

# resourcing the future

Sustainability Report 2008  
Full Report



# Message From The Chief Executive Officer

Over the past year, a number of emerging economies experienced strong growth. By supplying the building blocks for that growth, our industry has contributed to higher living standards and greater opportunities for millions of people.

Along with host governments, business partners and employees, we work towards assisting all our key stakeholders draw value from our activities and ensure we contribute to the long-term sustainability of the communities where we operate. Despite enjoying the benefits of growth, operating a global company responsibly in an increasingly complex world presents us with a range of challenges.

The rapid growth of the industry has tightened labour markets and our future depends heavily on our capacity to continue to attract great people.

The Company's participation in the climate change debate is evolving, as we follow developments in the science, economics, public policy and the carbon footprint of our business.

Serious health problems, such as malaria and HIV/AIDS, remain in some of our host countries and we are working to find the most effective way to help address them.

We aim to develop resources for the future while respecting human rights and leaving a positive legacy.

Finally, and most importantly, we feel deeply and personally any loss of life in our workplaces and the impact this has on families, friends and colleagues.

For many years, we have made safety our number one priority. Despite our efforts, eleven of our colleagues lost their lives while working for us during 2007/08, five of them in a helicopter crash in Angola. Every fatality touches all of us and I am personally committed to eliminating hazards and ensuring that all our people go home safely at the end of each day. Production and financial results can never come before safety.

Nor do we take the health and well-being of our people for granted. Current health priorities include reduction of a range of workplace exposures, promotion of consistent use of personal protective equipment, fatigue management and maintenance or improvement of the general health and fitness of our people.

Our new five-year targets - which we report on for the first time this year - reflect our intent to further reduce the energy and greenhouse gas intensity of our business by 2012. We are working with others to find technological solutions to manage our emissions and to address the impact of our products in relation to climate change.

We continue to play an important role in social development through employment and training opportunities, infrastructure provision, local business development and payment of taxes and royalties in our host countries.

Our commitment continues to invest one per cent of BHP Billiton's pre-tax profits, on a three-year rolling average, in community based projects. During 2007/08, our contribution increased by \$37.6 million from the previous year to \$141.0 million with major resources channelled to improving access to quality education and helping to tackle major health issues, such as malaria and HIV/AIDS.

Through our Matched Giving Program, a proportion of the Company's social investment was directed to organisations for which our employees are passionate. During 2007/08, the Company contributed \$4.8 million to these organisations by matching employee donations, fundraising and personal volunteering. This is a significant increase from the previous year.

Recognising and supporting our employees' community activities is one way to continue to attract and retain skilled people, despite tight employment conditions across the resources sector. Our standing as an employer of choice comes from the broad geographic and career opportunities we offer, along with our desire to assist people on their personal development journey and our commitment as a responsible employer.

I want to recognise the ongoing efforts and commitment of our employees and contractors and thank them for their contribution to the successes BHP Billiton recorded during the year.



Our Company can make a real contribution to sustainable development and poverty reduction in the world and we need to work hard to realise this potential. We truly are charged with resourcing the future - in a responsible way.

Our Full Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines. We also continue to support the UN Global Compact and we have included updates against the principles in our Full Report. We believe it provides a balanced and reasonable representation of our economic, environmental and social performance.

**Marius Kloppers**

Chief Executive Officer

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# 2008 At A Glance

2008 at a Glance is intended to provide you with an overview of our performance during the 2007/08 reporting period. See the following for:

- Our [HSEC Targets Scorecard](#)
- [Recognition](#) for our sustainability activities
- A summary of [key sustainability data](#)

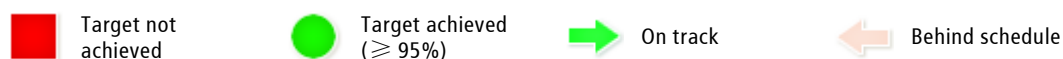
For a description of our Company and our 2008 performance, read:

- [Company Profile](#)
- [Sustainable Development Governance▶2008 Performance](#)
- [Healthy People▶2008 Performance](#)
- [Safe Workplaces▶2008 Performance](#)
- [Environmental Commitment▶2008 Performance](#)
- [Social Responsibility▶2008 Performance](#)
- [Our People▶2008 Performance](#)
- [Socio-Economic Contributions▶2008 Performance](#)








# HSEC Targets Scorecard

As of 1 July 2007, BHP Billiton has introduced new five-year Health, Safety, Environment and Community (HSEC) targets.

The table below shows our performance in the 2008 reporting period. (Base year: 1 July 2006 to 30 June 2007 except energy use and greenhouse gas emissions, which are based on a base year of 1 July 2006 to 30 June 2007).



Target	Performance	
Zero Harm	Result	FY2008
Zero fatalities		Eleven fatalities at our controlled activities
Zero significant environmental incidents and zero significant community incidents (i.e. rated 3 and above on the <a href="#">BHP Billiton Consequence Severity Table</a> )		No Level 3 environmental or community incidents were reported
Management Systems	Result	FY2008
All operating sites to achieve and maintain conformance with the BHP Billiton HSEC Management Standards Issue 3 (score greater than 4 out of 5) by 30 June 2008		50 reporting assets (77 per cent) scored above 4.0
A Group average conformance of 4.0 out of 5.0 against BHP Billiton HSEC Management Standards Issue 3		An average conformance of 4.1 out of 5.0 has been achieved
All operating sites to obtain and maintain ISO 14001 Certification		95 per cent of sites requiring ISO 14001 are certified
Health	Result	FY2008
All operating sites to finalise baseline health exposure assessments on occupational exposure hazards for: <ul style="list-style-type: none"> <li>airborne contaminants and noise by 30 June 2008, and</li> <li>physical exposures by 30 June 2010.</li> </ul>		airborne contaminants and noise - 75 per cent of sites have completed assessments
		physical exposures - 29 per cent of sites have completed assessments
15 per cent reduction in potential employee exposures over the occupational exposure limit by 30 June 2012		4 per cent increase in potential employee exposures over the OEL (excluding noise) since 2007
30 per cent reduction in incidence of occupational diseases by 30 June 2012		26 per cent reduction in incidence of occupational diseases since 2007
Safety	Result	FY2008
50 per cent reduction in Total Recordable Injury Frequency Rate by 30 June 2012.		TRIFR for 2008 was 5.9, an improvement of 20 per cent on the TRIFR recorded in 2007

Environment	Result	FY2008
Aggregate Group target of 6 per cent reduction in greenhouse gas emissions per unit of production by 30 June 2012 <sup>1</sup> .		5 per cent increase in greenhouse gas emissions per unit of production in 2008
Aggregate Group target of 13 per cent reduction in carbon-based energy use per unit of production by 30 June 2012.		1 per cent increase in carbon-based energy use per unit of production in 2008
Aggregate Group target of a 10 per cent improvement in the ratio of water recycled or reused to high-quality water consumed by 30 June 2012.		7 per cent improvement in the ratio of water recycled/reused to high-quality water consumed since 2007
Aggregate Group target of 10 per cent reduction in the land available for rehabilitation by 30 June 2012		The land available for rehabilitation index has remained unchanged since 2007
Community	Result	FY2008
Aggregate Group target of 1 per cent of pre-tax profits to be invested in community programs, including in-kind support and administration, calculated on the average of the previous three years' pre-tax profit.		Expenditure totalled US\$141 million, equivalent to 1.0 per cent of pre-tax profits based on the average of the previous three years' pre-tax profit publicly reported in each of those years <sup>3</sup>
All operating sites and development projects to undertake a human rights self-assessment and implement a risk-based human rights management plan <sup>2</sup> by 30 June 2008.		84 per cent (54 of 64) of operating sites and development projects completed human rights self assessments. 21 sites have development human rights management plans; 2 sites that identified human rights-related issues had not completed a management plan
All operating sites and development projects to have a formal community engagement program in place by 30 June 2008.		95 per cent (61 of 64) of operating sites and development projects have community engagement programs in place

## Notes

1. This was partly due to the switching of fuels used by third party electricity generators that serve our operations in Chile.
2. Excludes sites having no human rights-related issues identified in the human rights self-assessment.
3. Includes BHP Billiton component of our voluntary contributions to community programs at joint venture operations, but does not include payments to communities that form part of mandatory licensing agreements.





## Our Profile

### BHP Billiton Is The World's Largest Diversified Resources Company

We are distinguished from other resource companies by the combination of the quality of our assets; our deep inventory of growth projects; our customer-focussed marketing; our diversification across countries, commodities, and markets; and our petroleum business.

As at 30 June, 2008 we had some 41,000 employees working in over 100 operations in 25 countries. Reflecting our aim to be a premier global company, we occupy significant positions in major commodity businesses, including aluminium, energy coal and metallurgical coal, copper, manganese, iron ore, uranium, nickel, silver and titanium minerals, and have substantial interests in oil, gas, liquefied natural gas and diamonds.

The central tenet of the BHP Billiton business model is that its diversified portfolio of high quality assets provides stable cash flows and an enhanced capacity to drive growth. In FY2008, we generated revenue of US\$59.5 billion, attributable profit (excluding exceptional items) of US\$15.4 billion and net operating cash flow of US\$18.2 billion.

BHP Billiton was created through the Dual Listed Companies (DLC) merger of BHP Limited (now BHP Billiton Limited) and Billiton Plc (now BHP Billiton Plc), which was concluded on 29 June 2001.

BHP Billiton Limited and BHP Billiton Plc continue to exist as separate companies, but operate on a combined basis as BHP Billiton. The headquarters of BHP Billiton Limited, and the global headquarters of the combined BHP Billiton Group, are located in Melbourne, Australia. BHP Billiton Plc is located in London, United Kingdom. Both companies have identical **boards of directors** and are run by a unified **management team**. Shareholders in each company have equivalent economic and voting rights in the BHP Billiton Group as a whole.

# 2008 - Key Successes and Challenges

While the talent of our people continues to allow us to celebrate many successes, we operate in an increasingly complex world that presents us with many challenges. The following presents a snapshot of the successes and challenges experienced in 2007/08.

## Successes

- Revising and formalising our biodiversity position.
- Progressing closure planning through our Life of Asset planning process
- Significant improvement in rates of injuries and severity.
- Enhancing our method for managing ongoing catastrophic risk that could result in multiple fatalities or significant property damage.
- Continuing to invest one percent of our pre-tax profits in community programs to ensure our host communities share in our success.
- Continuing to support and match the efforts of our employees who volunteer, fundraise or donate to not for profits; the company's matched contributions doubled.
- Becoming Reconciliation Australia's founding National Leader in reconciliation and one of the first companies in Australia to complete a Reconciliation Action Plan.
- Recording no human rights transgressions.
- Continuing our relationship with Oxfam Australia to deliver community development training programs.
- Consolidating our approach to talent management, succession planning, talent pipeline, remuneration and reward.
- Revising our Code of Business Conduct and enhancing associated assurance processes
- Contributing to increased, employment, community investment, taxes and royalties.
- Increasing our proportion of spend with local suppliers
- Introducing stewardship concepts to a range of Chinese organisations, including state agencies, national commodity associations, lead smelters and battery exporters.

## Challenges

- Climate change continues to be one of our most significant challenges as we help meet the world's minerals and energy needs while working with others to mitigate the potential impact of greenhouse gas emissions on the planet.
- Reducing our consumption of high quality water
- Access to land and the potential to impact on biodiversity
- Eliminating our fatal risks
- Having a workplace that is injury free
- Reducing or eliminating occupational health exposures to airborne contaminants and noise
- Reducing the rate of occupational illness
- Continuing to find effective ways to address major infectious diseases such as HIV/AIDS and Malaria
- Building and maintaining effective stakeholder relationships with people who are directly affected by our operations.
- Effective closure planning to ensure we leave a positive legacy
- Respecting and recognising the importance of traditional rights
- Managing the potential exposure to human rights related issues
- Accessing skills in a tight labour market
- Being able to influence product life cycles aspects that we do not control.

# External Recognition

The following table below summarises the external recognition we have received at a corporate level in 2007/08. In addition, many of our operations received recognition for excellence at a local or regional level.

## Awards & Commendations

Recognition	Description
Australian and New Zealand Association of Chartered Certified Accountants (ACCA) Awarded Best Report for our 2007 Sustainability Report.	<p>The ACCA focuses on criteria that are grouped around three elements - completeness, credibility and communication. Some of the comments the judges published about the BHP Billiton Sustainability Report included:</p> <ul style="list-style-type: none"> <li>● Gives a complete picture of the organisation, capturing the complexity of its extensive operations.</li> <li>● Provides a valuable insight into the sustainability profile of BHP Billiton, with an effort made to ensure the audience has a clear understanding of the issues BHP Billiton face and the management strategies in place to address them. It is a very credible report and shows a willingness to report on its sustainability objectives.</li> <li>● Contains very good analytical data including climate change indexes.</li> </ul>
Business in the Community (UK) - 2008 Big Tick Award (Social Impact Category) and Finalist for Company of the Year	<b>Business in the Community</b> (UK). The Big Tick is independently assessed and awarded to companies that have demonstrated leadership and positive, measurable impacts of their corporate responsibility programs.

## Investment Indices

Recognition	Description
Dow Jones Sustainability Indices - Included in the global index since 2002	The <b>Dow Jones Sustainability World Indices</b> (DJSI) consist of more than 300 companies that represent the top 10 per cent of the leading sustainability companies in 60 industry groups in the 34 countries covered by the biggest 2500 companies in the Dow Jones Global Indexes.
FTSE4Good Index - Included in the international ethical index since 2003	Created by the global index company FTSE Group, FTSE4Good is an equity index series designed to facilitate investment in companies that meet globally recognised corporate responsibility standards. Companies in the FTSE4Good Index Series have met stringent social, ethical and environmental criteria, and are positioned to capitalise on the benefits of responsible business practice.
The Australian SAM Sustainability Index - Mining sector leader, third year in a row	Launched in February 2005, the Australian SAM Sustainability Index (AuSSI) tracks the performance of Australian companies that lead their industry in terms of corporate sustainability. Based on a thorough assessment of economic, environmental and social criteria, the AuSSI comprises the top sustainability-driven companies from each of 21 industry clusters covering the entire Australian economy. Based on the methodology of Sustainable Asset Management (SAM), it applies the same research criteria as the Dow Jones Sustainability Indexes for which SAM selects sustainability leaders on a worldwide scale.
Business in the Community (UK) – Platinum-band Company	Originally established in 2002 in the UK by <b>Business in the Community</b> the Corporate Responsibility Index was developed to ensure a systematic approach to managing, measuring and reporting upon the various impacts that companies have upon society and their environment. The index works as a management tool for companies to see how their corporate responsibility activities are integrated into their mainstream business operations.
Corporate Responsibility Index (Australia) - Member of the CRI Leaders Network	The Corporate Responsibility Index is the Australian release of the Business in the Community index and as a leader in this index, BHP Billiton is part of the Leaders Network.
Carbon Disclosure Project – included in the 2007 Climate Leadership Index, comprising the 50 'best in-class' responses among the FT500	The Carbon Disclosure Project (CDP) is the most comprehensive survey sponsored by international institutional investors regarding risks and opportunities presented by climate change.
Johannesburg Stock Exchange Socially Responsible Investment Index - included in the South African sustainability index since its inception in 2004	The JSE launched the first Socially Responsible Investment (SRI) Index in May 2004. A voluntary assessment is made of the triple bottom line performance of FTSE/JSE All Share Index companies, with the aim of compiling an index comprising those companies that pass the criteria requirements.
Storebrand - "Best in Class" status for its leading environmental and social performance in the Metals & Mining Industry	Storebrand is a leading Scandinavian financial services company that has a strong commitment to corporate responsibility. Storebrand is considered to be a leading player within Socially Responsible Investment (SRI), all of which are subject to an extensive Group SRI Policy. Its in-house SRI team performs periodic analyses of companies listed in the Morgan Stanley Capital International World Index. These analyses cover environmental and social responsibility performance.

# Company-wide Employee HSEC Awards

The BHP Billiton Employee HSEC Awards encourage and recognise those employees and their teams who openly embody the values expressed in our Charter and go beyond what is required in their day-to-day jobs to care for their fellow employees, the community and the environment.

The Awards also provide a platform for sharing creativity and best practice. A wealth of knowledge is gathered through the entry submission process, and this is published across the Company to bring business benefits.

Awards are presented in the four categories of Health, Safety, Environment and Community, together with an award for Individual Excellence, the recipient of which is personally selected by the Chair of the Judging Panel. Each category of nominations is assessed by a separate judging panel, comprising one Company representative and four experts from the non-government, government and academic sectors.

This year, despite the number of allowable entries being capped at eight per site (i.e. two entries per HSEC category), 254 nominations were received from around the world. The judges selected a short list of finalists in each category. From these, the recipients of Excellence, Highly Commended and Merit Awards were chosen.

In recognition of their initiative, each Excellence Award and Highly Commended Award recipient is presented with a specially designed sculpture, and each Merit Award recipient receives a certificate. The finalists each nominate a charity or not-for-profit organisation to share in their award. These organisations receive a donation of US\$10,000 (Excellence Award), US\$5,000 (Highly Commended) or US\$2,000 (Merit). All recipients are to be congratulated for the high standard of their contributions.

We also thank the judges who participated in the assessment of entries and acknowledge their contribution to the Awards process.

Use the links below to find out about this year's Award finalists and their projects.

- [Health](#)
- [Safety](#)
- [Environment](#)
- [Community](#)

# Key Sustainability Data

	Units	FY2004	FY2005	FY2006	FY2007	FY2008
<b>Health</b>						
New cases of occupational illnesses	Total number	197	152	<i>124</i>	264	207
Employees in potential exposures, if not for the use of personal protective equipment, greater than the:						
Occupational exposure limit	%	23	28	18	17	17
Noise exposure limit	%	55	53	47	<i>49</i> <sup>1</sup>	48
<b>Safety</b>						
Fatalities at our controlled operations	Total number	17	3	3	8	11
Total Recordable Injury Frequency Rate	See TRIFR			8.8	7.4	5.9
<b>Environment</b> <sup>2</sup>						
<b>Land use</b>						
Land newly disturbed	hectares	5,620	4,940	4,930	<i>5,120</i>	5,740
Land rehabilitated	hectares	2,060	1,850	2,410	<i>3,340</i>	1,590
Land to be rehabilitated <sup>3</sup>	hectares	156,040	127,970	121,200	<i>106,410</i>	112,780
<b>Resource Consumption</b>						
High-quality water consumption	Megalitres	153,000	153,200	160,230	<i>162,080</i>	162,490
Low-quality water consumption	Megalitres			33,800	25,600	48,320
<b>Emissions</b>						
Energy Used	Petajoules	328	311	305	<i>303</i>	305
Greenhouse gases	'000 tonnes CO <sub>2</sub> -equivalent	52,140	52,270	51,820	52,000	53,800
Oxides of sulphur	tonnes	48,240	50,530	93,390	<i>76,840</i>	75,990
Oxides of nitrogen	tonnes	54,600	57,130	165,350	<i>63,790</i>	70,210
Fluoride	tonnes	900	950	1,360	1,090	990
<b>Waste</b> <sup>4</sup>						
General waste disposed to landfill	tonnes	124,990	154,830	158,970	<i>132,520</i>	168,570
Hazardous waste disposed to landfill	tonnes	59,100	68,100	43,850	<i>55,490</i>	63,650
<b>Community</b>						
Community contributions	US\$ million	46.5	57.4	81.3	103.4	141.0
	% pre-tax profit <sup>5</sup>	1.3	1.5	1.4	1.1	1.0
Community complaints	Total number	511	509	603	543	536
Employees and contractors participating in human rights training	Total number	NA	12,679	15,570	20,886	23,876
<b>Socio-economic</b>						
Full-time employees <sup>6</sup>	Total number	35,070	36,468	40,002	39,947	41,732
Full-time employees that are female	%	9	12	13	14	17
Total Value Add <sup>7</sup>	US\$ million	14,085	15,927	10,931	15,679	17,154
<b>Financial</b>						
Revenue	US\$ million	24,943 <sup>8</sup>	31,150 <sup>8</sup>	39,099 <sup>8,9</sup>	47,473 <sup>8,9</sup>	59,473 <sup>8,9</sup>
Underlying EBIT <sup>10</sup>	US\$ million	5,488 <sup>8</sup>	9,921 <sup>8</sup>	15,277 <sup>8,9</sup>	20,067 <sup>8,9</sup>	24,282 <sup>8,9</sup>

## Notes

1. The use of italics indicates that the figure has been adjusted since it was originally reported.
2. Figures restated to facilitate year-to-year comparison of performance without BHP Steel, which was demerged in July 2002.

3. Assumes immediate closure of all operations.
4. Excludes recycled materials and mining related materials, such as waste rock, tailings, coal reject and slag. Hazardous waste includes waste oil.
5. Percentage of pre-tax profits calculated on a rolling 3-year average.
6. The average number of employees, in accordance with our IFRS reporting requirements, which includes our proportionate share of jointly controlled entities' employees and includes executive Directors, by CSG
7. The definition of value add is provided by the 2006 Global Reporting Initiative Guidelines. See [Economic Contributions](#).
8. Information for the years FY2008, FY2007, FY2006 and FY2005 is stated under IFRS. Information for the year FY2004 is prepared in accordance with UKGAAP and has not been restated.
9. On 1 July 2007, the Group adopted the accounting policy of recognising its proportionate interests in the assets, liabilities, revenues and expenses of jointly controlled entities rather than equity accounting its interest. Following this change in policy comparative information in the table above for FY2007 and FY2006 has been restated.
10. Underlying Earnings Before Interest and Tax is earnings before net finance costs and taxation, and any exceptional items.

# Environmental Data Summary

Please note that totals may differ due to rounding.

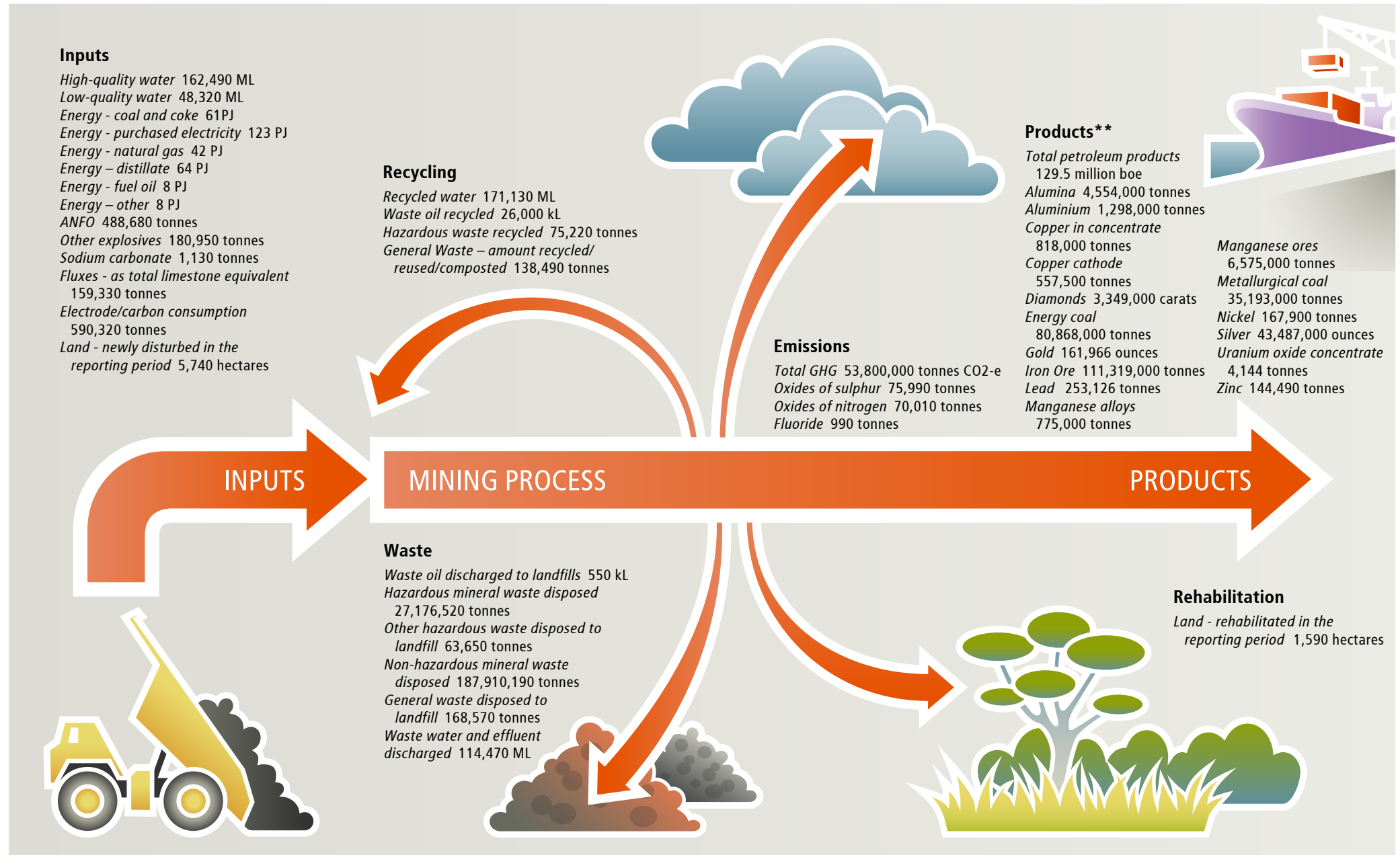
	Petroleum	Aluminium	Base Metals	Diamonds & Specialty Products	Stainless Steel Materials	Iron Ore	Manganese	Metallurgical Coal	Energy Coal	Corporate & Other	BHP Billiton Total <sup>8</sup>
<b>Land (hectares)</b>											
Total land owned, leased or managed <sup>2</sup>	106,510	701,370	1,397,900	344,000	1,629,660	249,630	37,900	547,900	671,450	840	5,687,150
Newly disturbed in the reporting period	10	350	1,080	0	1,310	840	70	1,360	720	0	5,740
Rehabilitated in the reporting period	60	180	90	0	60	110	0	290	810	0	1,590
Land requiring rehabilitation <sup>3</sup>	400	12,030	19,930	2,040	8,710	10,440	3,780	36,600	18,830	20	112,780
<b>Water Consumption (megalitres)<sup>4</sup></b>											
High-quality water	430	7,600	96,740	140	14,980	21,080	5,290	10,200	5,990	30	162,490
Low-quality water	170	0	13,750	0	14,950	0	270	14,350	4,810	0	48,320
Recycled water	0	4,440	36,990	4,300	69,140	4,670	18,370	19,750	13,480	0	171,130
<b>Energy Use (petajoules<sup>5</sup>)</b>											
Coal and Coke	0.0	34.5	0.3	0.0	9.6	0.0	16.2	0.0	0.0	0.0	60.6
Purchased electricity	-0.1	76.1	18.2	0.0	7.7	1.7	10.3	5.3	3.4	0.0	122.6
Natural gas	12.6	17.2	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	42.2
Distillate	3.7	1.6	13.5	2.7	7.4	9.7	1.5	13.6	10.1	0.2	63.8
Fuel Oil	0.0	0.1	0.5	0.0	7.3	0.0	0.2	0.0	0.0	0.0	8.2
Other	0.0	5.4	1.3	0.0	0.1	0.0	0.0	0.7	0.0	0.0	7.6
<b>Total</b>	<b>16.2</b>	<b>135.0</b>	<b>33.8</b>	<b>2.7</b>	<b>44.5</b>	<b>11.3</b>	<b>28.3</b>	<b>19.6</b>	<b>13.5</b>	<b>0.2</b>	<b>305.0</b>

<b>Greenhouse Gas Emissions (000 tonnes CO<sub>2</sub>-e<sup>6</sup>)</b>											
Carbon dioxide	2,040	25,290	5,550	190	3,680	1,150	3,790	2,710	1,670	30	46,090
Methane	120	0	0	0	0	0	0	4,850	2,130	0	7,100
Other greenhouse gas emissions <sup>9</sup>	0	600	0	0	0	0	0	0	0	0	600
<b>Total</b>	<b>2,160</b>	<b>25,890</b>	<b>5,550</b>	<b>190</b>	<b>3,680</b>	<b>1,150</b>	<b>3,790</b>	<b>7,550</b>	<b>3,800</b>	<b>30</b>	<b>53,800</b>
<b>Other Gaseous Emissions (tonnes)</b>											
Oxides of sulphur	660	32,050	1,210	130	34,400	30	7,230	170	120	0	75,990
Oxides of nitrogen	8,020	4,160	10,960	4,960	10,440	8,670	1,940	11,900	8,860	100	70,210
Fluoride	0	990	0	0	0	0	0	0	0	0	990
<b>Waste (various units)</b>											
Wastewater and effluent discharged (megalitres)	3,790	11,650	31,330	7,030	4,470	11,840	1,090	40,620	2,640	20	114,470
Waste oil disposed to landfills (kilolitres <sup>7</sup> )	0	480	0	0	10	0	0	40	0	10	550
Hazardous mineral waste disposed (tonnes)	0	7,427,250	11,696,610	0	2,600	2,152,620	606,790	5,289,450	0	280	27,175,610
Other hazardous waste disposed to landfill (tonnes)	10	17,770	6,970	0	340	910	33,840	130	3,680	0	63,650
Non-hazardous mineral waste disposed (tonnes)	0	122,240	121,058,030	6,082,500	20,983,990	1,089,440	4,193,180	15,260,900	19,081,950	120	187,872,350
General waste disposed to landfill (tonnes)	1,810	6,390	23,340	48,120	25,110	27,640	21,430	10,310	4,190	220	168,570

1. Includes hydrocarbons released to secondary containment facilities and subsequently recovered.
2. Includes onshore exploration leases but excludes offshore exploration leases.
3. This value includes the area to be rehabilitated while the project is operational, not the total area that will require rehabilitation at the end of project life.
4. One megalitre is equal to 10<sup>6</sup> litres.
5. One petajoule is equal to 10<sup>15</sup> joules.
6. CO<sub>2</sub>-e = Carbon dioxide equivalent (the basis of comparing the warming potential of greenhouse gases such as carbon dioxide, methane, perfluorocarbons, etc.)
7. One kilolitre is equal to 10<sup>3</sup> litres.
8. The BHP Billiton Total figure is inclusive of data from (1) our closed Beenup site in Western Australia; (2) Technology Centres and (3) Mineral Exploration (except for land data).
9. Includes hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrous oxide (N<sub>2</sub>O).



# BHP BILLITON INPUTS/OUTPUTS\*



\* All environmental data are on 100% BHP Billiton operated sites basis.

\*\* Production figures are not directly comparable with environmental data as they are based on BHP Billiton attributable production (equity basis).

# Our Approach To Sustainability

For BHP Billiton, sustainable development is about ensuring our business remains viable and contributes lasting benefits to society through the consideration of social, environmental, ethical and economic aspects in all that we do.

Working through complex operational issues associated with our operations has highlighted environmental and social performance as a critical success factor for the Company. We are well aware of the costs of getting it wrong; but more importantly, we recognise the value that can be created by getting it right. Consequently, we adopt a holistic approach to business strategy, seeking to realise value for our stakeholders through a sustainable business philosophy.

Line managers have ultimate accountability for ensuring our businesses contribute to sustainable development and move towards our aspirational goal of Zero Harm. This is implemented through a number of processes, such as our [HSEC Management Standards](#) (PDF 148 KB) and our [Code of Business Conduct](#).

## Our Vision

Our vision for sustainable development is to be the company of choice — creating sustainable value for shareholders, employees, contractors, suppliers, customers, business partners and host communities. Central to our vision is our aspirational goal of Zero Harm to people, our host communities and the environment.

Zero Harm means:

- We aspire to create a workplace that is injury, illness and incident free. We seek to adopt a precautionary approach to minimise and, where possible, eliminate our environmental impacts over time.

Company of choice means:

- Being selected by shareholders as a valued investment, based on strong financial performance and sound governance processes.
- Being preferred by employees for providing a safe, healthy and equitable workplace and caring about the communities in which we live.
- Being preferred by the communities in which we operate for our contribution to sustainable community wellbeing.
- Being preferred by our business partners — customers, suppliers, contractors, governments and joint venture partners — as a committed and reliable partner in delivering sustainable value.

Our emphasis on sustainable value means we have the willingness to invest for the future while ensuring we deliver value in the shorter term.

## Our Strategy

BHP Billiton is the world's largest diversified resources company. Our aim is to be diversified in terms of our markets and countries of operation, and this enhances the stability of our cash flows and capacity to invest and grow throughout the business and commodity price cycles. This stability also enables us to take a longer-term, precautionary approach to all aspects of our business, including financial, social and environmental perspectives, improving our ability to deliver value for all our key stakeholders.

Our sustainable development strategy comprises two dimensions – the business dimension and the sustainability dimension – that together contribute to bottom-line performance.

### Business Dimension

The business dimension represents traditional contributors to a financially successful and competitive business, recognising that without a profitable business we are unable to contribute to the broader goals of sustainability. This dimension includes:

- Business excellence and customer focus.
- Portfolio diversity.
- Deep inventory of growth projects across all Customer Sector Groups, including greenfield and brownfield projects, as well as appropriate merger and acquisition activities.

- Quality, long-life assets.

### Sustainability Dimension

Our bottom line performance is, however, dependent upon ensuring access to resources and gaining and maintaining a licence to operate and grow. Maximising bottom line performance is about recognising the value protection and value add to be achieved through performance in non-financial dimensions - or sustainability dimensions, such as:

- Aspiring towards Zero Harm to people, our host communities and the environment.
- Ensuring effective governance and risk management processes are in place to ensure a precautionary approach is taken to achieving business outcomes.
- Recognising the need to be socially responsible and contribute to sustainable community development.
- Ensuring broader economic contributions in the regions where we operate.

### Working with business partners

Our Sustainable Development Vision and Strategy are underpinned by our Sustainable Development Policy and HSEC Management Standards, which are applied to BHP Billiton sites and operations throughout the world. These include:

- Majority owned and/or operated and controlled facilities and activities (from exploration and planning through to closure and rehabilitation).
- Development projects, mergers, acquisitions and divestments.
- Activities by contractors on BHP Billiton sites or under BHP Billiton management (including construction activities prior to hand-over).

Where BHP Billiton does not have operational responsibility but has an equity stake, or where significant BHP Billiton assets are involved, we make all reasonable efforts to promote our approach and make our HSEC Management Standards available to the operator, so that comparable HSEC Management Standards may be applied. The resolution of conflicts presented by the implementation of these Standards must be consistent with the principles of the BHP Billiton Charter.

# Business Case For Sustainable Development

Our bottom line performance is dependent on ensuring access to resources and securing and maintaining our licence to operate and grow. Maximising the bottom line is, however, about recognising the value protection and value-add that can be achieved through enhanced sustainability performance. Delivery on this approach is a core expectation of our management teams and recognised through the following:

- **Reduced Business Risk And Enhanced Business Opportunities** - Understanding and managing risk provides greater certainty for shareholders, employees, customers, suppliers, and the communities in which we operate. By managing our business risk we can be better informed and more decisive and can pursue growth opportunities with increased confidence. The aim is to embed risk management in all critical business systems and processes so that risks can be identified and managed in a consistent and holistic manner.
- **Gaining And Maintaining Our Licence To Operate And Grow** - Access to resources is crucial to the sustainability of our business. Fundamental to achieving access to resources is effectively addressing heightened political and societal expectations related to the environmental and social aspects of our business.
- **Improved Operational Performance And Efficiency** - Many key operational performance indicators are inextricably linked to sustainability performance. For example, improving energy efficiencies reduces both costs and greenhouse gases and reducing wastes lowers operational costs. The application of innovation and business improvement processes not only improves operational efficiency and performance but also delivers sustainability gains.
- **Improved Attraction And Retention Of Our Workforce** - Our workforce is an essential element of our business, and being able to attract and retain a quality workforce is fundamental to our success. Maintaining a healthy and safe workplace is a universal value of all employees. Effective employee development and training programs, attractive remuneration packages, addressing work/life balance, and providing a fair and non-discriminatory work environment all contribute to employee attraction and retention.
- **Maintained Security Of Operations** - Asset security is a critical element that can be significantly impacted by the nature of relationships with host communities. Trusting and supportive relationships can lead to reduced security risks, whereas distrustful relationships can lead to heightened security risks. This is particularly critical for our operations in parts of the world with politically unstable environments.
- **Enhanced Reputation** - The benefits of enhanced reputation are many but often difficult to quantify. Understanding what our stakeholders perceive as responsible behaviour, meeting these expectations and achieving recognition from financial institutions, investors and customers can deliver value. For example, enhanced reputation may foster an increased belief that the Company has the credibility and capabilities to deliver on its commitments. This can promote shareholders' faith in proposed investments, communities' faith in community development plans, governments' faith in successful delivery of projects, and business partners' faith that we are reliable and competent in all that we do.
- **Enhanced Ability To Strategically Plan For The Longer Term** - By anticipating and understanding trends in society – new regulations, heightened societal expectations and improved scientific knowledge – and assessing these against our business models, our ability to proactively plan for the longer term is improved. This includes entering emerging markets, revising product mixes or changing operational technologies.

## Beyond the Business Case

Beyond the business case described above, there are many clear societal benefits that flow from our ability to integrate aspects of sustainability into our business. These benefits include contributing to:

- Improved standards of living
- Self-sustaining communities
- Enhanced resource conservation
- Enhancement of biodiversity conservation
- Enhanced economic contributions
- Improved stakeholder trust.



# Our Public Commitments

Our commitment to sustainable development is underpinned by our public commitment to key initiatives and processes that drive best practice.

We recognise and support the following external initiatives:

- [UN Global Compact](#)
- [UN Universal Declaration of Human Rights](#)
- [World Bank Operational Directive on Involuntary Resettlement](#)
- [The International Council on Mining and Metals Sustainable Development Framework](#)
- [The Voluntary Principles on Security and Human Rights](#)
- ISO 14001 Management Systems.

Our external and internal commitments are underpinned by our [Sustainable Development Governance](#) approach.

# Our Approach To Sustainability Reporting

Our Sustainable Development Policy states that we are committed to 'regularly review our performance and publicly report our progress'. We do this as:

- A demonstration of accountability and transparency.
- A central element of effective stakeholder engagement.
- A management tool, providing a collation of performance data and statement of key issues and related management approaches.

Our Sustainability Report is presented in two forms: this detailed web-based Full Report and a printed Summary Report.

This Full Report is prepared in accordance with the Global Reporting Initiative (GRI) V3. Ernst & Young has conducted limited assurance over a selection of disclosures (performance statements and case studies). International Council on Mining and Metals (ICMM) members have committed to the [ICMM Sustainable Development Framework](#). BHP Billiton, as a member of ICMM, has included the ICMM assurance requirements within the scope of our external assurance engagement to provide independent assurance that the ICMM commitments are met.

To demonstrate the convergence between the Company's risk management approach and our sustainability programs, this year the Sustainability Summary Report is also presented as a chapter within the Company's [Annual Report](#).

Given the size and nature of our organisation, we recognise that it is not possible for the Company's Sustainability Report to comprehensively meet the information needs of all our stakeholders, particularly at the local and regional level. Our operations produce their own [annual public site HSEC or sustainability reports](#) to provide a review of HSEC issues and performance specific to their site circumstances, regional context and stakeholder needs.

Our past Sustainability Reports are available on this [website](#). You can also order a hard copy of our Summary Report from [hsec@bhpbilliton.com](mailto:hsec@bhpbilliton.com).

Read more:

- [GRI Index](#)
- [Ernst & Young Assurance Statement contained with our 2008 Full Report](#). (PDF 4.6 MB)

Your comments on the content and usability of our Sustainability Report are appreciated, as they are useful in preparing future Reports. Please use our [Feedback](#) mechanism if you have any suggestions for our future Sustainability Reports.

If you have any further queries, please do not hesitate to contact us:

HSEC and Sustainability  
BHP Billiton  
BHP Billiton Centre  
180 Lonsdale Street  
Melbourne Victoria 3000  
Australia  
Phone: (61) 1300 554 757  
Fax: (61 3) 9609 3015  
Email: [hsec@bhpbilliton.com](mailto:hsec@bhpbilliton.com)

# Report Boundary

When preparing this Full Sustainability Report, we have noted the 2006 Global Reporting Initiative (GRI) V3 Guidelines in developing our approach to defining our Report boundary. The Report covers all entities over which we exercise control including any that generate significant sustainability impacts (actual and potential) and we disclose significant impacts that could be of stakeholder interest which relate to operations in which we have significant influence.

Entities over which we do not exercise significant influence and control (e.g. supply chain) are included in our narrative disclosures due to the materiality of their impact on our business. Read more: [Stewardship](#).

## Indicative data boundaries for HSEC data in our 2008 Sustainability Report

	Corporate Offices	Exploration	Project Development <sup>1 2</sup>	Projects in execution	Operation	Closed Sites <sup>2</sup>
Health	Not included	Included	Partially included	Included	Included	Partially included
Safety	Included	Partially included	Included	Included	Included	Included
Environment	Not included	Partially Included	Partially included	Partially included	Included	Partially included
Community <sup>3</sup>	Partially included	Partially included	Partially included	Included	Included	Partially included

1. Projects in selection and definition phase.
2. Some projects and close sites that we do not require to report health and environmental aspects have provided data and this has been included.
3. Our community investment figures include equity share.

## Data Collection and Basis

The statistics in this Report cover sites wholly owned and operated by BHP Billiton or operated by BHP Billiton in a joint venture operation (i.e., controlled sites) during the 12-month period to 30 June 2008. Data is reported on a 100 per cent basis for facilities operated by BHP Billiton irrespective of our equity share, unless otherwise stated. Joint venture projects that are not operated by us are excluded from reported data unless expressly stated. Where BHP Billiton does not have operational responsibility but has an equity share, or where significant BHP Billiton assets are involved, our HSEC Standards are made available to the operator, so that comparable HSEC Management Standards may be applied. All monetary amounts in the Report are in US dollars unless otherwise stated.

Global warming potential factors are consistent with the Second Assessment Report (IPCC (1996)) values in 2006/07.

BHP Billiton reports greenhouse gas emissions from its global controlled sites using the World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol.

In a complex organisation of over 90 operational sites, there are a variety of site-based HSEC systems and processes in place. The Group has continued to invest in improving our HSEC infrastructure, including systems, processes and people; all sites, however, have not yet necessarily embedded their HSEC infrastructure to a level that the system is fully functional in the face of organisational change. During the year a team to address HSEC assurance and performance reporting was established in the corporate HSEC team to focus further attention on HSEC data systems and verification of HSEC data. We are continuously improving our reporting systems and endeavour to present useful and accurate information. While every effort has been made to ensure the accuracy of the information, the data is derived from our many operations around the world, and, in some cases, grouped data is not strictly comparable. In addition, as we seek to improve our data collection processes, data may not be strictly comparable year on year. Anyone seeking to rely on information in this Report or seeking to draw detailed conclusions from the data should contact the Company for verification and assistance.

Read more about our approach to defining [Report Materiality](#) and addressing Global Reporting Initiative Standard Disclosures in our GRI Index.

## Acquisitions and Divestments

Our strategy revolves around long-life, low-cost, expandable assets, and we continually review our portfolio, as we look at options to create value, by acquiring or divesting assets. On May 14, 2008 we announced an agreement to sell Optimum Colliery a thermal coal mine within BHP Billiton's South African portfolio. The asset was operated during the



reporting year and included in 2007/08 data.

### Explanation of Company Terms

BHP Billiton Limited, BHP Billiton Plc and their respective subsidiaries operate as one combined group known as BHP Billiton. Throughout the Sustainability Report, the terms BHP Billiton, the Company and the Group refer to the combined group unless otherwise stated.

The headquarters of BHP Billiton Limited and the global headquarters of the combined BHP Billiton Group are located in Melbourne, Australia. BHP Billiton Plc is located in London, UK. Both companies have identical Boards of Directors and are run by a unified management team. Throughout this Report, the Boards are referred to collectively as the Board.

#### **BHP Billiton Limited. ABN 49 004 028 077**

Registered in Australia.

Registered Office: BHP Billiton Centre, 180 Lonsdale Street, Melbourne, Victoria 3000, Australia.

#### **BHP Billiton Plc. Registration Number 3196209**

Registered in England and Wales.

Registered Office: Neathouse Place, London SW1V 1BH, United Kingdom.

# Materiality

The definition of our material issues has evolved since we started reporting in 1997. Our material issues are sustainability related challenges that we believe may have a material impact on our ability to be a successful business. We recognise that these impacts can directly affect our shareholders, our employees, the communities in which we operate and, more generally, the broader society and the environment.

Our sustainable development activities are continually evolving as we learn from experience and interaction with all our stakeholders. This knowledge has been reflected in our corporate strategy, as evidenced by our Sustainable Development Policy and our public commitment to various corporate responsibility initiatives and internationally agreed standards, including the United Nations' Universal Declaration of Human Rights and United Nations Global Compact.

In 2004, we identified five broad issues that we believe could have a material impact on our ability to be a successful business. In determining those issues of materiality we utilised a number of processes, which included an analysis of the non-financial risks at the Customer Sector Group (CSG) level as identified through our Group Wide Risk Management system, an analysis of NGO and other stakeholder dialogue and concerns, an analysis of queries from socially responsible investment analysts and an analysis of BHP Billiton's performance versus industry peers in key sustainability indices, such as the Dow Jones Sustainability Index and the Business in the Community Corporate Responsibility Index.

A workshop was convened with representatives from each of our Customer Sector Groups and key functional areas to identify, evaluate and prioritise issues with the potential to affect shareholder and stakeholder value.

These issues were presented to our Forum on Corporate Responsibility for debate and consideration, resulting in a consolidated list of the top five sustainability challenges having relevance and material impact across all our operations and locations. The challenges are:

- Eliminating Fatal Risks
- Occupational and Community Health
- Greenhouse Gas Emissions
- Access to and Management of Resources
- Sustainable Community Development and Closure of Operations.

In 2006 the challenges were reviewed through stakeholder dialogues and discussions with our employees and the Forum on Corporate Responsibility. While their continued relevance was confirmed, their scope was expanded to more accurately reflect the nature of the issues we face. Uranium and Biodiversity are two examples of issues highlighted during this process.

Confirming their relevance, in reviewing potential disclosures for the 2008 report, we have found that the five categories cover topics and indicators that reflect BHP Billiton's significant economic, environmental and social impacts.

In compiling this report we have also used the International Council on Mining and Metals (ICMM) sustainable development framework and have taken guidance from the GRI 3 Guidelines. Material 'core' and 'sector supplement' indicators have been addressed and 'additional' indicators have been prioritised where we consider they are material to our business.

Other external factors that we considered this year include, issues raised in the media, topics raised by both previous and recent dialogue forums, and questions raised at our Annual General Meetings and through various sustainability indexes in which we participate. Key reasonably estimable sustainability impacts, such as climate change and energy use, were also prioritised and have been highlighted in this full report and in our summary sustainability report. Other issues considered as material for public reporting have been covered as case studies.

Internal factors taken into account include our Company Charter values, Sustainable Development Policy, HSEC Management Standards, internal management reports and our new five-year HSEC performance targets. We also looked at risks aligned to our Group-wide Risk Management Register and corporate sustainability issues tracking document.

We have endeavoured to ensure that our report coverage is sufficient so that stakeholders can confidently assess our sustainability performance during the reporting period. We have also included both positive and negative aspects of our performance to enable a reasoned assessment of overall performance. To highlight trends and enable

comparability we report on core elements of our approach and performance in a way that is comparable year-on-year.

We aim to report accurately on our performance and each year we seek third party assurance so that stakeholders can access an independent view of our reporting and we can obtain feedback to assist us with continual improvement. As part of the BHP Billiton Annual Reporting suite our report is produced on an annual, financial year basis.

Our Report audience is diverse, ranging from those with minimal knowledge of our operations to those who are familiar with our business and processes. Our stakeholders range from groups such as employees, local communities, shareholders and contractors to non-government organisations, unions, socially responsible investment analysts, governments and academia.

Given the size and nature of our organisation, we recognise that it is not possible for the Company's Sustainability Report to comprehensively meet the information needs of all our stakeholders, particularly at the local and regional level. Many of our operations produce annual public site HSEC or sustainability reports to provide a review of HSEC issues and performance specific to their site circumstances, regional context and stakeholder needs.

# UN Global Compact Navigator

This progress assessment represents our judgement of how the principles of the UN Global Compact have been progressed through our policy and actions during the year. Refer to the items highlighted below for the particular document or a more detailed description of our performance in relation to the related UN Global Compact principle. Please contact the Company if you would like further information in relation to this assessment.

