MINMETALS RESOURCES LIMITED SUSTAINABLE GOALS RESPONSIBLE PROGRESS

2011 SUSTAINABILITY REPORT FOR MMG OPERATIONS

In this, our second full annual sustainability report, we aim to present to our stakeholders, in a balanced way, the key issues of most relevance to them and our business, along with our successes and challenges in addressing those issues.

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ABOUT OUR REPORT

This report summarises our second full year of annual reporting on sustainability issues, our approach to managing these issues and our performance in addressing them. The 2011 Minmetals Resources Limited Annual Report provides complementary financial statements and further detail on economic and operating information. Our previous Sustainability and Annual Reports can be found on our website: www.mmg.com.

Material issues

We have prepared this report based on our "material sustainability issues" – the environmental, social (reflecting our people, health and safety priorities and stakeholders) and economic issues of most importance to us and our stakeholders (see page 3).

Scope

Minerals and Metals Group (MMG) is the operating brand of Minmetals Resources Limited (MMR). This report covers the MMG's head office operations in Australia, and all MMG mining and associated activities, including Century (Queensland), Golden Grove (Western Australia), Rosebery and Avebury (Tasmania), Sepon (Laos) and worldwide mining exploration and development activity. The report does not include any MMR operations, which were divested in 2011, or the assets of Anvil Mining Limited (ASX, TSX:AVM), which were acquired in March 2012.

Data

This report discloses data relating to our material sustainability issues for the reporting period 1 January to 31 December 2011. Information relating to prior or subsequent periods has been included where necessary for context on material issues. Consolidated data are reported through centralised databases, with additional data collected at a site level.

The indicators reported reflect a combination of leading and lagging indicators, which are further discussed in "Our approach".

Global Reporting Initiative application level and International Council on Mining & Metals 10 Sustainable Development Principles

The report is prepared in accordance with the Global Reporting Initiative (GRI) G3 Guidelines and Mining and Minerals Sector Supplement to an A+ level. MMG maintains a watching brief on the GRI G4 Guidelines and is represented on the International Council on Mining and Metals' (ICMM's) G4 Working Group. We will integrate the G4 criteria into our reporting process when they are published in 2014.

We are a full council member of the ICMM and are working hard to align our approach, activities and performance across the organisation to the ICMM 10 Sustainable Development Principles. Please refer to the ICMM 10 Sustainable Development Principles

Index and GRI Finder at the back of the report.

Assurance

Ernst & Young conducted independent limited assurance over elements of this report, guided by the ICMM Assurance Procedure (see page 79). This assurance process focused on five material issues selected by MMG from the list of material issues identified through our materiality determination process (see "Materiality determination") - these were: water, responsiveness to stakeholders, gender diversity, total recordable injury frequency rate (TRIFR) and contractor safety.

The GRI reviewed our application of the GRI G3 Guidelines and confirmed our A+ application level.





Sustainability is what really matters to us. Our challenge is to deliver the benefits of our operations to all our stakeholders – whether they are shareholders, employees or the communities in which we operate.



MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

MMG is a unique business: an innovative combination of an international management team with the long-term outlook and financial support of a major Chinese shareholder.



Dear Stakeholder

Before commenting on our performance in 2011, it is with much sadness that I advise you of the death of one of our contractors due to an accident that occurred at our Sepon operation in Laos on 28 February 2012, as we were completing this report. Our thoughts and condolences are with our contractor's family and friends. Any safety incident is one incident too many and on behalf of Minerals and Metals Group (MMG), I underline this company's commitment to ensuring that we improve our safety performance.

As global societal demands evolve, there is ever-increasing pressure on the minerals industry to keep pace. Our challenge, and role as management, is to share the benefits generated by our operations with all our stakeholders – shareholders, employees and the communities in which we operate – not just today, but well into the future.

In this, our second annual sustainability report, we have worked to focus on what really matters – those issues of most importance, interest and concern to our stakeholders alongside our most significant risks as a business. Through stakeholder feedback interviews, a comprehensive business-wide risk assessment and analysis of our business performance, we have identified the material sustainability issues represented on the page opposite.

These issues are broken down into five key sections – our people, health and safety, working with our stakeholders, respecting our environment and economic sustainability. While we give these areas equal attention, it must be said that without our economic sustainability we would not be in a position to deliver on these other commitments.

As a member of the International Council on Mining and Metals, we benchmark our sustainability performance against that of our council peers. We are applying the council's Sustainable Development Framework, which includes integrating the 10 Sustainable Development Principles and seven supporting position statements into corporate policy, as well as setting up transparent and accountable reporting practices. This is a key part of that measurement and we are on a journey to align with this benchmark. A significant three-year program of work commenced in the first quarter of 2012 to drive this alignment, and I look forward to reporting on our progress in future years. Responding to stakeholder feedback we have commenced the reporting of annual trend data for many of our key measures. We hope this will demonstrate greater transparency and clarity on our performance. In addition, and for the first time, we have published key performance indicators and three-year goals for each of our material issue areas. This is a product of a new integrated business planning process that has seen us align business plans with the corporate vision right across MMG.

MMG is a unique business: an innovative combination of an international management team with the long-term outlook and financial support of a major Chinese shareholder. We are listed on the Hong Kong Stock Exchange as Minmetals Resources Limited (under the 1208 stock code) and have our head office in Melbourne, Australia. We have four operating mines: Century, Golden Grove and Rosebery in Australia, and one major copper operation called Sepon in Laos. In March 2012 we completed the acquisition of Anvil Mining Limited (Anvil) and are now well progressed with the integration of those assets, based in the Democratic Republic of Congo, into our business.

This growth and business expansion aligns with our vision to build the next generation's leading global diversified base metals business, but also represents the challenges we will face in the future as we expand into new jurisdictions.

I would like to thank all the stakeholders and local communities who work with us to make this business such a success. I would particularly like to thank our employees and contractors without whom these results would not be possible. We hope that this report demonstrates our commitments to materiality, openness and responsiveness.

Kind regards

Andrew Michelmore Chief Executive Officer 9 May 2012

MATERIAL SUSTAINABILITY ISSUES



angle about MMG

The Minerals and Metals Group (MMG) of companies and their operations are owned by Minmetals Resources Limited (MMR), a mid-tier global resources company that mines, explores and develops base metal projects globally. MMR acquired MMG on 31 December 2010. Our majority shareholder, with 72% of shares, is China Minmetals Corporation through its subsidiary company China Minmetals Non-Ferrous Metals Company Limited. While MMR is listed on the Hong Kong Stock Exchange, MMG's executive management team and head office are located in Melbourne, Australia.







SUSPENDED OPERATION

ACTIVE EXPLORATION REGION

MMG is one of the world's largest producers of zinc and a substantial producer of copper, lead, gold and silver. We operate in Australia and Laos, have development projects in Australia and Canada, and significant exploration projects and partnerships in Australia, Asia, Africa and North America. In February 2012 the company acquired Anvil Mining Limited with assets in the Democratic Republic of Congo in Africa.

 \rightarrow sales



angle THE MINING CYCLE

Mining is about more than operating mine sites where we extract ore, process and sell it. While that is a big part of what we do, it is just one of a number of stages that we need to manage in the mining cycle.



1 EXPLORATION

Exploration is a core growth driver for MMG under a three-tiered strategy that involves mine district exploration, new discovery programs and project generation. Our mine district exploration program takes place around our suite of operations and development sites to find opportunities to extend mine life. Currently this program involves exploration activities around Sepon, Century, Golden Grove, Rosebery, Avebury and our projects in Canada. There are a number of new discovery programs in Australia, Asia and the Americas that are actively pursuing a pipeline of new venture opportunities.



2 PROJECT DEVELOPMENT

Project development involves the study of exploration results, mine design, environmental impacts and economics to determine the feasibility of developing a mineral deposit into an operating mine. MMG has two key development projects. In Australia, the Dugald River project is one of the world's largest and highest grade undeveloped lead-zinc-silver deposits. The project's Environmental Impact Statement (EIS) assessment and social impact report advised that the project was suitable to proceed to the next stage of the approval process. Approval of the full Environmental Management Plan is expected around the middle of 2012. In Canada, the Izok Corridor Project in Nunavut comprises the Izok Lake and High Lake zinc and copper deposits currently under a feasibility study. **SOCIAL LICENCE TO OPERATE** > Our social licence to operate is essential in gaining and maintaining stakeholder approval and regulatory permission. It is dependent on the responsible management of the environmental and social impacts of mining activities, from exploration through to post-closure rehabilitation and monitoring. We conduct community consultation and invest in community and regional development initiatives, local business development, education and training initiatives and sponsorships and donations for all sites, be they at exploration, development project or operational stage.



3 OPERATIONS

MMG has four operational mines, Century, Golden Grove, Rosebery and Sepon, and recently added the Kinsevere mine through its acquisition of Anvil Mining Limited. Each of these mines extracts, crushes and processes mineral deposits to create a saleable product.



4 ACTIVE CLOSURE

As a mine's mineral reserves are depleted care must be taken to plan for its closure. The active phase of closure, where areas are prepared for final closure and possible relinguishment, includes rehabilitation, revegetation, decommissioning, decontamination, demolition, stakeholder engagement investigations, plus other activity. This phase will commence a number of years prior to shutdown and continue with its most intensive activities for a number of years immediately after production shutdown. With Century mine's closure expected in 2016, planning is currently underway, to prepare for closure execution.



5 PASSIVE CLOSURE

After closure execution in the active closure phase, the site will move into a passive closure phase, involving monitoring and ongoing maintenance, as well as activities such as long-term water treatment and establishing agriculture. Following this a formal approval by the relevant regulating authority is sought indicating that the completion criteria for the mine have been met to the satisfaction of the authority and other relevant stakeholders.

2011 SUSTAINABILITY HIGHLIGHTS AND CHALLENGES

HIGHLIGHTS

- » Publication of a detailed external and comparative assessment of MMG's contribution to development in Lao People's Democratic Republic (PDR) over the last decade, the ICMM's *Utilizing mining and mineral* resources to foster the sustainable development of the Lao PDR (see page 16).
- » Strong production results, base metal commodity prices and significant benefits realised from one-off divestments resulted in full-year Net Profit After Tax of US\$540.9 million attributable to equity holders of MMR.
- » Ongoing employment, community development support and sponsorship led to significant benefits for people of the Gulf region near Century mine. These included the employment of 30 Indigenous recruits as part of the mine's pre-employment program, A\$2 million distributed to Indigenous groups for business projects, and more than A\$450,000 financial and in-kind sponsorship of the local community flights program (see page 18).
- » November approval of the Dugald River Project Environmental Impact Statement, progression to full Environmental Management Plan stage, and commencement of exploration declines (underground exploration ramps).
- » Three-year business plans and programs of work developed, engaging all parts of the business.
- » ICMM 10 Sustainable Development Principles alignment program integrated into business plan and work well under way.
- » South Hercules trial development project zero safety incidents, zero environmental incidents, high stakeholder engagement and innovative water treatment process.
- » Low staff turnover of only 8.5% compared to industry average of 17.7%.
- **»** 87% of all employees at Sepon from local communities, with further training and support initiatives in place.
- » Rosebery celebrated 75 years of continual operation.
- » Over A\$11 million invested in our host communities in a range of targeted social investment projects.
- » Investment in local community education and training initiatives at all operational sites.
- » Support of safe water and electricity delivery to communities around Sepon.
- » Substantial progress made in understanding and preserving intangible heritage, such as customs, beliefs and traditions, in the communities around Sepon.

CHALLENGES

- » Wastewater management issues at Century and Sepon during and after high rainfall events.
- » Investigation and prosecution by the former Queensland Department of Environment and Resource Management (DERM) into water management at Century following the 2011 floods.
- » Water security management, particularly at Golden Grove where water is sourced from bores.
- » Total recordable injury frequency rate of 4.1 did not meet the target of 3.5.
- » Lost time injury frequency rate increased from 0.4 in 2010 to 0.6. (Note that 2010's rate increased from 0.3 to 0.4 after the 2010 reporting period due to an injury reclassification).
- » 104 Significant and high fatality-potential incidents up 10% from 2010.
- » 15 employees recorded blood lead levels above the transfer level and nine employees recorded blood lead levels above the action level.
- » Improving the Group Safety Health Environment and Community (SHEC) Management System during a period of intense growth to enable consistent and focused management of our key SHEC risks at all exploration activities, project developments and mining operations.
- » Analysis of current business alignment with the ICMM 10 Sustainable Development Principles demonstrated significant gaps.
- » Staff gender diversity low with 17% female staff across the business and less than 20% female staff at operational sites.
- » Closure planning for Century requires rapid progression given expected mine closure in 2016. In 2012, we plan to articulate the mine closure strategy as part of the 2012 business plan, including the Century Closure Management Program, a workforce retention plan, a rehabilitation plan, and a communications and consultation plan which will involve the local community in preparations for positive post-closure outcomes.
- » MMR's share price ended the year down 44%. MMR underperformed against the index which ended the year down 28%.
- » Underlying earnings before interest, taxes, depreciation and amortisation of US\$887.8 million, after removal of one-off items, decreased 2.2% on 2010 due to higher expenditure on process and system standardisation.
- » Century fined A\$40,000 plus the DERM's investigation costs of A\$5,000 for causing material environmental harm following the 2009 pipeline release of zinc concentrate slurry to the environment. Century also undertook to donate A\$40,000 to a local community environmental management group.

