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	Extremely Valuable	Valuable	Interesting	Not Necessary
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CONTINUOUS IMPROVEMENT
DELEGATE SURVEY

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The MCA Currently provides online access of the conference proceedings (via the MCA website) and also on CD-ROM. If you need to access the conference proceedings, would you be more likely to use a CD-ROM or online facility?

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MINERALS COUNCIL OF AUSTRALIA

2006 SUSTAINABLE DEVELOPMENT CONFERENCE

CONFERENCE WORKBOOK

SHERATON PERTH HOTEL
PERTH, WESTERN AUSTRALIA
23 – 27 OCTOBER, 2006

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WELCOME TO COUNTRY

OPENING SESSION

The Hon Eric S Ripper BA DipEd MLA
Deputy Premier; Treasurer; Minister for Government Enterprises; Minister Assisting the Minister for Public Sector Management

Mitchell H Hooke
CEO, Minerals Council of Australia

Mr Wayne Osborn
Managing Director, Alcoa World Alumina

ENGAGING COMMUNITIES IN SUSTAINABILITY PLANNING

Alexis Cairo(1), Rob Atkinson(2), Geraldine McGuire(3) and Janina Gawler(4)
General Manager - Communications and Sustainable Development (1)
General Manager - Weipa Operations(2)
Principal, Sustainable Solutions Consulting(3)
Prinicipal, Co-operative Change (4)
Rio Tinto Aluminium, Comalco Weipa

The bauxite mining operations at Weipa in the Western Cape York Peninsula of Queensland have been operating for 50 years and mining is expected to continue for at least another 50 years. During 2004, a number of Comalco and Rio Tinto management personnel sought to understand and become aligned with the issues of importance to the local communities at Weipa and in the adjacent Indigenous communities. This resulted in the development of a forum and planning mechanism for engagment with relevant government and non-government agencies which enabled the strategic plans of Comalco to be integrated with key sustainability initiatives in the region. The process was able to hardwire the corporate direction for regional sustainability beyond mine life into the operational action plans for community engagement and development.

A key partnership outcome of the forum has been the redevelopment of old Weipa hosital into a new regional health facility and precint, due for completion in 2007. Another critical outcome was the initiation and implementation of the Regional Partnerships Agreement to increase employment outcomes and business propserity for Indigenous people in the Western Cape. This has built on the Western Cape Communities Co-existence Agreement and has leveraged additional support from the Australian and Queensland Government to improve delivery of training and employment support over the next 5 years.

This paper paper describes the process that was established, the vision and objectives of the forum, the challenges faced, outcomes achieved and lessons learned.

Abstract Summary

Lessons learned:	The alignment of ideas and language of corporate and site personnel is a critical stage before engaging external stakeholders Understanding and working with local community groups and engagement forums avoids duplication and streamlines the process Starting with issues that are of greatest importance to the local community results in rapid positive outcomes which builds trust and assists when addressing other issues of importance to the business
Take home messages:	Be inclusive by involving all relevant levels of the business Get to know your stakeholders or involve people that do. Start with readily achievable projects which have broad benefits e.g. health, education and employment Consulting on issues that matter most with communities, lays the foundation for operations to engage in on going dialogue on sustainability issues
Issues faced:	Past legacy of limited communication and co-operation between corporate and site required a number of internal meetings to ensure alignment and achieve positive outcomes to build confidence. The existence of multiple local, state and federal driven engagement forums and development initiatives in the region required a mechanism which was multi-faceted but non-duplicating.

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AN INNOVATION IN HR: DELIVERING MORE VALUE WITH LESS IMPACT BY EXPANDING THE WORKFORCE DELIVERY MODEL

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[1]Manager Human Resources Pilbara, Pilbara Iron
[2]Principal Adviser Sustainable Development & Projects, Pilbara Iron
[3]Senior Manager Sustainability, Ernst & Young

The combined effects of the mineral resources boom and current skilled labour shortage have lead Rio Tinto Iron Ore (RTIO) to explore and develop greater possibilities around fly in fly out (FIFO) arrangements.

RTIO has recently extended their workforce delivery model to include FIFO from Geraldton as well as Perth. This has had a threefold benefit to the business, RTIO employees and the host communities around Geraldton.

The initiative is reflected within three of RTIO's sustainable development principles:

• Optimising long term economic value to the business by broadening the base from which to attract staff and offering greater choices in order to retain staff;
• Improving equal employment opportunities in regional Western Australia by increasing the range of opportunity from the Pilbara and the Perth metro area to the Mid West; and
• Improving contribution to community capacity by the provision of employment in regional areas strengthening the economic development of the Mid West as well as enhancing lifestyle opportunities for employees.

RTIO aims to be a leader in the sustainable development contribution of our business in Australia and providing flexible choices to our employees is one aspect of our commitment to deliver more value with less impact.

Abstract Summary

Lessons learned:	Challenge existing practices – by using the sustainable development principles as a guide and asking the question 'how does this initiative contribute to the principles?', creative solutions can be developed..
Take home messages:	Deliver value with less impact. Recognise the full suite of benefits from a business decision and building them into the business case The application of the SD objectives facilitates the development of alternative solutions.
Issues faced:	The ability to attract and retain staff.

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ABORIGINAL BUSINESS DEVELOPMENT – THE PRACTICAL ROLE OF MINING COMPANIES

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Principal(1)
Professor and Director(2)
JRHC Enterprises (1) Centre for Social Responsibility in Mining, The University of Queensland(2)

Within Australia, mining companies have entered into agreements with local Aboriginal communities to provide security of access in return for benefits to the communities. In general, these benefits have involved direct financial compensation and more importantly, social and economic development initiatives, often with a focus on employment, training and business development.

Mining companies, in co-operation with government and communities, have shown themselves to be quite good at managing employment and training initiatives, but there has been only limited success in the area of business development, despite significant and varied effort. This is a major problem in terms of sustainability as communities need to develop a "business" culture in order to diversify their economic base and lay the foundation for economic independence post-mining.

This paper reports on the findings of a study undertaken as part of a larger Rio Tinto project, the Community Economic Enterprise Development Project. The study aims to enhance opportunities for the development and generation of Aboriginal business enterprises in Aboriginal communities in the vicinity of mining operations. The study examined national and international Indigenous business development practices and identified key factor which improved the chances of business success. These findings were then translated into practical and useable tools for practitioners

In addition to describing the tools that were developed, the paper will address more fundamental questions about the role that companies can play in Aboriginal business development

Abstract Summary

Lessons learned:	A review of existing Indigenous business activities identified a set of characteristics that lead to business success. By understanding the characteristics, it was possible to develop a proposed set of company based management practices that actively contribute to successful Indigenous businesses.
Take home messages:	The work developed a set of management practices that can be adopted to enhance regional Indigenous business success. Regional Indigenous business development needs to be community driven approach which is supported by the companies in the region.
Issues faced:	

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THIESS: MAKING A DIFFERENCE TO SUSTAINABLE DEVELOPMENT.

Speaker's name: Andrew Grabski
Paper Details: Andrew Grabski,
Group Environmental Manager
Thiess Pty Ltd

Established in 1933, Thiess has grown to become one of the largest construction, mining and services providers in Australia, South East Asia and the near Pacific. With over 16,000 employees and around $8 billion work in hand, we aim to deliver successful outcomes to our clients in Building, Civil Engineering, Mining, Process Engineering, Environmental Services, Utilities Services, and Facilities Operation and Maintenance.

Our vision of being an industry leader in every area of our diverse operations is supported by a culture of teamwork, innovation, integrity and performance. Delivering high quality projects with sustainable economic, health and safety, environmental and community outcomes is fundamental to our business and we are committed to working in partnership with our clients and other stakeholders to achieve these objectives.

This paper addresses Thiess' approach to the challenges of integrating principles of sustainability into our business activities and how we work proactively with clients and other stakeholders to achieve sustainable development.

Abstract Summary

Lessons learned:	
Take home messages:	
Issues faced:	

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HOW A SINGLE MINE TRANSLATED ITS CORPORATE PARENT'S SUSTAINABILITY FRAMEWORK INTO OPERATIONAL REALITY

Bronwyn Darlingon(1), Mike Carrucan (2) and Mark Flanagan (3) (Arial, Size 10, Centred)
Director/Facilitator - Darlington Consulting
GM XCN Open Cuts and Operations Manager Bulga Coal until April 2006(2)
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Bulga Coal Open Cut

This paper describes how a single mine translated the corporate sustainability objective of its parent company, Xstrata Coal, being 'to creating value for our shareholders by achieving growth in a manner that is economically, environmentally and socially responsible and sustainable over the long term' into doable and reportable actions as part of its yearly planning processes. The process highlighted the fact that for corporate sustainability commitments to be of value in helping managers on a day to day basis there must be a systematic and structured method of putting them into practice in the real world.

This paper describes a top down and bottom up approach which included drawing a wide range of employees and contractors into facilitated workshops to assess the vision and mission of Xstrata and Bulga Coal in each area of Health and Safety, Environment and Community (HSEC) as it impacted on their day to day work. It describes how these individuals worked together to assess the current performance from a ground level (real and perceived performance) and corporate level (grouped statistical performance information). The process included a review of current commitments and outstanding actions and used a Sustainability Diagnostic Tool to identify where Bulga Coal was in real terms along the best practice continuum and where they want to be in 3-5 years time. Action plans were developed and resources assigned to bridge the gap. These actions plans were managed through the Xstrata 'Site Safe' system with built in accountabilities and progress reporting.

Abstract Summary

Lessons learned:	Words describing sustainability at a corporate level need to be translated so people on the ground can understand and implement the vision. You can't just add another 40 good ideas to the 360 outstanding actions - consolidation is more successful What's in it for me is as applicable for sustainability as anything else Getting contractors involved changed the process and the outcomes positively Visible leadership made everyone pay attention
Take home messages:	A consistent structured approach makes all the difference Visible leadership and clear commitment must be followed up with real resources It takes time to bring everyone on board, but it is worth the effort Getting results doesn't have to take more money - just more action Bottom up needs to be aligned with top down and vice versa The Sustainability Diagnostic Tool really helped
Issues faced:	Lack of knowledge of parent company expectations by operators in the field The difficulty of pulling the right people together off the job to be part of the process Various stages of maturity in each area of HSEC Supervisors were fearful of more work

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THE CHALLENGE OF THE CARBON MARKET

Brad Wylynko: Partner, Corporate Advisory - Environment
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Tim Macknay: Solicitor, Corporate Advisory - Environment

Clayton Utz

Climate change risks and impacts are emerging as a significant sustainability issue for many businesses. Mitigating climate change is a particular challenge for energy-intensive industries such as the mining sector.

As a result of the Kyoto Protoco, an international market-based tool to combat climate change was initiated, but the market has subsequently developed further to accommodate the needs of businesses that trade in countries that have not ratified the Protocol.

This kind of trading serves a sustainability agenda primarily in two ways: as a form of risk management and as a means of improving environmental performance.

The absence of a market-based carbon trading scheme in Australia means that many companies operating in Australia must seek out ad-hoc greenhouse gas offsets or emission reduction schemes which incorporate voluntary trading in carbon credits. In our experience as legal advisors assisting resource companies to implement these types of greenhouse mitigation projects, we have found that the lack of a market-based trading regime creates significant obstacles which require a high degree of creativity to overcome.

These challenges include the lack of a firm carbon price, creating difficulties in assessing allowable costs and estimating returns from a project; the risks posed by uncertainty over the future costs of greenhouse mitigation; and difficulties in defining carbon and determining its ownership at different stages of a project.

In this paper we assess the types of challenges faced, the methods which can be devised to overcome them and the opportunities the present scenario creates.

Abstract Summary

Lessons learned:	Without a formal carbon market, a high degree of collaboration is necessary within industry to achieve improvements in greenhouse outcomes. The lack of formal ownership structures for carbon creates a need for a high degree of creativity in designing projects to maximise financial benefits from greenhouse mitigation
Take home messages:	The absence of a clear carbon price in Australia poses a difficulty for the implementation of sustainability-oriented projects involving greenhouse mitigation
Issues faced:	Defining carbon rights in a manner which is practical and commercially useful; Identifying when transfer of ownership of carbon rights occurs in the context of industrial operations; Ensuring that contractual arrangements for the creation of carbon credits do not run afoul of trade practices legislation

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A MODEL FOR BEST PRACTICE REGULATION THAT WILL DRIVE CONTINUOUS IMPROVEMENT IN SAFETY PERFORMANCE

Dr Andrew Lewin
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In an effective modern safety and health regulatory regime the operator of a facility creates the risk and is bext placed to control and manage the risk. The role of an effective regulatory body is to provide an independent, competent challenge to the assumptions and decisions made by the operator. This model provides flexibility for operations that are at different levels in their safety and health evolution, encouraging continuous improvement in all aspects of safety and health through targeted, appropriate and proportionate enforcement of modern objective (risk) based legislation.