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights		
BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<p><a href="#">Sustainable Development Policy (PDF 28KB)</a></p> <p><a href="#">Code of Business Conduct</a></p> <p><a href="#">HSEC Management Standards (PDF 184KB)</a></p> <p>Human Resources Management Standard</p> <p><a href="#">UN Universal Declaration of Human Rights</a></p> <p><a href="#">Voluntary Principles on Security and Human Rights</a></p> <p><a href="#">World Bank Operational Directive on Involuntary Resettlement</a></p>	<p><b>Human Rights.</b> No transgressions within the Group's activities of the principles embodied within the UN Universal Declaration of Human Rights were identified. Resettlements: two resettlements were reported, both voluntary. Human rights self-assessment - 84 per cent (54 of 64) of operating sites and development project have completed human rights self-assessment. Human rights training - 11,891 employees participated in human rights training.</p> <p><b>Management Systems Review.</b> Our Sustainable Development Policy, HSEC Management Standards and Human Resources Management Standards continue to support and respect human rights.</p> <p><b>Audit and Self Assessment.</b> Seven HSEC audits were conducted against the revised HSEC Management Standards during the reporting period.</p> <p><b>Traditional rights.</b> Only one incident was reported during FY2008 that involved accidental disturbance during work activities to a cultural heritage site. Work immediately stopped and the relevant Indigenous people advised.</p> <p><b>Business Conduct.</b> The BHP Billiton Code of Business Conduct provides employees, contractors and suppliers with direction and advice on carrying out business and interacting with governments, communities and business partners.</p> <p><b>Working with Communities.</b> Wherever we operate, we commit to engaging regularly, openly and honestly with the people interested in and affected by our operations. We also continued our relationship with Oxfam Australia to deliver community development training programs.</p> <p><b>Our People.</b> We are not aware of any BHP Billiton owned or operated site using child or forced labour. We fully recognise the right of freedom of association by our employees. We have a number of locations where we have a mix of collective and individually regulated employment arrangements, but this does not affect the rights of those employees to choose to belong to a trade union.</p> <p><b>Stewardship: Working With Others.</b> In FY2008, we received no substantiated complaints regarding breaches of consumer privacy.</p>	<p>HR1, HR2, HR3, HR4, HR5, HR6, HR7, HR8, HR9, EC5, LA4, LA6, LA7, LA8, LA9, LA13, LA14, SO5, PR1, PR2, PR8</p>

Principle 2: Businesses should make sure their own corporations are not complicit in human rights abuses		
BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<p><a href="#">Sustainable Development Policy (PDF 28KB)</a></p> <p><a href="#">Code of Business Conduct</a></p> <p><a href="#">HSEC Management Standards (PDF 184KB)</a></p> <p>Human Resources Management Standard</p> <p><a href="#">UN Universal Declaration of Human Rights</a></p> <p><a href="#">Voluntary Principles on Security and Human Rights</a></p> <p><a href="#">World Bank Operational Directive on Involuntary Resettlement</a></p>	<p><b>Human Rights.</b> No transgressions within the Group's activities of the principles embodied within the UN Universal Declaration of Human Rights were identified. Resettlements: two resettlements were reported, both voluntary. Human rights self-assessment - 84 per cent (54 of 64) of operating sites and development project have completed human rights self-assessment. Human rights training - 11,891 employees participated in human rights training.</p> <p><b>Management Systems Review.</b> Our Sustainable Development Policy, HSEC Management Standards and Human Resources Management Standards continue to support and respect human rights.</p> <p><b>Audit and Self Assessment.</b> Seven HSEC audits were conducted against the revised HSEC Management Standards during the reporting period.</p> <p><b>Traditional rights.</b> Only one incident was reported during FY2008 that involved accidental disturbance during work activities to a cultural heritage site. Work immediately stopped and the relevant Indigenous people advised.</p> <p><b>Business Conduct.</b> The BHP Billiton Code of Business Conduct provides employees, contractors and suppliers with direction and advice on carrying out business and interacting with governments, communities and business partners.</p> <p><b>Working with Communities.</b> Wherever we operate, we commit to engaging regularly, openly and honestly with the people interested in and affected by our operations. We also continued our relationship with Oxfam Australia to deliver community development training programs.</p> <p><b>Our People.</b> We are not aware of any BHP Billiton owned or operated site using child or forced labour. We fully recognise the right of freedom of association by our employees. We have a number of locations where we have a mix of collective and individually regulated employment arrangements, but this does not affect the rights of those employees to choose to belong to a trade union.</p> <p><b>Stewardship: Working With Others.</b> In FY2008, we received no substantiated complaints regarding breaches of consumer privacy.</p>	<p>HR1, HR2, HR3, HR4, HR5, HR6, HR7, HR8, SO5</p>
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining		
BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<p><a href="#">Sustainable Development Policy (PDF 28KB)</a></p> <p><a href="#">Human Resources Strategy and Standards</a></p> <p><a href="#">Code of Business Conduct</a></p>	<p><b>Employee Relations.</b> Employee relations arrangements at individual workplaces are required to respect local legislative requirements and other local standards and circumstances.</p> <p><b>Freedom of Association.</b> Across our locations we have a mix of collective and individually regulated employment arrangements and Common Law contracts. While collective bargaining is not universally practiced across our operations, this does not affect the rights of employees to choose to belong to trade unions. Prospective employees are made aware of employment arrangements prior to joining the Company. Forty-seven per cent of the workforce was covered by collective bargaining agreements at operated sites and offices.</p> <p><b>Remuneration.</b> We believe all Company employees earned greater than the stipulated minimum wage in the countries in which they worked.</p> <p><b>Working with Communities.</b> Wherever we operate, we commit to engaging regularly, openly and honestly with the people interested in and affected by our operations. We also continued our relationship with Oxfam Australia to deliver community development training programs.</p>	<p>LA4, LA5, HR1, HR2, HR3, HR5, SO5</p>
Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour.		
BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<p><a href="#">Sustainable Development Policy (PDF 28KB)</a></p> <p><a href="#">Code of Business Conduct</a></p> <p><a href="#">UN Universal Declaration of Human Rights</a></p>	<p><b>Child and Forced Labour.</b> We exclude the use of child labour and prohibit forced labour at our operations.</p> <p><b>Remuneration.</b> We believe all Company employees earned greater than the stipulated minimum wage in the countries in which they worked.</p>	<p>HR1, HR2, HR3, HR7, SO5</p>

**Principle 5: Businesses should uphold the effective abolition of child labour.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<a href="#">Sustainable Development Policy (PDF 28KB)</a> <a href="#">Code of Business Conduct</a> <a href="#">UN Universal Declaration of Human Rights</a>	<p><b>Child and Forced Labour.</b> We exclude the use of child and forced labour at our operations.</p> <p><b>Stewardship: Working with Others:</b> BHP Billiton was an original signatory to the Council for Responsible Jewellery Practices, which aims to introduce standards and practices to improve performance and reinforce confidence in the gold and diamond jewellery supply chain. In addition our Diamonds business is a member of the Kimberley Process Certification Scheme, an international diamond certification scheme aimed at halting the trade in 'conflict diamonds'.</p>	HR 6

**Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<a href="#">Sustainable Development Policy (PDF 28KB)</a> Employment Principles <a href="#">Code of Business Conduct</a> <a href="#">UN Universal Declaration of Human Rights</a>	<p><b>Employee Profile.</b> In 2008 we employed approximately 41,000 employees and 61,000 contractors around the world.</p> <p><b>Diversity.</b> Approximately 17% of full-time employees at operated sites and offices were women.</p> <p><b>Employment Equity in South Africa.</b> To address historical issues in South Africa, which resulted in the majority of South Africans being excluded from participating in the mainstream economy, BHP Billiton South Africa adopted an empowerment strategy of change.</p> <p><b>Indigenous Employment and Training.</b> We recognise indigenous employment and training as an important issue and continue to undertake a number of initiatives in this regard. See our <a href="#">2008 case study</a>: BHP Billiton encourages new standards for Indigenous Development Opportunities in Australia.</p>	LA2, LA13, LA14, HR1, HR2, HR3, HR4, EC7, SO5

**Principle 7: Businesses should support a precautionary approach to environmental challenges.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2007 Sustainability Report	GRI Indicator Reference
<a href="#">Sustainable Development Policy (PDF 28KB)</a> <a href="#">HSEC Management Standards (PDF 184KB)</a> Risk Management Policy	<p><b>Risk.</b> Risk registers are in place at 100% of required sites, businesses and Corporate offices.</p> <p><b>Environment.</b> Our approach to environmental management is incorporated in our Charter, which states that we have an overriding commitment to health, safety, environmental responsibility and sustainable development.</p> <p><b>Key Management Processes.</b> The Company has a Risk Management Policy and uses a common framework across all operations and functions to identify, assess and monitor risks. This includes business and HSEC risks and includes risks associated with projects and investment opportunities.</p>	EC2, EN18, EN26, EN30, SO5

**Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2008 Sustainability Report	GRI Indicator Reference
<a href="#">Sustainable Development Policy (PDF 28KB)</a> <a href="#">HSEC Management Standards (PDF 184KB)</a> Closure Standard	<p><b>HSEC Targets Scorecard.</b></p> <ul style="list-style-type: none"> <li>No Level 3 environmental or community incidents.</li> <li>95 per cent of sites requiring ISO 14001 are certified or have been recommended for certification by their ISO auditor</li> <li>1 per cent increase in carbon-based energy use per unit of production</li> <li>5 per cent increase in greenhouse gas emissions per unit of production</li> <li>7 per cent improvement in ratio of water recycled/reused to high-quality water consumed</li> <li>Land available for rehabilitation index has remained unchanged</li> <li>84 per cent of operating sites and development projects completed human rights self-assessments</li> </ul> <p>Refer to the following for more details on our environmental performance in FY08: <a href="#">environmental incidents and fines</a>; <a href="#">environmental spending</a>; <a href="#">climate change and energy</a>, including greenhouse gas emissions, energy consumptions and our continued participation in the Carbon Disclosure Project; <a href="#">biodiversity and land management</a>, <a href="#">water</a>, and <a href="#">wastes</a>.</p> <p>Environment Case Studies: <a href="#">WestVAMP - World's first power plant to use coal mine ventilation air as fuel</a>; <a href="#">Illawarra Coal makes Sydney's largest volume reduction in water use</a>; and <a href="#">Reducing waste</a>.</p>	EN1, EN2, EN3, EN4, EN5, EN6, EN7, EN8, EN9, EN10, EN11, EN12, EN13, EN14, EN16, EN17, EN18, EN19, EN20, EN21, EN22, EN23, EN25, EN26, EN28, EN29, SO5, PR3, PR4

**Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2007 Sustainability Report	GRI Indicator Reference
<p>Sustainable Development Policy (PDF 28KB)</p> <p>HSEC Management Standards (PDF 184KB)</p>	<p><b>HSEC Targets Scorecard.</b></p> <ul style="list-style-type: none"> <li>● No Level 3 environmental or community incidents.</li> <li>● 95 per cent of sites requiring ISO 14001 are certified or have been recommended for certification by their ISO auditor</li> <li>● 1 per cent increase in carbon-based energy use per unit of production</li> <li>● 5 per cent increase in greenhouse gas emissions per unit of production</li> <li>● 7 per cent improvement in ratio of water recycled/reused to high-quality water consumed</li> <li>● Land available for rehabilitation index has remained unchanged</li> <li>● 84 per cent of operating sites and development projects completed human rights self-assessments</li> </ul> <p><b>Stewardship.</b> Over the past year we continued to refine our stewardship approach and work with our commodity customers.</p> <p><b>Climate Change.</b> We are working on various activities related to climate change, including the development of environmentally friendly technologies such as alternative fuels.</p> <p>Carbon Disclosure Project: We have participated in the Carbon Disclosure Project for the past six years and have been selected to the CDP Climate Leaders Index for the past four years.</p> <p><b>Environment Case Studies.</b></p>	<p>EN2, EN5, EN6, EN7, EN10, EN18, EN26, EN30, SO5</p>

**Principle 10: Businesses should work against all forms of corruption, including extortion and bribery.**

BHP Billiton Policies, systems and commitments	BHP Billiton actions and performance as referenced in 2007 Sustainability Report	GRI Indicator Reference
<p>Sustainable Development Policy (PDF 28KB)</p> <p>Code of Business Conduct</p> <p>HSEC Management Standards (PDF 184KB)</p>	<p><b>Business Conduct.</b> The Code of Business Conduct provides employees and contractors with direction and advice on carrying out business and interacting with governments, communities and business partners.</p> <p><b>Stewardship.</b> Over the past year we continued to refine our stewardship approach and work with our commodity customers.</p> <p><b>Economic Contributions.</b> Our economic contribution to society includes the value that flows from the broader contributions of our operations, such as payments to our employees and suppliers and disbursements to governments, including taxes and royalties.</p> <p><b>Our Stakeholders.</b> BHP Billiton respects the authority of host governments. Our operations are required to work within relevant legislative frameworks at the international, national and local levels. We seek to have an open and constructive relationship with governments and regularly share information and opinions on issues that affect the Company.</p> <p>The Company maintains a position of impartiality with respect to party politics. Accordingly, we do not contribute funds to any political party, politician or candidate for public office in any country.</p> <p><b>Value Add.</b> Refer to our table on Expenditure by Region for disclosure of regional tax payments.</p>	<p>SO2, SO3, SO4, SO5, SO6</p>

## Independent Limited Assurance Statement to the Management and Directors of BHP Billiton Limited

### Scope of Our Engagement

BHP Billiton's 2008 Sustainability Report, comprised of both the summary and full versions of the Sustainability Report (together referred to as 'the Report'), has been prepared by management of BHP Billiton ('Management'). Management is responsible for the collection and presentation of information within it and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process. There are currently no prescribed requirements relating to the preparation, publication and verification of sustainability reports.

Our responsibility, in accordance with Management's instructions, was to carry out a limited assurance engagement in relation to a selection of disclosures (performance statements, claims and case studies) reported in the Report for the period 1 July 2007 to 30 June 2008 (within the boundaries described in the Report). For the purposes of this limited assurance statement, we refer to the selected information as 'specific sustainability priorities', which are comprised of: selected elements of safety including fatalities, significant incidents and fatal risk control protocols; greenhouse gas emissions and energy use; site closure; community investment; biodiversity; and uranium product stewardship.

Our responsibility in performing our limited assurance activities is to the Management and Directors of BHP Billiton only and in accordance with the terms of reference for this engagement as agreed with them. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Report is entirely at its own risk.

Our review has been planned and performed in accordance with the International Federation of Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000') and with regard to AccountAbility's AA1000 Assurance Standard ('AA1000'). We have also considered the applicable International Council on Mining and Metals ('ICMM')'s Assurance Procedures in conducting our review procedures.

We have designed our procedures in order for us to evaluate the Report against the principles of materiality and completeness as set out in AA1000 specifically as follows:

#### Materiality:

- I. Has BHP Billiton applied the approach described in the Materiality section of the Report to identify material issues for inclusion in the Report?
- II. From the framework in I above, has BHP Billiton reported the material issues relating to its sustainability performance?
- III. Are there any material aspects relating to the six specific sustainability priorities that are not addressed in the Report?

#### Completeness:

- I. Has BHP Billiton provided a fair and balanced representation of the six specific sustainability priorities through its performance statements, claims and case studies included in the Report?
- II. Has BHP Billiton included sustainability performance information from all material entities in its defined boundary for its reporting of the six specific sustainability priorities?
- III. Has BHP Billiton accurately collated group data relating to the six specific sustainability priorities from operations level data?
- IV. Are the operations-level data for the specific sustainability priorities from the sites tested accurate?



In addition, we considered ICMM Subject Matter 1 as follows:

- I. Has BHP Billiton aligned its sustainability policies and standards to ICMM's 10 Sustainable Development Principles and to the mandatory requirements of ICMM Position Statements?

In addition to providing our conclusions, we have listed certain observations which do not limit the conclusions.

### Work Performed

We selected our six specific sustainability priorities on a risk basis, and visited a sample of seven operational sites selected from approximately 100 BHP Billiton sites around the world. The sites visited represented significant contributors to these priorities. The chosen priorities included selected elements of safety including fatalities, significant incidents and fatal risk control protocols; greenhouse gas emissions and energy use; site closure; community investment; biodiversity; and uranium product stewardship. The sites visited included:

- Olympic Dam, Uranium, Australia
- Gregory Crinum Mines, Coal, Australia
- Middelburg Mine, Coal, South Africa
- Hillside Aluminium, Aluminium, South Africa
- Cannington Mine, Base Metals, Australia
- BHP Billiton Maatschappij Suriname, Aluminium, Suriname
- Ekati Diamond Mine, Diamonds and Specialty Products, Canada

We also conducted a desk-top assessment of community investment data from Escondida Mine, Base Metals, Chile.

In order to undertake our review, our procedures included, but were not limited to:

- Interviewing a selection of BHP Billiton executives responsible for health, safety, environment and community, considering a selection of BHP Billiton documentation and publicly available information relating to sustainability management and performance and BHP Billiton's processes for the identification of material sustainability issues to confirm material issues for the business and understand their relative importance.
- Sample testing the corporate data collection, aggregation and disclosure processes for the specific sustainability priorities.
- Reviewing the Report to determine whether material topics and performance issues identified during our procedures had been adequately disclosed.
- Sample testing reported data, performance statements, claims and case studies relating to the six specific sustainability priorities against supporting source information and BHP Billiton's reported boundary.
- Assessing selected BHP Billiton policies and standards against ICMM's 10 Sustainable Development Principles and mandatory requirements as set out in ICMM's Position Statements.

### Limitations of Our Review Scope

Our scope of work did not include:

- assessing the accuracy, fairness or balance of data sets or information relating to areas other than the six specific sustainability priorities, and any site-specific information relating to sites we did not visit;
- management's forward looking statements;
- any comparisons made against historical data, with the exception of specific sustainability priorities which overlap with our 2007 limited assurance engagement;
- assessing whether BHP Billiton's reporting meets the requirements of its application level of the Global Reporting Initiative G3 Sustainability Reporting Guidelines;
- assessing whether BHP Billiton has addressed the requirements of ICMM Subject Matters 2, 3, 4 or 5;
- the Sustainability Reports of any BHP Billiton Customer Sector Groups, businesses or sites; and

- considering responsiveness under AA1000, or attendance at any stakeholder engagement activities.

Where web-links have been made from the specific sustainability priorities sections of the full Report to BHP Billiton web pages, we have considered this directly linked web-based information (as of the date of this assurance statement). We provide no assurance over changes to the content of these web links after the date of this assurance statement.

### Level of Assurance

Our procedures were designed to obtain a limited level of assurance on which to base our conclusions. The procedures conducted do not provide all the evidence that would be required in a reasonable assurance engagement and, accordingly, we do not express an audit opinion. While we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our review was not designed to provide assurance on internal controls.

### Our Conclusions

Subject to our limitations of scope noted above and on the basis of our procedures for this limited assurance engagement, we provide the following conclusions:

#### Materiality

Nothing has come to our attention to cause us to believe that:

- I. BHP Billiton has not applied the approach as described in the Materiality section of the Report;
- II. material issues relating to BHP Billiton's sustainability performance are not included in the Report; and
- III. material aspects relating to the six specific sustainability priorities have not been addressed in the Report.

#### Completeness

Nothing has come to our attention to cause us to believe that:

- I. BHP Billiton has not provided a fair and balanced representation through its disclosures relating to the six specific sustainability priorities;
- II. material reporting units have been excluded from the information included in the Report relating to the six specific sustainability priorities;
- III. group level and Customer Sector Group level data relating to the six specific sustainability priorities has not been accurately collated from operations level data; and
- IV. any data sets related to the six specific sustainability priorities contain material errors.

#### Additional ICMM Subject Matter

Nothing has come to our attention to cause us to believe that:

- I. BHP Billiton has not aligned its sustainability policies and standards to ICMM's 10 Sustainable Development Principles and the mandatory requirements of ICMM Position Statements.

### Selected Observations

This is the second year that Ernst & Young has been engaged by BHP Billiton to conduct limited assurance over selected disclosures in its Sustainability Report. We note that:

- For those specific sustainability priorities that we reviewed in both 2008 and 2007, we have noted that BHP Billiton has continued to enhance its reporting.
- BHP Billiton is achieving greater consistency across certain reported areas (i.e. safety, elements of community, and environment) and has begun setting thresholds for sites to commence reporting non-financial information. There is still potential to continue to improve these processes and promote a more consistent approach.
- While in 2004 BHP Billiton had applied a formal process to identify and prioritise material sustainability issues, the recent process for the selection of material issues for the Sustainability Report has been largely informal, with limited linkage between the identification of material issues for inclusion in the report and the company's internal risk management processes.

- The level of supervision and review over the reported HSEC data at sites was not always thorough. We noted instances where internal processes had not highlighted deficiencies in data prior to our site visits. In all identified instances corrective action was taken.
- While outside BHP Billiton's stated boundary for the Report, a number of fatalities have occurred at non-operated Joint Ventures during the period.
- There is no process in place to control the organisation's execution on commitments made in forward looking statements included in previous sustainability reports.

#### **Our Independence and Assurance Team**

The Australian firm and all professional personnel involved in this engagement have met the independence requirements of Australian professional ethical requirements. Non-Ernst & Young specialists used in the conduct of the procedures to undertake this limited assurance engagement confirmed their financial independence. Ernst & Young has provided a range of services to BHP Billiton including but not limited to the provision of certain internal audit services. We believe the provision of these services has not impaired our impartiality with respect to this work.

Our assurance team includes specialists from the global Climate Change and Sustainability Services network, which undertakes similar engagements with a number of Australian and international businesses. Our team has the required competencies and experience for this engagement.



Ernst & Young  
12 September 2008

# Our Stakeholders

## Stakeholder Identification

Key stakeholders are generally identified as people who are adversely or positively impacted by our operations, those who have an interest in what we do, or those who have an influence on what we do.

All sites are required to identify their key stakeholders and consider their expectations and concerns for all operational activities, across the life cycle of operations. Sites are also required to specifically consider any minority groups (such as Indigenous groups) and any social and cultural factors that may be critical to stakeholder engagement.

A regular review process is also a central requirement of stakeholder identification, to ensure that all appropriate groups and individuals are effectively identified and suitably engaged.

## Stakeholder Engagement

We engage regularly with employees and contractors, local and Indigenous communities, shareholders and customers. As members of our workforce, our communities, supporters of our business and users of our products, we recognise that these stakeholders are core to our business.

We also recognise those who are important influencers of our business. These include the investment community, business partners, community organisations, unions, non-government organisations, suppliers, governments, media and industry associations.

Where stakeholder queries relate to a particular operation – for example, potential impact on the local community, employees and contractors, or local suppliers – engagement is facilitated by the relevant operation.

Where stakeholder queries relate to the broader sustainability challenges of BHP Billiton - for example, our ability to demonstrate progress against our public commitments to environmental and social performance - engagement is facilitated by the Corporate function.

See our [list of stakeholders](#) and how we engage with them.

## Trust and Transparency

Every day we interact with numerous people from varied backgrounds. We are committed to maintaining and promoting dialogue with our stakeholders and remaining responsive to the global community's concerns and aspirations.

We recognise the importance of trust to relationship building. Being accountable is paramount, as is transparency in our public reporting. [Our Charter](#), [Sustainable Development Policy](#), [HSEC Management Standards](#) and [Code of Business Conduct](#) all promote a commitment to acting with honesty, integrity and fairness in all our activities. We constantly aim for a greater level of engagement and interaction with stakeholders, particularly with the communities in which we operate.

## Our Approach to Dialogue

Our approach to stakeholder engagement is directed by the requirements of our HSEC Management Standard 7, with the intent being 'Effective, transparent and open communication and consultation is maintained with stakeholders associated with Company activities. Stakeholders are encouraged to participate in and contribute to sustainable development through HSEC performance improvement initiatives.'

## Benefits of Dialogue

The information we receive from stakeholders helps refine the management of our activities and mitigate their potential impacts, in line with the goals set out in our Charter. Lessons from individual relationships are also shared with others, in effect strengthening our relationship with all stakeholders.

## Stakeholder Grievances and Concerns

Mechanisms to address grievances and concerns have also been established. Operating sites are required to maintain a register of concerns, complaints and relevant external communications. Concerns and complaints are to be

investigated as official incidents, using our standard investigation processes, and outcomes and actions are reported back to relevant stakeholders. The confidential Business Conduct Helpline and email address provide a further means for raising issues of actual or potential concern, such as harassment, conflict of interest, fraud or bribery.

## BHP Billiton's Stakeholder Relationships

STAKEHOLDER	WHO ARE THEY?	INTERESTS AND CONCERNS	ENGAGEMENT METHODS
<b>Business Partners</b>	Our business partners include those organisations with which we have joint ventures.	Business partners are generally interested in being assured that suitable governance mechanisms are in place to ensure financial returns are delivered while mitigating non-financial risks sufficiently.	<ul style="list-style-type: none"> <li>• We communicate with our business partners and regularly share knowledge and programs through joint venture boards and operating committees.</li> <li>• We seek to ensure that the conduct of our business partners reflects our own commitment to the UN Universal Declaration of Human Rights and our Guide to Business Conduct.</li> <li>• Joint venture partners have participated in our HSEC audit programs.</li> <li>• Publishing of annual financial and sustainability reports.</li> </ul>
<b>Community Organisations</b>	Community organisations generally are established to represent the local and Indigenous communities near our operations.	Community organisations are concerned with being assured that any potential environmental and social impacts associated with our operations are mitigated and that opportunities presented by our operations are optimised, for example, ensuring sustainable community development opportunities can be maintained post mine closure.	<ul style="list-style-type: none"> <li>• In conjunction with the development of community relations plans, sites are required to develop suitable engagement mechanisms with their host communities.</li> <li>• Community consultation and engagement groups are the primary form of engagement.</li> <li>• The majority of our community support is through local foundations, which currently exist in Chile, Peru, South Africa, Colombia and Mozambique. We also have a Corporate Community Program that focuses on Australian and international partnerships and projects.</li> </ul>
<b>Customers</b>	Our customers are typically other large organisations.	<p>Our customers are largely interested in product quality, cost and delivery.</p> <p>Increasingly, customers throughout the supply chain are recognising the full life cycle impacts of our products and the downstream products made using BHP Billiton materials. A greater focus is emerging on materials and resource efficiency and the management of final waste materials.</p>	<ul style="list-style-type: none"> <li>• Regular communications with our Marketing group.</li> <li>• Technical support to assist with product utilisation, either in terms of process efficiency or product handling.</li> <li>• Product information, including material safety data sheets.</li> <li>• Visits to our operating sites.</li> <li>• Technology exchanges with our operating sites.</li> <li>• Participation in a range of stewardship initiatives with our various commodity customers, such as the Council for Responsible Jewellery Practices, the Green Lead™ Project and the World Nuclear Association Uranium Stewardship Working Group.</li> </ul>

**BHP Billiton's Stakeholder Relationships continued**

STAKEHOLDER	WHO ARE THEY?	INTERESTS AND CONCERNS	ENGAGEMENT METHODS
<b>Employees and Contractors</b>	Our workforce is large and diverse with some 39,000 employees and 59,000 contractors in more than 25 countries	<p>Employees and contractors have a broad range of interests and concerns, commencing with the health and safety of themselves and their fellow workers, to more general working conditions.</p> <p>Career opportunities and aspirations, as well as learning and training opportunities, are also central to maintaining satisfied employees and contractors.</p> <p>As much of our workforce lives in towns near our operations, many of their broader concerns are directly aligned with those of neighbouring communities. These include such aspects as local employment, business creation and social infrastructure, schooling and health care. Additionally, in many remote communities, quality of housing is an aspect key to employee attraction and retention.</p>	<ul style="list-style-type: none"> <li>• In line with HSEC Management Standard 7, sites are required to ensure processes are in place to enable stakeholders, including employees and contractors, to participate in and commit to HSEC performance improvement initiatives.</li> <li>• Regular performance reviews and employee surveys.</li> <li>• Direct communication with immediate supervision and management.</li> <li>• Site-based and corporate newsletters and general communications.</li> <li>• BHP Billiton Intranet.</li> <li>• Site-based and Corporate Sustainability Reports.</li> <li>• Business Conduct Helpline.</li> </ul>
<b>Government (including Regulators)</b>	We engage with governments across local, regional, national and international levels.	<p>Governments at national, regional and local levels establish the legislative and regulatory policy frameworks for the operations of all companies involved in the resources sector. This extends through the full project life cycle from initial entry to new countries, the allocation of exploration acreage and the issuance of production and other licences, to the approval and monitoring of closure plans.</p> <p>Governments also have critical roles to play in activities related to market access, product stewardship, environmental performance, social policy and fiscal regimes applicable to the resources sector.</p> <p>We work with host governments that participate in the Extractive Industries Transparency Initiative regarding disclosure of payments of taxes and policies. Policy formulation often intersects with aspects of our operations.</p>	<ul style="list-style-type: none"> <li>• We respect the authority of governments. Our operations are required to work within relevant legislative frameworks at the local, regional, national and international levels.</li> <li>• We seek to have an open and constructive relationship with governments and regularly share information and opinions on issues that affect the Company. This communication is essential to informed decision-making by both government officials and BHP Billiton.</li> <li>• The Company maintains a position of impartiality with respect to party politics and does not contribute funds to any political party, politician or candidate for public office in any country.</li> <li>• Company representatives attend selected events such as political party conventions for the purpose of better understanding the implications of public policy development on business operations.</li> <li>• Employees are free to participate in political activities as individuals and, if there is any doubt, they are asked to ensure that it is clear they are representing their personal views and not those of the Company.</li> </ul>

**BHP Billiton's Stakeholder Relationships continued**

STAKEHOLDER	WHO ARE THEY?	INTERESTS AND CONCERNS	ENGAGEMENT METHODS
<b>Industry Associations</b>	Industry associations include commodity-specific associations as well as sector-specific associations, at national and international levels.	Industry associations are generally interested in a broad range of issues relating to the sector or a specific commodity. For example, they may advocate on key policy aspects with the sector, which may be as diverse as environmental legislation and establishing common safety standards through to promotion of leading practice.	<ul style="list-style-type: none"> <li>Representatives from BHP Billiton are members of many specific committees and engaged through specific projects with industry associations both nationally and internationally, such as the Minerals Council of Australia and the International Council on Mining and Metals.</li> </ul>
<b>Investment Community</b>	These stakeholders include both mainstream financial analysts and Socially Responsible Investment (SRI) analysts who advise existing and potential shareholders on our performance. These analysts are located globally.	<p>The interests of the investment community are closely aligned to those of shareholders, both being broadly interested in good financial returns and strong Company performance and governance.</p> <p>Increasingly, non-financial performance is becoming more of a focus, with a greater desire to better understand governance mechanisms and the non-financial risks and mitigation measures of the organisation.</p>	<ul style="list-style-type: none"> <li>Regular communications from our Investor Relations &amp; Communications Group to mainstream investment organisations.</li> <li>Regular communications from our Sustainable Development group to SRI analysts.</li> <li>Analyst briefings on key issues, including an annual briefing for SRI and mainstream analysts with a particular interest in the environmental and social performance of the Company, and an annual dialogue on key sustainability issues with a range of stakeholders, including the SRI and mainstream investment community.</li> <li>Publication of the Company's Sustainability Report.</li> <li>Participation in external benchmarking initiatives by the SRI sector that seek to measure the Company's sustainable development performance against others in our sector.</li> </ul>
<b>Local and Indigenous Communities</b>	Most of our operations are located in rural and remote areas. We, therefore, have a broad spectrum of local and Indigenous community interests and concerns of which we need to be mindful.	<p>The impact our business has on local communities varies considerably depending on the location, size and nature of the operation.</p> <p>Results from stakeholder perception surveys regularly conducted by operations rate local employment and business creation, support for social infrastructure and programs, a desire for improved community engagement mechanisms and improved environmental performance as one of local communities' most important interests and concerns.</p>	<ul style="list-style-type: none"> <li>In conjunction with the development of community relations plans, sites are required to develop suitable engagement mechanisms with their host communities.</li> <li>Community consultation and engagement groups.</li> <li>Participation in Company activities.</li> <li>Newsletters and targeted communications.</li> <li>Site-based and Corporate Sustainability Reports.</li> <li>Community perception surveys.</li> </ul>
<b>Media</b>	The media include representatives of print, radio and visual media.	Generally, media are interested in newsworthy items associated with our financial or non-financial performance.	<ul style="list-style-type: none"> <li>We communicate with media via our Investor Relations &amp; Communications Group using press releases, briefings, presentations, and interviews.</li> </ul>



**BHP Billiton's Stakeholder Relationships continued**

STAKEHOLDER	WHO ARE THEY?	INTERESTS AND CONCERNS	ENGAGEMENT METHODS
<b>Non-Government Organisations</b>	Non-government organisations with which we typically engage include environmental, social and human rights organisations at local, national and international levels.	Non-government organisations have a broad-ranging interest in our operations and their performance. This may include social and environmental performance of existing operations, proposed operations or closed operations. Additionally there is increasing interest in our broader policy positions on such issues as climate change and human rights.	<ul style="list-style-type: none"> <li>• Each of our operations is required to identify relevant local non-government organisations and include mechanisms for engagement with them within the site's community relations plan.</li> <li>• At the Corporate level, we regularly engage with relevant national and international organisations. A number of major international non-government organisations are represented on our Forum on Corporate Responsibility.</li> </ul>
<b>Shareholders</b>	Our shareholder base is diverse. Majority holdings are in Australia, Europe and North America, with other significant holdings in South Africa.	Shareholders are broadly interested in ensuring that financial returns occur as a result of Company performance and governance. Increasingly, there is a greater desire to better understand governance mechanisms and the non-financial risks and mitigation measures of the organisation.	<ul style="list-style-type: none"> <li>• Annual General Meetings.</li> <li>• Regular printed and electronic communications.</li> <li>• Presentations given to representatives of the investment community accessible by all shareholders through webcasts available on our Company website.</li> </ul>
<b>Suppliers</b>	Our suppliers include businesses local to our operations as well as large international suppliers.	Our suppliers are interested in our supply agreements and payment processes as well as the standards we require of our suppliers.	<ul style="list-style-type: none"> <li>• All our supply contracts are assigned to a single point of contact to ensure that regular reporting and communications are maintained between the Company and our suppliers.</li> <li>• Through our HSEC Management Standards we require our suppliers to identify potential HSEC risks associated with their operations and minimise any adverse consequences of these risks.</li> <li>• We seek to utilise local suppliers and support these suppliers in enhancing community development opportunities.</li> </ul>
<b>Unions</b>	Workers unions are present at many of our operating sites and are represented at local, national and international levels.	<p>Unions within our businesses are interested in upholding workers' rights and interests.</p> <p>Collective bargaining, health and safety, remuneration, work hours and fly-in/fly-out arrangements are some of the issues that have been raised in relation to our operations.</p>	<ul style="list-style-type: none"> <li>• We respect the right of all employees to freely choose to join labour unions.</li> <li>• We communicate with unions as required on topical and general issues, such as changes to Company policies.</li> <li>• We have a mix of collective and individual work arrangements at our sites. Prospective employees are made aware of employment arrangements prior to joining the Company.</li> </ul>

# Sustainable Development Governance

At BHP Billiton, we believe there is a link between high-quality governance and business performance and that to maintain our position as one of the world's leading companies we must commit to the highest ethical and governance standards in all our dealings. To do so is consistent with our Charter values and is fundamental to our licence to operate. Our goal is to foster a culture that values and rewards exemplary ethical standards, personal and corporate integrity, and respect for others.

We recognise that, in recent times, there has been an accelerating shift in societal values and expectations, and a corresponding demand for greater corporate accountability. Stakeholders expect transparency in all activities and look to corporations to demonstrate how governance commitments translate into action.

Our approach to sustainable development governance comprises:

- A dedicated organisational **structure and responsibilities**
- A clear **hierarchy of systems and documents**
- A number of **key management processes**, central to integrating sustainability into our decision-making.

These are part of the suite of corporate governance processes that manage the broader affairs of the Company. The **Board Governance Statement** outlines the key governance principles and practices of the BHP Billiton Group. Sections of our **Annual Report** also contain details in this regard.

[Read more.](#)

# Structure And Responsibilities

Our approach to sustainable development is characterised by the following key features:

- The **Sustainability Committee of the Board** oversees health, safety, environment and community (HSEC) matters across the Group.
- Business line management having responsibility and accountability for HSEC performance.
- The HSEC function provides advice and guidance directly, as well as through a series of networks across the business.
- Seeking input and insight from external experts through our Forum on Corporate Responsibility.
- Clear links exist between remuneration and HSEC performance.

## Sustainable Development Organisational Structure

The diagram below illustrates our organisational structure for sustainable development. This structure provides the mechanism for employees and contractors to provide feedback and proposals to our highest governance body.



\* Authority to manage the business is delegated to the CEO. The CEO on-delegates authority to committees, including the Group Management Committee, and individuals.

## BHP Billiton Board

The role of the BHP Billiton Board is to represent the shareholders and to promote and protect the interests of the Company. It does so by governing the Group. The Board is appointed by the shareholders.

The Board will always have a majority of Directors who are non-executive and are judged by the Board to be independent on the basis that they demonstrate objective, unfettered and independent judgement and are free of material relationships with the Group and other entities and people that might influence such judgement. As of 30 June 2008, the Board consisted of 12 Directors: one executive and eleven non-executive Directors.

The qualities for Directors of the Group are: unquestioned honesty and integrity; a proven track record of creating value for shareholders; time available to undertake the responsibilities; an ability to apply strategic thought to matters in issue; a preparedness to question, challenge and critique; and a willingness to understand and commit to the highest standards of governance for the Group.

The Board (with the assistance of the Nominations Committee) reviews the skills represented by Directors to ensure that the Board continues to have an appropriate composition and skills mix to achieve the Corporate Objective. Read more: Board Governance Document.

## Sustainability Committee of the Board

The Company's peak sustainable development governance body is the Sustainability Committee, a subcommittee of the Board.

The Committee's members are non-executive directors - Dr J M Schubert (Chairman), Mr P M Anderson and Dr E G de Planque - all of whom the Board has determined are appropriately skilled in health, safety, environment and community matters. Executive directors and other external advisors participate in Committee work at the discretion of the non-executive director members.

The role of the Sustainability Committee is to assist the Board in its oversight of:

- HSEC risks.
- The Group's compliance with applicable legal and regulatory requirements associated with HSEC matters.
- The Group's performance in relation to HSEC matters.
- The performance and leadership of the health, safety and environment function and the sustainable development function.
- The [Group's Annual Sustainability Summary Report](#).
- The preparation of a report by the Committee for the Annual Report.

The Sustainability Committee of the Board meets as frequently as required, but not less than three times a year.

In addition to being skilled in health, safety, environment and community matters, members of the Sustainability Committee of the Board are required to participate in training and development activities to ensure they keep abreast of current thinking and leading practices in the core areas where the Committee focuses its work.

Read more:

- [BHP Billiton Board Member Profiles](#)
- [Membership of Board Committees](#)
- [Sustainability Committee of the Board Terms of Reference](#)

## Forum on Corporate Responsibility

While not a governance body, the Forum on Corporate Responsibility brings together representatives of our senior management team, the leaders of several key non-government organisations and community opinion leaders to discuss and debate social and environmental matters relevant to the Company.

Forum members have an opportunity to provide advice and to challenge the views of our senior management on broad sustainable development issues of mutual interest. The Company is not bound by the advice of the Forum, and the Forum does not necessarily endorse the Company's decisions. The Forum provides a means for direct and open dialogue about issues of interest to the wider community.

The Forum meets twice a year and is chaired by Marius Kloppers, BHP Billiton Chief Executive Officer.

## Risk and Audit Committee of the Board

The purpose of the [Risk and Audit Committee](#) (RAC) is to assist the Board to fulfill its corporate governance and oversight responsibilities in relation to financial reporting, internal control structure, risk management systems and the internal and external audit functions. As required, the Sustainability Committee of the Board reports on Company HSEC risks to the RAC to assist it in its role of overseeing the management of Group risk. When considering risks, the RAC may request the Sustainability Committee to report back to it on a particular HSEC risk.

## Global Ethics Panel

The [Global Ethics Panel](#) (GEP) assists the Chief Executive Officer (CEO) to meet the requirement in the [Board Governance Document](#) relating to the ethics and culture of the Group. The CEO is required to ensure that the culture of the Group does not develop in a way that condones dishonest conduct or lack of integrity, respect or dignity in relationships among those involved in or affected by the Group's activities.

The GEP promotes the effective implementation of our business conduct systems through the [Code of Business](#)

**Conduct** and provides oversight of related communication activities and assurance processes. It also oversees the process for handling breaches of business conduct, assists business and functional leaders in assessing acceptable outcomes in cases where adjudication is required, and monitors and reports on emerging policy issues and compliance with the Code. Its role is formalised in the Global Ethics Panel Charter.

The GEP is chaired by Chief People Officer Karen Wood and includes internal and external representatives with knowledge and experience in contemporary aspects of ethics and culture relevant to the Group.

## Executive Management

As specified in the Board Governance Document, our CEO holds delegated authority from the Board to achieve the Corporate Objective, save for those matters the Board has retained for its own decision-making. The Board Governance Document requires that we consider all risk factors that could affect the Group. In doing so, it specifies that the CEO will not allow decisions or actions to be taken without assessing their health, safety, and environmental consequences and the impact on the achievement of the Corporate Objective.

The CEO uses an Approvals Framework to delegate authority to committees and individual members of management. Notwithstanding those further delegations, the CEO remains accountable to the Board for the authority delegated to him.

The CEO has established the Group Management Committee to assist him in exercising his authority. He also draws on the work of other committees including the:

- Group Management Committee – assists the CEO to increase the value of our business by achieving agreed operational outcomes.
- Financial Risk Management Committee (FRMC) – monitors the Group’s financial risk management policies and exposures and approves financial transactions within the scope of its authority.
- Investment Review Committee (IRC) – oversees the management approval processes for major investments, which are designed to ensure that investments are aligned to the Group’s agreed strategies and values, risks are identified and evaluated, investments are fully optimised to produce the maximum shareholder value within an acceptable risk framework, and appropriate risk management strategies are pursued.

## Corporate HSEC

While the majority of HSEC staff are embedded in the CSGs, core HSEC governance functions are provided within the Corporate Centre.

A critical component of the HSEC governance function provided by Corporate is the HSEC audit program. This is specifically designed to ensure all operations within the Group work within the requirements of our Charter, Sustainable Development Policy and HSEC Management Standards.

## HSEC Leadership Team

The HSEC Leadership Team is the peak functional group and includes Corporate representatives and HSEC functional heads from each CSG. The Team is chaired by the Vice President Health, Safety, Environment and Sustainability and sets the direction for the HSEC function, identifies priority issues, measures HSEC performance and provides input to the HSEC Functional Business Plans.

# Hierarchy of Systems and Documents

At BHP Billiton, our conviction is that our business goals can be best attained through honesty, fairness and integrity in everything that we do. In addition to the corporate governance processes that manage the broader affairs of the Company, we have a number of systems and supporting documents to implement our commitment to sustainable development. These systems are also aligned to the International Council of Mining and Metals (ICMM) Sustainable Development Framework. This framework comprises three elements – a set of 10 Principles (including a set of supporting position statements), public reporting and independent assurance. Read [more](#).

## Company Charter

Central to our business is our [Charter](#), which states our 'overriding commitment to health, safety, environmental responsibility and sustainable development'.

## Sustainable Development Policy

Supporting the values of our Charter is our [Sustainable Development Policy](#) (PDF 28 KB). The Policy creates the context for our management systems and sets the foundation from which we operate.

While we strive to deliver strong financial returns to shareholders, we fully recognise and deliver on our wider responsibilities to our stakeholders: as the Policy states 'our objective is to be the company of choice – creating sustainable value for our shareholders, employees, contractors, suppliers, customers, business partners and host communities.' The Policy requires that we meet or, where less stringent than our standards, exceed applicable legal and other requirements.

See our [Policy Guide](#) (PDF 468 KB) for a detailed explanation on the rationale behind our Policy objectives.

## HSEC Management Standards

The BHP Billiton [HSEC Management Standards](#) (PDF 148 KB) form the basis for the development and application of HSEC management systems at all levels in the Company and represent a key process through which we drive our contribution to sustainable development.

The Standards cover the entire life cycle of operations and all operational aspects and activities with the potential to affect our health, safety, environmental and community performance. They apply to all BHP Billiton sites and operations, including facilities and activities that are owned or operated by BHP Billiton, development projects, mergers, acquisitions, divestments and major activities by contractors on our sites or under our management. Where the Company has no operational responsibility but has an equity stake, or where significant Company assets are involved, the Standards are made available to the operator so that comparable HSEC standards can be applied.

The Standards support the implementation of the Charter, the Sustainable Development Policy and the Code of Business Conduct across BHP Billiton and provide a risk-based HSEC management system framework, consistent with the BHP Billiton Risk Management Policy; ISO 14001, OHSAS 18001 and SA 8000. The Standards also incorporate elements from other international policies, standards and management practices, such as the [ICMM Sustainable Development Framework](#), to which BHP Billiton has committed.

Expectations for the progressive development and implementation of HSEC management systems at all levels of BHP Billiton are defined by the Standards, and they provide auditable criteria against which HSEC management systems across BHP Billiton can be measured.

Operations are audited to check the level of conformance with the Standards and their effectiveness in meeting the needs of the Group and the business being audited. The Standards are also reviewed at least every three years. The next scheduled review will conclude by December 2008. The outcome of this review will be in 2009.

## Sustainability Training and Awareness

Our approach to training and awareness for sustainability issues is guided by our HSEC Management Standards:

- Standard 5 (Awareness, Competence and Behaviour) requires that employees, contractors and visitors are aware of relevant HSEC requirements, hazards and controls and are competent to conduct their activities and behave in a responsible manner.

- Standard 8 (Business Conduct, Human Rights and Community Development) requires that systems are in place to ensure that the Articles of the UN Universal Declaration of Human Rights are assessed, prioritised and implemented as they apply to the organisation's sphere of influence. Employees and contractors receive training to ensure they are familiar with and abide by the Articles relevant to their activities. Where security personnel are required, systems are in place to ensure they are familiar with and operate in accordance with the US-UK Voluntary Principles on Security and Human Rights.

The HSEC Management Standards are further complemented by the Company's Human Resources Strategy, which provides additional guidance on training and awareness for sustainability issues related to labor practices and decent work. Read more: [Our People](#).

### Monitoring and Follow-up

Our HSEC Management Standards guide our approach to monitoring and follow-up on sustainability issues. Specifically, Management Standard 13 (Incident Reporting and Investigation) requires that HSEC incidents, including near misses, are reported, investigated and analysed. Corrective and preventative actions are taken, and learnings are shared.

The Company's Code of Business Conduct also provides additional guidance on monitoring, reporting and follow-up on such issues as business conduct, bribery and corruption, which affect the sustainability of our business.

Read more:

- [Business Conduct](#)
- [Incident Reporting and Investigation](#)

### Procedures and Guidelines

Company-wide procedures are mandatory to all BHP Billiton sites, operations and controlled activities. These documents address specific areas where it is important that activities are conducted consistently across the Company and cover such areas as corporate performance reporting, Fatal Risk Control Protocols and incident reporting and investigation.

Guidelines are advisory only and are designed to guide our businesses on how to meet the requirements of HSEC Management Standards and the Company-wide procedures.

# Key Management Processes

Wherever BHP Billiton operates, sustainability considerations are addressed in its decision-making processes, alongside other business considerations. This means that while we strive to deliver strong financial returns to shareholders, we fully recognise and deliver on our wider responsibilities to our stakeholders. Excellence in sustainability management is good business.

A number of key management processes exist across the Company to ensure there is a common approach to the consideration of sustainability in business decisions: Business Conduct, Risk Management, Incident Reporting and Investigation, Investment, Closure and Audit.

## Business Conduct

BHP Billiton adopts an integrated approach to business conduct, comprising the [BHP Billiton Code of Business Conduct](#), regional helplines and the [Global Ethics Panel](#).

### Code of Business Conduct

The [BHP Billiton Code of Business Conduct](#) is founded on our [Charter](#), which states that the Company cares as much about how results are obtained as it does about delivering good results.

The Code of Business Conduct applies to our entire workforce regardless of the specific job or location. It provides employees and contractors with direction and advice on conducting business and interacting with governments, communities and business partners. This includes clear guidelines on general workplace behaviour, as well as policies, standards and guidelines on a wide range of ethical issues, such as conflict of interest, financial inducements and bribery, insider trading and political contributions.

The Code and its principles are embedded throughout the organisation, with managers and supervisors held accountable for not only their actions but also the actions of their staff. This starts at the most senior level of the Company, with the CEO requesting annual written confirmation from his direct reports that they and their direct reports have read the Code and have discussed its contents. Starting in fiscal year 2008, this process will be formalised via the US Securities and Exchange Commission Form 20-F Certification Process.

Internal performance requirements regarding business conduct are included in our [HSEC Management Standards](#) (PDF 148KB). Distribution of the Code to employees and contractors, as well as presentation and discussion of its principles, is monitored and reported through the Company's HSEC audit program.

### Regional Helplines

Resolution of business conduct issues is encouraged at the local level. If this is not possible, the issue can be raised with regional points of contact or the telephone-based Business Conduct Helplines based in southern Africa (Johannesburg), Europe (London), Australasia (Melbourne), North America (Houston) and South America (Santiago). Confidentiality is respected by helpline advisors to the highest degree possible. Employees who raise genuine concerns will not be subject to retribution or disciplinary action.

### Anti-trust Protocols

Anti-trust laws are designed to prohibit a variety of practices that restrain trade. BHP Billiton has adopted Anti-trust Protocols that set out and confirm the minimum anti-trust compliance standards expected of all Company personnel regardless of their specific job or location. The Protocols reflect the Group's ongoing commitment to its Guide to Business Conduct and corporate governance policies.

BHP Billiton has established a panel of both internal and external experts to deal with any anti-trust issues facing any employee, officer or representative of the Group.



## Risk Management

Our approach to planning and risk management is designed to allow us to look ahead and consider an uncertain future with confidence.

As noted in our [Risk Management Policy](#), risk is inherent in our business. Risk can manifest itself in many forms and has the potential to impact on the health and safety, environment, community, reputation, regulatory, operational, market and financial performance of the Group. The identification and management of risk is central to our success.

The Company uses a common risk management framework – called Enterprise-wide Risk Management (EwRM) – across all operations and functions to identify, assess and monitor risks associated with our assets, projects and other business opportunities.

The processes covered by EwRM are consistent with Australian Standard AS4360 and our HSEC Management Standard 3 establishes the expectations of how HSEC risks are to be managed within the EwRM framework.

The EwRM framework requires all assets, functions and major projects to establish and maintain registers and management plans for their material risks.

Materials risks are defined as those having the potential to impact on the achievement of our Corporate Objective or Business Plans. At assets this relates to the achievement of 5-Year Business Plans and 2-Year Budgets. It also has the potential to impact the achievement of our Zero Harm aspiration. Risks are assessed and ranked using a common methodology that incorporates severity and likelihood factors and that allows direct comparison of risks across different assets and business groups, and across financial and sustainability risks. Residual risks are assessed considering the control environment, as are gross exposures (maximum foreseeable losses). Risk registers are stored on a common, Company-wide database and include details of the individual risks and the measures in place for their management. Risk control measures include individual accountabilities, where appropriate. Risk reduction plans are implemented when residual risks are assessed to be unacceptable.

Our risk management methodology also includes an assessment of 'country risk' where the social, political, economic or other factors related to the countries in which we operate or plan to operate can potentially impact on our operations, business or reputation. Such risks include the potential for contravening international policies, standards and management practices to which BHP Billiton has committed; for example, the UN Universal Declaration of Human Rights; the World Bank Operational Directive on Involuntary Resettlement; and the US-UK Voluntary Principles on Security and Human Rights. The assessments are incorporated into the appropriate business plans and updated annually.

Our risk management approach also considers corruption. This includes such practices as bribery, fraud, extortion, collusion and conflict of interest, which in this context include an offer or receipt of any gift, loan, fee, reward or other advantage to or from any person as an inducement to do something that is dishonest, illegal or a breach of trust in the conducting of our business. We recognise and actively work to address the risk that corrupt activities may be undertaken by management, employees or third parties, such as suppliers and customers.

The Group operates global ethics and fraud hotlines and Group Audit Services reviews fraud-related controls as part of its audit scope. Our Asset Leaders provide half-yearly reports on all instances of fraud. Material cases, defined as those in excess of US\$20,000 or involving persons in positions of managerial control, are specifically highlighted. Any regulatory disclosure requirements are considered as part of this process. The Fraud and Misappropriation Report is reviewed by the Chief Financial Officer, the Chief Executive Officer and the Board Risk and Audit Committee, as well as the Group's Global Ethics Panel. The integrated nature of the program is designed to ensure that material risks are not overlooked at any level of the organisation.

Annually, operations and business groups are required to review and update their risk registers and self-assess their risk management processes. A range of risk assessment and management guidelines supports this process. A network of Risk Champions and HSEC specialists is also available to assist operations and business groups achieve consistency when applying the Company's Risk Management Policy and Standards.