SUSTAINABILITY PERFORMANCE – THREE-YEAR GOALS

With our material sustainability issues in mind, we have identified three-year sustainability goals and targets to 2014 as part of our overarching corporate business planning process. As this is the first time we have integrated long-term goals, we have also commenced reporting baseline data for progress tracking in future years.

3-YEAR GOALS	3-YEAR TARGETS	BASELINE DATA FROM 2011			
OUR PEOPLE					
DEVELOP WORKFORCE PLANS BUILDING CAPABILITY AND DIVERSITY.	90% close-out of actions from staff development plans.	Development plans and training needs analysis conducted on each site.			
	A capability matrix for all operational staff.	Systems, Applications, and Products in Data Processing software SAP-based training and events management system implemented across all sites to capture capability matrix data for future measurement (except Sepon – not currently using the SAP system).			
	100% implementation of diversity actions (See "Our People").	Diversity strategy and actions under development.			
CULTIVATE LEADERSHIP-INSPIRED TEAMWORK, INNOVATION AND DISCRETIONARY EFFORT.	5% increase on employee perception survey engagement index rating.	MMG engagement index was a 3.5 rating.			
	90% close-out on previous year employee perception action plan.	Employee perception survey conducted in 2011 and employee consultative forums established in 2012 at all sites to help develop and implement plans in 2012.			
	Innovation rewarded through MMG innovation awards.	Development of awards program planned for 2012.			
EMBRACE THE 'MMG WAY'.	Code of conduct breaches actioned to agreed plan.	Code of Conduct being improved for implementation in 2012.			
HEALTH AND SAFETY					
ACHIEVE A STEP IMPROVEMENT IN HEALTH AND SAFETY PERFORMANCE.	<3.4 total recordable injury frequency rate (TRIFR).	4.1 TRIFR.			
	No repeat significant incidents.	No repeat significant incidents.			
	100% close-out of high fatality-potential incidents.	100% close-out of high fatality-potential incidents.			
WORKING WITH OUR STAKEHOLI	DERS				
ESTABLISH SOCIAL PRACTICES CONSISTENT WITH THE ICMM 10 SUSTAINABLE DEVELOPMENT PRINCIPLES.	100% close-out of top 3 social risk register actions identified in the 2012 plan.	Risks identified.			
	5% annual increase in MMG community perception survey Community Trust Index (% level of local community trust).	2011 Community Trust Index baseline: Rosebery – 65.9%, Golden Grove – 50.8% Century – 38.9%, Sepon – not undertaken in 2011.			
	Social investment of 1% of net profit after tax.	Social investment of 1.9% of net profit after tax achieved.			
RESPECTING OUR ENVIRONMENT					
ESTABLISH ICMM-CONSISTENT ENVIRONMENTAL PRACTICES.	100% close-out of top 3 environmental and social risk register actions identified in the 2012 plan.	Risks identified include water management, mine closure and minerals waste.			
	Zero ISO 14001 (international standard for environmental management) major non-conformances in 2012.	Golden Grove, Rosebery and Sepon recertified ISO 14001 and Century achieved certification for the first time in December 2011.			
	20% reduction of environmental non-compliances with operating licence in 2012.	Baseline total of 8 non-compliances with operating licences.			
SUSTAINING OUR ECONOMIC PER	FORMANCE				
DELIVER CONSISTENT AND SUSTAINABLE EARNINGS GROWTH.	Earnings per share increase year on year.	Diluted earnings per share of US10.71 cents.			
BE RECOGNISED AS AN INDUSTRY LEADER DELIVERING STRONG FINANCIAL OUTCOMES.	Total shareholder return comparative to the HSBC Global Base Metals Index.	The Index ended the year down 28%, MMR's share price ended the year down 44%. MMR underperformed against the Index.			
BE VALUED FOR THE UNIQUE COMBINATION OF INTERNATIONAL MANAGEMENT AND THE SUPPORT OF CHINA MINMETALS CORPORATION.	Maintain a minimum 5% of the free float uptake by institutional investors.	11% of free float held by institutional investors.			

> OUR APPROACH

Our mission is to maximise returns by sustainably discovering, acquiring, developing and operating resource projects around the world. We do this while demonstrating our values of safety, integrity, action and results in all our activities and behaviours.

Supported by robust industry fundamentals, underpinned by China's growth, we hope to continue to achieve strong operational and financial performance led by an international management team and a vigorous growth strategy.

OUR STRATEGY FOR SUSTAINABILITY

Care for the interests of our stakeholders and the environment is of the utmost importance and is integrated with the management of our business. Our sustainability policy and objectives are supported by our core values, which underpin the behaviour of all employees and contractors.

Our sustainability objectives

We understand that the following objectives are critical to achieving our vision of becoming a great global resources company.

- » Protect the health, safety and wellbeing of our employees and contractors;
- » Minimise impact on the environment;
- » Ensure that the communities in which we operate receive real benefit from our activities; and
- » Be known for our integrity.

Our sustainability policy

To achieve our sustainability objectives we strive to:

- » Ensure that the principles of this policy are applied in all business planning and decision-making processes;
- » Never compromise on health and safety;
- » Achieve continuous improvement in performance through use of robust management systems and effective governance and assurance processes;

- » Develop and implement sound enterprise-wide risk management processes;
- » Demonstrate good stewardship of natural resources by minimising our environmental footprint, reducing waste, and using energy, water and other raw materials efficiently;
- » Ensure the safe handling and transport of our materials and products;
- Educate, train and equip our people to practise excellence in the management of health, safety, environmental and community priorities and opportunities;
- Build trusting relationships by engaging clearly, openly and honestly with our host communities and other key stakeholders;
- Encourage economic prosperity in our communities during and subsequent to mining operations;
- » Plan early for closure of our sites and ensure adequate financial provisions have been agreed;
- » Understand, uphold and promote fundamental human rights within our sphere of influence, respecting traditional rights and cultural heritage; and
- » Assess the implementation of this policy through regular audit and review.



A sapling plantation at Sepon mine.

ALIGNMENT WITH THE ICMM 10 SUSTAINABLE DEVELOPMENT PRINCIPLES

As members of the ICMM, we are committed to aligning our practices to the organisation's Sustainable Development Framework. This includes integrating a set of ten principles and seven supporting position statements on sustainability into corporate policies and benchmarking ourselves against them.

To this end, we are currently reviewing all of our policies as a key work program for the next three years. This has so far involved an alignment analysis, identification of areas for improvement, development of actions and establishment of priorities.

The first step in this program was an executive workshop to identify areas of responsibility, key gaps and key priorities for the alignment program. Our goal is to achieve alignment with the ICMM 10 Sustainable Development Principles by the end of 2014. Alignment requires the incorporation of specific wording and references in corporate policies and business management to those policies. At the end of 2011, we analysed our alignment against the principles, as outlined in the table below. With work programs now identified we expect to significantly increase our level of alignment following implementation of several swift changes, such as the updating of company policies in early 2012. The following table outlines the 10 Sustainable Development Principles and our current alignment.

ICMM'S SUSTAINABLE DEVELOPMENT PRINCIPLES

ALIGNMENT PROGRESS

2. Integrate sustainable development considerations within the corporate decision-making process. Image: Constraint of the corporate decision of the communities in which we operate. 3. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities. (Position statement: Mining and Indigenous people issues) Image: Constraint of the constraint of the communities in the corporate decision statements: Policy 4. Implement risk management strategies based on valid data and sound science. (Position statements: Policy on climate change, Mercury risk management) Image: Constraint of the constraint of the communities in the communities in the corporate decision statement: Policy 5. Seek continual improvement of our newironmental performance. Image: Constraint of biodiversity and integrated approaches to land-use planning. 6. Seek continual improvement of biodiversity and integrated approaches to land-use planning. Image: Constraint of the communities in which we operate. 7. Contribute to the social, economic and institutional development of the communities in which we operate. Image: Constraint of the communities in which we operate. 9. Contribute to the social, economic and institutional development of the communities in which we operate. Image: Constraint of the communities in which we operate. 10. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders. Image: Constraint of the communities in which we operate operating arrangements with our stakeholders.	1. Implement and maintain ethical business practices and sound systems of corporate governance. (Position statement: Transparency of mineral revenues)	
 and others who are affected by our activities. (Position statement: Mining and Indigenous people issues) 4. Implement risk management strategies based on valid data and sound science. (Position statements: Policy on climate change, Mercury risk management) 5. Seek continual improvement of our health and safety performance. 6. Seek continual improvement of our environmental performance. 7. Contribute to conservation of biodiversity and integrated approaches to land-use planning. 8. Facilitate and encourage responsible product design, use, reuse, recycling and disposal of our products. (Position statement: Mercury risk management) 9. Contribute to the social, economic and institutional development of the communities in which we operate. (Position statement: Mining-partnership for development) 10. Implement effective and transparent engagement, communication and independently verified reporting 	2. Integrate sustainable development considerations within the corporate decision-making process.	
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(Position statement: Mining-partnership for development) 10. Implement effective and transparent engagement, communication and independently verified reporting		e

Our highest priorities for 2012 are to:

- » Build greater awareness across the business of the ICMM requirements;
- » Review the Sustainability Policy and other policies to reflect ICMM requirements;
- » Develop and implement a greater understanding of management systems and the value that they bring to our business; and
- » Integrate the ICMM's 10 Sustainable Development Principles into life-of-asset planning.

MATERIALITY DETERMINATION

We have identified the material sustainability issues (page 3) on which to focus our monitoring, measurement, management, continuous improvement and reporting efforts. These material issues were identified by:

- » Review of site and corporate risk registers;
- Review of the minutes of the Board SHEC committee meetings;
- Seeking stakeholder feedback via one-on-one interviews from a range of internal and external groups;
- » Review of the business's three-year and one-year business plans;
- » Using the GRI's G3 reporting guidelines and Mining and Metals Sector Supplement as best-practice references; and
- » Using the ICMM's Sustainable Development Framework and 10 Principles as best-practice and sector-specific references.

Each section of this report focuses on these issues, how they are managed and our performance in addressing them, challenges for 2012 and case study examples of site-specific activity. This focus on materiality allows us to prioritise improvement efforts and ensure that we are meeting our stakeholders' expectations on those issues.

MANAGEMENT APPROACH

Management of sustainability issues is integral to our success. One of the top-level strategic drivers of our business plan is Reputation, which is given equal weight as Growth, Operations and People. Under the Reputation driver our goal is to be known as being socially and environmentally responsible.

From these drivers, our management team develops a set of 12-month corporate-level and operating-level goals. We internally report our performance against these goals on a quarterly basis. This trains our strategic focus on these issues and ensures that our work programs are integrated and aligned. Our management approach is put into action via our Group Safety, Health, Environment and Community (SHEC) Strategy, recently updated in December 2011, and supporting SHEC plans and standards.

Commitments

Our commitments are influenced by a number of factors including external initiatives, regulatory requirements and internal policies and procedures. We also benchmark our performance against sustainability criteria provided by the ICMM (Sustainable Development Framework), the Minerals Council of Australia (Enduring Value), the Mining Association of Canada and Australian state-based organisations.

We are committed to public reporting through meeting our obligations under the Australian Government's National Greenhouse and Energy Reporting Scheme (NGERS), the Energy Efficiency Opportunities (EEO) Assessment Program and the National Pollutant Inventory (NPI).

Our commitments to sustainability are also reflected in our Safety, Health, Environment and Community Standards, which cover the management of material issues. We are currently reviewing these standards to ensure that they align with the ICMM's 10 Sustainable Development Principles.

We have met our objective to have all MMG operating sites ISO 14001 certified. In 2011, Century was certified, with Sepon, Golden Grove and Rosebery all re-certified.

Sustainable procurement

We are in the process of updating our standards for local procurement. The new standard will outline a process to evaluate local capabilities and identify opportunities for local and Indigenous employment and procurement, at the site and within industry, from the earliest possible stage.

Each operation will be required to develop a strategic plan and appropriate programs to deliver on local procurement commitments including capacity-building through supplier mentoring, training, tendering support and access to finance and micro-credit. Procurement procedures will include a transparent preselection process that is accessible and appropriate to the needs of local vendors.

