how they operate. Nowadays social responsibility and ethical behaviour on the part of businesses is imperative to secure the long term license to operate.

On the outward front a business sector like the mining sector can seem to be unsustainable. But "in a global context mining plays an essential part in enabling people to meet their economic and social objectives" (Rajaram et al, 2005 cited in Guerin, 2006:11). Both increased environmental considerations as well as the sustainable development agenda have altered the mode of operation of the mining industry (Berkel, 2000). Today modern societies have greater expectations from the mining industry. Not only are mining companies expected to run their operations with minimal environmental impact they are also expected to remediate and rehabilitate the sites once the lifespan of the mine is over (Berkel, 2000). Moreover local communities also expect their representation and involvement in discussions and decisions taken regarding any undertakings directly or indirectly affecting them. The

mining sector thus faces challenges towards being environmentally sound and socially responsible.

The broad context of this study is the question of the role of business in the wider social transition towards sustainable development. The study also attempts to understand the concept of corporate social responsibility and related practices within a specific sector, the mining sector in the Australian context. Furthermore the study explores the interpretation and implementation of corporate social responsibility within the Australian mining sector. This study also seeks to find out if corporate social responsibility practices have led to sustainable development with regard to the Australian mining sector.

1.2 Structure of the Thesis :

This thesis is divided into six chapters.

In the first chapter the overall structure of the thesis is explained. The main research objectives being investigated in this study is also outlined.

Chapter two provides a detailed literature review of the central themes of sustainable development, corporate social responsibility and emerging subjects. The components discussed in this chapter provide an underlying basis for a better understanding of the study as it unfolds.

Chapter three explains the research design and methods of data collection. The questionnaire along with the consent sheet and the invitation email used as a part of this study is included under the Appendix 1 and 2.

The fourth chapter outlines the history of mining in Australia. The complex situation the mining industry is faced with is explained by means of a case study. The chapter also reports on the representation of the mining sector in Australia.

Chapter five outlines the approach taken by a leading mining company in Australia - BHP Billiton towards sustainable development. The chapter explains the means by which the company understands and implements corporate social responsibility.

Moreover in this chapter it also seen whether a positive change which leads towards sustainable development is actually put into practice by BHP Billiton.

Chapter six provides an overview of the findings of this study in relation to the research questions and identifies limitations of the study.

1.3 Research Objectives :

The following objectives are designed to be the backbone of my study :

- To investigate the understanding of corporate social responsibility, sustainable development and related practices within mining companies in Australia.
- To understand the relationship between corporate social responsibility agendas, profitability and sustainability in Australian mining companies.
- To examine the claim in theoretical literature that “the implementation of corporate social responsibility practices in businesses leads to sustainability practices” is true in real world practice.

Chapter 2

The role of corporate social responsibility on the path towards sustainable development

2.1 The Concept of Sustainability :

The term sustainability is a complex, contested concept and has multiple dimensions and definitions. Yet it is these different dimensions and definitions which provide the flexibility that allows the concept of sustainability to be tailored to different circumstances. In particular this concept maybe applied to any or all temporal or spatial scales.

The concept of sustainability is often examined from what are commonly described as strong and weak perspectives. In the former perspective, the primary focus is on conserving the planet's ecology. In this vision of strong sustainability, ecocentrics' view nature as having intrinsic value (Baker, 2006). In a weak perspective the emphasis is on an anthropocentric or human-centered view. In this regard, nature and natural resources are seen in relation to the benefit of humankind (Baker, 2006). More specifically the environment is understood as a provider of goods and services for the well being of humankind (Carew and Mitchell, 2008). Sustainable development attempts to balance the equation of relationships between the environment, economy and society.

2.2 Origin of Sustainable Development :

In 1987, the World Commission on Environment and Development (WCED) published its famous report, Our Common Future, popularly known as the Bruntland Report. This report defined sustainable development with regard to human needs, as follows: "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs" (WCED 1987:43). The Bruntland Report also addressed the inter-linked relationship between the ecological,

economic and social aspects of development (WCED, 1987). Moreover this report brought out the global focus on sustainable development (Baker, 2006). Sustainable development can be viewed as a framework for achieving economic and social development while still maintaining the viability of ecological and environmental systems (Harding, 1999). The essence of sustainable development is that it is a positive process of political debate and social change. Thus to be put into practice, sustainable development requires an interconnected approach, which will have diverse needs (Kemp & Martens, 2007).

2.3 Sustainable Environmental Management :

In order to operationalize sustainable development, a branch of science which is interdisciplinary, capable of dealing with uncertainty, complexity and takes an exploratory approach is needed (Kemp & Martens, 2007). This genre of science can be termed sustainability science. Sustainable environmental management can be comprehended as that interconnected branch of sustainability science which has the capacity to adapt to change as well as shape it (Kemp & Martens, 2007). But the implementation of sustainable environmental management requires overcoming different political, institutional and structural hurdles. Enhancing participation from different levels of the society and regular monitoring of the adapted change can be a means of successfully implementing sustainable environmental management. By broadening the vision of sustainable development and involving many dependencies a transparent global participative approach is adopted. For instance; the rising levels of global environmental problems indicates there is a stronger need for understanding problem solving strategies and the evaluation of results. Sustainable environmental management requires an integrative, adaptive and participative approach to tackle the scale at which global environmental problems occur. The concepts of 'ecological footprint' and 'ecological space' can be explained as the assessment of the impact of a country's consumption patterns on the environment of another country (Jacobs, 1999). Rising differences in global resource distribution and the impact of a nation's ecological footprint and ecological space on the environment

and the state of another nation are issues which sustainable environmental management has raised awareness (Jacobs, 1999).

In many nations a large percentage of the population does not have their basic needs for survival like food, water, clothing and shelter. To increase the ecological and environmental considerations and standards in these poorer nations it is essential to eliminate conditions of scarcity of needs, poverty in these regions. Globalisation can be defined as an amalgamation of national economies to facilitate trade among (MNCs) multinational corporations and encourage foreign investment (Anonymous, 2003). The integration of economies is a beneficial aspect for countries (Eslake, 2000). Globalization provides opportunities for increased flow of investments from government entities, investors, nongovernmental organizations and business corporations. For instance, an international investment bank Goldman Sachs has adopted an environmental policy which not only understands the importance of ecosystems but is also responsible for funding a new centre for Environmental Markets for broadening the application of social and environmental factors into loaning and investment activities (Sanwal, 2007:7). These investments can help to improve social and economic developments which in turn play a vital role to eradicate poverty in developing nations (Sanwal, 2007). Eliminating poverty aids in developing a framework for sustainable environmental management.

The corporate sector has access to the latest technology, capital and management. This if channelled in the right direction can significantly influence the social, economical and environmental sectors of societies (Moon, 2007). For instance the UK retail giant Mark and Spencers have launched their latest five year plan- Plan A with a budget of 200 million pounds (Environmental Leader, 2007). This plan aims to address the issues of climate change, waste, raw materials, fair trade partnerships and healthy eating (Moon, 2007: 298).

2.4 Corporate Social Responsibility :

At present there is no unanimous definition of the concept of Corporate Social Responsibility. The World Business Council for Sustainable Development (WBCSD)

(2000:8) explains the concept of corporate social responsibility as “the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.”

The notion of corporate social responsibility can be understood as the relationship businesses have with the social, economic and environmental dimensions of the communities in which they operate. Businesses do have responsibilities which exist beyond conventional market relationships. The social dimension of corporate social responsibility is the relationship between business and society (Dahlsrud, 2008). It can be interpreted as the means by which businesses' can contribute to society by taking into account their impacts and the concerns of local communities (Dahlsrud, 2008). The economic dimension of corporate social responsibility can be explained as the financial aspect of the business (Dahlsrud, 2008). The environmental dimension of corporate social responsibility revolves around concern for the environment with regard to business dealings (Dahlsrud, 2008).

Increasingly corporations are becoming active agents in the agenda for sustainable development. This approach is particularly useful to evolve new partnerships and involvement with the society for economical and environmental development (Moon, 2007). In certain countries where government regulations do not deliver social well being corporations have provided labour rights, health and other facilities for their workers and families (Moon, 2007). According to Moon (2007: 302) “governments in democratic, capitalist, welfare systems are facing challenges in meeting societal expectations and have an interest in corporate social responsibility to make companies more socially responsible”. Corporate social responsibility can be seen as a contributor towards societal governance.

This is because the core principle of corporate social responsibility relate to issues of human rights, labour rights, employee issues, market and consumer issues, organizational governance, environmental aspects, community involvement and social development (Leonard and McAdam, 2003). An ideal example indicating this would be in India. The region of Dharmapuri has high poverty levels and female infanticide. A primary watch and instrument manufacturer, Titan Industries, partnered

with a NGO Myrada, to form Meadows which deals with the issues of lack of empowerment among women (Moon, 2007). Initially the women working at Meadows used to provide chapattis/bread to the workers at the Titan factory (Moon, 2007). But now a private company headed by three women directors and two hundred women employees make bracelets for watches which they sell to Titan Industries (Moon, 2007). The profits are shared among the employees and stocked up as funds for reserves (Moon, 2007). Titan Industries is also involved in a similar project with the differently abled people (Moon, 2007). Thus Titan has managed not only to provide social development and community involvement in the region but also have provided a source of sustainable livelihood in the region while maintaining the sustainability of their own business (Moon, 2007). This signifies the extent to which corporate social responsibility can play a role in bridging the technological gap and providing opportunities for socio-economic growth in the less developed regions of the world.

2.5 Drivers for Corporate Social Responsibility :

According to Moon (2007), interest in corporate social responsibility is being created by market drivers, social drivers, governmental drivers and globalization. Several market drivers have created an impact on the growth of corporate social responsibility. Changing consumer preferences and demands for more socially responsible products and services have triggered a greater awareness of the need for corporate social responsibility (Moon, 2007).

Nowadays beginning from early graduate days employees are well informed about the reputation of corporations, their values and their role in corporate social responsibility (Moon, 2007). This as well as increased stake holder awareness and engagement imposes certain levels of social obligatory standards on the part of the corporations.

Social drivers as in nongovernmental organizations have managed to develop partnerships with corporations (Moon, 2007). This has led NGOs to work with corporations for specific causes. Moreover the media also acts as a driver for corporate social responsibility because it reports to the public on social

irresponsibility thus prompting corporations to stay socially responsible to be competitive (Moon, 2007).

Governments across the globe have shown keen interest in promoting corporate social responsibility (Mazurkiewicz et al, 2005). By framing policies in such a way that will enhance businesses to take responsibility and be environmental leaders within society, governments can act as a driver for corporate social responsibility.