An independent regulatory body will be subject to government policy direction but ultimately regulatory decisions and actions should be independent of direct stakeholder influences, i.e. influences from party policitcal sources, from trade unions and from industry. A competent regulatory organisation has the range of requisite skills necessary to provide the challenge described above, including the ability to maintain currency of knowledge and to make judgements on potentially subjective issues with a high degree of confidence and credibility.

To have the requisite competencies and experience compete for precious resources the organisation should not be limited by government pay constraints. Furthermore, competition for resources can be reduced by efficiencies in the number of similar regulatory organisations. In order for this model to work the regulatory organisation must be separated in some way from government departments, for example as a statutory authority with a separate advisory board.

Abstract Summary

Lessons learned:	By taking a national approach to safety and health regulation there are gains in efficiency and effectiveness, as well as driving consistent continuous improvement By separating a regulatory body from government departments it can provide opportunities with attracting a broader range of skills and experience
Take home messages:	Prescriptive regulatory regimes with a regulatory organisation that does not seek to have the best range of competencies will not drive continuous improvement at all levels of the industry
Issues faced:	A change to a nationally consistent approach will require additional resources and finances, as well as the political will in most jurisdictions.

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AN EPIDEMIOLOGICAL DIAGNOSIS OF OCCUPATIONAL FATIGUE IN PRODUCTION STAFF AT THE SOUTHERN CROSS FERTILIZERS OPERATION AT PHOSPHATE HILL.

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(2) Injury Risk Management Research Centre, University of New South Wales.
(3) Southern Cross Fertilizers, Phosphate Hill.

Introduction: An epidemiological study of occupational fatigue in staff working a fly-in/fly-out roster of 12 hour shifts was conducted at the Southern Cross Fertilizers operation at Phosphate Hill. The aims were to use direct, individual measurements to assess the levels of fatigue of a production crew over the whole course of their roster.
Methods: The individual physical (reaction times) and mental (subjective ratings) dimensions of fatigue were measured at the start and finish of each shift throughout the course of the 28 day roster (10 days/5 off/8 nights/5 off) using the Mackworth Clock Vigilance test and the Swedish Occupational Fatigue Inventory respectively. Additionally, major predisposing/reinforcing factors of fatigue were measured including a detailed sleep diary (length/quality of sleep, wake patterns), a diary on alcohol consumption, and general health/fitness questionnaire.
Results: A total of 51 production staff participated. Reaction times, as well as subjective fatigue scores were highest at the finish of nights 1 to 3 and also increased significantly from day 8 onwards. At the measured level, the total hours of sleep (average 6.8 hours/night), and number of standard drinks the night before (average 1.5) were not significantly correlated with fatigue measurements.
Conclusions: A disturbed diurnal rhythm at the beginning of night shift and a roster of more than eight consecutive days were identified as the primary contributing factors to occupational fatigue in this setting. Neither sleep deficit nor excessive alcohol consumption appear to contribute to fatigue at this site. The implications for workplace practices will be discussed.

Abstract Summary

Lessons learned:	Measurement of all of the factors that may contribute to fatigue in individual staff throughout the duration of a roster is essential to develop site-specific fatigue management policies.
Take home messages:	A disturbed diurnal rhythm at the beginning of night shift and a roster of more than eight consecutive days were identified as the primary contributing factors to occupational fatigue in this setting.
Issues faced:	Long-term relationships between independent research bodies and staff are essential to achieving maximum participation in intensive epidemiological studies.

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XSTRATA COAL SOUTH AFRICA'S INNOVATIVE HIV AND AIDS RESPONSE PROGRAMME

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Director of Operations – Xstrata Coal (1)
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Xstrata Coal (Xstrata) is Xstrata's largest business unit and operates 30 coal mines, of which 11 are in South Africa. The South Africa coal operations employs around 6000 employees and contractors and it is estimated that 20% of the South African workforce is HIV positive, making this the most significant health issue facing the Group.

In 2004, Xstrata launched a comprehensive HIV and AIDS Workplace programme to address HIV / AIDS in the workplace. The core initiative has been the voluntary HIV testing, counselling and treatment (VCT) programme rolled out across every operation in South Africa. The programme was successful in implementing a very high uptake Initiation phase on-site campaign that resulted in 72% of all employees undergoing VCT within weeks of offering HIV testing through the workplace.

This earned Xstrata a commendation in the Global Business Collation- Business Leadership Awards last year based on a campaign that carefully planned and systematically implemented 'trend response' intervention that was strongly supported by management, and Union leaders.

Recognising that our investment in our workforce will only be sustainable if we are also able to encourage families and the wider community to participate, Xstrata committed to a programme that provides access to primary care services for communities. This programme involves working in public-private partnerships and as such, Xstrata is the first company to receive direct funding from the PEPFAR programme for HIV/AIDS programmes, reflecting our broader focus on community support.

Xstrata is convinced that this has started an irreversible trend amongst our workforce towards more individuals taking personal health action and has established HIV testing and counselling within the broader HIV workplace response programme as a core business function.

Abstract Summary

Lessons learned:	Maximising the number of employees undertaking voluntary testing and counselling and providing appropriate treatment to all infected employees produces the optimum benefits to the business. Where VCT was offered on-site, VCT needs to be embedded in the business as an ongoing initiative.
Take home messages:	To achieve maximum impact, programmes need to encompass the broader community, through working in partnership with Government, Unions, NGOs and other stakeholders.
Issues faced:	The intervention worked due to all parties intense involvement and commitment. The slow uptake of people that are positive into treatment due to stigmatisation is a real challenge

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THE HYDRATION STATUS AND NEEDS OF WORKERS AT THE ZINIFEX CENTURY MINE IN NORTH-WEST QUEENSLAND.

Dr Anthony Carter(1), Assoc Prof Dr Reinhold Muller(1), Greg Scanlan(2), Bernie Murphy(2).
(1) School of Public Health and Tropical Medicine, James Cook University.
(2) Zinifex Century Mine.

Aims: To determine the hydration status, fluid loss rates and intake needs for staff while on-site and at-camp at the Zinifex Century Zinc mine in the hot and dry environment of north-western Queensland, Australia.
Methods: This prospective observational study enrolled 31 staff on day shift (from 0600 to 1800hrs) in July 2005. Direct individual measurements of urine specific gravity, body mass, fluid intake, and hydration behaviours were initially obtained at 1000hrs, and subsequently at 1400hrs, 1600hrs and 0600hrs.
Results: The median specific gravities of all participants observed were 1.024, 1.019, 1.020 and 1.024 at 1000hrs (n=25), 1400hrs (n=30), 1800hrs (n=29) and 0600hrs (n=25) respectively. More than half (56.0%, n=14) of all participants were dehydrated (urine specific gravity greater than 1.022) at the start of their shift.
Complete paired data of fluid intake and loss for 23 and 18 participants were collected for the observation periods from 1000hrs to 1800 hrs and 1800hrs to 0600hrs respectively. The body weight specific fluid intake targets were calculated as follows:

	On-site 0600hrs – 1800hrs	At-camp 1800hrs – 0600hrs
Body weight	Fluid intake target (Litres per 12 hour shift)	Fluid intake target (Litres per 12 hours)
70 kg	3.3	2.1
90 kg	4.2	2.7
110 kg	5.1	3.3

Conclusions: The results of this study have been used to develop specific evidence-based hydration guidelines for workers in harsh environments. The results of this study highlight the importance of providing facilities and motivating behaviour for staff to maintain optimum hydration away from the workplace.

Abstract Summary

Lessons learned:	Direct measurement of all of the factors that may contribute to dehydration in individual staff throughout the duration of a roster is essential to develop site-specific hydration and heat stress management policies.
Take home messages:	The results of this study highlight the importance of providing facilities and motivating behaviour for staff to maintain optimum hydration away from the workplace in fly-in/fly-out operations in harsh environments.
Issues faced:	Long-term relationships between independent research bodies and staff are essential to achieving maximum participation in intensive epidemiological studies.

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OCCUPATIONAL EXPOSURE LIMITS AND RISK MANAGEMENT

Ian Firth(1) and Richard Gaunt(2)
Principal Adviser – Occupational Health (1)
Chief Adviser - Health (2)

Rio Tinto Limited

This paper highlights the value of element 5.4 in Enduring Value - Implement regular health surveillance and risk-based monitoring of employees.

Occupational exposure limits (OELs) have been established for many workplace exposures, to either guide or provide a benchmark against which to assess exposures. to harmful substances They are a key component in risk assessment for potential occupational exposures. For global industries, an issue arises in determining internationally recognised standards to assess exposures, as there can be a number of 'recognised' OELs for a single substance. Work done to date in attempting to harmonise the approach to development of OELs by ICMM is summarised.

Rio Tinto has published corporate risk assessment and management guidance, as well as occupational health standards (rolled out in early 2003), all available from the company website. The occupational health standards have adopted OELs and requirements for risk-based workplace monitoring and initial and ongoing occupational medical surveillance of employees to ensure they are fit for their jobs and to enable early detection of any work-related health problems, including diseases. Targets have also been adopted for reducing the number of employee occupational illnesses each year and for the number of employees exposed to excessive noise levels.

Rio Tinto's approach to risk assessment, then subsequent risk-based monitoring and health surveillance is discussed as an example of the value that can be realised from a risk-based approach to managing workplace exposures. Some lessons learned are also provided.

Abstract Summary

Lessons learned:	Collaboration and consultation with key stakeholders is necessary for effective implementation of a risk-based approach to managing workplace exposures.
Take home messages:	A harmonised approach to developing OELs is key to accepted risk-based management of occupational exposures; A risk-based approach to managing potential workplace exposures can provide value to an organisation in reduced incidence of occupational illness; but Full implementation of standards requires an assurance programme; and A wellness or health and well being programme is required to maximise this value through fitness for work.
Issues faced:	Non-uniformity of OELs and agreement on an accepted value. Resources and time to fully implement standards. Acceptance of the value of occupational health standards and a robust risk-based approach.

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ILUKA RESOURCES LIMITED - OPERATIONAL INJURY/ILLNESS MANAGEMENT

Angela Killick
Health Management Specialist
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Iluka Resources Limited is a mineral sands mining and production company. The Midwest Operations is located north of Perth, Western Australia, and has minesites at Gingin, Eneabba and processing plants at Geraldton.
Relative to Principle 5.5, as experienced by Iluka Resources Midwest, the presentation will take attendees through the operational compensation/injury/illness management journey pre-2004 to current. It will outline issues identified, what was working, what was done to improve the system, results, key learnings and future directions.

Abstract Summary

Lessons learned:	Specifically in relation to injury management and rehabilitation - Understand your organisation's current position, issues and plan future improvements. Develop or review existing documentation. Support for injury management is absolutely critical in ensuring an effective system and should come from all levels of management. Line management support, in accepting their role in the processes is imperative in allowing early intervention and management of claims and injuries. Establish and maintain communication with key stake holders and have this built into your policy and procedures. There are many resources available to business. Information and support can come from legislation or from the governing body, Code of Practice, Guidance Notes, insurer Work with your insurer (when not self insured) to manage outcomes that suit all parties within legislative requirements.
Take home messages:	
Issues faced:	Pre-2004 - Key issues > No dedicated compensation/injury/illness management role > Incomplete policy/procedures/guidelines > Management and employees had a developing understanding of injury/illness management, but effectively, this was quite limited. This resulted in a lack of knowledge in the areas of: > Legislative requirements > Policy and guidelines > Process > Actual claims and action required > Psycho-social and business advantage of workers' compensation and injury/illness management > There was only minimal statistical knowledge of claims > Minimal statistical data > Multiple insurers and little active interaction > Minimal interaction with Southwest > Multiple Medical Officers and inconsistent responses > Poor level of reporting and high number of self referrals (to doctor) > Non-work related injuries/illness - approximately 50% of shifts had 'walking wounded', of which approximately 90% were non-work related

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THE EPBC ACT AND MINING AND ENERGY PROJECTS IN AUSTRALIA

Vicki Dickman
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Australian Government Department of Environment and Heritage.

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides the Australian Government with the statutory authority to ensure that development projects, including Mining and Energy, are undertaken in a way that protects matters of National Environmental Significance. This presentation will outline how industry and government can work together to provide better outcomes and manage risk during the assessment and approval process. The presentation will also provide an overview of the implications of the heritage provisions since they were introduced into the EPBC Act in January 2004 and will highlight intitiatives to provide better information to proponents such as Species Information Partnerships between the Australian and State Governments.

Abstract Summary

Lessons learned:	Implications of heritage provisions of EPBC act for mining and energy industry Advice on how to better engage with Department of Environment and Heritage
Take home messages:	Better communication with the Department can lead to better outcomes
Issues faced:	

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MINE RESTORATION AT ALCOA WESTERN AUSTRALIA; PHILOSOPHIES, STRUCTURES AND STRATEGIES FOR CONTINUAL IMPROVEMENT.

John M Koch
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Alcoa World Alumina Australia

Alcoa's bauxite mine restoration in Western Australia has won several local and international awards. This paper describes the background and structure leading to Alcoa's successful mine restoration. It also provides four specific examples illustrating how the setting of measurable targets promotes continuous improvement. Success begins with having a clear objective, in Alcoa's case, Restoring the Jarrah Forest Ecosystem. Management supports this objective.