BUSINESS ETHICS AND GOVERNANCE

Sound governance systems protect the interests of investors and ensure that we are a well-managed business. These governance systems guide our people on performance expectations and the ethical decisionmaking essential to the preservation of trust in our business and to uphold our value of integrity.

Our Code of Conduct provides clear guidance for our people in areas including conflicts of interest, compliance with laws, and management of gifts, entertainment and gratuities. The policy is currently under refinement and will be launched across our operations in 2012.

Anti-corruption and transparency

Although there were no incidents of corruption identified in 2011, we will be delivering a Code of Conduct training program to employees in 2012 that will specifically incorporate anti-corruption guidance. Our refined policy will provide better standards for our people on anti-corruption, bribery and facilitation payments.

In 2011, we became a supporter of the Extractive Industries Transparency Initiative (EITI) (www.eiti.org). The EITI aims to set a global standard for transparency in oil, gas and mining (the extractives sector). MMG supports the principle that natural resource wealth should be an important driver of a nation's economic growth, sustainable development and poverty reduction. We are working toward comprehensive disclosure of public payments across our business and we are an active participant in regional initiatives (e.g. the ICMM's study of mining industry contributions to Laos, see page 16). MMG will participate fully in EITI processes in the countries in which we operate.

Details of our taxation and royalty payments made to the Government of Laos are available in our Annual Report and the Centre for International Economics Report on the Economic Impact of the Sepon Mine 2010.

We contribute financially to the EITI through membership of the ICMM.

No political donations were made in 2011.

Public policy initiatives

In 2011, we engaged indirectly, through our membership and participation in various industry groups, in several public policy initiatives related to our business. These included:

- » ICMM's Resource Endowment Initiative study, "Utilizing mining and mineral resources to foster the sustainable development of the Lao PDR";
- » Minerals Council of Australia (MCA) Sustainable Development Committee, which is currently chaired by MMG Chief Executive Officer Andrew Michelmore;
- » MCA's advocacy on the Australian Government's proposed carbon legislation;
- » Business Council of Australia's Global Engagement Taskforce advocating policies that promote free trade. Mr Michelmore is currently a Taskforce member;
- » Queensland Resources Council, Tasmanian Minerals Council and West Australian Chamber of Energy and Resources; and
- » International Zinc Association, to which Mr Michelmore was appointed Chairman in September 2011, and their partnership with UNICEF's Zinc Saves Kids health initiative.

CASE STUDY: CENTURY MINE PROSECUTED FOR CAUSING ENVIRONMENTAL HARM

In our 2009 Sustainability Report, we detailed a breach that occurred in the Century mine concentrate pipeline that transports concentrate in slurry form from our Century mine to the dewatering and port facility at Karumba on the Gulf of Carpentaria. The breach resulted in the discharge of approximately 750 cubic metres of zinc and water slurry at a pastoral station along the pipeline's route.

MMG spent almost A\$10 million on the incident response and remediation works following the pipeline breach and subsequent release. Remediation activities included the removal of soil affected by the zinc concentrate slurry and rehabilitation at the site. Following the incident, Century expanded its inspection and monitoring program to include the use of a new condition monitoring technique to provide further certainty.

In late 2010 following an investigation, the former Queensland Department of Environment and Resource Management (DERM) brought charges against MMG Century Limited (Century) in the Mount Isa Magistrates Court, as a result of the incident. In March 2012, Century pleaded guilty to one charge of unlawfully causing material environmental harm. In April it was fined A\$40,000 and ordered to pay the DERM's investigation costs of A\$5,000. No conviction was recorded. In addition, MMG Century undertook to donate A\$40,000 to Southern Gulf Catchments Limited, a community-based organisation tasked with strategic and sustainable natural resource management, planning and implementation in the southern Gulf of Carpentaria region of North West Queensland. Century mine's prompt response to the incident, the amount spent on remediation, the cooperative approach and the early plea of guilty were some of the factors the Magistrate considered relevant in determining the sentence.

We continue to work with the pastoralists impacted by the event to consider how the initial response could have been better managed and improve the way pastoralists and others are notified and engaged about works along the pipeline. We are also undertaking grading works on a right of way and other works to address soil erosion at points along the pipeline corridor.

In addition to the inspection and monitoring program, Century conducts maintenance along the pipeline during the dry season. Work will be conducted at various points along the pipeline during 2012 as part of Century's broader infrastructure maintenance program, and to ensure the concentrate pipeline is operated safely and reliably until the end of production. This program will include comprehensive updates to existing operating and contingency plans to incorporate newly-available best-practice standards.

Governance

We are committed to maintaining a high standard of corporate governance practices through a quality Board of directors, internal controls, transparency and accountability to all shareholders. Our Board-level Audit, Remuneration, SHEC and Disclosure Committees oversee their respective areas.

Our major shareholder, China Minmetals Corporation, is a major Chinese metals and minerals company. Therefore, to maintain fair and ethical market transactions, all sales and agreements between MMG and China Minmetals entities are conducted on an "arm's-length" basis, under the Hong Kong Stock Exchange's (HKSE) Connected Party Transactions laws. Further information can be found in the Corporate Governance statement of our Minmetals Resources Limited Annual Report.

Century mine was subject to one incidence of legal action with regard to its environmental management in 2011 as detailed in the case study below.

Internal audit

Our internal audit function provides an independent, objective assurance and consulting activity designed to add value and improve the organisation's operations. It focuses on a broad range of evaluation and improvement activities, namely risk management, control and governance processes.

An annual Internal Audit Plan is developed in conjunction with MMG's senior management and approved by the Audit Committee. Protiviti, our outsourced provider of internal audit services, undertakes our auditing under the guidance of MMG's General Manager Enterprise Risk. On a six-monthly basis, the Audit Committee reviews the outcomes of audits completed in the preceding six months.

Product stewardship

MMG's product stewardship approach focuses on the management of our metal concentrates. Zinc, copper and lead concentrate is stored at, handled by and transported in bulk from MMG sites to international customers via concentrate storage facilities, front-end loaders, road trucking, rail transport, slurry pipelines, conveyors, filters and dryers, ship-loaders, barges and bulk ship-carriers. Plant, equipment and operations vary from site to site depending on the level of technology, age and condition. There are also varying levels of dust suppression and/or control systems in operation. In 2011, MMG reviewed the concentrate management standard that applies to all operations with the goal of protecting human health, the environment and business continuity. As a result of this review, a new standard was drafted for release during 2012, which aims to align systems for product stewardship and ensure that appropriate resources are in place at managed facilities to monitor and respond effectively to existing and emerging international trends and changing expectations.

Risk management

The effective management of risk is central to the continued growth, efficient management and ultimate success of MMG's business.

Our risk management process is based on the international standard for risk management, ISO 3100:2009, and involves achieving an appropriate balance between realising opportunities for gains while minimising adverse impacts. It is an integral part of our management practice and corporate governance. The process is iterative, consisting of steps that, when undertaken in sequence, enable continuous improvement in both decision-making and performance. These steps include establishing the context, identifying, analysing and evaluating the risks and developing a risk response. Throughout the risk management process there is continuous communication and consultation with stakeholders and monitoring and review for any changes in risks, controls and response plans. In 2011, our risk register was updated and management accountability and response plans assigned.

Working with a state-owned enterprise

Our ultimate controlling shareholder is China Minmetals Corporation (71.56%). Public shareholders (28.44%) include global resources and investment funds. China Minmetals Corporation is a Chinese state-owned enterprise.

In order to ensure clear governance processes and protect the rights of minority and independent shareholders, MMR adheres to the listing rules of the HKSE. These include:

- » Ensuring an appropriate balance between the number of majority shareholders appointed directors to Board positions and independent Non-executive Directors. In 2011, the company welcomed two new Non-executive Directors to the MMR Board, Dr Peter Cassidy and Mr Anthony Larkin;
- » The rules relating to connected party transactions; and
- » The requirements for disclosure of material information.

CASE STUDY: OVERCOMING PRODUCT STEWARDSHIP CHALLENGES IN WESTERN AUSTRALIA

In 2011, Golden Grove managed significant product stewardship challenges associated with concentrate shipments following the recording of exceedences in 2010 in the ambient air lead limit during loading of its high precious metal (HPM) concentrate at the Port of Geraldton. The resolution of these issues resulted in improved environmental and health protection measures, while cost-effective shipping of our product was resumed.

In 2009, lead export-related events at ports throughout Western Australia, led to a tightening of lead emission limits under the Geraldton Port Authority (GPA) licence. A tighter lead dust emission limit of 0.5 micrograms per cubic metre as total suspended particulates (a 24-hour ambient air quality measure) was put in place at the Geraldton Port.

Following this change, the limit was exceeded during the loading of Golden Grove's HPM concentrate. Subsequently we voluntarily suspended any future shipping of HPM through the Geraldton Port until such time as we were satisfied that future shipments could be undertaken without exceedence. The voluntary suspension decision was later confirmed by a Ministerial ban on all HPM shipments.

Golden Grove's desire to continue to load and ship its HPM concentrate through the Geraldton Port in a safe manner, both from an environmental and community health perspective, saw the implementation in 2010 and 2011 of a number of initiatives including community and stakeholder engagement, health and safety examination, engineering assessment, technical investigation and increased monitoring.

This resulted in infrastructure upgrades and engineering improvements being made, including adjusting conveyor belt speeds and load rates, reviewing ship loading chute design and operation, foam dust suppression trialling, and a review of alternative loading technologies.

Procedural and administrative controls relating to the loading of concentrate were further developed to take into account wind speed and direction, product sequencing and tonnages, and facilitating better communication between the parties directly involved in the ship-loading process.

Environmental and health-related activities included a marine assessment, concentrate toxicity testing, rainwater tank testing, dust modelling and transport corridor testing. The findings from these tests supported a revision of the lead dust emission limit to a threemonth rolling average measure.

The local community and other stakeholders were engaged through a doorknock of 703 residences in the Geraldton Port area, letter drops to residents and a media relations campaign. We also continued to work with the Department of Transport, Department of Health and the Department of Environment and Conservation.

In September 2011, the Geraldton Port Authority's licensed lead dust emission limit was amended to 0.5 micrograms per cubic metre (a three-month rolling average) for total suspended particulates. In October 2011, Minister for Transport Troy Buswell lifted the suspension, allowing HPM exports from Geraldton Port to resume on a ship-by-ship basis.

This was a significant decision for Golden Grove. Concentrate management and product stewardship continue to be a matter of focus and vigilance.



a ship and exported via the port of Geraldton.

FEATURE CASE STUDY:

MAKING AN IMPACT ON DEVELOPMENT AND PROGRESS IN LAOS

A highlight of 2011 was the publication in February of a detailed external and comparative assessment of MMG's contribution to development in the Lao People's Democratic Republic (PDR) over the last decade.

Following on from previous case studies in countries such as Tanzania, Chile and Ghana, the ICMM applied its "Mining: Partnerships for Development Toolkit" to assess the impact of mining in the Lao PDR. The result was Utilizing mining and mineral resources to foster the sustainable development of the Lao PDR, the first-ever national economic and social assessment of large-scale mining's contributions and impact.

The study was undertaken as part of the ICMM's Resource Endowment and Mining Partnerships for Development initiative, which supports member companies (such as MMG) to actively foster multi-stakeholder partnerships for development in the countries in which they operate.

The research drew on a comprehensive range of data and studies from both national and independent external sources, including considering retrospective information on the variety of current mining activity.

Primarily it focused on the contributions of the two largest mines in the country: MMG's Lane Xang Minerals Limited (LXML) Sepon mine, the first major commercial private-sector operation established in Laos in 2002, and PanAust Ltd's PBM Phu Kham gold and copper mine, which commenced production in 2008. The depth and quality of social and economic data provided by both MMG and PanAust Ltd were highlighted by the authors as reflective of commitments to sustainability. The report quantified significant direct and "flow-down" benefits, at both national and local levels, from the mining operations. These were facilitated by successful parallel national and regional government programs and governance measures that have encouraged both foreign direct investment and regional development progress, while also controlling the macroeconomic challenges associated with a surge in gross domestic product over the past decade.

In particular, this has resulted in avoidance of the "resource curse", where, in many resource-rich countries without such adequate processes to temper investment activity effects, local communities experience negative or negligible impacts from resource exploitation, while any wealth benefits are concentrated at and confined to a restricted national level.

Mining has proven a significant contributor to the country's economy. Together with PanAust Ltd's operation, Sepon accounts for over 90% of total national mining production. Nearly 1% of the national population is employed by the mines.

The assessment determined that the mining industry represents 80% of foreign direct investment, 45% of total exports, 12% of government revenues and 10% of national income.