Finally globalization has resulted in creation of policies that have opened up economies and provided confidence to foreign investors. The removal of import tariffs, export restraints, legal prohibitions and economic development incentives has facilitated the growth of international business.

Corporations are reporting their corporate social responsibility roles in reports available for public viewing (Moon, 2007). For instance, an international provider of IT and internet products and services, Dell, has actively instigated environmental initiatives (ACCA, 2004). The International Organisation for Standardisation (ISO) has produced the ISO 14000 series which is a collection of international standards for businesses to guide decision making with regard to environmental management. Dell attained global ISO 14001 certification and in 2003 was working towards the Global Reporting Initiative (GRI) Guidelines to facilitate better reporting and to communicate more effectively with their stakeholders and employees (ACCA, 2004). Certain corporations also develop codes of business ethics or practices which embed corporate social responsibility throughout their operations (Moon, 2007). Some examples of the corporations with the highest ratings for their corporate social responsibility in all lines of their operations are Johnson and Johnson, Hewlett-Packard and Intel (McClenahan, 2005). In any corporation those leaders with the ideology of good for the company, their employees, the local community in which they operate and on the larger front the society is very much needed to support and drive corporate social responsibility (Leonard et al, 2003).

2.6 Government's Responsibility in leading Corporate Social Responsibility :

Governments play a vital role in encouraging corporate social responsibility within corporations. Regulatory frameworks and transparent policies will aid small and large corporations in incorporating corporate social responsibility across all their operations. This can be demonstrated for instance through framing policy responses. Sustainable prosperity is in the interest of all governments, societies, corporations, stakeholders and investors.

In a talk given in 2006, the then Australian Shadow Minister for Corporate Governance and Responsibility, Senator Penny Wong (2006:2), states that "government must clearly state its commitment to sustainable economic development and to the responsible contribution of business to this objective. This commitment must go beyond rhetoric and platitudes. It demands active policy responses across government." She also suggest that "Government must actively engage with, support and resource businesses to deeply integrate sustainable approaches to their operations. There is a need for a stronger business led network on sustainability issues, more best-practice information for companies to draw on and a clearer path for businesses to address long term and non-financial risks for the first time." (Wong, 2006:3).

Many small and medium size businesses have not adopted a recognized corporate social responsibility approach (Mazurkiewicz et al, 2005:7). This is mainly due to the reason that their involvement within the environment and community is of a local scope, occasional in nature and unrelated to their business strategies (Mazurkiewicz et al, 2005:7). As a result they miss out on opportunities to improve their operational performances and contribute to society and the environment (Mazurkiewicz et al, 2005:7). For instance, a small scale packaging industry can benefit immensely from waste minimisation. Primarily this will reduce costs involved in tackling the waste in the industry and it will also reduce the industry's impact on the environment and the community in which they operate. Adoption of measures such as encouraging regular dialogue and cooperation between businesses' and the society and also provision of financial incentives like subsidized interest, can create an enhanced environment for corporate social responsibility (Mazurkiewicz et al, 2005).

By allocating funds for further research in corporate social responsibility governments can promote new developments and innovative techniques to handle the sustainability challenges in the future can be undertaken (Wong, 2006). Governments should lead the way by integrating corporate social responsibility into the daily mode of business practices. Governments should also take the initiative by setting the agenda and by being an example of responsible behaviour to influence corporate social responsibility (Corporate Social Responsibility, 2004).

2.7 Importance of Sustainability Reporting :

Sustainability reporting can be explained as the framework which is used for reporting a corporation's performance against set of social, economical and environmental standards (Barrett, 2005). Sustainability reporting raises the standards of corporate accountability. Sustainability reporting offers investors and stakeholders a clearer indication of the long term outlook of a corporation's performance.

One of the main aims of sustainability reporting is to raise the bar for better corporate governance which invariably contributes towards better performance of corporate social responsibility. On the part of government, sustainability reporting ensures communicating information with stakeholders, investors, corporations and societies (Barrett, 2005). According to Barrett (2005) the information which is transferred through reporting serves different purposes like "reflecting objectives, setting targets, assisting in the evaluation of alternatives to achieve the goals most efficiently and effectively, allocating resources to competing needs, evaluating performance in service delivery and accounting for public money" (Barrett, 2005:4&5).

Increased governmental support towards sustainability reporting encourages corporations to take full accountability and responsibility of their social and environmental impacts (ACCA, 2004). For example in certain countries including the UK, Japan, Canada, Germany, Hong Kong and Australia the governments have a set of guidelines to be followed for producing sustainability reports (ACCA, 2004).

This thus helps to increase transparency with regard to operations and decision making in corporations (ACCA, 2004).

The process of creating and verifying of sustainability reports is complex yet it increases the credibility of the sustainability report (Barrett, 2005). For instance Intel which released its first Corporate Social Responsibility Report in 2001 uses a variety of internally developed, customized databases and information systems to help measure and manage its environmental impacts (LeCompte, 2009). But the growing complexity of data and need for more transparency has forced Intel to explore alternate software solutions (LeCompte, 2009). Sustainability reporting thus creates a higher awareness of environmental risk management (ACCA, 2004).

Most of the larger corporations produce sustainability reports usually annually however many smaller businesses' do not presently practice sustainability reporting (ACCA, 2004). The cost and time involved in collecting data and collating all of it as a report is a major obstacle (ACCA, 2004). But in order to better understand the environmental impact and create a culture of environmental excellence the task of sustainability reporting must be undertaken by big and small businesses' alike (ACCA, 2004). Some of the challenges faced is to show the value of sustainability reporting to interested stake holders, nongovernmental organizations which can partner with corporations to work for a cause, researchers and interested personnel so that it can be a more complete process (ACCA,2004). Sustainability reporting also provides an overview of the corporation's broader social impact (Barrett, 2005). This overview helps investors and stakeholders to make a more conscious decision and in certain cases bring about change in the non financial risks taken by corporations (Barrett, 2005).

2.8 Arguments against Corporate Social Responsibility :

The difficulty in defining the concept of corporate social responsibility is a major source of confusion and debate (Dahlsrud, 2008:6). Some critics' argue that funds allocated for corporate social responsibility rightfully belong to investors and stakeholders (Baker, 2009). They feel that the management of corporations deny

them what is rightfully theirs by allocating funds for socially responsible approaches (Baker, 2009). But shareholders should be made aware of the non financial risks and the reputation of the corporation. Then investing a significant proportion of funds to be an ethical competitor in the market and for the longer term good of an organisation will not be an issue for shareholders and investors.

The other arguments targeted against corporate social responsibility are that in tough economic times the focus should be on main core business and everything else is a distraction from it (Baker, 2009). But in reality managing corporate social responsibility is like managing any other aspect of a business operation (Baker, 2009). If proper planning exists then corporate social responsibility supports the business objective and also builds strong relations with key stakeholders (Baker, 2009). This helps immensely to maximise effectiveness of the business operations.

Many businesses undertake corporate social responsibility with the aim of gaining the support and loyalty of their stakeholders and consumers (Corporate Watch, 2009). In this sense corporate social responsibility is very similar to the marketing and public relations aspects of business practice (Corporate Watch, 2009). Thus it is argued that in this manner organisations may try to build loyalty and connection with the consumers and whitewash their image (Corporate Watch, 2009). This can prove to be dangerous if corporations are not actually taking on socially responsible approaches and trying to mislead consumers. Some of the other views held against corporate social responsibility are that it is the role of politicians, lawmakers and governments to deal with social responsibility and not in the interest of corporations (Baker, 2009). But in practice many corporations invest both time and capital to influence the formation of policies (Baker, 2009). Moreover as corporations attempt to manage their reputation, their impact on the community in which they operate as well as on the society at large forces them to a great extent to be socially responsible (Baker, 2009). An integrative approach between the government, corporations and nongovernmental organisations will aid socially responsible approaches to be sustainable in the longer run. Thus for corporations by undertaking and implementing socially responsible approaches - corporate social responsibility will not be viewed from "image management" perspective by critics (Corporate Watch, 2009).

2.9 Future of Corporate Social Responsibility :

“In the future corporations which are or which aspire to be leaders in corporate social responsibility will be challenged by rising public expectations, increasing innovation, continuous quality improvement and heightened social and environmental problems” (Strandberg, 2002:np). Corporations will have to charter their corporate social responsibility through complex environments which are constantly evolving (Strandberg, 2002:np). Many big and small organisations will embrace corporate social responsibility in the future due to factors like competition, profitability and sustainability in the longer run. For corporations to take charge and lead the way in corporate social responsibility in the future it will be necessary for “innovation and regular monitoring of quality improvement to tackle social and environmental problems” (Strandberg, 2002:np). As more and more organisations jump up on the corporate social responsibility bandwagon, there is the possibility of increased competition among organisations raising the standards of best practice methods (Strandberg, 2002). This also raises the possibility of different levels and models of corporate social responsibility to have evolved in the future from experimentation (Strandberg, 2002).

The crisis occurring in the global financial markets will heighten the importance of corporate social responsibility practices as they will be viewed from the perspective of good corporate governance (Strandberg, 2002). It could be also possible that in the future international bodies are formed to govern practice of corporate social responsibility in corporations globally. As a result corporations will need to be more accommodating as awareness increases among citizens in the global era.

The outlook of corporations in the future will be more strategic towards corporate social responsibility (Strandberg, 2002). Not only will corporations become more compliant with corporate social responsibility standards but they will also carve out a niche in the area most strategic to their organisation’s impact (Strandberg, 2002). Moreover in specific sectors, like service based or product based businesses it will become mandatory to provide services or products acceptable to the broad public interest as awareness increases or else there will be a high risk of going out of

business (Strandberg, 2002). Corporate social responsibility will be an instrument for sustainable development in the future. It will invariably influence decision making and business strategy in all levels of an organisation (Strandberg, 2002). Stakeholders will have a greater influence in the corporation's impact on the society in which they operate (Strandberg, 2002).

Partnerships between the government and corporations will be more imminent as corporate social responsibility will spearhead social, economic and environmental development in societies around the world. Governments could also make it compulsory for corporations to report on corporate social responsibility performance (Strandberg, 2002). In the future, business schools will integrate corporate social responsibility in their curriculum with an aim to increase knowledge and awareness among young graduates (Strandberg, 2002).

2.10 Conclusion :

In this chapter I have stressed the importance of corporate social responsibility in spearheading sustainable development through all sectors of society. Corporate social responsibility which incorporates sustainable development will gain more momentum in the coming decades. In the future some of the most dominant corporate social responsibility issues will be the same as the major issues of the day namely - environment, poverty, governance, ethics, accountability and transparency (Strandberg, 2002). Globalization and the advent of the internet have played a major role in increased communication and awareness of events worldwide. Today by means of blogs, social networking sites and forums opinions, ideas and discussions are shared by individuals worldwide. As awareness increases and employees and consumers become responsive of the connections between corporate social responsibility and quality of life they will insist for increased commitment towards corporate social responsibility (Strandberg, 2002).

