



MINING CERTIFICATION EVALUATION PROJECT (MCEP)



Final Report– January 2006



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This research project aimed to evaluate whether independent, third-party certification of environmental and social performance could be applied to mine sites.

Project website: <http://www.minerals.csiro.au/certification>

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The project attracted the support and participation of a number of mining companies, other institutions and individuals who participated as members of the project's Working Group and/or supported the project's field trials.

Financial and in-kind support for the project was provided by Anglo American Plc, BHP Billiton Ltd, MPI Mines Ltd, Newmont Ltd, Placer Dome Ltd, Rio Tinto Ltd and WMC Resources Ltd.

The project also received significant in-kind support from all the organisations whose staff participated as members of the Working Group.

The project was managed by WWF-Australia on behalf of the Working Group.

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The two lists below show those who were members of the MCEP Working Group at some point in the life of the project, and those who contributed to Working Group discussions or provided written feedback on project outputs and directions. Their contributions are greatly appreciated.

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NOTE TO READERS

While members of the MCEP Working Group are drawn from companies and organisations engaged in or interested in the activities of the minerals industry, their participation has involved the input of their personal expertise rather than an agreed company or organisational perspective. As such, it should be noted that while this document has the broad support of the MCEP Working Group, it may not represent the views or policies of individuals or their organisations. It will not prevent members from making comments on behalf of their organisations that may be contrary to the views collectively presented by the Working Group.

While the MCEP has used the International Council on Mining & Metals (ICMM) Sustainable Development Framework, the MCEP is independent of the ICMM.

EXECUTIVE SUMMARY

PROJECT SCOPE

The Mining Certification Evaluation Project (MCEP) has been a three year research project to investigate the feasibility of third party certification of environmental and social performance of mine sites. As a research activity, it has not attempted to create a working certification scheme, but to establish a knowledge platform for broader international debate and future effort.

In the early 1990s, WWF-Australia developed a proposal for the project and sought support and participation from a range of Australian-based organisations with an interest in the environmental and social performance of mines. The project began in 2002 with WWF-Australia responsible for the overall management of the project and an MCEP Working Group formed to direct and contribute to the work program.

The credibility and effectiveness of certification schemes in other sectors appear to hinge on three main issues: setting standards, assessment and assurance, and governance. These issues were used to frame the three main research questions for MCEP:

1. **Governance:** What are the key governance issues for a certification scheme in the mining sector?
2. **Setting Standards:** Can principles and criteria for acceptable social and environmental performance by mine sites be developed that have broad agreement from the Working Group and meet stakeholder expectations?
3. **Assessment and Assurance:** Can an audit protocol be:
 - designed and implemented to test the performance of mine sites against these criteria, in a manner that is practical and cost-effective?
 - utilised in a variety of ecological, socio-economic and cultural settings, both within Australia and internationally?

A summary of the MCEP's approach, key findings and implications of each of these research questions follows.

GOVERNANCE

The mining sector attracts a wide range of government regulation and is also active in the development and implementation of voluntary private initiatives. A review of mining sector private initiatives indicates a rapid growth in the number of initiatives since the early 1990s involving the industry, NGOs and global institutions. More recently there has been a trend towards convergence and co-operation between initiatives. Industry concern for reputation

and maintaining a social licence to operate appear to be significant drivers and a number of sectoral initiatives are working towards processes for independent verification. In this context, there appears to be scope for a scheme for third-party certification of mine sites.

An evaluation of existing certification schemes in other sectors has highlighted that the fundamental governance issues for any nascent scheme will include:

- Structure and procedure: multi-stakeholder involvement; participation in the scheme; decision making; and financial structure;
- Standards and assessment: scheme's requirements; continuous improvement; review processes; selection and accreditation of certifiers; and combined audits;
- Certificates: communication; and chain of custody;
- Dispute resolution: appeals process; sanctions for non-compliance; and sanctions for improper certification;
- Legal issues: transparency; legal liability; and jurisdiction.

Appropriate governance arrangements in these key areas will be essential for maximising the benefits and integrity of a third party certification scheme. In particular, establishing a funding structure for governance of a scheme will be essential for success.

SETTING STANDARDS

The Working Group used the International Council on Mining and Metals (ICMM) Sustainable Development Framework as an organising structure for the development of MCEP Principles and Criteria. In developing the MCEP Criteria, the Working Group found that in certain areas, minimum levels of performance could be clearly defined. In many areas, however, the issues were deemed to be more contextual. As a result, the Criteria as a whole represent an amalgam of normative and performance standards, process guidelines and management systems.

In a general sense, the Working Group reached sufficient agreement to publish Working Paper 1 on the Principles and Criteria for public comment. Both the Working Group process and the public comment received indicated that consensus is achievable in most areas, but that a few issues are likely to prove more difficult. These include any preclusion of particular technologies, such as riverine tailings disposal, references to Indigenous people, and the complex issue of 'free, prior and informed consent'. Also, the issue of whether globally applicable standards allow sufficient flexibility for local context and implementation is still open. Most, if not all, members of the Working Group saw considerable room for improvement in the Criteria, even if agreement on directions for change could not be easily reached.

Overall, the MCEP exercise has highlighted a range of opportunities for clarification, improvement or perhaps new directions in standards setting.

ASSESSMENT AND ASSURANCE

A final consideration for examining the feasibility of a mine site certification scheme was to examine processes for assessment and assurance. The MCEP framed this area in terms of the development of an audit protocol and process, to be tested at a number of mine sites. Six field trials were conducted as part of the MCEP research: four in Australia, one in New Zealand and one in Brazil. The field trials were designed to evaluate the audit process, not the mine sites *per se*.

The field trials indicated that, on the whole, an assessment process based on the MCEP that is practical, cost-effective, and can be used in a variety of mine site settings, should be achievable. Each field trial highlighted areas for improvement in the assessment process and pointed to issues that would require further consideration in the creation of a mine site certification scheme. These include balancing the degree of assurance against excessive time on site, weighing up the advantages and disadvantages of a scoring system, and establishing the relative superiority of a global standard or a regional/site standard. The integration of a wide range of issues in one assessment and the emphasis on outcomes, performance, stakeholder engagement and employees was found to be a valuable departure from existing mine site assessments, and one which may require new skills and approaches for auditing teams. The potential value of certification as a reputation benefit was understood by participating mine sites, but interest lay more in practical outcomes for the site itself, such as guidance for improving performance or rationalising existing initiatives.

Overall, the MCEP trials attested to the difficult balance between a standard that can be universally applied and is adaptable to diverse operating circumstances, but that still offers sufficient detail and robustness to serve an assurance function.

IMPLICATION OF KEY FINDINGS

In summary, the implications and strategic tasks for the development of a future mine site certification scheme include:

- Integrating a wider variety of international perspectives in any future process;
- Attracting broadly based support and/or membership for a scheme;
- Establishing a viable funding structure for the governance of a scheme;
- Ensuring compatibility with complementary private initiatives;
- Investigating further the feasibility of globally applicable standards, as opposed to regional or local standards;
- Undertaking more work in areas such as free, prior and informed consent, Indigenous people, any limitations on particular technologies or practices, and the level of prescription in some criteria, particularly in the context of a global standard;
- Finding the balance between the costs of audits and the degree of assurance that can be provided; and
- Developing strategies for the participation of Small and Medium Enterprises (SMEs).

FUTURE DIRECTIONS

The MCEP has established that a mine site certification scheme is feasible: the next practical question is whether it is desirable and to whom. The task of creating a working certification scheme still lies ahead and progress will largely depend on the efforts of those who choose to champion the idea. A broadly based coalition of stakeholders offers the best prospect for success. The essentially Australian-based nature of the project means that an international debate is a critical next step in any evolution of a certification scheme for mine sites. The MCEP has created a platform and arguably an imperative for that debate.

ABBREVIATIONS AND ACRONYMS

AA1000	Social and Ethical Accountability Standard
APPELL	Awareness and Preparedness for Emergencies at a Local Level
CAA	(Oxfam) Community Aid Abroad, now Oxfam Australia
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EIR	Extractive Industries Review
EITI	Extractive Industries Transparency Initiative
FPIC	Free Prior and Informed Consent
FSC	Forest Stewardship Council
GMI	Global Mining Initiative
GRI	Global Reporting Initiative
ICCA	International Council of Chemical Associations
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant of Economic, Social and Cultural Rights
ICME	International Council on Metals and the Environment
ICMI	International Cyanide Management Institute
ICMM	International Council on Mining and Metals
ILO	International Labour Organization
ISO	International Standards Organization
ISO14001	ISO Environmental Management Standard
KPCS	Kimberley Process Certification Scheme
MCEP	Mining Certification Evaluation Project
MSC	Marine Stewardship Council
MSO	Mine Site Operation
MMSD	Mining, Minerals and Sustainable Development (Project)
NGO	Non Government Organisation
NOCC	North Queensland Conservation Council
OECD	Organization for Economic Co-operation and Development
OHSAS18001	Occupational Health and Safety Management System Standard
RCMS	Responsible Care Management System
SA8000	Ethical Workplace Standard
SME	Small and Medium Enterprises
UN	United Nations
UNEP	United Nations Environment Program
WBCSD	World Business Council for Sustainable Development
WWF	WWF, formerly known as World Wide Fund for Nature

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1 PROJECT OVERVIEW

1.1 PROJECT HISTORY AND SCOPE

The Mining Certification Evaluation Project (MCEP) was a research project that sought to evaluate the feasibility of independent third party certification of the environmental and social performance of mine sites.

While certification schemes based on independent third party assessment of environmental and social performance are operating in the forestry and marine fisheries industries (such as the Forest Stewardship Council and the Marine Stewardship Council), there is currently no such certification scheme that has been designed specifically for mine sites.

In the early 1990s, WWF-Australia developed a proposal for a project to evaluate the feasibility of applying independent third party certification to mine sites. A range of mining companies and other stakeholders were approached to seek their participation in the project. Placer Dome Asia Pacific (now Placer Dome Inc) was the first company to commit to the project concept and, with WWF-Australia, prepared a discussion paper that set out the aims of the project (Rae and Rouse, 2001). The project commenced when four mining companies and a group of other mining stakeholders agreed to support and participate in the MCEP. WWF-Australia was responsible for the management of the project from 2002 through 2005.

It is worth emphasising the intent of the MCEP research. The project's activities have focussed on evaluating feasibility and emerging issues of certification for the minerals sector, not on actually establishing a working certification scheme or institution. In this sense, the MCEP asked "How might this work?" To answer this, some explicit assumptions were made during the research to enable different issues and options to be discussed.

The MCEP was designed as an Australian-based initiative for logistical reasons. However, project participants sought to reflect both national and international interests and provide links to related initiatives in the mining sector. Issues were considered in terms of the increasingly global nature of the mining industry and the challenges this can present for understanding performance in different contexts.

It is anticipated that this report on the MCEP exercise will make an important contribution to a broader international dialogue about the viability of certification for this industry.

1.2 PROJECT PARTICIPANTS

The MCEP operated by a multi-stakeholder process to enable a range of stakeholders to make their views known, remain informed and influence the research process and outcomes.