This contribution, through a direct revenue share dividend (10%), taxation, export earnings, and secondary services and salary tax contributions, has allowed the government to reduce foreign debt and build surpluses, consequently facilitating regional and local development investment and support.



On average, local family incomes near Sepon mine hav risen significantly as a result of mining employment.



At a regional level, the report highlighted the following Sepon contributions for their long-lasting and positive impact on both Sepon employees and local stakeholders:

- » In just nine years of operation average incomes at Sepon have increased seven-fold. The result of these increases in wealth is evidenced by changes in food security, improved housing and an increase in the number of motorbikes, mobile phones, refrigerators, water pumps and cars purchased. The number of private bank accounts has also increased;
- » In 2010, Sepon employed 2,300 Lao people through direct employment, 1,600 indirectly and 9,750 people externally by means of mine services demand. Personnel are predominantly local citizens;
- » In 2010, Sepon allocated a budgeted training expenditure for employees of US\$6,403,825;
- » In 2010, Sepon contributed US\$412,044 to its Social Development Trust Fund; and
- » In 2007, Sepon was responsible for providing a total income of US\$391,000 to Lao suppliers through procurement initiatives. This rose to US\$2,217,394 in 2011.

The report credits both MMG and PanAust Ltd. with dedicated local community employment, investment and development programs which have had, and are continuing to have, a measurable effect on increases in living standards, through local enterprise evolution and viability, water, sanitation and communications infrastructure, education and health improvements, and fundamental self-sufficiency gains.

There is, however, attention drawn in the report to some important challenges. The land disturbance and environmental impact of mining is not insubstantial on local populations. Higher education attendance has also dropped in some areas as an opportunity cost of preferential local employment at the mines. The report also found that increased land use by the mines is not offset by increases in jobs, and that the community remains vulnerable to cut-backs in indirect mine



Producing MMG safety uniforms.

employment if economic conditions degrade, as was the case during 2008–09's global financial crisis.

The report authors highlight that further government reform, economic control measures and community investment partnerships will support the mines' ongoing sustainability contributions. These are fundamentally driven through MMG's operational planning and its vision and commitment to being an industry leader in corporate, environmental and social responsibility.

When launching the report MMG Chief Executive Officer Andrew Michelmore said "The analysis is a very heartening validation of a decade of significant efforts to deliver tangible community and national benefits".

"We must leave an area better off than when we arrived - that is the challenge for all mining companies," he said.

The full draft of the ICMM's report, Utilizing mining and mineral resources to foster the sustainable development of the Lao PDR, was presented in February 2011 at a workshop in Vientiane attended by 150 representatives from national and provincial governments as well as the National Assembly. The report can be read and downloaded at the ICMM and MMG websites.



CENTURY MINE AND THE GULF COMMUNITIES

MMG's Century mine operates under the Gulf Communities Agreement, a unique tripartite commitment between the mine, Queensland Government and four Traditional Owner groups – the Waanyi, Mingginda, Gkuthaarn and Kukatj which are all signatories.

Known locally as the GCA, the agreement guides the relationship between the signatories and provides each with certain obligations and benefits. Highlights of the GCA are its focus on providing meaningful training, employment and business opportunities for local Indigenous people, compensation for eligible bodies and cultural and environmental assurances.

To assist Century to meet its obligations under the GCA, the mine has an on-site community relations team to manage its Indigenous employment and community engagement programs. To maintain close links with local communities the mine also has offices in Doomadgee, Mornington Island and Normanton.

In 2011, a number of programs led to significant benefits for local and local Indigenous people and the Gulf region. These included:

- » More than 30 Indigenous employees gaining formal qualifications in heavy vehicle operations as part of a mine-funded up-skilling program;
- » More than 30 young Indigenous people identifying as from local Traditional Owner groups graduating from Century's renowned pre-employment program. These recruits took the total number of Indigenous apprentices and trainees at Century to more than 75;
- » Century contributing more than A\$2 million to be distributed to local communities in accordance with the GCA. Of this, about A\$1 million was provided to the Aboriginal Development Benefits Trust (ADBT) to support the development of local Indigenous businesses. ABDT has 11 directors representing Traditional Owner groups, Gulf communities and Century;

- » The Riversleigh Open Day showcasing the successes of young Indigenous people undertaking pastoral studies as part of Lawn Hill Riversleigh Pastoral Holding Company's (LHRPHC) trainee program. Lawn Hill and Riversleigh Stations were acquired as part of the mine development, with the Waanyi people now holding a 51% share of LHRPHC and Century the remaining 49%;
- » Century continuing its partnership with the Queensland Reds. Queensland Reds players visited Doomadgee and Mornington Island regularly during 2011 to encourage children to attend school, and promote healthy, active lifestyles;
- » Century providing additional funding to train some of its experienced Indigenous employees to deliver the Putting Indigenous Youth in the Picture program to its trainees and apprentices. The program educates young people about the legal consequences of social issues such as texting and social networking, alcohol use, violence and vehicle accidents;
- » Century providing financial and in-kind assistance through its sponsorship and community flights program to the value of more than A\$450,000;
- » Dredging of the Karumba Port undertaken for the port's shipping operations also benefited the local cattle export and other industries;
- » Local Indigenous employees Leontay Hookey, Aaron Jacob and Troy Kumsing being recognised for excellence at the National Aborigines and Islanders Day Observance Committee (NAIDOC) 2 Deadly Awards in Mount Isa;



- » Century hosting the Queensland Minister for Employment Skills and Mining Stirling Hinchliffe and Member for Mount Isa Betty Kiernan MP in September. The Minister and Mrs Kiernan met with participants in the mine's third intake for the pre-employment program for 2011 as well as some of Century's longest-serving employees;
- » Former Community and Stakeholder Relations Manager Greg Scanlan was a keynote speaker at the Queensland Government's "Earn Learn Live!" Indigenous Employment Conference in October, the only resources industry representative asked to participate; and
- » Century continued its involvement in the North West Queensland Indigenous Resource Industry Initiative (NWQIRII), a joint initiative between the Queensland and Australian Governments and Queensland Resources Councils.

While the potential to discover additional discrete-style mineralisation near our Century mine is effectively exhausted, we continue to examine a number of near-mine initiatives for identification of additional feed (ore) for the processing plant from smaller vein-style occurrences nearby. The viability of using Century infrastructure to exploit the phosphate deposits that occur on our tenements will be further studied this year.

However, the Century ore body is very discrete and we currently expect to cease mining and processing operations of the current deposit in 2016. Century has been an important contributor to the economic and social fabric of the Gulf for over 15 years and we recognise the difficulties that closure represents for the local community. We have commenced detailed mine closure assessment and planning as we aim to leave a positive and lasting legacy once operations cease. More information on the Century closure planning is available in the case study on page 41.

Following is the speech delivered by Century Corporate Social Responsibility Officer Corrie Richardson at a dinner to celebrate the launch of China Minmetals Corporation's 2010 sustainability report:



"I am Corrie Richardson, an Indigenous woman from the township of Normanton in Queensland's Gulf of Carpentaria. I am descendant from the Kukatj people, who are one of the Traditional Owner groups party to the Gulf Communities Agreement, the Native Title Agreement under which MMG's Century mine operates.

During my 13 years working at Century, I have seen more than 300 local Indigenous people start or continue their careers at the mine.

I have seen the opportunities that working at Century have given these people. The skills they gained have allowed them to improve their lifestyle, find work in their own communities, or even gain employment at other operations.

I've also seen some of our trainees and apprentices recognised for excellence within the industry. These are opportunities that they would not have had without the mine.

As we move towards the end of mine, we are moving our focus towards helping develop businesses that can prosper long after the mine closes. I am proud to work at Century and to be part of MMG."



OUR PEOPLE

WE ASPIRE TO FORM A PARTNERSHIP WITH EACH PERSON IN THE ORGANISATION. THIS ENGAGES THEM TO CONTRIBUTE TOWARDS ACHIEVING OUR VISION AND VALUES, AS WELL AS DEVELOPING PERSONALLY.



Employees at MMG's Golden Grove operation.

OUR APPROACH

We strive for our people to be:

- » Employed under terms and conditions, that as a minimum, meet all relevant legal standards;
- » Provided with safe and healthy conditions of work;
- » Treated fairly in a workplace that values diversity, in terms of gender, age, race, religion, disability or national origin;
- » Provided with a workplace that is free from harassment;
- » Provided with challenging and rewarding work;
- » Given access to information and knowledge needed to perform well;
- » Provided with training and development opportunities consistent with the needs of the business;
- » Involved in open communication and regular feedback on work performance and major changes;
- » Recognised when their actions support our vision and values; and
- » Confident to raise grievances that will be addressed in a timely and fair manner.

We aim to deliver on each of these principles through our core human resources activities and programs.

PERFORMANCE

In 2011, MMG employed a total of 8,513 people (employees and contractors), an increase from the 7,253 employed in 2010. Of these, 3,197 were contractors, 1,628 were casual employees, with the remaining full-time (3,660) and part-time (28) employees.

In 2011, 5,763 of our employees and contractors were employed at Sepon, comprising 68% of MMG's total workforce.

At Century and Golden Grove, we employ local Indigenous Australians (based on employees' self-nomination as Indigenous). In 2011, they made up 24% of the Century workforce and 3% of the Golden Grove workforce. Although we have Indigenous employees working at superintendent level, we recognise more work needs to be done to raise the level of Indigenous representation at management levels. At Sepon, in 2011, 87% of the workforce was Lao nationals, with the remaining 13% being expatriates from other parts of the world.

PEOPLE PROFILE





Corporate includes Dugald River project employees

AUSTRALIAN INDIGENOUS EMPLOYMENT RATIO (% OF TOTAL EMPLOYEES)



Workforce localisation

We are in the process of building a skilled workforce recruited primarily from the local community, rather than expatriate or fly-in fly-out (FIFO) staff. Localisation requires training, education and career development opportunity.

In order to build and support our host communities, we are pursuing an increase in the local Lao workforce at Sepon, encouragement of young local people to join the Rosebery workforce, and an increase in the local Indigenous workforce at Century and Golden Grove. This is being achieved through the support of education, provision of training and development and targeted employment opportunities.

We recognise the potential impact that FIFO workforce arrangements can have on regional communities, such as local housing price inflation. Given the remote location of our current operations at Sepon, Golden Grove and Century, FIFO workforces have been used where employees are housed in on-site village accommodation, in combination with employment from local remote communities to meet our operational staffing requirements.

At our Rosebery mine, a large number of employees reside in the Rosebery township during their shifts, in companyowned or leased housing. Our Dugald River project, currently under development, will utilise a combination of FIFO and residential workforce based in nearby Cloncurry and other townships. We recognise the need to consider the impacts of such arrangements on our current and future operations.



Employees at Sepon mine.

An ongoing localisation plan is in place for Sepon to reduce the reliance on expatriates by building our capability within the national workforce. This is a life-of-mine commitment, due to the nature of the education opportunities available within Laos, and the demand for higher-end capabilities as Laos develops through infrastructure and emerging industries.



The morning operational meeting at Dugald River.

SUSTAINING OUR ECONOMIC PERFORMANCE

CASE STUDY: LOCALISATION OF THE WORKFORCE AT SEPON

Localisation is fundamental to ensuring the sustainability of Sepon's workforce. It requires an educated local community from which to recruit and investment in training for roles at all levels of mining operations.

Here is an update on the success of current programs in 2011 designed to build the capability of the local workforce:

- » Apprenticeship Program: 28 graduates;
- » Trades Traineeship Program: 23 students;
- » Data Clerks Traineeship Program: 10 students; and
- » Pre-employment Training Program: 38 graduates.

To support these programs, training plans have been developed for each work role, and by December 2011, 100% of roles had a training plan in place. A training matrix, showing the combination of skills available on each shift and across departments, is also being developed.

APPRENTICESHIP PROGRAM UPDATE

Sepon employees graduated with a Certificate 3 technical qualification from RMIT University in Australia in November 2011 as part of the Apprenticeship Program. Established in 2006, the program aims to increase the number of local community members from around the mine who can undertake skilled jobs on site. More than that, it delivers the next generation of tradespeople in Laos, as graduates receive their qualification in one of seven trades: carpentry, fabrication, refrigeration, mechanical, electrical, automotive or instrumentation. This qualification is the result of four years of study and at least one year of on-the-job training at the mine site. The training has now been translated into Lao so that Sepon trainers can deliver it on-site, with RMIT still involved in assessing the trainees.

APPRENTICESHIPS CAN CHANGE LIVES

Ya Xiong, Deputy Superintendent, Training and Localisation

"It was the Apprenticeship Program that changed my life."