Increasingly organisations are becoming more accountable for working conditions and labour issues in their operations as well as that of their partner's (Pohle et al, 2008). Therefore to attain sustainable growth through corporate social responsibility

corporations will have to integrate it across all their operations (Pohle et al, 2008). Also as stressed earlier increased levels of transparency is required when sharing information with all the stakeholders involved (Pohle et al, 2008). Thus in this manner corporate social responsibility can become a powerful element of an organisation and also improve the business standing and sustainability in the society (Pohle, 2008).

Chapter 3

Methodology

3.1 Introduction :

This chapter explains the methodology used in this research study. The chapter describes the research design technique, data collection approach and the different phases of the study.

3.2 Method :

In human geography, qualitative research techniques are widely used to address an extensive range of issues. Questionnaire surveys were one of the qualitative research techniques used in this study. Generally, questionnaire surveys are considered to be a cost and time effective method of gathering data from a large sample set. According to McLafferty (cited in McGuirk et al 2005:147), "questionnaires are useful for gathering data about people, their behaviour and social interactions, attitudes and opinions and awareness of events."

The method selected to implement this study was a questionnaire survey. The questionnaire (see Appendix 1) was tailored to understand the endeavours of mining companies in environmental management, sustainable development and corporate social responsibility and the personal viewpoint of the respondent(s) in these areas. The survey was conducted in three phases. In the first phase, the subject to be studied - the Australian mining sector - was selected. A random sample of thirty mining companies within Australia was compiled through a detailed web search. Publically listed contact details, such as e-mail addresses, were recorded from company web sites. In the second phase an invitation email (see Appendix 2) was sent to the company to invite the environmental manager to participate in the research study. The invitation email further requested the recipient to circulate the invitation to other personnel with any role in environmental management within the company. Those interested to be a part of the study responded back, providing their

contact addresses. Interestingly, at this stage of my study, I received a positive response rate from all the thirty mining companies I contacted. In the third phase, a survey pack containing the questionnaire with the informed consent sheet along with a self addressed stamped return envelope was posted to the addresses. Once the survey pack was posted all the obtained contact details were destroyed as per a prior agreement with the Ethics Committee. Dillman (2000) points out that one of the main challenges faced in conducting any survey is obtaining a high response rate. In my survey, the target set was a minimum of fifteen completed questionnaires from a sample set of thirty companies, in order to analyse the data and draw suitable inferences.

To implement this methodological approach, I obtained approval from the Tasmanian Social Science Human Research Ethics Committee, as this was a mandatory requirement set by the University of Tasmania. Under the guidance of my supervisor, I completed and submitted a minimal risk application form to the Ethics Committee.

One of the requirements set by the Ethics Committee was that the questionnaire survey methodology must maintain total confidentiality of the participants. In order to minimize any risks of identification of the potential participants, a preliminary invitation email that was sent stating that the names and addresses of those willing to be a part of the study would not be retained after the questionnaire pack was posted. Upon instructions from the Ethics Committee, amendments were made to the invitation email and the questionnaires to ensure participants that the name of their organisations would not be required to be disclosed at any point in the survey. Once all the agreements made with the Ethics Committee were finalised, my study was approved. I was then in a position to conduct the survey.

3.3 Data Collection :

The content of the questionnaire was designed in such a manner that the initial questions provided information about the responsibilities of the participant. The second subsection addressed environmental management within the organisation. The third subsection used Likert scale questions to elicit participant's views on

sustainable development, and their organisation's role, responsibilities and attitudes in relation to sustainable development. The fourth subsection explored the participants understanding of corporate social responsibility and elicited information about whether and in what form corporate social responsibility influenced the strategies, processes and practices of their organisation.

Dillman (2000) points out that in order to obtain satisfactory response rates in a self administered survey, multiple attempts to make contact with participants are crucial. Putting this into practice, in the first attempt the survey pack was posted to all the respondents in the first week of June. However, no completed questionnaires were returned. According to the requirements of the Southern Tasmanian Human Research Ethics Committee, contact details of individuals who had responded to the initial invitation and who had been sent questionnaire packs were destroyed once the survey pack was posted. The invitation email was thus resent using the publically listed contact details of the original sample of thirty mining companies in July, 2009. This second initiation elicited one completed questionnaire.

Maximising response rates is one of the most difficult aspects of administering social surveys. The very low response rate obtained for the survey described above clearly raises questions about the need to balance ethical concerns about confidentiality and anonymity with robust processes of recruitment. This balance was particularly difficult to strike in this research as the survey was administered to a relatively small and discrete sample and involved individuals providing information both about their personal views and about their organisations. It was to ensure the full anonymity of participants and their employer organisations that the Human research Ethics Committee requested that personal contact details were not kept after initial contact and mailing of the survey. Although disappointing, this first experience of designing and administering a survey instrument has been highly instructive about the need to implement creative and rigorous methods of sample design and recruitment and about the need to engage in robust dialogue with Ethics Committees.

One of the main intentions in conducting this study was to investigate the understanding of corporate social responsibility and related practices among environmental managers employed within mining companies in Australia. In addition

to questions of research methods, the negligible response rate obtained in the survey raises questions about the perception of corporate social responsibility and sustainable development among environmental managers in the mining sector. The theoretical literature on corporate social responsibility which was reviewed as a preliminary step of this research emphasizes that implementation of corporate social responsibility practices in businesses leads to increased sustainability practices. The data to be collected from the survey was intended to be analysed to test if this hypothesis holds true in the real world practice. In the context of targeting of a specific sector - the mining sector - as well as obtaining prior consent for participation in the research study the low response rate invites speculation about the attitudes and views of environmental personnel in the mining sector on the subject of environmental management, corporate social responsibility, sustainable development and the significance or relevance attributed to them. The low response also perhaps raises questions about the importance given to social research within the commercial sector more generally.

The time constraints imposed on this study made further attempts to administer the survey impracticable. However, after the initial low response rate, in consultation with my supervisor, I designed and implemented a second research approach for investigating the study's research questions. This research method took the form of textual analysis and case study of an Australian mining company

3.4 BHP Billiton : A Case Study

This case study is based upon textual analysis of the Annual Sustainability Reports and other relevant documentation of BHP Billiton in the time period from 2001 to 2008. These were examined in detail to comprehend several factors.

Over the years, the changes in management of the relationship between the environment and the company's operations were observed. Also inclusive in this was the role the company played on the lines of sustainable development over the years which were examined. The relationship that the company maintained with the indigenous community was analysed. The company's provision of employment and

training opportunities for the local community and indigenous community in the sites of operation was considered. Furthermore, the Annual Reports were also analysed to know whether there were any serious impacts of the company's operation on the local community and if there were any serious impacts, how they were handled. I also probed through the Annual Reports to look whether equal opportunities were provided to either sex to enter the workforce.

The company's Annual Sustainability Reports were examined to understand the approach taken towards sustainable development. The vision and goal of sustainable development and the mode of implementation by the company was also reviewed. Furthermore the reports were reviewed to see whether the company complied with environmental regulations or whether they stayed ahead of compliance. The company's Annual Sustainability Reports were also looked into closely to find out if they were involved in the formulation of environmental policies. The Annual Reports were also checked to see if there was any mention of the formation of strategic partnerships or tie ups with NGO's or environmental groups at the different operation sites.

In this way, by using a systematic approach, the data from the company's Annual Reports has been interpreted. The information gathered from the Annual Reports has aided to understand the broad influence of corporate social responsibility on the mining sector. Furthermore, from the Annual Reports, the ability to implement practices promoting sustainable development in the operational sites of the mining company were been identified.