The key forum for this process was the MCEP's Working Group. This was formed with Australian-based participants from organisations and institutions with an interest in the environmental and social performance of mines. Participants were drawn from:

- the mining companies [Anglo American](#), [BHP Billiton](#), [MPI Mines](#), [Newmont](#), [Placer Dome](#), [Rio Tinto](#), and [WMC Resources](#) (now owned by BHP Billiton); and the industry association the [Minerals Council of Australia](#);
- the non-government organisations [WWF-Australia](#) and [Oxfam Australia](#); and the [Construction Forestry Mining and Energy Union](#);
- the government [Office of the Aboriginal and Torres Strait Islander Social Justice Commissioner](#) of the Human Rights and Equal Opportunity Commission, and the Australian Government [Department of the Environment and Heritage](#);
- researchers from the [Commonwealth Scientific and Industrial Research Organisation](#) (CSIRO); and the [Centre for the Study of Health and Society](#) at the University of Melbourne;
- and financial and assurance companies of [SAM Sustainable Asset Management](#); and [PricewaterhouseCoopers](#).

The Working Group met thirteen times over the course of the project. The role of the Working Group, outlined in its Terms of Reference, was to build consensus on project direction, develop project documentation, review project progress and develop recommendations for next steps. The Working Group meetings were professionally facilitated, and decisions reflected a consensus where possible.

In addition to the Working Group, an email contact list was maintained for other stakeholders interested in the progress of the MCEP. The contact list received material for public comment and the project newsletter (The Canary). All significant project documents, including summaries of Working Group discussions and project updates are available and archived on the project website: www.minerals.csiro.au/certification

1.3 RESEARCH QUESTIONS AND ACTIVITIES

The credibility and effectiveness of certification schemes in other sectors appear to hinge on three main issues: setting standards, assessment and assurance, and governance. These issues were used

to frame the three main research questions for MCEP. Table 1 summarises this approach and the major project activities carried out to address each research question.

ISSUE	RESEARCH QUESTION	MAJOR PROJECT ACTIVITIES
Setting standards	Can principles and criteria for acceptable social and environmental performance by mine sites be developed that have broad agreement from the Working Group and meet stakeholder expectations?	Develop consensus on draft principles and criteria through Working Group. Seek stakeholder feedback.
Assessment and assurance	Can an audit protocol be: <ul style="list-style-type: none"> • Designed and implemented to test the performance of mine sites against these criteria, in a manner that is practical and cost-effective? • Utilised in a variety of ecological, socio-economic and cultural settings, both within Australia and internationally? 	Develop and refine draft audit protocol. Carry out field trials. Analyse process insights.
Governance	What are the key governance issues for a certification scheme in the mining sector?	Literature reviews. Working Group discussions.

Table 1 – MCEP Research Questions

Three separate working papers were originally envisaged to align with this project structure. Working Paper 1 on principles and criteria was prepared and circulated for comment in December 2003 (Solomon, Rae and Rouse, 2003). Instead of two additional working papers, the Working Group has decided to prepare this final report summarising the work of the MCEP as a whole.

Other papers and reports have been prepared at various stages of the MCEP that describe the field trials, development of the audit protocol, the principles and criteria, and other discussions. These have been placed on the project's [website](#) as Supporting Documents for those seeking more in-depth information on project activities and outputs.

1.4 REPORT STRUCTURE

The remainder of this report is divided into four main parts.

Section 2 on Governance explores some of the fundamental governance issues in order to set the context of certification. It sets out the characteristics of government and 'private' regulation and examines the predominant private schemes that have emerged for the mining sector. The potential advantages and disadvantages of third party certification as a voluntary initiative are explored. Finally, a review of the governance arrangements of other private initiatives identifies the main governance issues for a future mine site certification scheme.

Section 3 on Standard Setting describes MCEP's development of draft Principles and Criteria for environmental and social performance at mine sites. It outlines the approach taken and the adoption of the International Council on Mining & Metals (ICMM) Sustainable Development Framework as an organising structure. The resources and initiatives drawn upon by the Working Group in the development of MCEP Criteria are introduced and examples of the Criteria are given. Selected issues that arose in this part of the project are discussed, including the role of the corporate entity, how to deal with legacy issues at mine sites and the issue of free prior informed consent. Key findings from the Working Group process and public submissions are presented, followed by the main conclusions.

Section 4 on Assessment and Assurance describes the field trials stage of the project, which tested the feasibility of conducting a mine site audit against the MCEP Principles and Criteria. This section begins by outlining the choice of levels of assurance and the implications for assessment method. The approach taken by the MCEP, of an audit protocol iteratively developed and tested at six mine sites, is outlined.

The selection of audit testing teams and the field trial process on each site is described. Key findings are discussed in terms of design and implementation of the audit protocol, its utility in a variety of settings, and other issues. Conclusions point to some important challenges for a future certification scheme.

Section 5 on Project Implications reviews the key findings in terms of governance, standard setting, and assessment and assurance, and interprets the general implications of these. It also discusses the specific issue of Small and Medium Enterprises (SMEs) in light of the MCEP research and ends by sketching future directions for the mine site certification concept.

2 CERTIFICATION IN THE MINING SECTOR

Research question:

What are the key governance issues for a certification scheme in the mining sector?

2.1 BACKGROUND

Issues of governance are central to the effectiveness and credibility of certification schemes and should be understood in a broad context. Any new initiative for the mining sector enters into an existing regulatory environment that is complex and sophisticated.

The MCEP has sought to review this environment to:

- Understand the characteristics of government and 'private' regulation of mining;
- Examine the predominant private initiatives that apply to the mining sector;

- Identify potential advantages and challenges of third party certification as a voluntary private initiative; and
- Learn from the governance arrangements of other private initiatives to identify fundamental issues for a mine site certification scheme.

The discussion in this section of the report draws from an extensive literature review which was concluded in late 2005.

2.2 GOVERNMENT REGULATION AND PRIVATE INITIATIVES

Mining activities occupy a unique position with regard to government regulation. Ownership in mineral deposits is allocated to the state or the people of the state in the majority of nations, and this has been used to justify greater government intervention and participation in the minerals sector than is usual for other economic sectors (Otto and Cordes, 2002). The regulation of the mining sector can be a complicated task for government and a dedicated "Mining Act", administered by a single ministry for mines, is often just the starting point. The diverse activities and impacts of mining commonly invoke the application of legislation across such broad areas as environment, development, planning, foreign investment, trade, taxation, land and worker safety (Otto and Cordes, 2002).

In addition to government regulation, the mining sector recognises that a 'social license to operate' is just as important to their ability to operate as a legal license or permit to mine (Gunningham and Sinclair,

2001). Adhering to the laws of the country in which companies operate is necessary, but usually not sufficient, for a social license to operate, as it is often framed in terms of a level of social and environmental performance that is 'beyond compliance' with the law. The desire to obtain and maintain a social license to operate has been a significant driver in the development of a range of private initiatives that seek to address issues like sustainable development, corporate social responsibility and environmental management.

These initiatives are usually voluntary and often take the form of codes of conduct, reporting requirements, standards, internal management systems and certification systems. Private initiatives such as these can support, supplant or supplement government regulation, and governments may encourage their development.

While private initiatives should not seek to supplant Government regulation and cannot take advantage of all of the same enforcement and penalty systems that support statutory law, they have the potential to offer other benefits. These include the following:

- Private initiatives can provide an avenue for action when there is seen to be regulatory failure in an area (Gunningham and Sinclair, 2002) and in so doing inform the development of a more effective regulatory environment over time.
- Effective legislation relies upon fixed definitions in order to avoid multiple interpretations, and is usually drafted with the intention of being applied to the letter. In contrast, private initiatives can be more flexible and incorporate open-ended provisions designed to address more ambiguous concepts, encourage innovation or focus on outcomes such as continuous improvement.
- Some environmental and social issues are trans-boundary in nature and benefit from a regional or global policy approach. Unlike government regulations, private initiatives are not bound by jurisdiction, and so present an opportunity for international consistency.
- The development of statutory law is a task for the legislature and in many countries there are limited opportunities for public input. Many private initiatives, however, involve a range of stakeholders, including NGOs, industry and government, at every stage of their development and review.
- For companies, private initiatives providing credible assurance of appropriate performance can potentially offer reputational benefits, including enhanced capacity to attract and retain staff, and improved market access or price premiums.

2.3 MINING-SPECIFIC PRIVATE INITIATIVES

Since the mid-1990s, there has been a proliferation of private initiatives relating to the mining sector. The table below sets out a chronological overview of the development of a small selection of the significant private initiatives that have emerged since 1991.

Some of the initiatives discussed are still in their infancy, while others have become formal entities with ongoing mechanisms for review and further development.

1991	The World Business Council for Sustainable Development (WBCSD) had its inception. The WBCSD now operates as a coalition of 160 international companies and mining and metals companies comprise 9% of the membership.
1992	Agenda 21 and the Rio Declaration on Environment and Development were adopted by more than 178 Governments at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, in June 1992. Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which humans impact on the environment.
1996	ISO14001, a standard for creating environmental management systems, launched.
1996	WMC, released the first public environment report for the mining industry.
1996	Minerals Council of Australia launched the Australian Mining Industry Code for Environmental Management which required reporting by signatories within 2 years of adoption.
1998	The first 11 company environment reports published pursuant to the Australian Mining Industry Code for Environmental Management.
1998	Normandy Mining Limited set up their Five Star Assessment System which established internal company management standards and assessment procedures. The Five Star Assessment System was adopted by Newmont Mining Corporation when it bought Normandy in 2002.
1998	Nine of the largest mining companies in the world convened the Global Mining Initiative (GMI) in response to growing pressure on the mining and minerals industry to change the way in which it approached social, environmental and developmental problems. The GMI included a program of internal reform, a review of industry associations, and an in-depth study of the societal issues facing the industry (the Mining, Minerals and Sustainable Development – MMSD – project).
1999	WWF-Australia's "Ore or Overburden" report, an assessment of 11 mining company reports published pursuant to the Australian Mining Industry Code for Environmental Management, found significant shortcomings in all the reports in the area of external verification.