Partnerships with Universities, Industry, other Research Institutes and Government provide improvement opportunities. A very important, and often missing component is the link between research and operations. Alcoa's structure of an environmental research group, a dedicated plant nursery and an environmental operations group provides this link.

The four examples of improvement are;

1. Improving deep ripping to a consistent target depth of 1.5 m by measuring performance and implementing a new two stage ripping operation.
2. The increase of plant species richness in newly restored mined areas from 65 % of forest values in 1990 to 100% of forest values in 2001.
3. The reduction in burning of clearing waste to less than one third by providing a valuable resource to another industry and increasing the amount of fauna habitat in restored mined areas.
4. The reduction in the rate of spread of jarrah dieback disease to 0.0006 ha per hectare of area mined using a comprehensive disease management program.

Abstract Summary

Lessons learned:	Don't do anything half baked. Assume everything will come under the spotlight. Admit there are unresolved issues and show how you will fix them. If you claim you have no problems or issues then stakeholders will not believe or trust you.
Take home messages:	Have clear objectives. Management must support these. Engage stakeholders and other partners in improvement activities. They can be part of the solution. Have measured targets and an agreed measuring system.
Issues faced:	Improving environmental performance can mean extra cost. Seek solutions that are cost neutral. Or "sell" the non-financial benefits to management.

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CLOSURE DESIGNS FOR THE BAJO DE ALUMBRERA MINE – ARGENTINA - STORE AND RELEASE COVER SYSTEM DESIGNS IN AN ARID ENVIRONMENT

Gabriel Lopez Vazques(1) and Mike O´Kane(2))
Hydrogeologist – Environment (1)
President - O´Kane Consultants Inc.(2)

Minera Alumbrera Limited - Argentina

The Bajo de Alumbrera is a large open-cut Cu-Au porphyry mine located within the Cordillera de los Andes in the province of Catamarca, Argentina. The mine is operated by Minera Alumbrera Limited (MAA) a subsidiary of Xstrata Copper. The climate is described as arid with typically 160mm of precipitation and 1400mm of evaporation per annum.
One of the main issues facing MAA is maintaining quality and flow in the Rio Vis Vis for downstream users. The greatest risk to these values comes from the waste rock dumps and tailings storage facility. The final waste rock dumps and tailings storage facilities will occupy 500 ha and 900 ha respectively. To reduce this risk, MAA and O'Kane Consultants are working to develop a "store and release" cover system for both the waste rock dumps and tailings storage facility.
Soil-atmosphere modelling was conducted on potential cover materials to determine optimal designs. The hydraulic properties of the cover material were determined to be the most sensitive factors. Four field trials were then constructed in 2003 as follows, bare tailings surface, tailings with 0.5m alluvial cover, WRD with 0.5m benign waste material (ROM) cover and WRD with 1.5m benign waste material cover.
After two years of monitoring, the cover system field trials are performing as designed with minimal net percolation. An apparent increase in water content near the interface between cover systems and underline surface, was recorded. The origin of these changes is not clear, and will be evaluated through continued monitoring and direct field sampling.

Abstract Summary

Lessons learned:	MAA gave presentations about the cover system, to the Regulatory authorities and explain the principles of Unsaturated Hydrology, in order they understand the philosophy of the Cover System design. Results of the trials also were presented to them. Awareness presentations are given to the employees at the mine as well.
Take home messages:	Open communication with regulatory authorities, has increased their confidence in the "store and release" cover system. The system appear to be successful in mitigating potential impacts on surface and groundwaters.
Issues faced:	The regulatory authorities have gained an understanding of the cover system and are interested to see how it will perform in the long term.

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RESPECTING AND PROTECTING THE NATURAL AND CULTURAL VALUES OF THE KAKADU NATIONAL PARK – A CASE STUDY ON ERA'S RANGER MINE

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Energy Resources of Australia

Ranger Uranium Mine operated by Energy Resources of Australia Ltd (ERA) a member of the Rio Tinto group, is Australia's largest uranium producer. Ranger is located on aboriginal land and surrounded by the World Heritage listed Kakadu National Park. The distinct wet and dry season climate, coupled with the unique physical and regulatory setting, in which Ranger has operated since 1980, has necessitated the development of sophisticated management systems for protection of the surrounding sensitive and protected areas. These systems, underpinned by over two decades of environmental research by ERA and the Commonwealth Government's Supervising Scientist, are necessary to deliver the exemplary levels of environmental protection appropriate to the surrounding National Park, and required to meet the expectations of Traditional Owners of the land.

ERA recognises that the natural and cultural values of the World Heritage listed Kakada National Park must continue to be protected. To continue to achieve this, the focus of optimising ecosystem integrity and biodiversity protection is on both aquatic and terrestrial systems. Management of water according to quality is key to ensuring that in a positive discharge environment, that site discharges do not impact on receiving waters, which further downstream flow into the pristine Park ecosystems. From a land management perspective, targetted weed and fire management regimes are minimising the risk of impact on terrestrial biodiversity and ecosystem integrity.

This paper will explore how the ERA team is respecting legally designated protected areas, by minimising impacts and increasing cooperative approaches to environmental management with a wide range of stakeholders.

Abstract Summary

Lessons learned:	Understanding stakeholders stated and unstated needs are key to mutually respectful relationships. A comprehensive risk based approach, commencing at project development, is key to minimising impact, providing appropriate assurance to stakeholders and operating an effective business. Where improvements are possible, it is never too late to make them and achieve positive outcomes for all involved.
Take home messages:	Comprehensive and robust systems, risk based approaches and contingencies are required to operate effectively in proximity to sensitive and protected locations. Significant opportunities exist to combine indigenous and non-indigenous knowledge for improved environmental outcomes.
Issues faced:	A uranium mine, on aboriginal traditional lands, adjacent to a prized World Heritage listed National Park, in a highly complex regulatory regime has significant inherent challenges. Add to this challenging engineering constraints, the requirement for best practicable technology and a guiding principle of ALARA (as low as reasonably achievable) and the ERA case study has lessons for miners and explorers to learn from.

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ENVIRONMENTAL CHANGE YOU CAN SEE FROM SPACE: AN INSPIRING CORPORATE - COMMUNITY VISION OF ENDURING VALUE

Dr Robert Lambeck, CEO, Greening Australia (WA)
and
Anita Harben, Shell Development Australia

Shell Development Australia and Greening Australia have formed a unique partnership that contributes to one of the world's most ambitious environmental restoration initiatives. The Gondwana Link Vision seeks to protect and restore ecological connectivity from the south west forests of WA through to the Kalgoorlie goldfields, a distance of over 700 kms. Shell and Greening Australia's "Reconnections" project is a truly triple-bottom line initiative that contributes to the environmental, social and economic health of one of the worlds biodiversity hotspots, while also meeting the corporate responsibility objectives of a major company. The project combines the protection of native vegetation and environmental restoration on a scale never attempted before, with the development of new commercial enterprises, carbon sequestration, and community capacity building for both the Noongar and farming communities. This partnership provides a model of how the corporate and community sectors can work together to genuinely create "enduring value" at a scale that has international recognition and is truly visible from space.

This partnership has identified that important success factors in effective corporate community partnerships include: an inspiring vision, alignment with each party's interests, expectations and values; clarity of purpose; whole of organisational commitment; a clear business focus; clarity of funding arrangements; recognition of partner's limitations; good communication and profile, and the celebration of success.

Abstract Summary

Lessons learned:	Bold visions and shared values are the basis of strong partnerships; Partnerships need to be built together; Trust and transparency are critical; Whole of organisational commitment is essential; Big outcomes do not happen overnight.
Take home messages:	Enduring value needs to be built on bold visions; Engaging stakeholders meaningfully builds commitment and longevity; Getting involved in significant community /corporate relationships adds value at many levels.
Issues faced:	Determining the value proposition for each party: Use of SDA opportunity framing tools clarified both parties expectations. Institutional buy-in: strong commitment from the top of both organisations ensured and encouraged strong staff interest Exit strategies: participation in a bigger project with other parties avoids entrapment - the bigger picture is not dependant on any single partner. Big outcomes take time - ensure that there are early wins to provide rewards

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DEVELOPING INNOVATIVE TECHNOLOGIES IN SUPPORT OF SUSTAINABLE MINERALS PROCESSING

John Allan, Chair
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Group Manager Environment, Newcrest Mining Limited

In an industry dependent on accessing resources in fixed locations, the development of efficient and effective regulatory arrangements for managing unavoidable impacts is of critical importance. Offsetting is a commonly used regulatory approach during the approval of minerals projects, where a company is required to provide environmental or other services as compensation for unavoidable impacts, such as the removal of overburden and the construction of location-critical infrastructure.

This presentation will provide an overview of the current state of play in environmental offsetting throughout Australia, including the principles and practices underpinning these approaches. The presentation will outline the range of approaches that are available to ensure that offsetting arrangements are economically viable, environmentally beneficial and socially acceptable.

The design and delivery of high-quality offsetting programs does not just deliver regulatory licence to operate. Offsetting arranements also have significant potential to enhance the industry's social licence to operate through the integration of community engagement and landscape level planning into their implementation. The presentation will discuss how these approaches can be incorporated into the planning of offsets, as well as within the broader concept of multiple and sequential land use.

Abstract Summary

Lessons learned:	There remains a low level of natonal consistency in the development and application of offsetting within regulatory approvals. Significant opportunities exist for the development of joint partnerships with government to enhance environmental outcomes and reduce costs.
Take home messages:	The development and implementaton of leading practice environmental offsets has the potential to deliver both regulatory and social licences to operate. Howeer, to meet its full potential, the design of environmental offsets needs to integrate both government and community expectations, and the risks and opportunities provided within the broader landscape.
Issues faced:	- Integrating site-specific biodiversity management within broader landscape planning; - Ensuring consistency between Federal, State and Local regulations and policies; - Development of rigorous and agreed performance criteria for offset areas, and the integration of these into closure and relinquishment criteria.

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AN NGO'S CHALLENGE

Mr Stephen D'Esposito
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MR GRAEME NEATE

President
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THE STRATEGIC COMMUNICATION OF RISK

Corrie Pitzer
CEO, SAFEmap International

"The resource industry digs up the coal that society uses to pollute the air. It digs up the gold to put in bank vaults as wealth and for artisans make jewellery from. We dig up diamonds for reasons of vanity and industry. We manufacture the steel to build the factories and plants that further pollute the air".

We provide the fuel for the growth of countries and economies. And we have to believe that we are doing this responsibly. More importantly we have to make others believe that we are doing it responsibly, safely, with enduring value. In order to do this we have to find answers to the following questions: What is safe and what is enduring value? How do we measure these in quantitative terms and set goals for them? Can we be safe and healthy and have enduring value? What are the 'limits to our growth' when it comes to safety, health and environmental performance? Fundamentally, can we achieve zero harm and should we target it?

The paper looks at the two fundamental cases of risk communication:
The business case for safety and sustainability is a strong and valid one. Safety is good business. Being sustainable is responsible business. The values case states that safety is not about money or profits. It is about the value of life and of our people. Which case will prevail in the long term?

This presentation will take a critical look at these issues from a strategic point of view and challenge the participants to critically review the current status of risk communication in our industry.

Abstract Summary

Lessons learned:	ned in developing partnerships with stakeholders and effective methods and techniques used to achieve sustainable development objectives.
Take home messages:	
Issues faced:	

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DR SIMON LONGSTAFF

Executive Driector
St James Ethics Centre

Most commentators on governance recognise that society's relentless focus on regulation and surveillance has diverted attention away from the things that underpin company performance and towards compliance activities. Ironically, this change in focus may be leading to an actual increase in 'ethical risk' in companies. The antidote to this is to be found in companies reclaiming responsibility for not only the decisions they make but also the cultural environment in which they are made. Indeed, a proper understanding of corporate governance begins with a board's responsibility for establishing the criteria by which decisions are deemed to be 'good' and 'right'. Then comes the task of ensuring that systems, policies and practices are in alignment. This presentation will outline the key issues that need to be addressed in order to create the conditions under which governance drives sustainable performance.:

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SUSTAINABILITY ASSESSMENT OF RESOURCE DEVELOPMENT PROJECTS IN WESTERN AUSTRALIA: HOW SUSTAINABLE IS THE PROCESS?

Dr Angus Morrison-Saunders
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Several recent major Western Australian resource development projects have been subjected to external sustainability assessment (SA) by government agencies. Additionally a number of large (multi-national) mining and resource development companies have been applying SA procedures internally to guide their corporate decision-making process for new projects. In the absence of formal SA requirements or procedures, an ad hoc approach has been adopted in each case. This paper briefly reviews the origin and evolution of SA in Western Australia including its relationship with other assessment processes such as environmental impact assessment. More particularly, it examines the SA procedures that have been used to date and classifies them according to a model which examines:

- the decision question being asked;
- the approach to sustainability being adopted; and
- the nature of the development proposal itself.

In doing so, the level of integration of economic, social and environmental elements that can be achieved is revealed. The relative strengths and weaknesses of the various SA procedures are examined including the prospects for future practice in Western Australia. Overall the paper addresses the question: How sustainable is sustainability assessment?