Every six months, operations and business group risk registers, risk management performance and risk management plans are reviewed during meetings of the respective Customer Sector Group Risk and Audit Committee. These meetings are attended by an independent Board member and senior executive management.

A Company-wide risk profile has been developed and is updated every six months. This profile includes the significant risks rolled up from the operations and business group risk registers. It also includes key strategic risks identified by executive management. This profile, the effectiveness of controls and the plans to manage or mitigate the risks, is reviewed at least annually by the BHP Billiton Board.

Operations and business groups are also required to develop and maintain emergency response, crisis management and business continuity plans consistent with their business and HSEC risks. Exercises and simulations are routinely conducted at operations and within corporate groups to test our capacity to respond to emergencies and to manage crises. Read more: Security, Crisis Management and Business Continuity.

Plans to mitigate substantial operational and strategic risks are incorporated into asset strategic plans and budgets through our strategic planning process.

## Incident Reporting and Investigation

As directed by our HSEC Management Standard 13, all HSEC incidents, including near misses, at BHP Billiton controlled sites and activities are to be reported, investigated and analysed. Corrective and preventive actions are then taken, and learnings are shared.

Incidents defined by the BHP Billiton Consequence Severity Table as a potential or actual significant HSEC incident are investigated using the Incident Cause Analysis Method (ICAM), a tool developed by safety representatives from across the Company with the assistance of the Australian Transport Safety Bureau.

ICAM provides a process to identify what led to the event, so that effective corrective and preventive actions can be implemented to prevent recurrence. It does not apportion blame or liability. The Company has, on average, four trained ICAM investigators per 100 site-based personnel. Investigators are drawn from all areas of the business, with a range of experience and knowledge.

In the event of a significant incident, it is our policy that associated work does not resume until actions have been taken to reduce the risk of recurrence and authorisation to resume work is given at the appropriate level.

Information gathered from near miss and significant incidents is analysed to identify lessons and to monitor trends and is reported to management to improve standards, systems and practices. Learnings are shared across the organisation and with stakeholders and others as appropriate. Systems are in place at all our operations to ensure that all remedial actions, including changes in procedures, are documented, communicated, followed up and completed.

## Investment

We recognise the potential risks and opportunities that new investments pose to our commitment to sustainable development and have integrated these considerations into our investment processes and decision-making.

Our five-stage, phased approval process – Identification, Selection, Definition, Execution and Operation – ensures that investments, mergers, acquisitions and divestments meet the requirements of our Standards before progressing to the next phase of development. HSEC requirements are defined for each stage to reflect the Sustainable Development Policy and HSEC Management Standards. For example, HSEC risk assessment, baseline studies, impact assessment and closure planning are required in the early stages of project development, while control measures and management systems must be embedded prior to operation.

Independent peer reviews support the progression of investment proposals through the investment process while assisting with BHP Billiton's governance requirements. They are undertaken by a cross-functional team of experts (one of which is an HSEC professional), independent of the investment proponents and generally from within the Company, who review the investment prior to the required approval phases. These reviews provide assurance that investment opportunities are robust and have undergone independent, rigorous and consistent reviews and add value by drawing on the global experience and perspective of the independent peer review team.

## Audit

Our HSEC Management Standards include a requirement for an auditing process to check that our Charter, Sustainable Development Policy and HSEC Management Standards are being applied and to verify performance. The audits are designed to address the degree of implementation of our HSEC management systems and their effectiveness in meeting the Group's needs and those of the business being audited. Recommendations for improvement are made as required.

The HSEC Audit Program is based on the HSEC Management Standards and systems and performance management principles.

The audit program has been a triennial peer review process, with audit teams drawn from the HSEC Function, operations personnel and external sources. It objectively identifies gaps in HSEC management programs, which are then addressed through monitored performance improvement plans. The process provides assurance to the Group and the Board that the HSEC Management Standards are being implemented and identifies leading practices that can be shared across the Company.

During any year, sites not scheduled for a Corporate HSEC audit complete a self-assessment against the Standards and prepare performance improvement plans to progress to full conformance with the Standards.

From July 2008, the HSEC Management Standards have been supplemented by targeted audits that are designed to either provide assurance that specific HSEC risks are being managed at our operations in a manner that is consistent with BHP Billiton expectations or lead to actions that close any gaps identified.

Key issues arising from the HSEC Audit Program are reviewed by the Sustainability Committee of the Board. The operation of our internal control systems, including the HSEC auditing process, is reviewed by the Risk and Audit Committee of the Board.

## Security, Emergency Response and Business Continuity

In line with our HSEC Management Standard 14 (Crisis and Emergency Management), our businesses and sites are required to have systems in place to:

- Identify potential emergency situations and their impacts
- Define response plans, roles and responsibilities
- Identify, maintain and test resources to ensure their availability
- Train employees, contractors, visitors and external stakeholders
- Conduct, document, share and follow up on learnings from emergency response drills.

The intent is that, in the event of a crisis or emergency occurring, procedures and resources are in place to effectively respond and re-establish full functioning as swiftly and smoothly as possible. A crisis or emergency may be an extreme climatic event, disease outbreak, security issue, or any other event that poses a threat to the safety or health of employees, contractors, customers or the public, or that can cause damage to the environment or our reputation.

## Closure and Legacy Sites

Closure is the final stage in the life cycle of any natural resource asset.

At some point in the future, perhaps decades from now, the ore body will be exhausted or the processing facility has served its purpose and operations cease. Comprehensive closure planning integrated into the business early on is required to achieve our vision of sustainable development and Zero Harm.

In 2004, our **Closure Standard** was developed to provide a framework for our assets to plan for closure in a way that proactively manages HSEC and business risk. Each of our investment opportunities and controlled operations are responsible for developing closure plans in compliance with our Closure Standard. The Closure Standard contains requirements that assist us in achieving compliance with legislative requirements, limiting adverse environmental impacts and considering stakeholders needs and aspirations particularly with respect to end land use.

Effectively planning for conditions many years in the future can be a challenge, and particularly for our assets with long operational lives. Our closure planning process requires input from a multi-functional team including engineers, community experts, environmental specialists, human resources and financial analysts.

Our closure planning includes assessment of risks associated with closure of an operation, including an assessment of

risks related to residual liabilities post closure. Common potential closure risks include:

- Safety issues during decommissioning
- Environmental legacies post closure caused by poor environmental impact assessments or inappropriate choice of remediation
- Adverse community reaction to closure activities due to inadequate consultation
- Future changes in legislation
- Changes in market or other factors impacting the anticipated closure date and schedule
- Changes in cost of closure activities
- Socio-economic impacts associated with the reduction in employment and associated services.

Closure plans provide a basis on which the financial consequences of closure can be estimated, thus protecting shareholder value and minimising long term liabilities to the Company, the government and the public. Estimating the expected cost of closure and making financial provision for closure activities is an important part of our process. Closure plans and costs are reviewed annually, updated at least every three years and periodically audited to ensure they are relevant and accurate.

Implementation of the Closure Standard across the Group has reinforced the concept that effective closure planning should commence in the earliest stages of a project and must be incorporated in the decision-making process during operations. To that end, our focus in the coming year is to fully integrate closure planning with our life of asset planning.

BHP Billiton is responsible for a number of legacy sites that are in various stages of decommissioning, rehabilitation or post closure care and maintenance. These sites are managed by our CSGs, where closure is treated as a project and directed by experienced professionals. These sites serve as good reminders that the decisions we make today are crucial to achieving our goals of achieving sustainable land-use conditions at the end of the asset life cycle.

# 2008 Performance



## Risk Management

We continue to apply our risk management framework to enhance business sustainability and to demonstrate governance over our material risks. [Find out more.](#)

## Business Conduct

In FY2008, we advanced how we promote acceptable business conduct at BHP Billiton. [Find out more.](#)

## Audit and Self-Assessment

The Company-wide HSEC audit and self-assessment program is a triennial peer review process that assesses the level of implementation of our HSEC Management Standards. [Find out more.](#)

## Closure and Legacy Sites

Each of our controlled assets is responsible for developing closure plans that comply with legislative requirements, limit adverse environmental impacts, and consider stakeholders' needs and aspirations, particularly with respect to end land use. [Find out more.](#)

# Risk Management

The Company continues to apply its Enterprise-wide Risk Management framework to enhance business sustainability and to demonstrate effective governance over our material risks.

Asset and Customer Sector Group (CSG) risk registers continue to be updated regularly and presented to the respective CSG Risk and Audit Committees every six months. These reports include progress against respective risk management plans.

The Group risk profile continues to be updated every six months and is reviewed by the Group Management Committee (GMC). The GMC specifically monitors risks assessed as having high potential impact and likelihood, and has established action plans to improve control effectiveness. The Group risk profile is presented to the Board Risk and Audit Committee every six months. It includes operational risks 'rolled-up' from asset, Customer Sector Group and project risk registers. It also includes strategic risks, such as climate change, country risk and the risk of governance failure, including reputation and fraud risks.

Progress on risk management plans relating to the Group-wide risks has been reported to Executive Management.

The Company's Risk Leadership Team, comprising CSG, asset and corporate risk managers, has continued to identify and progress opportunities to improve the Company's risk management processes.

Since publication of our 2007 Sustainability Report, the Company's updated Risk Management Policy and associated Standards have been implemented and embedded within our Customer Sector Groups and assets. The update to the Policy and Standards has built on the development of risk management capacity throughout the Company since the initial deployment of our Enterprise-wide Risk Management Framework in 2002. The updates also target simplicity, effectiveness and efficiency. A series of regional training sessions were completed during the second half of the 2007 calendar year to support deployment of the updated material.

The Group's control self-assessment method has been progressively applied to significant risks across the Company's managed operations and the results reported to senior management.

An objective of risk management is to improve business sustainability. The Group continues to monitor the potential business value at risk. During the year, this measure indicated a relative increase largely due to external factors such as volatile global fiscal markets, increased country risks, operating cost pressures on the resources sector and potential climate change impacts.

# Business Conduct

In FY2008, we advanced our project to review of the manner in which we promote acceptable business conduct at BHP Billiton. The project has three objectives:

- To revise the Guide to Business Conduct to reflect changes in our business operating environment and to incorporate recommendations from the internal review into matters associated with the [Commission of Inquiry into the UN Oil-For-Food Program](#).
- To develop training and communication tools and processes to embed appropriate business conduct within BHP Billiton; and
- To devise an appropriate compliance and reporting system.

In July 2008 the Group Management Committee approved the revised Guide now called the *Code of Business Conduct: Working with Integrity* (the Code). The revisions followed extensive consultation with internal and external stakeholders. The Code is supported by mandatory Group-level policies, standards and procedures. These include several new standards, including those covering conflict of interest, gifts and hospitality and anti-bribery, which directly relate to business conduct risks identified by the project. A procedure setting out the mandatory requirements for how business conduct issues are managed across the Group will also be introduced.

A communications plan to embed the Code has been developed that will encourage a more systematic approach to ensuring that employees have an opportunity to learn about the behaviours expected of them. This plan is designed to drive a simple, strong and effective "top-down" message, where the leaders across the Group tell the story, and "bottom-up ownership", through face-to-face conversations and on-line engagement designed to deliver clear communication and effective training.

A new compliance requirement has been introduced that requires senior leaders to attest to the manner in which business conduct has been addressed. Leaders will be asked to confirm that they have:

1. Undertaken activities to promote and embed the contents and behaviours described in the Code such that all employees and contractors understand the importance and relevance of the Code to their role, the workplace, and the Company's success
2. Undertaken activities to promote understanding of everyone's responsibilities to report violations of the Code through existing systems (including Human Resources and Business Conduct) and the obligation to support a workplace where genuine concerns can be raised without fear of retribution
3. Demonstrated the importance of taking action where transgressions occur and of sharing the learnings from the experience.

In addition to this activity, a broad compliance system, including auditing of the Business Conduct-related standards by Group Audit Services is under development. Management Level Controls continue to be audited across the Group in relation to our obligations under Sarbanes Oxley legislation in the United States.

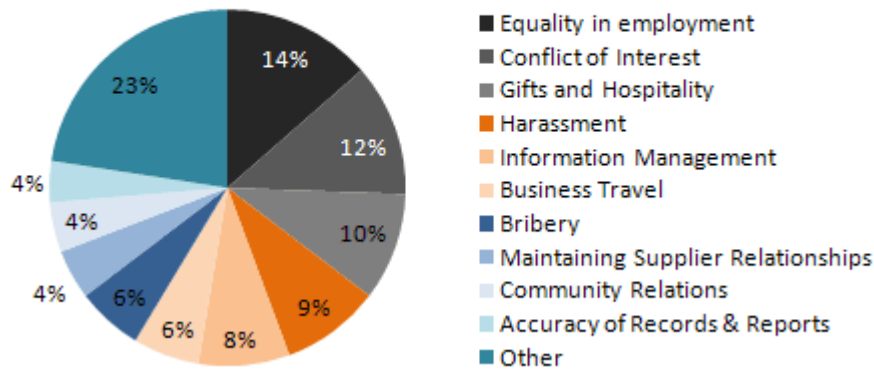
## Analysis of Business Conduct Enquiries

The helpline service received 133 enquiries in FY2008, compared to 90 in FY2007. Helpline enquiries are analysed according to the subject areas articulated in the Code. This analysis indicates:

- Eighteen enquiries (or 14 per cent of total) related to equality in employment issues.
- Sixteen enquiries (or 12 per cent of total) related to conflicts of interest issues. Conflicts of interest-related queries have represented an average of 12 per cent of all queries over the two years to FY2008, suggesting that this is an area where employees find it helpful to seek independent advice in resolving uncertainties or concerns that they have about appropriate actions.
- Ten per cent of enquiries related to gifts and entertainment.

## Business Conduct Enquiries - By Category

FY2008



Analysis by region reveals 80 enquiries, or 60 per cent, were raised from our sites and offices in Australia and Asia, with a further 16 per cent from South America, 13 per cent from North America and 8 per cent from Africa. The predominance of Australian-based enquiries has existed since the helpline system was established. We believe that this reflects a higher degree of confidence and awareness of the helpline by Australian-based employees rather than systemic business conduct issues in that region. The communications and training strategy developed as part of the Business Conduct Review Project aims to improve awareness of and confidence in the helpline system in all regions.

All sites maintain risk registers as part of our Enterprise-wide Risk Management system; these registers include such business conduct risks as corruption, conflict of interest and gifts and hospitality. In addition, acts of corruption are tracked by our fraud and misappropriations reporting process, which is managed by Group Audit Services, and reported to the Risk and Audit Committee of the Board.

In FY2008, there were 32 issues raised with Group Audit Services, largely through the Fraud hotline, and related to allegations of theft, fraud, conflict of interest or other irregularities. No material incidents of corruption occurred during the year. Several investigations were investigated and not substantiated. A number of breaches of the Company's Code of Business Conduct were investigated and, where necessary, disciplinary actions were taken.

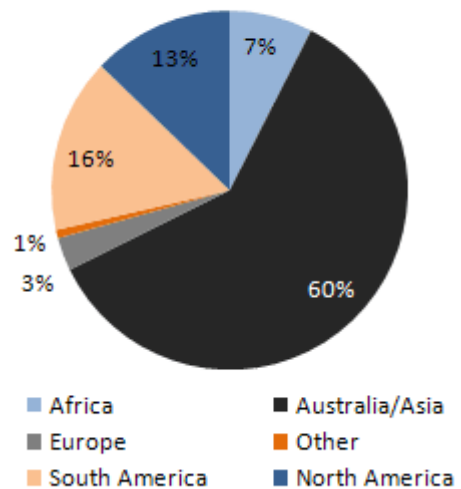
During the year there were also no reported case of anti-competitive behaviour, antitrust or monopoly practices.

In FY2009, the Business Conduct Helpline and the Fraud Hotline will be combined as one system, to be called the Business Conduct Advisory Service.

## Business Conduct Enquiries

### - By Region

FY2008



## Enquiry Management Assurance and the Global Ethics Panel

At each of its meetings, the Global Ethics Panel reviews the issues and actions arising from enquiries requiring follow-up analysis or investigation, with appropriate regard for confidential information.

Membership of the Global Ethics Panel was augmented in FY2008, with the appointment of three CSG Presidents. Panel membership continues to include two independent members who have particular knowledge and experience of contemporary aspects of ethics and culture, as well as representatives from legal, risk assessment and audit, public affairs and human resources. The Chairman of BHP Billiton's business in South Africa is also a member. The Panel is chaired by the Chief People Officer (formerly the Chief Governance Officer).

The Global Ethics Panel held three meetings in FY2008 and activities included monitoring the Business Conduct Review Project (including the development of new mandatory Group level documents for anti-bribery, gifts and hospitality, and conflict of interest) and considering ways to enhance the overall effectiveness of the system. The CEO



participates from time to time and contributes to discussion on the role of values in the organisation. This topic was given priority at a Company leadership conference held in July 2008 for the organisation's leaders.

An on-line system for reporting of disciplinary actions was also developed in FY2008, which allows reporting and analysis on what disciplinary actions were undertaken for business conduct-related reasons, as well as other issues such as poor performance. It is expected that the database will also become a useful analytical tool to help improve the management of our people.

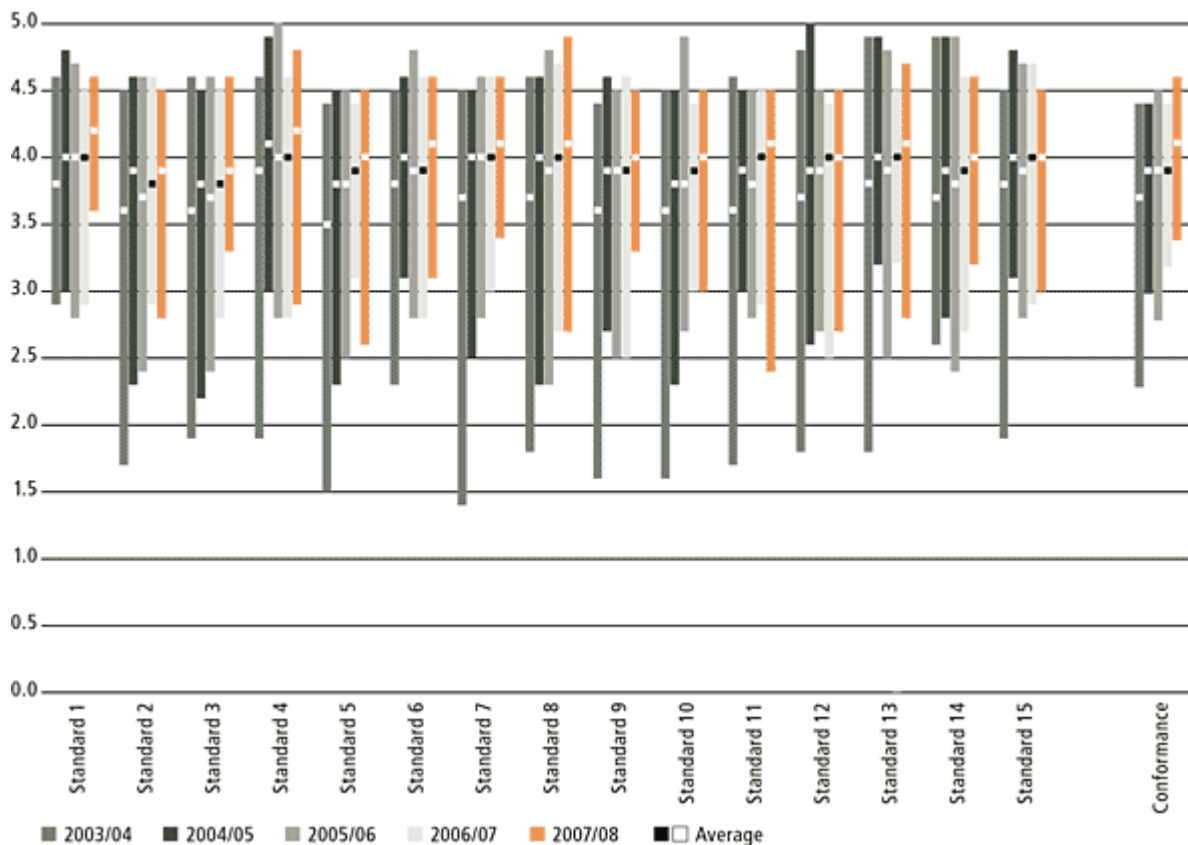
# Audit And Self-Assessment

The Company-wide HSEC Audit and Self-assessment Program is a triennial peer review process that assesses the level of implementation of our HSEC Management Standards. During FY2008, seven HSEC audits were conducted. As in previous years, operating sites not audited during the year were required to undertake self-assessments against the Standards.

The results from the 68 self-assessments have been combined with the audit results to give the range and average level of conformance for each of the Standards shown in the diagram below. This shows an overall conformance of 4.1 out of 5 against the HSEC Management Standards, meeting our target of greater than 4 out of 5 with the Standards by 30 June 2008.

Since the program commenced in September 2001, 145 site audits have been conducted, involving 414 BHP Billiton people and 36 external auditors. The breadth of the program has been invaluable in accelerating the rate of improvement in all aspects of our HSEC management through the identification of improvement opportunities and communication of leading practices.

**Audit and Self-Assessment Scores against each of the BHP Billiton HSEC Management Standards**



The results from self-assessments conducted in each year have been combined with the audit results to give the average level and range (lowest to highest) of conformance.

The HSEC Management Standards are:

- Standard 1 Leadership and Accountability
- Standard 2 Legal Requirements, Commitments and Document Control
- Standard 3 Risk and Change Management
- Standard 4 Planning, Goals and Targets
- Standard 5 Awareness, Competence and Behaviour
- Standard 6 Health and Hygiene
- Standard 7 Communication, Consultation and Participation
- Standard 8 Business Conduct, Human Rights and Community Development

- Standard 9 Design, Construction and Commissioning
- Standard 10 Operations and Maintenance
- Standard 11 Suppliers, Contractors and Partners
- Standard 12 Stewardship
- Standard 13 Incident Reporting and Investigation
- Standard 14 Crisis and Emergency Management
- Standard 15 Monitoring, Audit and Review

# Closure And Legacy Sites Performance

The BHP Billiton Closure Standard was rolled out to all our controlled assets two years ago. Our sites report against this standard, documenting the current status of closure plans, in annual closure summary reports.

In the interest of continual improvement, during the reporting period we conducted a review of the Closure Standard. Representatives of the multi-functional teams involved in preparing our closure plans and estimating associated closure costs determined there was an opportunity to better integrate closure planning through our Life of Asset planning process.

Life of Asset planning is a disciplined procedure that occurs annually across the Company. Incorporating the Closure Standard requirements with Life of Asset planning procedures will assist closure planning considerations being incorporated in the Life of Asset plan.

A detailed protocol for auditing compliance with Closure Standard requirements was developed during the reporting period and trialed at our Queensland Coal group. The audit protocol will be implemented by our Group Audit Services function further integrating closure planning as a way we do business rather than an isolated function of environment or engineering functions. The audit protocol contains four key objectives:

- Closure plans exist for all controlled operations and closed facilities which are relevant and accurate to minimise long-term liabilities
- Closure planning takes into account external stakeholder needs particularly with respect to end land use
- Closure plans provide a reasonable basis to estimate and manage the financial consequences of closure
- Facilities in closure phase employ project management principles in accordance with our Capital Investment Standard and other tollgating principles.

BHP Billiton has a number of assets which are in various phases of the closure process. Decommissioning, rehabilitation, remediation and post-closure monitoring are all part of the closure process. Closed sites are generally part of our Customer Sector Group (CSG) structure and are managed by experienced teams of professionals according to our project management principles.

in FY2008, 113 annual closure summary reports were submitted to our corporate group by our controlled assets; in addition, 14 reports were voluntarily submitted by some of our non-controlled aluminium and petroleum assets. These reports provide information on the status of closure plans, closure risk assessments, and the financial consequences of closure. Thirty three of these reports were from facilities we are managing in the closure phase of the asset life cycle which includes decommissioning and post-closure care and maintenance.

# Healthy People - Our Approach

The health and wellbeing of people is central to the success of our business. Understanding the potential for health risks and establishing suitable mitigation measures are integral to the success of our journey towards Zero Harm.

Health risks continue to be an area where we are attempting to reduce both potential short and long-term impacts. These health risks are diverse in the areas in which we operate and are not only related to work processes. Significant community-based health risks also exist in our business, and we continue to contribute to the management of these issues on both a local and global basis.

Our approach to workforce and community health is incorporated in our [Charter](#), which states that we have 'an overriding commitment to health, safety, environmental responsibility and sustainable development' and our [Sustainable Development Policy](#), which states that we will:

- Strive to achieve leading industry practice.
- Meet or, where less stringent than our standards, exceed applicable legal and other requirements.
- Ensure we do not compromise our safety values, and seek ways to promote and improve the health of our workforce and the community.

Our Policy commitments are reflected in our Company-wide health targets.

Our [HSEC Management Standards](#) form the basis for our management systems and define our approach to employee health assessment and protection and to community health activities. Organisational knowledge about health issues is fostered by our Global Occupational Hygiene Network.

Some of the potential health risks present in the organisation include:

- Inherent occupational health risks associated with the nature of our operations, such as noise, dust, hazardous materials and gases, and vibration.
- Infectious diseases present in some of the countries in which we operate, including HIV/AIDS and mosquito-borne diseases.
- Ergonomic exposures relating to work requirements.
- General suitability for job criteria and fitness for work.

Fitness for work is an important area of employee health. For example, to ensure that health matters do not impact on the safety of the workplace, we have developed drug, alcohol and fatigue management programs at our operations.

For details on our approach to the management of these aspects, see [Employee Health](#) and [Community Health](#).

See a [summary of our health performance](#) for the year ended 30 June 2007.

# Employee Health

Our approach to employee health recognises the need to establish measures to reduce the potential for exposure to risk. Use of personal protection equipment (PPE) is vital; however, its use without the associated knowledge and expertise would create an environment where exposures could occur.

Our health initiatives are aimed at addressing a range of health management areas. See below for further details on:

- Exposure Management
- Hygiene Knowledge Base
- Fit for Work.

## Exposure Management

The control of employee exposures and a reduction of occupational illnesses are the thrust of our approach to occupational health management. Our aim, consistent with the 'Hierarchy of Controls' approach, is to remove hazards through engineering or design solutions wherever possible.

### Hierarchy Of Controls

Our approach to exposure management is based on the use of a 'Hierarchy of Controls'. In all situations, the primary aim is to eliminate the source of exposure.

As a secondary measure, we aim to minimise the potential level of employee contact. Where engineering controls are not practicable, we make every effort to protect all employees potentially exposed from any adverse health effect through the use of PPE. All exposures monitored are potential exposures and do not take into consideration the use of PPE to mitigate exposure.

While we seek to eliminate or minimise hazards wherever possible, it is equally important to fully understand the nature of our occupational exposure hazards where they do occur.

In support of this, we have focused our occupational health targets towards establishing baseline data on occupational exposure hazards and the consequent establishment of occupational hygiene monitoring and health surveillance programs. This is in addition to our focus on reducing occupational illness.

### Exposure Limits And Systems

Occupational exposure limits are standardised across the Company and are based on our analysis of the most applicable international standards available. The standardised approach ensures consistent reporting on exposure. Each business and site is required to:

- Meet our public Company-wide targets for health
- Ensure our Company-wide health procedures and guidelines are embedded into their operational systems
- Develop a strategy that addresses key health issues relevant to their operation, particularly the main three occupational exposure risks.

The objective is to help businesses achieve their exposure reduction targets by ensuring clear standards, consistent implementation, improved transfer of leading practice, and tracking of remedial actions, which will also enable standards to be reviewed and improved.

Position statements for key Company exposures provide further detail to hygiene professionals on how these should be managed.

Many of these exposures have the potential to cause serious illness, and it is vitally important that we manage them at a leading-practice level.

Key exposures include:

- Carbon monoxide
- Coal dust
- Coal tar pitch volatiles / polycyclic aromatic hydrocarbons
- Diesel particulate as elemental carbon
- Fluorides
- Lead, as inorganic dusts and fumes
- Manganese as dusts, compounds as manganese and fume
- Nickel
- Silica (crystalline as quartz and cristobalite)
- Sulphuric acid
- Noise

## Personal Protective Equipment

The effective use of personal protective equipment (PPE) continues to be essential while we search for ways to reduce exposures from our operations. Our PPE Compliance Auditing, Hearing Conservation and Respiratory Protection Guidelines provide sites with standard processes for PPE compliance across the organisation.

Despite the use of PPE, there are still potential pathways to exposure. These may include:

- Inadequate training in or incorrect use of the PPE equipment
- PPE equipment failure or poor maintenance
- Mixed exposures, where each does not trigger PPE use
- Exposure peaks that overwhelm protection.

## Monitoring Potential Employee Exposures

Key to our approach to managing exposures is the monitoring of potential employee exposures, if not for the use of PPE. We focus on three distinct categories for our exposure measurement data:

- Potential exposure of employees above the occupational exposure limit (OEL) for noise (85 dBA 8-hour time-weighted average)
- Potential exposure of employees above the OEL for exposures other than noise
- Potential exposure of employees above the action level (50 per cent of the OEL) but below the OEL for exposures other than noise.

We have established the requirement for reporting potential exposures above Action Levels but below occupational exposure limits to give us an understanding of the potential for harm and to enable us to establish proactive mitigation plans.

At levels above the occupational exposure limits, it is understood that harmful effects on health may eventually occur in a proportion of individuals if they are not adequately protected. While all operations provide PPE and other measures to reduce actual exposure, the reporting on employees in this category gives the Company a clear understanding of the exposures that need to be reduced to further minimise the chance of adverse health outcomes.

The reporting of these two categories allows the tracking of our efforts to reduce on-site exposures over time and consequently reduce the incidence of occupational illness.

Our aim is to understand the nature of our occupational exposure hazards where they occur and to remove or avoid hazards through engineering or design solutions wherever possible.

## Hygiene Knowledge Base

We continue to support a graduate training program for occupational hygienists with Deakin University (Victoria, Australia) as one way of responding to an increasing need for skilled occupational hygienists.

The first intake occurred during 2005. Through our involvement, we are seeking to ensure course work reflects leading developments in hygiene practice and through our mentoring and provision of practical experience, we hope

to attract applicants to this program, who will ultimately become effective and qualified hygienists. We continue to monitor the success of the program and have expanded the intake internationally with incorporation of South American graduates into the program in the 2008 calendar year.

## Fit for Work/Fit for Life

Fit for Work/Fit for Life is a Company-wide initiative that was launched during 2004/05 to assist our drive towards Zero Harm. The initiative seeks to promote a consistent approach to the management of health issues in the work environment. The initiative recognises that many health issues not only have the potential to impact on our safety performance, but can also cause community issues that have the potential to impact on our ability to contribute to sustainable development.

The initiative is intended to provide guidance to sites in developing site-based health management programs covering such areas as fatigue management, drug and alcohol use, occupational rehabilitation, health promotion and employee assistance.

By taking a holistic approach to health management, the initiative intends to ensure:

- We promote the well-being of our workforce and host communities in which we operate
- Our workforce is physically capable of performing all activities required of it
- Medical assessments are undertaken where work requirements change
- Family members are also involved in educational health programs.

The initial focus has been on fatigue management, as this has been identified as a contributing factor in many safety incidents. A Global Practice Leader has been appointed and is assisting sites with the implementation of the program.



# Community Health

An important part of maintaining a healthy workforce is assisting local communities to address community health issues.

In general, our focus is directed towards the prevention and treatment of the major infectious diseases, such as malaria and HIV/AIDS, that affect many of our operations.

## HIV/AIDS

In some communities where our operations are located (for example, in South Africa and Mozambique), the incidence of HIV/AIDS is among the highest in the world. We continue to have a responsibility to help manage the impact of the disease in order to care for our employees, protect the viability of our operations and support the well-being and development of our host communities.

For many years, we have adopted a proactive approach to managing the disease within our workplaces that draws upon the International Labour Organisation (ILO) Code of Practice on HIV/AIDS. This includes:

- Conducting education programs.
- Offering voluntary testing and counselling programs under the strictest confidentiality.
- Ensuring employees and their dependants have appropriate access to medical care.
- Reducing hostel-type accommodation for employees, known to be a risk factor for the disease.

We are now seeking ways to support initiatives that will help manage the disease in the wider population. An example of this commitment is our support of a clinical trial of a HIV/AIDS therapeutic therapy in South Africa. The treatment is delivered in the form of a vaccination, and it is hoped that it will offer new options for management of the disease in resource-constrained environments of the developing world.

The trial is being financially supported by 12 global mining companies led by BHP Billiton, which has provided cornerstone funding of US\$2 million. The clinical testing of VIR201 in South Africa that was approved by the South African Medicines Control Council in August 2008 will build on data generated in previous clinical trials of VIR201 in Australia. In these trials VIR201 showed a positive effect in suppressing virus levels in HIV infected individuals thus marking it as one of the most advanced HIV therapeutic vaccines under development. [Read more.](#)

## Malaria

Along with tuberculosis and HIV/AIDS, malaria is one of the major infectious diseases responsible for significant illness and mortality around the world. For our operations in southern Mozambique, Pakistan and northern Brazil and for several developing projects in Africa, malaria is a significant health issue. The disease can impact on the ability of these regions to provide sustainable workforces.

We continue to support the Medicines for Malaria Venture, a non-profit organisation created through the World Health Organization to discover, develop and deliver new anti-malarial drugs through effective public-private partnerships.

# 2008 Performance



## Occupational Exposure

We continue to improve our understanding of which workers are exposed to airborne contaminants and noise. [Find out more.](#)

## Occupational Illnesses

In FY2008, we experienced a 26 per cent reduction in the incidence of occupational illness, when compared to FY2007. [Find out more.](#)

## Personal Protective Equipment Compliance

Compliance with personal protective equipment requirements improved by two per cent in FY2008. [Find out more.](#)

## Health Fines

In FY2008, BHP Billiton was not subject to any health fine or prosecution. [Find out more.](#)

## Health Case Studies

Our case studies represent issues, initiatives, projects and programs from across the Company. [Find out more.](#)

# Occupational Exposures

Our public target for each operating site to close out its baseline occupational hygiene exposure survey for airborne contaminants and noise concluded 30 June 2008. This target was not met with only 75 per cent of sites, representing 88 per cent of employees, completing their survey.

This was an important milestone as it allows each respective site to develop a comprehensive understanding of which workers are exposed to airborne contaminants, such as dust, fume, mist, gas and vapour, and to noise at a level in excess of Company occupational exposure limits. Programs to eliminate exposure at the source are based on the results of the baseline survey.

Company-wide, the major occupational exposure risks faced are noise, silica (quartz), coal tar pitch volatiles, diesel exhaust particulate, manganese, and respirable coal dust. The major health exposures faced by our employees (by CSGs) are listed below.

By CSG	Key Potential Exposure				
	Risk 1	Risk 2	Risk 3	Risk 4	Risk 5
Aluminium	Noise	Fluorides	Coal tar pitch volatiles (C)	Lime dust	Welding fumes
Base Metals	Noise	Silica (quartz) (C)	Sulphuric acid mist (C)	Lime dust	Sulphur dioxide
Iron Ore	Noise	Silica (quartz) (C)	Welding fumes		Diesel exhaust particulate (C)
Metallurgical Coal	Noise	Respirable coal dust	Diesel exhaust particulate (C)	Silica (quartz) (C)	
Manganese	Manganese	Noise	Silica (quartz) (C)	Coal tar pitch volatiles (C)	Welding fume
Diamonds & Specialty Products	Noise	Silica fume			
Energy Coal	Noise	Respirable coal dust	Silica (quartz)	Diesel exhaust particulate (C)	Welding fume
Stainless Steel Materials	Noise	Nickel (C)	Diesel exhaust particulate (C)	Sulphur dioxide	Cobalt

Note: Carcinogenic exposures are marked (C).

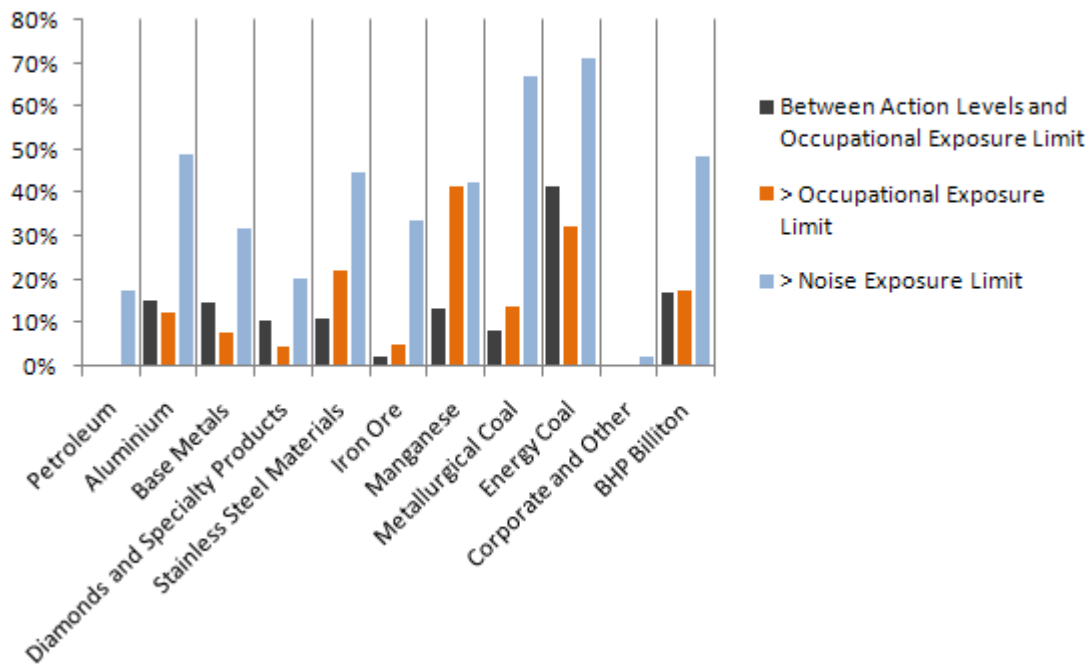
These health exposures are selected on a priority basis of carcinogens; mutagens and agents toxic to reproduction (CMR); and agents that are chronic systemic toxins, and on the number of people exposed. The Petroleum CSG reported no exposures in excess of the occupational exposure limit (OEL). Across the Company, noise is the most prevalent exposure.

In FY2008, the number of employees known to be exposed at a level in excess of the OEL has increased by four per cent over the previous year, if not for the use of PPE. We believe that this is due to improvements in data collection. We also believe that our improved understanding of our occupational exposures will assist us in meeting our target of a 15 per cent reduction in potential employee exposures above occupational exposure limits by 30 June 2012.

The graph below illustrates potential employee exposures to airborne contaminants in excess of the OEL and above the action limit of 50 per cent of the OEL, and to noise above 85 dB(A), if not for the use of PPE, recorded during the reporting period.

## Potential exposures expressed as a percentage of employees \*

\* i.e., would be exposed if not wearing PPE.



At levels above the occupational exposure limits, it is understood that harmful effects on health may eventually occur in a proportion of individuals if they are not adequately protected. With potential exposure above 50 per cent of the occupational exposure limit there is also the possibility of adverse health effects. The reporting of these two categories allows the tracking of our efforts to reduce on-site exposures over time, and consequently reduce the incidence of occupational illness. [Read more](#) about our approach to measurement in exposure management.

We are continuing to support the hygiene industry with the expansion of our Hygienist Graduate Development Program to support new trainees in Africa, Australia and the Americas. Science and engineering graduates are provided with two years mentored experience at sites while undertaking post-graduate study in occupational hygiene. There are four graduates currently employed in Australia and one in South America.

During FY2008, we commenced the implementation of a standardised Company-wide system to managing and reporting health and hygiene data. The system supports the planning and execution of hygiene exposure monitoring programs, risk-based health surveillance linked to the results of the hygiene programs, and reporting of both the hygiene exposure monitoring and health surveillance programs. An epidemiological function allows health outcomes to be linked to hygiene exposures. In addition to facilitating site health and hygiene programs, the system provides the company with a secure data management platform that allows company-wide ease of reporting and management of risk.

## Noise

Noise-induced hearing loss is a significant issue for BHP Billiton. Our measurement of noise-induced hearing loss is based on the U.S. Occupational Safety and Health Administration Standards, which are among the most stringent in the world and are focused on detecting noise-induced hearing loss at the earliest stage.

The completed baseline survey of noise exposure shows that 48 per cent of the workforce is exposed to noise in excess of the company limit of 85 dB(A)(LAeq,8), a reduction of one per cent on 2006/07 results. LAeq is the equivalent sound pressure level (i.e. the steady sound level that, over a specific period of time, would produce the same energy equivalence as the fluctuating sound level actually occurring in the workplace.

A number of projects have been established across the business to address noise. For example, our Iron Ore CSG has established a 'Top Five' noise control project targeting fixed plant, hand tools and pneumatic tools. Projects are prioritised on the number of people exposed, the noise level and the available control opportunities and aim to reduce the number of people exposed to more than 85 dB(A) by 15 per cent by 2012.

## Carcinogens

We continue to investigate ways of controlling and reducing exposure to potential cancer-causing agents. Our reporting focuses particularly on agents that the International Agency for Research on Cancer (IARC) has classified as either Group 1: Carcinogenic to humans or Group 2A: Probably carcinogenic to humans.

Work to control exposure to, and implement a health surveillance program for, sulphuric acid mist (IARC Group 1) is highlighted in the following projects.

### **Acid Mist Control and Recovery System, (Spence Chile)**

The process of electrowinning copper involves passing an electric current through an acidic solution of copper sulphate. While the current plates copper onto the cathode (the product copper cathode), it also creates hydrogen and oxygen that bubble to the surface of the cell. As these bubbles break the surface of the solution, a mist containing sulphuric acid is generated. Through technological improvements, acid mist generated through the electrowinning process is now captured through extractor hoods installed above each electrowinning cell. Vapour is then conducted through pipelines to a scrubber where it is cooled through water sprinklers. The resultant solution is then transferred to refining ponds. The process is fully-automated, reducing the exposure of our people to the process.

### **Acid Mist Health Surveillance (Cerro Colorado, Chile)**

Our Cerro Colorado mine in Chile produces copper cathodes. Workers in the electrowinning cell house are potentially exposed to sulphuric acid mist, which is considered to be carcinogenic to the larynx. There is no strategy anywhere in the literature or from standards in either Chile or the Company for biological sampling of workers exposed. Our Cerro Colorado health team has subsequently determined a strategy for implementing a biological monitoring program for workers exposed to sulphuric acid mist. The program has facilitated the establishment of a baseline of the current state of health of the relevant workers, against which future examinations can be compared. The program consists of:

- Training for workers exposed to acid mist
- Worker survey of respiratory symptoms
- Medical examination for non-specific symptoms
- Examination with ear, nose and throat specialist, including filming of the airways (known as a fiberoptic rhinolaryngoscopy), to check the state of health of each worker's larynx. Original videos are maintained on a digital database.

A personalised report is then prepared for each worker. Worker training is conducted annually and the monitoring process is repeated every two years.

## Physical Agents

We have a target that sites complete exposure surveys for physical agents by 30 June 2010. These agents include:

- Whole-body vibration associated with work in heavy mobile equipment, especially bulldozers.
- Hand-arm vibration from the use of pneumatic hand tools.
- Magnetic and electric fields associated with electro-winning of metals.
- Thermal stress.

Twenty-nine per cent of sites commenced their exposure surveys for physical agents in FY2008.

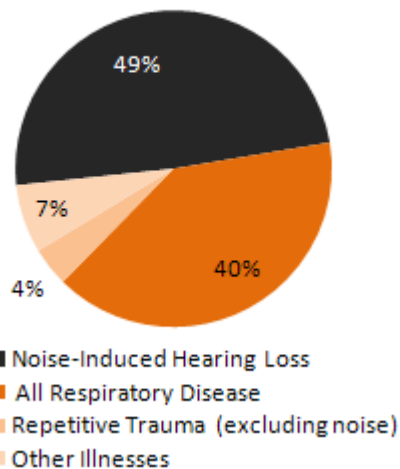
# Occupational Illnesses

An occupational illness is an illness that occurs as a consequence of work-related activities or exposure.

There were 207 cases of new occupational illness in FY2008. This figure includes 103 cases of noise-induced hearing loss, which is a decrease from 156 in FY2007; however, the FY2007 figure was inflated following the adoption by all sites of a common definition for hearing loss that is more stringent than the regulatory definition in some countries. Of the 82 cases of respiratory disease, 67 cases were HIV-related tuberculosis from our South African operations. There were eight cases of repetitive trauma, nine cases of occupational dermatitis and five other illnesses. The attached chart shows the incidence of new cases of occupational disease by CSG.

This is a reduction of 26 per cent on the 2007 base year. The target for the five year period to 2012 is a reduction of 30 per cent in the incidence of occupational illness.

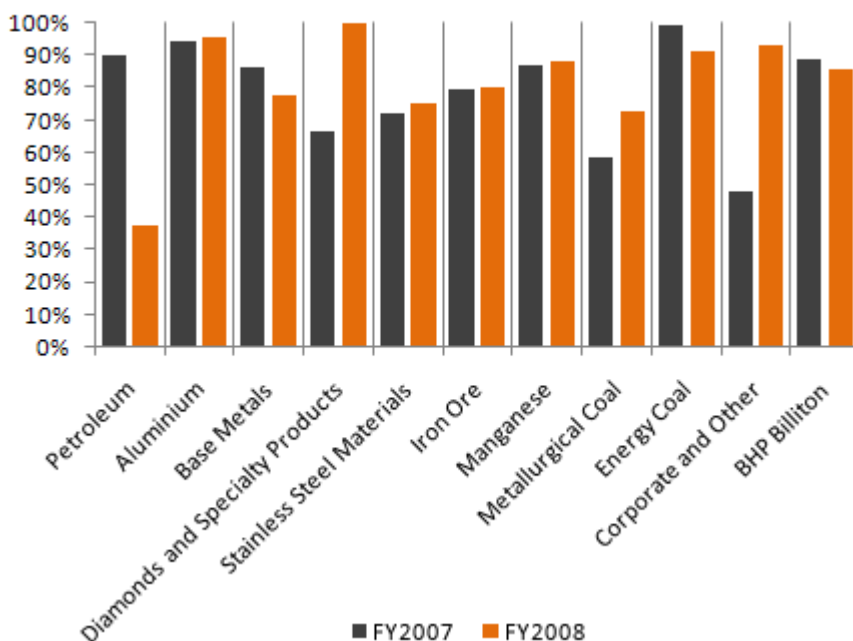
**New Illnesses by Type**  
FY2008



## Medical Surveillance Programs

Medical surveillance programs are established to verify the effectiveness of measures to control exposure and are linked to exposure data established in the hygiene monitoring programs. The following chart shows the percentage of required medical examinations completed within each CSG. Overall 86 per cent of required examinations were completed, a decrease of three per cent from the previous reporting year.

**Employees Completing Medical Examination**  
FY2007 to FY2008



## Fit for Work

In FY2008, our Fit for Work program focused on fatigue management and drug and alcohol programs. Regional workshops were run with site representatives in South America and South Africa.

Since the results of the Global Fatigue and Alertness Technology Project were announced in May 2007, a supply agreement has been established with the manufacturer of Optalert, the identified preferred technology.

There are a number of sites in Australia and South America progressing controlled implementation of the Optalert product.

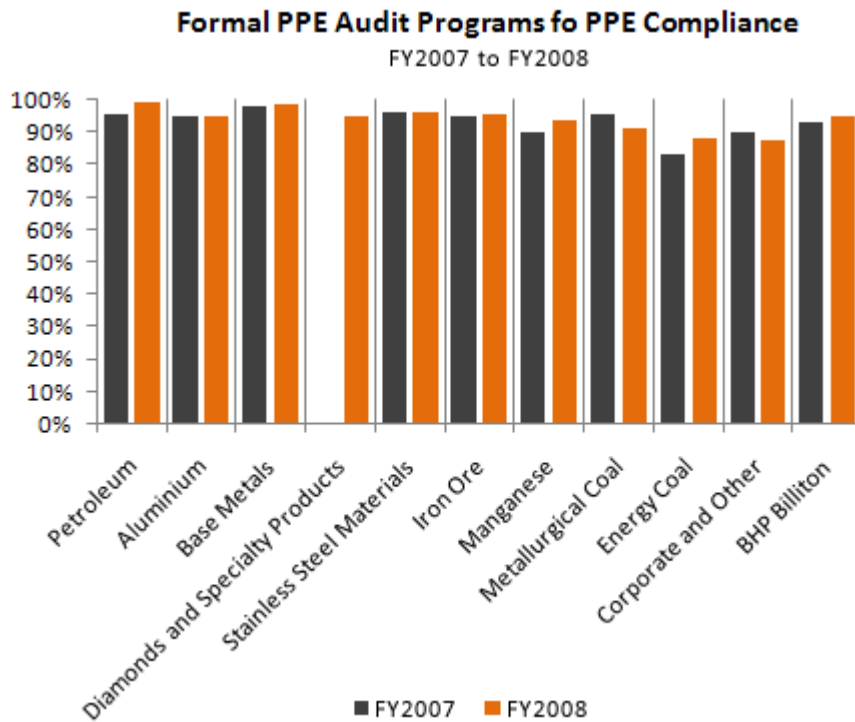
Read more: 2008 Case Study: [Optalert – Cutting Edge Technology To Warn Of Approaching Drowsiness.](#)

# Personal Protective Equipment Compliance

While the elimination of exposure risks is our key driver, often this is not readily possible or feasible, and personal protective equipment (PPE) is used. It is critical that PPE is used effectively and that compliance is checked through a formal program that ensures that not only the correct PPE is available but also that it is properly fitted and maintained.

Compliance with PPE requirements improved by two per cent to 95 per cent in FY2008. The following chart shows compliance with PPE requirements by CSG.

**Note:** The graph only includes data for those sites that have a formal PPE compliance monitoring system. The Diamond and Specialty Products CGS did not report having such a system in FY2008.





# Health Fines

The Company was not subject to any health fines or prosecutions in FY2008.

# Case Studies

The following case studies are examples of issues, initiatives, projects and programs across the Group that highlight some of the health opportunities and challenges faced by our operations. Case studies are also on [safe workplaces](#), [environmental commitment](#), [social responsibility](#), [our people](#) and [our socio-economic contributions](#).

## Making Health And Safety Data Easier To Understand

Raising employee and contractor awareness of potentially hazardous agents in a workplace is critical in moving toward BHP Billiton's aim for Zero Harm work environments. Exposure maps are an effective way to alert personnel to the presence of potentially hazardous substances such as noise, dust, gases and fibres.

## Cutting-Edge Technology To Warn Of Approaching Drowsiness

Australian developed Optalert technology assists in identifying drowsiness.