1999	BHP (now BHP Billiton) invited an NGO, the North Queensland Conservation Council, to conduct an independent environmental appraisal of the Cannington silver-lead-zinc operation.
2000	On 30 January 2000, an accident involving cyanide occurred in Baia Mare, Romania, focusing public attention on the risks associated with gold mining. In May 2000 the United Nations Environment Programme (UNEP) and the International Council on Metals and the Environment (ICME) convened an international workshop to consider developing a Code of Practice for the use of cyanide in the gold mining industry.
2000	North Queensland Conservation Council environment report on BHP Cannington silver-lead-zinc operations was published as “Broadening our Horizons”. Six key issues were identified in this report with a plan to set up working groups to address these. This was not pursued as the NQCC questioned the appropriateness of working with Cannington on this project (Roche, 2002).
2000	The Global Reporting Initiative (GRI) launched the Sustainability Reporting Guidelines. The Guidelines are for voluntary use by organisations for reporting on the economic, environmental, and social dimensions of their activities, products, and services.
2000	The Mining Ombudsman was established by Oxfam Australia (formerly Oxfam Community Aid Abroad) to receive complaints from around the world about the activities of Australian mining companies. The impetus for the creation of this role was the absence of an industry commitment to establishing a formal grievance process for the Australian mining industry (MacDonald and Ross, 2002). The Mining Ombudsman has no official status in terms of the Australian Government or mining industry. Oxfam Australia publishes an annual Mining Ombudsman Report summarising their activities for the year, identifying progress and areas where further work needs to be done.
2000	In May 2000, Southern African diamond producing states met in Kimberley, South Africa, to devise a way to stop the trade in conflict diamonds and to assure consumers that the diamonds that they purchase have not contributed to violent conflict and human rights abuses in their countries of origin. In December 2000, the United Nations General Assembly adopted a resolution supporting the creation of an international certification scheme for rough diamonds.
2001	Awareness and Preparedness for Emergencies at a Local Level (APELL) for Mining released by UNEP. APELL is a modular, flexible methodological tool for preventing accidents and, failing this, to minimise their impacts. (http://www.unep.org/pc/apell/publications/pdf_files/apell-for-mining.pdf)
2001	The International Council for Metals and Mining (ICMM) was established as a global representative body designed to provide industry leadership in meeting the challenges of sustainable development. The ICMM “believe that improving performance requires an integrated package of activities covering principles, and supported by public reporting, verification systems and the dissemination of good practice examples”.

2001	The Extractive Industries Review was initiated by the World Bank Group to discuss its future role in the extractive industries with concerned stakeholders. The aim of this independent review was to produce a set of recommendations within the context of the World Bank Group's overall mission of poverty reduction and the promotion of sustainable development. (http://www.eireview.org/)
2002	The International Cyanide Management Code (Cyanide Code) for the manufacture, transport, and use of cyanide in the production of gold was launched. The Code was developed by a multi-stakeholder Steering Committee under the guidance of the UNEP and the ICME. (http://www.cyanidecode.org)
2002	After nearly two years of negotiation, the efforts of governments, the international diamond industry and NGOs culminated in the creation of the Kimberley Process Certification Scheme (KPCS). The KPCS outlines the provisions by which the trade in rough diamonds is to be regulated by countries, regional economic integration organisations and rough diamond-trading entities. (www.kimberleyprocess.com)
2002	The GRI became independent as an official collaborating centre of the United Nations Environment Programme (UNEP), working in cooperation with UN Secretary-General Kofi Annan's Global Compact. A fully revised and updated version of the Sustainability Reporting Guidelines was released during the World Summit on Sustainable Development in Johannesburg.
2002	The MMSD report was published. This report analyses the role of the mining sector in the transition to sustainable development and provides a basis for a strategic and ongoing process for the implementation of sustainable development principles in the mining and minerals industry (IIED and WBCSD, 2002). (http://www.icmm.com/gmi_mmsd_project)
2002	In light of the MMSD recommendations, ICMM undertook a "gap analysis" comparing current standards with relevant conventions and guidelines. These included the Rio Declaration, the Global Reporting Initiative, the OECD Guidelines on Multinational Enterprises, the World Bank Operational Guidelines, the OECD Convention on Combating Bribery, ILO Conventions 98, 169, 176, and the Voluntary Principles on Human Rights and Security. This led to the development of the ICMM Sustainable Development Framework.
2003	The Extractive Industries Review was completed and EIR recommendations were published in the final report entitled "Striking a Better Balance". (http://www.eireview.org/)
2003	The ICMM Sustainable Development Framework was adopted by ICMM members. The Principles seek to cover "important aspects of sustainable development", including corporate governance, health and safety, human rights, responsible product design, environment and biodiversity, social, economic and institutional development, appropriate materials choice, public engagement and independently verified reporting arrangements. (http://www.icmm.com)

2003	The Extractive Industries Transparency Initiative (EITI) aims to increase transparency in transactions between governments and companies within extractive industries. The EITI supports improved governance in resource-rich countries through the full publication and verification of company payments and government revenues from oil, gas and mining. A number of mining companies and the ICMM have an active policy on, and involvement with EITI implementation. EITI Principles launched. (http://www.eitransparency.org/)
2003	The Kimberley Process Certification Scheme (KPCS) for international trade in rough diamonds was implemented. The Kimberley Process is now composed of 43 Participants, comprising States and regional economic integration organizations, including the European Community. These Participants account for approximately 99.8% of the global production of rough diamonds (http://www.kimberleyprocess.com).
2004	Mining and Metals Sector Supplement to accompany the GRI 2002 Sustainability Reporting Guidelines was developed by the GRI in conjunction with the ICMM. Together with the Guidelines, the Supplement contains indicators to allow tracking of performance against the ICMM SD Framework. By identifying and targeting economic, environmental, and social performance issues and indicators specific to the mining, minerals, and metals industry, the Supplement assists companies to address these issues in a common fashion, producing more relevant, meaningful, and comparable reports. (http://www.globalreporting.org/guidelines/sectors/mining.asp)
2004	Following a period of public comments with regard to the EIR, Management of the World Bank responded in September 2004 with the "Final World Bank Group EIR Management Response". Both documents have been translated into Spanish, French and Russian (http://www.worldbank.org/ogmc/).
2004	First Green Lead Workshop held in London as a "high level meeting of stakeholders with interests in the environmental and health impact of lead in the battery life cycle; in production, use and re use of batteries; and in product stewardship and environmental certification." Aims of workshop included agreeing to a program of work in the following 18 months to fully develop the methodology, structure and standard for Green Lead. (Green Lead Workshop, 2004). (http://greenlead.com/)
2004	Tiffany & Co publish an open letter in the Washington Post to the Chief, US Forest Service seeking protection of the Cabinet Mountains Wilderness area from a mining development known as the Rock Creek project. The letter urges reforms to ensure that minerals are "extracted, processed and used in ways that are socially and environmentally responsible. Government and industry each has a role to play in shaping sensible measures to achieve this goal". A coalition of NGOs respond with a letter thanking the CEO and Chairman of the Board of Tiffany & Co, and applauding the company's "leadership, vision and business sensibility". (http://www.earthworksaction.org/pubs/TiffanyGGthankyouLTR.pdf)
2004	An updated version of ISO14001 was issued in November 2004, replacing ISO14001:1996. Organizations have been given 18 months (to 15 May 2006) to make the transition to ISO14001:2004.

2005	ICMM's 16 Corporate members agreed to report on their sustainable development performance "in accordance with" the GRI Sustainability Reporting Guidelines and worked with the GRI to develop a Mining and Metals Sector Supplement . The target date for achieving this pledge is within two reporting cycles.
2005	The Council for Responsible Jewellery Practices (CRJP) was founded in May 2005 with 14 Members from a cross section of the diamond and gold jewellery supply chain, from mine to retail. Council Members are committed to promoting responsible business practices in a transparent and accountable manner through the industry from mine to retail, and will enable the industry to work together to improve standards and practices. (http://www.responsiblejewellery.com/)
2005	EITI Criteria launched. (http://www.eitransparency.org/)
2005	The Government of Canada has introduced legislation that will permit it to implement the KPCS in Canada. In anticipation of the legislation coming into force, Natural Resources Canada is putting in place a mechanism to issue Canadian Kimberley Process Certificates .
2005	The International Cyanide Management Institute (ICMI) began accepting signatory applications to the Cyanide Code on July 11, and announced the first signatories on November 3, 2005. (http://www.cyanidecode.org/)
2005	The Framework for Responsible Mining is a joint effort by NGOs, retailers, investors, insurers, and technical experts working in the minerals sector. It outlines environmental, human rights, and social issues associated with mining and mined products. (http://frameworkforresponsiblemining.org)
2005	ICMM Verification project commenced. The first stage of this process involved reviewing current approaches to verification and answering the question, 'what is being verified'? The next phase of work will focus on further developing the key terms, scope and detailed guidance for the verification element of the Framework. ICMM members are the first industry group to seek to develop, and eventually adopt, a common approach to verification (http://www.icmm.com/newsletter.php?rcd=19#150).
2006	Green Lead Pilot Programs to take place. The Green Lead Concept will continue to be developed by an Assessment and Audit team in terms of the Life Cycle Assessment and Product Chain Management, and by Field Testing the Green Lead Standards when the Pilot Programs roll-out in 2006.
2006	The third generation of GRI Guidelines (G3) will be released.
2007	ICMM review of the Sustainable Development Framework is scheduled to commence. Feedback is encouraged from any individual or organisation on the principles for this review process.

Table 2 – A chronology of private initiatives relevant to the mining sector

The above table highlights how in the late 1990s, global private initiatives involving the mining industry, NGOs and global bodies such as the United Nations began to appear. A common feature of many initiatives is a period of research and development with stakeholder engagement and debate. Regular mechanisms for review have been built into most of the formalised initiatives.

An evolution of private initiatives can be seen, but it has not been a neat linear progression. There have been some large multi-stakeholder projects, such as the MMSD exercise and the GRI, punctuated by smaller projects dealing with specific issues initiated by single groups such as NGOs and companies. A general trend can be discerned from a focus on broad issues such as reporting, towards a focus on applications in different sectors, such as mining, and more specifically commodities, such as diamonds. There has also been convergence and co-acknowledgement amongst some initiatives, such as that between the ICMM, the GRI and the EITI.

2.4 THIRD PARTY CERTIFICATION

Third party certification is one method for the credible independent verification of performance. Certification is a type of voluntary private initiative that seeks to set standards, and assess and assure claims of performance against these standards. It may take one of the following forms:

- First party certification – a single firm develops and reports against its own standards (eg a company code of conduct)
- Second party certification – an industry association develops a code of conduct and implements self-reporting mechanisms (eg Responsible Care in the chemicals industry).
- Third party certification – an external group

A key driver for these initiatives appears to be the desire – by companies within the mineral sector and other stakeholders – to increase both the capacity and market incentives for credible performance-based differentiation within the sector. However, preferential access to finance, insurance, and markets are probably still in their infancy.

All of the initiatives seek to improve environmental and/or social and/or economic performance across the sector, and many are implementing processes to enable participants to credibly differentiate their performance from non-participating operators, to both enhance and protect the reputation of participants and the initiative. Interestingly, a number of established private initiatives appear to be applying or working towards processes for independent verification.

develops rules and compliance methods for an industry or firm (eg Forest Stewardship Council) (Gereffi et al, 2001).

A private initiative using third party certification has the potential to offer one of the more credible means of verification of performance. Credibility hinges on the independence of the third party, and is enhanced where this can be maximised and preserved. Third-party certification schemes are used as a standard setting and assurance tool in a wide range of sectors and is the form of certification being investigated in the MCEP.

Some of the potential advantages and challenges of a third party certification scheme include:

Advantages:

- **Credibility:** the role of the third party certification scheme is to set standards and verify claims of performance. For mining companies, this would be an important feature for gaining the trust of stakeholders.
- **Capturing market forces:** third party certification schemes can allow for differentiation from others in the marketplace. This can be in terms of reputation with investors, financiers, insurers, employees, regulators, suppliers and consumers, or more specifically in terms of products, if an auditable chain of custody can be established from producer to marketplace.
- **Internalise externalities:** a third-party certification scheme with global application has the potential to internalise issues that have historically been treated as externalities.
- **Pre-empting legislation:** an organisation already operating beyond compliance is potentially in a strategically advantageous position should legislative standards be raised.