"Before I came to the mine site, I worked in a telephone operating company as a landline technician. I started at the mine as an instrument fitter in the maintenance department, moving to the training department after one year. I joined the Apprenticeship Program in October 2006 as a Training Translator and sometimes I had to ask the teacher to slow down! I learned lots of things from the program so that I could do the right job. Now, being Deputy Superintendent is a big job for me because I didn't have this aspiration before, and had to start from zero. I get a lot of support."

AN OPPORTUNITY TO STUDY

Khamlah Vongnakhone, Supervisor Maintenance Training

"New trainees often say that they have not had an opportunity to study and this is their chance."

"I studied carpentry in Vientiane for three years then applied for the Carpentry Training Translator role in the 2007 intake of the Apprenticeship Program. I did the apprenticeship at the same time as providing the translation role – it was hard work. I learnt the Australian Standards and combined this with my knowledge of the Lao Standards. The best thing about this challenging role was receiving the Certificate 3 from RMIT and the knowledge I now have."

Khamlah now supervises and mentors a group of eight trainer translators and is involved in developing short courses to bring them up to Australian Standards.

DATA CLERKS TRAINEESHIP PROGRAM UPDATE

"We just want a job that can provide our families with an income and a better life in the future."

Inphone Boudtakoad and Khampao Sibounlap have swapped their farming backgrounds for the Sepon Data Clerk Traineeship Program. For the first time, the 2011 intake included local Mon-Khmer trainees, who do not speak Lao as their first language. This is a significant step forward, because the mine has faced challenges in integrating Mon-Khmer community members into the workforce.

Khampao, 25, one of the Mon-Khmer trainees, said "most people from my village work as farmers after they have finished school, as they don't have any opportunities to continue their education". Inphone, 20, said "I'm very happy, excited and proud to be selected as one of the trainees. Many people applied, but to be one of the ten is a privilege. I didn't think I'd ever have this kind of chance, because my opportunities were limited. My parents are divorced, so ever since Grade 5, I had to help my mother to earn extra income by growing and selling vegetables and rice to put me through school."

Talent attraction and retention

Attracting and retaining talented staff through offering competitive conditions includes providing career development opportunity, embracing diversity and encouraging the right company culture.

In 2011, MMG's total turnover rate reduced by 2.1 percentage points, from 10.6% in 2010 to 8.5% in 2011, demonstrating an increase in employee tenure with us.



This is a favourable comparison to the Australian mining industry where turnover was 17.7% (according to resources industry turnover analysis work by Mackie Employer Solutions).

In order to continue to attract, employ and retain people with great skills and experience we are:

- » Aiming to develop a positive corporate culture;
- » Articulating our brand positioning;
- » Delivering competitive staff benefits and remuneration;
- » Offering flexible work arrangements where possible;
- » Offering training and development tailored to individual employees' needs;
- » Training our leaders in effective people management;
- » Responding to employee perception survey results; and
- » Supporting staff involvement in issues that concern them.

CASE STUDY: CENTURY EMPLOYEES RIDE FOR CHARITY

A team of enthusiastic cyclists from Century mine participated in a 780-kilometre charity bike ride to help raise much-needed funds for children in isolated communities throughout Far North Queensland.

The Century team joined over 200 riders from across Australia who took part in the grueling ride throughout the rainforests, tablelands and savannah lands of Queensland. The riders departed Cairns and arrived in Karumba one week later. All the Century team members successfully completed the ride and were within the front-runners of their riding pelotons.

The team raised nearly A\$10,000 leading up to the ride, a remarkable effort that will certainly benefit the "kids in the bush". The donations will go towards the Cairns School of the Air and other isolated schools within the Cairns to Karumba region.



SUSTAINING OUR ECONOMIC PERFORMANCE

Gender diversity

Achieving a balance of male and female staff in the workforce at all levels, to enhance the cognitive diversity that balanced gender representation brings, is a broader mining sector challenge.

Encouraging the balance of gender diversity across our business is a key focus. Although female representation as a proportion of the overall workforce has increased to 19%, up from 16% in 2010 (see the following chart), and in our corporate and exploration business units it is around 40%, the workforce at mining operation sites is on average well below 20% female. In addition, the majority of work roles held by females fall into the middle manager, specialist/supervisor and support staff categories (see the table below), with few working in the mill/mining/trade (6%). Remuneration balance is also an issue, with average female salaries being below those of our male employees across all work role categories.





Includes all employees, excluding contractors and Sepon casual staff.

DIVERSITY, ROLES AND REMUNERATION							
WORK GROUP	% MALE/FEMALE % N 2010		% MA I	LE/FEMALE 2011	2011 SALARY AVERAGE (A\$ BY GENDER)		2011 AVERAGE AGE
	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	
SENIOR EXECUTIVES/GENERAL MANAGERS	5%	95%	11%	89%	\$336,000	\$513,510	48
SENIOR MANAGERS	15%	85%	17%	83%	\$202,149	\$232,100	45
MIDDLE MANAGERS	18%	82%	25%	75%	\$142,478	\$170,440	42
SPECIALISTS/ SUPERVISORS	23%	77%	22%	78%	\$116,919	\$133,522	39
SUPPORT STAFF	53%	47%	56%	44%	\$80,078	\$99,771	38
MILL/MINING/ TRADE	5%	95%	6%	94%	\$95,185	\$113,139	40
TOTAL MMG	16%	84%	17%	83%	\$107,513	\$132,178	40

Includes all employees, but excludes casual staff, contractors, employees not based in Australia, and employees not paid in A\$.

We are undertaking the following initiatives to encourage gender diversity across our business:

- » Paid parental leave;
- » Leadership training for senior high-performing women;
- » Flexible working arrangements;
- » Health room in Melbourne that can be used as a parent room;
- » Unconscious bias workshops with senior leaders;
- » Gender pay analysis to ensure remuneration is comparative to skills and experience;
- » Contribution to the Australian Government Equal Opportunity for Women in the Workplace Authority report; and
- » Development of a diversity policy in 2012.

CASE STUDY: AUSTRALIA'S LARGEST ZINC MINE LAUNCHES A WOMEN IN RESOURCES NETWORK

Century launched a Women in Resources network in October 2011. The network was established to support the retention and advancement of women at Century by providing career advice, encouraging informal mentoring and breaking down barriers between women in the mine's operational and support areas. The network launch follows a series of successful events, including an information session presented by the Queensland Resources Council (ORC) and a brainstorming session to inform Century and industry practices, in late 2010.

Century's General Manager Mark Adams is a key supporter of the initiative, recognising that encouraging the recruitment, retention and advancement of women in the resources industry isn't just the right thing to do - it is critical to business success. Research has shown that diverse workforces are more productive, exercise better creative problem-solving, attract and retain the best employees and experience less absenteeism and staff turnover. Furthermore, increasing female participation has been broadly acknowledged as an effective way to address the resources industry's everpresent skills shortage.

For its first official event, the network invited representatives from the Queensland Government's Office of Women to visit the mine's Lawn Hill site and meet with about 20 women – and men – from all areas of the operation. Century is already a leader in Indigenous participation – local Indigenous employees currently make up about 25% of its workforce, or 157 staff. Of these, 44 (22%) are Indigenous women. It is hoped that the mine's Women in Resources network will both help Century to better support its current female employees and tilt the gender balance in the same positive direction, including for Indigenous women.

Training and development

Assessing individual employees' training needs for their roles and desired career development and providing training to facilitate this, is part of our retention and efficiency strategy. Some training is mandatory for all staff, such as Health and Safety (H&S) induction.

Extensive employee and contractor training was undertaken in 2011 to increase competency, staff development and alignment with our values. These training programs include:

- » Inductions;
- » Cross-cultural awareness programs;
- » Language training;
- » First aid and safety training;
- » Job-specific training;



/omen make up 13% of Century's workforce.

- » Conferences:
- » Leadership and supervisor training;
- » Environmental and community training;
- » Operator competency training;
- » Financial management and project investment analysis;
- » Information technology training; and
- » Mine rescue training.

In 2011, more than 23,000 attendances to training and induction sessions were recorded for staff, contractors and casual employees. Currently MMG's training is structured to meet each individual site's requirements. We are working towards an integrated approach to learning and development programs that will ensure we identify our training gaps and needs, and are able to support MMG's growth strategy.

SUSTAINING OUR ECONOMIC PERFORMANCE

CASE STUDY: ROSEBERY YOUNG TRAINEE PROGRAM

Providing an employment future for local school leavers

Recognising the limited local career paths available for school leavers, Rosebery initiated a trainee program for young school leavers in the west-coast region of Tasmania. The program's objective is to provide a two-year traineeship for teenagers who have completed Year 10 or above, who are interested in entering the mining industry, but do not have aspirations or the qualifications to proceed to a tertiary institution.

The traineeships will result in a nationally recognised qualification from Skills Institute, enabling graduates to seek employment in mining and associated industries across Australia. The program also provides the Rosebery mine with potential enthusiastic young staff and the community with stable employment opportunities for its young people, some of whom will, ideally, stay to build local capacity.

The program attracted some 47 applications, with a total of 12 being selected: four trainees in the Mill, seven trainees in the Mine and one in Administration.

Two of the trainees are fourth-generation local miners with great grandfathers who had worked at the original mine operations at Williamsford.

The success of this initiative will be followed in 2012 with a further six trainees being appointed to complement the existing 12 success stories.

Workplace and corporate culture

We aim for our workplace and corporate culture to be a reflection of our values of safety, integrity, action and results.

We are committed to building a business-wide workplace and corporate culture based on high-performing teams delivering on our business plan.

We utilise the Success Through Every Person (STEP) program to engage and develop our people so that they can evolve personally and contribute to our Vision and Mission. The STEP tools give us all a common MMG language to ensure that everyone is clear on what any task requires, able to identify critical issues and develop solutions and be aware of how diversity contributes to high-performing teams.

MMG has also developed a linked approach called "Inflow" to support the development of its business culture. The aim of the Inflow process is to ensure that all employees are operating at a capability level that matches the complexity of their work and are not exposed to either stress or lack of role challenge.

In order to encourage the desired MMG culture across all our sites, in 2011 we delivered a range of staff programs including training, communication and education. We also undertook a company-wide employee perception survey and established "consultative forums" to help facilitate open and transparent discussion with employees around key issues that need to be addressed on site. A positive increase in the key engagement indicator of "Commitment" was recorded in 2011, and on average 86.8% of Group-wide staff agreed that they are committed to MMG's success. Additionally there was a steady rise in positive perceptions about MMG's impact on the environment and the reporting of safety incidences when at work.

MMG has commenced responding to the survey findings, and other feedback avenues, such as exit interviews, consultative committees, new employee feedback and meetings with our business partners and suppliers.

The consultative forums continue to act as strong conduits between the workforce and the site management teams, ensuring that areas of improvement raised in the perception survey can be addressed.

2012 CHALLENGES

Key challenges for 2012 are to:

- Continue to increase the localisation of the Sepon workforce, in particular in management roles;
- Better identify the training requirements of our people and develop appropriate training and development opportunities to meet their needs;
- » Respond to and address the findings of the 2011 employee perception survey;
- » Deploy a diversity survey to inform the development of strategy to improve diversity across the business; and
- **»** Launch the updated Code of Conduct policy and training program.

HEALTH AND SAFETY

WE ADOPT A CONTINUOUS IMPROVEMENT APPROACH TO HEALTH AND SAFETY THAT PROMOTES A ZERO-HARM AND FATALITY-FREE BUSINESS.



Discussing safety procedures at Sepon.

OUR APPROACH

In 2011, we reviewed our core values and included safety as a value. This was in response to feedback received across the business that safety is a priority in everything we do, but we will not achieve our vision of zero harm and fatality-free unless we truly value the safety of our people. Our four core values are now Safety, Integrity, Action and Results.

We are improving our safety, health, environment and community (SHEC) management system based on consultation with our internal SHEC networks and leadership teams to drive a consistent approach across the business. This system provides a framework consisting of a Group SHEC Strategy, SHEC Policy, SHEC standards, performance management support, building capability of our people, assurance and reporting.

Injury Prevention Principles

Our Injury Prevention Principles help to guide thoughts, behaviours and decisions relating to health and safety among our employees. These principles are:

- » All incidents, injuries, fatalities and occupational exposures are preventable;
- » No task is so important that it cannot be done safely;
- » Management is responsible for creating and maintaining a safe work environment;
- » We are all responsible for preventing injuries to ourselves and others;
- » Everyone is empowered to stop unsafe behaviour; and
- » We will promote off-the-job safety for our people.

PERFORMANCE

A tragic fatality due to a vehicle accident that occurred at the Sepon site in early 2012 (outside the reporting period) has emphasised the importance of our safety performance. A contractor was killed at a construction site when a compactor (mobile equipment used for civil works) experienced an uncontrolled movement. A full investigation is being conducted into the incident and the findings and lessons will be shared across the business.