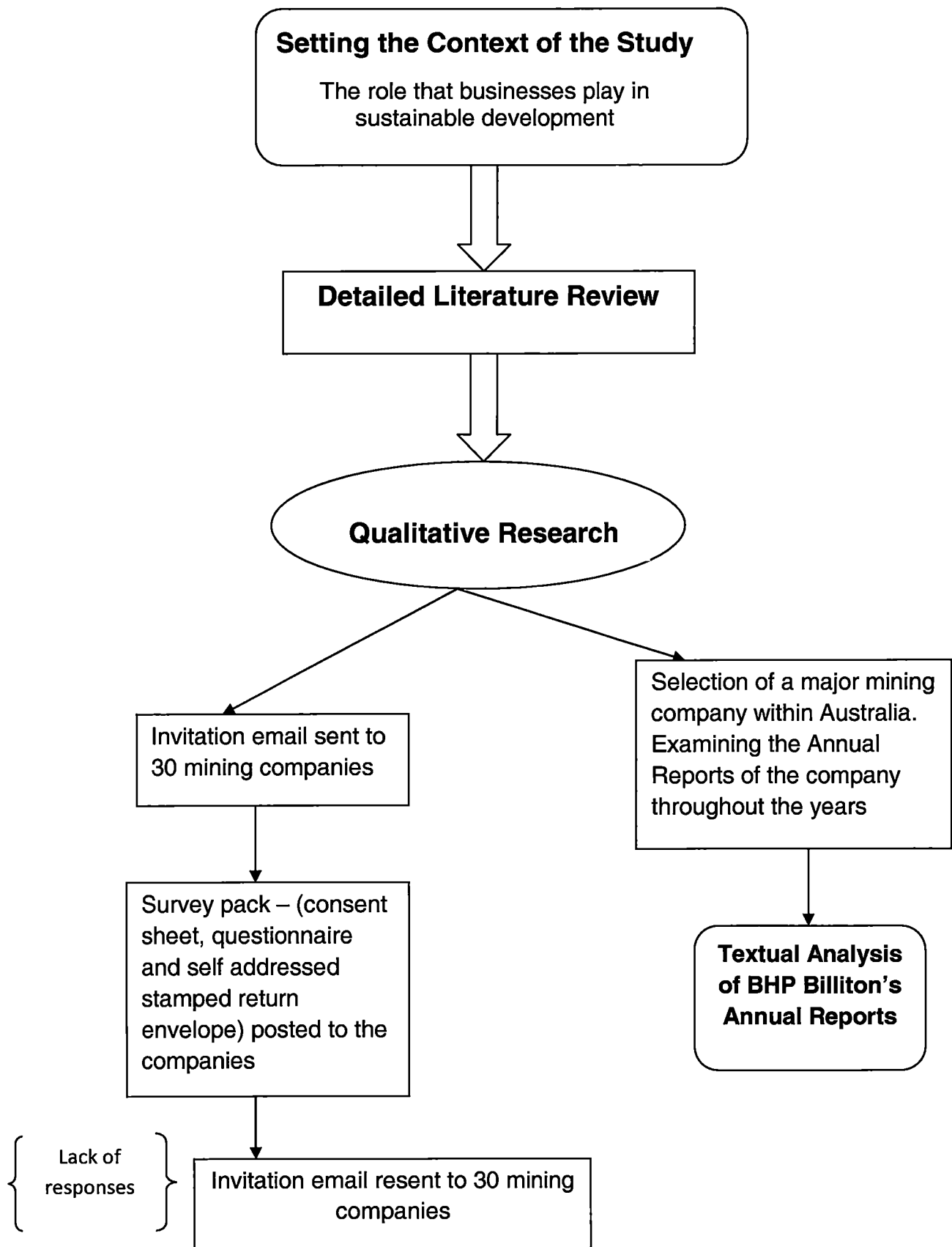


Figure1: Methodological Framework of the study

Chapter 4

The Australian Mining Sector

4.1 Introduction :

This chapter presents some background context into mining. Historically the mining industry has been responsible for severe impacts from its operations (Jenkins, 2004). An example of this would be in the 1880s at the Ashio Copper Mine in Japan where the damage done to the farmland was acceptable as the benefits the mine brought outweighed the destruction caused (Jenkins, 2004). But unlike the past, in the recent years the global mining industry has responded to widespread criticism and has taken up corporate, social and environmental responsibility for their impacts caused (Jenkins, 2004). The chapter describes a particular case study which indicates the complex and challenging situations the mining industry is faced with. Finally the chapter explains the representation of the mining industry in Australia.

4.2 History of Australian Mining :

The Australian mining industry was established at the end of the 18th century with the discovery of coal reserves (McKay et al, 2001). Since then this industry has played a pivotal role by being a main source of the nation's export income and providing for the nation's industrial requirements (Minerals Council of Australia, 2008). Over the past 20 years the mining industry has contributed over \$500 billion to the Australian economy (Minerals council of Australia, 2008). Since 1967 the mining industry has been responsible for the building of 26 towns, 12 ports, 25 airfields and more than 2000 kilometres of railway line (Minerals Council of Australia, 2008). The mining industry is also largely responsible for the maintaining the viability of Australia's regional and remote population as towns, railways and ports were built to serve the mines and smelters (McKay et al, 2001). The Australian mining sector has been dominated by the private sector (McKay et al, 2001). The association of the government with the mining industry has been quite simple. This can be elaborated

as the State governments granted the mining leases along with infrastructure conditions, collected royalties and ensured the mining laws were followed by the industry while the Federal government collected those taxes it was entitled too (McKay et al, 2001).

In 1851 the discovery of alluvial gold near Bathurst in New South Wales and the rich Victorian fields gave the momentum to the mining sector (McKay et al, 2001). This invariably led to more search and discovery through the rest of Australia. The generation of wealth from the early mine discoveries was responsible for the shift from the agricultural and pastoral economy to a largely mining based economy (McKay et al, 2001). In the late 1870 and early 1880s tin mining had also begun and Australia became a major world source of tin (McKay et al, 2001). The late 1940s witnessed a surge in the discovery of minerals. This was mainly attributed to the increased knowledge of the geology of Australia from the geophysical and geological surveys of the continent (McKay et al, 2001). The period from the 1950s to the 1970s saw the emergence of world class mining industry in Australia (McKay et al, 2001). A series of base metals were discovered and the Australian petroleum industry was established (McKay et al, 2001). By the late 1960s major uranium deposits were discovered. In the 1950s and 1960s the general expansion of the world economy led to an increase in the demand for minerals (McKay et al, 2001). The mining industry in Australia was capable in meeting the demand.

In the 1970s the mining industry was faced with issues of environmental protection and land rights (McKay et al, 2001). In the earlier years the Aboriginal people had no title to the lands on which they lived for several years. But in 1992 the decision by the Australian High Court changed the notion of land ownership in Australia completely (Stephenson, 2002). The Australian High Court ruled that native title is recognised by the common law and that indigenous inhabitants do have rights to their traditional lands (Stephenson, 2002). Resource based companies like mining companies had to obtain the consent from Aboriginal owners before they could explore or mine the lands (McKay et al, 2001). Due to the significance of the land to the Aboriginal people and its influence on their cultural and traditional way of life, mining companies were now involved in long negotiations with the owners adding up their costs (McKay et al, 2001).

In the late 1970s the growth of the mining industry in Australia declined due to increased competition from other mining companies in the world and declining mineral prices (McKay et al, 2001). The 1980s was a period significantly influenced by the rising public concern for the quality of the environment from mining operations (McKay et al, 2001). The governments increased its control in the mining sector over the emission of pollutants and noxious gases (McKay et al, 2001). Mining companies were required to revegetate and rehabilitate mined out areas so that the sites could be used for different purposes (McKay et al, 2001).

From the onset of the 1990s the mining industry faced increased environmental and social concerns (McKay et al, 2001). Considerable focus was directed towards improving safety and efficiency at operational sites. Today the Australian mining sector is of a global outlook with a diverse range of activities including mining, exploration, processing activities and the supply of other services (McKay et al, 2001). Some of the challenges facing the Australian mining sector are conducting its operations in an environmentally responsible manner and increased stakeholder engagement.

4.3 A case study : The Ranger Uranium Mine

In many cases mining operations exist alongside indigenous people (Jenkins, 2004). The mining companies thus attempt to balance the imperative for environmental protection, diverse demands of the community on whose land they operate and their need to be profitable (Jenkins, 2004). The concept of corporate social responsibility can be used as a framework by which mining companies frame their relationships, attitudes, strategies towards their shareholders - comprising of investors, employees and communities in which they operate (Jenkins, 2004).

The case of Ranger Uranium mine is worth mentioning as it indicates the complex social and environmental situations mining companies are faced with. Australia is the second largest uranium mining exporting country after Canada (Green, 2006). The Ranger Uranium Mine is operated by Energy Resources of Australia (ERA) with a majority of it owned by the mining company Rio Tinto (Green, 2006). Operations at

the Ranger Mine which lies within the borders of the Kakadu National Park in the Northern Territory of Australia began in 1981 amongst opposition (Jenkins, 2004). The local aboriginal people- 'the Mirrar' opposed the mining operations in order to protect their sacred sites and were concerned about the environmental impacts of the mine (Jenkins, 2004). Environmental groups argued that the mine would have severe environmental impacts on the Kakadu National Park which is listed as a heritage site (Jenkins, 2004).

Despite opposition the ERA announced in 2005 that it would continue milling of ore at the mining site by reducing the grade classification it will process (Green, 2006). In this regard the company expects that the life of the Ranger mine could be extended until 2020 (Green, 2006). The company also pinned their hopes expecting that during the extended life span of the Ranger mine the opposition of the Mirrar people to developing a second mine and milling plant at Jabiluka will be dropped (Green, 2006).

In July 1999 the UNESCO Heritage Committee responded to the pleas from the Aboriginal leaders and environmental groups to list the Kakadu National Park in danger due to the development of the Jabiluka uranium mine (Schulman, 2000). The Committee decided in favour of the Australian government emphasising that it was their responsibility to regulate actions of private companies in order to protect the World Heritage Values at Kakadu (Schulman, 2000). Thus the Mirrar people managed to successfully end mining at Jabiluka. Moreover the issues surrounding uranium mining still remains to be highly controversial and political in nature with debates around the sustainable use and development of this resource.

Thus the mining industry is faced with pressures of corporate, social and environmental responsibility and increased stakeholder accountability (Jenkins, 2004). By learning more about the community in which they operate, involving community representatives in decision making and forming strong relationships with the community mining companies must operate and respond to the challenges being faced.

4.4 Representation of the Mining Industry :

The Minerals Council of Australia (MCA) represents Australia's exploration, mining and minerals processing industries at the national and international levels (Minerals Council of Australia, 2008). The strategic objective of the MCA is "to advocate public policy and operational practice for a world class industry that is safe, profitable, innovative, environmentally and socially responsible, attuned to community needs and expectations" (Minerals Council of Australia, 2008:np). One of the aims of the MCA is to contribute to the sustained growth of current and future generations by integrating socially responsible development and effective environmental management (Minerals Council of Australia, 2008).

Furthermore the MCA also states that the mining industry has immense economic significance to the Australian economy as it is in the top five producers of the world's mineral commodities (Minerals Council of Australia, 2008). This industry is also significant as it provides employment opportunities even to those who reside in remote, sparsely populated and regional parts of Australia. The MCA also provides nearly 60 to 70% of mining software worldwide (McKay et al, 2001). Thus it can be inferred that from the very beginning onwards the mining industry has had a considerable impact in shaping the Australian economy.

Chapter 5

BHP Billiton: A Case Study

5.1 Introduction :

This chapter analyses the approach taken towards sustainable development and corporate social responsibility by one of Australia's leading mining companies BHP Billiton. The means by which the company understands and acts on its social, economic and environmental responsibilities is described. The chapter concludes by assessing the practical progress BHP Billiton has made towards the goal of sustainable development.

5.2 About BHP Billiton :

BHP Billiton was selected as the focus for a detailed textual analysis of the approaches taken towards corporate social responsibility and sustainable development in the Australian mining sector as it is one of the largest and leading mining companies operating in Australia. This analysis involved examination of the publically available BHP Billiton Annual Reports from 2001 to 2008. The research technique of textual analysis is described by Denzin et al (2003:156) as "written texts provide a truer indication of original meanings than do other types of evidence". Thus, it is on the basis of the textual information provided from the publically available Annual Reports that I have explained BHP Billiton's approach towards sustainable development.

BHP Billiton was formed on 29th June 2001 following the shareholder and government approval of the Dual Listed Companies (DLC) merger between BHP Limited and Billiton Private Limited Corporation (HSEC, 2001). In 2002, the chairman of BHP Billiton, Don Argus (2002:1), stated that, "the creation of BHP Billiton, for example, reflects the globalisation process. The economic growth which globalisation has fuelled confers benefits which all can share. This is part if you like

of securing business's long term license to operate." This accords with my claim, in Chapter 2, that globalisation has the potential for more opportunities to facilitate trade and encourage foreign investments between nations.

5.3 The Guiding Approach :

BHP Billiton's vision of sustainable development is "to be the company of choice - creating sustainable value for shareholders, employees, contractors, suppliers, customers, business partners and host communities. Central to the vision is the aspirational goal of Zero Harm to people, our host communities and the environment." (HSEC, 2006:56). In the first consolidated Annual Report of BHP Billiton, published in 2002, it is mentioned that the underlying basis for the company's approach towards sustainable development is its charter. The charter values "an overriding commitment to health, safety, environmental responsibility and sustainable development" (HSEC, 2002:1).