Challenges:

- **Attracting underperformers:** companies that are already performing well tend to adopt certification schemes more readily, while companies that need to do the most work to reach the performance levels may not even attempt to engage with the initiative.
- **SME adoption:** large corporations dominate the development of certification schemes. SMEs may lack the financial and human resources necessary to change practices to obtain certification, and may not see the financial benefit of being certified.
- **Free riders:** while a voluntary third-party certification scheme is intended to enhance the reputation of those signed up to the scheme, those not participating may still benefit if differentiation is not pursued.
- **'Fig Leaf':** companies with only one or a small proportion of their operations certified may use this as a 'fig leaf' to distract attention from underperforming operations, and thereby erode the reputation of the scheme.

Appropriate governance arrangements are essential for maximising the benefits and integrity of a third party certification scheme. They should be designed to facilitate and maintain the advantages of third party certification, while attempting to minimise the challenges.

2.5 GOVERNANCE CONSIDERATIONS

There are a range of governance issues that need to be considered in the design and operation of a third party certification scheme for the minerals sector. The institutional arrangements of third party certification schemes currently in operation in a range of industry sectors offer a point of reference, as well as issues raised in MCEP Working Group discussions.

These have been distilled into a summary of fundamental governance issues which are reviewed below:

- **Structure and Procedure**
 - Multi-stakeholder involvement
 - Participation in the scheme
 - Decision-making
 - Financial structure
 - **Standards and assessment**
 - Scheme's requirements
 - Continuous improvement
 - Review processes
 - Selection and accreditation of certifiers
 - Combined audits
 - **Certificates**
 - Communication
 - Chain of custody
 - **Dispute resolution**
 - Appeals process
 - Sanctions for non-compliance
 - Sanctions for improper certification
 - **Legal issues**
 - Transparency
 - Legal liability
 - Jurisdiction
- **Multi-stakeholder involvement:** The engagement and involvement of a broad range of stakeholders in the development and review of certification schemes will maximise the relevance of the scheme, both in terms of process and achieving desired outcomes. For example, the GRI has been praised for its stakeholder engagement, engaging 10,000 people from 50 countries in its first three years (United Nations, 2002).
 - **Participation in the scheme:** Existing certification schemes have a varied supporter/membership base and use different techniques to overcome geographical barriers and manage large levels of participation. For example, Responsible Care is managed at a global level by the International Council of Chemical Associations (ICCA). National associations are signatories through the ICCA and manage implementation by chemical companies in their country.
 - **Decision-making:** Mechanisms are needed for making decisions that are acceptable to the supporter/membership base and reflect the interests of the scheme. This is a complicated design task, especially for global schemes with a diverse supporter base. For example, the ISO has a Council resembling a board of directors which meets two times per year and regularly rotates its membership, while strategic decisions are referred to ISO members who meet for an annual General Assembly. However, even if the institutional arrangements of a scheme are designed to maximise equality between competing interests, in practice, the results may be different. For example, the FSC has structured a balance of power between three chambers, representing economic, environmental and social interests. However, the economic chamber outnumbered the environment chamber, and both outnumbered the social chamber. This can have implications for working groups and consultation processes (Counsell and Loraas, 2002).

2.5.1 Structure and procedure

Establishing the structure and procedures of a certification scheme entails some critical decisions in terms of participation, power, and funding. Some of the key dimensions include:

■ **Financial structure:** Very little information is made available on the websites of existing certification schemes in relation to financial issues such as the source of funding, budgets, and typical costs involved in adopting the scheme. Funding is a crucial issue as, without transparency, the independence and credibility of the organisation set up to run the third party certification scheme may be compromised if there appears to be a conflict of interest from the source of funding. The ISO is an interesting example of a funding structure. ISO's national members pay subscriptions, in proportion to the country's national income and trade figures, to meet the operational costs of the Secretariat. Another source of revenue is the sale of standards. However the operations of the ISO secretariat are only one fifth of the cost of the system's operation. The main costs are borne by the member bodies which manage the specific standards' development projects and the business organisations which provide experts to participate in the technical work. An example in the minerals sector is the Cyanide Code, where there are annual fees of \$5000 for cyanide producers, and \$500 for cyanide transporters. Gold mining companies will pay 0.015% per ounce of gold produced per annum, revised annually (www.cyanidecode.org). The crucial point is that without a source of funding to govern a scheme, it will fail.

2.5.2 Standards and assessment

The next set of governance issues relate to establishing and reviewing the requirements of the scheme, the selection of certifiers, and assessment procedures. Key dimensions include:

■ **Scheme's requirements:** Certification schemes usually either require assurance of the signatory's performance against a set of principles and criteria (eg FSC and MSC) or involve the implementation of a management system, against which a signatory must demonstrate improved

performance (eg Responsible Care and ISO14001). Certification may not always be a requirement of a standard. This is the case with ISO14001, though ISO has found that "most organisations have chosen certification because of the perception that it adds value" (ISO, 2005).

■ **Continuous improvement:** Continuous improvement can be integrated into the design of the scheme, for example by including requirements for regular review or corrective action after an assessment or audit. The scheme can also encourage continuous improvement through an emphasis on innovation and best practice.

■ **Review processes:** Most schemes incorporate regular requirements for review. For example, ISO requires a review of its standards at least every five years to take account of evolving technology and evolving interests, and to decide whether the standards should be maintained, updated or withdrawn (www.iso.org).

■ **Selection and accreditation of certifiers:** The abilities, integrity and independence of the certifiers are central to the success of a certification scheme. In most cases, the governing body of the certification scheme has an accreditation process for certifiers. The organisation seeking certification must pay the cost of the certifier and selects one from an approved list of accredited certifiers.

■ **Combined audits:** One of the concerns of organisations in relation to the adoption of new certification schemes is the investment of time required to meet auditing requirements. Many schemes now have provision for dual auditing, for example, SA 8000 has been modelled on ISO management systems and can be combined with other types of audits (Leipziger 2003). Responsible Care companies may choose from two certification options: RCMS® certification, which verifies that a company has implemented the Responsible Care

Management System®; or RC14001 certification, which combines RCMS and ISO 14001 into a single, more cost-effective process (www.responsiblecare.org). Some certifiers with accreditation for a number of schemes offer simultaneous or integrated auditing services to clients.

2.5.3 Certificates

There are particular issues concerning the granting and use of certificates that attest to a level of performance that is in accordance with the requirements of the scheme. These include:

- **Communication:** Most certification schemes utilise a registered or trade-marked logo as a simple and effective way to communicate an organisations' compliance with a certification scheme. An investment in education and marketing to potential consumers is required to ensure that the desired message is being conveyed through the logo. Some industries, such as forestry, have seen the proliferation of certification schemes and associated logos which can confuse the market, to the detriment of all schemes.
- **Chain of Custody:** In some certification schemes, an auditable trail for the product from producer to marketplace is required for the use of an on-product logo (eg MSC, FSC). Some schemes allow for situations where it is not feasible, or perhaps necessary, to separately process product from certified and non-certified sources, for example electricity delivered on a national grid. In this case, a percentage allocation may be used: for example, if 20% of the product going into processing is certified, 20% of the output may be labelled as certified.

2.5.4 Dispute resolution

Robust processes for hearing and resolving disputes are critical governance issues for any certification scheme. Key issues include:

- **Appeals process:** Institutions that own or manage certification standards should establish processes by which appeals, disputes or grievances can be heard. These typically include company or public challenges to the issuance or non-issuance of certification.
- **Sanctions for non-compliance:** Certification schemes need to decide what repercussions will apply to certified organisations that fail to comply with the requirements of certification. For example, if after an investigation companies are found to not live up to SA8000, they can lose certification and the accredited certifiers can lose their standing to conduct SA8000 audits (Leipziger, 2003).
- **Sanctions for improper certification:** It is difficult to find information from existing certification schemes about the repercussions for certifiers for improper action. However, as noted above, SA8000 requirements provide that accredited bodies that act improperly can lose their standing to conduct audits.

2.5.5 Legal issues

Some of the legal issues that need to be addressed in the governance of a certification scheme include:

- **Transparency:** How much information will be made available to the public in relation to the scheme, and how can this be balanced with the confidentiality provisions of many laws (such as contract law)? For example, the confidentiality of the contracts between the FSC and certifiers has attracted criticism because of the lack of transparency around 'what is perhaps the most important institutional relationship within the FSC process' (Counsell and Loraas, 2002).

■ **Legal liability:** To what extent can a governing body of a scheme avoid or reduce the potential for legal liability? For example, the Cyanide Code contains a general legal disclaimer that states that “(c)ompliance with this Code is entirely voluntary and is neither intended nor does it create, establish, or recognize any legally enforceable obligations or rights on the part of its signatories, supporters or any other parties”. In addition, the Dispute Resolution Procedure under the Code requires that parties to a dispute must agree to

“be bound by this Procedure, and to hold the ICMI harmless in connection with resolution of any dispute pursuant to this Procedure” (http://www.cyanidecode.org/whatnew/Dispute_Resolution_Procedure.pdf). However, this clause doesn’t appear to preclude a member from seeking legal redress in general courts of law, if applicable.

■ **Jurisdiction:** What legal jurisdiction will be adopted by a global certification scheme operating in a number of countries?

2.6 CONCLUSIONS

The mining sector invokes a wide range of government regulation and is also active in the development and implementation of private initiatives. Private initiatives are largely voluntary and offer some advantages in terms of flexibility, potential international application and opportunities for public input. For the minerals sector, reputation with a range of stakeholders and a social licence to operate are key drivers that have made private initiatives an attractive instrument. For the industry’s stakeholders, a key driver has been to provide incentives for improving performance through differentiation.

The review of mining sector private initiatives indicates a growth in activity since the early 1990s involving the industry, NGOs and global institutions. Recently there appears to be a trend towards convergence and co-operation between initiatives and the development of processes for independent verification. The Cyanide Code is a prominent example of an existing third-party certification scheme for the mining industry.

Third party certification schemes offer a credible means with which to assess and verify performance against agreed standards. Some of the potential advantages of a third party certification scheme

include: enhanced credibility, capturing market forces, creating a level playing field across jurisdictions, and the opportunity to strategically pre-empt legislation. Some of the challenges include: attracting underperformers, adoption by SMEs, dealing with free riders and with ‘fig leaf’ certification.

Appropriate governance arrangements should enhance the potential benefits of a third party certification scheme and address the challenges.

The key issues relate to structure and procedure, standards and assessment, granting of certificates, dispute resolution and legal issues. Funding is a critical issue for a certification scheme, particularly as it relates to the viability, credibility and independence of the organisation established to manage a third party scheme.

If funding and other governance issues can be addressed, the above review indicates that there appears to be scope for a third-party certification scheme for mine site performance.

3 SETTING STANDARDS

Research question:

Can principles and criteria for acceptable social and environmental performance by mine sites be developed that have broad agreement from the MCEP Working Group and meet stakeholder expectations?