Our overall health and safety vision is a zero-harm and fatality-free workplace. As part of our priority to improve safety and health performance, a major program was launched across the business in 2010 called "Stop and Think". This program continued throughout 2011 and encourages the workforce to literally stop and think about the consequences of their actions before they commence a task.

Safety incidents

These statistics encompass our whole workforce, employees and contractors. Unfortunately, there was an increase in the number of high fatality-potential incidents (any significant incident that has the potential to result in a single or multiple fatalities). This is a disappointing trend. As highlighted, a fatality occurred after the reporting period in early 2012. This has refocused our efforts on reducing the high fatality-potential risks in our business.

As the graph on page 30 shows, our total recordable injury frequency rate (TRIFR), per million hours worked, decreased during 2011 from 4.8 to 4.1 (15% reduction). Unfortunately, the year-end target of 3.5 was not achieved.

The Group SHEC Strategy has been developed to improve overall performance, including TRIFR. Improvements to TRIFR can only be achieved through a multi-disciplined approach, which includes rollout of improved, clearer safety and health standards from the corporate SHEC team, robust assurance processes to audit site performance against the standards and on-going behavioural safety programs to understand what drives people to take risks.



MMG 2011 INJURY FREQUENCY RATE (12-MONTH MOVING AVERAGE PER MILLION HOURS)



* Frequency rates are calculated by: Number of injuries/illnesses for required indicator x 1,000,000/total exposure hours. Includes all employees and contractors.

2011 SIGNIFICANT/HIGH FATALITY-POTENTIAL INCIDENTS BY SITE



The lost time injury frequency rate (LTIFR) was 0.6, a disappointing increase compared with the 2010 LTIFR of 0.4. There was no LTIFR target for 2011. Numbers for 2010 LTIFR differ in the 2010 Sustainability Report due to the reclassification of an injury after the reporting period.

There were no fatalities in the reporting period. However, as discussed, our significant/high fatality-potential incident frequency rate increased over the 12-month period from 4.6 to 5.1 (10% increase), with 104 incidents in 2011, compared to 98 in 2010. As shown by the chart above, more than 41% of these incidents occurred at Sepon, with vehicle incidents the leading high fatality-potential incident type. Unfortunately, as mentioned, after the reporting period there was a fatality at Sepon, involving mobile equipment, which has increased our focus on reducing vehicle risks.

Vehicle safety

We are working to reduce vehicle incidents through the development of a Fatal Risk Control Standard in 2012, which will include a set of expectations for systematically and consistently managing risks associated with managing vehicles and mobile equipment across all operations. This single standard will replace 10 separate standards that currently exist, significantly reducing the volume of information to allow focus on critical controls.

Release of the Fatal Risk Control Standard will include an internal assessment exercise to allow each operation to evaluate their current level of alignment. It will also result in the preparation of targeted site-based action plans to address gaps associated with any of the defined fatal risk areas, including vehicles and mobile equipment. One of the critical control areas for the effective management of vehicles and mobile equipment is a traffic management plan that is clearly understood by site.

Occupational health and hygiene

Health and fitness for work is a key component of safety management and injury prevention. We encourage all employees and contractors to be fit for work both physically and mentally. This includes our standards on drug and alcohol use in the workplace, fatigue management and our general health and wellbeing. We offer healthy lifestyle promotions, gym memberships or facilities and a 24-hour employee assistance program providing confidential counselling services to employees and their families.

Drug and alcohol testing is conducted at all sites and offices and applied to all employees, contractors and visitors. Employees must have a blood alcohol content of 0.00 and be free of illicit drugs at all times. Positive readings are assessed and may result in disciplinary consequences.

Health surveillance is undertaken across all sites with the aim of protecting the health of our employees and contractors. Substances including lead, cadmium and silica are present in the ore bodies that we mine. In addition to this the use of reagents, chemicals and diesel fuel can create hazardous environments.

We provide and regularly review personal protective equipment (PPE) and hygiene awareness programs appropriate to the area of work in the aim of minimising and managing occupational exposure. We test the blood lead levels of employees and in 2011 conducted 2,213 blood lead tests. This includes programs at Century,

SUSTAINING OUR ECONOMIC PERFORMANCE

Golden Grove and Rosebery for the full year, and Sepon for the second half of the year when blood lead monitoring programs were implemented.

Of these results 15 employees recorded blood lead levels above the action level (above 15 micrograms of lead per decilitre of blood (μ g/dL) for males and females not of reproductive capacity, and above 5 μ g/dL for females of reproductive capacity). Further testing is undertaken on any employees recording levels above the action level, hygiene awareness sessions are provided and personal protective equipment upgraded in an effort to maintain blood lead levels under the action level. These strategies were applied to the 15 employees who were above the action level.

There were also nine blood lead levels recorded above the transfer level (above 30 μ g/dL for males and females not of reproductive capacity and above 10 μ g/dL for women of reproductive capacity). Employees in this category are transferred to alternative duties until blood lead levels decrease.

In 2011, we also undertook heavy metal urine testing; air monitoring for inhalable lead, cadmium, respirable crystalline silica, diesel particulate matter and respirable dust; noise monitoring and hydration testing. Test work and management programs are tailored to each operational site's operating environment.

Safety and wellbeing of our people

We strive to provide a safe workplace and working conditions, alongside programs for health and wellbeing. A proactive approach to safety is embraced as a corporate value.

During 2011, Group Safety and Health focused on the following actions to increase the health and safety of our people, contractors and visitors:

- » Refined a list of health and safety standards and guidelines required in the SHEC management system;
- Commissioned an independent review of the quality of incident investigations for significant and high fatality-potential incidents;
- » Developed a training package and gap analysis tool to be rolled out in 2012 to address changes in the Australian workplace health and safety legislation and the supporting work health and safety regulations;

- » Developed a better understanding of the current position of occupational health and hygiene at sites through formal assessments and continued to work on a number of occupational health and hygiene projects;
- » Commenced an independent fatigue management review; and
- » External aviation advisor completed 33 aviation audits.

During 2012 our Group Safety, Health and Security key priorities are:

- » Establishing the steering committee for the development of an upgraded incident management solution based on a SAP IT platform undertaking incident management design workshops with representatives from sites and business units;
- » Renewing Incident Cause Analysis Method (ICAM) investigation training at all sites to improve incident investigation skills across our business and enhance the quality of reporting;
- » Working with supply and contract management to refine SHEC requirements in our contractor management system;
- » Introducing the next phase of a behavioural safety program across the business to drive a safety culture change improvement;
- » Updating a number of safety standards, including:
 - Incident management standard and associated guidelines;
 - Fatal risk control standard and supporting Life Saving Rules;
 - Security standard;
 - Occupational hygiene standard and health-risk assessment guidelines;
 - SHEC management system standard and associated guidelines; and an updated aviation standard;
- » Reviewing pre-employment medical processes to standardise them across the business and ensure employees are fit for work; and
- » Continuing to improve monitoring of occupation health exposures.

CASE STUDY: ROSEBERY STOPS THE JOB

Following a period of poor safety performance Rosebery mine employees demonstrated a renewed commitment to ensuring that safety comes first by conducting a "Stop the Job" safety meeting.

At 11am the entire mine workforce was withdrawn from the mine in an orderly manner. Gathered together, they stood in silence as they listened to the sounds of the mine and the concentrator being brought to a controlled stop.

This memorable moment was intended to focus employees' and contractors' health and safety thinking in response to a first quarter of higher-than-target injury incidents. The following messages were articulated by former Rosebery General Manager John Lamb:

- » Stop and Think every time, every task, every day;
- » It's your choice make the right one; and
- » Be just a little afraid it could happen to you or your mate.

Operations were safely resumed when employees returned to their workplaces at the conclusion of the Stop the Job.



CASE STUDY: SECURITY UPDATE AT SEPON

Roving security patrols at Sepon help to reduce fuel and malachite theft.

Last year, Sepon reported on the security issues faced at the site. By replacing the static security force at the site with six roving security patrols, each able to react to a range of security incursions, incidents of fuel and malachite theft have been substantially reduced.

Other security improvements have been made, in part through implementing the recommendations of a security audit of the site:

- » Introduction of two Senior Security Advisors;
- » Integration of the Provincial Police Taskforce into Sepon security management;
- » No longer using the military or District Security Committee; and
- » Continued alignment with the ICMM Principle on Human Rights.



WORKING WITH OUR STAKEHOLDERS

SUSTAINING OUR ECONOMIC PERFORMANCE

CASE STUDY: UNEXPLODED ORDNANCE (UXO) CLEARANCE AT SEPON

During the Vietnam War of the 1960s and 70s, much of the US Air Force bombing of Laos was concentrated at the intersection of the Ho Chi Minh Trail in Savannakhet Province. This is where MMG's Sepon mine now operates. Consequently, Sepon runs a comprehensive unexploded ordnance (UXO) search and clearance process which precedes mining area expansion.

The program employs 389 permanent staff, all but 11 being local Lao nationals, including local village chiefs and deputy chiefs. The work is staged and involves vegetation cutting and preparatory clearance, electronic search and detection, digging and removal, supervision and office data processing and administration.

The UXO clearance team currently searches approximately 1,000 hectares per year, and clears approximately 500 hectares per year. More than 80,000 unexploded munitions have been removed in the last 15 years.

The UXO clearance process is in place primarily to allow mining operations to proceed, but there are some secondary community benefits. Aside from direct local employment, on-the-job-training transfers knowledge about UXO safety into the community. Also, surrounding land and access roads through the district cleared for mine exploration or transport become safe for later use by the community. The UXO search and clearance process also finds archaeological and cultural heritage items, which are then logged as part of Sepon's cultural heritage management program.

Contractor selection

Contractors make up a significant part of the workforce and are regarded as MMG's responsibility on-site, hence selection of partners with a good safety culture, prepared to implement best-practice safety management, is an important consideration in the selection process. Working with contractors to implement safety management is an important element of our safety strategy.

We monitor health and safety incidents relating to contractors on our sites and contractor safety incidents are recorded in our safety statistics. Contractor safety at some sites, in particular Sepon, has arisen as an issue. We seek to include contractors in our safety culture and influence them to implement safe procedures by:

- » Uniform implementation of health and safety requirements for all persons on our sites;
- » Enforcing safety inductions and personal protective equipment requirements for our people, contractors and visitors to our sites;



- » Embedding health and safety requirements in our contract documents; and
- » Working with our contractors to develop their health and safety understanding, processes and procedures.

Sourcing skilled labour is a challenge for the mining industry and contractors are just as challenged as mining companies to find the right people with the right skill set for the right job. This skills shortage has resulted in a reduction in the years of experience of trades people, which demands rigorous contractor management systems. MMG respects this challenge and will be reviewing its contractor management system during 2012 to improve pre-selection criteria. Particular focus will be on the increased management of supervision and training needs that this less-experienced contractor workforce requires.

CASE STUDY: CENTURY AND TROPICAL NORTH QUEENSLAND TECHNICAL AND FURTHER EDUCATION (TAFE) WORKING TOGETHER TO IMPROVE SAFETY

With the graduation of the first three participants from a hydraulic hose safety course, Century and Tropical North Queensland TAFE are on the way to overcoming one of the mining industry's biggest safety hazards.

Century and Tropical North Queensland TAFE partnered to develop a course that equips tradespeople with the skills and knowledge to safely use, repair and manufacture hydraulic hoses, considered among the most dangerous pieces of equipment in any workshop. Fluid injection injuries can cause serious harm or even death.

While all tradespeople receive informal training in hydraulic hose management and use during their apprenticeships, a specific, comprehensive course has not been available.

Furthermore, the new course is based on the Mechanical Design Guidelines 41 (MDG 41), considered to be the best-practice industry standard for hydraulic hose safety.

Former Century General Manager Karl Spaleck said that the first graduates were just three of 72 from the mine's maintenance workshop participating in the course.

"We are incredibly proud of our first graduates, Trevor Hartwell, Dean Smith and Josh Body. They have worked hard to complete this course and are leading the way for many other tradespeople at Century.

"I am also particularly pleased that Josh is one of our first graduates. Josh joined Century early this year through our Indigenous pre-employment program and is our first hose technician trainee."

Josh said that the qualification, along with his experience at Century, provided a strong foundation for the future.

"I've learnt a lot through my training and mentoring from one of our experienced technicians. I'm keen to keep learning and see where else this takes me."

In addition to working with Century to develop this pioneering course, Tropical North Queensland TAFE built an excavation simulator to allow course participants to understand, energise and demobilise hydraulic circuits safely. "After consultation between MMG and Tropical North Queensland TAFE, the program was designed and will be delivered in such a way as to cover all aspects relating to MDG 41 for fluid power safety at mines.