BHP Billiton's Charter is supported by an integrated HSEC (Health, Safety, Environment and Community) policy which outlines the principles towards attaining the goal of Zero Harm. Both the Charter and the policy are put into practice through the HSEC Management Standards which must be complied with at all BHP Billiton operations (HSEC, 2002). The company's policy on sustainable development sets the foundation for the management systems and forms the basis for the company's operations (HSEC, 2006). The policy aligns itself with international conventions such as the UN Universal Declaration of Human Rights and also recognises that in cases where governments implement international conventions like the International Labour Organisation BHP Billiton will comply (HSEC, 2006). Furthermore, the HSEC management standards manage all the aspects related to the life cycle of an operation starting from the exploration of the site, development of the project, decommissioning, closure of the site and its rehabilitation (HSEC, 2008). At every level of BHP Billiton line managers bear the responsibility for all HSEC matters (HSEC, 2002). The line managers in the corporate groups, customer sector groups and operational levels are supported by specialist personnel who advise and support them in all HSEC matters (HSEC, 2002). In total, there are 21 HSEC Management

Standards which each include a set of clear performance requirements. These HSEC standards are reviewed annually by the peak functional group, the HSEC Forum and if required are modified (HSEC, 2002). A diagrammatic representation of the systems in place is as shown in Figure 2 :

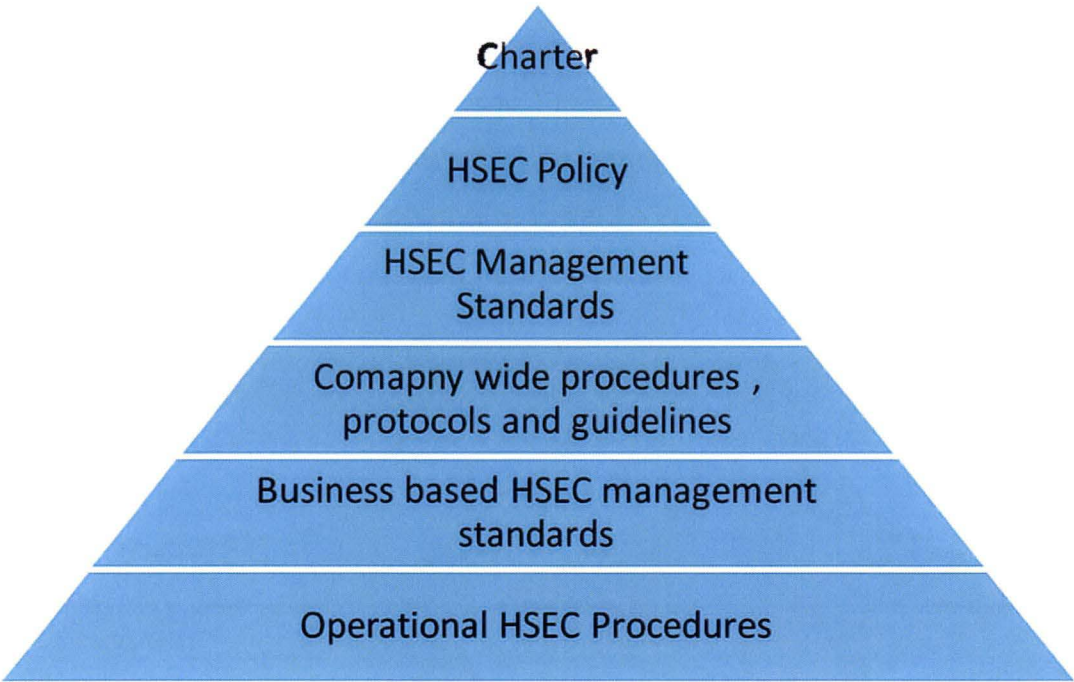


Figure 2: Hierarchy of Systems, HSEC, 2002:10

5.3.1 Strategy towards Sustainable Development :

BHP Billiton’s strategy for making the transition towards sustainable development is comprised of two dimensions - the business dimension and the sustainability dimension (HSEC, 2008). According to the company, both these dimensions play a part in assessing the bottom line performance of the company. The business dimension represents the main contributors towards a profitable business. Also mentioned in this dimension is that without a profitable business BHP Billiton is unable to contribute towards the broader goals of sustainability (HSEC, 2008). The bottom line performance of the company is dependent on the access to resources as well as gaining and maintaining the license to grow and operate (HSEC, 2008). The sustainability dimension represents the company’s aspirations towards the goal of

zero harm to the people, host communities and the environment (HSEC, 2008). Also included in the sustainable dimension is “risk management processes are in place to ensure a precautionary approach is taken to achieving business outcomes, recognising the need to be socially responsible and contribute to sustainable community development and ensuring broader economic contributions in the regions we operate” (HSEC, 2008:14).

For BHP Billiton, these two strategic dimensions combine to form a naturally stable structure such as that of a diamond (see Figure 3). The strength of each dimension adds towards a stronger and more valuable structure which can be summed up as the symbolic approach of the company towards sustainable development (HSEC, 2007).

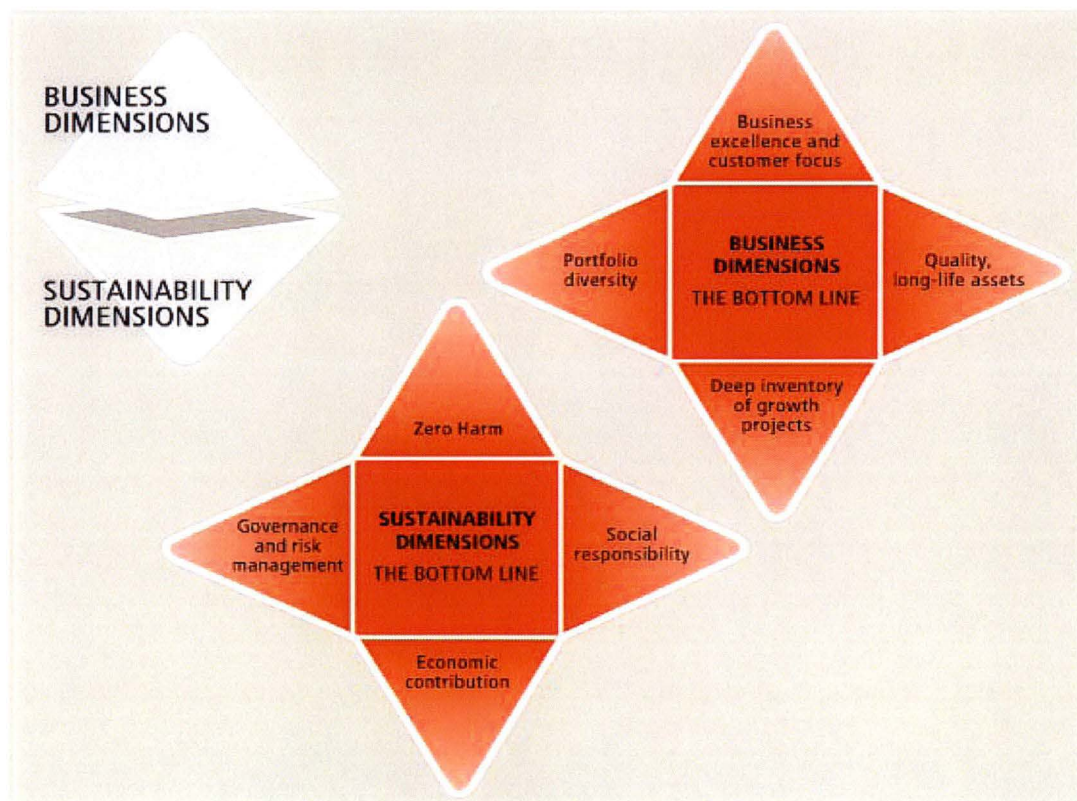


Figure 3: Symbolic approach to sustainable development, HSEC, 2007:41

In BHP Billiton a contextual framework for measuring the progress towards sustainable development was introduced in 2005 in the form of a Sustainable Development Road Map (HSEC, 2005). The Sustainable Development Road Map

provides three main contexts for consideration which influences the contribution towards sustainable development (HSEC, 2006). First, at the operational level, managers are encouraged to look out for leading practices across all HSEC dimensions (HSEC, 2006). Second, at a strategic level, management teams are encouraged to identify those opportunities which can lead to sustainable value creation (HSEC, 2006). Third, at the commodity level, all business operations are encouraged to demonstrate stewardship in the form of building partnerships across product life cycles to deliver broader business and societal returns (HSEC, 2006). Furthermore, the company's progress towards sustainable development is dependent on operational areas highly relevant to stakeholders and business (HSEC, 2006). This approach towards sustainable development also identifies that there may not always be the need for all operations to excel in all aspects of sustainability (HSEC, 2006). However, each stage is distinct in maturity and the requirements of the previous stage must be maintained and built upon to progress in maturity (HSEC, 2006:58). This approach is taken as it leads to a strategic alignment of opportunities (HSEC, 2006). An example to illustrate this would be the case of the 'Alumar Waste Recycling Project'.

The Alumar aluminium project is a waste recycling project conducted in Sao Luis, Maranhao, Brazil. In October 2005 this project led the coal fines from the refinery boilers to be used as a substitute for the coke burned in the kilns at the cement plant of the region (HSEC, 2006). This reuse project has produced a feasible method for using coal fines in cement producing kilns thus producing significant environmental and socio-economic benefits such as reducing the storage of large amounts of coal fines at the plant, developing a highly efficient recycling technology at lower costs and increasing awareness of the actions for leadership in environmental management (HSEC, 2006:375). Thus, it can be concluded that mining companies like BHP Billiton are putting sustainable development in action at their sites and the extent of implementation varies within operations (Guerin, 2006).

5.3.2 Stakeholder Engagement :

In BHP Billiton, the approach taken towards stakeholder engagement is as per the HSEC Management Standard 7 (HSEC, 2008). The main intention of the standard is “effective, transparent and open communication and consultation is maintained with stakeholders associated with company activities. Stakeholders are encouraged to participate and contribute to sustainable development through HSEC performance improvement initiatives” (HSEC, 2008: 31). BHP Billiton identifies its stakeholders as the investment community, business partners, community organisations, unions, non-government organisations, suppliers, governments, media and industry associations.