3.1 BACKGROUND

In assessing the feasibility of certification for the mining sector, a fundamental consideration is whether acceptable performance can be defined. The MCEP focussed on this question during 2002-2003.

A number of assumptions shaped the approach taken in this part of the project. These assumptions included:

- The MCEP would focus on operating mine sites, that is, the area of land that is owned, accessed or leased under recognised mineral licences.
- The social, environmental and economic impacts of a mine site often extend well beyond the site's geographic boundaries and production phase.
- An Australian-based project would be able to develop standards for mine site performance that are globally appropriate.
- A 'Principles and Criteria' format similar to that developed by the Forest Stewardship Council would be a suitable framework for the MCEP.
- Consensus on acceptable social and environmental performance may be difficult to achieve within a multi-stakeholder group.
- The adoption of sustainable development principles would not equate to claims about 'sustainable mines'. The MCEP's focus would be on "well-managed mines".

- The likelihood of uptake by the industry and support from other stakeholders would be important considerations in the design.

By setting standards, a mine site certification scheme would aim to directly influence the practices and performance of existing mine sites. It is also likely that certification would indirectly influence the development of new mining operations and practices. This would have particular implications for how exploration should be carried out so as to enhance the development of a future mine site. In light of this, the Working Group determined that the MCEP would not specifically examine the issue of exploration.

3.2 APPROACH

The process of setting standards needed to engage with existing standards for the mining sector on two fronts. First, there are many competing ideas about acceptable or desirable performance in the sector that reflect existing practice, industry aspirations, and stakeholder expectations. Second, there are a number of national and international initiatives that aim to formally set standards either on particular issues or more holistically. When the MCEP commenced in 2002, however, there was no existing comprehensive standard specifically for mine sites.

The research for this part of the MCEP commenced with an extensive literature review and analysis of

existing expectations and standards. After this initial review and some discussion, the Working Group decided to use the International Council on Mining and Metals Sustainable Development principles as an organising framework for the MCEP Principles and Criteria. This decision was taken to increase the likelihood of broader adoption of MCEP outcomes and to complement, rather than compete with, other initiatives developing principles and codes for the mining industry.

The ICMM Sustainable Development Framework is based on ten main principles, outlined in Table 3, and elaborated by sub-elements under each principle.

ICMM	PRINCIPLES
1	Implement and maintain ethical business practices and sound systems of corporate governance.
2	Integrate sustainable development considerations within the corporate decision-making process.
3	Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities.
4	Implement risk management strategies based on valid data and sound science.
5	Seek continual improvement of our health and safety performance.
6	Seek continual improvement of our environmental performance.
7	Contribute to conservation of biodiversity and integrated approaches to land use planning.
8	Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products.
9	Contribute to the social, economic and institutional development of the communities in which we operate.
10	Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

Table 3 – ICMM Sustainable Development Framework (ICMM, 2003)

To address the MCEP's research question, the Working Group invested the bulk of its time in researching, developing, debating and agreeing on a set of 'Criteria' organised under the ICMM Framework. These Criteria for acceptable social and environmental performance of mine sites aimed to provide more detail and specificity for mine sites. The Criteria refer to expectations of appropriate management systems, procedures, outcomes and performance standards. Around 100 were developed and published for comment in their entirety in [MCEP Working Paper 1](#) in December 2003, and are available on the project website.¹

In using the ICMM Framework as the organising structure for the MCEP exercise, certain adaptations were made. The largely corporate focus of the ICMM Framework meant that some sub-elements were deemed not relevant for mine site operations, so Criteria were either not developed or may not fully represent the intent of the original Principles. In other cases, the MCEP Criteria go beyond the intent of the ICMM Principles, or describe a related issue that may not be adequately covered in the view of the Working Group. In several parts, the original text of the ICMM Framework has been changed to better reflect the interests of the MCEP. Examples of these adaptations and the general format of the Criteria are given in the box below.

EXAMPLES OF FORMAT AND ADAPTATIONS IN THE MCEP CRITERIA

Principle 8. (The MCEP Principles are in the same order as the ICMM Principles.)

8. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of mined products.

Underlined text indicates changes to the ICMM Principles.

[a] *Advance understanding of the properties of metals and minerals and their life cycle effects on human health and the environment;*

Sub-elements in italics are those that the Working Group believe are not relevant to mine site certification.

Sub-elements are listed alphabetically. Each Principle has at least one Sub-element.

b) Conduct or support research and innovation that promotes the use of products and technologies that are safe and efficient in their use of energy, natural resources and other materials;

MCEP Criterion. Each relevant Sub-element has at least one Criterion.

i Consistent with business needs and capabilities, the Mine Site Operation contributes site-based scientific information to collaborative research and development in this area.

Figure 1– Examples of the MCEP Principles and Criteria

¹ MCEP Criteria can be downloaded in Working Paper 1 from the project website: <http://www.minerals.csiro.au/certification>

3.3 KEY RESOURCES

Where possible, international standards that provide an appropriate global benchmark were incorporated and referenced in the Criteria. In particular, a number of significant international conventions provided a foundation for Working Group discussions. These are introduced below.

In emphasising the importance of the rights of mine site stakeholders, the MCEP Working Group implicitly made reference to the United Nations Universal Declaration of Human Rights 1948 (UDHR), the International Covenant on Economic, Social and Cultural Rights 1963 (ICESCR) and the International Covenant of Civil and Political Rights 1966 (ICCPR). In particular, the MCEP recognised the importance of the right of all peoples to self determination, as outlined in Common Article 1 of both the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the International Covenant on Civil and Political Rights (ICCPR).

The MCEP also recognised the Eight Fundamental International Labour Conventions of the UN's International Labour Organization (ILO) as setting minimum workplace standards for relationships between employers and workers. These concern freedom from child and forced labour, freedom of association and the right to bargain collectively, non-discrimination in the workplace and equal pay for work of equal value. Criteria were also developed that were consistent with Part III of the International Labour Organisation (ILO) Safety and Health in Mines Convention, 1995 (No. 176).

The MCEP accepted the definition of Indigenous and tribal peoples outlined in the Indigenous and Tribal Peoples Convention No. 169 of the International Labour Organization (ILO). In addition to its own definition, the ILO Convention 169 states that "self-identification as indigenous or tribal shall be regarded as a fundamental criterion" for determining who falls into these categories.

Other key international and national resources in the development of the MCEP criteria included:

- Oxfam CAA (now Oxfam Australia) – Mining Ombudsman publications
- Human Rights and Equal Opportunity Commission (Australia) – Development and Indigenous Land
- Forest Stewardship Council – Principles and Criteria
- DuPont – Supplier Criteria
- Conservation International – Lightening the Lode (Sweeting et al, 2000)
- World Commission on Dams – issues regarding resettlement and free prior informed consent
- US/UK Voluntary Principles on Security and Human Rights
- Mineral Policy Center (now Earthworks) – 14 Steps to Sustainability (Dahlberg, 1999)
- WWF – To Dig or Not to Dig (Dudley and Stolton, 2002)

The MCEP Criteria were drawn from these and a range of other acknowledged sources, or were developed specifically by the Working Group. While the Working Group developed the Criteria with global application in mind, it is acknowledged that the priorities and expertise of the participants are inevitably reflected.

3.4 SETTING STANDARDS - SELECTED ISSUES

As well as developing specific criteria, a number of broader issues were debated within the Working Group. Three in particular were often revisited during discussions, and are explored briefly below: the role of the corporate entity in a mine site certification scheme; dealing with the legacy of historical decisions at mine sites; and the complex issue of free, prior and informed consent.

3.4.1 The role of the corporate entity

The Working Group identified two main issues that potentially arise from the relationship between a mine site seeking certification and the corporate entity (or company) that owns or controls the site.

The first relates to corporate governance and policies. While the certification model being investigated is intended to apply to mine sites, some of the MCEP Criteria relate to issues such as policies and governance that are usually the responsibility of the corporate entity. For example, two Criteria refer to corporate policies on ethical business practice and sustainable development. The mine site's corporate entity would need to have these policies in place in order to enable the mine site to meet these Criteria. However, this area of corporate action may be out of the control of the mine site seeking certification.

The second relates to certified and uncertified mine sites owned by a mining company. In the model investigated by the MCEP, individual mine sites, rather than companies, would be able to seek certification. Therefore, a mining company could have both certified and uncertified mine sites. A number of issues were raised during Working Group discussions regarding the role of a certification scheme in promoting 'company-wide' certification of all mine sites under its control. On the one hand, a certification scheme could act as a catalyst for a company to put all of its mine sites forward for certification. This could be supported, for example, by a corporate commitment to seek certification for all new green field sites.

A commitment of this type would reinforce the role of certification in broad-scale change of environmental and social performance in the mining industry.

There is a risk, however, that a mining company could seek the certification of some mines but continue to operate or develop mines with poor environmental and social practices that would be 'uncertifiable'. This has been termed 'fig-leaf certification' because of its potential to distract attention from underperforming sites. In this scenario, the reputation of the certification scheme could come under question because companies could accrue reputational benefits for appropriate performance at some sites, while not addressing environmental or social issues at the majority of their sites.

Thus, while the focus of the MCEP has been on mine sites, mining corporations still play a significant role in terms of eligibility of their sites through corporate policy and ultimate credibility of a certification scheme through commitment to certification.

3.4.2 Legacy issues at mine sites

Mine sites with legacy issues are those that experience the effects of historically established environmental and social practices. These are often practices that may have been deemed acceptable when the mine was established, but do not meet today's expectations of how a mine should operate.

Decisions made early in the development of a mine can have significant bearing on environmental and social performance for the life of the mine and this performance may be difficult, if not impossible, to improve in any significant way. The Working Group accepts that some mine sites have legacy issues that would not allow them to attain certification, because they would never be able to meet some of the MCEP Criteria.

However, some sites may have legacy issues that could be addressed or ameliorated. For those mine sites to be certified, the Working Group believes they would need to demonstrate that they had achieved significant improvements that were acknowledged and supported by local communities and other stakeholders.

3.4.3 Free, Prior and Informed Consent

The Working Group recognised that certain issues would be critical to the credibility of a certification process. The most prominent example, and one which the Working Group debated extensively, is 'Free, Prior and Informed Consent'.

Free, Prior and Informed Consent (FPIC) refers to a process by which an agent of development – such as a mining company – consults and negotiates with local communities so as to gain their approval before the commencement of development activities. The concepts underpinning FPIC are a fundamental concern for all communities affected by mining activities. The Working Group discussed this issue extensively during the development of the Criteria and later convened a one-day workshop in February 2005. The outcomes of this workshop are discussed in a [report](#) available from the project website.

In summary, the Working Group agreed that mine sites would have to demonstrate a certain level of performance, regarding FPIC, in order to attain certification. The Working Group recommended that this performance include:

- Providing local communities with information about the hazards, risks and the planned management thereof;
- Ensuring that people have understood this information;
- Allowing the community to engage in a decision-making process to choose whether or not to give consent to mining activities, without manipulation from proponents;
- Consulting with the community throughout the life of the project;
- Seeking a renewal of consent at all appropriate stages of the project;
- Finding mutually satisfactory processes to handle any disputes between the company and the community that might arise;
- Seeking information from local communities about their aspirations for the future;
- Negotiating ways in which the mining project can assist in realising these aspirations;
- Understanding the local social structure and community dynamics; and
- Addressing concerns of all local communities and sub-groups within them.