Keywords: sustainability assessment, resource development, integration, Western Australia, environmental impact assessment, governance

Abstract Summary

Lessons learned:	It is important to ask the right decision question to guide sustainability assessment. Selection and treatment of alternatives is critical to enable decision-making aimed at selecting the most sustainable option.
Take home messages:	Take home message - When conducting sustainability assessment consider the decision question being asked and the assessment approach being adopted very carefully.
Issues faced:	Issues faced - In the absence of any formal guidance for sustainability assessment, we need to be careful how we construct the processes used in order to maximise the benefits and outcomes.

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RISK MANAGEMENT IN OFFSHORE OIL AND MINING CONTEXTS: WHAT ARE THE EMERGING FORCES?

Michael Ahrens
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Despite its potential to generate wealth and improve lives, natural resources wealth is still associated in many countries with corruption, conflict, unaccountable governments and retarded democratic development. Will their so-called 'resource curse' be allowed to continue?

Many, including Transparency International, say no. Oil and mining companies with projects in less developed countries will increasingly encounter significant challenges on the governance front. Whatever the findings of the AWB Enquiry, a number of lessons are already clear. This paper will explore some related predictions for risk managers:

- In his AWB report Justice Cole will help clarify the tests under Australian law which ban bribes and kickbacks to foreign public officials.
- We can in any event expect the AFP and other agencies to be increasingly diligent to investigate rumours of bribes being paid and to prosecute more readily.
- The ATO will regularly scrutinise suspicious overseas payments and apply a set of "Red Flags" criteria.
- Internally, reputation risk will become an increasingly hot topic for attention at senior corporate levels.
- This self protective trend will be reinforced by developments in the corporate law as well as by media attention.
- Governments and agencies such as the World Bank will soon strengthen their endorsement and application of Extractive Industry Transparency Initiative (EITI) programs:
  - Countries will publish details of what royalties and other amounts they receive from each major project.
  - In turn, oil and mining companies will agree to openly disclose per country what they are paying to the government and officials.
  - Systems will be put in place to validate and compare the amounts disclosed on each side and the slippage.
- Tax haven countries will be under huge pressure to co-operate to help trace and allow restitution of assets to countries plundered by corrupt leaders and officials.

Abstract Summary

Lessons learned:	Legal compliance is becoming increasingly important in international oil and mining contexts. New initiatives are underway to make dealings with governments more transparent.
Take home messages:	The challenges offshore to good governance will require even more attention to risk management.
Issues faced:	[Not applicable]. The paper deals essentially with what may hold for the future.

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ENCOURAGING LEADING PRACTICE TO ACHIEVE SUSTAINABLE DEVELOPMENT IN MINING BY AUSTRALIAN COMPANIES

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UNDERSTANDING AND MONITORING LEGAL COMPLIANCE AND ITS ALIGNMENT WITH THE ENDURING VALUE FRAMEWORK

Tony van Merwyk
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Freehills

Principle 1 of the Enduring Value Guidance for Implementation provides that signatories should 'implement and maintain ethical business practices and sound systems of corporate governance'.

Element 1.3 provides that signatories should 'comply with or exceed the requirements of host country laws and regulations'. Guidance is then provided on how to do this.

This presentation explains how Freehills has assisted clients who operate across multiple jurisdictions implement Element 1.3. A range of legal mechanisms are used to achieve this, which then results in various benefits to the client. They inlclude adherence to international standards such as ISO140001, reduced risk of criminal and civil liability for breaches of the law for the company and its officers, and easier approvals paths.

Specific examples will be given of how organisations have sought Freehills' advice on:

- the elements needed to demonstrate compliance with laws;
- creation of a register of relevant legal requirements;
- how that register is updated;
- how responsibility and accountability for compliance is passed into an organisation; and
- legal compliance audits.

Mention will also be made of where compliance has helped to underpin the licence to operate, and has provided support for initiatives which go beyond compliance.

Abstract Summary

Lessons learned:	You have to make sure you are confident you are compliant with laws before you can start talking about a beyond compliance framework. You are able to ensure that through the use of appropriate legal advice across multiple jurisdictions.
Take home messages:	Use legal advisors who understand the law as it applies to your operations. You can set up a system to achieve compliance across multiple jurisdictions. Continual compliance will support beyond compliance initiatives.
Issues faced:	How to make sense of the volume and complexity of laws applying to mines across jurisdictions. Whether to take a risk assessment approach or try to comply with everything. The need for a strong relationship between the environment team and the inhouse and external lawyers. Ensuring that legal advice is regularly obtained beyond the creation of a legal register.

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WOORABINDA SHARED RESPONSIBILITY AGREEMENT

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Manager – Sustainable Development, Anglo Coal Australia (1)
Manager - Indigenous Coordination Centre (ICC), Rockhampton(2)
Coordinator - Community Development Employment Program (CDEP), Woorabinda (3)
Mining Nations Limited

Anglo Coal is lending its business expertise to help the community of Woorabinda, which is located approximately 100km from its Dawson Mine in Central Queensland, set up a timber products business. The company, the community and the federal government have signed a Shared Responsibility Agreement. The agreement represents the first time a private industry partner has become involved in a SRA within Australia.

The council of Woorabinda – an Aboriginal community of around 1,200 people in Queensland – was keen to pursue ideas for new businesses to create jobs and boost the town's prosperity. The community has historically been disadvantaged by lower standards of health, education and employment.

The community decided to set up a furniture-making business using timber from nearby reserves. It obtained government funding for the project in 2005 and approached Anglo Coal for business advice.

Anglo Coal and the government have agreed to partner with the community to plan and construct the manufacturing facilities and set up a business plan.

The new business will initially provide four full-time jobs for the community. Anglo Coal will also assist in developing a marketing strategy to sell the finished furniture products.

Abstract Summary

Lessons learned:	The opportunities provided by industry working with government and the community to prioritise goals and maximise resources - Opportunities for mining company to operate beyond the front gate, within a regional perspective. - Working 'beyond compliance' when dealing with indigenous people and Native Title/Cultural Heritage management. - Key lessons learned in developing partnerships with stakeholders and effective methods and techniques used to achieve sustainable development objectives.
Take home messages:	- What can be achieved by community, government and industry maximising their strengths and working together. - The advantages of people 'thinking outside the box' with their decision making processes.
Issues faced:	- Reaching agreement on the roles that the different partners would play in the construction of the agreement. - Ensuring community acceptance and buy-in at all stages of the process - Maintaining momentum and delivering against the agreed action plan.

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INTEGRATING TRIPLE BOTTOM LINE THINKING INTO MINING SECTOR STRATEGIC PLANNING AND RESOURCE MANAGEMENT

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Department of Primary Industries and Resources of South Australia

Triple Bottom Line (TBL) measuring and reporting is a useful, if somewhat underutilised tool, for policy makers, communities and industry to capture, measure and understand the social, environmental and financial contributions made by the minerals sector.
To date, comprehensive TBL reporting has been largely confined to larger companies and Local Government Councils annual reporting. Our approach looks at the whole of state (South Australia wide) contribution that the minerals sector (including upstream and downstream activities) makes.
TBL reporting provides a focus point for engagement between industry, government and the community in shaping 'sustainable' industry development. This implies identifying possible future visions and scenarios for the industry to understand alternative futures, and measure and evaluate opportunities.
The paper summarises the findings of the South Australian Primary Industries and Resources ScoreCard team on the Minerals TBL Project, and demonstrates an effective tool that can be used with stakeholders to develop sustainable decision-making.
In order to assist multi-criteria decision-making for sustainability planning, top-ranking indicators are presented in easy to understand ways via spider diagrams featuring the three dimensions of social, financial and environmental criteria against alternative growth scenarios

Abstract Summary

Lessons learned:	Substantial confusion exists around the term Triple Bottom Line. Our approach focusses around engaging a range of government, industry and community participants with data and information on the minerals sector (including upstream down stream) contributions to 'sustainable development'. Our engagement helps identify how a sector contributes to a wide range of community goals, and by measuring the gaps between where we are and hope to be, our tool facilitates an understanding of priorities for action. Our approach has shown that a TBL framework complements traditional methods of project evaluation. It's value is particularly important in shaping the issues and measures of activity that are hard to express in monetary terms. In this way a TBL report offers a way of presenting information that renders the benefit-cost calculation of projects more transparent and distinctively comprehensive, and hence more credible and flexible.
Take home messages:	The Triple Bottom Line is not an explicit measurement tool but a way of thinking and understanding an industry's performance where financial, social and environmental performance is mutually dependent. It broadens the basis of industry performance reporting and evaluation from a short-term focus on financial aspects to include longer-term social, environmental and financial impacts. Moving the TBL beyond a company-reporting tool towards a broader policy measuring and managing framework can help to shape more inclusive and holistic thinking around sustainable futures.
Issues faced:	The TBL reporting and engaging tool covers social and environmental aspects that are not legislatively compulsory. However, the TBL tool is not intended to replace legislation, rather it supplements and compliments existing approaches to managing natural resources. At the core of our approach is data collection and representation together with broad stakeholder engagement . By definition, our approach involves suasion and this implies a voluntary approach with industry and other stakeholders. Therefore, while our Strategic TBL planning framework may encourage a more broadly focussed discussion, it does not enforce a particular outcome. It is up to our industries and more broadly our communities, with the support of targeted programs, to adopt and achieve their own TBL governed targets.

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RISK MANAGEMENT SYSTEM FOR SUSTAINABLE MINE CLOSURE AND COMPLETION

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The process of mine closure and completion remains one of the most significant challenges for the Mining Industry. With nearly 75% of mine closures in the past 25 years being unplanned. The industry now recognises the benefit of early planning for closure. Fundamental to successful completion in a sustainability context is to understand and manage the risks and opportunities, in the environmental, social and economic aspects of the business. It requires a systematic approach that can occur throughout the life of mine. The author has been involved with Mine closure issues for over 20 years in his time with Alcoa and WMC Resources and as a consultant and is well aware of the barriers to the successful implementation of the closure and completion process. This paper will describe the elements and approach needed to develop a risk management system that enables operations to control the risks associated with sustainable mine closure throughout the mine life cycle and some of the barriers and enablers associated with successful implementation from the authors perspective.

Abstract Summary

Lessons learned:	Closure planning is esentially a risk management process. Closure planning is integral to managing business risk during all phases of the mine life cycle. Needs the involvement of a cross functional team. Needs a dynamic process for the development of closure plans. Good risk management can enable better financial decision making , costing and provisioning. The risk management process must also consider opportunities. Requires appropriate data collection in the social as well as environmental areas.
Take home messages:	Industry needs to understand and apply the risk methodology throughout the mine life cycle.
Issues faced:	Timing of closure, involvement of right people and loss of corporate memory, lack of good social data and measurement in closure, poor development of closure risk criteria. The advantage of probabalistic costing. Dealing with residual risk in closure.

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A POSITIVE LEGACY: DELIVERING MORE VALUE WITH LESS IMPACT BY INCORPORATING SUSTAINABLE DEVELOPMENT PRINCIPLES INTO CLOSURE PLANNING AT PILBARA IRON

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Closure planning is an integral part of central business planning. Although the historic focus has been on land rehabilitation and pollution prevention, the implications of closure and, therefore input requirements, are much more multidisciplinary. Rio Tinto's specific requirements for closure planning are outlined in the Rio Tinto Closure Standard, which aims to:

"Ensure that Rio Tinto managed activities are left in a condition which minimises adverse impacts on the human and natural environment, and that a legacy remains which makes a positive contribution to sustainable development."

A structured auditable process for evaluating the post-closure land use options is an implicit requirement of the Rio Tinto Closure Standard. This paper describes Pilbara Iron's (PI) approach to developing options for closure planning by incorporating PI's sustainable development principles and decision-making methodology. This approach involves three basic steps:

Step 1: Identification of future land use options with key stakeholders;

Step 2: Defining the closure options, including identification of the social, environmental and economic aspects; and

Step 3: Analysis of the options and selection of the preferred closure options based on their contribution to sustainable development.

The preferred options are then the focus of closure planning for each of the sites.

This paper identifies the learning's in implementing this process and concludes that the principles of sustainable development can be successfully integrated, although this requires the implementation of an accountable and transparent framework for making decisions and the commitment from all participants.

Lessons learned:	The principles of sustainable development can be successfully incorporated into closure planning but this requires the implementation of an accountable and transparent framework for making decisions and the commitment from all participants.
Take home messages:	Stakeholder participation is critical for effective closure planning and implementation.
Issues faced:	Making closure planning part of the way we work. Engaging internal and external stakeholders on closure in a large, complex and expanding business.

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SUSTAINING YOUR ENTERPRISE RISK MANAGEMENT PROGRAM

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DETAILING DUST: INTEGRATING ENVIRONMENTAL AND COMMUNITY PERSPECTIVES FOR ENDURING VALUE

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Manager Sustainable Development(3)
BHP Billiton Iron Ore

In mid 2005, BHPBIO commissioned a survey to better understand the impacts of dust on residents in the down town area of Port Hedland and to invite community suggestions for improving the problem.