In 2001, the year BHP Billiton was formed, a forum on corporate social responsibility was also formed (HSEC, 2002). In this forum, which is a part of BHP Billiton, members include representatives of senior management, leaders representing key nongovernmental organisations and the community (HSEC, 2002). Through this forum the members are provided with an opportunity to advice or challenge the views of the senior management on sustainable development and corporate social responsibility issues (HSEC 2002). This forum also provides an opportunity for dialogue with the interests and concerns of the wider community. In 2008 the top five challenges identified by the forum, which impacted all the operations in all locations, comprised of eliminating fatal risks, occupational and community health, greenhouse gas emissions, access to and management of resources, sustainable community development and closure of operations (HSEC, 2008). Each of these challenges is complex in the sense they are interlinked with each other (HSEC, 2007). The two factors taken into account while reviewing these challenges are external and internal factors (HSEC, 2007). The external factors mainly include “the concerns raised by stakeholders; challenges within the sector reported by peers, competitors and key industry forums; relevant laws, regulations and international agreements and anticipated sustainability impacts, risks or opportunities identified by BHP Billiton people in partnership with independent recognised experts” (HSEC, 2007:47). The internal factors affecting the challenges are “the board governance document, company charter, strategic framework, sustainable development policy, HSEC management standards and HSEC performance targets; the interests and

expectations of our people; key risk factors; and the core competencies and structure of the organisation” (HSEC, 2007:47).

5.3.3 Collaborations in BHP Billiton :

At an industrial level BHP Billiton has had many partnerships from its onset. The company has been an active member of the Global Mining Initiative (GMI). The GMI which was formed in 1998, when ten of the largest mining companies in the world joined forces to gain a better understanding of the mining industry’s role and responsibilities in the transition to sustainable development (HSEC, 2002:11). Apart from this, BHP Billiton also collaborates with governments, non-government organizations and academic institutions worldwide to support research and development on improving HSEC performance (HSEC, 2002). An example of this form of collaboration is the work undertaken on a malaria control program with the governments of Mozambique, South Africa and Swaziland in collaboration with the World Health Organization (HSEC, 2002). The Mozal aluminium smelter owned by BHP Billiton in southern Mozambique is situated in an area where malaria has been a cause of death and illness (HSEC, 2002). A malaria control program was developed under the Lebombo Spatial Development Initiative which was introduced by the three governments to enhance social conditions and economic competitiveness in the region (HSEC, 2002). An insecticide spraying program was seen as the best possible solution to control the malaria problem. In 2000 this program was coordinated and implemented by the Regional Malaria Control Council (RMCC) (HSEC, 2002). BHP Billiton funded an extension of this program through the Mozal Community Development Trust to include a 10 kilometre control zone around the Mozal smelter (HSEC, 2002). In 2001 RMCC carried out spraying of more than 24,000 structures including the area around the Mozal zone (HSEC, 2002). Surveys conducted after this program has indicated that the prevalence of the parasite in children in the control zone has reduced by forty percent (HSEC, 2002). Cases of malaria among Mozal employees have fallen by more than fifty percent, more than eighty percent of cases reported have been mild and no employee deaths have been reported (HSEC, 2002). This spraying program has been conducted in conjunction

with other community initiatives like upgrading local health facilities and community education activities (HSEC, 2002).

5.3.4 Environmental Management Standards :

In BHP Billiton, environmental management standards were introduced in 1999 (HSEC, 2001). There were 20 management standards comprising of generic management activities such as planning and objectives, management of change, reviews, audits and inspections and eight guidelines which covered aspects of the environmental issues of significance to the company such as energy, natural and cultural heritage, wastes, emissions and hazardous materials (HSEC, 2001). These internal standards were set by the company on the basis of consistency with the requirements of externally recognised standards such as the ISO14001 and the Australian Minerals Industry Code for environmental management (HSEC, 2001). In 1996, the Minerals Council of Australia launched the Code for Environmental Management in which BHP Billiton was a signatory (HSEC, 2001). This Code was a significant step for the mining and minerals industry to address their environmental performance and public accountability (HSEC, 2001).

A comparison of the environmental management standards adopted by BHP Billiton in the Annual Report of 2001 and 2008 shows progressive change. The Annual Report of 2001 states that “BHP Billiton Limited has been working towards a target of obtaining ISO14001 certification at all of its major assets. Consistent with this aim, by June 2001 four sites had their environmental management systems certified against ISO14001” (HSEC, 2001:31). The 2008 Annual Report states that “our operational sites are required to have an environmental management system certified to ISO 14001” (HSEC, 2008:93). Thus, it can be concluded that from a ‘point of working towards’ setting environmental standards the company has reached a point where environmental standards are embedded within all the operational activities. So from the start, the company has been involved in putting actions into practice.

5.3.5 Sustainability Reporting in BHP Billiton :

In Chapter 2 I have stressed that sustainability reporting is very significant as it raises the standards of corporate accountability. For BHP Billiton, sustainability reporting is an embedded part of their sustainable development policy which is implemented via the HSEC Management Standards and Protocols. Sustainability reporting is undertaken as a demonstration of accountability and transparency, which is an important element for effective stakeholder engagement and as a management tool that provides a collation of performance data as well as a statement which indicates key issues and management approaches used by the company (HSEC, 2006). There is also an auditing process set in place by the HSEC Management Standards which ensures that the company's charter, HSEC policy and standards are being applied and which verifies the company's performance (HSEC, 2002). The sustainability reports are produced under the guidance of the Global Reporting Initiative (GRI) (HSEC, 2006). The topics and indicators covered by the reporting reflect BHP Billiton's economic, environmental and social impacts that would influence the assessments and decisions of stakeholders (HSEC, 2006). Both external and internal factors influence the nature of sustainability reporting in the company. The key external factors which influences the areas covered in sustainability reporting are mainly the sustainability concerns raised by stakeholders through the annual dialogue process and community consultation process (HSEC, 2006). The internal factors influencing the material topics reported are the company charter, expectations of stakeholders and challenges being faced to name a few (HSEC, 2006). The reporting also states the positive and negative aspects of the company's performance (HSEC, 2006). The positive aspects include external recognition and community programs while negative aspects mainly include fatalities directly related to the company's operations. These are usually presented in the HSEC Target Scorecard of the company in their Annual Sustainability Report (HSEC, 2006). The target scorecards in the Annual Report indicate the performance of the company in that year against set targets. Moreover, the company also attempts to ensure that their sustainability reporting is accurate in the information that is provided, clearly communicated and produced annually on a financial year basis (HSEC, 2007).

5.3.6 Training and Employment Opportunities :

BHP Billiton has in place targets for indigenous employment and these are reported annually in the target scorecards (HSEC, 2002). There are also training and employment opportunities provided to the indigenous people at different operational sites. For instance in 2002, in the Ekati Diamond Mine, six hundred and ninety nine indigenous Northern Aboriginal people were employed (HSEC, 2002). The company also provided financial support for Aboriginal students through scholarship programs set up under the Impacts and Benefits Agreement (HSEC, 2002).

Moreover, the company also provides opportunities for graduates in a two year structured graduate development program (HSEC, 2008). This program is designed to provide the graduates with the skills and experience needed to be a part of the professional industry (HSEC, 2008). Since 2004 the 'Professional Graduate Recruitment Program' operating in Australia recruits graduates from a wide range of disciplines (HSEC, 2008). From 2006 an International Graduate Recruitment Program was introduced which seeks graduates from countries where BHP Billiton operates and help to develop them so that they can be a part of the global operations (HSEC, 2008).

On the issue of gender diversity in the workplace, the first consolidated annual report of BHP Billiton mentioned that there was under representation of women in their senior management roles. The actual figures were not reported. However, the 2008 annual report mentions that seventeen percent of full time employees at the operation sites and offices were women (HSEC, 2008). This is slightly more than that reported in 2007. Twelve percent of the senior management roles were held by women and this was four percent more than reported in 2007 (HSEC, 2008). This indicates that more women are being employed and given the opportunities within the company

5.4 Analysis of the Annual Reports :

From the Annual Reports reviewed I have selected four prevalent themes to discuss and interpret as they are significant in bringing about change towards sustainable development. The other underlying themes in the Annual Reports are beyond the scope of this study. Each theme is identified and discussed under a separate heading.

5.4.1 Health :

For BHP Billiton, a predominantly identified theme in most of their Annual Reports is that of health. In the 2008 Annual Report, the message from the Chief Executive Officer (CEO) emphasized that “serious health problems, such as malaria and HIV/AIDS, remain in some of our host countries and we are working to find the most effective way to help address them. Nor do we take the health and well-being of our people for granted. Current health priorities include reduction of a range of workplace exposures, promotion of consistent use of personal protective equipment, fatigue management and maintenance or improvement of the general health and fitness of our people” (HSEC, 2008:2). The Annual Report further goes on to explain that BHP Billiton takes a proactive approach towards managing HIV within their operations in South Africa and Mozambique where the incidence of HIV is the highest (HSEC, 2008). The steps taken by the company in these nations include conducting educational programs, voluntary testing programs, offering confidential counselling and ensuring there is access to medical care to employees and their families (HSEC, 2008). Moreover, twelve global mining companies led by BHP Billiton have financially provided US\$ 2 million for the clinical testing of the vaccine VIR201 (HSEC, 2008). This vaccine trial was supported by the South African Medicines Control Council while collaborating with the data generated from previous trials conducted in Australia. This vaccine provides hope for managing the problems of AIDS in the developing nations (HSEC, 2008). This clearly indicates that the corporate sector with its access to technology, capital and management can, thus, influence the social and economic development of societies. Chapter 2 stated that the social dimension of Corporate Social Responsibility is the relationship between

business and society (Dahlsrud, 2008). Mining companies like BHP Billiton improves this relationship by engaging their commitment towards the health and well being of its employees and their dependants.

In the earlier Annual Reports, the message from the CEO shows a commitment towards the well being of the host communities of BHP Billiton's operations. The CEO remarks, "our commitment to spending one per cent of pre-tax profits (on a rolling three-year average) on voluntary community programs remains, which ensures that our host communities continue to share in our success – both in the short and long term. Examples include our efforts to support the management of major infectious diseases, such as HIV/AIDs and malaria" (HSEC, 2006:2).

In 2006, the company adopted a Healthy Life style Program at its Central Queensland operations among its many other initiatives with the aim of reducing life style related and preventable diseases among its employees (HSEC, 2006). Nine of the recognised Australian health risk factors combined with other health related issues was used to create a health status and awareness tool called Health Passport. The data obtained is indicated in Figure 4. The Health Passport is an employee's personal health status record which is assessed annually (HSEC, 2006). The company intends to use the data obtained from the Health Passport to target health issues and plan health promotion activities (HSEC, 2006).