"This is an excellent example of how tailored training can be designed on-site to meet the emerging needs of companies operating in the resources sector," Tropical North Queensland TAFE Institute Director Joann Pyne said.

Mr Spaleck said that the hydraulic hose safety course was something that the resources industry should take notice of. "Our focus should always be on looking at ways to reduce the potential for injuries and incidents.

"By teaching participants how to work in adherence with MDG 41, we are giving our people the tools to keep themselves and their workmates safe while working with hydraulic hoses."



Century tradespeople undergo a new hydraulic hose training course.
Aviation risk management

Air travel is necessary to transport people and supplies to our remote mining, exploration and project sites, bringing with it the risk of serious injury and fatalities. Expert advice is required to guard against aviation risk.

In order to assess and manage aviation risk, we have engaged Hart Aviation, specialist aviation safety advisors and auditors, to undertake risk assessment audits of the service providers and facilities utilised for air travel. In 2011, 33 audits were undertaken, with more scheduled for 2012. MMG is a member organisation of the Basic Aviation Risk Standard (BARS) program and during 2012, our Aviation Management Standard will be updated to include clear links to the BARS developed for the resource sector and facilitated by the Flight Safety Foundation.

Public interaction with operations

Local community members can enter some sites, presenting a safety risk from large vehicles operated on-site, as well as security risk for the company in the form of theft. The right measures are required to minimise risks to local people and MMG.

From both a safety and security perspective, managing public access and interactions with our operations is important, and is addressed at each site as required. We recognise the human rights and other concerns around the employment of private security personnel to protect the safety and security of our people and operations. In 2012, we will develop a security standard for all sites.

CASE STUDY: SEPON COMMUNITY ROAD SAFETY AWARENESS

Sepon has invested in teaching the community about road safety risks.

Mine-community interactions can pose operational and safety risk, in particular road safety risks. In 2011, a Community Awareness Unit was established at Sepon as part of the Social Sustainability Department. The unit works in cooperation with the district administration to plan and assist in the implementation of community visits, communications materials and special events designed to raise awareness of key risks associated with mine-community interactions. Other important bodies, such as the Community Information and Consultation Committee, and the Land Compensation Committee, are designed to identify and resolve emerging or urgent issues by meeting with key community leaders on a regular basis. The Community Awareness Unit complements this process by taking issues directly to a wide public audience in order to prevent significant risks from becoming grievances, injuries or fatalities.

From October to November 2011, the unit made a substantial effort to raise community awareness on road safety in schools and villages around the mine. Thirteen group presentations were made at local schools and villages, including activities such as a fun run and a concert. In total, more than 5,000 local community members took part.



2012 CHALLENGES

In 2012, we will continue to develop our safety culture. Our company safety and health standards will be reviewed as part of the project to align our policies and standards with the ICMM's 10 Sustainable Development Principles. Key challenges for 2012 are to:

- » Refine and update Group Safety, Health and Security Standards to consistently manage priority risk areas;
- » Reduce high fatality-potential incidents through rollout of the Fatal Risk Standard, Life Saving Rules and associated training;
- » Improve hazard identification and awareness to reduce workplace hazards;
- » Review safety and health key performance indicators to ensure an appropriate balance of leading and lagging indicators;
- » Build on our understanding and approach to occupational health and hygiene exposures; and
- » Build understanding of fatigue management through a comprehensive review and associated actions.

WORKING WITH OUR STAKEHOLDERS

WE AIM TO SECURE MMG'S SOCIAL LICENCE TO OPERATE THROUGH STRONG AND RESPONSIVE RELATIONSHIPS.



The Sepon Community Water Project installed tap stands in 12 villages.

WORKING WITH OUR STAKEHOLDERS

SUSTAINING OUR ECONOMIC PERFORMANCE

OUR APPROACH

We are refining our understanding of stakeholder relations and community development and our approach to social investment, to maintain our social licence to operate for the long term. This will include drawing together stakeholder relationships into a Reputation Management Plan and the development of a community relations strategy and management system in 2012, which is a component of the Group SHEC Strategy.

We aim to secure MMG's social licence to operate through strong and responsive relationships, and sustainable partnerships and social performance, and also to foster self-sustaining and healthy communities beyond the life of our mines.

To this end, we have already started work on redeveloping our stakeholder engagement standard. We are also building trusting relationships by engaging clearly, openly and honestly with our host communities and other key stakeholders.

Our social licence to operate

Maintaining our social licence to operate will depend on how we engage with our stakeholders. It will also depend on the investments that we make which benefit our communities, and therefore, indirectly, our company. Our social investment activity must consist of measurable and sustainable contributions to local communities and broader society. This is often through partnerships with government and non-governmental organisations (NGOs) to support local business development and educational, employment and health programs.

In determining our social investment activity, we rely on three things:

- Baseline studies and social impact assessment and management, that is, health and safety impacts, traffic, noise, dust, environmental disturbance, quality of life and economic impacts;
- 2. Understanding societal issues directly or indirectly related to our operations, that is, health and education standards, infrastructure, corruption, security, conflict, revenue transparency, human rights and poverty; and
- Direct social benefits and opportunities for local communities and broader society to benefit from operations, that is, jobs and local suppliers, infrastructure developments, spend in local economy, taxes and royalties.

Community relations

Our community relations strategy and management system will include a vision, mission, policies, standards, guidelines, tools and resources, self-assessment and gap closure, building capacity within our teams and undertaking external reviews and audits. Our aim is for this comprehensive system to progress us towards sustainable communities and business and enhance our social licence to operate.

Key stakeholders

We manage our relationships with stakeholders on an individual basis. Responsibility for this lies with each operational site and functional manager. In 2012, we aim to bring these strategies under the umbrella of a Reputation Management Plan, identified as a key work program in our business planning process. The plan will incorporate government, investor and external stakeholder relations strategies, as well as brand management and corporate positioning.



General Manager Queensland Operations Mark Adams and Doug Bruce, Chairman of Kalkadoon Community celebrate Traditional Ownership at Dugald River during a 'Welcome to Country' ceremony.

Below is a matrix of our current broad stakeholder groups, their areas of interest and our engagement strategies, including those pursued in 2011:

STAKEHOLDER	STAKEHOLDER GROUPS	AREAS OF INTEREST	ENGAGEMENT STRATEGIES	
EMPLOYEES	MMG employees and contractors at:	Staff safety and wellbeing – safety management and performance.	 » Safety meetings; » Shift change meetings; 	
	» Mine sites;	Sustaining our economic performance – business strategy. Talent attraction and retention – values and behaviours, working conditions, work plans, remuneration and benefits, career opportunities. Diversity – equal opportunity.	» Management and CEO	
	» Development projects;		presentations;	
	» Exploration projects; and		 Emailed and written updates; 	
	 All offices including head group office 		 Corporate and individual site intranets; 	
	in Melbourne.		 » Quarterly employee magazine; 	
			 Cultural and people development programs and training; and 	
			 Annual employee perception survey. 	
COMMUNITIES	 Host and regional communities; and 	Post-closure community expectations and community and regional development	 Community investment projects; 	
	» Local villages and towns near our	 impacts on local communities, community investment and development, local amenity and housing. 	 Quarterly and monthly newsletters; 	
	operations.	Stakeholder relationships – local business support.	 » Meetings; » Written communications; and » Local media. 	
		Environmental management and compliance – environmental impacts and management.		
		Public interaction with operations – health and safety impacts.		
		Economic sustainability – future financial viability.		
		Community and regional development – sutainable employment post mine life.		
SUPPLIERS	 Businesses from which to purchase products and services. 	Sustaining our economic performance – economic security of the business, supply opportunities, payment processes.	 Tender and contract documents; 	
		Contractor selection – health and safety,	 » Direct communications; and 	
		contractor management procedures, supplier contractual conditions.	» Induction and training.	
GOVERNMENT	 » Regulators and government authorities with responsibilities for the areas where we operate; and » Local, state and federal government in countries including Australia, Lao PDR and Canada. 	Government relations – compliance with permits and licences, social policy and fiscal regimes applicable to the resources	 Statutory and licence reporting, regular meetings; and 	
		sector.	» Written communication.	
		Community and regional development –		
		engagement with host and local communities, community investment and development, market access.		
		Environmental management and compliance – environmental impact management, product stewardship.		

STAKEHOLDER	STAKEHOLDER GROUPS	AREAS OF INTEREST	ENGAGEMENT STRATEGIES
INVESTORS	 » Retail investors in Hong Kong; » Global institutional investors; 	MMG share price – earnings and production results, share price performance, funding arrangements, access to business information.	 Announcements to the Hong Kong Stock Exchange in compliance with Listing Rules;
	» Research analysts;	Acquisition investment – project	» Quarterly production
	» Brokers;	announcements, merger and acquisition programs.	and exploration results; » Annual resources and
	» Stock commentators; and	Realising full value of leases – resources and reserve, mine life, business strategy.	reserves statement;
	» China Minmetals	Management decision-making –	 » Annual and Interim Reports » Annual investor roadshow
	Corporation (majority shareholder).	governance, risk management,	» Telephone/email
		Resource nationalisation.	correspondence; and
			 Monthly management reports to majority shareholder and Board reports.
NON- GOVERNMENT	» Non-government organisations; and	Community and regional development – impacts on local communities, community	» Sustainability report;
ORGANISATIONS	» Special interest groups.	investment and development, community	» Meetings;
		health, local infrastructure development and investment.	 » Media releases; » Website content; and
		Public interaction with operations – interactions with local communities.	» Site visits.
		Human rights.	
		Bribery and facilitation payments.	
		Workforce localisation.	
		Environmental management and compliance – environmental impacts and management.	
		Post-closure community expectations.	
		Management decision-making – governance, risk management, Board composition and operation.	
MEDIA	» Local and regional media in the areas of	Potential for interest in all areas of material issues, particularly those of current interest to other stakeholders	» Media releases, website; and
	our operations; and » Finance and resources	current interest to other stakeholders.	» Media tours, interviews.
	media internationally.		
INDUSTRY	 » Other mining businesses; » Industry associations; and » University and technical training providers. 	MMG share price – earnings and production results, share price performance against industry peers.	 Membership of international, national and regional industry groups;
		Acquisition investment – project announcements, merger and acquisition programs.	» Representation on executive and working group committees;
		Management decision-making – governance, risk management, Board composition and operation.	 » Sustainability reporting against GRI and ICMM benchmarks; and
		Stakeholder relationships and government relations – support for industry initiatives, involvement in industry forums, support for industry-specific training and development.	 » Sponsorship and support of technical training institutions and organisations.

HEALTH AND SAFETY

PERFORMANCE

The graph below provides a breakdown of our social investment across our local host communities in a number of different investment areas. In 2011, a total of A\$11,326,767 (approximately 2% of net profit after tax) was invested in our local host communities, with nearly half of this sum going into local (non-staff) training and education initiatives. This was a significant increase on 2010 investment and demonstrates our continued commitment to invest in the development of our communities.

Post-closure community expectations

We engage local communities to help build their future beyond mine closure, including developing sustainable local economies, land rehabilitation and maintenance of the former mine site.

Responsibility for our mining sites reaches beyond extraction operations, to include closure, care and maintenance, and rehabilitation. Consideration of ongoing host community impacts post-closure, and the local financial impacts of closure itself, are important for our long-term strategy and planning. We work with our host communities to develop sustainable economies aside from our mine operations and to engage with them in closure planning.

Consultation on a draft multidisciplinary and risk-based closure standard commenced in 2011, and is expected to be finalised in 2012. A business-wide Closure Steering Committee was also established with endorsement from the Executive Committee. The committee has the following objectives:

» Promote a multidisciplinary approach to ensure that closure is consistently managed across the entire MMG project lifecycle;



- » Improve the governance and communication of closure activities across our operations to ensure that lessons are shared and closure risks are actively minimised during mine life;
- » Provide an integrated body that takes "carriage" for the closure standard beyond safety, health and environment;
- » Actively manage provisions and research and development; and
- » Focus on closure planning at Century as a priority, with a mine life to approximately 2016.

Mine closure planning includes landform design and rehabilitation. During 2012, we plan to review and update our rehabilitation management standard to align with the ICMM Principles and provide specific direction on rehabilitation expectations.

During 2011, a Legacy Risk Management Framework was endorsed by the Board SHEC Committee and will be driven by a Corporate Legacy Risk Committee to:

- » Establish objectives for the management of legacy risks (e.g. minimise liabilities, enhance reputation and reduce demands on operating sites' resources);
- » Provide triggers for the identification of new legacy risks as the business grows;
- » Provide continuity for the ongoing management of legacy risks;
- » Develop an exit strategy for those legacy risks that are not generating value and/or revenue;
- » Implement management plans for legacy sites that have a strategic business objective (i.e. exploration); and
- » Adequately quantify the legacy risk and their associated provisions.