Key results from the survey showed that while a vast majority of people were aware of BHPBIO efforts to reduce dust, more than half surveyed perceived an increase in dust levels over the past two years, with many attributing this to the increase in iron ore production over that time. This perception was at odds with the company's dust monitoring program which showed a slight decline in overall dust levels – despite an increase in production since 2003.

In response to the survey, and as part of the ongoing approvals for staged growth of the company's operations, BHP Billiton Iron Ore has embarked upon a complete review of their dust and water management programs both on and off-site.

Through extensive community consultation, the company has developed a range of operational, engineering, environmental and socially responsive solutions to assist in reducing and managing ambient dust impacts as part of their staged growth plans to 2010.

A range of engagement, communication and partnership projects have been scoped and initiated, in consultation with local residents and key stakeholder groups, to assist in developing an understanding of dust management and reducing dust impacts within the town. From a social perspective, such initiatives include provision of dust information kits, publication of dust monitoring information in the local newspaper, and a range of dust monitoring, town cleaning and enhancement programs.

The paper discusses the challenges faced by the company in seeking improvement of their environmental performance, and highlights how strategies based on an integration of valid social and environmental data and sound science can contribute to sustainable development objectives and practice.

Abstract Summary

Lessons learned:	Importance of sound social science research and integration of social and environmental data sets Importance of first understanding the social impacts of dust and coping strategies from the community's perspective Importance of effective and transparent engagement - willingness to talk openly about the real issues. Solutions may be numerous and varied
Take home messages:	Development of stakeholder ownership of solutions for 'enduring value' Acknolwedgement that technical solutions may not provide the only solutions - trade-off solutions can be reached through genuine understanding (valid data and science) and sound engagmeent practice Importance of monitoring and measuring 'success' from both a social and an environmental perspective. Importance of integrating social and environmental outputs in developing appropriate management options
Issues faced:	Involvement of a large group of residents and business owners (approx. 250) Time taken to reach solutions and develop strategies to address the issues raised Solutions were numerous - no 'one' solution to the issue Integration of social and environmental aspects

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INVOLVING COMMUNITIES IN EMERGENCY PREPAREDNESS

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Operations are usually well prepared for and comfortable with the technical aspects of emergency preparedness and response. Effective emergency planning in the mining and metals sector also requires communication and engagement with local communities about respective roles and responsibilities in the event of an incident. Successful mining and metals operations require the support of the communities in which they operate. Experience has shown that open and informed communication between emergency response partners in advance of potential incidents leads to a better organised emergency response.

Local communities are often inadequately informed of such risks and unprepared for emergencies. A fast and effective local response to an incident can be the most important factor in limiting injury to people as well as damage to property and the environment. Moreover a well-informed, well-prepared community is better able to deal with the aftermath.

ICMM and the United Nations Environment Programme (UNEP) published "Good Practice in Emergency Preparedness and Response" in November 2005. It covers everything from identifying who does what in an emergency, to training and proper community liaison. The publication's model emergency plan is in line with UNEP's APELL (Awareness and Preparedness for Emergencies at Local Level) process and it is a companion volume to UNEP's APELL for Mining (2001). It focuses on the operating site and its preparations, particularly in respect of its neighbouring communities.

The paper will present the approach put forward in "Good Practice in Emergency Preparedness and Response" and describe why community involvement is essential to good emergency preparedness.

Abstract Summary

Lessons learned:	Successful mining and metals operations require the support of the communities in which they operate. Open and informed communication between emergency response partners in advance of potential incidents leads to better organised emergency response. Emergency planning is a process of continuous improvement.
Take home messages:	Effective emergency planning in the mining and metals sector requires communication and engagement with local communities about respective roles and responsibilities in the event of an incident.
Issues faced:	Companies were asked to describe their emergency preparedness and response procedures.While local emergency response organisations had been involved in the planning process and participated in crisis simulation, the people most affected by an emergency were seldom consulted. Analysis showed that other gaps were: a low level of awareness of the risks posed by neighbouring operations and, at the operational level, and an over-reliance on HSE staff for the preparation of the emergency plan.

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WORSLEY ALUMINA AIR EMISSIONS IMPACT ASSESSMENT PROJECT

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In the late 1990's air quality had become a sensitive issue with communities proximal to alumina refineries in the south-west of Western Australia. The commissioning of a liquor burner facility at Worsley in 2000 heightened the concerns of government, Worsley's workforce and the surrounding community about air emissions from the refinery. In March 2002, the liquor burner was shutdown following an increase in community and workforce complaints and the realisation that the operation of the liquor burner was no longer sustainable without intervention aimed at reducing air emissions.

In 2003, Worsley initiated a plan to improve air quality at the refinery, involving the workforce, community and government agencies. As well as installing new air emission control systems, an air emissions impact assessment project which involved development and implementation of best practice methodologies for air emissions sampling and analysis, air emissions inventory, air dispersion modelling, health risk assessment, stakeholder consultation and peer review was undertaken.

The process was guided by a technical group of air quality specialists to develop and implement the project. A peer review group comprising expert air quality scientists from around Australia was established and reviewed the methodologies, implementation and outputs of the project. A Government air emissions coordination group also provided input to the project and a tripartite Community Liaison Committee was formed which empowered and informed the community in the development and implementation of the project.

The sophisticated emissions inventory generated provided the data for the air dispersion modelling which in turn was used as input to health risk assessment. Information generated by this project was used in an Environmental Review and Management Program for the expansion of the refinery which was submitted to the EPA for assessment. Approval for the expansion was issued in April 2006.

Abstract Summary

Lessons learned:	Key lessons learned included developing partnerships with key stakeholders was important in the acceptance of the project and actions to improve air quality. Development of best practice methods and techniques helped achieve sustainable development objectives and acceptance of the results of the impact assessment.
Take home messages:	The conduct of project enabled Worsley to obtain Government and community consent to an expansion of the refinery
Issues faced:	The tripartite Community Liaison Group influenced the process and positively enhanced Worley's relationship with the local community. There were major difficulties in sampling sources that wer every moist or large in area.

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FROM CYCLES OF DISPOSSESSION AND CONFLICT TO ACCOMMODATION AND PARTNERSHIP: SOME REFLECTIONS ON HISTORY AND THE CONTEMPORARY CYCLE

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Throughout settlement, there have been repeated cycles of dispossession and conflict; accommodation and partnership, even though they may have changed in character with time.

Local Goldfields Aboriginal people showing miners where to find water and gold is part of an early example of this cycle. Agreement-making and relationship-building between Aboriginal peoples and mining companies in the regions, and national dialogue between national leaders, sponsored by the MCA, are contemporary examples.

This paper will trace a little of the history and ask what can we achieve together now as we develop agreements and partnerships.

Abstract Summary

Lessons learned:	History (which has much to teach us) and 'progress' are not linear according to a particular set path. Understanding the cycles of history can affect how we approach the relationship between the mining industry and Aboriginal people.
Take home messages:	Relationships between the mining industry and Aboriginal people can be improved and made more effective with this understanding. This has practical/operational implications.
Issues faced:	Working with traditional owner/Indigenous communities and organisations; operating successfully and sustainably as part of a complex community.

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CAN AN ORGANISATION BE CREATIVE?
LEARN ABOUT 'HOW' BP CREATED SUSTAINABLE VALUE IN COMMUNITIES

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How does an organisation harness the capacity to identify and deliver sustainable value to communities?

To enable organisations to deliver sustainable value there are three key requirements;

1. You must be Receptive to a range of messages some from unlikely sources - something which large companies are not generally renowned for.

2. 'Space' must be provided to allow individuals to identify opportunities for alignment between community needs and the organisations ability to develop a sustainable response to these needs. Space allows a thorough investigative process to be completed, and for individuals to truly understand the value your business can bring to the issue or identified need in the community. It also allows time to ensure that there is not a knee jerk response to throw funds at 'one off' and unsustainable solutions which are not in any way aligned with your organisations core business.

3. Capacity - Perhaps the most important part of the 3 pronged approach is to ensure that the response of your organisation is derived from existing capabilites and whilst new capacity can be built the organisations values and culture must support the development of this enhanced capacity.

Abstract Summary

Lessons learned:	1. Employee creativity can be uncovered through the support of management 2. Time is relative - remain open as long as possible to ensure actions are not selected too early 3. Stick to what your organisation is good at - avoid becoming distracted by activities that are outside of your capacity 4. Can the project sustain itself financially 5. Expect the unexpected - the nature of working with people both internally and externally means that outcomes are sometimes unexpected.
Take home messages:	1. 'Gems' are not always obvious - Opal emerged from the most unlikely sources 2. Value sometimes comes from being outside your comfort zone
Issues faced:	Working with diversity, building trusting relationships, aligning stakeholders, bringing the organisation along - sharing the stories/journey, scepticism about motive.

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BUILDING SUSTAINABILITY AND VALUE THROUGH RELATIONSHIPS - ABORIGINAL COMMUNITY ENGAGEMENT

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Continued business sustainability increasingly relies upon the combined success of a company's social, environmental and economic performance. No longer is it possible to assume success in one of these areas will guarantee the achievement of business goals.

At Rio Tinto Coal Australia (RTCA) it has been recognised that proactive community engagement, particularly with Aboriginal communities, is critically important to achieving business requirements and aspirations. As such, RTCA has invested considerable resources in the development and implementation of its Aboriginal Community Engagement Strategy (ACES).

This strategy outlines key principles for agreement-making; partnerships and implementation. With a sound basis derived from parent company Rio Tinto's key principles of Aboriginal and community relations and sustainable development performance, the strategy was adopted in 2003 and has been rolled-out to RTCA's Queensland and New South Wales operations. Key planks include the need for 'present engagement'; the criticality of relationships and the need to address issues affecting the whole of the Aboriginal community in the project area. It guides the activities of not only the Aboriginal Relations team, but also the many personnel from across the business that are involved in community engagement. The paper will outline key components of the strategy and will use 'real-life' examples to illustrate the approach.

Abstract Summary

Lessons learned:	Relationships, their recognition and /or establishment, and their management are the key to partnerships between a mining company and the communities that neighbour its operations. Aboriginal community engagement is core business and is the core business of many employees throughout the organisation, not just the Community Relations team. 'Present engagement' is critical to long-term sustainability
Take home messages:	Relationships should not be used only when the business requires such use, as they are for the long-term. By adopting the principle of 'present engagement', responses should not be driven by immediate land access and 'rights' triggers. Recognise and celebrate success – even the small steps. Signing an agreement is just the beginning – implementation is the fundamental element that will underpin long-term success
Issues faced:	The need to undertake community capacity building to achieve effective engagement. The need to consistently meet the demands of the business, particularly in a 'boom' period, while remaining true to the principles and commitment outlined in the Strategy. Specific community issues including the need to address basic healthcare requirements and the inter-relationships and connections between Australian Aboriginal communities.

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'NORMALISATION' IN A NON-NORMAL ENVIRONMENT - ISSUES IN BUILDING SUSTAINABLE MINING COMMUNITIES

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'Normalisation is the process whereby publicly accessible (i.e. non-exclusive) services are transferred from private ownership (e.g. a mining company) to public ownership by state or local governments. In Western Australia, most non-normal towns were established as 'new towns' in remote areas to support 'greenfield' mining projects.
Reasons for supporting normalisation include: cost reductions for services, introduction of FBT in the 1980s, establishing a home-owning workforce resulting in reduced labour turnover, and a more cohesive, committed community.
Based on a review of normalisation experiences across a number of mining towns in Australia, our paper will raise the following issues, which have relevance to corporations and governments involved in supporting life in remote communities dependent upon mining activity.

· Difficulties for governments, companies and communities in building sustainable economies and communities are common in remote mining towns.
· The argument for normalisation has been a dogma for some, but unless standard pre-conditions are met, companies will continually be asked to provide services beyond legal requirements.
· Many mining towns have experienced 'roller-coaster rides' in their economic and social well-being over recent years. This creates a difficult environment for stable local governance.
· Programs to develop other means of economic support that provide a buffer against short-term trends in the mining industry need careful evaluation.
· Regional development policy and practice in Australia is inconsistent and incomplete, and does not assist companies to align with a long-term properly resourced approach.
· Social and community factors need to be supported in building thriving communities.

Abstract Summary

Lessons learned:	Governance in remote mining-dependent towns needs more critical focus and policy development by companies, governments and communities
Take home messages:	Normalisation is a not always a desired end-point in mining town development.
Issues faced:	Difficulties in building sustainable communities associated with remote mining towns affect companies

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DEVELOPING REGIONAL PARTNERSHIP AGREEMENTS BETWEEN GOVERNMENTS, MINING COMPANIES AND INDIGENOUS COMMUNITIES: THE IMPLEMENTATION OF THE MCA / AUSTRALIAN GOVERNMENT MOU

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In June 2005 the MCA signed a MOU with the Australian Government which states an intention "for mining companies and government to work together with Indigenous people to build sustainable, prosperous communities in which individuals can create and take up social, employment and business opportunities in mining regions".