These two examples on the health initiatives taken by the company provide evidence from which I conclude that mining companies like BHP Billiton have taken on the responsibility of promoting an environment that contributes to the health and fitness of their employees and their dependants as well as the host communities on a wider scale. Moreover, the company also acknowledges that at the broader level, considerations should be given to addressing community health issues of global significance and BHP Billiton extends its assistance in supporting programs that extend beyond the communities in which operations exist (HSEC, 2004).

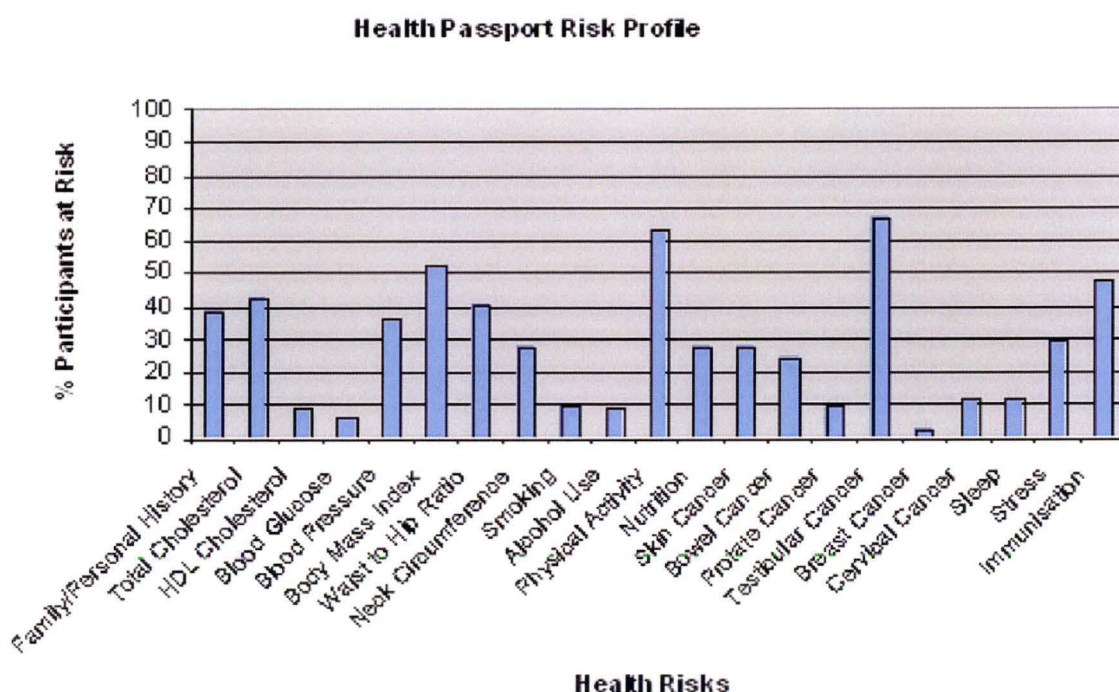


Figure 4: Data obtained from Health Passport, HSEC, 2006:237

5.4.2 Safety :

A predominantly recurring theme in all the Annual Reports is the issue of safety at work. While the company's goal is Zero harm the efforts towards eliminating all fatalities at operational sites have not always been the case. The graph in Figure 5 depicts the fatalities which occurred at BHP Billiton's controlled operations.

In the 2004 Annual Report, the message from the CEO states, "while we recently announced a record profit that has been recognised by the financial market and reflected in our share price, it saddens me to report that in terms of one of our key measures of success, that of zero fatalities, we have failed. Seventeen of our work colleagues have lost their lives during this fiscal year" (HSEC, 2004:5). In 2008, the CEO launched the 'Safety Week' with the key intention to urge employees and contractors of BHP Billiton to understand the consequences of safety failures (HSEC, 2008). The company also intends to make the Safety Week a part of its annual calendar of events in the coming years (HSEC, 2008).

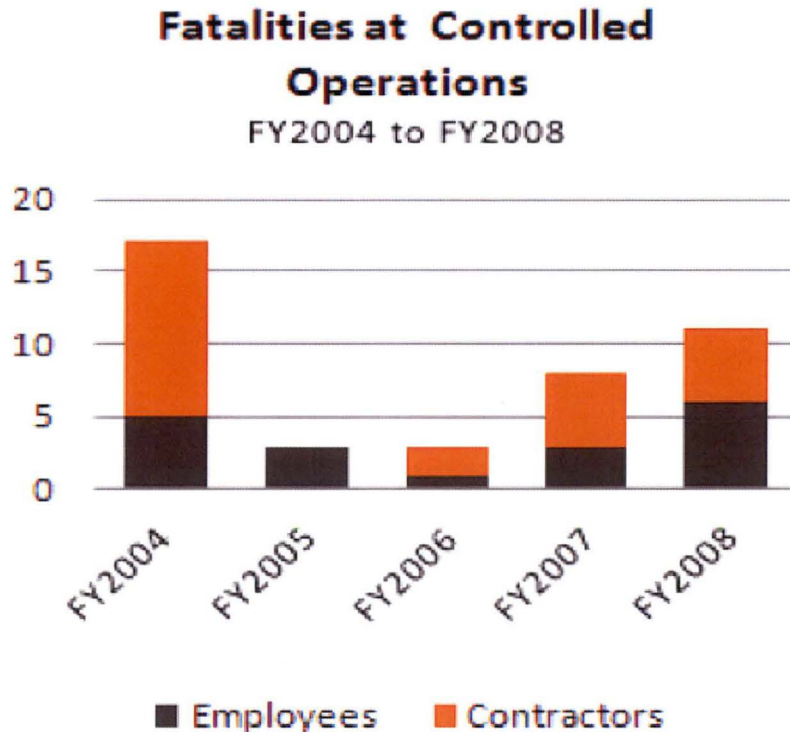


Figure 5: Fatalities from 2004 to 2008, HSEC, 2008:80

Incidents occurring at operational sites in BHP Billiton are investigated using the Incident Cause and Analysis Methodology (HSEC, 2004). The lessons learnt from these incidents are shared throughout the organisation through publicized reports (HSEC, 2004). Within the company the HSEC Consequence Severity Table is the main tool which is utilised to determine the level of significance of actual or potential incidents (HSEC, 2004). Based on the company's past fatalities and incidents reported, the Fatal Risk Control Protocols were established in 2003 and further revised in 2005 (HSEC, 2006). These protocols were developed by experienced personnel's from different operations at BHP Billiton with the main intention of establishing "minimum performance expectations for managing these risk areas at leading practice levels" (HSEC, 2006:259). These protocols do not cover all the risks faced by all the operations of BHP Billiton. The HSEC Management Standards is the management framework for other risks involved in the company (HSEC, 2006). BHP Billiton's approach to safety also involves the use of leading and lagging indicators. This indicator is used "to drive and measure activities carried out to prevent and control injury, damage or loss" (HSEC, 2006:261). Some examples of leading

indicators are implementation of fatal risk control protocols and percentage of incidents reported (HSEC, 2006). Lagging indicators provide an estimate of the progress towards the goal of zero harm (HSEC, 2008). An example of a lagging indicator is injury statistics.

The following case study indicates the initiative taken by the company to increase safety at work places. In Western Australia, BHP Billiton's Kalgoorlie Nickel Smelter produces granulated nickel matte from dry nickel-in concentrate (HSEC, 2008). The production of granulating nickel matte involves the use of cranes to move pots containing tonnes of molten metal (HSEC, 2008). These pots of molten metal are craned to a tilting station where the molten metal is poured through jets of water (HSEC, 2008). While pouring the molten metal through water and cooling there is a high possibility of a breakable crust being formed (HSEC, 2008). This can cause an explosion of steam which can result in severe injuries to the operators and damages to the operational site (HSEC, 2008). In the present time, remote control technology is used at the Kalgoorlie Nickel Smelter and no personnel are employed near the tilting station (HSEC, 2008). This significantly reduces the dangers involved in this operation. Other Australian smelters are also seeking information on this project of BHP Billiton for similar utilisation.

Thus this case study indicates that steps are being taken by the company to increase the safety aspects at work. Although the company has taken steps to improve safety aspects, the graph indicate an increase in fatalities at controlled operations from 2006. However, reporting the exact fatality figures in the reports the company produces a clear picture for its employees, investors and shareholders by creating awareness of the risks being faced. Moreover, reporting this also indicates transparency in the operations and the decision making process of the company which is an essential component of sustainable reporting as mentioned in Chapter 2.

5.4.3 Environmental Incidents :

The mining industry is bound to have impacts on the environment and BHP Billiton is no exception to this aspect. The operations owned by BHP Billiton have the potential

to affect the environment in a variety of ways such as accidental discharges and spilling to the environment (HSEC, 2004). The severity of all environmental incidents and possible incidents is determined in BHP Billiton by using the HSEC Consequence Severity Table (HSEC, 2005).

Accidental discharges of hydrocarbons to land or water between the years 2003 to 2007 is depicted in Figure 6.

The reports mention that the company pays environmental fines or prosecution liabilities for severe incidents such as accidental discharges or spillages that have occurred at any of their operations. The reports also provide estimates of environmental spending by the company (HSEC, 2008). Funds are allocated for various categories of environmental spending such as site rehabilitation, environmental monitoring, environmental impact assessment and research and development (HSEC, 2008).

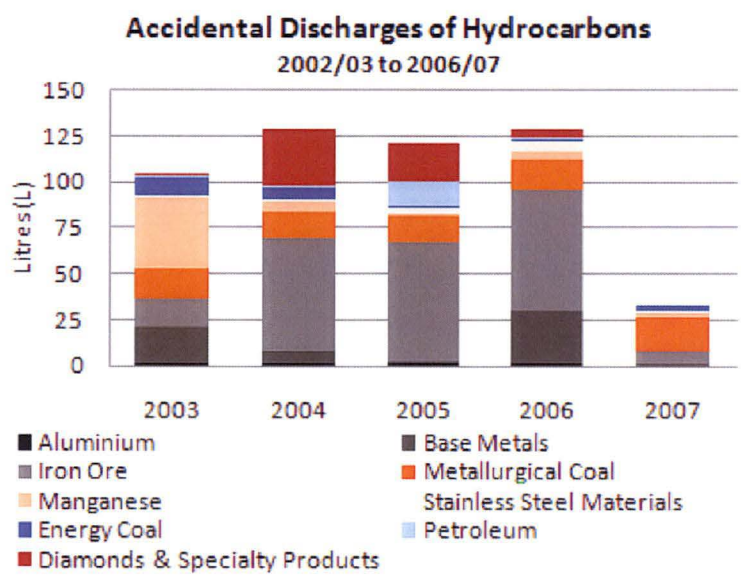


Figure 6: Accidental Discharges, HSEC, 2007:207

The following case study points out the immediate and effective response action of the company to environmental incidents caused due to their operations. In December 2005, an environmental incident occurred at the Tintaya copper mine owned by BHP Billiton in Peru. This incident cost the company an environmental fine

of US\$50,000 from the Ministry of Energy and Mines (HSCE, 2006). A decrease in the pH of a small creek, which is a tributary of the Tintaya River, was responsible for the death of fishes in the local trout farm connected with the creek (HSEC, 2006). This fish farm was used as a bioindicator of the water quality of the local waterways (HSEC, 2006). The decrease in pH arose due to increase in acidity from the drainage facilities of the plant which reached the rainwater diversion system. Erosion of the leached material due to heavy rainfall caused the material to reach the rainwater diversion system (HSEC, 2006).