# Cutting-Edge Technology To Warn Of Approaching Drowsiness

## Challenge

Operator drowsiness or fatigue is a major factor in incidents involving haulage trucks at BHP Billiton's operations. Between July 2004 and June 2007, drowsiness or fatigue contributed to many significant incidents, of which the majority of these involved surface mobile equipment, and, unfortunately, one resulting in a fatality. Addressing operator drowsiness or fatigue is an important element in BHP Billiton's Zero Harm policy.

One of our actions was to evaluate and trial leading technology solutions that detect the early onset of drowsiness, before it becomes a danger to the operator or other personnel. We committed time and resources to research the most appropriate and effective detection technology for use within our industry and operations.

Our research included extensive testing and operator input into the Australian developed Optalert™ technology. While looking like everyday sunglasses, they use built-in infrared technology to measure drowsiness by continuously monitoring the wearer's eyelid and eye movement. When impending drowsiness is detected, often before a driver is aware, the system delivers audio alerts.

After testing at our Mt Keith mine, part of Nickel West operations in Western Australia, Optalert™ technology is being introduced into BHP Billiton Iron Ore's Mt Whaleback mine at Newman, Western Australia.

While not the solution to drowsiness or fatigue, Optalert™ provides another level of protection for our drivers. This system may also provide us the opportunity to assist drivers in addressing, before an incident happens, the underlying problems that are causing drowsiness or fatigue.

## Action

Between February 2006 and June 2007, as part of the BHP Billiton/Caterpillar Fatigue and Alertness Technology Project, the Optalert™ glasses and processor were extensively tested and improved (with operator input). The testing took place at our Mt Keith Nickel operations in Western Australia.

Optalert™ is used in Australia's long-distance road-haul industry and was developed by Dr Murray Johns a world authority in sleep medicine and research. Data from the Optalert™ glasses is transmitted to a computer for processing and assessment. When impending drowsiness is detected a beeping noise and voice message alerts the driver.

Following external validation and as a result of the success of the testing at Mt Keith, we are implementing a change management program to introduce Optalert™ to drivers of six haul trucks, at our Mt Whaleback mine in Western Australia. Some 1000 employees and contractors work at Mt Whaleback – the world's largest single-pit iron-ore mine – operated by the Mt Newman joint venture in which BHP Billiton has an 85 per cent holding.

Anita Burgess, project manager of the change management program for introducing the Optalert™ glasses at Mt Whaleback, observed that 'BHP Billiton is going to great lengths to manage operator drowsiness and fatigue in the workplace and these glasses are providing us with another way of reducing the likelihood of a significant incident happening'.

Michael Farmer, Practice Leader Fatigue Management with BHP Billiton's Health, Safety and Environment group, noted that while Optalert™ is important technology, it is not the solution to drowsiness or fatigue. 'The only solution to reducing fatigue is getting enough sleep. There are many factors that contribute to the onset of drowsiness or fatigue. The glasses provide us with another level of protection for our drivers. They also may give us the opportunity to assist drivers in addressing, before an incident happens, the underlying problems that are causing drowsiness or



Optalert™ Sensor glasses.

fatigue.'

## Future

BHP Billiton's Base Metals' Spence and Escondida operations in Chile are looking to introduce the system through a similar program to drivers of their fleets during 2009. Other BHP Billiton operations are considering this technology and other mining companies are showing interest in the results of our research in relation to this technology.

# Making Health And Safety Data Easier To Understand

## Challenge

Raising employee and contractor awareness of potentially hazardous agents in a workplace is critical in moving toward BHP Billiton's aim for Zero Harm work environments. Nickel West, BHP Billiton's 100 per cent owned nickel and cobalt producer, has developed exposure maps as a highly effective way to alert personnel to the presence of potentially hazardous substances such as noise, dust, gases and fibres.

Exposure maps provide visual representation of data on potentially hazardous agents – using colour-coded areas on maps of a site, facility or building. The maps provide personnel with an indicator of potential exposure and where controls are required to guard against exposure.



A sample of a noise exposure map.

While exposure data is available to personnel and is used in talks and presentations, exposure maps provide a simple, effective, everyday, at-the-source indicator of potential hazards. The maps help to reinforce the need for personnel to abide by control measures, such as wearing hearing or respiratory protection. The maps are also encouraging debate among personnel in relation to measures to control or reduce their exposure to such hazards.

The pilot program, developed by Nickel West at its Leinster Nickel Operations, was such a success that the exposure map program was rolled out to the other five Nickel West sites in Western Australia.

## Program

Nickel West, the world's third-largest producer of nickel-in-concentrate, provides 16 per cent of global nickel-in-concentrate production. The Leinster Nickel Operation, where the exposure map program was piloted, is 645 kilometres north east of Perth. The operation includes the Perseverance underground mine, satellite deposits, and a nickel concentrator and dryer. Concentrate, produced at Leinster and the nearby Mount Keith Operation, is dried at Leinster then transported to Nickel West's Kalgoorlie Nickel Smelter. The operation produces 35,000 to 40,000 tonnes of nickel-in-concentrate annually.

The challenge in developing effective exposure maps is turning tables of statistical data into information that is immediately understood by all site personnel.

Our site hygiene programs ensure hazardous agents including noise, dust, gases and fibres are identified as potential concerns and managed appropriately. Once identified, we establish a quantitative sampling program that collects personal samples from individuals exposed to an agent. We collate sampling program results in a database and enter the information into a specific statistical analysis tool that predicts, from the workers sampled, the potential exposure to their wider work group. We use the results from this analysis to populate our exposure maps.

A graphic design company created a stylised site map for our Leinster site. A hygienist then took information from the data analysis and coloured areas on the map to represent a low, medium, or high exposure risk. We use green, orange and red, respectively.

The completed maps are printed as large posters for indoor or outdoor mounting. Smaller maps are placed in entry halls or prominent locations within buildings, and outdoor maps are mounted near plant or site entries.

Our personnel have commented on how good it is to see this information presented so clearly. While personnel are generally aware of noise and can see that it might be harmful, their biggest realisation relates to potential exposures to hazards that they are not able to always immediately detect themselves – such as gases or dust.

The exposure map program is also encouraging personnel to ask what can be done to control or reduce exposure. Such engagement will help in implementing controls and we have begun a specific exposure reduction project at Leinster.

The project cost approximately A\$5,000 per site including design, artwork and printing. We see this as a small cost that provides excellent value-for-money in helping to raise awareness of potential exposure. Awareness that will over time, hopefully, help to reduce exposure and so reduce the likelihood of disease or illness.

## Future

Now that we have the exposure maps created and in place for the existing operating Nickel West sites, we are now working with our team at Ravensthorpe to gather the information needed to create exposure maps for that site.

The occupational hygiene program at each of the sites will continue to identify and assess potential exposures to the workforce. We will regularly update the maps to reflect improvements in conditions that have resulted from efforts at sites to improve the working environment by reducing dust, noise, gases for fibres from being generated or becoming airborne.

# Safe Workplaces - Our Approach

The safety of our employees, contractors and the communities in which we operate is an integral part of our business. Our goal is Zero Harm.

We seek to create a mindset and an environment where people believe it is possible to work injury free – regardless of where they are in the world, what role they undertake, or in which business they work.

Our approach to safety is incorporated in our [Charter](#), which states that we have an 'overriding commitment to health, safety, environmental responsibility and sustainable development' and our Sustainable Development Policy, which states that we will:

- Ensure we will not compromise our safety values
- Identify, assess and manage risks to employees, contractors, the environment and our host communities.

These commitments are reflected in our Company-wide [safety targets](#).

Across the organisation we manage safety through our risk-based [HSEC Management Standards](#) (PDF 148 KB). Our line managers are accountable for the implementation of these Standards and responsible for ensuring that supporting systems and procedures are in place.

In seeking to achieve Zero Harm we have learnt that:

- Low injury frequency rates do not mean low fatality rates – we cannot and should not draw any comfort from low injury rates in terms of our capacity to eliminate fatalities.
- Injury reduction programs alone will not prevent fatalities – a complementary, focused effort is required on fatal risk. The [Fatal Risk Control Protocols](#) form an integral part of this focused effort.
- Our fatalities often have similar underlying causes.
- High near miss reporting often correlates with declining injuries or fatalities – our ability to take heed of the signals from near miss events is crucial to our efforts in eliminating fatalities.
- Leadership visibility in the field is vital – our current state of safety maturity relies heavily on leadership energy to deliver improved performance.
- Effective contractor management is essential.
- Hazard identification and risk awareness are fundamental to success.
- It is essential to have the right equipment in good condition, the right work processes that are understood by each individual and the right behaviours to do every job safely.

Our safety focus areas are:

- [Leadership, Behaviour and Awareness](#)
- [Fatal Risk Control Protocols](#)
- [Safety Indicators](#)
- [Safety Incident Reporting](#).

See a summary of our [safety performance](#) for the year ended 30 June 2007.

# Fatal Risk Control Protocols

The [Fatal Risk Control Protocols \(FRCPs\) \(PDF 1.1 MB\)](#) establish minimum performance expectations for managing potential fatal risks associated with the following activities commonly conducted at BHP Billiton operations:

- Light vehicle use
- Surface mobile equipment use
- Underground mobile equipment use
- Underground ground control
- Hazardous materials management
- Molten materials management
- Equipment safeguarding
- Isolation
- Working at heights
- Lifting operations.

The FRCPs were developed after a rigorous, internal analysis of past fatalities and significant incidents, and are regularly reviewed. The FRCPs do not, however, cover all risks faced by our operations. The [HSEC Management Standards \(PDF 148 KB\)](#), and in particular Standard 3: Risk and Change Management, provide the framework for managing such other risks.

BHP Billiton has introduced a number of initiatives to support the improvement in implementation of the FRCPs. These include:

- An online assessment and tracking tool
- A dedicated intranet site and Community of Practice for each FRCP
- Dedicated global facilitators to represent each FRCP
- Guidelines on effective implementation
- An online leading-practice library.

For details on the implementation of the FRCPs, see [Fatal Risk Control Protocols](#).



# Leadership, Behaviour and Awareness

Everyone's behaviour contributes to an injury-free workplace. Leadership, in particular, can have a powerful impact on the transition to an interdependent safety culture. The journey towards Zero Harm requires strong leadership, the involvement of all employees and the need to develop a genuine and active approach to caring for all employees, contractors, communities and the environment.

## Safety Leadership

Our approach to safety is based on management being accountable for the safety culture and performance of their business, the implementation of the [Sustainable Development Policy \(PDF 28 KB\)](#) and meeting the performance requirement of the [HSEC Management Standards \(PDF 148 KB\)](#). The BHP Billiton Leadership Model provides guidelines on what it takes to be a BHP Billiton leader. It is designed with a mix of core attributes, behaviours and leadership styles that we look to our leaders to demonstrate, identify and develop in others, and to reward. The Leadership Model is also directly tied to our HSEC strategy and standards.

Effective safety leadership is a prerequisite for promotion. Managers at all levels – from executive to front-line management – are accountable for safety and managers are expected to lead by example by demonstrating a visible commitment to safety behaviour and awareness, and making every effort to engage employees and contractors in embedding safe behaviour throughout all operations and activities. In 2007/08 the allocation for HSEC performance incentives in employee scorecards was primarily directed to fatality performance.

## Safety Behaviour And Awareness

A variety of workplace interactions, observations and audits are implemented to encourage all employees to think and act safely. Three components critical to improving employees' awareness of their safety behaviour are:

- Safety contacts – everyday discussions and interactions about improving safety in the workplace. They occur at all levels of the organisation.
- Safety observations – people observe each other to identify good practices, as well as unintentional at-risk behaviours, hazards and situations. The greatest benefit of safety observations is the discussion that takes place following the observation, where employees reinforce the safe activities and identify better ways of controlling the associated hazards.
- Critical task observations – critical tasks are observed against the standards in place to ensure they are understood, valid, reliable and followed.

Beyond the three components, to confirm the effectiveness of the employee awareness processes, we also conduct:

- Workplace condition audits
- Themed audits
- Management systems audits.

# Safety Indicators

BHP Billiton uses a mix of both leading and lagging indicators to measure overall safety effectiveness and performance.

Leading indicators are designed to drive and measure critical safety activities. When measured and monitored effectively, the data from the leading indicators enables effective intervention to address or reverse a negative trend before it results in injury, damage or loss.

Lagging indicators, such as injury statistics, provide an overall estimate of the progress required to achieve our vision of Zero Harm, but they do not measure the effective implementation of safety programs, proactive action plans and preventive activities in place.

If lagging indicators are used as the only index of safety achievement (or failure), they can do more harm than good, as people are not empowered to take control of safety and to develop an effective organisational safety climate.

The use of leading indicators at individual and department levels reinforces personal involvement and improves the perceptions that individuals and work teams have about their ability to control and manage injuries. Key to this has been the introduction of [Safety Incident Reporting](#).

Examples of Leading Indicators used by BHP Billiton:

- Field visits conducted and time spent in the field
- Contacts/Observations/audits/inspections conducted versus planned
- Implementation of Fatal Risk Control Protocols
- Implementation of action plans resulting from HSEC audit findings
- Number of near misses reported
- Number of repeat incidents
- Percentage of Job Safety Analyses completed for critical activities
- Percentage of significant incidents reviewed and closed out
- Percentage of hazards rectified
- Ratio of near misses to accidents reported
- Hierarchy of controls.

# Safety Incident Reporting

Fundamental to achieving Zero Harm is our ability to take the lessons learnt from past safety incidents and apply them as corrective interventions before the same underlying causes manifest as more serious incidents. We, therefore, encourage the reporting of near miss and significant incidents (i.e. a close call event).

Through analysis of our reported near miss and incident data, we generate the following alerts across the organisation:

- Repeat Significant Incident Alerts – issued when a trend of similar incidents, whether internal or external to BHP Billiton, is identified.
- Zero Barrier Incident Alerts – issued after a close call event where all preventive barriers were breached. Such incidents represent our most critical learnings and our ability to take heed of the signals from these is crucial to our efforts in eliminating injuries and fatalities.

Each alert is distributed across BHP Billiton and provides a summary of the event/s and learnings, contains links to further information, and acts as a catalyst for safety toolbox talks that help to foster greater safety awareness by everyone in the workplace.

Read more: [Injury Frequency Rates](#).

# 2008 Performance



## Fatalities

We suffered 11 fatalities during FY2008 and we remain determined to eliminate further fatalities from occurring. [Find out more.](#)

## Injury Frequency Rates

In FY2008, our total recordable injury frequency rate was the lowest recorded. [Find out more.](#)

## Safety Fines

In FY2008 we did not meet our goal of zero fines or prosecutions. [Find out more.](#)

## Fatal Risk Control Protocols

We continue to focus on ensuring compliance with our Fatal Risk Control Protocols. [Find out more.](#)

## Safety Case Studies

Our case studies represent issues, initiatives, projects and programs from across the Company. [Find out more.](#)

# Fatalities

We suffered eleven fatalities in seven separate incidents at our controlled operations during the year to 30 June 2008. Each of these incidents has been thoroughly investigated and analysed utilising our Incident Cause Analysis Method (ICAM), and with the exception of those still under legal privilege, lessons learned from these incidents have been communicated across the Company.

## Fatalities at Controlled Operations FY2008

Date of Incident	Site/Country/CSG	Nature of Incident
11 October 2007	Pinto Valley, USA, Base Metals	A contractor was found at the base of an off-road water truck with a trauma to the head that appeared to have been caused by a fall.
12 November 2007	New Mexico Coal, USA, Energy Coal	An employee was injured and subsequently died after being struck by a conveyor tail assembly.
16 November 2007	Alto Cuilo, Angola, Diamonds and Specialty Products	Two employees and three contractors were fatally injured when the helicopter transporting them to the Alto Cuilo site crashed.
12 December 2007	Olympic Dam, Australia, Base Metals	An employee was fatally injured when struck by a falling object.
22 December 2007	Middelburg Mines, South Africa, Energy Coal	An employee conducting shunting operations was fatally struck from behind by a train wagon.
17 January 2008	Cannington silver, lead, and zinc mine, Australia, Base Metals	A contractor was fatally injured when caught between two vehicles underground.
15 April 2008	Khutala Colliery, South Africa, Energy Coal	An employee was fatally injured by a rock dislodged from the roof of an underground mine.

Fatalities occurring after the FY2008 reporting period are disclosed on our [website](#).

We remain determined to eliminate fatalities from our organisation. While the Company remains steadfast in its belief that its systems and procedures are correct, it was acknowledged that an action plan was needed to ensure that safety was at the forefront of the mind of every manager, supervisor, employee and contractor.

A key component of the plan was the initiative to hold BHP Billiton's inaugural Safety Week during January 2008. Safety Week was launched by Chief Executive Officer Marius Kloppers, who urged BHP Billiton employees and contractors to think deeply about safety behaviours and the tragic consequences of safety failures.

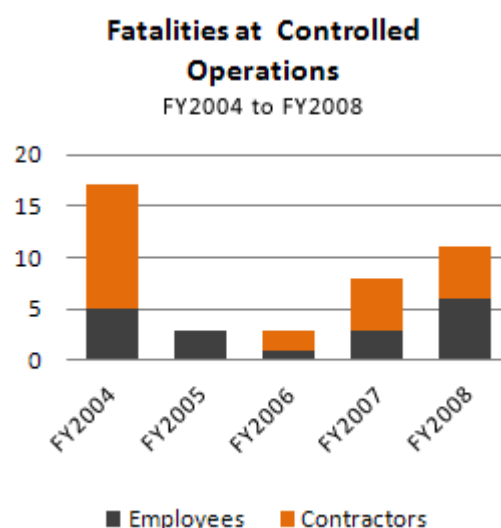
Each Customer Sector Group was responsible for planning its activities with only two set requirements: that Customer Sector Group executive management and Group Functional Heads personally lead a three-hour discussion with their supervisors and managers, and that this include actions and learnings from the tragic events.

Key learnings from Safety Week included:

- Safety leadership starts with good leadership
- Consistent Company-wide Health Safety Environment and Community (HSEC) Standards are imperative but, in isolation, will not lead to a safe workplace. Good safety depends on each site identifying its key risks and then acting to ensure that all employees and contractors are keenly alert to such risks and to their role in minimising these risks in accordance with our aspiration to Zero Harm
- Safety communications should be a mix of data and actions that demonstrate a personal commitment to safety.

Going forward, Safety Week will become part of BHP Billiton's annual calendar of events.

Read more: [2008 Case Study - Safety Week: Bringing Safety To The Forefront](#)



# Injury Frequency Rates

In order to better understand workplace incidents we report all injuries. The metric we track is the Total Recordable Injury Frequency Rate (TRIFR), which is the total number of injuries resulting in lost time, restricted work duties or medical treatment per million work hours.

In FY2008, our TRIFR 12-month moving average was 5.9, which is the lowest recorded and is approximately 22 per cent below that recorded in 2006/07 (7.4).

When benchmarking our performance against that of the International Council of Metals and Minerals (ICMM), this rate is below the average of our peers; we, however, take no comfort from this and our goal remains Zero Harm.

We have a target of a 50 per cent reduction in TRIFR by 30 June 2012 and we believe we are on track to achieve this.

We also track and measure the severity injury rate, being the total number of calendar days lost to injury per millions work hours. In FY2008, this rate reduced by some 20 per cent when compared to FY2007.

For more on our approach to safety indicators, see [Safety Indicators](#).

## Significant Incident and Near Miss Reporting

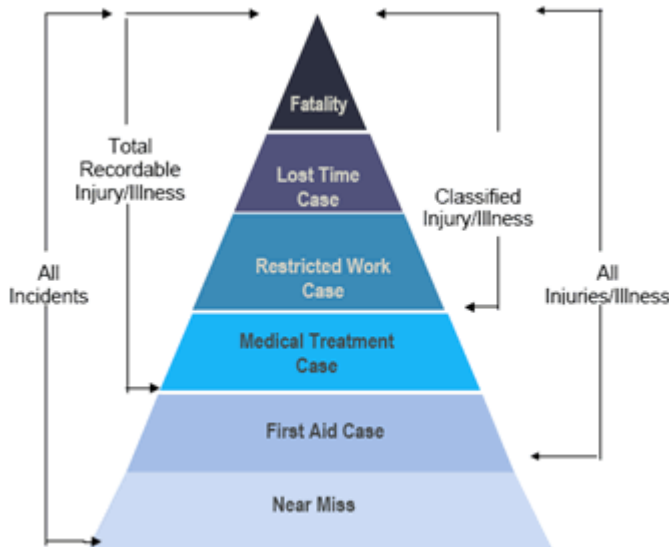
We encourage the reporting of near miss and significant incidents, as our ability to learn from these events and apply corrective interventions before the same underlying causes manifest as more serious events is a key to supporting our efforts to eliminate injuries and fatalities. During the reporting period, we detected some inconsistencies between the databases that record the near miss and significant incidents; for this reason, we have not reported specific numbers on this data for FY2008. However, this data has been valuable in facilitating analysis of key safety exposures.

From this analysis, we generate Company-wide alerts:

- Repeat Significant Incident Alerts that identify trends of common causes for similar incidents
- Zero Barrier Incident Alerts that signal where all preventive barriers were breached.

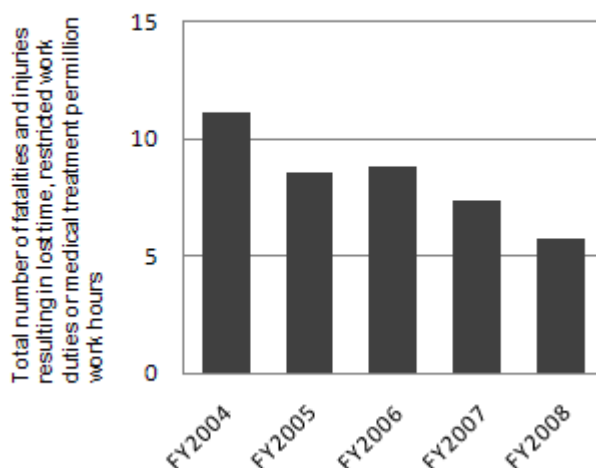
Each alert summarises the incidents, what is to be learnt and links to further information.

Analysis of significant incidents, including fatalities, against our Fatal Risk Control Protocols categories indicates that the key exposures and areas for improvement remain surface mobile equipment, isolation and working at heights.



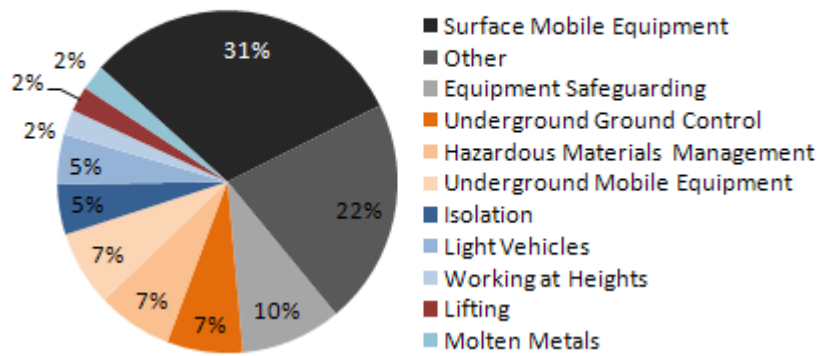
### Total Recordable Injury Frequency Rate

FY2004 to FY2008



## Fatalities By Fatal Risk Control Protocol Categories

FY2004 to FY2008



## Catastrophic Risk Management

During FY2008, we continued work to improve our management of catastrophic risk.

Catastrophic risk management seeks to identify, assess and manage potential risks that could result in multiple fatalities and/or damage to property, infrastructure or fixed plant that would lead to significant disruption to, or stop, our operations.

By 30 June 2008, four sites had piloted and tested a revised method for catastrophic risk management. Going forward, the method will be finalised in a procedure and incorporated into our Group-Level documentation.

# Safety Fines

This year, we did not meet our goal of zero safety fines or prosecutions. The table below outlines the safety fines for this period. Note: Fines reported may relate to incidents occurring in previous years.

## Safety Fines FY2008

Site	Customer Sector Group	Description	Fine (US\$)
Escondida Bioleach Pad Extension II - BBM	Base Metals	Delay in reporting truck rollover to the authorities.	8,160
Pinto Valley Operations - BBM	Base Metals	68 Safety fines.	15,422
Leinster Operations - SSM - LNO	Satainless Steel Materials	September 2007 - BHP Billiton Nickel West was fined A\$50,000 in relation to a Department of Consumer and Employment Protection prosecution arising from a fatal accident at the Perseverance Nickel Mine on 3 February 2006.	43,030
Navajo Coal Company - NMC	Energy Coal	A total of 31 safety fines occurred during the reporting period.	104,636
San Juan Coal Company - NMC	Energy Coal	A total of 77 safety fines occurred during the reporting period.	46,402
<b>Total</b>			<b>217,650</b>



# Fatal Risk Control Protocols - Performance

In the current reporting year, we continued our focus on ensuring compliance with the [Fatal Risk Control Protocols \(FRCPs\)](#).

All sites are required to conduct annual self-assessments against the FRCPs requirements. As a means of verifying this activity, some 16 sites (representing approximately 20 per cent of controlled sites) were selected in FY2008 for a self-assessment verification audit. Verification was conducted by our Global FRCP facilitators and provided sites with clear direction on where to focus their efforts so as to achieve compliance.

To further assist in addressing safety risks associated with light vehicles, the Company will require that all light vehicles are fitted with In Vehicle Monitoring Systems (IVMS). This is expected to take approximately two years to implement.

IVMS is designed to provide data on vehicle usage, tracking, speed and driver behaviour. The IVMS device is typically fitted under the vehicle dash board. Transportable units are available and can be fitted beneath a vehicle seat. Journey data is transmitted to data management system in a central location for analysis and feedback to both management and drivers.

Read more: 2008 Case Study: [Optalert: Cutting-Edge Technology To Warn Of Approaching Drowsiness](#).

# Case Studies

The following case studies are examples of issues, initiatives, projects and programs across the Group that highlight some of the safety opportunities and challenges faced by our operations. Case studies are also on [healthy people](#), [environmental commitment](#), [social responsibility](#), [our people](#) and [our socio-economic contributions](#).

## Safety Week - Bringing Safety To The Forefront

BHP Billiton's inaugural Safety Week was held in January 2008. Launched by Chief Executive Officer, Marius Kloppers, Safety Week included a range of activities designed to ensure that safety is at the forefront of the mind of every manager, supervisor, employee and contractor.

## Innovation To Improve Safety When Replacing Dragline Ropes

Replacing the uncontrolled movement of a 300 kilogram steel weight with the controlled movement of a jack, has made wedge removal safer a more controlled exercise.

## Applying Technology To Make Handling Molten Metal Safer And More Efficient

A remotely controlled robot, now used at our Kalgoorlie Nickel Smelter has removed personnel from a potentially hazardous environment.

## Remote Bulldozer Operation Enhances Operator Safety

Improving bulldozer operator safety by implementing technology to allow bulldozers to be operated, on stockpiles, remotely.

# Safety Week - Bringing Safety To The Forefront

## Challenge

While every workplace fatality is unacceptable, the tragic consequences of safety failure were never more apparent than during the months of October and November 2007 with the death of seven of our employees and contractors in three separate incidents.

As Chief Executive Officer, Marius Kloppers, emphatically said when addressing the 2007 Annual General Meeting, 'Nothing matters more to us than ensuring everyone - be they our 40 000 employees or our 60 000 contractors - goes home safely every day. Until we eliminate every fatality and significant incident, we cannot be truly successful on our journey to Zero Harm. Nothing is more important.'

While the Company remains steadfast in its belief that its systems and procedures are correct, an action plan was needed to ensure that safety was at the forefront of the mind of every manager, supervisor, employee and contractor. A key component of the plan was the initiative to hold BHP Billiton's inaugural Safety Week during January 2008.



## Program

Safety Week was launched by Chief Executive Officer Marius Kloppers, who urged BHP Billiton employees and contractors to think deeply about safety behaviours and the tragic consequences of safety failures.

Each Customer Sector Group was responsible for planning its activities with only two set requirements: that Customer Sector Group executive management and Group Functional Heads personally lead a three hour discussion with their supervisors and managers and that this include actions and learnings from the tragic events.

'Front-line supervisors are the key link between management and the workforce; it is also where the 'rubber meets the road' – the most important point – for administering safety programs,' Mr Kloppers said.

Safety Week sessions typically included an opening message from the Chief Executive Officer and Customer Sector Group President which was followed by a review of recent safety performance and related organisational learnings. Discussion then occurred around the key questions:

- How do we know that our operations are complying with BHP Billiton's Zero Harm policies?
- What can we do to improve safety performance?

The focus was on 'what can I as an individual do' as much as what the organisation can do better. To bring the personal consequences of safety failures into sharper focus, there were also personal accounts from victims of significant incident, including a moving account at a session in BHP Billiton's head office by Mandie Eibl, the widow of Karl Eibl who died as a result of an accident at our Olympic Dam operation (Australia) in 2005, of what happens to a family after the death of a loved one.

As noted by the CEO in feedback to employees, the week was an opportunity for everyone to step away from their day-to-day jobs and have a structured discussion about how safety can be improved. "A large part of the success was the involvement of many layers of management in meetings and the opportunity this presented for those at an operational level to voice their views,' Mr Kloppers said.

To further reinforce the importance of taking personal responsibility for safety, all employees and contractors were asked to submit suggestions on improving safety performance. Numerous suggestions were received, covering the spectrum of how to improve the identification of risks, employing engineering and processes to remove or reduce the risks, and actions focussed on changing safety behaviour.

## Key learnings from Safety Week

- Good safety starts with good leadership.
- Consistent Group-wide Health Safety Environment and Community (HSEC) standards are imperative but in isolation will not lead to a safe workplace. Good safety depends on each site identifying its key risks and then acting to ensure that all employees and contractors are keenly alert to such risks and to their role in minimising these risks in accordance with our aspiration to Zero Harm.
- Safety communications tend to be too data-focussed; strong consideration should be given also to actions that demonstrate a personal commitment to safety.

## Results and future

Going forward, Safety Week will become part of BHP Billiton's annual calendar of events. Recognising the fundamental importance of acting on the things that have been learned, our 2009 Safety Week will commence with a report back by each site and function on how the items raised in 2008 have been addressed.

The Group-wide HSEC function has been tasked with verifying the manual self-assessments undertaken by sites on the implementation of HSEC Management Standards and Fatal Risk Control Protocols, with simplifying documentation requirements and with improving safety communications.

# Remote Bulldozer Operation Enhances Operator Safety

## Challenge

Across the globe, bulldozers working on ore stockpiles within the mining industry expose their operators to major safety challenges. Poor visibility, unstable ground and material falling from conveyors have led to numerous injuries and fatalities among bulldozer operators.

The Escondida mine in Chile, which is the world's largest copper producer, has addressed this safety challenge by implementing technology to allow bulldozers to be operated remotely. Such innovation protects personnel from the dangers involved in operating bulldozers within stockpiles, while continuing to provide the benefits to mine operation of using such machinery.

## Action

Located in the Atacama Desert in Northern Chile, Minera Escondida produces copper from two open-pit mines, one at Escondida and the other five kilometres away at Escondida Norte. BHP Billiton holds a 57.5 per cent interest in Minera Escondida.

Annually, the mine moves some 400 million tonnes of material to ensure a continuous flow of ore to its concentrators at Laguna Seca and Los Colorados, oxide and sulphide leaching facilities. Three stockpiles support ore feed to the plants with bulldozers used to move material within these stockpiles to ensure a continuous supply of feedstock to the plants. Using bulldozers within stockpiles has strong positive impacts on plant performance by eliminating prolonged interruption to feedstock supply and so maximising the volume of ore processed and economic benefits from that processing.

During 2006, the global mining industry experienced several fatal accidents involving bulldozers operating on stockpiles. Between 2001 and 2006, there were several incidents involving bulldozers on the Escondida stockpiles. In an incident in March 2006, where the operator eventually escaped with minor injuries, one of our bulldozers was buried for five hours.

Our challenge was to develop an approach that allowed us to continue to gain the economic benefits of operating bulldozers within our stockpiles while reducing risk to the safety of our operators.

Analysis showed that the only sure way of addressing such risk was to remove the bulldozer operators from their cabs. We would need to have them operate their machines from a safe, remote, location. The steps to achieving remote operation included:

- Evaluating past accidents
- Working with companies that supply remote operation technology
- Undertaking pilot tests
- Training the operators to use remote control equipment
- Implementing the new operating method

The project involved adapting state-of-the-art technology used in other mining processes and applying it to bulldozers operating within ore stockpiles. Challenges included sourcing the best equipment for our needs, ensuring it was appropriate to our conditions and operation and that it could be adapted effectively, and then training our operators in a new way of working.

We undertook our first site test and completed equipment installation in early 2007 and, after operator training, began full operation in mid 2007. The remote control bulldozers have performed well, assisting us in maintaining operational continuity and improving safety.



A remote controlled bulldozer at our Escondida mine in Chile.

## Future

Implementing remote operation for bulldozers within ore stockpiles at Escondida is another example of our commitment to the safety of those who work in our company. We believe the technology we have selected represents leading practice, is sustainable and can be supported globally. There is potential to apply this technology in other operations where operating a bulldozer involves a safety risk to the operator. Potential situations where the technology could be used include operations on unstable or soggy ground, or on drilling platforms with limited access.

# Innovation To Improve Safety When Replacing Dragline Ropes

## Challenge

Peak Downs Mine, in Central Queensland's Bowen Basin, Australia, operates six large draglines that remove overburden, or waste rock, to uncover coal seams. Each dragline uses wire hoist, dump and drag ropes to control a massive suspended bucket, which when full, can weigh up to 130 tonnes. As the control ropes age and wear they need replacing, historically a task with a high risk to the safety of personnel involved.

To make replacing wire ropes on the draglines safer and easier, a team of mine employees, in conjunction with Zemek Engineering, developed an innovative concept – the Centre Line Socket Safety System.

The system's safety benefits were recognised with the Judges' Award and the People's Choice Award at the 2007 Queensland Mining Industry Safety Innovation Awards.



The Centre Line Socket Safety System permits quick and safe removal of rope wedges from dragline hoist, dump and drag sockets.

## Action

Located near Moranbah in Central Queensland, BHP Billiton Mitsubishi Alliance's (BMA) Peak Downs Mine is a large open-cut operation that produces up to nine million tonnes of high-quality hard coking coal each year. BHP Billiton has a 50 per cent shareholding in the Alliance.

The risk in replacing the wire ropes is in removing the wedge holding the ropes from its socket. During operation, the wedge is locked into place by more than 100 tonnes of rope force.

Traditionally, removing a wedge involves swinging a massive 300 kilogram steel weight, suspended from a mobile crane, to hammer out the wedge, a potentially hazardous task involving up to five people.

The Centre Line Socket Safety System uses a small hydraulic jack, on the centre section of the socket, to release the wedge quickly and safely. The redesign involved reviewing the traditional wedge and socket configuration, and building a special oval-shaped hydraulic ram placed on the centre-line of the wedge and socket, to deliver the force required to dislodge the wedge and release the ropes.

Replacing the uncontrolled movement of a 300 kilogram steel weight with the controlled movement of a jack, has made wedge removal safer and a more controlled exercise. The new system involves only three people.

Implementing the system included developing a specific task-related training program, fitting and removal procedures, and training for dragline personnel.

## Future

The Centre Line Socket Safety System could reduce hazards involved in similar maintenance activities in mining operations around the world. The project has been rolled out to three BMA sites, as well as Xstrata Coal and Anglo Coal operations. Peak Downs Mine is working with a manufacturer to make the system available commercially.

# Applying Technology To Make Handling Molten Metal Safer And More Efficient

## Challenge

Our Kalgoorlie Nickel Smelter, Western Australia, produces granulated nickel matte from dry nickel-in concentrate. Granulating nickel matte involves gantry cranes moving pots containing some 10 tonnes of the molten metal to tilting stations where the nickel matte is poured through jets of water. The combination of molten metal and water leads to a granular product, known as granulated Ni matte.

As the pots of molten metal are craned to the tilting station, the metal begins to cool and a crust forms across its surface. During pouring, parts of the crust can break away, interrupting the metal flow and, potentially, lead to an explosion of steam that could result in severe injury and damage to the plant.

Traditionally, our personnel used long paddles to control the crust during pouring and so prevent an explosion. The task required operators to wear layers of protective clothing and to work in an 'extreme' environment.

At our Kalgoorlie Nickel Smelter we applied remote-control technology from the automotive industry, to control the crust and so removed our personnel from the vicinity of the tilting stations. We now operate crust-controlling robots from a remote position, away from the extreme environment and potential danger from steam explosions.



Remotely operated robot used to manage the presence of a crust.

## Action

The Kalgoorlie Nickel Smelter, which is part of Nickel West, is just south of Kalgoorlie and some 600 kilometres east of Perth, Western Australia. Annually, the smelter produces 100,000 to 110,000 tonnes of Ni in granulated nickel matte, containing about 68 per cent nickel, two-to-three per cent copper and one per cent cobalt. The granules are transported to Nickel West's Kwinana Nickel Refinery, some 40 kilometres south of Perth, where it is further processed to produce premium nickel briquettes and nickel powder. Kwinana is the world's third largest producer of refined nickel.

In the latter half of 2006, our project and production people at Kalgoorlie Nickel Smelter began work on the Automatic Crust Manipulation project. Part of the smelter's continuous improvement program, the project looked at ways to separate personnel from, and minimise the hazards associated with, direct interaction with molten material. The initial aim was to apply remote-control technology – from automotive assembly lines – to replace long-handled paddles used to control crust formation on pots of molten metal at the tilting station.

After appointing a specialist contractor, our people worked with the contractor on the project. Several variable factors contribute to the shape, size and thickness of a crust; therefore our original aim was to develop a manually-operated robotic system. The paddle-replacing robot was to be operated from close to the pot tilting station, with the operator still required to wear protective clothing.

During on-site installation and commissioning of the robot, the team identified a further opportunity to apply additional automation to produce a fully automated robotic system. Full automation has allowed us to remove the operator from the pot tilting station and any potential contact with molten material. Crust control is now achieved from a remote, climate-controlled area, reducing the potential for injury in the event of an uncontrolled molten material explosion.



Operator's cabin from which the robot can be remotely controlled.



To our knowledge, this is the first time technology associated with car assembly lines was employed in a system to handle molten materials.

In addition to eliminating the need for our personnel controlling crust formation to rely on protective clothing for their safety we have provided a more comfortable work environment.

The automatic crust manipulation project has also resulted in increased productivity with an approximate 12 per cent decrease in our granulation cycle time.

## Future

The concepts behind the automatic crust manipulation system developed for our pot tilting stations at our Kalgoorlie Nickel Smelter, could, potentially be applied to an operation where solids or slag need to be removed from the surface of molten material. We have been contacted by another Australian smelter seeking information on this project.

# Environmental Commitment - Our Approach

## Global Context

We own and operate a diverse range of businesses in different countries and ecosystems around the world. These businesses, by their nature, have the potential to affect the environment. This can occur in a variety of ways, including:

- Emissions of gases and particulates, such as carbon dioxide and oxides of sulphur and nitrogen, associated with combustion and smelting processes; methane from exposed coal seams, fluorides from aluminium smelting; and particulates from ore handling
- Consumption of water and impacts on water quality as a result of salinity or acid rock drainage or from the handling, use and production of hazardous materials
- Impacts on land associated with land disturbance, land-use changes and habitat removal
- Alterations to biodiversity within terrestrial, fresh water and marine environments, either directly or indirectly as a result of our operations
- Indirect impacts encompassing any of the above as a result of the products and services we purchase, lease or provide.

## Policy, Targets and Management Systems

Our approach to environmental management is incorporated in our [Charter](#), which states that we have 'an overriding commitment to health, safety, environmental responsibility and sustainable development', and our [Sustainable Development Policy](#) (PDF 28 KB), which states that we will:

- Strive to achieve leading industry practice.
- Meet or, where less stringent than our standards, exceed applicable legal and other requirements.
- Set and achieve targets that promote efficient use of resources and include reducing and preventing pollution.
- Enhance biodiversity protection by assessing and considering ecological values and land use in our activities.

Our commitment to reducing greenhouse gas emissions is expressed in our Climate Change Policy, and our Policy commitments are reflected in our Company-wide [environmental targets](#).

Our operational sites are required to have an environmental management system certified to ISO 14001. While we generally do not require certification at exploration and development projects, sites being divested, closed sites or corporate offices, a number of these sites have chosen to seek certification.

Our [HSEC Management Standards](#) (PDF 148 KB) form the basis for our management systems and cover the entire life cycle of operations, including exploration, project development, operations, decommissioning, closure and rehabilitation.

## Detailed Management Approach and Performance

Refer to the following for details on our approach to environmental management:

- [Climate Change](#) and Energy
- [Biodiversity](#) and Land
- Water
- [Wastes](#), including air emissions.

Read more:

- [Stewardship](#) for details on our approach to product stewardship
- Closure for details on our approach to closure and legacy sites.
- 2008 Performance for a [summary of our environmental performance](#) over the reporting period.

# Climate Change

BHP Billiton acknowledges the risks of climate change and the need for accelerated action to stabilise greenhouse gas concentrations at acceptable levels.

Our **climate change position** includes greenhouse gas and energy targets and measures, investment in research and development of low carbon emissions technologies, and a commitment to participate in the design of effective national and international climate change policies.

Our position reflects priorities around stakeholder attitudes, changing government policies, and potential business opportunities consistent with BHP Billiton's aspirational goal of Zero Harm to employees, communities and the environment.

## Engagement and Disclosure

We take an active role in climate change policy development in key regions where we operate and market our products, including promoting such key principles as market-based measures and international emissions trading. Our Policy commits the Company to work with governments and other stakeholders on the design of equitable and efficient climate change policies.

For the past six years, BHP Billiton has participated in the **Carbon Disclosure Project** (CDP), which provides a secretariat for the world's largest institutional investor collaboration on the business implications of climate change. In addition, BHP Billiton has been selected to the CDP Climate Leaders Index for the past four years (2004 to 2007), representing the 'best in class' responses to the CDP questionnaire and revealing for investors which companies have the most comprehensive climate disclosure practices in place.

## Greenhouse Gas Emissions Reporting and New Targets

In 1995, we were one of the first participants in the Australian Greenhouse Challenge program, which was designed to encourage reductions in greenhouse gas emissions. We started measuring greenhouse gas emissions from our global controlled operations in 1993 and have publicly reported our greenhouse gas emissions data since then. As of 2007 our reporting has also included greenhouse emissions associated with employee business air travel.

We exceeded our original target of a 10 per cent reduction in greenhouse gas intensity between 1995 and 2000 and again exceeded our subsequent target of a further five per cent reduction between 2002 and 2007.

On 18 June 2007, BHP Billiton announced new global targets of a 13 per cent improvement in energy intensity and a six per cent improvement in greenhouse gas intensity to be achieved by the year 2012 from a base year of 2006. Intensity is measured as total energy consumed, or greenhouse gases emitted, divided by total tonnes of production. Our targets were developed based on production forecasts and plans for greenhouse gas reduction projects from individual facilities and businesses. The individual forecasts were combined to achieve a weighted corporate target. Stretch reductions beyond the business forecasts were incorporated in the targets.

## Research and Development

A significant element of our new policy is a US\$300 million financial commitment to invest in energy efficiency improvements and alternative energy for our operations, support research and support development and demonstration of low emissions technologies with relevance to our businesses, customers and communities. We aim to build on existing partnerships with customers, governments, peer companies and academia and develop new projects and partnerships.

We continue to support projects that seek to advance low-to-zero carbon emissions technologies for fossil-fuel derived energy such as Australia's **COAL21**, **Cooperative Research Centre for Greenhouse Gas Technologies** and the **Cooperative Research Centre for Coal in Sustainable Development**. These projects cover such technology areas as coal gasification, oxyfuel, and carbon capture and sequestration. BHP Billiton is also partner of the FutureGen Alliance. The US Department of Energy (DoE) has also been a major financial sponsor of this program. The DoE in January 2008 announced plans to restructure FutureGen to a series of smaller projects; this restructure is still progressing.

## Climate Change Risk

Our businesses assess the potential impacts of climate change through our Enterprise-wide Risk Management process. The potential physical impacts of climate change on our operations are highly uncertain and will be particular to the geographic circumstances. These may include changes in rainfall patterns, water shortages, changing sea levels, changing storm patterns and intensities, and changing temperature levels. These effects may adversely impact the cost, production and financial performance of our operations.

In addition our Carbon Pricing Protocol requires the businesses to incorporate carbon pricing scenarios into business plans. Carbon pricing sensitivity analysis is required to be included in the cost structure for investment decisions on new projects and acquisitions that would emit more than 100,000 tonnes of carbon dioxide equivalent per annum. This analysis includes a range of prices for developed and developing countries based on likely scenarios of government requirements and technology deployment, as well as the associated costs and economic impacts over an extended period of time. Our price series for carbon is revised regularly and has appropriately high and low ranges to reflect the uncertainty associated with forecasting the price of carbon credits. The price series are also intended for use in strategy development.

## Carbon Trading

We have identified emissions trading as an area of opportunity. We have developed expertise in emissions trading in Europe to offer support to our customers in meeting their obligations arising from the [European Union Emission Trading Scheme](#) (EU ETS). From a strategic perspective this is also helping us to understand better the market dynamics of the emerging carbon market and how it interacts with markets for energy. Our Energy Marketing group continues to trial coal bundled with Certified Emission Reduction units (raised via clean development mechanism projects) to our coal customers in Europe. This allows us to develop knowledge and skills in emissions trading and enables us to better package the fuel supply requirements of our customers. Our Energy Coal Customer Sector Group also includes the potential implications of greenhouse gas emissions regulation in its base case supply and demand forecasts and in its business strategy.

Find out more:

- [BHP Billiton Climate Change Policy](#)
- [Carbon Disclosure Project](#)

# Biodiversity

We clear land for access to resources, and for construction of waste rock dumps, tailings facilities and associated refining and processing infrastructure. We also manage large tracts of land for exploration leases, for future development, for biodiversity conservation purposes and as a buffer from neighbouring land uses.

Our activities through land clearing, discharge of waste water, waste disposal and air emissions have the potential to impact on biodiversity habitat and species of conservation significance.

BHP Billiton exploration activities are required to meet our HSEC Management Standards, as well as internal exploration standards. These standards require exploration teams to undertake environmental assessment and impact analysis for target areas and to develop a land management plan that describes the planned activities and the controls to ensure land disturbance is minimised. The methods of exploration depend on the resource target and the level of investigation required.

Our sites are required to have land management plans in place to guide decisions on land management in order to protect and manage the land to meet agreed beneficial uses. The plans address a broad range of issues, such as ecosystem and biodiversity management, erosion control, feral animals, weeds and fire management.

In addition, following the framework of our Closure Standard, we aim to seek the best options for rehabilitating disturbed land and determining post-closure land use, consistent with agreed closure criteria. Read more: [Closure](#)

Biodiversity loss is a critical global issue. As a resource company that operates in diverse locations ranging from tropical forests to deserts and marine environments, our activities have the potential to result in significant biodiversity impacts.

BHP Billiton's commitment to biodiversity conservation is founded on our Charter and Sustainable Development Policy (which specifically states we will develop programs that ensure we enhance biodiversity protection by assessing and considering ecological values and land-use aspects in investment, operational and closure activities'). In 2007/08, we revised and formalised our biodiversity position to include the following commitments.

We will:

- Manage our projects, operations and activities in a manner that supports and encourages positive biodiversity outcomes
- Assess the direct, indirect and cumulative biodiversity and ecosystem services impacts of new projects
- Minimise the impacts of our activities through rigorous planning, design, monitoring and mitigation programs prior to consideration of compensating measures such as biodiversity offsets
- Engage and consult with local communities and key stakeholders to ensure that their concerns and aspirations regarding biodiversity conservation are fully considered in our decision making
- Rehabilitate disturbed areas consistent with pre-existing conditions or alternate land uses agreed with key stakeholders
- Develop metrics to assess and report our biodiversity performance and identify opportunities for improvement
- Form partnerships and establish research programs with industry, government and other stakeholders that contribute to biodiversity conservation with an emphasis on improving conservation efforts in and around our operations
- Respect national conservation strategies and work with host governments regarding the protection of areas of high conservation value

We will not:

- Explore or develop within the boundaries of World Heritage listed properties and will ensure that our activities adjacent to these areas are compatible with the universal values for which the properties have been listed
- Proceed with any development where the direct impacts from our activities would likely result in extinction of species listed by the World Conservation Union as "threatened" with extinction
- Commit to a new mining project that disposes of waste rock or tailings into a river or disposes of tailings into a marine environment.

Read more: [Biodiversity and Land - Performance](#) and our 2008 case study: [Maruwai Coal Projects Biodiversity Strategy](#).

# Water

Access to high-quality water is an issue of growing international importance and a key challenge for sustainable development. We use water in mining, smelting, refining and petroleum processes. Our activities are often located in remote, arid environments where access to high-quality water is limited.

We continue to identify business risks and opportunities for water access, reuse or recycling, efficient use and responsible waste water disposal. We have set an aggregate Group target of 10 per cent improvement in the ratio of water recycled/reused to high-quality water consumed by 30 June 2012.

## Water Usage Definitions

To better understand our management of water globally, we collect data on water used in our processes in the following three categories:

- High-quality water – water having total dissolved solids (TDS) less than 5,000 mg/L such as water of a quality suitable for drinking water from a river or groundwater bores.
- Low-quality water – water with a TDS greater than 5,000 mg/L or being sourced from a waste water treatment plant. Examples include ocean water pumped to a desalination plant or water sourced from a municipal wastewater treatment plant. This data has been collected since 2006.
- Recycled/reused water - water returned to the process internally such as tailings water recycled back to a concentrator. Recycled water is water that has been through the processing circuit and recovered for reuse but does not include water used for heat exchange.

# Wastes

Wastes - mineral and non mineral - are generated at various stages throughout resource extraction and processing. Our HSEC Management Standards mandate that assets have programs to improve our practices to minimise waste generation, increase recycling, and prevent pollution through proper disposal. Such programs are designed with the aim to meet both national and international waste management regulations and maximise the recovery of resources.

Air emissions are also a part of our operations; however, in line with our commitment to continual improvement, we require our sites to ensure that emissions are identified and managed to reduce potential impacts over time.

## Mineral Waste

Mineral waste is what remains from the extracted resource after the product has been shipped. Mineral wastes are managed according to regulations where they are generated and may be classified as hazardous or non-hazardous depending on the jurisdiction.

Mining and processing operations produce large quantities of mineral waste such as waste rock (material moved to obtain access to the economic ore resources) and tailings and slag (non-economic material produced after the ore has been processed).