To implement the MOU 7 pilot sites have been established across Australia. Each site is using a Regional Partnership Agreement (RPA) model as a framework for enabling local people to find local solutions in partnership with mining companies, governments and Indigenous communities.

The paper will use the 3 sites operated by Newmont Australia as case studies.

Mining and resources companies can provide important input into regional development by working with local partnerships. Company benefits include gaining a "social license to mine", access to a reliable skilled workforce and most importantly better long term relationships with Indigenous rights holders.

Abstract Summary

Lessons learned:	> One size does not fit all, each pilot site is significantly different from others, solutions and pathways forward vary between communities. This is about establishing a framework to develop "local solutions with local people" > Leadership from the highest level has been required to gain traction and achieve a commitment to resourcing
Take home messages:	> Forge relationships based on working together, collaboration does require willingness to learn new ways of doing business. > Establish pathways forward through building on past successes > The operational model developed allows flexibility and is readily adapted to other locations
Issues faced:	> Achieving alignments between state and federal governments in service delivery has been challenging but improved outcomes and streamlining has been expected > At some sites setting boundaries around which geographic areas, communities or corporations to include required negotiation

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GRAM VIKAS- A MODEL FOR SUSTAINABLE COMMUNITY DEVELOPMENT

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Gram Vikas

Gram Vikas is a grassroots community development organisation working with the poor and marginalised communities of rural Orissa, India. Over the past three decades the organisation has addressed the prevailing conditions of marginalisation, poverty, discrimination and despair in order to ensure equitable access to basic rights and services for rural people. Gram Vikas currently operates in 450 villages across 19 districts of the State and with 28,000 Khond, Saura and Santal adivasi (indigenous tribal) households, Dalits (untouchables, the lowest caste group), and landless and marginal farmers.

Gram Vikas promotes activities for poor and marginalised rural communities that are sustainable, socially inclusive and gender equitable and provide:

- opportunities for secure livelihoods;
- for ecologically sound enhancement of communities' natural resource bases;
- access to basic education and primary health care;
- access to safe drinking water and hygienic living conditions, and
- enhanced self-reliance and self-esteem.

These activities come under the umbrella of the flagship programme MANTRA - Movement and Action Network for Transformation of Rural Areas.

Through MANTRA, Gram Vikas has proven, against common belief, that poor people can and will contribute financially for essential goods and services.

Every household in a village makes a one-off contribution to a corpus fund. The interest from this fund is used to ensure all new households in the village are provided with a 24 hour water supply and comply with the mandatory requirement for construction of a toilet and bathroom. In addition, each family contributes locally available materials and their manual labour up to approximately 50 percent of the overall construction costs. The balance is met by government grants and donor funds. Local unemployed youths are trained as masons, apprenticing themselves throughout the construction process, gaining practical experience in a highly sought after and transferable skill.

A maintenance fund is generated by developing village resources such as plantations on communal land, fish rearing in the newly revitalised village pond or from a donation from household farm surpluses.

MANTRA is exerting a powerful "pull" across the State and clusters of neighbouring villages are supporting each other at various stages of project implementation. Gram Vikas believes these "clusters" will have defining roles lobbying for basic services and influencing local government and state policy.

NGOs like Gram Vikas also need a social licence to be able to do this effectively. The unwritten social contract by which we work is based on trust, and has been earned through three decades of needs-based interventions at the grass roots level; identifying and addressing the causes, and not just the symptoms, of poverty.

The Gram Vikas model is recognised as international best practice and has been awarded the Most Innovative Development Project 2001 from the Global Development Network of the World Bank as well as the World Habitat Award 2002, a United Nations best practice recognition from the Building and Social Housing Foundation, UK..

Abstract Summary

Lessons learned:	Financial contribution from individuals and family units in communities.
Take home messages:	Work to gain full community consensus for activities

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AN INDIGENOUS CHALLENGE

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TOURISM – A VIABLE POST-MINING OPTION?

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Tourism seems increasingly to be considered a post-mining panacea, potentially providing a sustainable replacement economic activity, good use for the mine landscape, and infrastructure and employment for ex-miners. In addition, it can preserve the cultural distinctiveness and industrial heritage that mining has created in the area. In many regions, there are a growing number of publicly-funded incentives available to regenerate brownfield mining sites for tourist and leisure activities.

However, mining-related tourist attractions have a very mixed track record. A clearer understanding of the issues surrounding success and failure of mining and tourism projects is required. This paper will look at some of the necessary conditions that need to be in place for tourism to flourish and to contribute to local community development.

A distinction will be drawn between tourism opportunities that are focused on mining heritage and those that use the mine site for unrelated leisure activities. It will consider the role of integrated closure planning in providing the necessary foundations from mine inception. It will draw on a number of case studies from around the world, including mining-related World Heritage sites and local mining museums, and sites where the focus is on non-heritage leisure activities (such as beer brewing in Canada, opera in Sweden or wildlife reserve in Kenya).

The Post-Mining Alliance is developing a series of activities and materials around post-mining regeneration and tourism with a focus on creative partnerships, funding mechanisms and the socio-economic impact on local communities. Lessons learnt to date from this process will be presented.

Abstract Summary
(These are compulsory fields, abstracts without these fields filled in will not be considered)

Lessons learned: Careful planning and broad consultation throughout the mine lifecycle is necessary for any post-mining option to have a chance of success. Mining-heritage related tourism is a niche market with a ceiling on the economic development it can support. In many cases, tourism opportunities are not mining-related but use the mine's legacy creatively to good effect.
Take home messages: Post-mining regeneration through tourism is not a panacea but more can be done to deliver a range of successful post mining outcomes.
Issues faced: A mixed record on mining-related tourism - what determines success or failure? How do we encourage a more creatvitiy approach to tourism ooportunities? Where are the key decision-points? What are the necessary conditions for tourism and leisure activities to be considered a viable option?

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'DIRECT RELATIONSHIPS AND THEIR IMPACT ON A SUSTAINABLE WORKFORCE - A $6B PROPOSITION'

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WORKPLACE HUMAN RIGHTS

Judy Gray
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Construction, Forestry, Mining & Energy Union

The key Australian value of "a fair go" relies on assumptions about Australian institutions, laws and practices that are no longer valid. Australian employment laws are now out of step with both our historical tradition and with internationally accepted standards.

While workplaces vary considerably in how much they take advantage of recent employment law changes, and there are many employers that work cooperatively with their employees, large sections of the mining industry in particular are heavily reliant on practices that are in breach of international workplace human rights standards. That this is not even well-understood by the industry demonstrates that it is very much at the bottom end of the learning curve in this critical area.

A "fair go" in the workplace cannot be mandated by law; it relies on the willingness of all parties to act fairly and requires a capacity to empathise with the needs and desires of the other parties. However, laws and institutions play a critical role in influencing notions of acceptable conduct. We currently live under employment laws that encourage unfair conduct.

In certain areas the Australian mining industry is at the forefront of corporate practice with respect to sustainable development. That it is so backward in embracing international human rights standards in the workplace will ultimately affect the industry's reputation. It is already affecting the industry's ability to attract and retain employees.

Abstract Summary

Lessons learned:	Where domestic laws fall behind international human rights law, companies should seek to maximise their compliance with the international standard. Relationships with stakeholders, including unions, should be regarded as being bound by recognition of their human rights.
Take home messages:	Like climate change, workplace human rights can be ignored, but not indefinitely, and there is increasing risk in doing so.
Issues faced:	Industry cannot pick and choose its stakeholders; its stakeholders are (at least) those affected by its actions.

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A LEVEL MINING FIELD - THE PATH TO ACHIEVING *OUTCOMES* FOR INDIGENOUS AND NON-INDIGENOUS STAKEHOLDERS IN MINING

Mr Tom Calma
Aboriginal and Torres Strait Islander Social Justice Commissioner and acting Race Discrimination Commissioner

Principle 3 of the Australian Minerals Industry Framework for Sustainable Development asks the mining and minerals industry to 'uphold fundamental human rights' standards and respect for cultures and customs. Principle 3 lifts the bar on expectations of conduct in the workplace and acknowledges that Indigenous people have unique human rights, including cultural rights, that are recognised nationally and internationally.

There is a powerful case to establish the best possible relationships between Indigenous people and the mining industry. Indigenous people potentially provide a stable workforce to mining operations because they are more than likely to be long term residents of the area. It is also likely that they have a native title claim over the region where the mining is occurring.

It is therefore crucial for mining interests and desirable for Indigenous people that reciprocal, rewarding and sustainable relationships are established from the outset and maintained.

Currently, many Indigenous people in remote locations are not able to access the opportunities available through mining operations due to compounded disadvantage that has been occurring in remote regions of Australia for generations. It is time to redress this disadvantage and create a level playing field. The mining and minerals industry is well placed to provide quality services, infrastructure and training for Indigenous communities.
Implicit in any human rights approach to achieve this, is meaningful and intense dialogue with Indigenous stakeholders. As a first step, the mining industry should be seeking the free, prior and informed consent of traditional owners to activity occurring on their land.
There are exciting possibilities for the inclusion of Indigenous people in mining operations, in planning, decision-making, in the design and delivery of training, and in the design and planning of education and training for future generations. The more the mining industry promotes Indigenous inclusion in its business, the greater the potential for mutual benefit in the future.
Ultimately, the great challenge is to interpret and implement the principles of this Framework so that they become sustainable practice.

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BEYOND THE GENERIC TOOLBOX - CULTURAL AND LEADERSHIP TRAINING AT COMALCO

John Graham
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Conventional Cultural Awareness Training programmes typically focus on the company's external community relationships; on awareness rather than skills development and on the teaching of a generic toolbox rather than cultural detail. This type of training is frequently seen as the preserve of Community Relations - because of its external focus - and rarely receives the prominence of core operational training such as Frontline Leadership Development.

Comalco-Weipa has recently revised its Cultural Awareness Training programme and developed a new Diversity Leadership training in line with a new operational business objective:

Give leaders and team members the skills to navigate and manage the increasing cultural complexity of the workplace and real cultural issues they face.

At Comalco, the substantial recent increases in Indigenous employment has meant that what was once considered external culture is now internal, raising a host of important operational questions. Comalco has learned that effective performance in this context depends on highly nuanced communication skills founded on a detailed knowledge of the cultural life of a site and surrounding communities. Knowledge of the detail of a site's cultural life is far more valuable than a generic toolbox of cultural principles. Critically, this type of Cultural Awareness Training is developed and renovated by the participants rather than outsourced to an Indigenous-only group.

This paper outlines Comalco's model for Cultural Awareness Training addressing these requirements. We provide insight into the cultural richness of our site, the types of cultural issues that teams and leaders face on a daily basis and show how our training discovers the cultural detail of our site and develops the skills to work within it.

Abstract Summary

Lessons learned:	Cultural Awareness Training must focus on internal cultural matters to be operationally relevant as Indigenous employment grows. The detail is more valuable than general principles. Cultural Awareness Training must teach skills as well as general awareness
Take home messages:	Is your Cultural Awareness Training helping your teams to overcome operational issues? What is the rich cultural life of your site, and what are you doing to discover it?
Issues faced:	Conventional conceptions of Cultural Awareness Training limit its operational value. Primary focus on external relationships needs to be adjusted. Discovering the cultural richness of a site is senstive and information needs to be recorded with care. No one has written the book on solving site cultural issues - the only way forward is open and honest team collaboration Crew Leaders participation is critical to success.

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ENDURING VALUE: FUTURE CHALLENGES IN THE ASIA PACIFIC REGION

James Ensor
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Oxfam Australia is an independent development agency undertaking programs and humanitarian response throughout the world including the Asia Pacific region.

Oxfam Australia takes a rights based approach to development. Oxfam's interest is in supporting communities and landowners affected by extractive industries to make informed decisions about the use of their land and resources and for their rights to be respected by governments and companies alike.

Consistent with this approach, Oxfam Australia considers abiding by international human rights and environmental standards fundamental to ensuring that mining contributes to the sustainable development of communities. While the recognition of human rights, social licence to operate and environmental issues in the MCA Enduring Value framework is welcome, there remain key challenges for the industry in effectively contributing to sustainable development outcomes in developing countries.

As an increasing number of companies now recognise, a regulatory licence to operate is no longer sufficient for the sustainability of mining operations: in fact in many instances it often provides security for one three year electoral cycle, if that.

There are three simple inter-related reasons why times have changed so rapidly. Firstly, more ordinary people are involved in directly electing local, state and national governments in the developing world than ever before. Secondly, through unprecedented global communications and civil society networks, more ordinary people in the developing world are becoming aware of their human rights. And thirdly, as a consequence, more ordinary people in the developing world are prepared to challenge and hold to account governments and companies which take decisions which fail to take their human rights into account.

These in Oxfam's view are all profoundly positive trends. But they are trends which strategic thinkers in the mining industry will recognise as requiring transformational change in the ways the industry defines sustainability.

These thinkers will recognise that long-term political, economic and social sustainability of mining projects will rest far more on obtaining and retaining a social licence to operate from affected communities than reliance on a regulatory licence to operate from Governments.