As a response, a containment berm was constructed immediately to contain the runoff within the local creek (HSEC, 2006). Modifications were also made to the effluent and rain water drainage systems of the plant. In the following weeks, a review of the risk assessment and changes in management processes were also implemented in the plant (HSCE, 2006). After the corrective actions were taken, inspections were conducted by the Peruvian authorities and the water quality of the Tintaya River was found to be within the standards prescribed by the Peruvian water laws (HSEC, 2006).

Thus this incident shows that it is very much necessary for immediate detection and responsive actions to accidents in order to minimize their impacts on the environment. Monitoring areas for potential impacts and environmental improvements at operational sites helps to make mining companies more environmentally sound and responsible.

5.4.4 Community Relations :

For BHP Billiton, it is an imperative to maintain good relations with the community. The HSEC Management Standard 7 forms the basis to the communication, consultation and participation with the local communities (HSEC, 2002). From the Annual Reports, I gathered that the most commonly discussed issues in consultation with the communities were environment, health, safety, community support, employment and training opportunities. In BHP Billiton, all operational sites are required to have community complaint registers in order to track the management of

community concerns (HSEC, 2006). The majority of the community complaints reported are over noise, dust and odour (HSEC, 2008). Complaints are investigated by the company and then resolved in consultation with the community representatives (HSEC, 2006). Moreover, BHP Billiton supports community initiatives at their operational sites. The company also has a commitment to contribute one percent of pre-tax profits to share the benefits of success with the host communities. The reports state that, between the years 2005 to 2006, the contributions given by the company to community programs totalled to US\$81.3 million (HSEC, 2006).

To summarize, in my analysis to BHP Billiton a profitable business and sustainable development are mutually enforcing. Having a profitable business plays a major role in helping the company to tackle issues at their operations, provide training and employment opportunities and provide financial assistance host communities in certain cases. Mining companies like BHP Billiton are tackling issues and implementing practices which lead to sustainable development at their different operations. The company is also accountable for its working conditions and impact towards the environment and society where they operate. The reports also indicate transparency with regard to the progress and challenges being faced by the company. The goal of 'Zero Harm to people and the environment' and both proactive and reactive steps are being taken by the company to attain this goal. Dialogues with stakeholders are a vital part of the operations run by the company. Mining companies like BHP Billiton recognises responsibility and implements their environmental, social and economic responsibility and this paves the way towards sustainable development.

Chapter 6

Conclusion

6.1 Final Thoughts :

This study has reflected on the undertakings of business towards sustainable development and corporate social responsibility. The relationship between corporate social responsibility agendas and sustainable development in the mining sector has been explored specifically. In this study I have attempted to understand the endeavours of the mining sector with their access to technology, capital and management and the contributions they make in their pursuit towards sustainable development. To understand this better the study initially focussed on obtaining data from a questionnaire survey of Australian mining companies. But the low response rate to the questionnaire survey made me integrate a second approach into the study. This second approach took the form of a case study of BHP Billiton based on textual analysis of their Annual Reports.

A leading mining company like BHP Billiton in my opinion have set an example and demonstrated that they have a commitment towards sustainable development. The company's goal of Zero Harm to the people and environment is further developed through their HSEC policies and management standards. In this study the company's commitment is visible through the four prevalent themes - health, safety, environment and community. The accountability taken by the company, for instance in the case study indicating impacts on environment caused by their Tintaya copper mine operations, does indicate that the company shoulder's direct responsibilities for their operations. Wider issues such as climate change and green house gas emissions are beyond the scope of this study. From this study I also support the claim that in the real world, implementation of socially responsible and environmentally sound practices leads to sustainability practices. This is because of the initiatives and commitment taken by BHP Billiton to put sustainable development at their sites of operation. They also maintain their accountability to their employees,

public, stake holders and investors through their annual reports and also attempt to minimize impacts from their operations which vary from site to site.

6.2 Limitations :

Some of the limitations of this study are that the time constraint made it not possible to readminister the survey for a third time. Thus it was not possible to obtain the views of environmental personnel in the Australian mining sector on sustainable development, corporate social responsibility and related practices. The analysis conducted in this study was of Australia's largest diversified resource company- BHP Billiton. This analysis was conducted in isolation of other smaller mining companies. The approach towards sustainable development by smaller mining companies and those mining companies without big profit margins has not been investigated. Moreover it is not possible to generalise in any way that the policies and approach taken by BHP Billiton towards sustainable development is the same as other large and small mining companies.

6.3 Recommendations for Further Research :

This research has provided a base which can be further build for more research on the relationship of sustainable development, corporate social responsibility and related practices in other business sectors. Moreover there also exist the potential to investigate whether small and medium sized mining companies have a defined approach and implementation plan towards sustainable development.

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Appendix 1

Questionnaire

Statement of Informed Consent

In completing this questionnaire I acknowledge that I have read and understood the information provided.

I understand that:

- The questionnaire will take about 15 minutes.
- The survey investigates the understanding of corporate social responsibility, and related practices employed within Australian mining companies.
- I will be asked to provide limited information like my official title in the organisation, main responsibilities within the organisation and responses to my organisation's environmental management activities and strategies adopted.
- All the opinions I express in this questionnaire are confidential and taken to represent my personal views rather than any official views of my organisation.
- I will not be required to provide any personally identifying information and that the survey is anonymous.

I AGREE WITH THIS STATEMENT ☐

<i>Please note that returned questionnaires in which the 'I Agree With This Statement' box has not been 'ticked' will be destroyed without any data being recorded.</i>

Instructions:

- ***Please fill in the questionnaire with a blue or black pen.***
- ***When answering questions that require marking a box please use an “X”.***
- ***Please ensure the statement of informed consent is read and signed before filling out the questionnaire.***

START HERE 

Role within the organisation:

1. What is the title of your position and/or organisational unit in the organisation?

2. What are the three main responsibilities associated with your position?

Environmental Management within the organisation:

3. What environmental management activities is your organisation involved in?

4. Which of the following best describes your organisation’s strategy to managing environmental issues:

- ☐ Achieving compliance with environmental legislation and regulation
- ☐ Anticipating and exceeding compliance requirements
- ☐ Acting reactively to environmental legislation and regulation
- ☐ Acting proactively to claim competitive advantages in improved environmental performance
- ☐ Taking responsibility for being environmental leaders within society

5. Which of the following environmental management activities is undertaken by your organisation:

(Please tick all options that are applicable)

- | | |
|--|--|
| <input type="checkbox"/> Environment Management Systems | <input type="checkbox"/> Sustainability Reporting |
| <input type="checkbox"/> Partnerships with environmental NGO’s | <input type="checkbox"/> Partnerships with local community |
| <input type="checkbox"/> Life Cycle Analysis | <input type="checkbox"/> Other <i>(Briefly describe)</i> |

Views on Sustainable Development:

6. What do you think the term ‘Sustainable Development’ means?

To what extent do you agree or disagree with the following statements:

7. "The primary social responsibility of a business is to make a profit for its shareholders."

☐ ☐ ☐ ☐ ☐
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

8."Environmental Management is vital to increasing the economic competitiveness of businesses."

☐ ☐ ☐ ☐ ☐
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

9."My organisation has a responsibility to contribute to sustainable development."

☐ ☐ ☐ ☐ ☐
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

10."My organisation does its best to improve its environmental performance."

☐ ☐ ☐ ☐ ☐
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

11." Senior levels of management in my organisation are concerned with issues of environmental sustainability".

☐ ☐ ☐ ☐ ☐
Strongly Disagree Disagree Neither Agree nor Disagree Agree Strongly Agree

Corporate Social Responsibility within the organisation:

12. (i) Are you familiar with the term “CSR (Corporate Social Responsibility)”?

☐ Yes

☐ No **SKIP to 13**

→ (ii) (If yes) Briefly explain what you understand of the term Corporate Social Responsibility?

13. (i) Does your organisation have an official policy on Corporate Social Responsibility?

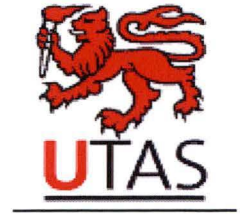
☐ Yes

☐ No

→ (ii) (If yes) How is Corporate Social Responsibility implemented by your organisation?

Appendix 2

Invitation Email



An invitation to participate in research:

Corporate Social Responsibility in the Australian Mining Industry

You are invited to participate in a national questionnaire which explores the understanding of corporate social responsibility (CSR) and related environmental management practices within mining companies in Australia.

This study is being conducted by Deepa Punnoose, a Masters student from the Department of Geography and Environmental Studies under the guidance of Dr Aidan Davison.

You have been chosen to participate in this study on the basis of your involvement in the environmental concerns within your organization. The questionnaire will take approximately 15 minutes. Information you provide in the questionnaire will offer valuable insight into CSR and sustainability in the Australian mining industry. The information you provide is completely confidential, anonymous and will be taken to represent your personal views rather than any official views of your organisation. The questionnaire does not require you to disclose the name of your employer organisation.

Participation in this study is voluntary. If you wish to participate in this study please reply by return email, providing a mailing address. You will then be mailed the questionnaire and a self-addressed stamped return envelope. Any record of your name and address for purposes of mailing the questionnaire will be destroyed at this point.

You will be required to indicate by 'ticking' a box on the questionnaire your informed consent in participating in this study.

I would be grateful if you could also circulate this invitation to any of your colleagues in the organisation who have any role in environmental management.

The research data collected will be kept securely on the premises of UTAS for five years after the completion of the study. There are no specific risks anticipated with your participation in this study. If you would like to discuss any aspect of this study please feel free to contact me at deepap@utas.edu.au or my supervisor, Dr Aidan Davison at Aidan.Davison@utas.edu.au or on (03) 62267590.

This study has been approved by the Tasmanian Social Science Human Research Ethics Committee. If you have concerns or complaints about the conduct of this study you should contact the Executive Officer of the HREC (Tasmania) Network on (03) 6226 7479 or email human.ethics@utas.edu.au. You will need to quote the H10678

Thank you for taking the time to consider this invitation.