We generally manage mineral waste through responsible onsite disposal by either returning the materials to the open pits or underground workings from where they originated or by placing materials into engineered stockpiles, waste rock dumps or storage dam facilities. Drilling muds and cuttings from petroleum operations is another type of mineral waste.

The Company's tailings guidelines provide the framework to ensure our mineral waste facilities are designed, operated and closed in a manner that is designed to follow well-established engineering standards for minimising disturbance of land, ensuring physical stability and managing potential impacts to air, soil, surface and ground water. For example, when designing new tailings facilities, we use a range of international standards, such as those developed by the [International Commission on Large Dams](#), as well as internal guidelines and procedures.

We will not commit to a new mining project that disposes of waste rock or tailings into a river or disposes of tailings into a marine environment. This does not apply to the disposal of waste rock and tailings materials in conventional waste rock dumps or tailings dams, which may be constructed within the catchments of a river system where such structures are designed to retain and store the waste materials. It also does not apply to the discharge of water from tailings dams or waste rock dumps that is of a quality acceptable for downstream beneficial uses.

## Non-Mineral Waste

Non-mineral waste is categorised as either hazardous or general waste. Hazardous waste includes waste oil, materials contaminated with hydrocarbons, chemical waste, spent pot linings from aluminium smelting and hazardous bag-house dust, but excludes hazardous mineral residue, which is generally consistent with the classifications for hazardous waste under the [Basel Convention](#). General waste types include domestic waste, tyres, paper, batteries, cardboard and building and construction material.

Non-mineral wastes can be recycled or disposed on or offsite in appropriate facilities. Our HSEC Management Standards require that assets keep records to ensure that all wastes can be tracked from source to disposal and that waste receiving facilities are audited to ensure conformance to assure proper long term stewardship.

## Water and Effluent Discharge

Surplus water and effluent are produced in our operations through the collection of disturbed area rainfall runoff from our mining activities, groundwater dewatering and processing operations. This surplus water is discharged to rivers, lakes and wetlands in line with our Sustainable Development Policy. Through our site Water Management Plans we aim to minimise high quality water use, maximise water recycling and seek opportunities for our surplus water to be used by external parties.

## Air Emissions

Oxides of sulphur (SO<sub>x</sub>) and fluoride emissions are generated chiefly from smelting operations and can have an adverse effect on human health. The latter can also affect vegetation and thus enter the food chain. Oxides of nitrogen (NO<sub>x</sub>) emissions are produced by the combustion of fuels and can contribute to respiratory problems, ground-level ozone and acid rain formation.

Read more:

- [Greenhouse Gas Emissions and Energy](#)
- [2008 Performance](#).



# 2008 Performance



## Environmental Incidents and Fines

No actual significant environmental incidents occurred in FY2008. The goal of zero environmental fines or prosecutions, however, was not met. [Find out more.](#)

## Environmental Spending

We endeavour to integrate environmental responsibility into all activities. [Find out more.](#)

## Climate Change and Energy

In FY2008, we experienced per unit of production a five per cent increase in the greenhouse gas emissions and a one per cent increase in carbon-based energy. [Find out more.](#)

## Biodiversity and Land

In FY2008, we formalised our approach to biodiversity and continued our rehabilitation efforts. [Find out more.](#)

## Water

In FY2008, we improved our use of recycled water relative to our use of high-quality water from the environment. [Find out more.](#)

## Wastes

We continue to pursue improvements to our efforts to minimise waste generation, increase recycling and prevent pollution through appropriate disposal. [Find out more.](#)

## Environment Case Studies

Our case studies represent issues, initiatives, projects and programs from across the Company. [Find out more.](#)

# Environmental Incidents And Fines

## Environmental Incidents

The reporting and follow up of significant HSEC incidents is a crucial part of our approach to HSEC management. A significant environmental incident is an occurrence that has resulted in or had the potential to cause significant environmental harm. Such an incident is rated at level 3 or above on the [BHP Billiton HSEC Consequence Severity Table](#). Read more: [Incident Reporting and Investigation](#).

No actual significant environmental incidents were reported; however, there were 40 incidents that had the potential to cause significant environmental harm in FY2008. The incidents related to events that included uncontrolled discharges from tailings and sediment control dams due to high rainfall events, hydrocarbon and chemical spills via broken pipelines, tank failures or transport incidents and breaches of internal land clearing procedures.

Due to controls that were in place and mitigation actions taken, none of these incidents were classified as having caused significant environmental harm. Investigations were conducted to ensure the factors that contributed to the incident were identified so that additional controls could be implemented to prevent recurrence.

## Accidental Discharges

Accidental discharges of hydrocarbons to either land or water totalled 126,701 litres for the reporting period, an increase from the previous year. This is largely due to a number of hydrocarbon spills from the Olympic Dam (Base Metals, Australia) and Mt Whaleback operations (Iron Ore, Australia) that totalled 52,252 and 18,655 litres respectively for the reporting period. At Olympic Dam, the overfilling of a storage tank resulted in 50,000 litres of diesel being released into a secondary containment that did not result in any soil or water contamination.

Accidental discharges of water and tailings totalled approximately 248 megalitres (ML). Most of these discharges came from our coal operations and related to an increase in water releases to the environment from our metallurgical coal group.

During the wet season (late 2007 through to early 2008) there was an unusually high rainfall in central Queensland, Australia. This led to extensive flooding in the region, including flooding of our mine pits. Mine dewatering to local streams has been carried out under strict monitoring.

In addition, there was a tailings spill of approximately 4.5ML at the Ekati Diamond Mine in Canada. A flow of water caused by the sudden melting of ice, transported tailings material from the tailings facility onto the surface of Fay Lake which was frozen at the time. The spill covered approximately 3 hectares with inert tailings material. Immediate implementation of a response plan enabled recovery of the material.

## Environmental Fines

This year, we did not meet our goal of zero environmental fines or prosecutions. The following table outlines the environmental fines for this period. Note: Fines reported may relate to incidents occurring in previous years.

### Environmental Fines FY2008

Site	Customer Sector Group	Description	Fine (US\$)
Cerro Colorado, Chile	Base Metals	On 1 June 2007, Cerro Colorado Mining Company received a fine from COREMA (Environmental State Agency) regarding breaches of its environmental permits.	90,000
Neptune, USA	Petroleum	On 12 November 2007 during a pipeline flush procedure, a blowback occurred allowing diesel mist to exit from the vent line. A very small volume of diesel (<1 litre) was discharged into water causing a minor hydrocarbon sheen.	500
Worsley Alumina, Australia	Aluminium	On 28 November 2007, Worsley Alumina received an Infringement Notice from the Shire of Boddington for burning forest residue without a permit between the 2nd and 11th of November 2007.	86
Navajo, USA	Energy Coal	Failure to protect topsoil from erosion after seeding and planting.	584
Navajo, USA	Energy Coal	Failure to report existing storage capacity of impoundment in annual inspection report.	1,666
Maya Niquel S.A., Guatemala	Stainless Steel Materials	In June 2008, The Ministry of Environment issued a resolution fining Maya Niquel S.A. for allegedly operating without a proper Environmental Impact Statement. Maya Niquel S.A. has not paid the fine and is appealing the matter.	25,000
<b>Total</b>			<b>117,835</b>

### Former Operations – Ok Tedi Mining Limited

BHP Billiton transferred all of its shareholding in OTML mine (Ok Tedi Mining Limited) to PNG Sustainable Development Program Company Limited in February 2002.

In December 2006, seven individual plaintiffs, said to be representing the members of seven clans from the vicinity of the Ok Tedi mine, obtained an order of the National Court of Papua New Guinea joining BHP Billiton Limited as a defendant to proceedings against the shareholders of Ok Tedi Mining Limited (OTML) and its then managing director. The plaintiffs sought unspecified damages for numerous matters, including contamination of the environment and adverse affects to fishing, drinking water, irrigation of crops and washing and also seek US\$3.75 billion in exemplary damages.

On 20 November 2007, the National Court dismissed the plaintiffs' claims and ordered that their lawyer pay the costs of the defendants. The plaintiffs have lodged an appeal against that decision in the Supreme Court of Papua New Guinea. BHP Billiton has lodged a notice of its intention to appear at the hearing of the appeal.

Read more: [2008 Update - PNG Sustainable Development Program](#)

# Environmental Spending

In previous reports we have provided estimates of environmental expenditure for the Company. This included expenditure allocated to the categories of research and development, site rehabilitation, environmental monitoring, and other expenditure, such as environmental impact assessment and training.

Most of our activities have a range of purposes relating to the efficient operation of our assets including employee safety and health, environmental responsibility, community obligations, commodity production and asset maintenance.

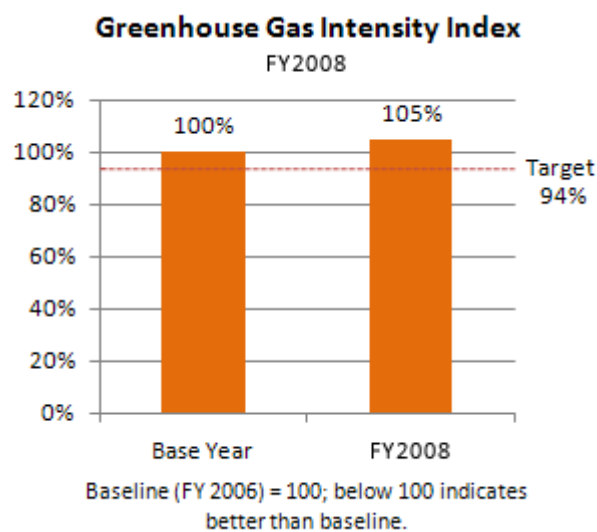
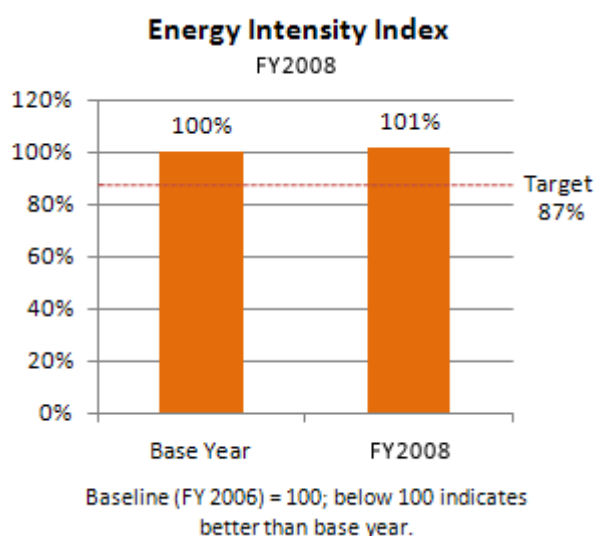
The Company's focus on integrating environmental responsibility into our activities means that it is not possible to accurately extract expenditure spent on the environment and, for that reason, it is no longer reported.

# Climate Change And Energy - Performance

## Greenhouse Gases and Energy Intensity

Our new five-year targets include a six per cent reduction in greenhouse gas emissions per unit of production and a 13 per cent reduction in carbon-based energy use per unit of production, both by 30 June 2012. In FY2008, our carbon-based energy intensity increased by one per cent. Our energy efficiency program is in its early stages and we will build on the lessons learned from implementing the Energy Efficiency Opportunities (EEO) Act in Australia.

In FY2008, we experienced a five per cent increase in the greenhouse gas emissions intensity index for BHP Billiton's global sites. This was due, in large part, to the switching of fuels used by third party electricity generators that serve our operations in Chile. Our strategy to achieve our greenhouse intensity targets includes improving our energy efficiency and investigating cost effective alternative energy sources, including wind, solar and geothermal power.

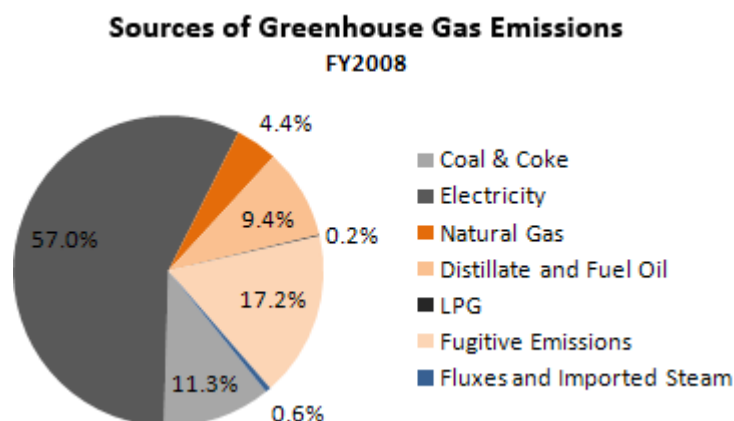


*Note to graphs:* The intensity indices have been developed as a Company-wide performance indicator for greenhouse gases and energy measures. The 'index' concepts allows performance from different business groups or sites, all of which may have different operating conditions and product mixes, to be added together to form an overall indicator per unit of production.

## Greenhouse Gas Emissions

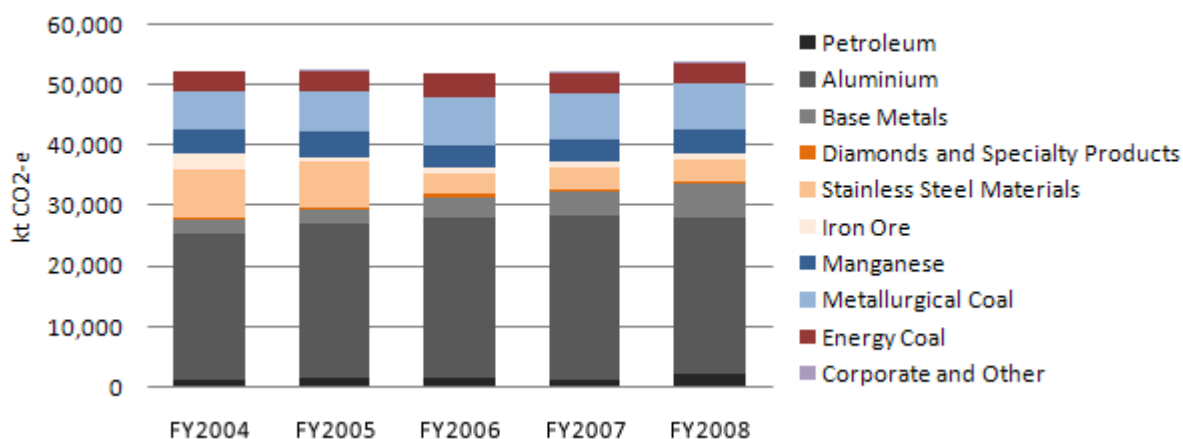
In FY2008, our total greenhouse gas emissions were 53.8 million tonnes of carbon dioxide equivalent, a slight increase on that reported in the previous reporting period (52 million tonnes). Major contributions were from aluminium smelters, Metallurgical Coal and Base Metals. A breakdown of greenhouse gas emissions by the CSGs is presented in the [Environmental Data Summary](#).

For an example of how we are working to reduce our emissions, read our 2008 case study: [WestVAMP - World's First Power Plant to Use Coal Mine Ventilation Air as Fuel](#).



## Greenhouse Gas Emissions By Customer Sector Group

FY2004 to FY2008



### Emissions Due To Company Air Travel

Due to the global nature and often remote locations, of our business Company air travel is a significant indirect greenhouse gas emission by our Company. These indirect emissions from air travel have not been included in our total greenhouse gas emissions reported for Mining and Production.

**Commercial flights** - Total commercial air passenger kilometres travelled in the reporting period were estimated at 555,967,871 and total flight segments were estimated to be 258,360. This data is supplied by our Group Travel Agency. Applying World Resources Institute (WRI) estimates for carbon dioxide equivalent emissions (i.e. 0.11kg of CO<sub>2</sub> per airline passenger kilometre for flights over 1600 kilometres, 0.12kg per airline passenger kilometre for flights of between 500 and 1600 kilometres, and 0.15kg per airline passenger kilometre for flights of less than 500 kilometres, which includes CO<sub>2</sub> plus other greenhouse gases from jet fuel combustion), total CO<sub>2</sub> equivalent emissions from BHP Billiton air travel in the reporting period is estimated to be 61,240 tonnes. Note: Emissions factor for airline passenger kilometres travelled has been updated to reflect WRI Greenhouse Gas Protocol. The emissions factor used in 2007 was taken from US DOE estimates of fuel consumed per passenger kilometre and included a radiative forcing factor that has not been adopted by WRI.

Total charter flight air passenger kilometres were not collected during the reporting period.

### Emissions From the Use Of Our Products

An estimated 320 million tonnes (on an equity basis) of carbon dioxide equivalent were emitted as a result of our products being used. This figure is estimated based on standard conversion rates for FY2008 production levels. Several parameters are estimates from our purchasers, and this figure is thus not verifiable.

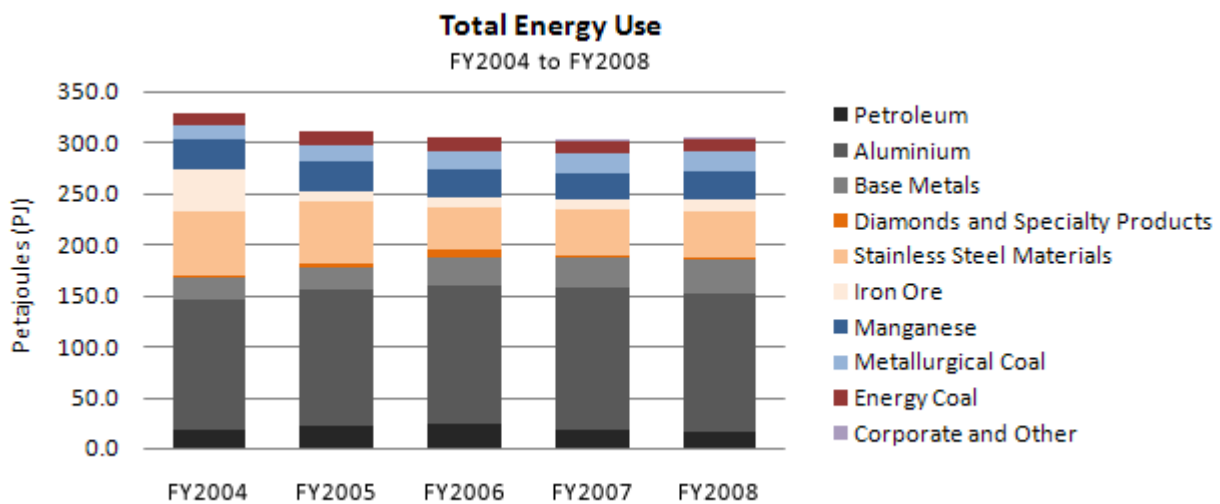
### Energy Consumption

Our energy consumption increased slightly from 302.7 petajoules in the previous reporting period to 305 petajoules.

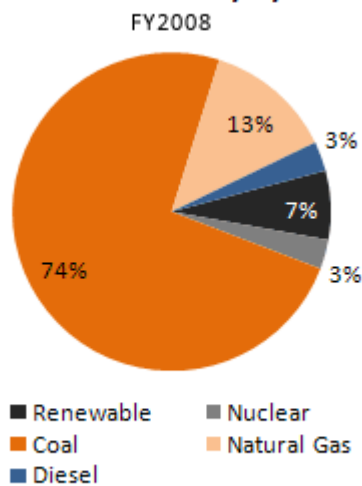
The Aluminium, Stainless Steel Materials and Manganese CSGs are the major consumers of energy, as presented in the graph. Details of energy performance by the CSGs are presented in the [Environmental Data Summary](#).

Purchased electricity and coal and coke were the two major energy types used, followed by distillate and natural gas. Renewable energy from hydroelectricity accounted for approximately two per cent of total energy and is included in the purchased electricity category.

The primary fuel sources and renewable energy component of the purchased electricity are illustrated in the graph.

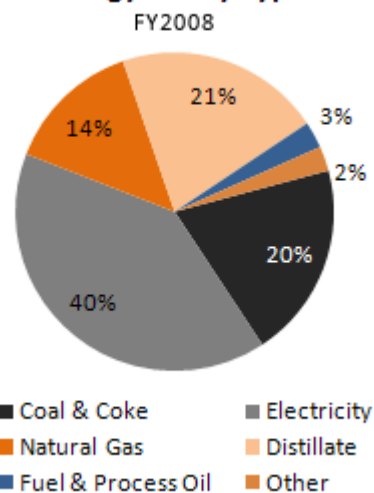


### Purchased Electricity by Source



Note: Data is estimated using generic grid factors.

### Energy Use by Type



## The Australian Energy Efficiency Opportunities (EEO) Program

The Australian Government passed the EEO Act in 2006 to improve the identification and evaluation of energy efficiency opportunities by large energy using businesses and to encourage implementation of cost-effective energy efficiency opportunities.

During the past year, our Australian assets covered under the EEO program rigorously reviewed their energy consumption data and fully evaluated their opportunities for energy savings projects. More than 400 opportunities have been identified, with some 30 per cent either identified for implementation or being implemented. The remainder of opportunities are under investigation. The nature of opportunities for energy savings range from purchasing and installing new, more efficient equipment to improving maintenance and engineering processes. Opportunities for working with local communities to raise awareness on how residents and businesses can use less energy have also been considered.

The results of this program will be available publicly on the BHP Billiton website in December 2008.

It is expected that applying what we have learned from the Australian EEO sites will contribute to our strategy for meeting our energy intensity target on a global basis.

# Biodiversity - Our Performance

As a resource company operating in diverse locations our activities have the potential for significant impacts on biodiversity. This year, in response, and in consultation with stakeholders, including our Forum on Corporate Responsibility, we have revised and formalised our biodiversity position. Read more: [Our Approach - Biodiversity and Land](#).

Due to the large number of sites and area of land that we manage, it is difficult to present aggregated site-specific biodiversity impacts in this report. The data indicates the scale of our activities but does not provide quantitative information on the relative biodiversity value of the land disturbed, rehabilitation conducted or areas that we are managing for biodiversity conservation purposes. More detail on regional and site-level biodiversity impacts and initiatives can be found in [sustainability reports](#) produced by our operations.

Aggregate land and biodiversity-related data for the Company is provided below.

Indicator	Value	Total
Land owned, managed or leased	Hectares	5,687,150
Land to be rehabilitated	Hectares	112,780
Land that we are managing for biodiversity conservation purposes	Hectares	11,380
Sites that we own or manage that are adjacent to a designated protected area	Number of sites	18
Size of designated protected or conservation area that is on land that is owned, leased or managed by the site	Hectares	136,820
Protected areas and areas of high biodiversity value significantly impacted by our activities	Number	0
Land that we own or manage that is considered to have a biodiversity rich habitat. Major areas include: Canada – 344,000 hectares Suriname – 278,400 hectares South Africa – 21,413 hectares Australia – 20,160 hectares	Hectares	666,040
Sites that have a biodiversity management plan	Number	35
Percentage of total land area disturbed that has been rehabilitated	Per cent	28

Footnote - Data above does not include all data from exploration and development projects managed by our Customer Sector Groups (CSGs).

Most of our existing operations are not in or adjacent to protected or biodiversity sensitive areas with some of our key biodiversity risks associated with exploration and development projects, specifically in west Africa, Asia and South America. As these projects are in the process of exploration or feasibility assessment, impacts are limited to the clearing of habitat for camps, vehicle tracks, exploration drill sites and ancillary activities. Care is taken to assess the biodiversity values prior to commencing activity, minimise habitat disturbance and rehabilitate areas as soon as practical following completion of exploration activities. [Read more](#) on our activities in relation to protected and biodiversity sensitive areas for more information.

During the reporting period we finalised the development of our biodiversity risk assessment tool and this is being made available for use by our operations.

To assist in our understanding of biodiversity risks we have been working with [Proteus](#), a partnership between industry, the [United Nations Environment Programme](#) (UNEP) and the [World Conservation Monitoring Centre](#) (WCMC), to improve the quality and accessibility of the World Database of Protected Areas.

For an example of policy in action, read our [2008 case study - Managing Our Impact in Indonesia: Maruwai Coal Project's Biodiversity Strategy](#)



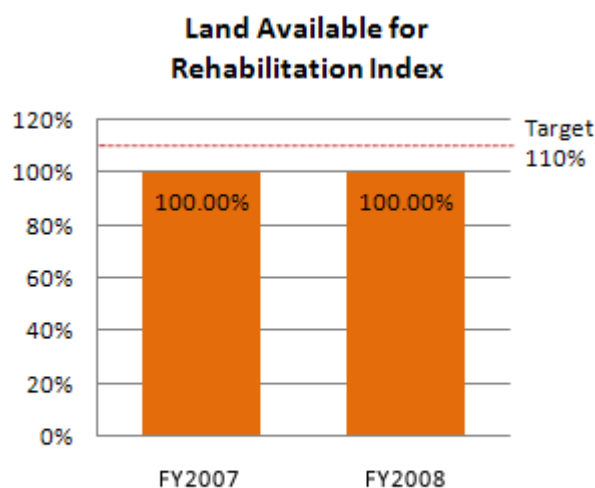
## Land

The amount of land requiring rehabilitation has increased by approximately 5,740 hectares (ha) to 112,780 ha while land rehabilitated increased by 1,590 hectares to 43,990 ha over the reporting period.

Focusing on prioritising our rehabilitation efforts, we have a five-year target to a 10 per cent reduction in the land available for rehabilitation by 30 June 2012, which we measure as a ratio of land rehabilitated compared to land disturbed. The FY2007 ratio of 0.28 has remained unchanged, due to the increased development of our copper operations in Chile, coal operations in Australia, and Nickel operations in Australia and Chile.

The total area of land owned, leased or managed by our operations in 2008 was in excess of 5.7 million hectares, of which approximately two per cent is used for mining, processing plants and infrastructure.

See [Environmental Data Summary](#) for details of land use performance by Customer Sector Group.



Land Use as at 30 June 2008	Percentage of total land use
Land disturbed by infrastructure	0.39%
Land disturbed by mining	1.21%
Other disturbed land	0.39%
Total rehabilitated land at 30 June 2008	0.77%
Area intended for future operation or expansion	3.78%
Area formally set aside for biodiversity conservation	0.20%
Buffer zones and areas not intended or planned for operation	68.38%
Onshore exploration leases excluding above	24.88%

# Water - Performance

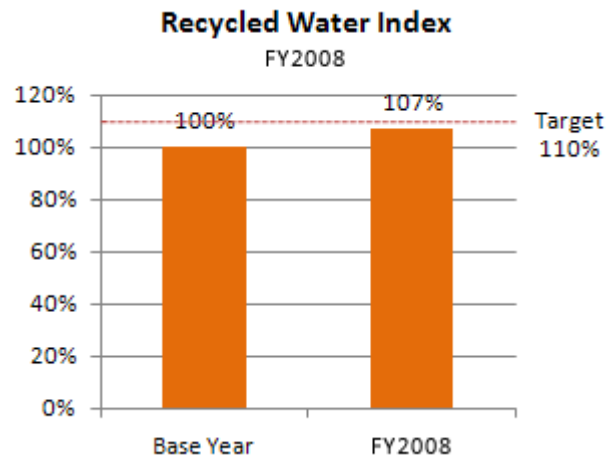
## Our Recycled Water Index Target

We have set a target to improve our use of recycled water relative to our use of high-quality water from the environment. Our aggregate target is to see a 10 per cent improvement by 2012 in the ratio of water recycled to high-quality water consumed. The Recycled Water Index uses FY2007 as the baseline or 100 per cent. Our target is to achieve an index rating of 110 per cent by June 2012.

This target aims to focus our operations on improving water recycling rates and looking for opportunities to substitute recycled or low-quality water into processes that currently use high-quality water.

In FY2008, we achieved an improvement of seven per cent against our target. As this is the first year collecting data for this target, we are working to refine our water classifications to assure consistency at all our sites and fully understand where our best opportunities are to effectively manage this important resource.

Baseline (FY2007) = 1; below 1 indicates worse than base year. FY2007–2012 Target = 10% improvement from FY2007 base year. Aggregate Group target of a 10% improvement in the ratio of water recycled/reused to fresh water consumed by 30 June 2012.



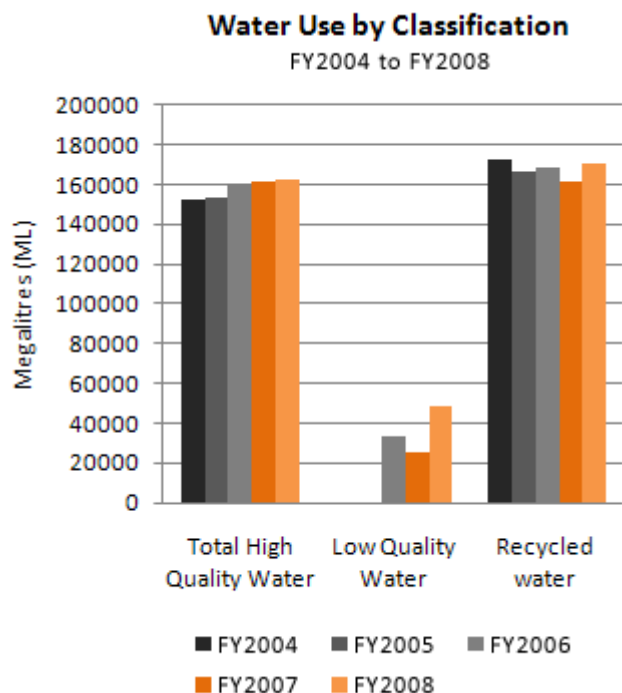
## Water Use

The following chart shows the usage of the three categories of water. The volume of water used in one category is generally linked to the other categories. For example, extensive flooding in Central Queensland, Australia in the second half of the reporting period had a significant effect on our water balances for our Metallurgical Coal Customer Sector Group. The surplus of water accumulated on site caused a decrease in the need for additional high-quality water in the process circuit, increased the low-quality water use and decreased recycling.

Across the Company, high-quality water use was 162,490 megalitres (ML), generally the same as the previous period. Base Metals continues to be the primary consumer of high-quality water. Decreases in high-quality water use for Metallurgical Coal (described above) was off set by an increase in high-quality water use reported by Iron Ore due to increases in production.

Low-quality water use significantly increased from 25,600 ML to 48,320 ML for the period. Our Escondida operation ran its desalination plant at higher rates this period, upgrading sea water for use in the process contributing to the increase for Base Metals.

Recycled water use increased during the period for the company as a whole to 171,130 ML for the period. Base Metals showed a significant increase in recycled water use due to improved water recovery from tailings systems at our Escondida (Base Metals, Chile) operations.



Our clear challenge is to continually look for ways to minimise our water usage. As part of this strategy to reduce water consumption, a A\$6 million reverse osmosis filtration plant was developed to enable Illawarra Coal's Appin Mine (Australia) to treat and reuse up to 2.3 megalitres of water per day. Read more: [2008 Case Study: Illawarra Coal Makes Sydney's Largest Volume Reduction in Water Use](#)

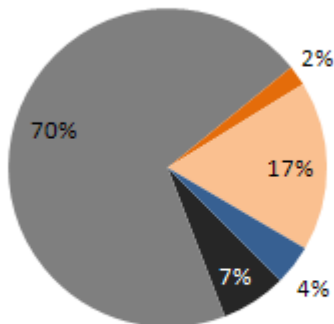
Further detailed information on water usage is presented in the [Environmental Data Summary](#).

## Water Use By Source

The charts below show the various sources of our high-quality and our low-quality water. Sources of high-quality water for our operations are mainly ground and municipal water. Low-quality water was primarily derived from mine dewatering and ground water drawn from bores.

**High-Quality Water Use By Source**

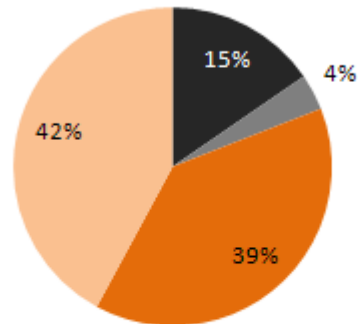
FY2008



- Surface
- Groundwater
- Storm and Rain
- Municipal Town and Mains
- Manufactured on Site

**Low Quality Water Use by Source**

FY2008



- Ground water, water drawn from wells
- Imported non-potable water (eg WWT plant)
- Mine Dewatering Used for Useful Purpose
- Desinated and Other Sources of Low Quality Water

# Wastes - Our Performance

Our Sustainable Development Policy states that we will 'set and achieve targets that promote efficient use of resources'. The following discusses our performance with regards to this commitment in the areas of waste storage and disposal.

## Mineral and Non-Mineral Wastes

### Waste

Resource extraction and processing generates both mineral and non-mineral waste. We are committed to continually improving practices to minimise waste generation, increase recycling, and prevent pollution through proper disposal.

Our mining operations produce large quantities of mineral waste such as waste rock (material moved to access economic ore resources) and tailings and slag (non-economic material produced after ore is processed). Generally this mineral waste is managed onsite in disposal facilities designed, operated and closed to well-established engineering standards to minimise impact to the environment long term. Mineral waste disposal mechanisms include in-pit backfilling, return to underground workings, tailings and waste rock stockpiles. Depending on local regulations and the nature of the mineral wastes, mineral wastes are categorised as hazardous or non-hazardous.

In FY2008, 1.2 billion bank cubic metres (bcm) of overburden (waste rock) were moved in mining processes. In the same period, we produced a total of 215 million tonnes of mineral waste, as detailed in the above graph.

Similarly, non-mineral waste is categorised as either hazardous or non-hazardous (general) waste depending on local regulations and the nature of the material.

Hazardous non-mineral waste includes oil, materials contaminated with hydrocarbons, chemical waste, spent pot linings and hazardous bag-house dust. These hazardous wastes are recycled or disposed of in approved facilities with record keeping in compliance with local and international regulations. We have significantly decreased our hazardous waste in recent years. This reporting period we produced 192 kilotonnes (kt) of hazardous non-mineral waste, approximately seven per cent less than in FY2007.

General waste includes domestic waste, tyres, paper, batteries, cardboard and building and construction material. Our operations generated 304kt of general waste; 45 per cent of this was recycled, reused or composted.

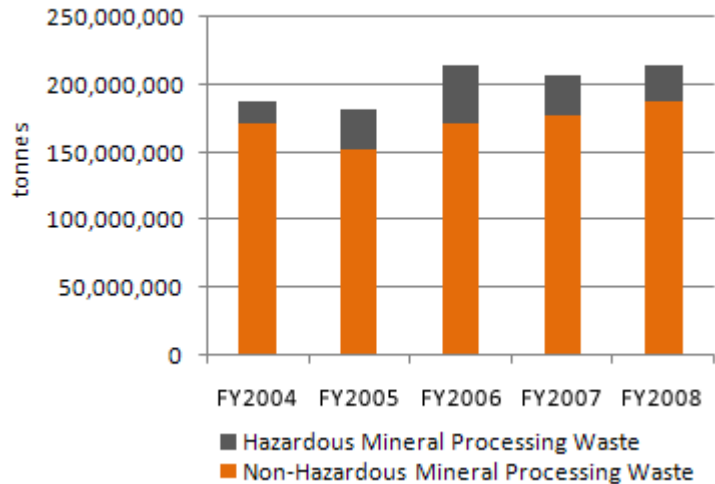
### Waste Water and Effluent Discharge

The total amount of waste water and effluent discharged to various end points was 114,470 megalitres (ML) compared to 80,430 ML in the previous reporting period.

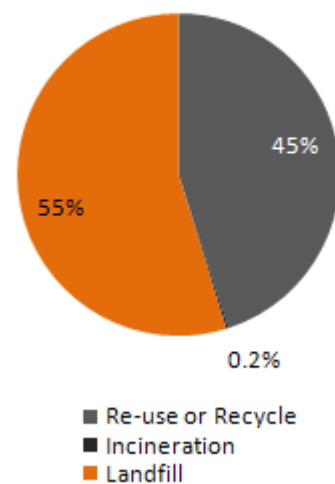
This increase is largely due to an increase in water releases to the environment from our metallurgical coal group.

During the wet season (late 2007 through to early 2008) there was an unusually high rainfall in central Queensland, Australia. This led to extensive flooding in the region, including flooding of our mine pits. Mine dewatering to local streams has been carried out under strict monitoring.

**Total Mineral Processing Waste Disposed**  
FY2004 to FY2008

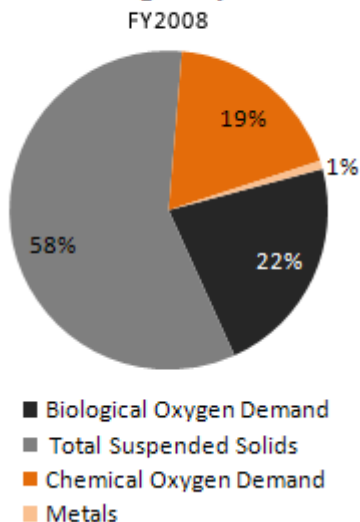


**General Waste Disposal Methods**  
FY2008

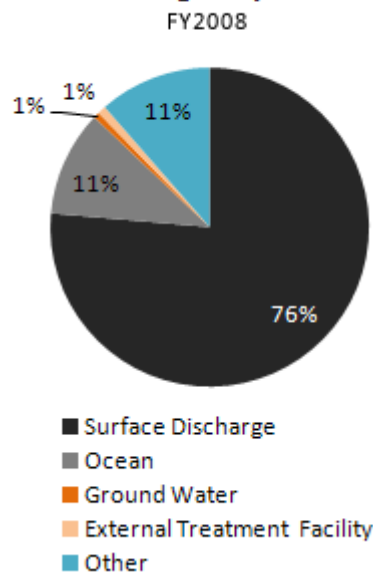


In addition to reporting quantity, we also require our sites to report on key constituents of discharged waste water and effluent. In FY2008, we discharged 757 tonnes of total suspended solids, 11 tonnes of key metals, 291 tonnes of biological chemical demand materials and 243 tonnes of chemical oxygen demand materials. The quantities of these key constituents were derived by estimation, calculation, measurement, or a combination of the three methods.

**Key Constituents in Water Discharged by Mass**



**Water Discharged by Destination**



## Air Emissions

Air emissions are a part of our operations; however, in line with our commitment to continual improvement, we require our sites to ensure that emissions are identified and managed to reduce potential impacts over time.

The following discusses our Group-wide performance with regards to the significant air emissions across our businesses of:

- Ozone-depleting substances
- Oxides of sulphur
- Oxides of nitrogen
- Fluoride

Detailed information on emissions from major mobile sources and on-site stationary sources and management of fugitive emissions is addressed at an operational level.

For a discussion on Greenhouse Gas Emissions and Energy, [read more](#).

The amount of ozone-depleting substances discharged or leaked to air decreased from 2.8 tonnes of chlorofluorocarbon (CFC) equivalent in FY2007 to 1.2 tonnes in FY2008. We continue to phase out the use of ozone-depleting substances across our operations in compliance with legislative requirements.

### Oxides of sulphur

Oxides of sulphur (SOx) emissions to air decreased, largely due to a reduction at our Worsley alumina refinery.

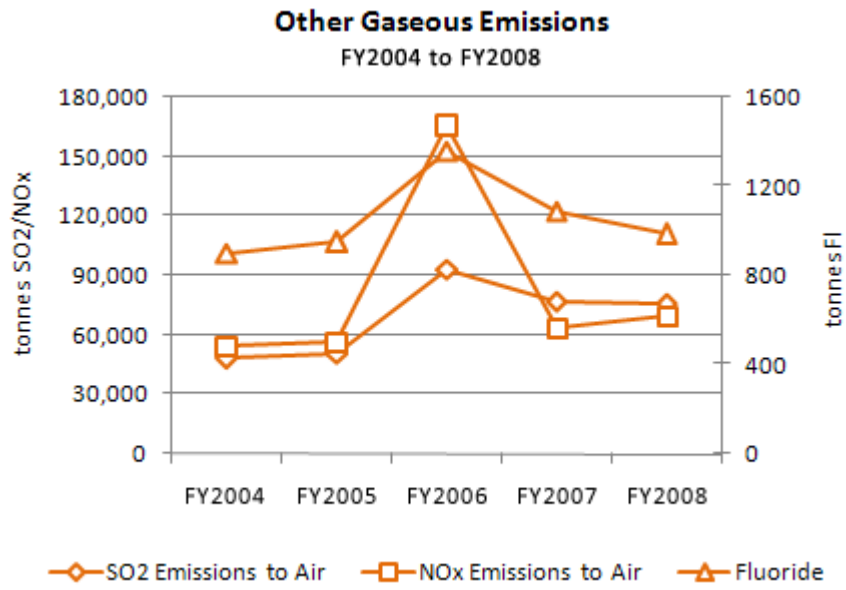
### Oxides of nitrogen

Oxides of nitrogen (NOx) emissions to air increased about 10 per cent when compared to FY2007 largely due to increased production levels of our nickel and petroleum products.

### Fluoride emissions

Fluoride emissions to air decreased, largely due to ongoing efforts to reduce fugitive emissions in the aluminium smelters.

A breakdown of these emissions to air by Customer Sector Group is presented in the [Environmental Data Summary](#).



# Case Studies

The following case studies are examples of issues, initiatives, projects and programs across the Group that highlight some of the environmental opportunities and challenges faced by our operations. Case studies are also on [healthy people](#), [safe workplaces](#), [social responsibility](#), [our people](#) and [our socio-economic contributions](#).

## Hunter River Remediation Project - Cleaning Up More Than 80 Years Of Steel Making

The Hunter River Remediation Project is a large-scale environmental project that is designed to effectively remediate the Hunter River bed affected by industrial activities associated with the former BHP Steelworks in Newcastle, Australia.

## Managing Our Impact in Indonesia - Maruwai Coal Project's Biodiversity Strategy

The Maruwai Coal Project (MCP), wholly owned by BHP Billiton, is seeking to develop high quality coking coal resources within the Maruwai Basin in Central Kalimantan on the island of Borneo, Indonesia. The area is world-renowned for its biodiversity and undertaking mining in such an area requires careful management of the biodiversity we impact.

## World's First Power Plant To Use Coal Mine Ventilation Air As Fuel

In September 2007, BHP Billiton officially opened BHP Billiton's West Cliff Ventilation Air Methane Project (WestVAMP) - a world-first greenhouse gas reduction initiative. Situated at BHP Billiton Illawarra Coal's West Cliff Mine (NSW, Australia), the project is the first demonstration of commercial power generation solely from mine ventilation air.

## Illawarra Coal Makes Sydney's Largest Volume Reduction In Water Use

Sydney Water recognised the achievements of BHP Billiton's Illawarra Coal in dramatically reducing demand for drinking quality water. In presenting Illawarra Coal with the Largest Volume Reduction Award, Sydney Water stated that 'The Appin Mine reduced its water consumption by an outstanding 660 kilolitres per day - achieving the largest reduction in water use for 2006/07' among Sydney's 1.7 million homes and businesses.

## Reducing Waste And Providing Sustainable Employment Opportunities

Petroleum reduces offshore waste and provides sustainable employment opportunities onshore.

# World's First Power Plant To Use Coal Mine Ventilation Air As Fuel

## The opportunity

In September 2007, BHP Billiton officially opened BHP Billiton's West Cliff Ventilation Air Methane Project (WestVAMP) – a world-first greenhouse gas reduction initiative.

Situated at BHP Billiton Illawarra Coal's West Cliff Mine (NSW, Australia), the project is the first demonstration of commercial power generation solely from mine ventilation air containing dilute methane. It follows seven years of collaboration with Swedish emission control specialist, MEGTEC Systems AB, owned by US Company Sequa Corporation, a diversified manufacturer.

The A\$30 million plant will generate approximately six megawatts of electricity per hour and reduce greenhouse gas emissions by 250 000 tonnes of carbon dioxide equivalent per year.

With the assistance of a A\$6 million contribution from the Australian Greenhouse Office Greenhouse Gas Abatement Programme, the project has involved construction of a facility to generate power from mine ventilation air containing very low concentrations of methane.

Conducting the inauguration was the Honourable Morris Iemma, the Premier of NSW, Australia.

Premier Iemma congratulated BHP Billiton on its commitment to greenhouse gas abatement. 'This facility will make a significant contribution to greenhouse gas reduction in New South Wales, and I applaud the ingenuity of BHP Billiton and its technology providers MEGTEC Systems,' he said.



WestVAMP, Illawarra Coal, New South Wales, Australia

## The Program

When coal is formed, so is methane. When coal is excavated, methane is released. Since methane in air is explosive in concentration between 5 and 15 per cent, ventilation air is used to dilute the methane to levels well below the explosion limit. This safety measure leads to large volumes of air with low methane content being released to atmosphere.

Methane concentrations in mine ventilation air are, however, typically less than 1.25 per cent by volume, a level not freely combustible with conventional combustion systems.

A review of technologies in the mid 1990s led Illawarra Coal to explore the VOCSIDIZER© technology, which was pioneered by MEGTEC Systems AB.

The technology was first piloted at Illawarra Coal's Appin Colliery in 2001 and the West Cliff project is the final step in proving its use in mine ventilation air.

The technology works by merging two conventional technologies – emission control technology and a steam cycle power plant. The process is based on flameless, single bed, regenerative oxidation in a unit called the VOCSIDIZER©. High efficiency exchangers recover the large levels of thermal energy released to produce high quality steam. The steam is then used to drive a conventional steam turbine, generating approximately six megawatts of electricity for use within the mine.



Honourable Morris Iemma, the Premier of NSW, with Honourable David Campbell, MP, Minister for the Illawarra (left) and BHP Billiton Illawarra Coal President Colin Bloomfield (right) at the official opening of WestVAMP



## Current results and future opportunities

Since methane is a greenhouse gas with 21 times the global warming effect of carbon dioxide, BHP Billiton can convert the emission reduction to carbon credits corresponding to 250,000 tonnes of CO<sub>2</sub>-e every year.

'What we've done is provide a proven solution to reduce harmful emissions released into the air. This is a major milestone for the industry as a whole,' Business Manager of Energy and Process Systems for MEGTEC. Richard Mattus, said.

Illawarra Coal President, Colin Bloomfield, said the project was an example of BHP Billiton's proactive approach to climate change.

'We are focussed on delivering real reductions in the greenhouse gas intensity of our production processes and WestVAMP is making a significant contribution to reducing BHP Billiton's carbon footprint,' Mr Bloomfield said.

'For more than 10 years, the Company has used methane extracted during the mining process to generate electricity,' said Mr Bloomfield. 'The introduction in 2003 of the NSW Greenhouse Gas Reduction Scheme (GGAS), one of the first mandatory greenhouse gas emissions trading schemes in the world, however, provided the fiscal conditions to make this innovative investment possible.'

'The support of the Australian Government's Greenhouse Gas Abatement Programme with a A\$6 million contribution was also critical to the commercial viability of the investment.'

According to Mr Bloomfield, the technology has tremendous application for the underground coal mining industry right around the world.

'Our plant potentially could be modularised and upsized for greater commercial attractiveness. For example, the volume of ventilation air currently treated at WestVAMP amounts to 20 per cent of the total volume of ventilation air available from that ventilation shaft. It is estimated that a plant treating the full volume of ventilation air could abate at least one million tonnes CO<sub>2</sub>-e of emissions,' explained Mr Bloomfield.

'In the longer term, we are exploring the potential for greenhouse gas emissions to be reduced further by extending application of the technology more widely across our other mines in the Illawarra region. There is also interest from across the broader BHP Billiton coal portfolio.'

Recognising the significance of the MEGTEC system for handling ventilation air methane emissions, as well as actual results generated at WestVAMP, the United States Environmental Protection Agency (EPA), on 19 May 2008 named MEGTEC one of its Climate Protection Award winners.

'Efforts to help fight climate change will benefit the planet for generations to come,' stated Bob Meyers, Principal Deputy Assistant Administrator, EPA Office of Air & Radiation.

'We are honoured,' summed up MEGTEC Systems President Mohit Uberoi at the award presentation ceremony in Washington, D.C. 'By bringing forward new technology to reduce methane emissions, we are proud to be part of the global climate protection solution.'



Lars Sundback, Ake Kallstrand and Richard Mattus of MEGTEC Systems AB receiving the 2008 Climate Protection Award by US Environment Protection Authority

# Hunter River Remediation Project - Cleaning Up More Than 80 Years Of Steel Making

## The Challenge

BHP Billiton's Hunter River Remediation Project (HRRP) is a large-scale environmental project that is designed to remediate the Hunter River bed affected by industrial activities associated with the former BHP Steelworks at Mayfield in Newcastle, Australia.

The BHP Steelworks began operation in Newcastle in 1915 and closed in 1999. For much of the time the former Steelworks was in operation, stringent environmental standards that are nowadays commonplace did not exist, contributing to the current need for remediation.

The remediation work is a requirement of BHP Billiton's own Closure Standard and will deliver on the commitment made by BHP Billiton when the Steelworks closed to remediate the contaminated sediments in the South Arm of the Hunter River adjacent to the site. This commitment at the time of closure was also made in accordance with New South Wales environmental legislation, specifically the Contaminated Land Management Act 1997.

BHP Billiton's overriding HRRP objective is to safely remove and treat the contaminated river sediments using effective processes and equipment that minimise the potential for impacts on the local environment and communities. Ensuring that the river is rehabilitated is clearly good for the river environment. It is also anticipated that the HRRP will enable further economic growth of the region through the reuse of the river for other commercial needs, including the expansion of the Newcastle Port at the former Steelworks site and Kooragang Island.



A worker at the Hunter River site

## The Program

The contaminants in the river bed were generated as a by-product of the steel making process that are likely to have migrated from the Steelworks through drains and spills, and eventually settled in the river bed next to the site.

Since closure of the Steelworks, BHP Billiton's emphasis has been on completing the appropriate level of planning, investigation and trial remediation necessary to deliver the best outcomes from the project's implementation.

The remediation process will involve the careful dredging and cement-stabilisation (treatment) of river sediments. The addition of a select cement product to sediments immobilises the contaminants and also makes the material safe to handle and transport. Stringent government approvals regulate this process.

After treatment, the material will be transported by existing roads to nearby Kooragang Island to a disturbed area that has been previously affected by industrial uses, including those related to the former Newcastle Steelworks.

At Kooragang Island, the remediated material will be placed within a new specially engineered landfill which is being designed to prevent interactions with ground and surface waters and satisfy the relevant government requirements. Upon completion, the landfill will be capped and monitored to ensure long term objectives are met.

Design of the emplacement area is also allowing for the construction of light industrial buildings at the site in line with the landowner's intended final land use.

Critical to the success of the project is a comprehensive engagement program to ensure that the community and other stakeholders are kept well informed and have the opportunity to identify and discuss issues relating to the project.

A variety of mechanisms designed to both inform stakeholders and encourage their participation in the consultation process have been developed, including:

- A free-call 24 hour community hotline (+61 1800 793 177)
- Newsletters and fact sheets
- Project website ([www.bhpbilliton.com/hrrp](http://www.bhpbilliton.com/hrrp))

- Briefings and meetings with a wide range of local community groups and organisations that may have an interest in the HRRP
- A resident survey conducted in mid 2008 (by local social research consultancy Key Insights Pty Ltd) to gauge public interest and opinion on the project proposal and related issues.