The linchpin to securing a social licence to operate is acceptance of the human rights of landowners and affected communities through adoption of the principle of Free, Prior and Informed Consent – or FPIC – for all projects.

The principle of FPIC recognises that host communities have an inherent and prior right to their lands and natural resources, and that they have a legitimate authority to require companies to enter into an equal and respectful relationship with them, based on the principle of informed consent. Importantly, FPIC recognises the rights of affected communities to withhold consent.

The race to secure scarce resources has never been faster than it currently is in a world where commodity prices are at near record highs. New players are entering the game, and many of them don't give a damn about emerging human rights norms adopted by long term industry leaders. Loans are advanced to Robert Mugabe's regime in return for mineral rights in Zimbabwe. Robust UN action against the Sudanese Government for acts of genocide in Darfur is prevented through using Security Council votes in exchange for mineral rights.

As the global resources industry becomes more stratified, responsible industry leaders should play to their advantage by rapidly lifting the regulatory bar around the world to the point where your less responsible competitors can no longer obtain a guernsey to get onto the field unless they conform to best practice in terms of environmental and social impact. This requires active policy engagement with governments, regulatory authorities and multilateral financiers such as the World Bank's IFC to collectively raise the regulatory bar to your competitive advantage.

Abstract Summary

Lessons learned:	A regulatory licence to operate is no longer sufficient for the sustainability of mining operations: in fact in many instances it often provides security for one three year electoral cycle, if that. Take home messages:
Take home messages:	Leading strategic thinkers within the Australian mining industry will recognise that long-term political, economic and social sustainability of mining projects will rest far more on obtaining and retaining a social licence to operate from affected communities than reliance on a regulatory licence to operate from Governments. The linchpin to securing a social licence to operate is acceptance of the the human rights of landowners and affected communities through adoption of the principle of Free, Prior and Informed Consent – or FPIC – for all projects. Future industry leaders will be those who play to their advantage by rapidly lifting the regulatory bar around the world to the point where their less responsible competitors can no longer obtain a guernsey to get onto the field unless they conform to best practice in terms of environmental and social impact. This requires active policy engagement with governments, regulatory authorities and multilateral financiers such as the World Bank's IFC to collectively raise the regulatory bar to your competitive advantage
Issues faced:	Issues faced: N/A - NGO speech.

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LANGUAGE AND LANGUAGE POLICY IN REMOTE AREA MINING

Matthew Wrigley
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Indigenous language diversity in English-speaking Australian mining businesses has significant impacts on recruitment, training and retention. Comalco-Weipa, in collaboration with Indigenous employees, has developed a Language Policy that provides a foundation for organisational improvement in these areas. It is the first policy of its type in Rio Tinto Australia.

Indigenous people in remote central and northern areas of Australia speak Traditional languages, post-contact Creoles or Aboriginal English as their first language or dialect. Therefore, for the majority Indigenous people in these regions, Standard Australian English is a second language (ESL) or second dialect (ESD).

Comalco-Weipa operates near the northern tip of Cape York where the majority Indigenous language is Cape York Creole. There are also first language speakers of Wik languages and Aboriginal English.

This paper starts with a general review of Traditional and Creole languages across northern Australia. It then outlines some of the communication issues that have arisen for mining businesses such as Comalco as it seeks increase the number of ESL and ESD Indigenous employees.

The first draft of the policy was developed from a series of workshops with Comalco Indigenous employees. We outline the perceptions of employees concerning language, language identity and communication issues and broadly outline the process by which the policy was further developed.

Finally, we review key components of the policy and identify hot issues and potential pitfalls as a guide for any other business contemplating a systematic approach to language and communication in the context of a diverse workforce.

Abstract Summary

Lessons learned:	
Take home messages:	
Issues faced:	

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URANIUM STEWARDSHIP - TAKING UP THE CHALLENGE

Mick Roche
Manager Product Stewardship
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The mining industry's social licence to operate, to market and to grow is under increasing pressure, as the community becomes more educated, more informed and more aware. Additional pressure is coming from the down stream users of the mining indutry's products. These processors, manufacturers, users and recyclers are being pressured by their stakeholders to identify the primary source of commodities.

The acquisition of one of the world's largest uranium mines in a company takeover, resulted in significant challenges within a company that had previously committed itself to the principle of Product Stewardship. This coincided with significant challenges being faced within both the Australian Uranium Mining industry and the global uranium life cycle.

These challenges have resulted in the establishment of a company uranium strategy framework whose foundation is uranium stewardship, the establishment of the Uranium Stewardship Working Group as part of the Australian Government's Uranium Industry Framework and the establishment of the Uranium Stewardship Working Group as part of the World Nuclear Association (WNA).

The WNA uranium stewardship working group's definition of uranium stewardship is " a programme of action to demonstrate that uranium is produced, used and disposed of in a safe and acceptable manner. The programme takes a life cycle approach and encourages use of leading practices for health, safety, environment, and social aspects along the value chain and emphasizes waste minimization and encourages recycling."

This paper describes the journey to date and outlines the proposed strategy for applying product stewardship principles in order to achieve enduring value for all involved in the uranium life cycle.

Abstract Summary

Lessons learned:	Don't always assume that every other sector in the life cycle of a commodity thinks about mining the same way as the mining industry sector.
Take home messages:	Product stewardship is a shared responsibility - the sharing is non-transferrable
Issues faced:	Australia is only involved with the mining sector of the uranium life cycle, hence our understanding of the responsibilities of others in the life cycle must be humbly learnt.

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REGIONAL WASTE MANAGEMENT IN REMOTE AREAS

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Superintendent Environment (1)
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Zinifex Century Limited (1), Queensland Environmental Protection Agency (2)

The 'reduce, reuse, recycle' mantra has become commonplace in suburban Australian households and the coloured lid of the wheelie bin has become a recognised Waste Management symbol. Converting waste to a resource has become more than fad or fashion in our towns and cities, and can be done so efficiently and economically.
However, as with many aspects of development in remote communities, waste management is unfortunately still more myth than manifestation. Issues such as housing, health care, education and employment, which are seen as a higher priority than, and unrelated to, waste management; combined with the tyranny of distance, have meant the waste management remains on the back burner.
The Mining Industry provides a unique opportunity to improve waste management in remote areas, due typically to its nature and scale. Large mining projects can generate waste streams in the volumes necessary for recycling options to reach the 'break even' point, and can provide the necessary support to assist the development of comprehensive waste management strategies.
This paper investigates the recent partnership between Zinifex, North Queensland Resource Recovery, Queensland Environmental Protection Agency and a number of remote communities in the Southern Gulf in developing a Regional Waste Management Strategy. Facilitated by the Century Environment Committee, a consultative committee dealing with environmental issues not only for Century Mine Project but also for the wider Southern Gulf region, the development of this Strategy illustrates how the Mining Industry and remote communities can work together to achieve shared goals.

Abstract Summary

Lessons learned:	Sustainable waste management is not seen as an important issue in remote communities because its benefits are not well understood and therefore it is not seen as being linked to the current key priorities. Recognising the real cost of poor waste management practices is required if waste management is to become an area for action in remote areas.
Take home messages:	Incorporating sustainable waste management into other key development plans for remote communities assists in putting a greater focus on waste management. However the economies of scale required for enabling waste management practices such recycling to be practicable, can still create barriers for remote localities. A regional approach to waste management allows for an expanded scope and options in dealing with waste management issues. Mining projects have the potential to link into the regional plans and assist in providing the economies of scale required for recycling options.
Issues faced:	Initial identification of current waste management systems and the priority of waste management in remote communities was undertaken during a road tour undertaken by a team of representatives from Federal and State Government Agencies, Zinifex, North Queensland Resource Recovery and the Century Environment Committee (CEC). It was clear that different councils had different levels of understanding and commitment to waste management. As such, resource allocation and community awareness varied across the region. A regional strategy for waste management was developed which needed to incorporate community goals and aspirations. This development was facilitated by the CEC, utilisiling facilities and expertise of Zinifex and North Queensland Resource Recovery. It is important to manage community expectations in terms of the level of support provided by mining companies to ensure that local communities maintain a sense of ownership of the strategy, and do not come to depend on industry to provide the services expected of government bodies.

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DEVELOPING INNOVATIVE TECHNOLOGIES IN SUPPORT OF SUSTAINABLE MINERALS PROCESSING

Stevan Green
Chief Executive Officer
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The Centre for Sustainable Resource Processing (CSRP) is a collaboration of a wide array of industry and research partners whose aim is to enhance the sustainability of minerals processing both nationally and internationally. CSRP is funded through the Australian Government's Cooperative Research Centres (CRC) Program and brings together a multidisciplinary team of researchers at nodes in Perth, Melbourne, Brisbane and Sydney.

Our research agenda is structured to cover all operations and commodities within the minerals sector. Though the ultimate aim is to affect significant step changes that have the ability to revolutionise processes for the industry, research is also carried out on incremental changes that are achieving near term improvement in efficient mineral processing. To ensure our success, we are also developing tools and methodologies to aid in making better choices on sustainability.

The work carried out at CSRP during its first three years of operation has included developing technologies to improve resource utilisation and water and energy efficiencies, reduce waste volumes and its impacts and to reduce greenhouse gas emissions. To date a number of significant opportunities have been identified to demonstrate viable new ways of reducing the mineral industry's ecological impact whilst at the same time improving business performance. The presentation will include observations about the sustainability issues in the minerals industry, what has worked for us to date, where CSRP might make a significant long term impact and what barriers need to be overcome.

Abstract Summary

Lessons learned:	Cooperative Research Centres are effective in drawing on the expertise and experience from a range of stakeholders in order to achieve sustainable development outcomes.
Take home messages:	Significant step changes are required to achieve sustainable minerals processing. New, breakthrough technologies and processes are being developed aimed toward a future where zero waste becomes a reality. Industry will be involved in icon demonstrations projects which will be implemented in the near term to prove up and further develop these technologies.
Issues faced:	There are a number of scientific, engineering, organisational and social barriers that need to be overcome in order to fulfil our mission.

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CORPORATE REPORTING AT BMA PEAK DOWNS: PRODUCT STEWARDSHIP IN ACTION

Lesley Chalkley(1), Sara James(2) and Dr Mary Stewart (3)
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Environmental Officer, BMA Peak Downs (2)
Senior Consultant, Energetics (3)
Mining Nations Limited (Arial, Size 10, Centred)

At BMA Peak Downs we have embraced BHP Billiton's Product Stewardship standard proactively, and are working towards improved outcomes for the site. This program has developed in incremental stages from an initial focus on developing energy, water and waste management plans for the site, into an integrated program of activities which will enhance our stewardship actions as they relate to materials entering the site, how we use the materials on site, and best practice management of materials leaving the site.

The result of this process has been a limited number of priority actions which represent our first steps in delivering optimal product stewardship responses. Activities which have been highlighted as being of significance are:

- A waste audit in order to determine exactly what the nature of the waste we handle is, what is potentially recycleable, and whether recycleables are being managed optimally.
- The development of site-specific waste and water management KPIs using integrated input from all site areas. These indicators relate directly to corporate targets, but are formulated in a manner which is more meaningful to our site activities and actions.
- Implementation of the EnTERPRIZE.EM® data management system which captures electronic information automatically from a number of different information sources such as SAP and waste management invoices on a monthly basis.

Abstract Summary

Lessons learned:	Developing indicators to support improved site outcomes and direct actions requires input from all site areas; reducing double handling of information and having up-to-date information available assists in gaining site buy-in.
Take home messages:	Product stewardship activities are not trivial, in order to make them part of mainstream site activities they need to be approached in an integrated manner, and phased in over time.
Issues faced:	Getting input from all areas of the site is a pre-requisite, engaging all levels of site personnel in a workshop type environment where discussion is driven by the needs of that area is the best approach. Some training on the issues is necessary before site personnel can engage with these discussions.

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UPDATE - ON NEW INTERNATIONAL STANDARDS FOR SUSTAINABLE PRODUCTS AND SUSTAINABLE TRADE NOW IN DEVELOPMENT - IMPLICATIONS FOR AUSTRALIAN EXPORTERS

Susan M Harris
Principal Environmental Scientist
Maunsell Australia Pty Ltd

New international sustainability standards for products based on full, independent, auditable life cycle assessments (LCA) from "cradle to grave" are currently being prepared by the Belgian Government on behalf of the European Union. Simultaneously, new international standards for sustainable trade are being prepared by the UK Government in cooperation with EU Governments; starting with standards for consumer electronics, household appliances, heating/cooling products, lighting and motors. Prior to the release of final sustainability standards, liaison and consultation with the Australian Government, major international corporates, International Standards Organisation, the World Trade Organisation, World Bank, and United Nations Environment Directorate is planned.

As the sole Australasian technical contact for the two working parties, Mrs Harris will report on the first year's progress with the Sustainable Products and Sustainable Trade Standards projects. The fundamental and far-reaching implications of these two standards for Australian industry and Australian exporters will be discussed.