Furthermore, in setting standards for mine sites, a certification scheme would have to consider:

- How communities were to be defined;
- What would constitute an acceptable level of engagement with the community;
- How to acknowledge the difficult legislative contexts in which many transnational mining companies operate;
- Whether to require differential treatment for Indigenous customary landowners;
- How consent should be measured;

- Whether there could be degrees of consent;
- The type of consent that a mine site would be expected to achieve in order to obtain certification; and
- What level of performance would be adequate, yet realistic, for certification.

However, the Working Group could not reach agreement on the critical issue of what happens should community consent be withheld.

In a wider sense, FPIC is a prime example of how the MCEP identified and debated complex issues relating to setting standards for mine site performance. It is anticipated that ongoing international debates surrounding FPIC will provide additional insights on how this should be addressed for the mining industry.

3.5 KEY FINDINGS

Agreeing on acceptable social and environmental performance for mine sites was in practice a complex process of mutual learning and negotiation among the Working Group. Key findings are summarised here in terms of the research question, that is:

- Whether principles and criteria had broad agreement from the MCEP Working Group;
- Whether stakeholder expectations were met.

3.5.1 MCEP Working Group agreement

From the beginning, there was debate as to whether standards for mine sites should, or indeed could, be globally applicable. An important argument for creating one set of standards by which all mine sites would be evaluated is that this would help to ensure that all sites were being comparably assessed. However, the difficulty of creating comprehensive standards that covered all possible contexts and conditions was clear. The Working Group recognised that local circumstances and community perspectives were important considerations in determining acceptable environmental and social performance. An alternative to global standards, therefore, would be to create regionally-specific standards, in collaboration with local government regulators, other local stakeholders, and locally-operating mining companies. The Working Group decided to proceed on the basis of global standards and further test their feasibility during the field trial stage of the project.

In developing the MCEP Criteria, the Working Group found that in certain areas it could reach agreement on what would constitute acceptable performance. In these areas, minimum levels of performance could be clearly defined. Some examples of Criteria that could thus be considered clear normative or performance standards are:

- *The Mine Site Operation does not offer, pay or accept bribes. [Principle 1b)i.]*

- *The Mine Site Operation does not use forced labour. [Principle 3a)i.]*
- *The Mine Site Operation has a rehabilitation and closure plan that has been developed with the participation of key stakeholders [Principle 6(c)i.]*

In many areas, however, the issues were deemed to be more contextual and the Working Group found that it could not create, or agree to, performance standards such as those above. Instead, Criteria were developed that sought to address the issues without specifying exact levels of performance that would need to be achieved. These usually took the form of process guidelines, which might enable third-party assessment of performance, or referred to management systems that could be expected to guide the ongoing management of performance.

As a result, the Criteria as a whole represent an amalgam of normative and performance standards, process guidelines and management systems. For some in the Working Group this integrative mix was appropriate to deal with the range of issues under consideration. For others it made for an uneven, at times prescriptive and often overly complex treatment of the issues.

Two main issues presented difficulty in reaching agreement. The first was any preclusion of particular technologies, such as riverine tailings disposal or perpetual treatment of mine wastes. There were strong views from some in the Working Group that a clear position on these issues was critical to the credibility of a certification scheme. Others were in favour of a risk-based assessment that placed responsibility on assessors to interpret whether particular strategies or technologies at mine sites were acceptable.

The second issue related to references in the Criteria to Indigenous people. Some in the Working Group argued from a social justice perspective for specific references to Indigenous people, in addition to referring to affected communities in general. Others viewed this approach as too strongly tied to the Australian context and likely to raise problems in international application. On some issues, there was disagreement over whether Indigenous people could be said to have specific rights over and above non-Indigenous people, or whether different treatment was merited in the interests of substantive equality.

In a general sense, the Working Group reached sufficient agreement to publish Working Paper 1 for public comment. However most, if not all, members of the Working Group recognised that further work was required to resolve some of these issues and saw considerable room for improvement in the Criteria, even if agreement on directions for change could not be easily reached.

3.5.2 Stakeholder expectations

The public comment period for Working Paper 1 from December 2003 to April 2004 resulted in seven written submissions to the Project (including two from Working Group members). While this was not a large number of responses, they were from a range of stakeholders and their quality was high. The key issues raised in these submissions, as well as relevant feedback from auditors in the field trial stage, are summarised below. The submissions are also available on the [project website](#).

There were a range of comments on the overall approach. The use of the ICMM Sustainable Development Framework was acknowledged to be pragmatic, but was seen to result in a complicated and at times repetitive structure. Cross-referencing of international guidelines, such as ILO, was thought by some to make the scheme too complex and the responsibilities of states and mine sites to become blurred.

It was pointed out that some of the weaknesses of the Forest Stewardship Council model had not been acknowledged, in particular that its Principles and Criteria were poorly defined and thus impossible to measure. With regards to the MCEP Criteria as a whole, there were views that some issues were couched too broadly; that more definition and clarification was required on particular issues; and that some criteria were too prescriptive or restrictive, giving insufficient flexibility for different strategies to be adopted at different sites.

There was a view that it was an ambitious standard, and that while standards should be raised, if they were raised too high only the very best performers would strive for certification. In this scenario, almost all sites would remain uncertified and while the ceiling would be raised, the floor would remain where it is.

It was thought that the scheme could be simplified considerably by only including criteria that are intended to be mandatory. A test for inclusion was proposed: if it was agreed that certification would be withheld if a mine site failed to meet a particular criterion but satisfied all the others, then this could be considered mandatory. A scheme simplified in this way would send a much clearer signal about what was required to obtain certification.

The MCEP Criteria were viewed by some to be 'developed world'-centric with limited relevance to the developing world. It was noted that there appeared to be an implicit assumption that international standards will be more stringent than local or national standards which, it was argued, is not always the case. Some were not convinced that it was possible to develop global standards as it would likely lead to a lowest common denominator approach.

Submissions also commented in detail on specific criteria and suggested alternative wording or concepts. The inclusion of concepts such as FPIC and riverine tailings disposal was welcomed by some, but thought to be inappropriately handled by others. The specific references to Indigenous people and affected communities were contested, mainly in terms of applicability outside of Australia, but also in terms of the power of communities relative to states. There was a view that the criteria had an inadequate focus on poverty eradication, and on specific environmental issues such as water, energy efficiency and cleaner production.

The public submissions and further Working Group discussions informed a revision of the MCEP Criteria for use in the field trials for the next research question. The [Revised MCEP Criteria](#) addressed some, but not all, of the issues discussed above and are available on the project website.

3.6 CONCLUSIONS

The MCEP's research activity on standard setting has enhanced understanding of acceptable social and environmental performance and set the stage for further work. Both the Working Group process and the public comment received have indicated that consensus is achievable in most areas, but that a few issues are likely to present more difficulty for reaching agreement. Overall, the MCEP exercise has highlighted a range of opportunities for clarification, improvement or perhaps new directions.

Conclusions from the MCEP standards exercise are:

- The focus on mine sites is a valuable point of difference from existing frameworks and standard-setting initiatives.
 - A mine site's corporate entity still plays a critical role in a potential certification scheme in terms of enabling policy and credibility of the scheme.
 - The use of the ICMM Framework appears to have enhanced the likelihood of industry uptake, but could also create a complicated scheme.
 - Consensus has not been reached on some key issues such as free prior informed consent, Indigenous people, the level of prescription in some criteria and any preclusion of particular technologies.
 - The aim of the MCEP was to focus on performance standards. However, the Criteria developed are a mix of normative and performance standards, process guidelines and management systems to attempt to cater for a variety of contexts.
 - While the Working Group developed the Criteria with global application in mind, the priorities and expertise of the participants are inevitably reflected.
- There are a wide range of views as to how the Criteria could be improved. For example, the criteria could be greatly simplified by excluding all those deemed not to be mandatory.

Since the criteria were developed in 2003 and revised in 2004, relevant initiatives continue to be released, such as the World Bank's Extractive Industries Review, the Extractive Industries Transparency Initiative, and the Framework for Responsible Mining (Miranda et al, 2005). These and others will provide additional direction in any future activity that builds on the MCEP standards-setting experience.

4 ASSESSMENT AND ASSURANCE

Research question:

Can an Audit Protocol be:

- a) designed and implemented to test the performance of mine sites against these criteria, in a manner that is practical and cost-effective?*
- b) utilised in a variety of ecological, socio-economic and cultural settings, both within Australia and internationally?*

4.1 BACKGROUND

After setting standards, a certification scheme seeks to assure stakeholders that certified operations are meeting those standards. A further consideration for examining the feasibility of a mine site certification scheme, therefore, is to examine processes for assessment and assurance. The MCEP framed this area in terms of the development of an audit protocol and process, to be tested at a number of mine sites. The research for this question was carried out during 2004-2005.

A number of assumptions shaped the approach taken in this part of the project. These assumptions included:

- The MCEP criteria could be used as the standard to assess performance at all sites.
- An audit protocol would provide an appropriate tool to assess mine site performance.
- Existing mine site audit procedures as well as the Forest Stewardship Council approach to assessment would provide suitable models for an audit protocol.
- An iterative approach to development of the audit protocol would maximise learning from the field trials.

- The mine sites selected in the field trials would provide adequate diversity to address the research question.
- The duration and cost of assessments should be kept reasonable and disruption to the sites' operations minimised, particularly in light of heavy audit schedules at many sites.
- Five days on site would be sufficient for the trials.
- Suitably qualified audit teams could be assembled for the trials.

In keeping with the intent of the MCEP as a research endeavour, the field trials aimed to collect data regarding the feasibility and effectiveness of conducting a mine site audit of environmental and social performance. The focus was on evaluating the assessment process in terms of the MCEP's research question, rather than on the sites' performance per se. The field trials were spaced over a nine month period to enable the assessment process to be progressively reviewed and revised by the Working Group.

4.2 LEVELS OF ASSURANCE

A basic issue in designing an assessment process is deciding the level of assurance that is desired. This degree of certainty that an operation is in conformance with set criteria can be categorised into four main levels.

Positive assurance. This level of assurance requires the most work and the highest standards of evidence, relying on a detailed assessment of the operation's management systems and performance. In a statement of positive assurance, the auditor claims that the operation is in conformance with the set criteria.

Negative assurance. This level results from an audit that is focused more on sampling than a comprehensive survey of the operation's activities. In a statement of negative assurance, the auditor claims that no evidence has been found that would indicate that the operation is not in conformance with the set criteria.

Agreed-upon procedures. In such an engagement, the auditor and the client, who may be a third party such as a certification scheme, agree ahead of time on the procedures to be used in the evaluation. The client – not the auditor – is responsible for deciding whether these procedures can provide a sufficient form of assurance.

Review. This lowest level of assurance is based solely on the auditor's personal opinion without a structured evaluation, and is usually not supported by externally developed standards.