To-date, the emphasis has been on undertaking the level of planning necessary to ensure we 'do it right' and deliver the best outcomes for the Hunter River and the Newcastle community.

There are ongoing preparation and refinement works occurring in the river and on the former Steelworks site. This includes background environmental monitoring and river sediment sampling, and will include in the coming months the construction of environmental controls and small-scale treatment optimisation studies. These works are being undertaken in consultation with the relevant government authorities.

Project planning, including finalising the engineering design and obtaining the necessary government approvals, will continue in 2008. The full-scale remediation works, including dredging, treatment, transport and emplacement, are expected to take approximately two years to complete and are currently scheduled to start in early 2009.

# Reducing Waste And Providing Sustainable Employment Opportunities

## Challenge

BHP Billiton Petroleum drilling teams constantly seek solutions to minimise the impact of drilling operations on the environment. Reducing landfill waste from the rigs was identified as an effective goal in the ongoing pursuit of Zero Harm.

Prior to this initiative BHP Billiton had concentrated mainly on the disposal of waste through approved licensed contractors. BHP Billiton's challenge was to execute a cumulative recycling program offshore that would directly engage members of the community onshore. The purpose of this commitment was to develop a program that would greatly increase the proportion of waste from the rigs that was recycled, while also providing employment for people with learning and development disabilities in the US Gulf Coast region.



A Six Category Waste Compactor on one of our offshore platforms.

## Action

BHP Billiton contracted Enviro-Pak to collect and transport the recyclables onshore. The relationship required BHP Billiton to help develop a safe and efficient system to use compactor units, bags, and receptacles that allowed waste to be segregated appropriately on the offshore rigs. The program was focused on a number of drilling rigs, support and supply vessels, and the Company's shorebase in Fourchon, Louisiana. With the complexity and congestion of these locations, BHP Billiton deployed multiple category (six types of waste) compactors to make best use of the limited space available offshore. Along with logistics challenges, BHP Billiton had to educate and train workers in properly using the system to segregate and compact waste.

The recyclables were taken onshore to Access Real Choices (ARC), New Iberia, Louisiana, a non profit organisation dedicated to the welfare of individuals with learning and development disabilities. As a result of this project, 40 people are employed by the ARC program to separate and repackage the drilling rig waste for resale to recycling plants in the area. The profit from those sales generated revenue for ARC and provides employees with value adding jobs.

Since embarking on this initiative, more than 75 tons of material was diverted from landfills and recycled between June 2006 and December 2007. This contributed significantly to the success of ARC and reduced BHP Billiton's costs related to disposal.

The benefits are clear; by providing a group of people with the tools to do an essential job in their community, not only did it reduce the landfill burden and increase recycling, but it also raised revenue for ARC which made the process sustainable.

## Future

This process can be franchised into any area of the world where well established recycling programs do not exist. While recycling may not necessarily be the vehicle for community engagement, other campaigns that are led by offshore locations can be specifically designed to engage and benefit both the environment and communities onshore, often hundreds of miles away.

# Illawarra Coal Makes Sydney's Largest Volume Reduction In Water Use

## Challenge

BHP Billiton's 100 per cent owned Illawarra Coal operates three high-volume underground coal mines in the Illawarra and Wollondilly regions, approximately 80 kilometres south of Sydney, Australia.

Sydney has water shortages and Sydney's residents have water restrictions, and have to follow water saving rules. Illawarra Coal's Appin Mine has been a significant water user in the community, using up to 1,600 kilolitres of water per day.

Our clear challenge is to continually look for ways to minimise our water usage. As part of our strategy to reduce water consumption a A\$6 million reverse osmosis filtration plant was developed to enable Illawarra Coal's Appin Mine to treat and reuse up to 2.3 megalitres of water a day – equivalent to two Olympic-sized swimming pools.



The water filtration plant at our Illawarra Coal Appin West site.

In November 2007, Sydney Water recognised the achievements of BHP Billiton's Illawarra Coal in dramatically reducing demand for drinking quality water. In presenting Illawarra Coal with the Largest Volume Reduction Award, Sydney Water stated that 'The Appin Mine reduced its water consumption by an outstanding 660 kilolitres per day – achieving the largest reduction in water use for 2006/07' among Sydney's 1.7 million homes and businesses.

## Action

Our three Illawarra Coal mines are Appin, Appin/West, West Cliff and Dendrobium – and two coal preparation plants – West Cliff and Port Kembla. Our operations employ some 1,300 people directly and as contractors to produce premium-quality coking coal.

Opened in 1962, our Appin Colliery was one of the first mines in Australia to introduce longwall mining. Operating at depths of 550 metres, we extract prime-quality hard coking coal from the Bulli seam. Dust suppression and cooling activities are where most of the water is used. The mine also produces water, as the coal is removed, water seeps into the mining area from the coal.

In a bid to use water in a more sustainable way and conserve water where possible, we have worked for several years with New South Wales Government and specialist engineers to test potential solutions. This included onsite trials between November 2005 and February 2006 to test three types of desalination plant. The on-site trials included monitoring energy, chemical and potable (drinking-quality) water use, the mine-water input, treated water output and the type and volume of by-products.

The trials also involved representatives from several stakeholder groups including environmental groups, government agencies, educational facilities, the Appin Area Community Working Group, environmental representatives from other mine sites, and the local community.

Installation began in mid-2006, at our Appin West site with the Water Filtration Plant officially opened in December 2006. The plant was constructed in partnership with Worth Recycling and in close association with the New South Wales Government's Department of Environment and Conservation.

By enabling us to convert low-level saline (salty) underground water for reuse on site and at nearby mines, the plant has the potential to reduce the volume of fresh water we draw from the Sydney Water supply up to 2.3 megalitres a day. The plant is currently operating at between 1,450 and 1,800 kilolitres per day.

The plant is also improving the quality and reducing the salinity of water from the mine that, ultimately, flows into the Nepean River. The brine is currently being transported to a licenced discharge point, however opportunities for the sale of the salt as a by-product are being investigated.

Illawarra Coal is a member of Sydney Water's Make Every Drop Count Program. Launched in 2001, the program has

attracted more than 340 members and generated savings of some 24.1 million litres of water per day or 8.7 billion litres annually. The program's annual awards recognise those organisations and individuals that, during the previous financial year, achieve significant reductions in their water use and demonstrate a commitment to water conservation.

At its Every Drop Counts Business Program Awards, on 15 November 2007, Sydney Water presented its Largest Volume Reduction Award to Illawarra Coal for our work in dramatically reducing water consumption during the financial year ending June 2007.

## Future

Our state-of-the-art water-filtration plant, the first of its kind in the Illawarra, uses advanced technology and processes to deliver long-term benefits for our mine operations and for associated environmental and community flows.

We will continue to increase the amount water recycled and recovered. We will also endeavour to investigate water saving technologies so that we can contribute further to Sydney's and Illawarra Coal's water saving goals.

# Managing Our Impact in Indonesia - Maruwai Coal Project's Biodiversity Strategy

## The Challenge

The Maruwai Coal Project (MCP), wholly owned by BHP Billiton, is seeking to develop high quality coking coal resources within the Maruwai Basin in Central Kalimantan on the island of Borneo, Indonesia. The area is world-renowned for its biodiversity and undertaking mining in such an area requires careful management of the biodiversity we impact.

High quality coking coal is essential for the manufacture of steel and Maruwai could provide BHP Billiton with the opportunity to grow its metallurgical coal business. The location of this resource is also well placed to serve traditional north Asian steel producers and the rapidly expanding Chinese and Indian markets.

Borneo also boasts a high number of endemic species found nowhere else in the world, including the proboscis monkey and the Bornean orangutan.

This rich biodiversity has been confirmed by the detailed biodiversity studies commissioned by MCP. Since 1999, BHP Billiton has commissioned six independent, international standard biodiversity surveys and studies in the Maruwai Basin. These surveys were carried out by teams comprising of Indonesian and international scientists.

Within our Coal Contracts of Work (CCoWs) we have found:

- Some 100 species of non-flying land mammal species (including the rare clouded leopard and bay cat), which is over 75 per cent of the total for Borneo
- Nine species of fruit bats (some 50 per cent of Borneo's total)
- 45 species of insectivorous microbats (over sixty per cent of Borneo's total)
- More than 210 bird species (over 75 per cent of Borneo's total).

Our studies also indicated that there is no established or natural breeding populations of orangutans in or directly adjacent to our CCoWs. However, the Borneo Orangutan Survival Foundation has an active translocation and release program in the Murung Raya district that contains our CCoWs.

For some years, the area has been under considerable threat from changes in land use, such as forestry and the rapid growth of palm oil plantations, poorly managed mining practices and illegal mining.

At the same time, Indonesia is a rapidly industrialising economy with a population of 237 million that is growing at an average of 1.2 per cent every year. In seeking to develop its economy, the Indonesian government faces the challenge of balancing the use of its rich natural resources for the benefit of its current people with the preservation of its environment of future generations.

## The program

To support our aim to operate in a way that provides a positive contribution to biodiversity conservation and that is consistent with our BHP Billiton Charter and Sustainable Development policy, we are seeking to implement a comprehensive and practical biodiversity strategy.

We are doing this by, firstly, developing a range of procedures and systems that ensure that biodiversity considerations are included in all relevant aspects of the mine project design and execution. This includes:



Trefoil Horseshoe Bat (*Rhinolophus trifolius*)



- Creating individual site biodiversity plans, based on the findings from in-depth biodiversity surveys and recommendations from biodiversity experts. These plans include set-aside conservation zones within the mine project area.
- Establishing operating procedures at operations that minimise habitat disturbance and loss, and minimising the extent of new roads so as to limit access to inaccessible forest and the resulting migration of people into these locations.

Where existing systems are assessed as not adequately addressing biodiversity concerns, we endeavour to rectify this with additional targeted activities.

Secondly, we are embarking on a process of engagement with conservation non-government organisations (NGOs) biodiversity professionals, the community and researchers that is aimed at delivering biodiversity conservation benefits within our areas of operation and that supports broad-based conservation activities in the wider landscape of Murung Raya district.

Through workshops (four to date) and one site visit we have engaged with four international conservation NGOs and their Indonesian programs. They have contributed to our biodiversity strategy, including the development of the goals, challenges and priorities.

The dual goals for our strategy are to minimise our footprint through leading practice within the area in which we operate and to support broad-based conservation activities.

Our commitment to minimise impact on the forest was evident from the outset of the project, with our exploration program redesigned to reduce unnecessary clearing of forest by having a single exploration camp rather than satellite camps and using helicopters to transport people and equipment rather than constructing access roads.

In addition, all of our abandoned drill sites are in various stages of rehabilitation and revegetation through a comprehensive rehabilitation program. This process is generally initiated within two months of the drill hole being completed.

Our original CCoW area was around 780,000 hectares; since 2000 this area has been reduced by releasing land back to the Indonesian government and it is estimated that the total disturbed area will be less than two per cent of the original CCoW (around 15000 hectares). As of June 2008, our CCoW area is 355,000 hectares.



Should the project proceed, the plan is to commence by creating small mines in the key CCOWs. By starting small, our aim is to develop further understanding of and experience in how to manage the environmental and biodiversity impacts within the region before large scale operations commence.

## Supporting broad-based conservation activities

We are committed to facilitating broader conservation activities and will do this via partnerships with others (government, NGOs, local communities, academic institutions and, possibly, private enterprise) to support external biodiversity projects. Where possible, we will seek the support and advice of external environmental experts in identifying, evaluating and reviewing such activities.

## Going Forward

BHP Billiton has welcomed the opportunity to work with key NGOs on the framework of a regional conservation strategy for the Murung Raya District and to receive their feedback on our environmental strategies. As the Maruwai Projects develops, we look forward to further developing these concepts with our external stakeholders.



# Social Responsibility - Our Approach

BHP Billiton owns and operates a diverse range of businesses in different countries and cultures, the nature of which may affect our host communities. Our objective is to minimise potential negative social impacts while maximising the opportunities and benefits for our host communities. To achieve this outcome, we engage in a range of sustainable development and community relations activities, including:

- Building and maintaining effective stakeholder relationships with people who are directly affected or interested in our operations.
- Upholding and promoting the **human rights** of our employees and contractors, our suppliers, and the communities in which we operate, incorporating such issues as freedom of association, the exclusion of child labour, the prohibition of forced labour and appropriate use of security forces.
- Building social and human capital through community development and **community investment programs**. Our aim is to place local people at the centre of development by helping to build their capacity to control their own development. We value local community knowledge and perspectives over and above those of outside 'experts'.
- Recognising and respecting Indigenous people's culture, heritage and traditional rights and supporting the identification, recording, management and protection of Indigenous cultural heritage. There are many Indigenous communities around the world that are traditional owners of land impacted by our operations or live nearby.
- Monitoring, measuring and managing our social and economic impacts. These impacts can be both positive (increased economic opportunities through employment, training and business spin-offs) and negative (resettlement, impacts on food and water supplies and loss of cultural sites or values).
- Supporting the sustainable development initiatives of our employees through our **HSEC Awards and Matched Giving Programs**.

For more on our community activities, see our **Sustainability Report** (PDF 4.6 MB) and our **Community Report** (PDF 3 MB) or go to:

- [Working With Communities](#)
- [Community Investment Strategy](#)
- [Community Projects](#)
- [Community Programs and Foundations](#)
- [Involving Our Employees](#)

# Working With Communities

Our [HSEC Management Standards \(PDF 148 KB\)](#) and [Code of Business Conduct](#) provide the framework for our interaction with communities at our operations and specifically:

- That effective, transparent and open communication and consultation is maintained with stakeholders associated with Company activities. Stakeholders are encouraged to participate in and contribute to sustainable development through HSEC performance improvement initiatives. (HSEC Management Standard 7)
- Activities and operations are conducted in an ethical manner that supports fundamental human rights and respects traditional rights, values and cultural heritage. Opportunities are sought for contributing to sustainable community development. (HSEC Management Standard 8)

## Stakeholder Relationships

Critical to our long term success is our ability to build relationships and work in a collaborative and transparent way with business partners, governments, non-government organisations and host communities. Wherever we operate, we commit to engaging regularly, openly and honestly with the people interested in and affected by our operations.

Building positive stakeholder relationships reflects our Charter values, which include integrity, win-win relationships and respect for each other in all business activities. Engaging in a respectful and culturally appropriate way with our key stakeholder groups is a vital part of a successful and prosperous relationship with our host communities.

## Community Engagement

Community engagement is a multifaceted process founded on the idea of open, transparent and meaningful communication between two or more parties.

Without effective community engagement strategies and programs, our operations may be left vulnerable to project approval delays, business disruptions and increased costs that can result from mistrust, disempowerment and a lack of information within local communities and other stakeholder groups.

For BHP Billiton, community engagement is viewed as the communication, consultation, collaboration and empowerment that occurs with its key stakeholders throughout the complete life cycle of a project.

The engagement process should be culturally appropriate and encourage active and meaningful participation by providing communities with opportunities to provide input into the project's decision-making processes.

Effective community engagement processes enable the early detection of contentious issues that may result from the presence of our operations and allow stakeholders to be involved in determining effective problem-solving measures and improvement strategies to mitigate such concerns. Such processes also provide an avenue for the Company to become involved in the development goals and aspirations of the host community.

Regular and transparent communication with our key stakeholders is achieved through a variety of engagement activities, tailored to the needs of the stakeholders and respectful of their culture. Activities include meetings with people who have specific interests (for example, environmental interest groups, residents groups, government and regulatory authorities), site visits, public open days, participation in civic events, stakeholder forums, complaints tracking and management, perception surveys, newsletters, newspaper articles and public sustainability reporting (through corporate and site-based reports).

To assist in the ongoing management of our engagement activities, all sites are required to have community relations plans addressing the social elements of the HSEC Management Standards.

## Community Development

Community development at BHP Billiton refers to specific Company activities and provision of support designed to improve, in a sustainable way, the social and economic circumstances of the communities in which we operate.

BHP Billiton maintains that community development should adopt an approach that is implemented by the people, rather than for the people, and that requires significant skills and resources. This approach aims to place much of the decision-making in the hands of the individuals or groups within a community.

Our goal is to implement participatory and sustainable community development that empowers people. Underlying

this goal is the challenge to assist in achieving an enhanced quality of life without compromising core values, culture or heritage and without creating dependency on our activities.

Mechanisms commonly employed to achieve this goal include:

- Building capacity within the community
- Access to basic health care and recreational facilities
- Provision of quality education
- Employment opportunities
- Small and medium-sized business opportunities, including micro-enterprise
- Sustainable access to food and clean water
- Provision of suitable housing
- Support for Indigenous peoples, women, children and minority groups

For more information on community development activities, see our [Community Report](#) or [Community Investment Programs](#).

## Social and Economic Impacts

In the context of our business, social and economic impacts are best described as the positive and negative consequences that arise from the existence of, or change to, a particular project or operation.

Just as mining and its associated activities have obvious impacts on the natural environment, new projects and infrastructure can also create implications for local social and economic conditions. :

### Potential Positive Impacts

- Job creation
- Infrastructure development
- Provision of support services (health, education, utilities)
- Royalties and tax payments
- Demand for products and services from local businesses.

### Potential Negative Impacts

- Increased housing and commodity costs (as a result of inflated wages)
- Environmental damage that impacts local economies (e.g. agricultural economies)
- Health risks (for example, introduction of diseases)
- Increased substance abuse and crime
- Disruptions to cultural heritage and practice
- Increased population and traffic for outside local area
- Impacts of mine closure.

In most cases, the socio-economic changes brought about by our operations are both positive and negative. For example, a new operation will bring additional employment opportunities and service providers to regional and rural areas, however, the resultant increase in population and wealth can drive up housing and commodity prices and introduce negative influences (such as substance abuse and crime) into local communities.

BHP Billiton is committed to monitoring its social and economic impacts on local communities to ensure that, wherever possible, negative impacts are mitigated and positive impacts are encouraged and reinforced.

## Local Communities and Customary Rights

At a very early stage in a project, before any substantive work is carried out on-the-ground, land-owners, occupiers and users that may be affected by the project's activities will be identified.

Depending on the circumstances this may involve inquiries to central government agencies that have responsibilities for managing such information, such as national or provincial lands departments and property titles offices.

Where land may be used for customary purposes and there may be no formal titles issued, this information will be sought from relevant government authorities with responsibilities for customary land uses and any Indigenous peoples representative organisations, such as land and tribal councils. Further inquiries may also be made directly with the people in the area.

Once a project moves beyond the exploration stage specific studies, such as anthropological and land use surveys, may be commissioned to identify the customary owners and how the land is being used. Depending on circumstances, this may occur at the exploration stage.

Knowing who owns and uses the land is critical to an effective community consultation and engagement program. It helps to ensure that affected people are fully aware of the project and that they have an opportunity to express their concerns and aspirations. Arising from this engagement the work plan may be amended to minimise impacts on land owners and users.

Our HSEC Management Standards also require that projects have a system to record, manage and respond in a timely way to issues or grievances that may arise. Such grievance processes are in addition to any other recourse that may exist at law.

## Land Compensation

Our approach to land compensation is undertaken on a case-by-case basis.

Consideration is first given to what land we need; our possible impacts on that land, both short- and long-term; the present and past use of the land; and the effects that our use may have on existing land owners and occupiers. Land owners and occupiers generally include peoples with recognised legal interests in land as well as those that do not have formal title. For example, Indigenous peoples may not have a recognised legal interest but nonetheless are connected to the land by tradition and custom as well as using the land for traditional purposes.

These peoples may also be leading a traditional lifestyle and be dependent, to a greater or lesser extent, on the land for their existence.

Our approach also aims to take into account relevant legislative requirements, industry practices, standards or norms that may exist within a country or region and special circumstances that may apply.

In some countries and regions, legislation prescribes who is to be paid land compensation, the amount, what it is for and how it is to be calculated. In other places, compensation may be by negotiation with the affected parties; for example, in Australia where Native Title rights and interests may be impacted by a resource project. In this example legislation also provides mediation and arbitration processes to achieve an outcome if it is required by any party.

Consideration is finally given to the views of land owners and occupiers as to the form that compensation may take; for example, whether cash, in-kind or a mix of both.

Our preference is to have a substantial portion of any compensation payments dedicated to sustainable socio-economic projects or programs that will leave tangible and long-term benefits for the community or peoples receiving the compensation.

We endeavour to ensure that benefits are provided to as many people as possible who may be entitled to them. Where substantial sums of money are involved, we work to put in place appropriate governance structures so that these monies are managed in a responsible, transparent and accountable manner.

## Black Economic Empowerment in South Africa

BHP Billiton supports broad-based black economic empowerment in South Africa. We believe it is imperative to both the growth and stability of the South African economy and our strategic objectives and long-term sustainability in that country. The principles of transformation and empowerment are in line with the BHP Billiton Charter, which underscores the organisation's "Courage to Lead Change".

We have established a transformation and empowerment technical committee comprising senior managers with diverse skills with the aim to ensure the transformation and empowerment agenda is coordinated and comprehensive. Read about our progress in the [Transformation FY2008 brochure](#) (PDF 2MB).

# Community Investment Strategy

BHP Billiton aims to make a valuable contribution to its local communities, not only by providing employment opportunities, but also by supporting organisations that help to create a healthy and sustainable social fabric in those communities.

Investing in social and community programs is an important element of the Company's approach to community relations.

The key beneficiaries of such investment are host communities. The Company also benefits from effective community investment through reputational enhancement, greater community goodwill and stronger, more stable and supportive communities.

Activities typically included as part of these programs are:

- Capacity-building activities based on education, training, organisational and small business development, which enable communities to participate in economic development
- Long-term business-community partnerships that aim to address social and environmental issues and contribute to sustainable development
- One-off or short-term projects, such as community festivals or events, seed funding, disaster relief, scholarships and the provision of physical infrastructure and equipment
- Small-scale participatory community development projects, working alongside disempowered people to improve their livelihoods.
- In-kind support, such as time committed by employees during work hours or use of Company facilities or resources.
- Employee programs, such as payroll giving and the Matched Giving Program.

Our programs include elements of all the above activities but we encourage a strong focus on capacity-building, long-term partnerships and community development.

Although implementation varies according to the local context, our community investment programs should also:

- Have a clear purpose and operate transparently
- Protect and promote human rights
- Support specific projects of mutual interest to the community and the Company
- Be based on collaboration and participation with partners and community members
- Involve employees in the delivery of community programs
- Focus largely on initiatives that will be sustainable beyond the life of the business
- Incorporate human capacity building
- Measure and evaluate effectiveness.

When operating effectively, the Company's community investment programs should create sustainable, long-term value for our host communities and demonstrate the Company's citizenship. The critical question in regard to our success is whether we have managed to leave a lasting positive legacy in the communities where we operate.

## The Framework

Across the Company our community programs operate at a local, provincial, regional and national level.

- **Local** - The majority of our efforts occur at our operations, where our businesses implement programs to develop and support the local communities.  
At our operations, the asset manager or local community relations professionals are responsible for managing their community support programs, operating within the parameters of our [Charter](#), [Code of Business Conduct](#) and the [HSEC Management Standards](#) (PDF 148 KB). Sites around the world operate their local community programs in different ways.
- **Provincial, Regional and National** - The Company also participates in community investment programs on a provincial and national level in countries where we have a number of businesses and play a major role in the resources sector of that country – examples include South Africa, Australia and Chile. These programs generally

focus on a small number of larger-scale projects that are of interest to the broader community within the country of interest.

Read more about our [Community Programs](#) around the world.

# Community Programs and Foundations

Where BHP Billiton's presence in a region or country is significant, we often participate in provincial or national social programs in addition to local community activities.

In some instances, the Company has established community foundations. These foundations include external representation, often a community representative, to ensure a full understanding of the community's needs and an ability to identify appropriate projects to address the issues.

Examples of foundations and programs include:

## Chile

- **Fundación Minera Escondida/Minera Escondida Foundation** is an independent non-profit organisation established in 1996. The Foundation's purpose is to build up human and social capacities, as an expression of Minera Escondida's social responsibility, and its mission is to transform projects into opportunities for educational improvement and social development.

## Colombia

- **The San Isidro Foundation** in Colombia is an independent body supported by our Cerro Matoso nickel operation. The Foundation aims to improve the quality of life of the communities within the operation's area of influence by focusing its efforts on building a robust local economy that will continue to develop and thrive beyond the life of Cerro Matoso.
- **The Montelíbano Educational Foundation** in Colombia focuses on education provision for Cerro Matoso employees and their families and also provides places for students from the surrounding communities.

## Peru

- **The Antamina Mining Fund** in Peru was established in 2006. The largest of its kind in the country, the Fund focuses on education, health, institutional capacity building and economic development. The Fund's activities are coordinated with the Company's community relations activities and the Ancash Association, Antamina's corporate foundation that specialises in cultural, tourism, and environmental projects (BHP Billiton owns 33.75 per cent of Antamina).

## South Africa

- The main objective of the **BHP Billiton Development Trust** in South Africa is to provide strategic and policy direction in relation to the execution of Socio-Economic Development (SED) and non-preferential procurement initiatives linked to enterprise development programs. The Trust also coordinates and manages the sustainable development initiatives of our South African operations that participate in the Trust (BHP Billiton Manganese, BHP Billiton Energy Coal South Africa and BHP Billiton Aluminium).

## Mozambique

- The **Mozal Foundation** in Mozambique was created in August 2002 to fulfil the corporate social responsibilities of the Mozal smelter. Support focuses on five key development areas defined by the Board of Trustees, namely small business development, education and training, health and environment, sport and culture, and community infrastructure.

## India

- **The BHP Billiton SEWA Society** (referred to as the BHP Billiton India Development Foundation) was established in May 2005 to invest in the development of human and social capabilities in India. Areas of focus include education, health, rural development and integration of indigenous peoples in development and respecting and preserving their cultural and natural heritage.

## Australia

- Within Australia, each BHP Billiton businesses manages its own local social and community programs. Community organisations should contact their nearest operation (see [Locations](#)) for guidelines and to understand the application process.
- The Corporate Centre in Melbourne manages a small number of national partnerships in Australia in the areas of community development, Indigenous programs, education, health and environment. Programs are generally supported for up to three year periods.

Australian organisations that are interested in the company participating in national programs should download our [guidelines](#) (PDF 86 KB) and the [application form](#) (MS Word) Find out about the [Ok Tedi Sustainable Development Program](#).



# Involving Our Employees

## People And Employment

BHP Billiton is committed to developing a diverse workforce and to providing a work environment in which everyone is treated fairly and with respect.

See our [Employment Principles](#) for more information.

## BHP Billiton Employee Matched Giving Program

BHP Billiton has established an Employee Matched Giving Program through which the Company will match the community contributions made by employees.

Every employee (whether full and part-time) is entitled each year to match their contributions to not-for-profit organisations that benefit the community. These contributions can be volunteering in the employee's own time, fundraising or cash donations (including payroll donations). Through the Employee Matched Giving Program, our employees influence how BHP Billiton makes donations and help direct funds to areas of greatest community benefit.

The program is available to all BHP Billiton sites.

## BHP Billiton HSEC Awards Program

The BHP Billiton HSEC Awards recognise those employees and their teams who openly embody the values expressed in our [Charter](#) and go beyond what is required in their day-to-day jobs to care for their fellow employees, the community and the environment.

In 2008, the Awards will be presented in four categories of Health, Safety, Environment and Community. Each category of nomination is assessed by a separate judging panel, comprising one representative from the Company and experts from the non-government, government and academic sectors. The CEO's Awards are nominated by the Customer Sector Group presidents and selected by the CEO.

The judges select a short list of eight finalists in each category. From these, the recipients of Excellence, Highly Commended and Merit awards will be chosen. In recognition of their initiative, each Excellence award and Highly Commended award recipient will be presented with a specially designed sculpture, and each Merit award recipient will receive a certificate. The finalists nominate a charity or not-for-profit organisation to share in their award. These organisations will receive a donation of US\$10 000 (Excellence), US\$5 000 (Highly Commended) or US\$2 000 (Merit).

In addition to these awards for innovative projects, there will be two site-based awards presented in 2008. The CEO's Sustainability Excellence Award will recognise assets that have performed well across health, safety, environment and community and CEO's Energy Excellence Award will recognise outstanding achievements in creating an energy aware culture to drive energy efficiency and reduce greenhouse gas emissions.

A safety leadership award named in honour of former Chief Executive Officer, Chip Goodyear, will be made to one of the Company's business leaders for strong visible leadership, sustained communication and stewardship of safety behaviour and systems.

# Human Rights

Human rights are the basic standards of treatment to which all people are entitled, regardless of nationality, gender, race, economic status or religion. The United Nations Universal Declaration of Human Rights recognises that the inherent dignity and the equal and inalienable rights of all individuals is the foundation of freedom, justice and peace throughout the world.

## Our Public Commitments

We recognise that our activities have the potential to impact human rights in many ways, including labour conditions, activities of security forces, scope of local community programs, and complicity in regard to the abusive activities of others with whom we interact.

The BHP Billiton Sustainable Development Policy states that 'wherever we operate we will...ensure ... we understand, promote and uphold fundamental human rights within our sphere of influence, respecting the traditional rights of Indigenous peoples and valuing cultural heritage'.

In addition, we have made a number of voluntary public commitments to human rights including:

- [United Nations Universal Declaration of Human Rights](#)
- [United Nations Global Compact](#)
- [The Voluntary Principles on Security and Human Rights](#)
- [World Bank Operational Directive on Involuntary Resettlement](#).

## UN Global Compact Sphere of Influence

BHP Billiton manages human rights across our various relationships according to the UN Global Compact's 'Sphere of Influence' model.

At the centre of our sphere of influence are our employees and contractors, for whom we play an important role in the protection of their rights. This is demonstrated through our commitment to providing a safe and secure workplace.

When engaging with our local host communities, we have a responsibility to protect those human rights directly affected by our activities. These include the right to a clean environment by minimising the impact of environmental pollution from our operations and the promotion of other basic human rights, such as access to clean water and basic health and education services.

When engaging security forces, we seek to ensure that human rights principles are upheld through addressing contractual requirements, establishing guidelines on the use and management of security forces including the use of force and identifying relevant training needs.

When engaging suppliers and business partners, we endeavour to avoid being complicit in or encouraging any activities that may result in human rights abuses. Where possible, we also seek to influence the behaviour of our suppliers and business partners by drawing attention to human rights issues, such as safety in the workplace.

While recognising the national sovereignty of host governments, we have a responsibility to promote human rights by contributing to public debate, supporting international agreements and commitments, and identifying opportunities

HUMAN RIGHTS 'SPHERE OF INFLUENCE' MANAGEMENT MODEL



to constructively engage government on human rights issues relevant to our business in the host country.

## Self-Assessment and Management

Integral to meeting these commitments are our **HSEC Management Standards**, which require that human rights aspects are considered on a risk basis by our operations and integrated into business planning and review processes as appropriate. In particular, HSEC Management Standard 3 outlines our approach to HSEC risk identification and management across our businesses, while Standard 8 directs the considerations that need to be made with regards to human rights. Our operations are required to demonstrate:

- The assessment and prioritisation of human rights issues as they apply to our sphere of influence
- Training of employees and contractors with regards to our human rights commitments
- Systems to abide by the Voluntary Principles on Security and Human Rights
- Resettlement plans, where required, consistent with the World Bank Operational Directive on Involuntary Resettlement.

In addition to complying with the Group's external commitment and our HSEC Management Standards, our operations and development sites are required to complete a human rights self-assessment facilitate identification of their human rights exposures.

The self-assessment tool is based on the Group's spheres of influence - employees, communities, suppliers, security forces, business partners and government - and is aligned with the Group's Enterprise-wide Risk Management approach to ensure that human rights issues are identified along with the Company's other social, environmental and financial risks.

Sites with a moderate or high exposure in any of the areas of influence are required to develop and implement human rights management plans.

## Complaints and Grievances

Our Business Conduct governance procedures consider complaints and grievances filed by customers, employees, and communities concerning human rights, including provisions for non-retaliation.

# Stewardship

Stewardship is a principle that calls on all those involved in the product life cycle to share responsibility for minimising the environmental and human impacts that result from the production, use and disposal of the product.

Our Sustainable Development Policy commits us to 'work with those involved through the life cycles of our products and by-products to promote their responsible use and management'.

As a member of the International Council on Mining and Metals (ICMM), we have also committed to implementing the ICMM Sustainable Development Framework, which requires that we 'facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products'.

Our stewardship performance is assessed against HSEC Management Standard 12, which requires that 'the life cycle HSEC impacts associated with resources, materials, processes and products are minimised and managed'. The Standard places particular emphasis on materials and resources efficiency, research and development, waste management, response to external influences and site closure.

In accordance with the International Standard for life cycle assessment, ISO 14043, we have completed life cycle assessments for all of our major commodities. A number of our HSEC Targets relate to stewardship, including the requirement for all sites to retain ISO 14001 certification and targets for energy, greenhouse and water efficiency.

For the past four years, our focus has been directed to working with various stakeholders to build stewardship programs across our commodities. Stakeholders include non-government and industry associations, consumer groups and suppliers, as well as governing regulatory bodies.

Such industry-driven stewardship initiatives are designed to complement the various regulatory frameworks existing in our operating regions and confirm the importance of a collaborative approach to stewardship.

## Types of Stewardship

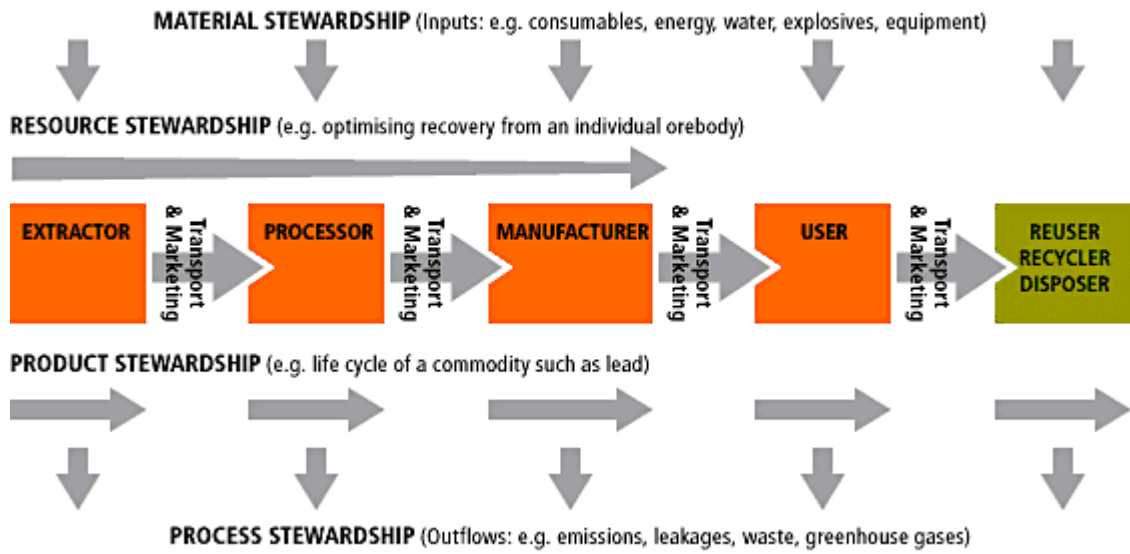
There are four types of stewardship in the life cycle of our products:

- Material stewardship – refers to the different materials utilised to produce the product as the product moves through its life cycle. These include consumables ranging from tyres and fuel to water and energy. Material stewardship is about understanding and managing these materials (or inputs) in order to minimise harm to people and the environment.
- Resource stewardship – ensuring we maximise the value of the resource (e.g., an ore deposit) for both current and future generations.
- Product stewardship – understanding and managing our specific products or commodities in order to minimise harm to people and the environment, as a result of exposure to the particular product and commodities. This is a shared responsibility with others in the life cycle of our product and commodities.
- Process stewardship – refers to the different processes applied to the product (e.g., extraction, smelting) as the product moves through its life cycle and that have the potential to generate outputs (other than just the product). These could include greenhouse gases, waste and other emissions. Process stewardship is about understanding and managing these processes (or outputs) in order to minimise harm to people and the environment.

While material, process and product stewardship apply at all stages of the life cycle, resource stewardship is most prominent in the early stages of the life cycle. Common to all parts of the life cycle are the transport and marketing functions, as both play a critical role in stewardship.

The four types of stewardship are illustrated below, using a generic product life cycle.

## STEWARDSHIP TYPES – GENERIC PRODUCT LIFE CYCLE



The same model can be expanded upon for:

- Each individual stage of the overall product life cycle; for example, the extractive stage
- Individual sites; for example Olympic Dam

# 2008 Performance



## Community Relations

Some 95 per cent of our operating sites and development projects have community engagement programs in place. [Find out more.](#)

## Community Investment

Our voluntary community investment in FY2008 totalled \$141 million, which equates to one per cent of pre-tax profits. [Find out more.](#)

## Human Rights

In FY2008, we reported no significant human rights-related incidents. We introduced a target for all our operating sites to undertake a human rights self-assessment and continued to train our people in human rights. [Find out more.](#)

## Stewardship – Working with Others

In FY2008, we continued our efforts to work with various stakeholders to build stewardship programs across our commodities. [Find out more.](#)

## Transporting Our Goods Safely And Responsibly

In FY2008, we continued our efforts that seek to ensure that all transport is conducted in a safe and responsible manner. [Find out more.](#)

## Community Case Studies

Our case studies represent issues, initiatives, projects and programs from across the Company. [Find out more.](#)

# Community Relations

Our HSEC Management Standard 7 forms the basis of our approach to communication, consultation and participation with stakeholders. The intent is that 'effective, transparent and open communication and consultation is maintained with stakeholders associated with Company activities. Stakeholders are encouraged to participate in and contribute to sustainable development through HSEC performance improvement initiatives.' Read more on our approach to [Working With Communities](#).

## Community Planning

A requirement of HSEC Management Standard 7 is for sites to have a community relations plan in place. For the past five years this requirement has also formed one of the Company's HSEC targets, although it is not included in the revised five-year targets. Sites will continue to be audited against this requirement through the HSEC Management Standard audit process.

## Stakeholder Engagement

A total of 61 of 64 sites have a formal community engagement program in place. These programs comprise a range of engagement activities, from regular meetings of community consultative committees and special interest groups to one-off site visits and open public meetings. Examples of formal consultative groups that are operated by our businesses include:

Business	Country	Consultation	Frequency of Meeting
Pyrenees Project (Petroleum)	Australia	Exmouth Community Reference Group	Three per year (minimum)
Douglas Colliery	South Africa	Housing Working Group	Bi-Weekly
Appin Mine	Australia	Appin Area Community Working Group	Monthly
Cerro Colorado	Chile	Local Development Table with people from Mamiña, Parca, Cancosa, Iquiuca, Quipisca, Macaya, Lirima, Pozo Almonte, La Tirana, Coyacagua communities	Quarterly
Minera Escondida	Chile	Perception survey; presentation and community review	Annual
MMV Nelspruit	South Africa	Mbombela Community Stakeholder Forum	Every 6 weeks
Ekati Diamond Mine	Canada	Meeting on Indigenous Benefits Agreements	3-4 per year
Cerro Matoso	Colombia	Local government e.g. Mayors, Governor, Municipal Council members	Once month (minimum)
Trinidad and Tobago Production Unit	Trinidad and Tobago	Meetings with Mayaro/Guayaguayare Communities	Quarterly
Navajo Coal Company	United States	District 13 Navajo Community Leaders meeting	Monthly

The range of topics discussed during these stakeholder consultation processes covers areas of sustainable development including health, safety, environment, employment and training and community issues.

Issues discussed under the category 'Other' include land management and amenity such as town beautification, upgrades to recreational facilities, cultural preservation and heritage, housing, business updates on growth and expansion projects and impacts, contractor management, crime, security, human rights and land issues, indigenous issues, and social development.

During the reporting period, 30 operations undertook general stakeholder perception surveys to better understand their performance from their stakeholders' perspective, and 25 operations undertook employee satisfaction surveys.

## Public Reporting

The requirement for sites to produce annual sustainability reports appropriate for local stakeholders is integrated into our HSEC Management Standards and this is audited through the HSEC Management Audit process.

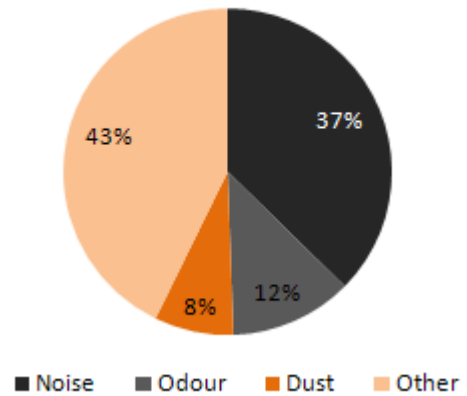
## Community Complaints

All sites are required to have community complaints registers in place to record and track the management of community concerns.

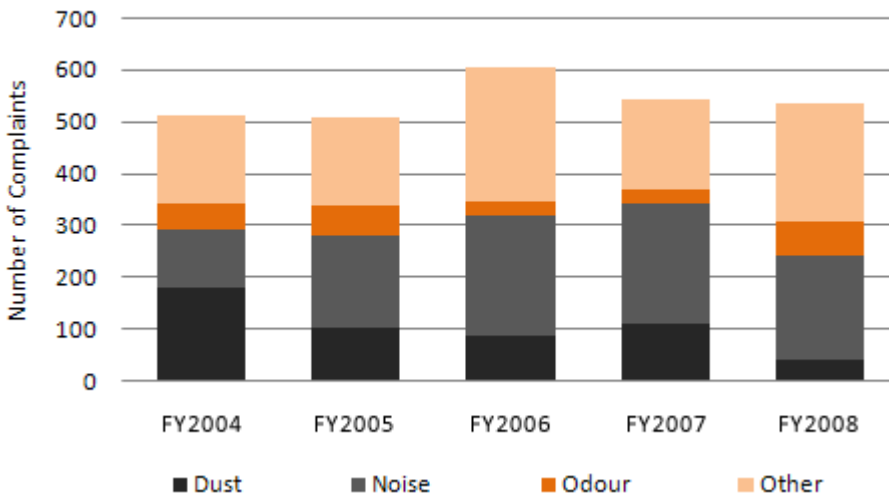
During FY2008, our sites received 536 complaints, similar to 543 received in FY2007.

Similar to the previous reporting period, the single largest type of community complaint was noise-related, with 200 of the total number of complaints registered being on this issue.

**Community Complaints by Category**  
FY2008



**Community Complaints Over Time**  
FY2004 to FY2008



## Community Development Training

The goal of our community relations programs is to bring long-term benefits to people in our host communities. Traditionally, we have focused on service delivery mechanisms such as providing educational facilities or health services. While the provision of essential services remains an important strategy to improve people's livelihoods, to realise human potential and to promote the quality of life of families, we are increasingly looking to supplement these programs with participatory projects, where we work alongside people to assist them in their own development process.

We continue to build the capacity of our practitioners to ensure full community engagement in service delivery and to assist community participation and control of empowering development projects.

In 2005, we entered into a relationship with Oxfam Australia to deliver community development training programs. The practice-based training course covers community dialogue, participatory structures and people-centred community development processes.

In FY2008, we ran 10 courses in Chile, Peru, South Africa and Colombia. Other resource companies are now expressing an interest in this dialogue methodology training.

During the year, we also completed an online knowledge warehouse on our intranet, which contains key reference material and best practice notes on social issues relevant to the resources sector. Areas covered include human rights, stakeholder relationships, social and economic impacts, community development, social risk and opportunities, resettlement and displacement, conflict resolution and mining and Indigenous peoples.



# Community Investment

Community investment programs are operated at four levels across the organisation – locally, provincially or regionally, nationally and globally. Read more: [Community Programs](#).

## Community Investment Programs

The Company supports community initiatives in the locations where it operates. Our voluntary community investment during FY2008 totalled US\$141.0 million, comprising cash contributions, in-kind support and administration costs. This amount equates to 1.0 per cent of pre-tax profits based on the the average of the previous three years' pre-tax profit publicly reported in each of those years. This compares to contributions of US\$103.4 million, or 1.1 per cent of pre-tax profit, in our previous reporting period.

This amount comprises voluntary investment in community programs made on an equity share basis and does not include payments to communities that form part of mandatory licensing agreements. While the cash component of the total investment is allocated from the Company's budgets for community projects in FY2008, some of this funding may be spent after the reporting period. In these cases, the funding resides in a foundation or trust. Allocated funding can only be used for charitable purposes and cannot be returned to the Company.

In FY2009, we anticipate a further substantial increase in our community investment target due to the Company's profit rises in recent years. We remain committed to sharing our success with host communities and will retain our target, but we are also acutely aware that these funds need to be managed carefully if our business is to help create a lasting positive legacy. We recognise that in addition to funding, sustainable development requires knowledge and expertise, ongoing engagement and collaboration and time to effectively plan and actively participate in programs.

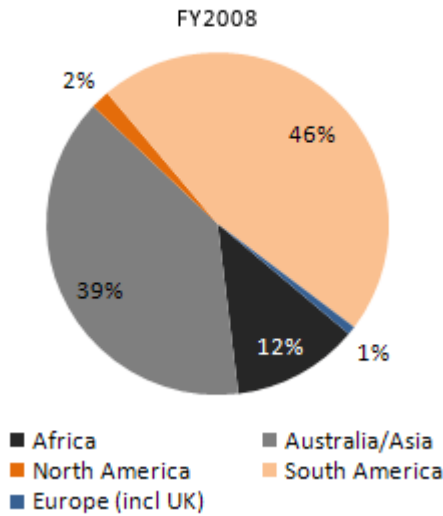
For this reason, in FY2009, a proportion of the Company's one per cent community investment funding may be directed into an entity such as a sustainable development foundation which has the capacity to house funds for community development purposes in future years. On leaving the foundation, the funds would not be counted again when assessing performance against the Company's target. This strategy will be further developed in FY2009.

Since FY2004, our voluntary contributions have been steadily increasing with profits, and in this way our host communities have been sharing in the financial success of the Company. The total community investment made in the past five years is US\$429.6 million.

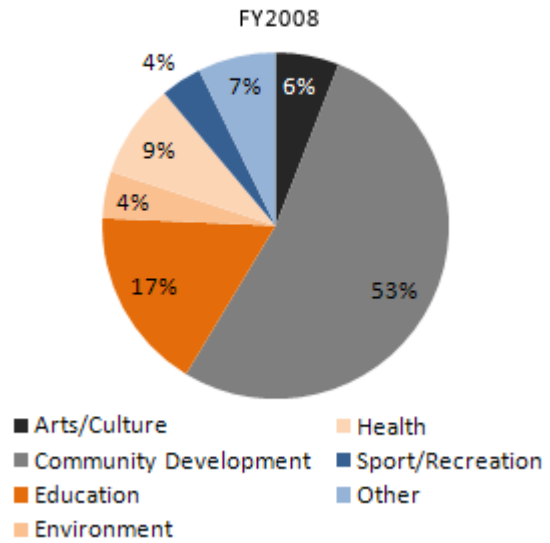
	Voluntary Community Investment	Per cent of Pre-tax profit
FY2004	46.5	1.6
FY2005	57.4	1.6
FY2006	81.3	1.4
FY2007	103.4	1.1
FY2008	141.0	1.0

The distribution of our funding by category, by geographic region and by locality is presented in the graphs below.

### Community Contributions by Geographic Region



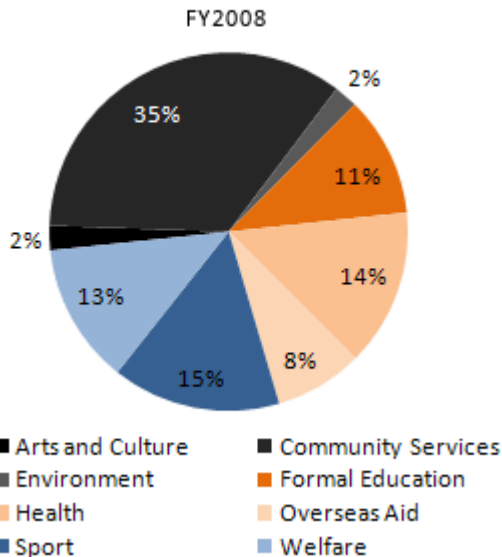
### Community Contributions by Program Category



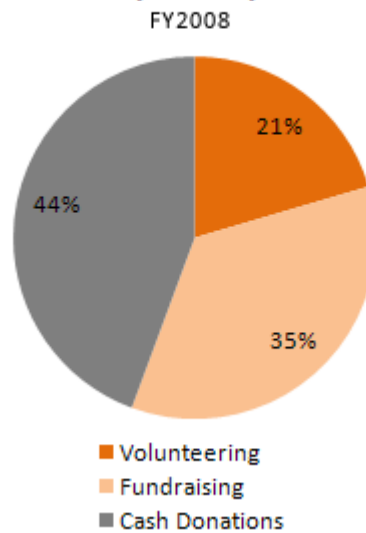
## Employee Matched Giving Program

The Employee Matched Giving Program aims to strengthen local communities by supporting and encouraging employees who volunteer, fundraise or donate to not-for-profit organisations. Through the program we are able to support those not-for-profit community organisations our employees support through their volunteering efforts, fundraising or personal cash donations. The BHP Billiton Employee Matched Giving Program means that BHP Billiton increases employee community contributions, by giving a 'matching' amount to the not-for-profit organisations its employees support.

### Employee Matched Giving By Category



### Employee Matched Giving by Activity



During FY2008, the Company matched contributions totalling US\$4.8 million (excluding administration costs) that was distributed to over 1150 not-for-profit organisations. This is a significant increase from US\$2.4 million in FY2007 and included matching for some 115,000 hours of volunteering by employees in their own personal time.

## Mapping our Contribution to the UN Millennium Development Goals

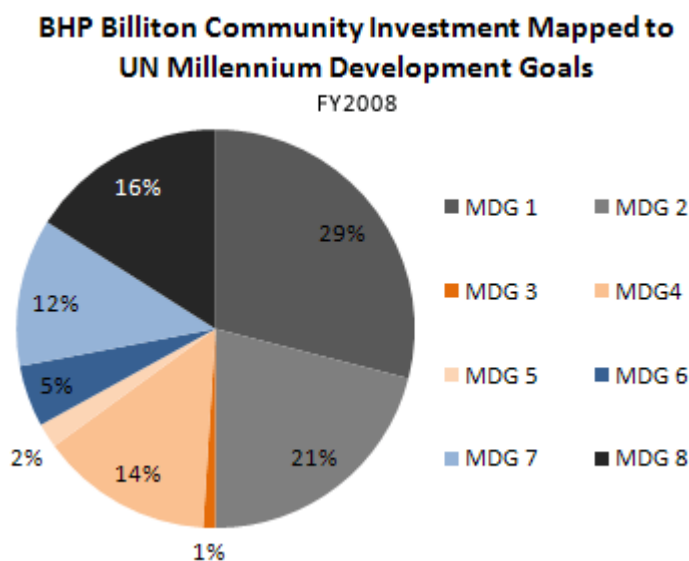
As part of our commitment to the **UN Global Compact**, we know that some of the developing countries in which we operate face critical sustainability issues. We have continued mapping our **community investment** spend against the **UN Millennium Development Goals**, recognising that the intent of the Goals aligns with our sustainability values and presents a consistent global framework for measuring tangible progress.