Abstract Summary

Lessons learned:	Directions and implications of new international sustainability standards for Australian industry and trade.
Take home messages:	Time to prepare to comply with new international standards for products and trade.
Issues faced:	Sustainable products versus unsustainable products - how to define the difference, and how to adapt to fundamental international changes in industrial practices and international trade that may be required with the new standards to be set. Strengths, weaknesses, threats and opportunities presented by the development of the new standards.

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COPPER: DELIVERING VALUE THROUGH LIFE CYCLE PARTNERSHIPS

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Rio Tinto, as part of its overall commitment to sustainable development, has an endorsed product stewardship strategy. Kennecott Utah Copper (KUC) is a leading contributor to the Rio Tinto Group's performance in this area through its advanced programmes. At KUC, a cross-functional product stewardship team strives to better understand and improve the life cycle benefits and impacts of products and to apply this knowledge and expertise to benefit both stakeholders and shareholders. In this presentation, examples are given to demonstrate how life cycle knowledge can benefit the community at large. KUC has built life cycle assessments for its key products and uses this information to optimise process efficiency and minimise environment impacts of products. Further, KUC engages suppliers and customers with the aid of prepared EPDs (environment product declarations) and is involved with educational outreach opportunities to raise public awareness and understanding of the copper life cycle.

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ASSESSING THE IMPACT OF OPERATIONAL SITES ON THE COMMUNITY AND STAKEHOLDER GROUPS

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George Katos
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Iluka Resources Limited
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This paper will present the findings of a significant market research program being undertaken by Iluka among local communities and key stakeholders across its greenfield and operational sites in Western Australia.
In doing so, Iluka has partnered with Ipsos, a specialist in regional stakeholder consultation and community engagement projects, to design and implement a qualitative and quantitative research methodology across a range of targeted groups.
The market research program was developed to enable measurement and monitoring of community and stakeholder needs, attitudes and perceptions towards Iluka on a regional scale and where possible benchmark results on a national and international scale. The outcomes will ultimately drive the development of strategies for improving company management and performance. As a signatory to MCA's Enduring Value, elements of Principles 9 and 10 have been incorporated into the research design.
Research outcomes are aimed at providing Iluka with clear direction in relation to:
- Seeking greater social reporting and performance monitoring capabilities;
- Improving integration of community relations outcomes within company reporting tools;
- Establishing a 'knowledge bank' of community perceptions;
- Implementing consistent community impact reporting across operational regions;
- Improving the tracking of life cycles and progress of existing and developing operations;
- Capturing 'closure' issues and future scenario planning considerations in minimising community impacts;
- Enhancing stakeholder relationships via development of social impact targets; and
- Improving community engagement and partnership processes and performance.

At the conclusion of the research program, on-going Community Reference Groups will be formalised, enabling the Company to share operational / project data and participate in a genuine two-way dialogue and feedback process.

Abstract Summary

Lessons learned:	• Understanding community and stakeholder needs and expectations and address through a formalised and targeted strategic plan; • Sites to have the buy-in of Senior Management to ensure research is actioned at a local level; • Research outcomes to drive the community relations program and scope effective communication tools and messages; • Seeking input on 'future' scenarios can produce insightful information for 'closure' planning and in addressing longer-term community impact challenges • Third party facilitation promotes a more in-depth, balanced and considered response from stakeholder groups
Take home messages:	• Agreement on and prioritising of social impact indicators, determined by both the Company and key stakeholders; • Achieving best practice in managing impacts of mining operations • Genuine targeted community engagement based upon the principles of: communication, transparency, collaboration, inclusiveness and integrity; • Regular forums and other opportunities for stakeholder interaction; • Listening and acting on stakeholder issues and/or concerns
Issues faced:	• This research program is the first for the Company, hence, there will need to be some tailoring when adopting for other sites / states; • Willingness of identified stakeholders to participate in the market research program and the need to 'sell' the benefits of involvement • Managing expectations and the ability to deliver on commitments

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ENVIRONMENTAL PERFORMANCE REPORTING - "READ MY LIP SERVICE"

Andrew Mack
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The environmental responsibilities of mining companies are being subjected to more scrutiny than ever. The public is armed with a considerable appreciation of the environment, it's value and the mechanisms utilised for its protection, knowledge that was not so prevalent only a few years ago. As a result, these companies, their projects, consultants and ultimately their regulators are scrutinised more heavily than ever to ensure that the industry not only meets acceptable standards, but also continues to improve. In addition to this, there is the widespread practice of "self-regulation" which often leaves companies and their consultants to be ultimately responsible for how they portray themselves.

But how do we know whether companies actually putting their money where their collective mouths are, and performing? Their performance is guided to some extent by their inherent company ethos.

It is the companies that have the desire to perform as close to sustainably in an otherwise unsustainable industry that appear to be ahead of the chasing pack. But what is reported to the regulators, public and shareholder, and what occurs on the ground can often be quite different. A company generally looks good through its own media, but the actual on-site experience can be quite different.

The difference between a company with actual on-site performance, and one that merely pays lip service to their environmental and social obligations is one aspect of the industry that requires constant scrutiny and attention, and will be the subject of this presentation.

Abstract Summary

Lessons learned:	Environmental reporting can be an issue of ethics Companies, Consultants, Regulators and the Public all need to be vigilant in what is being reported and how.
Take home messages:	Inaccurate reporting has implications for the industry as a whole A cooperative approach to onsite management (cooperation between industry, regulators and the public) removes many of the obstacles in terms of ongoing operational performance Regulators should be the last line of defence. Industry should aim to operate to ensure their involvement is kept to a minimum. Sustainability reporting should only be considered after actual onsite performance reporting is accurate.
Issues faced:	Companies can provide inaccurate environmental reports with little scrutiny or action. Even raising these issues with the relevant companies may not lead to action being taken to rectify the situation. The tyranny of distance can be overcome by a move to online real-time monitoring. This will provide further transparency across the industry.

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FROM HSEC DATA VERIFICATION TO SUSTAINABILITY ASSURANCE - AN EVOLUTIONARY PROCESS?

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Principal Auditor (1)
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Sustainability Assurance Director (3)
URS Australia Pty Ltd (1 & 2) and URS Verification Ltd (3)

Over the past decade URS Australia Pty Ltd (URS) has been retained by a number of major mining and mineral processing companies to provide independent verification of HSEC data as part of the Corporate reporting process. As these organisations move towards sustainable development and embrace the principles of Enduring Value, they have recognised a need to evolve the data verification process and provide broader assurance of sustainability governance, performance and reporting.

In recognition of this evolution, URS has developed an approach to assist clients towards best practice in sustainability assurance based upon the 'AA1000' assurance standard. The AA1000 assurance standard is based on three broad principles, i.e.:
• Completeness – processes for identifying and understanding activities, impacts and performance;
• Materiality - providing a balanced representation of material aspects of performance; and
• Responsiveness – understanding and responding to key stakeholders' views and how performance on these issues is managed.

In adotping this more robust proess of sustainability assurance organisations are realising significant benefits, including:
• A "line of sight" assessment of sustainability policy and commitment implementation at a corporate, divisional and site level, including identification, asessment and management of non-financial risk;
• Encouraging continuous improvement in sustainability performance throughout the company;
• Independent assurance of sustainability reporting, and building trust with external stakeholders; and
• Protection against risk to reputation, thus protecting shareholder value.

This paper summarises URS' experience of some of the challenges and practical benefits of implementing broader assurance of sustainability governance, performance and reporting; and will focus on lessons learned for clients involved in production of a wide range of commodities in a number of unique settings around the world.

Reference: AccountAbility Institute of Social and Ethical Accountability. Assurance Standard AA1000, March 2003, London, UK.

Abstract Summary

Lessons learned:	Move from data verification to broader sustainability assurance, performance and reporting is evolutionary. Need to include a broad range of stakeholders in the assurance process.
Take home messages:	There are a number of challenges and practical benefits for clients in moving towards broader assurance of sustainability governance, performance and reporting.
Issues faced:	Positive and negative attitudes towards sustainability assurance within various levels of client organisations Uniform implementation of Sustainability principles across a wide range of commodities in a number of unique settings around the world.

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XSTRATA COPPER'S GLOBAL COMMITMENT TO CORPORATE SOCIAL INVOLVEMENT

Sue Sara
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Xstrata Copper

Xstrata Copper's operations comprise mines, mineral processing plants and projects in north Queensland, Australia, in Argentina and in Peru. Headquartered in Brisbane, Xstrata Copper is one of the global commodity business units within Xstrata plc, which is listed on the London and Zurich stock exchanges.

This presentation will examine Xstrata Copper's approach to Corporate Social Involvement (CSI). This commitment reflects the company's belief that local communities should benefit from their operations, both in the short and long term. It is demonstrated by the development and implementation of the Xstrata Community Partnership Program in north Queensland. The three year program was developed in 2004 to support Xstrata's transformation of its north Queensland zinc and copper operations which are delivering significant and sustainable performance improvements. The program, focusing on health and education, has been extended this year and a three year State-wide program focusing on health, education and social and community has been developed on behalf of Xstrata's three commodity businesses operating in Queensland: copper, zinc and coal.

In Argentina, Minera Alumbrera (managed and 50% owned by Xstrata Copper) has an extensive CSI program focused on sustainable development, health and education. The program has been operating for over 10 years and is aimed at improving the quality of life in local communities. Last year, the company significantly extended its social initiatives to include substantial health and education infrastructure works in the provinces of Tucuman and Catamarca.

At the Las Bambas project in southern Peru, Xstrata Copper has commenced capacity building programs with the local communities during its first year of exploration activities. It is also involved in a range of other social development initiatives.

Abstract Summary

Lessons learned:	Community consultation and key stakeholder engagement are key to developing meaningful CSI programs
Take home messages:	Long term commitment to CSI essential, develop partnerships for most effective community program delivery and outcomes
Issues faced:	Some delays in program delivery due to factors such as partner staffing, funding

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ASSESSING THE SOCIAL AND ECONOMIC IMPACTS OF MINING ON TWO DIFFERENT COMMUNITIES IN CENTRAL QUEENSLAND, AUSTRALIA.

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The broad aim of the project was to assist coal mining companies develop effective processes for engaging with their communities and developing impact assessment and planning processes that can be agreed by their stakeholders. This paper focuses on two different communities in Central Queensland: an existing mining community and a predominately agricultural community where coal mining companies have just start up and are planning to increase their operations.
Each case study involved the application of four different impact assessment tools: stakeholder analysis, input output modelling, choice modelling and experimental workshop assessment.
The analysis showed that while there is a great deal of consistency in the results from the different techniques, different techniques provided different insights into the types of impacts on communities.
Also, using four different socio economic impact assessment techniques, some significant differences between the two communities were identified. While mining was generally viewed in positive terms because of the economic and demographic impacts, there were varying levels of concern about different economic and social impacts. The differences between the two communities indicates that dealing with impacts needs to be tailored to specific community characteristics and issues.

Abstract Summary

Lessons learned:	1) advantages and some weaknesses of some impact assessment tools 2) differences in economic and social impacts on different type of community
Take home messages:	1) There is a range of socio and economic tools available for impact assessment 2) Impact assessment should be tailored to specific community characteristics and issues.
Issues faced:	Extended stakeholder analysis - identifies issues but some limitations Standard economic analysis - identifies strength of impacts but can be narrow in focus and lacks community inputs Alternative assessment techniques - can complement the traditional social and economic tools of impact assessment

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A STATEWIDE PARTNERSHIP FOR SUSTAINABLE ABORIGINAL COMMUNITIES

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The Statewide Indigenous Land Use Agreement (ILUA) Negotiating Team has been pivotal in bringing key stakeholders together and in driving statewide change in negotiated outcomes for shared access to land. The State Government is 'hell' bent on improving exploration and mining capacity to generate State growth while seeking enduring capacity-building for Aboriginal people.

Spurred on by a critical skills shortage, coupled with a massive growth in production for the resources industry, the ILUA Team has grabbed this unique opportunity to develop a broad spectrum strategy for sustainable capacity building for Aboriginal people, linked to the resources industry.

The ILUA Team is bringing together leaders and change agents within industry, Aboriginal communities, State and Commonwealth government and non-government agencies (which include banks, Scouts Australia, World Vision, The Smith Family etc). The aim is to achieve together what has demonstrably not been achieved or achievable through alternative approaches to date.

How did this 'bold' concept come about? What was the driving force and what does it hope to achieve?

The unique concepts put by the Native Title Unit of the ALRM has clearly identified a long term strategic vision which has the support of leaders from the various agencies mentioned above to commit to widespread capacity building for self-sustaining Aboriginal communities and individuals.

Abstract Summary

Lessons learned:	A critical labour shortage coupled with a resources industry 'boom' provides unique opportunities for education, training and employment for Aboriginal people in the resources industry.
Take home messages:	Bold ideas conveyed boldly, and with clarity, are needed to bring about enduring change for Aboriginal communities.
Issues faced:	The major challenge is to attain a genuine, ugent, commitment from the resources industry, Aboriginal communities, governments and non-government agencies to co-operation and co-ordination of effort to attain genuine sustainable outcomes for Aboriginal education, training and employment.

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A FUTURIST'S CHALLENGE

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