Table 4 –Levels of Assurance

The table highlights that the higher the level of assurance, the more comprehensive the assessment: bringing greater credibility, but also higher costs. The highest level of assurance, 'positive assurance', has the most credibility but in practice may not be feasible owing to the high costs associated with such an assessment. The lowest level, the 'review', contains a high degree of subjectivity and would add little of value to operators or stakeholders. The general

consensus among the Working Group was that the level of assurance for a mine site certification scheme would be a flexible combination of 'negative assurance' and 'agreed-upon procedures' approaches.

Weighing up these considerations to determine an acceptable level of assurance for any future mine-site certification scheme, however, remains an important decision.

4.3 APPROACH

In preparation for the trials, the Working Group commissioned² an initial draft of an Audit Protocol based on the MCEP criteria which included guidelines for auditors to determine how trial sites had performed. Further development of the Audit Protocol proceeded with the benefit of insights from each subsequent field trial. The first two trials sought to determine whether the Audit Protocol was comprehensive, sought obtainable information and could be covered in the allotted time period.

Subsequent trials tested and refined a scoring system to be based on clearly defined performance measures. Following each of the trials, indicators of performance were added in the form of lists of possible pieces of evidence. Different sections were restructured to improve the process on site and remove duplication and ambiguity. Initial and final versions of the MCEP Audit Protocol, as well as a paper reviewing options for future improvements, are available on the [website](#).

² Brumale Consulting Pty Ltd

Six field trials were conducted as part of the MCEP research: four in Australia, one in New Zealand and one in Brazil. Sites were selected to include a range of attributes, such as mine type, commodity, geographic location, size of parent company, location in relation

to human populations, and environmental and social issues. Two international trials were conducted that allowed the approach to be tested outside of Australia. The field trial sites are summarised in Table 5.

FIELD TRIAL SITE	AUDIT DATES	SITE DESCRIPTION
1. <u>Cannington</u> BHP Billiton Northwest Queensland, Australia	14–18 July 2004	Silver-lead-zinc mine; In operation since 1997; Currently employs about 600 people; Produced 2 million tonnes of ore in 2004; On-site processing to produce concentrate; Truck, rail and sea transport to smelters.
2. <u>Stawell</u> MPI Mines Central Victoria, Australia	9–13 August 2004	Gold mine located on edge of town of Stawell; Under MPI management since 1992; Currently employs about 250 people; Produced 100,000 ounces of gold in 2004; On-site processing to produce bullion; Shipped to Perth Mint for further refining.
3. <u>Tarong</u> Rio Tinto Central Queensland, Australia	13–17 Sept 2004	Coal mine; Commenced coal deliveries in 1983; Currently employs about 260 people Produced 7 million tonnes in 2004; Supplying adjacent power stations; Energy production of 40% Queensland's demand.
4. <u>Granny Smith</u> Placer Dome Goldfields region, Western Australia	18–22 October 2004	Gold mine located 40km from Laverton; In operation since 1990; Currently employs about 450 people; Produced 267,000 ounces in 2004; On-site processing to produce bullion; Shipped to Perth Mint for further refining.
5. <u>Waihi</u> Newmont North Island, New Zealand	7–11 March 2004	Gold mine adjacent to town of Waihi; In operation since 1988 and under Newmont management since 2002; Currently employs about 260 people; Produced 130,500 ounces in 2005; Shipped to AGR Mathey refinery in Perth.

<p>6. <u>Mineração Catalão</u> Anglo American Goias, Brazil</p>	<p>11–15 April 2004</p>	<p>Niobum mine near town of Catalão; In operation since 1976; Currently employs about 260 people; Produced 5,000 tonnes of ferroniobium in 2004; On-site processing of ore to ferroniobium; Shipped to specialty steel industries.</p>
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Table 45 –Mine Sites which participated in MCEP Field Trials

Audit teams for each site comprised an independent Team Leader who was a professional auditor, the MCEP Project Officer, and independent consultants and/or staff from other operations of the parent company of the mine site being assessed. Each team member had

auditing experience and was allocated sections of the Audit Protocol according to his or her area of expertise. Before each field trial, the team was provided with the relevant documentation and a brief training session.

4.4 FIELD TRIAL PROCESS

At least three weeks in advance of each field trial, the site contact was provided with a list of documentation that should be made available to the audit team ahead of the trial or once on site. The Team Leader and site contact developed a schedule for on-site interviews with staff members and external stakeholders.

Each field trial began with an opening meeting, which included an explanation of the objectives of the MCEP and the particular field trial as well as the procedure to be followed. Each trial ended with a close-out meeting at which preliminary findings were presented and discussed. This provided the site with potentially useful feedback and an opportunity to offer comments on the trial audit process and the possible value of a future certification program.

On site, team members reviewed documentation and interviewed relevant staff. Over the course of the trial audits, a methodology was developed for conducting confidential interviews with a random sample of employees from each area of the mine site, drawing on Social Accountability International's guidance document for its SA8000 Standard. Stakeholders were also interviewed individually or in groups. In some

cases, the site staff co-ordinated interactions with stakeholders, which was deemed acceptable for the field trials but would be the responsibility of the audit team in a real audit. In later trials, the audit team developed a methodology for selection of stakeholder interviewees that sought greater control over the sample so as to include a range of attitudes towards the mine.

Two reports resulted from each field trial:

- A **Process Report** that discussed issues and recommendations relating to the Audit Protocol and the field trial methodology.
- A **Findings Report** that discussed the site's performance in relation to the MCEP Criteria. This report was provided confidentially to the site staff in appreciation for their contribution to the research.

The Process Reports from all six field trials, as well as additional comments from the Team Leaders, can be found on the MCEP [website](#).

4.5 KEY FINDINGS

The field trials provided a rich picture of experience and issues relating to assessment and assurance of social and environmental performance of mine sites. Key findings are summarised here in terms of the research question, that is:

- Design and implementation of an assessment process for performance of mine sites that is practical and cost-effective;
- Utility of the assessment process in a variety of ecological, socio-economic and cultural settings within Australia and internationally; and
- Other issues identified by the audit teams and the Working Group.

4.5.1 Design and implementation of an assessment process

The main difference between the MCEP assessment and existing external audits carried out at mine sites lies in the integration of social, environmental, health, safety and broader ethical aspects into one process. The field trials suggest that this integration provides a more comprehensive understanding of how a mine site addresses these issues than any existing stand alone approach, even where these are run back to back. The approach taken in the field trials, of a team of auditors with particular specialities, demonstrated that this integration can be managed.

The inclusion of new considerations such as employee relations and corporate governance also extended the territory of existing assessments. Interviews with a range of employees were seen as a positive feature of the assessment process, though methodologies for selection and confidentiality could be improved. Explicitly seeking the views of external parties was seen to substantially enhance the potential credibility and value of the process by removing the inherent 'bias' of talking only with internal people. However, audit teams found it was still difficult to gain a

reasonably representative understanding of the issues, concerns and performance of the site from a non-company perspective.

Numerous smaller issues relating to the balance between various components of the assessment, the format and structure of the audit protocol, and the responsibilities assigned to members of audit teams were identified in the trials, but appear to be procedural rather than fundamental to the success of an assessment process. One of the field trials suggested that there was a gap in the assessment in the area of financial planning and evaluation of economic risks, and that criteria for a 'Minerals Resource Stewardship' section could be added.

Field trial audit teams on the whole viewed the criteria as practical and reasonable for a superior mining operation. Site feedback on criteria and specific performance requirements tended to be associated with the ability of the mine to demonstrate compliance and the reasonableness of asking questions for which the mine had not prepared, with the exception of the local context issues discussed in the next section. Where a mine site was part of a larger company, the need to assess aspects of corporate policy from the parent company was often difficult, but some auditors saw it as central to assessing the sound performance of the site. In an operating certification scheme, these issues from the field trials would be less critical because a mine actually seeking certification would know in advance what it is required to demonstrate.

A scoring system was introduced at the third field trial to test the feasibility of quantifying and tracking performance against the Criteria and to encourage continual improvement. By assessing inter-rater reliability of the scoring system (the degree to which two scorers would independently assign identical scores), the field trials found that there was

significant variation in scoring according to auditors' interpretations of questions and evidence. Improving the clarity of guidance provided to audit teams may address this. However, quantifying changes in performance, as opposed to assessing compliance or non-compliance, may remain problematic. The measures need to be robust across contexts and scorers, requiring a reliability that may not be achievable, depending as it does on individual auditors in the field. If a scoring system were to be developed, decisions would need to be made as to what individual and overall scores were considered acceptable for certification and how validity and reliability would be assured.

The field trials highlighted the inevitable conflict between time pressures and thoroughness. Many auditors found the five days allotted time inadequate to address all aspects comprehensively. Some auditors thought five days on site would be adequate in future, if there was enhanced pre-assessment preparation, such as an audit schedule, self-contained tools for each auditor, and advance organisation of interviews and meetings with external stakeholders and employees. While improvements such as these and greater experience would bring efficiencies, time considerations may still prove a difficult issue to address. The costs of assessments need to be kept reasonable, which places a limit on person-hours, however a less comprehensive assessment approach would be less credible.

It is especially important to establish value in the eyes of both companies and stakeholders potentially interested in mine site certification. The field trials suggest that the value of an MCEP-style assessment could lie in a better integrated 'picture' of a site's performance than that currently provided by stand-alone assessments, the potential time savings from an integrated approach, and increased credibility of a third-party evaluation. An integrated assessment may mean that the number of audit days at a mine may not decrease, but the frequency of audits should.

The value of certification as a reputation benefit was understood by participating sites, but given the extensive time investment in assessments, interest lay more in practical outcomes for the site. Value could derive from mine sites being given specific guidance as to how to improve performance, or from participating in a scheme that rationalised the plethora of standards into an integrated framework specifically for the mining industry.

4.5.2 Utility in a variety of settings

Mine sites operate in a wide range of settings around the world. The challenge for a certification scheme is thus to develop an assessment process that can be adapted and used in a variety of contexts. The field trials included sites in Australia, New Zealand and Brazil that were, for example, remote or close to communities, with differing socio-economic conditions, and located in wet or dry environments.

The field trials found that local context had significant bearing on the framing, relevance or implementation of some of the MCEP criteria. Community engagement processes at mine sites, for example, varied greatly depending on the issues and cultures involved. In the environmental section of the assessment, there was an implicit assumption that water would be limited and should be carefully managed, whereas in the New Zealand case water was present in excess. Identifying stakeholders as 'Indigenous', while well accepted in Australia, can be problematic elsewhere for a variety of reasons. Furthermore, there may be a range of different cultures and groups with varying degrees of disadvantage in host communities that don't fit neatly into categories of Indigenous and non-Indigenous. The Brazil trial emphasised the importance of fluency in the local language, as well as familiarity with local social structures and cultural norms and expectations. Both non-Australian trials highlighted the relevance of the legislative context of the mine site operation, particularly in occupational health and safety areas, such as drug use by employees, and labour and employment laws, such as whether international

human rights instruments were enshrined in local laws, and the implications for testing for compliance.