In FY2008, our sites reported spending US\$40.7 million on programs to help achieve the MDGs, which is almost one-third of the Company's total community investment. Of this amount, the goals that received most focus were MDG 1: Eradicate extreme poverty and hunger (US\$11.8 million or 29 per cent) and MDG 2: Achieve universal primary education (US\$8.3 million or 20 per cent).

Millennium Development Goal	Area of Focus	FY2008 US\$
MDG 1	Eradicate extreme poverty and hunger	11,823,637
MDG 2	Achieve universal primary education	8,307,631
MDG 3	Promote gender equality and empower women	546,294
MDG 4	Reduce Child mortality	5,666,075
MDG 5	Improve maternal health	757,486
MDG 6	Combat HIV/AIDS, malaria and other diseases	2,157,281
MDG 7	Ensure environmental sustainability	4,939,874
MDG 8	Develop global partnerships for development	6,544,985
Total		40,743,263

Key areas of focus in MDG1 were contributing to small and medium business development, skills development projects for communities and support for NGOs addressing key causes of poverty.

Key areas of focus in MDG2 were primary education projects, including school infrastructure and primary teacher training and development.



# 2008 Performance - Human Rights

The BHP Billiton Sustainable Development Policy states that 'Wherever we operate we will...ensure we...understand, promote and uphold fundamental human rights within our sphere of influence, respecting the traditional rights of Indigenous peoples and valuing cultural heritage'. Read more on [our approach to Human Rights](#).

No significant human rights-related incidents were reported in the reporting period.

With much of our exploration and development occurring in developing countries, some of our greatest human rights risk occurs in the areas where our employees and contractors are working in conflict and post-conflict zones. Corruption and security issues also remain a concern in some regions. We manage this risk by undertaking thorough country due diligence, coordinating security processes, maintaining dialogue and community engagement with key stakeholders and ensuring project teams are trained on our associated operating protocols.

## Training and Development

During FY2008, 35 sites reported that they had undertaken some form of human rights training, an increase from 24 sites in FY2007. The training was delivered to 11,891 employees (FY2007: 9,500) and 14,182 contractors (FY2007: 16,883). In addition, 38 sites, or about one-third of our sites, currently have cultural awareness programs in place.

The majority of the human rights training was undertaken in South Africa, Australia and South America.

Twenty-nine of our sites reported having operating security forces, and 24 of these sites advised that these forces have undertaken human rights training. No incidents involving security personnel were identified during the reporting period.

## Human Rights Self-Assessment

A Human Rights self-assessment toolkit is available to assist sites in appraising their potential exposure to human rights issues. The toolkit is aligned with the Company's Enterprise-Wide Risk Management approach. This ensures that human rights issues are readily identifiable and comparable, together with the Company's social, environmental and financial risks.

In FY2008, we introduced a target for all our operating sites and development projects to undertake a human rights self-assessment and, if needed, implement a risk-based human rights management plan. We did not meet this target with 54 of 64 sites (84 per cent) reporting that they have completed their self-assessment; 21 of these sites have developed human rights management plans and two sites that identified human rights-related issues did not complete a management plan by the close of the reporting year; these plans, however, are in progress.

Read more: [Risk Management](#).

## Resettlements

There were two reported resettlements during the reporting period. Both were voluntary.

One resettlement occurred at the Khutala Colliery in South Africa, where one family, consisting of five individuals, was located as their dwelling fell within the blasting radius for the operation.

The other resettlement involved relocation of people from our lease area, which is required to construct the Goedehoop pollution control dam. Four families, including ten adults and nine children were relocated. The resettlement comprised a thorough consultation process with the families to consider a range of relocation options and involved representation from Department of Land Affairs. Consensus was reached with the families and they were resettled voluntarily.

## Traditional Rights

At a very early stage in a project and before any substantive work is carried out on-the-ground the land owners, occupiers and users that may be affected by the project activities will be determined. Depending on the circumstances this may involve inquiries to central government agencies that have responsibilities for managing this information such as national or provincial lands departments and property titles offices.

Where land may be used for customary purposes and there may be no formal titles issued this information will be sought from relevant government authorities with responsibilities for customary land uses and any Indigenous peoples representative organisations such as land and tribal councils. Further inquiries may be made directly with the people in the area.

Once a project moves beyond the exploration stage when work activities can become more intense over a smaller area special studies may be commissioned, such as anthropological and land use surveys, to find out who the customary owners are and how the land is being used. Depending on circumstances these may be even done at the exploration stage.

Knowing who owns and uses the land is very important as it underpins having an effective community consultation and engagement program to explain the project to the affected people and better understand their concerns and aspirations. Arising from this engagement the work plan may be amended where necessary to minimise impacts on land owners and users.

If issues or grievances arise company management standards require that projects have a system in place to record, manage and respond to them in a timely way. Our grievance processes are in addition to any other recourse that they may have at law.

Only one incident was reported during the year that involved accidental disturbance during work activities to a cultural heritage site. Work immediately stopped and the relevant Indigenous people advised. The outcome was recognition that management and control of work activities needed to be improved from planning through to implementation and steps have been undertaken to rectify these deficiencies.

Read more: [Employee Relations](#)

## Complaints and Grievances

Read more: 2008 Case Study: [Cerrejón Coal Independent Review of Social Performance](#) (Colombia)

# Stewardship Performance

## Working with Others

While BHP Billiton focuses on the extraction and processing stages of a product's life cycle, we recognise that:

- The majority of the life cycle of our products occurs after the point of processing
- There is strong business merit for implementing stewardship principles in collaboration with our key stakeholders, improving product differentiation, maintaining market access and maximising opportunities for recycling and reuse.

For the past four years, we have focused on working with various stakeholders to build stewardship programs across our commodities. Stakeholders include: Government and Intergovernmental Organisations, Industry and Commodity Associations, Customers, Suppliers and Communities.

## Government and Intergovernmental Organisations

A key component to our stewardship program has been to engage with government and intergovernmental organisations in their understanding and support for the stewardship principle. This occurs at a global, regional and national level.

In November 2007, BHP Billiton supported and participated in the Asia Pacific Economic Cooperation (APEC) Mining Taskforce Capacity Building Workshop on Stewardship - Life Cycle Partnerships that was held in Beijing. The workshop was co-hosted by the Australian and Chinese governments and built on the February 2007 APEC half-day workshop and panel discussion of Ministers Responsible for Mining on 'Stewardship and Life Cycle Partnerships'.

The workshop was attended by some 80 participants, representing nine APEC economies (Australia, Canada, China, Chinese Taipei, Japan, Korea, Philippines, Thailand and Vietnam) as well as industry and academia. Presentations outlined the life cycle partnership concept, the business case, and policies and activities in APEC economies and globally and how these policies and activities contribute to practical outcomes to minimise waste and maximise opportunities.

On the weekend prior to the Stewardship Workshop, the China Nonferrous Metals Association (CNIA) invited BHP Billiton to present on Green Lead at their annual nonferrous metals conference. This presentation was well received by an audience of approximately 1000 delegates.

In Australia, we chair the Uranium Industry Framework (UIF) implementation working group on uranium transport. Read more: [Transporting Our Products Safely And Responsibly - Uranium Mining Industry Associations](#).

## Mining Industry Associations

In every country in which we operate, we endeavour to be active in the respective national mining association, for example, the International Council of Minerals and Mining, the South African Chamber of Mines, the Mining Association of Canada and the Minerals Council of Australia.

## Commodity Associations

We are active members of relevant associations specific to each of our commodities. Each of these associations has committees or working groups that are focused on product research and development, marketing and promotion. We are active members of these committees and contribute significant resources - people, time, technical input and financial assistance - into the effective running of these groups in order to achieve desired health, safety and environmental stewardship outcomes. For example:

- **Nickel.** We are working with the Nickel Development Institute to implement practical product stewardship guidelines, including the European Union Chemicals Policy (REACH) that requires industry to demonstrate that 'chemicals' (which include metals in this context) are safely produced and managed through their life cycles.
- **Copper.** We are actively supporting the International Copper Association in developing definitions, principles and projects under the Copper Stewardship program. We also participate in their Health Environment and Safety committees.
- **Lead.** We continue to play an active role in the Green Lead™ an initiative originally conceived by our Cannington silver/lead/zinc operation and now adopted by the lead industry. The project is focused on finalising a process that

will independently certify that producers are applying best practice to all aspects of the lead product life cycle. We have established a 'Green Lead in China' Working Group and are working with the Basel Convention Secretariat to implement green lead protocols in Central America.

- **Silver.** BHP Billiton was the foundation Chair of the Silver Research Consortium.
- **Diamonds and Gold.** BHP Billiton was an original signatory to the Council for Responsible Jewellery Practices (CRJP), which aims to introduce standards and practices to improve performance and reinforce confidence in the gold and diamond supply chain. In addition, our Diamonds business is a member of the Kimberley Process Certification Scheme, an international diamond certification scheme aimed at halting the trade in 'conflict diamonds'.
- **Energy Coal.** We support external research into greenhouse gas reduction technologies such as the Australian COAL21, Cooperative Research Centre for Greenhouse Gas Technologies and Cooperative Research Centre for Coal in Sustainable Development.
- **Uranium.** We are active members of the World Nuclear Association and chair their Uranium Stewardship Working Group. In Australia, we chair the Board of Directors of the Australian Uranium Association and its Uranium Stewardship Working Group.
- **Steel.** We currently chair the establishment of a Steel Stewardship Forum that brings together the three raw materials in steel manufacture - iron ore, coal and manganese. The Forum has direct links to the Eden Project in the UK, which is developing a program on materials stewardship in construction.

## Customers

We continue to be proactive in engaging customers on stewardship issues and opportunities.

In July 2007, we spent two weeks introducing the stewardship concepts to a range of Chinese organisations, including the State Environment Protection Administration (SEPA), Beijing Donghua Xinxin Scrap Battery Reclamation Centre, Chinese National Nuclear Corporation, Chinese Guangdong Nuclear Power Company, China Non-ferrous Metals Industry Association, China International Mining Group, Yuguang Gold and Lead Smelter (China's largest), National Development and Reform Commission, National Institute for Radiological Protection, Chinese Centre for Disease Control and Protection and Yangzhou Apollo Battery Co (China's largest battery exporter).

In addition, presentations were made to the BHP Billiton-sponsored Peking University Public Policy Training Program and a keynote address was given at the Australian Embassy-hosted China Business Council for Sustainable Development and BHP Billiton-sponsored one day workshop on Uranium Stewardship and Sustainable Development.

We are also supporting the introduction in China of the Green Lead™ program. In March 2008, the inaugural meeting of the GreenLead China Working Group was held. Attendees were drawn from a cross section of lead-associated organisations and all agreed to become the first members of the working group. Green Lead China has become an official program of both the China Business Council for Sustainable Development and the China Non-ferrous Metals Industry Association.

As a result, Yangzhou Apollo Battery has become the first Chinese lead facility to complete the green lead assessment tool that is currently being trialled globally throughout the different sectors of the lead life cycle. With the assistance of our BHP Billiton China team, a number of stewardship documents have been translated into Chinese and distributed to customers and Government officials.

## Health And Safety Impacts Of Products During Their Life Cycle

Our stewardship approach, and increasingly our approach to product marketing, is designed to improve health and safety and to reduce environmental impact across the life cycle of our products.

In FY2008, we continued hosting stewardship workshops for our marketing personnel. This year a total of 14 stewardship information and planning workshops were held with participation by some 130 marketing personnel from The Hague and Singapore offices. Additional video conferences were also held with our Delhi, Pittsburgh and Johannesburg offices. The incorporation of the stewardship model in our marketing approach is transforming into active projects involving personnel from both our marketing function and customers across several of our Customer Sector Groups.

In 2008, we believe that we have had no incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of our products during their life cycle.

## Product Information And Labelling

We generally sell to industrial customers who are knowledgeable in the handling and care of our products. We

enhance this safety focus by providing material safety data sheets (MSDs) with all of our products, and. In 2007, the European Chemicals Policy, REACH (Registration Evaluation and Authorisation of Chemicals) came into force. The aims of REACH are to improve the protection of human health and the environment from the risks that can be posed by chemicals.

A by-product of both REACH and SAICM (Strategic Approach for Implementation of Chemical Management - a United Nations entity) is the Globally Harmonising System (GHS). The GHS aims to harmonise how we label, handle, store and transport our products globally to protect human health and the environment. The GHS is being progressively implemented across the globe, commencing in Asia in 2008.

## Marketing And Communications

Our customer-centric marketing model means we generally engage directly with customers rather than with brokers and agents. For our key relationships, our ability to provide face-to-face contact between the marketer and the customer aims to improve the result for both parties.

Public comment is vetted, and approval processes are in place to support our adherence to laws, standards and voluntary codes related to marketing communications, such as advertising, promotion and sponsorship. With the exception of diamonds, our advertising is limited to industrial users.

In FY2008, we believe that we have had no incidents of non-compliance with regulations or voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship.

## Customer Privacy And Protection Of Customer Data

Intellectual property, corporate and customer data are protected by our information technology infrastructure. Controls are in place to limit access to customer data and prevent unauthorised alterations. In FY2008 there were no substantiated complaints regarding breaches of consumer privacy.

## Assessing and Maintaining Customer Satisfaction

Assessment of customer satisfaction is generally monitored via ongoing interaction with the customer base both at the day-to-day operational level, as well as at the senior management level. At the discretion of our individual business units, extensive customer satisfaction surveys are periodically conducted on our worldwide customer base.

In FY2008, we did not receive any fines for non-compliance with laws or regulations concerning the provision and use of our products.

## Suppliers

Our suppliers of materials and labour are vital to our business and influence the full life cycle impact of our commodities. Read more about our supplier engagement activities in 2008 Performance - Supply.

## Distribution Service Providers

In January 2008, our Pittsburgh office implemented new vetting requirements for its distribution service providers (i.e. warehouses, truckers and barge lines). Designed to help further drive our commitment to health, safety and the environment and enhance our commitment towards product stewardship, the information gathered will help identify suppliers who share our similar HSEC and stewardship commitments, are service oriented and cost competitive.

In addition, a warehouse audit template with key audit categories (including security, material storage, inventory control, processing and handling and HSEC) has been developed. Annual audits of all warehouse locations are planned and audit findings will be shared with Third Party Warehouses, with an aim of not only improving the delivery on our contractual improvements but also in the attention given by our providers to HSEC issues.



# Transporting Our Products Safely And Responsibly

The transport of bulk raw materials to our sites is a shared responsibility between the receiving asset, the supplier and the transporting agent. We seek to ensure that all transport is conducted in a safe and environmentally responsible manner; and for hazardous materials, our approach to the transport is guided by our Fatal Risk Control Protocol 5 (Hazardous Materials Management) ([PDF 1.1 MB](#))

## Shipping

Where this transport is by sea, RightShip Pty Ltd plays a major role in ensuring the safety of the ship, the crew, the cargo and the environment. Using an online system, RightShip vets every ship that we use to move our cargo. In FY2008, this represented some 3950 ships, some 382 million dead weight tonnage (dwt) of cargo, the inspection and assessment of 1449 ships and the exclusion of 209 high-risk ships from clients' supply chains.

## Air

We continue to encourage, wherever possible, the use of telephone and video-conferencing to reduce the environmental impact of employee air travel and disruption to personal commitments outside of work. Due to the global nature, and often remote locations, of our business, Company air travel is still a significant indirect greenhouse gas emission by our Company. Read more: [Greenhouse Gas Emissions](#).

## Uranium Transport and Export

Uranium production and transport to converters are performed in a safe and environmentally acceptable manner.

All transport of uranium product is conducted under Transport Plans approved and audited by the Australian Safeguards Non Proliferation Office (ASNO), and the South Australian and Northern Territory governments. Road, rail and ocean freight is approved by ASNO; and an integrated exports approval process involves a variety of national and international agencies.

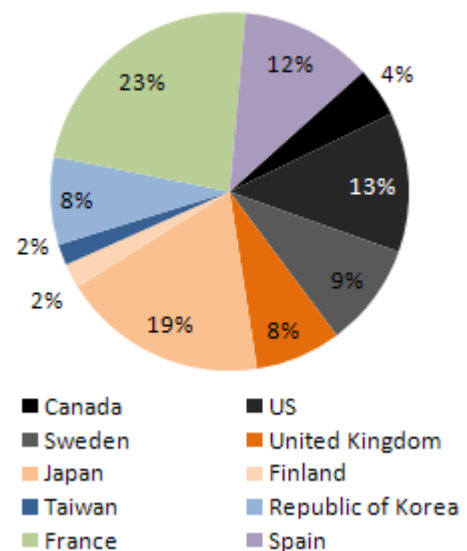
Our emergency response programs have been developed in accordance with international, state and territory objectives. In accordance with our permit to transport, all transport of uranium product in FY2008 was conducted safely.

All the countries to which our uranium product has been sold have been approved and monitored under bilateral agreements with the Australian government and are signatories to the international Nuclear Non-Proliferation Treaty. Our uranium deliveries by region are demonstrated in the adjacent graph .

During the year, we chaired the Uranium Industry Framework (UIF) implementation working group on transport. A key outcome of this group has been the publication of an [information leaflet on the safe and effective transport of uranium](#).

The UIF was initiated in August 2005. Its objective is to identify opportunities for, and impediments to, the further development of the Australian uranium mining industry over the short, medium and longer term while ensuring world's best environmental, health and safety standards. The UIF has been developed in partnership with the South Australian and Northern Territory Governments, industry and other stakeholders.

**Uranium Sales By Country (By Weight)**  
FY2008



## Utilising Secondary Materials and Wastes

At the end of our products' life cycle, they are reused, recycled or disposed of. While we support the use of secondary materials and wastes from sources external to the organisation, the amount we use at our operations is low as our primary business activity is resource (raw material) extraction and not downstream processing. The majority of our product tonnage is also sold in bulk form and has little or no packaging. We do, however, seek to maximise opportunities for utilising secondary material and wastes (where they exist) as demonstrated by the following:

## Waste Water

Approximately 0.2 per cent of BHP Billiton's water demand is provided by waste water from external sources:

- Mt Arthur Coal (Australia) used 340 ML of town effluent for coal processing
- Kambalda Nickel Concentrator (Australia) used 230 ML of waste water from the municipal treatment plant
- Mt Keith Nickel Operations (Australia) used 140 ML from waste water from municipal treatment plant.

## Waste Oil

Approximately 0.19 per cent of BHP Billiton's energy demand is supplied by waste oil from external sources:

- Kalgoorlie Nickel Smelter (Australia) uses reprocessed waste oil for furnace fuel
- Yabulu Refinery (Australia) used waste oil for dryer fuel
- Olympic Dam (Australia) used waste oil in the flash furnace.

## Fly Ash

- Olympic Dam Mine (South Australia) used 106,700 tonnes of fly ash from the Port Augusta Power Station in cement aggregate fill.

# Case Studies

The following case studies are examples of issues, initiatives, projects and programs across the Group that highlight some of the social responsibility opportunities and challenges faced by our operations. Case studies are also on [healthy people](#), [safe workplaces](#), [environmental commitment](#), [our people](#) and [our socio-economic contributions](#).

## PNG Sustainable Development Program - 2008 Update

Since its establishment in 2002, the decision by BHP Billiton to transfer its per cent equity stake from Ok Tedi Mining Limited, the PNG Sustainable Development Program has made strong progress developing and delivering projects for the benefit of the Papua New Guinean people.

## Cerrejon Coal Independent Review of Social Performance

A social review was jointly commissioned by Cerrejon Coal shareholders and management in August 2007.

## Indigenous Trees For Life - Growing Money With Trees

BHP Billiton funds Indigenous Trees for Life in partnership with the Wildlands Conservation Trust in the KwaZulu-Natal province of South Africa. Indigenous Trees for Life is an empowerment and entrepreneurial initiative.

## Engaging With Local Communities In Mondulkiri, Cambodia

Our exploration project in Cambodia offers unique opportunities to BHP Billiton including reducing risk from explosive remnants of war.

## Contributing To Social Programs Through Our Antamina Mining Fund

With an initial contribution of US\$64,319,239 we established and funded the Antamina Mining Fund in Peru. The Fund accounts for 40 per cent of the total mining industry contribution for the program's first year.

# BHP Billiton Encourages New Standards For Indigenous Development Opportunities In Australia

## Opportunity

BHP Billiton is Reconciliation Australia's founding National Leader in Reconciliation and we are proud to be one of the first corporations in Australia to complete a Reconciliation Action Plan.

Much of our efforts in the plan are directed to education, training and employment. We believe that it is in these areas that as a resources company we can make the greatest contribution. We have programs aimed at creating opportunities for indigenous people to work for us directly and also to contract their services.

In September 2007, BHP Billiton awarded Ngarda Civil & Mining Pty Ltd a five year A\$300 million-plus contract to manage and operate the Yarrie iron ore mine. The contract, won on commercial terms, is part of BHP Billiton Iron Ore's commitment to improving Indigenous wellbeing through education, health and employment initiatives.

Ngarda Civil & Mining is dedicated to providing Indigenous people with access to training opportunities to develop their skills and abilities, and gain experience and employment within the company as well as achieving broader benefits in their lives.

Barry Taylor, Ngarda Executive Chairman, congratulated BHP Billiton on its approach to Indigenous development and noted that the contract would cement the long-standing relationship between the two companies. 'The Yarrie mine will be a showcase project where we can work side-by-side with BHP Billiton in building the capacity of local Indigenous communities in the Pilbara.'

Ngarda began operating the Yarrie mine in April 2008.

## Program

Yarrie, some 200 kilometres north east of Port Hedland, is one of seven mines that form BHP Billiton Iron Ore's operations in Western Australia's Pilbara region. Typically, iron ore is extracted by blasting the rock face, then scooped by shovels into 170-tonne capacity trucks that deliver it to crushers where it is processed into lump and fines. Product from Yarrie is then railed to BHP Billiton's port facilities, at Port Headland, before being shipped to international customers. Current production is at two million tonnes per year.

Ngarda Civil and Mining is half-owned by Leighton Contractors and is half Aboriginal owned. Indigenous Business Australia holds a quarter of the company as does the Ngarda Ngarli Yarndu Foundation.

Over time Indigenous Business Australia's shareholding will be sold to the Ngarda Ngarli Yarndu Foundation. Established in August 2000, by the Ngarda Ngarli Yarndu Regional Council, the foundation is an independent body established to seek and nurture commercial opportunities that create employment for the local community and channel funds back into social and economic areas.

Ngarda Civil and Mining's core business is contract mining and materials handling with some 180 employees, of which around 130 are Indigenous.

Leighton Contractors held the management and operations contract at Yarrie from April 1998. The contract includes site operations; maintaining site infrastructure such as bore field and water distribution, high-voltage power supply and distribution, and the accommodation village; and managing site facilities. As part of the contract changeover, Leighton offered its 80-person workforce the opportunity to move to other projects or to stay at Yarrie to assist with training of the new Indigenous workforce.



Jerry Maher and the Ngarda Water Truck.

## Future

Chris Cotter, BHP Billiton Iron Ore Indigenous Affairs Manager, noted that the Ngarda contract has the potential to have a positive impact on social and economic issues in the Pilbara. 'Our work with Ngarda will set a strong foundation for us to invest in and continue to grow our commitment to Indigenous employment.' A commitment that includes raising Indigenous employment across our Pilbara operations to 14 per cent by 2012. We are currently at 9.5 per cent.

In a further milestone for Indigenous development, Ngarda and BHP Billiton Iron Ore are, together, exploring the future establishment of a training facility at Yarrie. The aim is to provide students with hands-on training in different facets of the mining operation including mobile and fixed plant, maintenance, drill and blast, catering and administration.

While still in the development phase, the training facility's primary student base would be community and town-based Indigenous peoples who, in the past, have had limited access to educational and employment opportunities.

# Engaging With Local Communities In Mondulkiri, Cambodia

In September 2006, BHP Billiton and Mitsubishi Corporation signed a mineral exploration agreement with the Royal Government of Cambodia. The agreement allows for bauxite exploration and evaluation of the potential for an alumina refinery in Cambodia.

BHP Billiton's key corporate responsibility commitment is supporting the health, safety and environment of local communities. This is implemented through our global standards, in combination with appropriate international and national law and standards, where there are gaps in local regulations or where those requirements are less stringent.

Cambodia and Mondulkiri Province offer unique challenges to BHP Billiton for engagement as a country emerging from a protracted war and genocide lasting several decades. Mondulkiri is the largest and most sparsely populated province with the capital Sen Monorom situated south centrally as the communication hub. Mondulkiri's unique ethnically diverse people were subjected to aerial bombardment during the Vietnam War and forced migration during the Khmer Rouge period. These events have impacted the province's development and extended the poverty of the population.

Before BHP Billiton's exploration plans commenced an environmental and social impact assessment was commissioned to consult with local communities, government authorities and non-government organisations. The study focused on the health, safety and environmental issues challenging communities in Mondulkiri and how BHP Billiton activities could best improve conditions whilst limiting impact. The challenges identified are as follows:

- Reducing risk from explosive remnants of war (ERW) by supporting specialist teams to remove ERW threats to communities and increasing community awareness and education.
- Strengthening local healthcare service access for impoverished communities as part of sustainable programs to address healthcare needs
- Supporting non-government organisations to provide education and training in healthcare, sustainable agriculture and natural resource management.
- Providing employment and skill training for local people.

## Action

After concluding our agreement with the Royal Cambodian Government, in September 2006, the project team progressed the environment and social assessment and commenced the recruitment and training of local staff. Close cooperation has been established with Ministry of Industry Mines and Energy (MIME), which is providing four onsite geologists, and the Cambodian Mine Action Centre (CMAC) in providing critical ERW risk reduction.

During this period there was a focus on local skills development including developing specialised capabilities for CMAC to conduct deep ERW search operations, advanced training for MIME geologists and training of local staff to operate drilling equipment. Project related staff were inducted into BHP Billiton's safety standards and provided the necessary education for working in ERW hazardous environments.

The initial deployment included infrastructure setup of offices, communication equipment and support to local vendors. Exploration operations commenced in May and continued through to early August where the monsoon season necessitated suspending drilling operations until October 2007. During this initial deployment period, community liaison was established and engagement with local communities establishing conditions for exploration and supporting local needs.



Conducting an explosive remnants of war avoidance education session.

The project engagement with the local community includes three major projects:

- Supporting explosive remnant of war risk reduction and education both inside and outside the concession area in Monduliri Province. BHP Billiton committed approximately US\$160,000 to fund the Cambodian Mine Action Centre's work from January 2007 until July 2008.

Previously, local people attempted to either remove or recover unexploded bombs and landmines from their communities or to sell them as scrap metal, a hazardous occupation that led to serious accident, injury and death. The Cambodian Mine Action Centre's ERW awareness training including avoidance strategies and removal of hazardous items has led to a reduction of risk and enhanced community safety. Local people provided knowledge and information on the whereabouts of ERW hazards resulting in CMAC removing and destroying over 437 explosive hazards. Additionally, 2510 families have been ERW educated in 30 communities across the province.

- Assisting communities' access to health facilities through education and developing awareness of entitlements. We committed US\$80,000 to fund work by HealthNet International to help improve the health status of Monduliri Province's vulnerable population. This project started in January 2008. This project includes repairing remote health posts, training local health staff, providing facilities to access and work with remote ethnic minorities. Four health posts have been upgraded and repaired, and health staff are being progressively trained.
- The Cambodian Department of Education selected 139 disadvantaged children and orphans to participate in an education project, which aims to be a 'gateway to the future' for the students and their families and communities in Monduliri. BHP Billiton committed US\$80,000 to fund work by Village Focus International with its Sen Monorom Boarding School Dormitory and Bunong Cultural Center. This project started in July 2007.

Through our financial support to the Bunong Cultural Center we assist students, teachers, non-government agencies and the local community with access to a computer lab with internet and the facility for meetings and classes. The students study in the government school but live in the Village Focus International dormitory. We help fund their food, accommodation, computer laptops, Internet connection and hire teachers to provide extra courses.

We have assisted the Danish Red Cross working in Cambodia with funding of US\$100,000 for community level, safe water related initiatives. The focus is on providing safe drinking water, safe water equipment and providing training on and supply of household water treatment filters. Since January 2008, five new boreholes have also been drilled to establish access to fresh water. Through a network of Red Cross trained volunteers, there is also an emphasis on provision of health education. Red Cross volunteers are being trained and are operating in five villages.

## Future

The exploration phase will continue into 2009. All exploration projects are speculative with uncertain outcomes, nevertheless BHP Billiton will continue to engage the local community and support projects in line with our commitment to leave long-lasting, positive, community benefits wherever we operate.

# Cerrejon Coal Independent Review of Social Performance

## Challenge

Located on the Guajira Peninsular in north-east Colombia, South America, Cerrejón Coal produces high-grade thermal coal. The company is Colombia's largest coal exporter and second-largest foreign-exchange producer, employing some 5,000 people and around the same number of contractors. During 2007, Cerrejón Coal paid US\$180 million in taxes to Colombia along with royalty payments of close to US\$130 million.

Since, 2001, when we became a co-owner of Cerrejón Coal with Anglo American and Xstrata Coal (each holds a third) we have worked with our co-owners and mine management to address community relations issues relating to the mine before, and during, our involvement.

In July 2007, we received notice from the OECD contact point in Australia that they had received a complaint alleging a breach of the OECD Guidelines for Multinational Enterprises. The OECD decided to await the results of an independent 'social review', which had already been commissioned, of the mine's past and present social engagement and social issues before progressing to assessment.

## Action

The social review was jointly commissioned by the shareholders and management in August 2007, and its objective was to work with all community stakeholders to identify priorities, assess current programmes, and highlight areas of good performance or outstanding issues of concern.

The independent review panel was chaired by Dr John Harker, President of Cape Breton University in Canada and included Nick Killick of conflict prevention NGO, International Alert; Salomón Kalmanovitz, Dean of Economics and Business Administration at Jorge Tadeo Lozano University in Colombia and Elena Serrano of the Chilean NGO, Casa de la Paz Foundation. The Panel were supported in their fieldwork and research by Social Capital Group of Peru and undertook extensive engagement with local communities as well as international stakeholders.

The Panel consulted a wide range of stakeholders and produced a balanced set of recommendations.

The report highlights a number of areas of good practice by Cerrejón including:

- the operation's contribution to the local and national economy;
- its commitment to contributing to the sustainable development of local communities;
- its extensive human rights training programme for employees, contractors, police and army representatives; and
- its objective of raising performance standards in the mining sector.

The report also identifies areas in which the mine could enhance its social practices, including recommendations to:

- strengthen the presence and capacities of civil society groups in the region;
- improve revenue transparency;
- facilitate reconciliation between the disparate groups formed by the former inhabitants of the village of Tabaco and address the current situation of all former residents through a consultative, participatory process;
- consider more broadly the impact of resettlement on neighbouring communities such as Tamaquito or Media Luna;
- increase the access of Wayuu indigenous peoples to economic opportunities created by the mine; and
- change aspects of the way in which it administers social investment.

[See the full panel report.](#)

Anglo American, BHP Billiton and Xstrata Coal made the following joint statement in response to the report: "As shareholders in Cerrejón, each of our companies welcomes the generally favourable observations made by the Panel. Its recommendations for areas of improvement provide a robust and credible platform from which Cerrejón can address legacy issues and continue to improve its social engagement practices, in line with its vision to be a 'company of exemplary ethical behaviour, respectful of human rights and that contributes to the welfare and development of the communities where it operates'."



## Future

Cerrejón management and its shareholders believe that the Independent Panel's final Report provides valuable insights into the resolution of a number of legacy issues and a sound guide to the future development of the company's environmental and social programs. Cerrejon is committed to implementing the Panel's recommendations, in consultation with its key stakeholders, to ensure a fair and lasting resolution of outstanding issues and a further enhancement of the company's social programs going forward.

On 11 April 2008 Cerrejon published a comprehensive response to the final report, which provides a general description of Cerrejón's Social Responsibility Policy, an overview of the Panel's observations and recommendations and a description of the actions which Cerrejón is committed to take in response. We will use future sustainability reports to communicate progress on these actions.

Further details are available in the full Independent Review of Cerrejon's social performance and Cerrejon's response to this Independent Review. Read [more](#).

# Contributing To Social Programs Through Our Antamina Mining Fund

## Opportunity

In December 2006, the Peruvian Government and the mining industry agreed to establish a five-year general contribution program, aimed at enhancing corporate support for social programs in the poorest areas of the country with mining operations.

Our 33.75 per cent owned Antamina Mine was one of the companies leading the negotiations and became the first to sign an individual agreement with the government. Under the agreement, companies, including BHP Billiton, will contribute three per cent of their pre-tax profits. The Fund manages all activities.

With an initial contribution of US\$64,319,239 we established and funded the Antamina Mining Fund. The Fund accounts for 40 per cent of the total mining industry contribution for the program's first year.

Each year, two-thirds of Fund monies are to be invested in 12 Ancash provinces within the mine's direct area of influence. The remaining monies are to be invested in the other provinces within the Ancash region.

During its first ten months of operation, to December 2007, the Fund approved 178 projects – worth a total of US\$42.7 million – in four fields; health and nutrition, education, developing productive skills and strengthening institutions.

## Program

Antamina Mining produces copper and zinc concentrates from an open-pit mine in the Andes Mountains in Huarí province, Ancash Region, some 270 kilometres north of the Peruvian capital, Lima.

As part of its commitments under the general contribution program, Antamina Mining established, funded and provided experts from within its ranks to staff the Antamina Mining Fund. The selected professionals have experience in project management and community relations. In February 2007, Antamina set up committees, based in Huaraz, to receive information and make recommendations in relation to projects and programs to be implemented with Fund monies.

During 2007, the Fund supported numerous programs:

### Health and nutrition

The Ally Micuy program is helping to reduce chronic malnutrition among children, prevent health problems, and promote health care within the Ancash Region. With an annual investment of US\$8,176,000, the program is benefiting 26,800 families living in 1,105 communities located in 111 districts (out of 166) that form the 20 provinces of the Ancash Region.

Specific programs include:

A perinatal health and mother-child health care program to help reduce mother-child morbidity and mortality by strengthening emergency obstetric and neonatal care services.

Requiring an estimated investment of US\$2,195,048 during the first year the Fund disbursed US\$664,026. The program will assist 1210 health professionals including doctors, nurses, obstetricians, technical personnel and biologists, in their responding to the needs of 92,328 pregnant women and 73,861 newborn babies.

A program to improve the quality of health services began with an assessment of the infrastructure needs of 60 health facilities. Another evaluation of the availability and condition of medical equipment in 14 health facilities,



The fund identified a shortage of equipment and furniture within the region's schools and supplied school desks.

identified a need to invest US\$626,252. Tendering for supplying equipment is underway, including the supply of 17 ambulances worth US\$1,498,800.

## Education

A factor in the low performance of the region's schoolchildren was a shortage of equipment and furniture within schools. Fund actions to December 2007 include funding:

- School furniture including the manufacture of 10,935 bi-person desks and distribution of 8,995 desks and 60 libraries to schools
- School repairs including funding of surveys of some 700 schools to determine need and undertaking repairs at 42 schools.

## Developing productive skills

To complement its health and education programs the Antamina Mining Fund looks to assist with generating employment and revenues by helping to strengthen existing, and create new, businesses, boost sales and production capacity, and assisting local businesses to access national and international markets.

Fund actions to December 2007 include:

- The Extra-Regional Market Access Project to help small and medium-sized businesses
- Holding four introduction workshops
- The Resources / TechnoServe program to support 51 businesses
- A productive project competition that identified 56 projects, worth some US\$8 million, to be implemented during the next three years
- Funding a survey of the region's economy and potential

## Strengthening institutions

The Fund's fourth area of investment is in programs to strengthen local institutions and to help equip them to gain benefits from funds generated by Peru's minerals industry. Fund actions to December 2007 include:

- Establishing four municipal management units to provide provincial and district governments with technical advice to support their applications for investment funds generated by mining activity within Peru
- A project to improve the management skills of municipal officers
- Assisting in formulating a regional development plan
- Funding 74 social and productive projects, worth some US\$8 million, to support provincial governments.

## Future

Fund plans for 2008 include continuing with:

- Health and nutrition programs to help reduce chronic malnutrition and improve general health
- Programs to outfit schools with furniture and equipment, and plans to undertaken repairs at 300 schools along with projects to strengthen educational skills and capabilities.
- Productive development programs to support local business projects
- Programs to strengthen institutions and assist them to implement sustainable development projects that generate employment and facilitate social and economic progress.

# PNG Sustainable Development Program - 2008 Update

The PNG Sustainable Development Program Limited (Program Company) was established in February 2002 following the decision by BHP Billiton to transfer its 52 per cent equity stake from Ok Tedi Mining Limited (OTML), a copper mine in Papua New Guinea. BHP Billiton's preferred option was to close the mine early as this would have reduced the amount of material ultimately discharged to the river by approximately 35 per cent while retaining 70 per cent of the net present value of the mine. This option was not accepted by the Papua New Guinea Government.

The transfer of equity to the Program Company marked BHP Billiton's formal withdrawal from the Ok Tedi mine. BHP Billiton no longer influences, benefits financially from the Ok Tedi mine operations, or contributes funds to the Program Company.

Following the transfer of BHP Billiton's shareholding, the equity participants in OTML are the Program Company, the State of Papua New Guinea and Inmet Mining Corporation. OTML continues to operate the mine on behalf of these shareholders.

Since its establishment, the Program Company has made significant progress in developing and delivering projects for the benefit of the Papua New Guinean people.

## PNG Sustainable Development Program Limited

The Program Company is managed independently of BHP Billiton and OTML.

A total of seven directors are appointed: three by BHP Billiton, in consultation with BHP Billiton's Forum on Corporate Responsibility; three by community support agencies designated by the PNG Government and an additional director based in Singapore.

The three main areas of responsibility of the Program Company are:

- The governance of OTML (shared with two other shareholders)
- The management of a Long Term Fund to support development long after the eventual closure of the mine
- The application of a share of current dividends towards sustainable development in Western Province and the rest of Papua New Guinea.

The Program Company's funding guidelines prescribe the nature of projects that are eligible for funding. Approved projects fall within the broad categories of health and education, food production and agribusinesses, forestry and small- to medium-sized enterprises. Projects are delivered through contractors, third-party service providers or local organisations, such as churches, local government and non-government organisations.

An independent review process verifies that projects are being delivered in accordance with approved proposals. There is a transparent reporting process.

## 2007 Program Company Performance

As reported in the Program Company's 2007 Annual Report, the Ok Tedi Mine performed solidly from a financial perspective; and as at 31 December 2007, the Program Company's dividends after withholding tax to the Papua New Guinea government were US\$234 million. To date, the Program Company has received US\$995 million in dividends from BHP Billiton's former equity holding. As mentioned above, BHP Billiton does not contribute to these funds.

Two-thirds of the income received from OTML is held in the Long Term Fund for development programs after mine closure and at the end of 2007, the Long Term Fund held US\$594.2 million. The remaining income received from OTML is available for application to development programs in Western Province and Papua New Guinea generally. At the end of 2007, this fund held US\$225.8 million.

While maintaining its national development effort, the Program Company in 2007 gave special attention to improving village services and long-term development infrastructure in Western Province. During the year the Program Company disbursed K22.9 million under the Western Province Program with a cumulative disbursement of K38.3 million between 2004 and 2007.

In 2007, the Program Company reported making good progress on the identification of major, long-term,

infrastructure and income-generating projects in Western Province so as to support continuation of development momentum after eventual closure of the Ok Tedi mine.

The Program Company also reports that there are now good prospects of establishing on a sound and sustainable basis, a major deepwater port and industrial area at Daru and adjacent areas of Western Province. These facilities would enhance the prospects for a number of sustainable forestry, agricultural, fisheries and eco-tourism projects that are the subject of current consideration.

At the community level under the auspices of its Community Sustainable Development Projects (CSDP) program, the Program Company continued to work in partnership with communities and community-based organisations to deliver small scale projects in health, education, economic and capacity building services. To date, nearly half of all Community Sustainable Development Projects (CSDP) supported by the Program Company are located in Western Province. During the year, the Program Company committed K1.3 million under the Western Province Program with a cumulative disbursement of K4.8 million between 2004 and 2007.

The Program Company continues to foster a supportive but independent role in the Government-sponsored process of Community Mine Continuation Agreements (CMCAs). CMCAs and the shareholders' agreement for BHP Billiton's withdrawal are legislated by the PNG National Parliament through the Ok Tedi Mine Ninth Supplemental Agreement Act 2.

In 2006, OTML and CMCA Communities undertook a formal review of the CMCAs so as to incorporate issues regarding the environmental information that newly became available in 2005. This information indicated that the activities of the mine over 25 years are associated with sedimentation building up in the river bed, increased flooding and acid rock drainage in the Fly River system. As a result, the agreement between OTML and 145 villages was revised and a compensation package of K1.1 billion was established from OTML, the Program Company and PNG Government Tax Credit Scheme.

In 2007, community consultation led to the establishment of the Ok Tedi Fly River Development Foundation to deal with related issues and the implementation of projects. The Program Company funded the design phase of the Foundation. A mitigation plan has also been undertaken by the OTML and the PNG Government for removing sulphur from mine waste and storing it at Bige.

## Background

As has been well documented in the past, mine tailings and waste rock from the Ok Tedi mine were delivered directly to the river system after initial attempts to construct conventional waste retention structures failed in 1983/1984. The environmental impacts associated with this practice exceeded initial predictions and, given the topography, seismic activity and extremely high rainfall in the region, a means of significantly mitigating further impacts was not found.

Our preferred course of action was to close the mine early and we developed a conceptual closure strategy that would have seen a significant reduction in the total amount of waste delivered to the river system while at the same time, extracting much of the remaining value. However, this option was not accepted by the PNG Government - because of the significant financial, social and economic benefits associated with the mine's operations - or the other private shareholder. We therefore decided to exit our shareholding through the creation of the Program Company, which provides significant social benefits to the people of PNG and particularly the Western Province. The outcome was described by the PNG Prime Minister as "fair".

The discharge of tailings to the river system that led to our withdrawal from Ok Tedi was not the proposed method of waste disposal when the mine was being developed in the early 1980s. Construction of a conventional tailings dam was well advanced before two massive landslides made completion unfeasible. Subsequent engineering investigations concluded that the area's topography, high rainfall, seismic activity and geotechnical instability meant a dam could not be constructed to acceptable safety standards in the vicinity of the mine.

Shareholders in OTML (including BHP Billiton) were left with the choice of disposing of the waste via the rivers or stopping further development and operation of the mine. The decision to proceed at the time was based on evidence that the downstream aquatic ecosystem was well adapted to recovering from natural inputs of massive amounts of sediment. Predicted environmental impacts were based on the best available knowledge at the time.

Although it has not been feasible to resolve the fundamental issue of mine waste retention, OTML has continued to pursue opportunities to minimise the impact of continued operations. A dredging operation in the lower Ok Tedi is continuing with localised benefits, and recovery of pyrite has commenced. Full cash provisioning is being implemented by OTML's shareholders to provide for mine closure. BHP Billiton's exit from Ok Tedi was contingent on an informed consent process managed by OTML and the PNG Government confirming that villages affected by the mine's operations consented to the mine continuing to operate, and to the level of compensation for the mine's

environmental impacts. In total, 93 per cent of the villages consented through a process that was monitored by government and church groups.

There have been a number of learnings for BHP Billiton from the Ok Tedi experience. Our capital review processes include a requirement for social and environmental assessments from the outset. BHP Billiton has also publicly stated that it would no longer invest in new projects using riverine tailings disposal.

# Indigenous Trees For Life - Growing Money With Trees

## Challenge

In Zululand, South Africa, where BHP Billiton's Hillside and Bayside aluminium smelters operate, rural communities are often characterised by their poor education, health and social infrastructure. BHP Billiton and Wildlands Conservation Trust's Indigenous Trees for Life initiative in the KwaZulu-Natal province aims to address disillusionment and despondency by creating a framework for young unskilled community members to participate as 'Treepreneurs' and be rewarded according to the effort they put into the project.

The program's Treepreneurs are:

- Identified through community leadership and school leadership structures
- Trained in indigenous tree propagation techniques
- Provided with propagation starter packs
- Mentored through the propagation process
- Provided with a market for the trees which they propagate



Two Treepreneurs

The project aim is to provide the 'poorest of the poor' with a sustainable livelihood while they engage in community development projects. Participants generate much needed cash while improving their basic communication and numeracy skills and, possibly most importantly, nurturing self-confidence and hope.

## Action

BHP Billiton funds Indigenous Trees for Life in partnership with the Wildlands Conservation Trust in the KwaZulu-Natal province of South Africa. Indigenous Trees for Life is an empowerment and entrepreneurial initiative that also helps to green the region.

Our first step was to engage the community, tribal authorities and other stakeholders. Once each group had a clear vision of the project's benefits, we drew on their expertise to guide us on how this project would evolve and who it should benefit. In this case, it was decided to target 'vulnerable' community members. Accordingly, the program is built on a network of 'Treepreneurs' (between 10 and 16 years of age) who are some of the most vulnerable children in the community. Many are HIV-AIDS orphans and the sole providers for their extended families. These children live in poverty and have the self-drive and commitment to generate a livelihood if given a chance.

A team of facilitators teaches the children to grow indigenous trees from seed. When the seedlings reach a certain height they are sold to the Wildlands Conservation Trust, providing income for the household. The Trust uses the seedlings for forest restoration in carbon sink initiatives.

Establishing a viable and sustainable market for trees propagated by the Treepreneurs is critical. The Wildlands Conservation Trust undertakes to purchase each tree propagated by the Treepreneurs for between 5 to 10 Rand (approximately 65 cents to US\$1.30). The Trust's program team is establishing markets for trees produced by the Treepreneurs. Linking the Indigenous Trees for Life project to credible carbon sink projects through restoration of degraded forest areas, provides such a market.

A unique project innovation is the creation of a 'Tree-Store'. From the beginning of the project we realised that children with money in their pocket would become victims of crime. Growing trees in a backyard is very visible – in a community where poverty, unemployment and crime is rife, we had to ensure the safety of the children. If a child had 50 seedlings ready for sale and the next day those seedlings were gone, it meant that the child had up to R500 in their pocket.

At a 'Tree-Store' seedlings can be bartered for maize meal, canned foods, washing powder, school clothes, stationery and even bicycles. School fees and school outings can also be paid for via the 'store'. In many cases, the child's extended family has input into what should be acquired.

## Future

The program began with 80 children and the program continues to grow. The Treepreneurs project will also be replicated in the Nkandla area of KwaZulu-Natal, a remote area where unemployment is a major challenge. It is hoped that this project will continue to enable more people the opportunity of earning a sustainable livelihood.



# Our People - Our Approach

At BHP Billiton, our objective is to be the company of choice – creating sustainable value for our shareholders, employees, contractors, suppliers, customers, business partners and host communities.

We are committed to open, honest and productive relationships with our employees based on the values of our Charter. This includes earning the trust of employees by being forthright in our communication, consistently delivering on commitments and maintaining an equal opportunity work environment based on merit. We aim to be consistent, fair and transparent in recruiting, assessing, promoting and rewarding our people.

The precise nature of our relationships with employees is determined locally but is consistent with our [BHP Billiton Charter](#), Human Resources Strategy, [Sustainable Development Policy](#), [Code of Business Conduct](#). Our commitment to open communication with our employees is reiterated through our Directors' Report contained within the Company Annual Review.

## The BHP Billiton Way

To deliver on our aspiration we need to act in a consistent manner according to our shared set of Charter values, with clear strategic intent and according to a defined operating model. Together, with strong leadership, these elements constitute our way of doing things, The BHP Billiton Way. This operating model is designed to clearly define our respective accountabilities. Specifically it articulates the relationship between, and responsibilities of, the Group functions, minerals exploration, our Customer Sector Groups and marketing.

## Leadership and Culture

Strong leadership is a cornerstone of organisational success. Our intent is to foster a culture where globally diverse and often remotely located leaders behave in a manner that models the Charter, drives superior performance and allows every employee to start each day with a sense of purpose and end it with a sense of accomplishment.

Our Leadership Model provides guidelines on what it takes to be a BHP Billiton leader. It is designed with a mix of the core attributes and behaviours and leadership styles that we look to our leaders to demonstrate, to identify and to develop in others, and to reward. The Leadership Model is also directly tied to our Human Resources and HSEC strategy and standards.

## Human Resource Strategy and Standards

As outlined in our Corporate Strategy, people are the foundation on which all activities rely and to be successful, we must identify, recruit, train, develop and retain a talented, diverse, mobile and motivated workforce.

The Human Resources Strategy connects our values and culture (as defined by our Charter) and our business requirements to the way we manage our people and assess our human resources performance.

Our Human Resources Management Standards establish our objectives on each of the major components of people management, and are aligned with our [HSEC Management Standards](#). Each Standard specifies performance requirements with which our businesses must comply and metrics that are used to guide and assess our performance.

A significant portion of our workforce is contractor-based, and we work closely with our contracting companies - in particular those whose activities materially interact with direct employees in terms of culture, standards and behavioural expectations - to determine if their approach to human resource management, including employee relations, is consistent with that of BHP Billiton. Where we detect that inconsistencies exist, we endeavour to work to address these.

Refer to the following for details on our approach to Human Resources:

- [Attraction and Recruitment](#), including an overview of our graduate programs, freedom of association and child and forced labour
- [Training and Development](#), covering such aspects as work/life balance, the employee assistance program, grievance mechanisms and managing transition
- [Reward and Recognition](#), addressing priorities for financial and non-financial rewards programs.

# Attraction and Recruitment

Our businesses assess and forecast their workforce requirements for a five-year period, in alignment with our business plans.

Diversity of skill, thought, ethnicity, language, gender, experience and relationships is a source of competitive advantage. Effective recruitment processes help us to ensure a steady flow of high-potential people, in both developed and developing countries.

Our employment decisions are based on merit. Applicants are treated in line with our Human Resources Standards, the Guide to Business Conduct and the Charter values.

Selecting the 'right' candidate includes an assessment of the team balance and the individual's mix of skills, experience and capability. Decisions based on attributes unrelated to job performance may constitute discrimination and are prohibited. We recognise, however, that in special circumstances affirmative action may be required to address historical issues of inequity or other situations outside of our control. [Read more.](#)

Harassment in any form is unacceptable, and perpetrators will be subject to disciplinary action.