The MCEP trials attested to the difficult balance between a standard that can be universally applied and is adaptable to diverse operating circumstances, but that still offers sufficient detail and robustness to serve an assurance function. Generally, the more detailed a standard, the less generic it becomes. Some auditors called for additional detail on criteria and guidance for assessors, while others acknowledged the unavoidable exercise of discretion and judgement of assessors and the importance of a strong principles base to which to refer. Some participants in the trials viewed regional or site-based performance standards as a better option than a global standard. However, it was acknowledged that identifying appropriate performance standards for regions or sites would be time consuming and probably contested, requiring strong mechanisms within a certification scheme to deal with conflict. Other field trial participants believe that the trials suggest that a global standard, which is relevant and applicable to any mine site, is achievable. The challenge, they argue, is less to do with substantive principles and more to do with revising text and structure of the assessment model.

Unfortunately, there appears to be insufficient evidence to point to the superiority of either a global or regional/site approach at this stage. Each appears to be workable and to have advantages and disadvantages, some of which go beyond the considerations of the assessment process itself.

4.5.3 Other issues

The MCEP field trials took place alongside a range of existing mine site audit processes. Many companies carry out internal audit procedures against their own management standards on a range of key issues. Mine sites can also seek third-party assessments against the International Organization for Standardization's

ISO 14001 Standard for Environmental Management Systems, the international Occupational Health and Safety Management System Standard OHSAS 18001, and Social Accountability International's SA8000 Standard, among others. There is some overlap between these and the MCEP approach. In general, the MCEP places less emphasis on evaluating systems and more emphasis on processes, outcomes and external stakeholder and employee engagement.

Feedback from the trial sites suggested that sites already have a heavy audit schedule of internal and external audits, and new schemes would be evaluated in terms of the value provided. Attractiveness would be enhanced by schemes that covered additional issues such as performance, that aligned with existing audit processes where possible, and that accepted existing certification as evidence as appropriate. There may be an opportunity for certifiers accredited to a number of schemes to combine assessments for different schemes into a single audit.

Testing the reliability of a scoring system in the field trials emphasised the role of professional judgement of auditors in evaluating mine site performance. As with other certification schemes, the selection, training and accreditation of suitably qualified auditors will be critical to the credibility and success of a certification scheme for the mining industry.

4.6 CONCLUSIONS

The field trials indicate that, on the whole, an assessment process based on the MCEP could be designed and implemented that is practical, cost-effective, and can be used in a variety of mine site settings. Each field trial highlighted areas for improvement in the assessment process and pointed to issues that would require further consideration in the creation of a mine site certification scheme.

Conclusions from the MCEP field trials are:

- The balance between minimising time on site and maximising thoroughness is a perennial issue and will be a critical decision for a certification scheme.
 - Providing adequate assurance in a limited time frame should be feasible with efficiency improvements and greater experience in the assessment process.
 - The integration of a wide range of issues in one assessment is desirable and can be managed with a suitably qualified audit team.
 - The greater emphasis on outcomes, performance, stakeholder engagement and employees was a positive point of differentiation from existing mine site assessments.
 - The scoring system proved problematic and did not reach an adequate stage of development for reliable measurement of performance. There are arguments for and against the establishment of a scoring system.
 - The non-Australian trials showed that an Australian bias was discernible in the criteria and assessment. Local context was very important in assessing acceptable performance, requiring appropriate skills and experience in the audit team and pointing to the need for revision of the criteria in some areas.
- The relative superiority of a global standard or a regional/site standard was not tested. There are advantages and disadvantages to each.
 - While the potential value of mine site certification may be more apparent at the corporate level, to mine site management the value is still in question. Given that many mine sites already have heavy audit schedules, the value of certification will need to be established relative to existing initiatives and in terms of outcomes at the site level.

5 PROJECT IMPLICATIONS

5.1 BACKGROUND

The MCEP has been a three year research project which has sought to gain a greater understanding of the feasibility of mine site certification. This has been achieved through the investigation of three principal research questions undertaken with the broad direction of the project's Working Group. The three areas investigated in the research and discussed in this report have been:

- Governance
- Setting Standards
- Assessment and Assurance

This final section of the report seeks to assess the general implications of the project's main findings, discuss the specific issue of Small and Medium Enterprises (SMEs), and identify future directions where appropriate.

5.2 IMPLICATIONS OF KEY FINDINGS

A review of the mining sector's governance environment indicates that it is active in the development and implementation of private initiatives. Concern for reputation and a social licence to operate appear to be significant drivers and a number of sectoral initiatives are working towards processes for independent verification. A wide range of stakeholders see benefit in voluntary private initiatives as a means to improve environmental and/or social and/or economic performance. In this context, there appears to be scope for a scheme for third-party certification of mine sites. The future success of such a scheme will depend upon appropriate governance that

can complement existing initiatives and offer a credible means for verifying on-site performance.

In light of these findings, the following governance issues appear to be most significant:

- Attracting broadly based support, both in terms of participation and decision-making, will be a critical task. If a certification scheme seeks to have an impact on the performance of the sector as a whole, strategies will be needed to attract and assist low to average, as well as high, performers, in a way which does not compromise the credibility or effectiveness of the scheme.
- Establishing a viable funding structure for an organisation to run a third-party certification scheme, without compromising its credibility, will be crucial to success.
- Acknowledging complementary private initiatives would address potential repetition and accept other valid assessments of acceptable performance.
- Tracking the supply chain for mineral products from mine site to buyers ('chain of custody') could enhance the attractiveness of a scheme in terms of market differentiation.

The overall conclusion of the standards setting research is that a broad consensus on appropriate standards for mine sites should be achievable in most areas. However a few issues, such as free, prior and informed consent and any preclusion of particular technologies, are more problematic. Also, the issue of whether globally applicable standards allow sufficient flexibility for local context and implementation is still open. While the use of the ICMM Framework should enhance the likelihood of industry uptake, it could create a complicated scheme.

Thus, in terms of standards setting, the implications for any further development of a mine site certification scheme are:

- The Working Group model of a multi-stakeholder forum for debate and development has, on the whole, worked well. However, for a global scheme to be developed, a wider variety of international perspectives needs to be integrated in any future process.
- The feasibility of globally applicable standards, as opposed to regional or local standards, needs further investigation, particularly if the standards are to be as detailed as those developed in the MCEP.
- There is more work to be done in some areas, such as free prior informed consent, Indigenous people, and any limitations on specific technologies or practices, particularly in the context of a global standard, if a broad consensus is to be reached on appropriate performance.
- The MCEP Criteria are comprised of a mix of normative and performance standards, process guidelines and management system requirements. There are options for retaining this mix, shifting to a focus on one or more of these, or simplifying the standard by including only criteria deemed mandatory.

Finally, MCEP's assessment and assurance research found a practical and cost-effective assessment process should be achievable, but further consideration of a number of issues is required. These include: the balance between providing credible assurance without excessive audit times and costs; the relative merits of assessments based on a global standard or a regional or site standard; and, the desirability and feasibility of a scoring system. The integration of a wide range of issues in one assessment and the emphasis on outcomes,

performance, stakeholder engagement and employees was found to be a valuable departure from existing mine site assessments, and may require new skills and approaches for auditing teams.

In terms of assessment and assurance, the findings hold the following implications for any future mine site certification scheme:

- There are a range of opportunities to improve the tested assessment process and any future certification scheme can learn from the well-documented experiences of the MCEP field trials.
- Finding the balance between the costs of audits in terms of auditing time and the scope of processes on mine sites, and the level of assurance that can be provided, will be an important task.
- The qualifications and experience of integrated auditing teams, particularly in terms of familiarity with local context and issues, will need careful management and oversight from a certification scheme.
- Stakeholders, including mine sites and the industry in general, will need to assess the potential value of mine site certification to determine their support for a scheme.

5.3 SMALL AND MEDIUM ENTERPRISES

Small and Medium Enterprises (SMEs) play a significant role in virtually every economy and, even in OECD countries, generally account for more than 95% of enterprises. During the life of the MCEP, the implications of a mine site certification scheme for SMEs were often discussed. In considering the various issues raised in the research, the Working Group agreed to the principle that certification should be designed as a viable option for SMEs as well as large mining companies.

The definition of a SME varies between countries, though most use an employment measure collected through central statistical agencies. In Australia, for example, a micro firm has less than 5 employees, a small firm has 5-19 employees, and a medium firm has 20-200 employees, with large firms having more than 200 (Australian Bureau of Statistics, 2001). In the Australian mining sector, 81% of firms are characterised as small by this measure. The relevance of size is not so much in the total numbers employed, but the types of specialised or adjunct services the enterprise can access. For example, larger organisations have scope for dedicated staff who can give priority and expertise to areas such as human resources, corporate policy and management systems.

SMEs are particularly important in the context of development and in many parts of the world are as important as large-scale mining enterprises. Apart from the companies that might be considered “juniors”, there are 13 million people who participate in small-scale mining activities, mainly in developing countries (Hentschel et al, 2002). Small-scale mining is often characterised by poverty, low levels

of occupational health and safety, insufficient consideration of environmental issues, and usually a lack of legal mining title (Hentschel et al, 2002). The Extractive Industries Review recommends treating small-scale mining as a distinct sector, and it is clear that it would present some very specific on-ground challenges for a certification scheme that might wish to address it.

In general terms, the MCEP’s research in the areas of governance, standard setting and assessment and assurance has highlighted the following issues for SMEs:

- Certification may be more difficult to attain because of fewer resources for implementing environmental and social programs and management systems; and/or less documentation to assist in the assessment of the site’s performance.
- Costs associated with certification assessments and any ongoing audits could be relatively more burdensome for SMEs.
- Barriers for SMEs that discourage participation in a certification initiative could create a real potential for industry segregation or discrimination.

The importance of SMEs to the mining sector throughout the world suggests that these issues will warrant further consideration in a future scheme, taking account of the need for collective approaches to improving industry performance.

5.4 FUTURE DIRECTIONS

There are a number of developing initiatives calling for third-party certification in the mining sector, such as the Cyanide Code and the Council for Responsible Jewellery Practices, as well as the MCEP. In considering the potential for new private initiatives for the mining sector, the challenge for all stakeholders will be to determine if and how these various initiatives can be aggregated.

The MCEP has focussed on evaluating the feasibility of third-party certification of mine sites and identifying the issues central to any future development. In this sense, the research has concluded that mine site certification is achievable in theory, notwithstanding the, as yet unresolved, issues that have been discussed in this report.

In practice, however, the fundamental questions are whether a mine site certification scheme is of value to the mining industry and its stakeholders, and what will be the major drivers for its future development. The task of establishing a working certification scheme lies ahead and progress will largely depend on the efforts of those who choose to champion the idea. A broadly based coalition of stakeholders, who can collectively articulate value and potential, offers the best prospect for success.

Communication about the MCEP initiative has been ongoing through the life of the project through research publications, newsletters and participation in various fora. This is expected to continue and intensify with the publication of this report. The essentially Australian-based nature of the project means that an international debate is a critical next step in any evolution of a certification scheme for mine sites. The MCEP has created a platform and arguably an imperative for that debate.

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