The current strong commodity cycle and our pipeline of development projects have increased demand for highly skilled executives and staff with relevant industry and technical experience. Read more about our understanding of the potential implications of human resources skills shortages in the Company Risk Factors (2008 BHP Billiton Annual Report).

## BHP Billiton Group Graduate Development Program

The Company offers a two-year structured graduate development program that is designed to provide participants with the challenges, skills and experiences to develop tomorrow's leaders.

- **Professional Graduate Recruitment Program.** Operating in Australia since 2004, this program successfully recruits graduates across a range of disciplines, including engineering, science and business functions. [Read more.](#)
- **International Graduate Recruitment Program.** As part of the Company's overall business strategy, we have future growth opportunities in areas including Russia, Africa, India, Indonesia, China, Mongolia and Brazil. As a result, in 2006 we introduced a program that seeks high calibre graduates from these areas that we can develop in our global operations and ultimately return to their home country. [Read more.](#)

## Freedom of Association

We fully recognise the right of our employees to freely associate and join trade unions.

Our policy is to consult with employees on major organisational changes that affect their position and ensure processes are in place at all locations to equitably address any issues. Consultation occurs within the timeframe specified by local regulation and/or terms of employment.

Across our locations we have a mix of collective and individually regulated employment arrangements and common law contracts. While collective bargaining is not universally practiced across our operations, this does not affect the rights of employees to choose to belong to trade unions. Prospective employees are made aware of employment arrangements prior to joining the Company.

## Child and Forced Labour

In line with our policy commitment to the [UN Universal Declaration of Human Rights](#), we prohibit the use of child labour or forced labour at our operations.

# Training and Development

Employees have clear job requirements, and we are committed to working with all our people to develop career paths that will enable them to reach their full potential, achieve job satisfaction, and maximise their contribution to the Company.

It is our goal that all employees participate in at least one performance review per financial year, which is typically conducted by the employee's immediate manager or supervisor. The process is designed to provide balanced and realistic feedback and helps identify each individual's development and training needs. The process works to differentiate, reward and manage an individual's performance. Specific technical skills training and HSEC training are managed within the businesses.

BHP Billiton offers leadership development programs across all levels of the business in order to develop capability and align leaders with our Leadership Model. Membership of professional associations and attendance at professional events is encouraged if they will enhance the employee's job skills, performance or contribution to the Company.

Employees are also encouraged to create career development plans, and engage in discussions regarding career or job concerns with their supervisor at any time. Regular talent management processes actively manage placements for critical vacancies and career development. An internal job posting process also assists employees identify potential career moves.

In accordance with our HSEC Management Standards, all of our workforce is represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety matters and programs. Read more: [Safe Workplaces - Our Approach](#).

## Work/Life Balance

The Company recognises that employees have a wide range of personal obligations that can have an impact on their ability to balance work and personal life demands. The global nature of our operations also poses specific challenges for some employees.

We endeavour to implement policies and practices that help employees to balance these demands; and, wherever appropriate, businesses consider flexible work arrangements in the context of their requirements. Guidelines are available for all employees in order to develop and maintain flexible work practices where appropriate. Read more: [Fit for Work/Fit for Life](#).

## Employee Assistance Program

Employees facing personal and work-related problems can access free confidential, independent counselling via the Employee Assistance Program. Managers and supervisors can also seek advice with respect to staff that could benefit from the program.

## Grievance Mechanisms

Most employees have effective grievance procedures included in their terms of employment. Additionally, our [Code of Business Conduct](#) provides a framework for reviewing any decision or action that is not settled locally or may be inconsistent with our Charter, policies or standards. The course of action required to resolve a concern will depend on the nature of the issue and its severity, and ranges from simply assisting the affected person's immediate manager or supervisor to resolve the issue to seeking a review by our Global Ethics Panel. In all cases, confidentiality is maintained to the highest degree possible, and employees who raise concerns will not be subject to retribution or disciplinary action where the concern is genuine. Read more: [Business Conduct](#).

## Managing Transition

From time to time, it is inevitable that changes to operations may be required as a result of economic, technological or structural impacts, which may result in redundancies.

Our policy is to consult with employees in a timely manner on major organisational changes that affect their position and ensure processes are in place at all locations to equitably address any issues. Consultation occurs according to the process and timeframe specified by local regulation and terms of employment.

Reasonable alternatives to redundancy are considered, including relocation and retraining employees to assume new roles and providing opportunities for transfer to different business units.

Redundancies will always be managed in a manner consistent with the requirements of our Charter, local legislation and the conditions of employment agreements. In addition, we will generally provide further support in the form of monetary payment, transition counselling and/or ongoing career management.

# Reward and Recognition

Our reward and recognition policies and practices have a significant impact on our people, their performance and the development of their capabilities. We use a total compensation approach that incorporates base and variable pay, benefits, other incentives where appropriate, and non-financial rewards. We aim to ensure that our compensation meets or exceeds the legal minimum wage requirements and complies with all applicable laws and the Company's Code of Business Conduct.

Individual remuneration packages are based on merit, aligned to our business requirements and sufficiently attractive to recruit and retain the best people.

## Superannuation and Pension Plans

The BHP Billiton Group operates or participates in a number of defined contribution and defined benefit pension plans throughout the world. The more significant schemes relate to businesses in Australia, South Africa, the US, Canada and Europe. The plans are internally governed to ensure that both Company and external regulatory requirements that apply to the plans are fully met.

# 2008 Performance



## Employee Relations

In FY2008, we employed some 41,000 people and 61,000 contractors. We aim to be consistent, fair and transparent in our Human Resources practices, as well as meeting our commitment to the UN Universal Declaration of Human Rights and relevant legislative requirements. [Find out more.](#)

## People Case Studies

Our case studies represent issues, initiatives, projects and programs from across the Company. [Find out more.](#)

# Employee Relations - 2008 Performance

Refer to the following for detail on our employee relations performance over the reporting period:

- Employee Profile
- Turnover
- Training and Development
- Diversity
- Remuneration
- Superannuation and Pension Plans
- Employee Relations

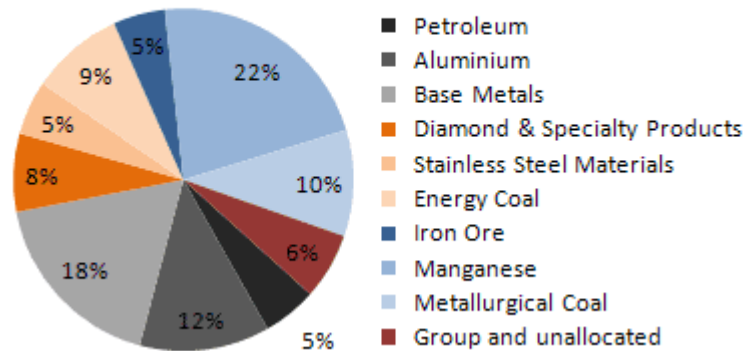
For further detail on how we manage employee relations aspects, refer to [Socio-Economic > Our Approach](#).

## Employee Profile

In FY2008, we had an average of:

- 41,732 employees. This includes, in accordance with our IFRS reporting requirements, directors, full time employees, permanent part time employees measured on a full time equivalent (less than one per cent of total average employees) and our proportionate share of employees from all jointly controlled entities.
- 61,000 contractors engaged at our owned and operated assets.

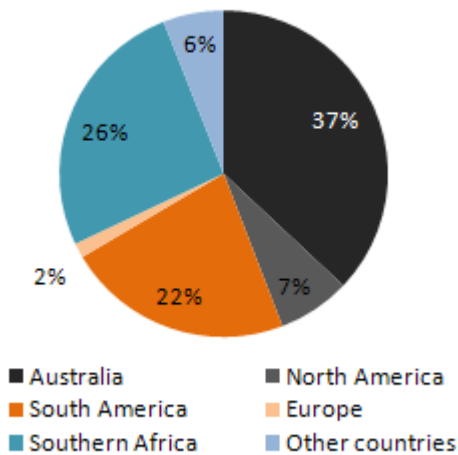
**Average Number of Employees By Customer Sector Group**  
FY2008



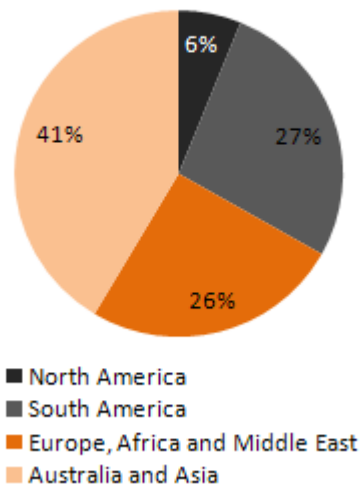
Both our employee and contractor workforces have marginally increased, when compared to the previous reporting year, as we expand our operations to meet rising demand for our products.

We are not aware of any BHP Billiton owned or operated site using child or forced labour during the reporting period. All sites are conscious of, and apply, the requirement to not employ anyone under minimum working age in their jurisdiction.

**Employees by Key Geographic Locations**  
FY2008



**Contractors by Region**  
FY2008



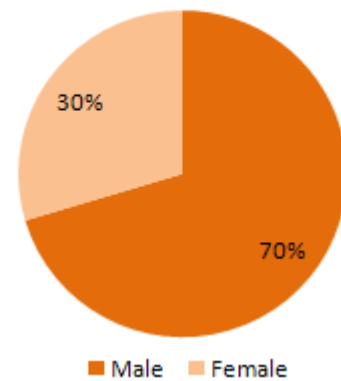
## Turnover

Based on all employees working in our wholly owned or controlled sites, total employee turnover in FY2008 was 14 per cent, compared to 12 per cent in the previous year. This upward movement reflects the buoyant market conditions within the global resources sector, which is providing our workforce with greater options than if the labour market was unconstrained. We have responded by implementing initiatives designed to assist in retaining our key employees and those with critical skills.

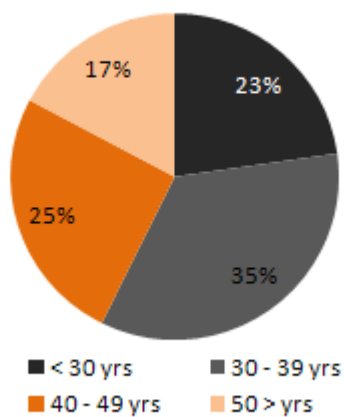
Analysis of turnover by age group and geography indicates results similar to that experienced in the previous reporting year:

- A higher proportion of our turnover is represented by males than females, which reflects the higher percentage of male employees in our workforce
- Turnover by the age group 30–39 years is substantially higher than other age groups.

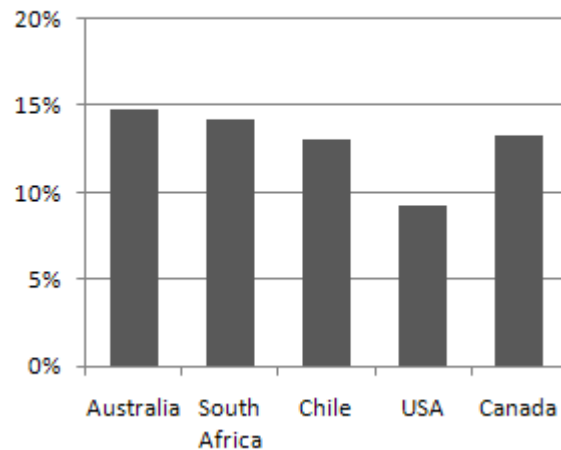
**Turnover by Gender**  
FY2008



**Turnover by Age Group**  
FY2008



**Turnover by Key Geography**  
FY2008



## Diversity

Our representation of employees across age groups in FY2008, based on all employees working in our wholly owned or controlled sites, has not materially changed to that reported in the previous year.

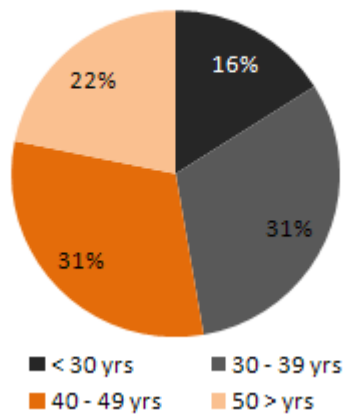
In FY2008, some 17 per cent of full-time employees at operated sites and offices were women, which is a slight increase to that reported in FY2007. Approximately 12 per cent of management positions are held by women, a four per cent increase from the previous reporting year.

The Company continues to work with some sites and countries where diversity issues are sensitive, often due to historical issues of inequality and employment imbalance. Examples of some ongoing policies or programs to address such issues are described below.



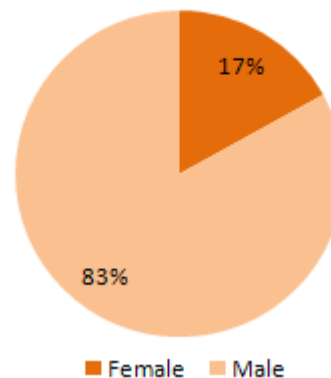
## Employees by Age Group

FY2008



## Employees by Gender

FY2008



## Employment Equity in South Africa

To address historical issues of inequality in South Africa, BHP Billiton South Africa supports the Black Economic Empowerment (BEE) legislation through programs designed to encourage and support the employment and training of black people.

The external pool of skilled and experienced executives in our industry is limited. Our focus is geared towards developing the pipelines of talent into the organisation, and we have launched a number of supporting initiatives.

All operations in South Africa have apprenticeship programs that provide technical and personal training for tradespeople (artisans) and technical university students. These courses are generally one to two years in duration, depending on a student's individual project. Tailored programs are designed at the asset level rather than enforcing a standard approach across the Company.

While our South African BEE scorecard is not yet at the level where we would like it to be, transformation targets and implementation plans driven at the highest level of regional leadership are in place and are monitored on a quarterly basis. We are committed to working towards achieving full compliance.

## Indigenous Employment and Training

We recognise Indigenous employment and training as an important issue with many of the communities in which we operate and we undertake a number of initiatives including:

- BHP Billiton Iron Ore is committed to achieving 12 per cent Indigenous employment by 2010. A range of programs has been developed to assist in achieving this target, including education partnerships to support local Indigenous students, support for local Indigenous business partnerships and targeted selection for entry level positions, including traineeships and apprenticeships. Major contractors and service providers are also required to commit to achieving the 12 per cent goal, and Indigenous contracting guidelines have been developed to further identify and assess business opportunities for Indigenous contracting businesses. During the year, Iron Ore's Indigenous employment rate reached 8.23 per cent for employees and 9.59 per cent for contractors.
- Groote Eylandt Mining Company (Australia) has a target of 21 per cent Indigenous employment. In FY2008, our Indigenous employment rate was approximately 18 per cent. A specific employment strategy is in place in the Rehabilitation and Mine Services Department that combines employment and training activities. Other strategies are being investigated to help meet the target, including methods to employ more of our longer-term Indigenous employees in trade and supervisory roles. We have also commenced working in partnership with the Polly Farmer Foundation to improve the educational outcomes of Indigenous students and thus improve their ability to compete effectively for employment.
- The EKATI Diamond Mine, in the Northwest Territories (NWT) of Canada, has a number of initiatives related to Indigenous employment and training. EKATI has partnered with different levels of government, the communities in which it operates, and industry partners to form a training coalition called the Mine Training Society. The mandate of this committee is to provide pre-employment training to aboriginal people that live in the north to prepare them for a career in mining or a related industry. EKATI exceeded its target of 31 percent of Northern Aboriginal people employed within its workforce and we have over 30 aboriginal trade apprentices that are working towards their certification at site. We have also promoted our first aboriginal trainer who works in the Process Plant.

- New Mexico Coal operation in the United States has legal and contractual obligations to ensure that positions at the Navajo Mine are filled with Navajo tribal members, where a suitably qualified candidate is available. The operation has voluntarily extended Native American preference across the San Juan Coal Company and also for any New Mexico support services. Currently Native Americans total 64 per cent of the workforce. New Mexico Coal provides training opportunities for Indigenous employees by way of trades apprenticeship programs and a mentoring program for indigenous professionals. New Mexico Coal also maintains a scholarship program for Native American youth.

## Freedom Of Association

Wherever we operate we aim to comply with the relevant legislative employment framework. We also fully recognise the right of freedom of association by our employees. We have a number of locations where we have a mix of collective and individually regulated employment arrangements, but this does not affect the rights of those employees to choose to belong to trade unions.

Prospective employees are made aware of employment arrangements prior to joining the Company. Our policy is to consult with employees on major organisational changes and ensure processes are in place at all locations to address any issues.

In FY2008, around 47 per cent of our global workforce was covered by collective by collective agreement, which is similar to that reported in the previous year. During the same period, we experienced a 33-day strike at our Cerro Matoso operation in Colombia. The dispute related to the renewal of the collective agreement.

## Training and Development

The Company is committed to working with employees to develop career paths that will enable them to reach their full potential, achieve job satisfaction, and maximise their contribution to the Company.

During FY2008, we consolidated our approach to talent management by improving our identification and understanding of our talent, and strengthening the talent pipeline through leadership programs and individual development, mentoring and coaching.

In FY2008, the average hours spent on training per annum per employee working in our wholly owned or controlled sites, was 49 for full-time and 24 for part-time employees.

Reflecting the criticality of leadership development and training to our success, during the year, more than 500 people participated in our intensive global and CSG leadership development programs and 515 graduates attended our Foundations for Graduates Program. Role specific and technical training is undertaken at a business level as we believe such training is better executed close to the business.

As outlined in our Human Resources Standards, it is our goal that all employees participate in at least one performance review per financial year. In FY2008, we did not meet this goal, with 76 per cent of our employees participating in a performance review. We remain committed to building a performance-based culture and, to that end, are working to ensure that all employees have the opportunity to participate in a performance review.

## Remuneration

Our approach to remuneration seeks to ensure that remuneration is aligned to market conditions relevant to the industry and location where we are operating and enables individuals to see the link between their performance and the level of reward they receive.

We believe that during the reporting period, our employees working in our wholly owned or controlled sites earned greater than the stipulated minimum wage in the countries where they worked. The Company's remuneration policy and practices do not differentiate based on gender.

## Superannuation and Pension Plans

### Defined benefit pension schemes

The BHP Billiton Group has closed all defined benefit schemes to new entrants. Existing defined benefit pension schemes remain operating in Australia, the Americas, Europe and South Africa. Full actuarial valuations are prepared and updated annually to 30 June by local actuaries for all schemes. The Projected Unit Credit valuation method is used. The Group operates final salary schemes that provide final salary benefits only, non-salary related schemes that provide flat dollar benefits and mixed benefit schemes that consist of a final salary defined benefit portion and a defined contribution portion. The following sets out details in respect of the Group's defined benefit pension schemes.

	Australia US\$M	Americas US\$M	Europe US\$M	South Africa US\$M	Total US\$M
<b>Year ended 30 June 2008</b>					
Present value of funded defined benefit obligation	503	703	397	219	1,822
Present value of unfunded defined benefit obligation	6	61			67
(Fair value of defined benefit scheme assets)	(457)	(695)	(341)	(275)	(1,768)
(Surplus)/deficit	52	69	56	(56)	121
Unrecognised surplus		61	6	32	99
Adjustment for employer contributions tax	8				8
Net liability recognised in the balance sheet	60	130	62	(24)	228
<b>Amounts in the balance sheet as at 30 June 2008</b>					
Assets	(22)			(24)	(46)
Liabilities	82	130	62		274
Net liability recognised in the balance sheet	60	130	62	(24)	228
<b>Year ended 30 June 2007</b>					
Present value of funded defined benefit obligation	431	709	360	224	1,724
Present value of unfunded defined benefit obligation	6	57			63
(Fair value of defined benefit scheme assets)	(436)	(686)	(317)	(317)	(1,756)
(Surplus)/deficit	1	80	43	(93)	31
Unrecognised surplus		50	12	48	110
Adjustment for employer contributions tax	(1)				(1)
Net liability recognised in the balance sheet		130	55	(45)	140
<b>Amounts in the balance sheet as at 30 June 2007</b>					
Assets	(20)			(45)	(65)
Liabilities	20	130	55		205
Net liability recognised in the balance sheet		130	55	(45)	140

## Defined benefit post-retirement medical schemes

The BHP Billiton Group operates a number of post-retirement medical schemes in the Americas and South Africa. Full actuarial valuations are prepared by local actuaries for all schemes. All of the post-retirement medical schemes in the Group are unfunded. The following sets out details in respect of the Group's post-retirement medical schemes. The amounts recognised in the 2008 balance sheet are as follows:

	Americas US\$M	South Africa US\$M	Total US\$M
<b>Year ended 30 June 2008</b>			
Present value of unfunded defined benefit obligation	192	136	328
Unrecognised past service credits			
Net liability recognised in the balance sheet	192	136	328
Represented by:			
Assets			
Liabilities	192	136	328
<b>Year ended 30 June 2007</b>			
Present value of unfunded defined benefit obligation	192	188	380
Unrecognised past service credits		15	15
Net liability recognised in the balance sheet	192	203	395
Represented by:			
Assets			
Liabilities	192	203	359

While our South African BEE scorecard is not yet at the level where we would like it to be, transformation targets and implementation plans driven at the highest level of regional leadership are in place and are monitored on a quarterly basis. We are committed to working towards achieving full compliance.

# Case Studies

The following case studies are examples of issues, initiatives, projects and programs across the Group that highlight some of the health opportunities and challenges faced by our operations. Case studies are also on [safe workplaces](#), [environmental commitment](#), [social responsibility](#) and [our socio-economic contributions](#).

## Recruiting For A Greenfield Operation - Ravensthorpe Nickel Operation

The world's newest laterite mine, Ravensthorpe Nickel Operation, was charged with recruiting and training a workforce of 650 in less than 12 months.

## BHP Billiton's all-employee share plan - It's good to share

Shareplus gives every employee - regardless of role, location or business - the opportunity to participate in a direct way in the Company's success.

# Recruiting For A Greenfield Operation - Ravensthorpe Nickel Operation

BHP Billiton's Ravensthorpe Nickel Operation (RNO), which is located in the southeast coastal region of Western Australia, is the world's newest nickel laterite mine and processing plant. Officially opened 23 May 2008, RNO's challenge was to develop its operating strategies well in advance and recruit its full workforce of 650 by July 2007 ahead of the commencement of commissioning.

## The Program

The construction phase of the project operated under a fly-in/fly-out arrangement. In October 2004, BHP Billiton announced it would proceed with a residential workforce strategy for more than 300 people for the operations phase of the project.

This decision followed commitments by the national and state governments to provide funding for community infrastructure necessary to attract and retain people locally.

To assist this process, RNO developed a residential housing strategy that ensured the houses it built in the two 'local' towns of Hopetoun and Esperance featured a variety of styles and finishes, from traditional family houses with gardens to sea-side eco-friendly dwellings for couples and singles. The houses are scattered throughout the communities and have a variety of designs and construction materials, to avoid the look of many mining towns where the houses all look similar.

In addition to housing, RNO has invested heavily in infrastructure in Hopetoun and nearby communities, including an airport, bitumised roads, shops and childcare facilities. Support has also been provided for the establishment of local small businesses and there is a proposal to build a new recreation centre in Hopetoun.



## Recruiting for Success

The operations phase of the project commenced in mid 2006. The labour market was tight and several tactics were employed to meet the challenge of recruiting the required workforce.

The first step was the setting up of a specialised project recruitment team of 17, including a project manager and specialist recruiters. A project recruitment office was established in prime ground floor office space in central Perth, which was designed to be a one-stop shop for recruitment. Finally, a process was implemented that enabled applicants to submit CVs and, if short listed, attend an overview seminar of the operation, an interview and a medical in one day.

With the team and infrastructure in place, the major challenge was to source sufficient experienced personnel, while still meeting diversity targets.

To source experienced technicians a roadshow approach was conducted in traditional mining towns in Australia that had been identified as having a ready source of experienced people who may be seeking a change in lifestyle. Towns like Mt Isa, Townsville, Darwin, Kalgoorlie and Karratha were specifically targeted. Prior to visiting each town, large scale advertising was conducted to maximise the possible pool of applicants.

Similar roadshows in local regional centres allowed RNO to tap into the local community. Local people were specifically encouraged to apply 'green' technician roles in mining and the process areas.

Finding quality engineers and other professionals required a broader approach. Recruitment targeted offshore

locations where these specialist skills were known to exist, with hiring managers and recruiters sent to South America, the United States, Canada, South Africa and South East Asia to conduct in person interviews with candidates.

To promote indigenous employment the RNO project encouraged contractors to employ Indigenous personnel. From this pool RNO had a number of job-ready candidates for the operational phase. At start-up, four per cent of the workforce was Indigenous and through our Regional Indigenous Participation Strategy this has already reached six per cent. RNO aims to have 10 per cent Indigenous employees by 2012.

The operation has also been successful in recruiting women. As of 30 June 2007, some 19 per cent of the workforce was female. This has provided much needed workforce diversity from the start - and the intention is to continue this trend.

## The Future

Roger Hughes, Human Resources Manager, Ravensthorpe said, 'We have successfully recruited a multi-talented, highly capable and diverse workforce. This cultural mix has enriched RNO and brought a high level of diverse thought to the challenges of a Greenfield start-up.'



Isak Buitendag, General Manager Operations, said, 'BHP Billiton has a strong focus on working with the community to develop mutually beneficial outcomes. RNO continues to support the local communities of Hopetoun, Ravensthorpe and Esperance with a view to growing the local workforce and advancing regional development on the southeast coastal region of Western Australia.'

# BHP Billiton's all-employee share plan - It's good to share

In April 2007 BHP Billiton introduced an all employee share plan called Shareplus. The plan gives every employee - regardless of role, location or business - the opportunity to participate in a direct way in the Company's success.

## Program

Shareplus offers employees the opportunity to purchase BHP Billiton shares from their own funds and receive a grant of shares from the Company equal to the number they have purchased at the end of three years. The only condition to receiving that grant is that they remain in the employment of the Company over that period.

In taking up the offer, an employee decides how much he or she wants to contribute towards purchasing shares, up to an annual limit of US\$5,000. This limit is the same for everyone, regardless of seniority, location or business.

Like all shareholders, employees who buy shares in the Shareplus plan receive dividends and voting rights and can sell their shares at any time.

In countries where it is not possible to operate Shareplus due to local limitations a cash plan has been implemented with the same terms and benefits provided under Shareplus.

## Results

The scheme was introduced in April 2007 and 33 per cent of eligible employees elected to join. By April 2008, 40 per cent of employees had become participants. 'We are delighted that so many of the BHP Billiton employee family have elected to take up this opportunity' said Karen Wood, Chief People Officer.

'Attracting and retaining a skilled and committed workforce are critical to meeting our customers' requirements and delivering our growth projects,' said Karen. 'Our Shareplus employee share plan provides a tangible illustration of the importance we place on our employees and adds another attractive dimension to our remuneration and retention strategies.'



# Socio-Economic - Our Approach

The socio-economic aspects of our operations relate to how we manage our people and contribute to the economies within which we operate. Our priorities are:

- Our relationships with our employees and contractors: development of our leaders; diversity, including indigenous employment; training; remuneration and other benefits of our employees.
- Our relationships with our suppliers: adopting a fair and equitable procurement process in existing and emerging markets, monitoring performance against our [HSEC Management Standards](#), fostering local suppliers and engaging in dialogue.
- Our economic contribution to society: the payments we make to governments, including taxes and royalties, and the added value we provide as a result of our operations and their broader contributions through aspects such as payments to suppliers and employees.

For details on our approach to the management of these aspects, see:

- [Supply](#)
- [Economic Contributions](#)

# Supply

We recognise that our supply chain can make a significant contribution to our sustainability and that our supply relationships can add to or detract from our reputation. We, therefore, endeavour to support and engage our suppliers and contractors in the importance of meeting the requirements of [BHP Billiton's Sustainable Development Policy](#) (PDF 28 KB).

## Governance

Our approach to the management of HSEC aspects within the supply chain is specified within HSEC Management Standard 11 (Suppliers, Contractors and Business Partners). We seek to ensure that 'the contracting of services, the purchase, hire or lease of equipment and materials, and activities with partners are carried out so as to minimise any adverse HSEC consequences and, where possible, to enhance community development opportunities.'

The BHP Billiton Code of Business Conduct is referenced in all local, regional and global supply contracts. Our Group Audit Services conducts annual reviews of key supply staff members to confirm their knowledge and appropriate application of the Code and acceptance of the Code requirements by their suppliers.

## Selection Process

BHP Billiton aims to operate a fair and equitable procurement process, as does our selection process in informing potential suppliers of our expectations, our policies and processes, and our requirements of them in relation to HSEC.

Prior to entering a particular market or region, we conduct a broad assessment of supplier capability and performance standards, including sustainability performance. Contractual agreements with specific suppliers require them to adhere to all applicable laws, regulations, and industrial awards and agreements, including all applicable health, safety, environment and community laws and regulations.

Suppliers and contractors are provided with our [HSEC Management Standards](#) (PDF 148 KB) before work commences, with the expectation that the Standards will be met and that key HSEC compliance requirements will be noted in the relevant contractual agreements. Our HSEC Management Standards require our contracted suppliers to adhere to Standard 8, Business Conduct, Human Rights and Community Development, including specific requirements to demonstrate compliance with the UN Universal Declaration of Human Rights and our [Code of Business Conduct](#).

## Monitoring Performance

Performance monitoring of our suppliers and contractors is an important aspect of our ongoing relationships. Managing contractors and suppliers more effectively at our operations has been identified as an improvement opportunity for the Company. Our objective is to ensure that standards and procedures adopted by suppliers and contractors are consistent with our standards. Steps to ensure improved consistency in this area include:

- The contracted work is to be assigned a BHP Billiton manager or supervisor as the single point of reference.
- BHP Billiton line management is to allocate adequate time and resources to manage the requirements of the contract.
- Line management is to sign off on the work standards and how they are to be carried out and shall ensure via timely workplace inspections that the work is being carried out according to the agreed standards.
- Line management is to ensure that BHP Billiton's expectations are clearly and effectively communicated to all contractors and their respective organisation's leadership.

Line management is to ensure that each contractor's on-site manager is introduced to the responsible BHP Billiton supervisor who has single-point accountability and that effective systems of communication are in place.

We have a defined process of managing and escalating any issues of contract breach, including agreed remedial action plans to address systematic performance issues and a defined dispute process.

Critical supply relationships are managed by dedicated supply managers. These managers take advice from BHP Billiton Legal and HSEC functions on the appropriate treatment of confirmed cases of contract breach.

## Fostering Local Suppliers

We recognise the value that can be delivered to local economies through our activities and, wherever possible, encourage the development and the use of local suppliers and contractors. We define a "local" supplier as either a supplier from the community where the mine is located, or where an operation is fly-in/fly-out, from the nearest appropriate regional centre.

Another facet of our approach is the flexibility to recognise site- and region-specific procurement needs and adapt accordingly. This is exemplified by the [Preferential Procurement Policy](#) for BHP Billiton in South Africa.

## Region-specific Supply Initiatives

### South Africa

Black Economic Empowerment (BEE) legislation has been introduced in South Africa to address inequalities created by past history, particularly the exclusion of black African people from participating in the country's economy. The Company has been responding to the legislation through the implementation of our BEE Procurement Policy, which was introduced in 2003, and the establishment of a central BEE Supply Unit. The BEE Procurement Policy ensures that a standard set of BEE definitions and classifications are applied in the region and details how BEE spending will be calculated. The objectives of the BEE Supply Unit are to:

- Provide thought leadership on preferential procurement and enterprise development
- Disseminate best BEE practices to assets and customer sector groups for business critical processes, e.g. vendor registration, contract framework and tender adjudication
- Assume accountability for authenticity of asset, customer sector group and Group preferential procurement spend reporting
- Grow into a information resource utility for all relevant preferential procurement and enterprise development issues
- Formally institute a mechanism that will feed into the enterprise development project pipeline
- Provide access by black African suppliers to the Group's procurement activities
- Ensure that all buying organisations within the Group have the support to successfully achieve legislated procurement targets.

The BEE Procurement Policy makes provision for BEE development and support. The BEE supply strategy will highlight projects that the enterprise development function should consider advancing to benefit our value chain activities.

Going forward, our approach to reporting on BEE vendor status will be aligned to the Codes of Good Practice, promulgated on 9 February 2007 and only procurement spend from suppliers with valid third party accreditation will be registered as BEE procurement.

Read more about our approach to [Employment Equity in South Africa](#).

### China

Our China Procurement Hub aims to identify potential suppliers in China that are exhibiting high-capability credentials. The China Procurement Program is a long-term strategy. The Group does not intend to source all products and services from China. We recognise that certain commodities and categories are better candidates for sourcing from China than others.

Our focus of our China Procurement Program is on developing resources, systems and processes that will enhance our ability to screen the sustainability performance of potential suppliers in China, enabling us to effectively engage with these suppliers.

Building on a broad supplier screening process, we are further developing our approach to business conduct and human rights screening of suppliers in China.

The application of our HSEC Management Standards when identifying suppliers from China is critical. Our approach demonstrates we select suppliers after careful consideration of both commercial factors and observed sustainability performance.

The initial supplier identification process seeks evidence of dedicated management and systematic attention to human resources, safety and environmental issues before proceeding to site visits. Where our assessment of supplier

performance indicates an elevated level of human rights risk, we conduct further proactive screening in accordance with our HSEC Management Standard 8 (Business Conduct, Human Rights and Community Development).

### Indigenous Supply

We recognise that our support of Indigenous contractors and businesses is important for many of the communities in which we operate. We have Indigenous supply programs and targets in place at many of our global operations.

### Human Rights and Supply

Potential human rights issues are identified and addressed at various phases of the supplier selection, engagement and monitoring process as described in the preceding sections.

While our mandatory requirement to consider the BHP Billiton Code of Business Conduct and HSEC Management Standards in all supply contracts at an asset, regional and global level addresses a broad range of potential supply chain human rights issues, we recognise that further work is required to assure and assess our performance in this area.

# Economic Contributions

BHP Billiton recognises that the socio-economic impact of the extractive industries sector can be significant; and in recent years, there has been an increasingly intense debate on and scrutiny of the broad sustainable development and socio-economic implications of the mining, minerals and petroleum sectors.

## Socio-Economic Impact Assessment

We actively seek to understand our socio-economic impact on local communities and host regions through our participation in the International Council of Mining and Metal's multi-stakeholder [Resource Endowment Initiative \(REI\)](#). Launched in 2004 in partnership with the United Nations Conference on Trade and Development (UNCTAD) and the World Bank, the Initiative aims to enhance industry's socio-economic contribution to the countries and communities where companies, like BHP Billiton, operate by better understanding the factors that either inhibit or promote social and economic development linked to large-scale mining projects.

## Transparency in Payments to Governments

BHP Billiton supports the [Extractive Industries Transparency Initiative \(EITI\)](#), a global initiative to improve governance in resource-rich countries through the verification and full publication of company payments and government revenues from oil, gas, and mining. The Initiative works to build multi-stakeholder partnerships in developing countries in order to increase the accountability of governments.

Over 20 countries have now committed to the EITI principles and criteria, and made progress towards implementation, including Peru in which we have a joint venture operation. We are committed to supporting and cooperating in the implementation of Country-level EITI Work Plans as our host countries progress the initiative. In the interim, our payments to governments are disclosed on a regional basis in [Economic Contributions • 2008 Performance](#).

# 2008 Performance



## Supply

In FY2008, total Company spend was in the order of \$21 billion. Distribution of our total spend on goods and services occurs at a local, national and international level. [Find out more.](#)

## Economic Contributions

Our contribution to society includes the financial profit we derive as well as the value that flows from the broader contribution of our operations. [Find out more.](#)

# Supply 2008 Performance

By creating opportunities for local businesses to work with BHP Billiton, we aim to foster socio-economic sustainability in the areas in which we operate. We recognise the importance of engaging and encouraging our stakeholders, including our suppliers, to share responsibility for meeting the requirements of our [Sustainable Development Policy](#) and [HSEC Management Standards](#) (Standard 11: Suppliers, Contractors and Partners).

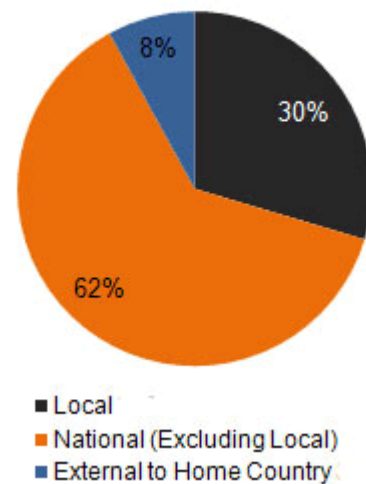
## Supply Spend

In FY2008, total Company spend, from operated assets, on goods and services excluding inter-company spend, non-operated joint venture, spend to Joint Venture partners and tax and regulatory spend, was in the order of US\$21 billion.

Distribution by our businesses of our total spend on goods and services occurs at a local, national and international level. Local spend refers to spend within the communities in which we operate and the regions, such as states and provinces, where our operations are located. National spend refers to spend within the home country of operations, excluding local spend. International spend refers to spend external to the home country. Our approach is to source locally if a product or service that meets our requirements is available locally. In FY2008, 30 per cent of spend was with local suppliers.

In calculating our supply spend, this reporting period, we revised our definitions and categories. So, although local supply figures reported are slightly above last year, we have not reported year-on-year comparisons.

**Distribution of Supply Spend**  
FY2008



## Management Systems Update

Within the last two years our Global supply business developed and rolled out the BHP Billiton Supply Sourcing Guide and the Supplier Management Guide.

Both these documents are aligned to BHP Billiton's corporate documents which include our Sustainable Development policy.

We also continued to refine our Global Supplier Sustainability management Framework defining our Company-wide approach to social, commercial and ethically responsible sourcing.

The framework is being developed as a way to further engage with suppliers and actively encourage the adoption of sustainable practices and promote general sustainability performance improvements.

The framework is consistent in approach with the existing BHP Billiton policies and standards particularly in terms of priority areas, sphere of influence and alignment with international standards which BHP Billiton has a stated commitment. The Framework also allows local operations to elevate regional high risk sustainability issues and apply them to their supplier base. Some initiatives have been piloted at our Shanghai Procurement hub, however this global framework is now in the final development and approval stages before organisation wide implementation.

## Regional Supply Initiatives

### South Africa

We have a new baseline for our BEE data and have changed the way we report our BEE procurement spend in line with the South African Department of Trade and Industry's Codes. The Codes determine the empowerment status of a supplier through an accreditation process that takes into account a selection of scorecard elements including factors such as ownership, management control, employment equity, skills and socio-economic development. A supplier's performance against the scorecard determines the contribution level and the associated BEE procurement recognition level that BHP Billiton realises when procuring from that entity. The level of a supplier is annually determined and certified by an independent accreditation agency.

In March 2008, we revised the BHP Billiton South African preferential procurement policy and the FY2009 BEE supply and enterprise development strategy has been tailored to enhance procurement from black-owned and black-women owned enterprises. Our BEE vision is focused on identifying, developing and promoting the sustainability of broad-based Black Economic Empowerment (B-BBEE) businesses through procurement with the ultimate purpose of fostering entrepreneurship in local black communities and increasing the participation of BEE suppliers in the mainstream of the resources industry.

While our South African BEE scorecard is not yet at the level where we would like it to be, transformation targets and implementation plans driven at the highest level of regional leadership are in place and are monitored on a quarterly basis. We are committed to working towards full compliance with the codes.

## Emerging Markets

The Emerging Markets function was created to deliver increased access to critical supplies and economical supply-chain solutions in a manner consistent with our Sustainable Development Policy and HSEC Management Standards.

As part of this function our Procurement Hub in Shanghai places emphasis on ensuring that the Company's procurement practices in China are responsible. With potential suppliers, the team works through a Health, Safety, Environment and Community questionnaire addressing improvement systems, personal protective equipment, plant equipment and workplace conditions, environmental considerations, and human rights.

The team engages only those suppliers that demonstrate that they maintain suitable HSEC standards and has continued to support those suppliers' further improvement through ongoing audits and dialogue. Where an assessed supplier does not meet the necessary HSEC standards or where the effort required by the emerging markets team to assist the supplier to reach acceptable standards is too great, then the supplier is excluded from further consideration. This year we improved the questionnaire and audits to get a clearer insight to our suppliers' HSEC performance.

## Indigenous Supply

Our Iron Ore group in Western Australia has an Indigenous Contracting Strategy to increase the number of economic development opportunities available to Indigenous people in the Pilbara region. Our aim is to build respectful, long-term relationships with Indigenous people. During the year, Ngarda Civil & Mining Pty Ltd, an Indigenous-based contractor in Western Australia, won a five-year A\$300 million-plus commercial contract to manage and operate BHP Billiton's Yarrlie iron ore mine. Read more: 2008 case study: [BHP Billiton encourages new standards for Indigenous development opportunities in Australia](#)

We have long-running Indigenous employment and training programs and targets at many of our global operations. Read more about our performance in [Indigenous Employment and Training](#).

## Supply and Human Rights

The Company has made a public commitment to the UN Universal Declaration of Human Rights. This commitment is supported by our Company Charter, Code of Business Conduct and Sustainable Development Policy. We believe we have not violated these rights during the reporting period.

While our South African BEE scorecard is not yet at the level where we would like it to be, transformation targets and implementation plans driven at the highest level of regional leadership are in place and are monitored on a quarterly basis. We are committed to working towards full compliance with the Codes.



# Economic Contributions - 2008 Performance

The economic contribution we make to society is much more than the financial profits we derive. Our contribution includes the value that flows from the broader contributions of our operations, such as payments to our employees and suppliers and disbursements to governments, including taxes and royalties.

The following provides an outline of:

- Our Financial Performance
- The broader economic contributions we make to society through our Economic Value Generated and Distributed.

## Our Financial Performance

The data in this section deals with the financial performance of the BHP Billiton Group and covers both operated assets and our share of jointly controlled entities. Details on the financial definitions and additional performance information are available in the Annual Reports. Summary financial information for the Group is presented in the following table.

### Summary financial information for the BHP Billiton Group US\$ Million (Year ending 30 June 2008)

	FY2008(1)	FY2007 (1)	FY2006 (1)	FY2005 (2)	FY2004 (2)
Revenue (3)	59,473	47,473	39,099	31,150	24,943
Underlying EBIT (3)	24,282	20,067	15,277	9,921	5,488
Statutory EBIT - Profit from operations (4)	24,145	19,724	15,716	9,271	5,020
Attributable Profit (Incl Exceptional items)	15,390	13,416	10,450	6,396	3,379
Attributable Profit (Excl Exceptional items)	15,368	13,676	10,154	6,426	3,510
Net Operating Assets	48,731	41,163	35,055	29,986	21,706
Income Tax paid	5,867	5,007	3,853	1,476	1,337
Royalty related taxation paid	885	554	659	551	0
Government royalties paid or payable	1,369	1,030	825	565	421
Dividends declared in respect of the period	3,896	2,702	2,160	1,695	1,617
R&D expenditure	244	169	76	33	19
Underlying EBITDA to interest cover (times) (3) (5) (6)	49.4	43.6	33.6	51.7	21.1
Debt to equity or gearing ratio	17.8%	25%	27.2%	32.8%	25.7%
Retained Earnings	35,756	27,729	21,088	14,059	10,461

(1) From 1 July 2007, the Group adopted the accounting policy of recognising its proportionate interests in the assets, liabilities, revenues and expenses of jointly controlled entities rather than equity accounting its interest. Following this change in policy, comparative information in the table above for FY2007 and FY2006 has been restated.

(2) FY2005 has been calculated on the basis of IFRS. FY2004 has been calculated on the basis of UKGAAP

(3) Underlying EBIT is earnings before net finance costs and taxation and any exceptional items

(4) Statutory EBIT - Profit from operations includes exceptional items

(5) Underlying EBITDA is underlying EBIT before depreciation, impairments, and amortisation excluding exceptional items

(6) For this purpose, net interest excludes capitalised interest, the effect of discounting on provisions and other liabilities, fair value change on hedged loans, net of hedging derivatives, exchange differences arising from net debt and return on pension plans.

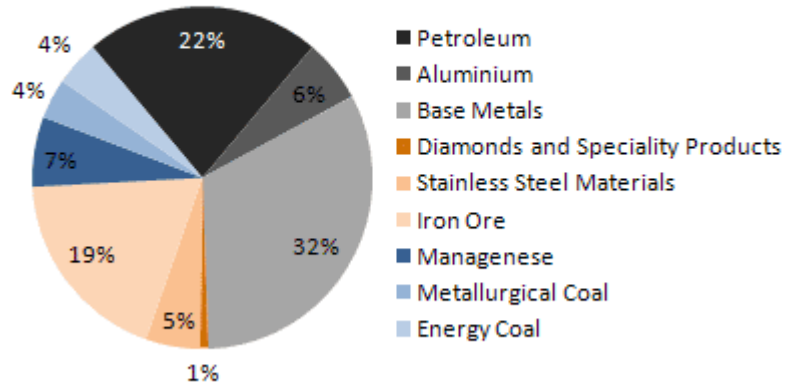
The graphs below show the Company's diversification by market (revenue) across geographic regions and a breakdown of earnings by Customer Sector Group.

## Economic Value Generated and Distributed

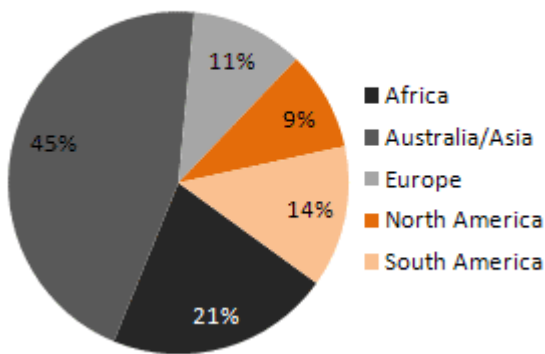
Economic value generated and distributed, as defined in the Global Reporting Initiative (2006 version), provides an economic profile or context of the reporting organisation and a useful picture of direct monetary value added to regional economies.

The measure includes revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and to governments. The breakdown of this amount by category is presented below and shows expenditure by region to help to quantify the regional economic contributions of the Company. Refer table below.

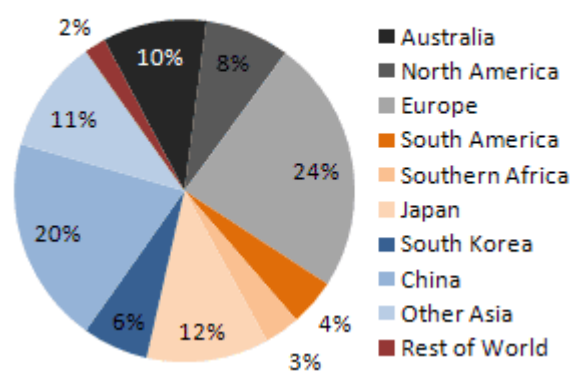
**Customer Sector Group Underlying Earnings Before Tax and Interest (EBIT) Including Exceptional Items**  
30 June 2008



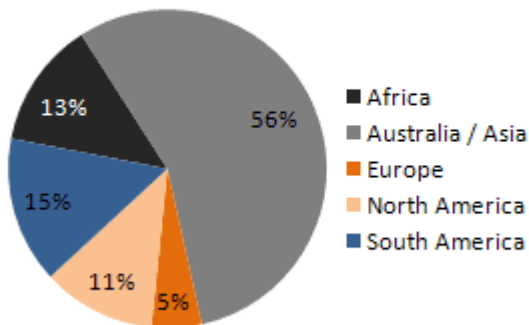
**Operating Costs by Region**  
FY2008



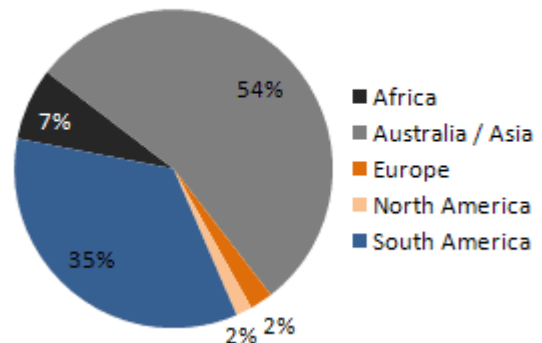
**Diversification (Revenue) by Market**  
30 June 2008



**Employee Wages and Benefits by Region**  
FY2008



**Gross Taxes and Royalties**  
FY2008



Region	Economic value generated	Economic value distributed						Economic value retained (1)
		Revenues (2)	Operating costs (2) (3)	Employee wages and benefits	Payments to providers of capital	Payments to government	Community investments	
	Net sales revenue plus other income	Payments to suppliers, contractors etc	Expenditure on wages and benefits of the employee workforce and not future commitments	Dividends to all shareholders	Interest payments made to providers of loans (4)	Gross taxes and royalties	Voluntary contributions and investment of funds in the broader community, Includes donations	
Africa	8,790	5,583	561	142	53	596	17	1,838
Australia and Asia	28,532	11,940	2,424	1,871	26	4,396	55	7,820
Europe	4,939	2,806	222	1,117	182	189	<1	422
North America	4,430	2,484	504	5	372	135	2	928
South America	13,300	3,545	649	<1	89	2,805	66	6,146
<b>Total</b>	<b>59,991</b>	<b>26,358</b>	<b>4,360</b>	<b>3,135</b>	<b>722</b>	<b>8,121</b>	<b>141</b>	<b>17,154</b>

(1) Calculated as Economic value generated less economic value distributed

(2) Revenues include other income amounts. Amounts include revenues and costs and are consistent with the Company's financial reporting of elements comprising underlying EBITDA. Underlying EBITDA is earnings before net finance costs and taxation, any exceptional items, and depreciation, impairments and amortisation. The amounts are determined on an accruals basis and extracted from the audited financial statements.

(3) Operating costs relate to expenses recognised in the financials statements. They include expenditure paid to suppliers and contractors for materials and services, and exclude community investment, employee wages and benefits, payments to governments, depreciation, amortisation and impairments.

(4) This is interest expense on debt for BHP Billiton, determined on an accruals basis.

In some instances the taxation framework within which we operate reflects particular challenges faced by industry (eg the diesel fuel rebate in Australia). We are not, however, aware of any of our businesses receiving direct financial support from governments.

## Extractive Industries Transparency Initiative

The **Extractive Industries Transparency Initiative** (EITI) is gaining momentum as an international initiative bringing together companies, investors, governments, international financial institutions and civil society to improve disclosure and tracking of revenues in developing countries.

We remain supportive of EITI but note that implementation in the countries where we operate has not yet progressed to the point where an appropriate framework for reporting is in place. We remain committed to constructive engagement with our host governments as they seek to progress implementation.