MMG recognises that if legacy risks are not appropriately managed there may be:

- » Negative impacts on environment and public health;
- » Exposure to legal liability or financial loss in the form of a statutory liability to remediate or otherwise clean up legacy sites, or claims by third parties alleging property damage or personal injury;
- » Impact on the reputation of MMG in local communities and/or more broadly;
- » Continued impacts to the bottom line, where financial provision for known legacy risk must continue;
- » Continued reaction rather than pro-active initiative and awareness of potential risks; and
- » Delays in future development approvals until regulators are satisfied that surrounding legacy sites are being managed effectively.

CASE STUDY: CENTURY MINE CLOSURE PLANNING

With a mine life to approximately 2016, mine closure planning at Century is now a key focus. A goal for the Century business plan in 2012 is to develop a mine closure strategy, including reduction of the waste rock impact issues associated with the site.

To support the business plan, the Century Closure Management Program will focus on developing a workforce retention plan and communicating the human resource closure strategy to the workforce. It will also cover rehabilitation planning, defining final landforms, and investigating contaminated sites at Karumba and Lawn Hill.

Our primary closure objective is full relinquishment of mining leases with closure visions as follows:

- » In 100 years' time people in the Lower Gulf will value Century's contributions and legacies;
- » We will leave behind a safe, sustainable environment with enduring benefits and minimal environmental harm; and
- » We will manage closure risk in a proactive manner using real data to make decisions.

To support closure planning, the following management processes are in place:

- » A multidisciplinary Century Mine Closure Working Group;
- » Closure liability estimate model based on the preferred closure option; and
- » Establishment of a Closure Balanced Scorecard to monitor progress against closure-planning activities.

MMG is planning for the Century's active closure phase, where areas are prepared for final closure and possible relinquishment including capping of tailings management facilities within seven years. The passive phases of closure immediately follow the closure execution phase and will involve monitoring and ongoing maintenance, as well as activities such as long-term water treatment. MMG intends that strategic assets such as the port facilities will be divested or sub-leased for beneficial reuses.

We have committed to undertaking extensive consultation with traditional owners, local communities and other stakeholders to ensure that Century leaves a legacy of benefits across the Gulf region. We also recognise the immediate impact that the mine's closure will have on the local community with the sudden loss of employment, local business opportunities, and charter flights in the Gulf area. To this end, a communications and consultation plan is being developed which will include awareness sessions and consultation and planning workshops with key local stakeholders.

Government relations

We develop our relationships with the governments of the countries and states in which we operate to address local issues, contribute to what is important to them and build partnership opportunities. Understanding the priorities of governments, in particular when moving into a new country for the first time, is central to creating a successful operation.

MMG works to ensure that government representatives are informed of our activities and operations. We maintain relationships with local, state or regional and national governments in the areas where we have operating mines, development and exploration projects. In Queensland we have a tripartite agreement with the government and local Native Title holders called the Gulf Communities Agreement under which the Century mine is operated. In Laos we are joint owners of the Sepon mine with the Government of Laos, which holds a 10% equity investment in the operation.

Each of our mines is developing a stakeholder engagement and government relations plan that will aim to build awareness of operations and recognition of the sites' economic and social contributions at a local, state and national level.

CASE STUDY: FLOOD RESPONSE UPDATE

"I was shocked by the impact of the flooding," said MMG Chief Executive Officer Andrew Michelmore.

Sepon presented a cheque for US\$30 million to the Lao Government on 28 November 2011, following a request for early payment of taxes to help the government manage its financial response to heavy flooding which affected parts of Laos in 2011. The government estimated the cost of the flood damage to be approximately US\$140 million. The advance tax payment was an instalment of the mine's expected profit tax payment for 2011, scheduled to be paid in March 2012.

MMG Chief Executive Officer Andrew Michelmore visited Laos and extended our support to those impacted by the floods. Mr Michelmore met with Minister of the Ministry of Energy and Mines Mr Soulivong Daravong on his visit. "The floods affected communities close to Sepon mine. In addition to the advance payment, we have provided a total of over US\$100,000 in donations and other assistance for the floods through the authorities in Vientiane, Savannakhet and Vilabouly," said Mr Michelmore.



Human rights

We respect fundamental human rights and cultures, customs and values in our dealings with employees and others who are affected by our activities.

Principle 3 of the ICMM 10 Sustainable Development Principles relates to human rights. We strive to address human rights issues through our people commitments, stakeholder engagement and relations, community and regional development programs and investment.

As part of our ICMM alignment program, we have recognised a need to further align our policies, principles and standards with Principle 3, and this is being pursued in 2012.

Particularly, following the acquisition of Anvil Mining Limited, we have the opportunity to incorporate appropriate standards, experiences and approaches to human rights management into any integrated companywide approach during 2012.

Land rights and resettlement

Managing the impacts of our activities on our host communities, their homes and land through effective land management, and where appropriate resettlement, is an important element of managing human rights. No resettlements occurred in relation to our sites within the reporting period.

In 2011, a compensation rate review was conducted at Sepon. The review was led by a representative from the Laos National Land Management Office and incorporated a review of updated laws surrounding compensation and land management. The review resulted in new rates and conditions for compensation.

Community complaints management

We are developing formal grievance systems at all sites, including for our exploration activities, to register, investigate and resolve community complaints. In 2011, 37 grievances were recorded, the majority in relation to requests for compensation for unauthorised damage to village land and crops.

CASE STUDY: COMMUNITY DEVELOPMENT INITIATIVES IN LAOS

Sepon aims to engage and empower the community to lead their own development.

Sepon facilitates the community's participation in mining projects and planning for their independent future through providing local employment and, where possible, using community business to provide mine-related services. This, and initiatives such as the Village Development Funds, aim to ensure that local people have enduring livelihoods.

VILLAGE DEVELOPMENT FUNDS

The Village Development Funds (VDFs), which are small annual grants of up to \$15,000 from Sepon to selected host community villages, aim to address the following challenges:

- » Localised ownership: host communities choose and maintain their own projects;
- Capacity building: elected local village leaders learn to identify and administer development projects themselves, independent of outside expertise;
- » Providing alternatives: developing other livelihood options for host communities whose traditional ones are affected by our activities; and
- » Partnership/participation: the mine chooses to limit itself to a facilitation role, spending significant time interacting and listening to villagers' needs and wants. This helps to build the relationship and trust, without creating villagers' dependency on the mine.

Villages are guided to set up a VDF committee representing a diversity of village interests, and how to use this committee to make decisions and implement development projects in a transparent and accountable way. Projects must benefit the entire village, and have included latrines, fish ponds, village meeting houses, improved electricity supply and a motor vehicle-free road that provides children with a safe route to school. They have an economic value to the individual village – either immediately, in the case of the fish ponds – or over time, in the case of an improved electricity supply that will enable income-generating activities to be conducted after nightfall.

At a broader level, the skills learnt by community members, such as inclusive decision-making, financial management and project monitoring, will assist each community to maximise economic opportunities in the future. Over time, as the VDF scheme is designed to repeat annually, it should have lasting economic benefit as the communities learn to prioritise needs, plan how to use limited resources and manage their finances. The economic benefit is likely to increase in the future as communities begin to choose non-infrastructure projects, such as business training, education and agricultural improvements.

VDFs were provided to 13 villages in 2011, with increases in funds and recipients expected in 2012. The success of the funds has been evident from recent village appreciation. One village suggested progressing beyond infrastructure provision towards investment in activities that "stay with us forever".

Continues

COMMUNITY DEVELOPMENT INITIATIVES IN LAOS CONTINUED

"We felt that we are the owners of this project," added Mr Bounnoi Soubouly, a fellow resident of the village.

"The VDFs have established a mechanism that works directly with those most affected by the mine, in a participatory way, using the development principle of people being able to decide on their own destiny," said Sepon's Superintendent for Community Development Luke Stephens.

"The variety of projects chosen by the villages illustrates how their priorities can differ."

Mrs Pi Mixay of Namalu village, where the community chose to build a meeting house that would allow them to meet in all weather, said "I am very proud that I took part in the decision-making. In the past I didn't have a chance like this."

SEPON TRUST FUND UPDATE

The 2011 Trust Fund projects, part of the much larger community development spend, included bridge and road construction, training for government health staff and improvements for local schools.

All 53 projects planned for 2011 were completed. Standards were also developed for different types of infrastructure projects in relation to size, quality and cost. These standards were approved by the district government, and in 2012, Sepon will move to joint evaluation of projects with the government. Plans for representation of all 13 villages directly affected by mining activities, rather than the six villages currently represented, will better facilitate the joint decisionmaking and take village needs into account.



A community planning meeting in progress.

SEPON VILLAGE MICROFINANCE UPDATE

If people are able to save and borrow money, and access support for small business development, they can consider more livelihood options and improve their quality of life.

Our microfinance initiative, extended to 2015, provides access to credit and leads to greater economic activity locally. Explaining the concept of paying interest on savings is one task facing German development agency, GIZ, who, partnering with MMG, is expanding access to finance in 38 rural villages in the district. Some community members have proved reluctant to save money in any sort of fund. Some did not trust such a savings system, while the concept of paying interest was completely new to others.

"This is a good example of how private and public partners can benefit from working together," said Klaus Prochaska of GIZ. "MMG wants to draw on our expertise to help lay the groundwork for viable livelihoods that assist villages now and into the future without being dependent on the mine. GIZ wants to expand access to finance for poor communities in Laos. We firmly believe that successful development cooperation needs privatesector involvement," he said.



Community and regional development

We aim to increase the strength and effectiveness of communities, improve people's guality of life, and enable people to participate in decision-making to achieve greater long-term control over their lives. Our social licence to operate depends on us getting this right.

We aim to support the development of our operations' host communities. We have adopted the ICMM definition of community development:

Community development is the process of increasing the strength and effectiveness of communities, improving people's quality of life, and enabling people to participate in decision making to achieve greater long-term control over their lives. Sustainable community development programs are those that contribute to the long-term strengthening of community viability ... community sustainability can be supported by mining practices that

help convert one local asset, non-renewable natural resource capital, into another local asset, sustainable human and social capital.

We strive to achieve community development through effective social investment, tailored to the needs of the communities around each of our sites.

We recognise the need to move from philanthropic donations towards using our financial investments to support sustainable growth initiatives. Our community investment programs aim to build stronger relationships with our stakeholders and enable greater participation of local communities in their own development. However, against this we must ensure that we have a clear social investment strategy supported by management systems to prevent reactionary responses to stakeholder issues or create a dependency culture in our host communities.

CASE STUDY: MMG GOLDEN GROVE LAUNCHES AN EDUCATION ENGAGEMENT PROGRAM

In 2011, we launched an Education Engagement Program at Golden Grove designed to support and encourage mid-west Western Australian students in their educational pursuits. The program includes various scholarships and vocational training, site visits and community awards programs for Geraldton Secondary School students.

MMG worked closely with the local high schools and tertiary institutions to develop the program criteria and identify appropriate students to receive awards and participate in site visits.

Testimony and feedback to date have been exceptionally positive, with many respondents believing the awards will go a long way to encouraging students in their educational pursuits while also providing a better understanding of Golden Grove's operations and future employment opportunities.

CASE STUDY: BRINGING ELECTRICITY TO 900 LOCAL FAMILIES AT SEPON

Sepon has given US\$300,000 towards the cost of bringing electricity to more than 800 families in eight villages in the Vilabouly district.

The power line construction project, a government initiative, will cost US\$1 million in total and is expected to take 18 months to complete. At the official opening ceremony for the project on 5 March 2011 in Namkhip village, the Minister of Planning and Investment H.E. Dr Sinlavong Khoutphaythoun thanked Sepon for its financial contribution to the project. Speaking after the event, Sepon Director Mr Saman Aneka said that in this case MMG was supporting infrastructure development in communities that are not directly affected by mining activities. "This is an expression of the company's commitment to supporting the development of Vilabouly, one of the 47 poorest districts in the country," he said. The eight villages to benefit from the new project all lie along the road between Kateb and Phadang, some 20 to 30 kilometres from current mining operations.



Opening the project.

CASE STUDY: LAND ACCESS IMPACTS SEPON'S COMMUNITIES

To continue mining activities at Sepon, access to new land is needed. This land belongs to the community and the right compensation for them is important.

As mining activities expand, Sepon needs more land. As a result, land is acquired from the community, for which community landowners receive compensation. In 2011, Sepon undertook an important review of compensation rates, which were increased as a result (see "Grievance mechanism review").

ICMM GUIDELINES REVIEW

MMG was one of nine mining companies who were asked to help pilot-test ICMM guidelines on complaints and grievance mechanisms.

Grievance procedures are a transparent mechanism for community members to seek information, raise concerns, or register complaints if they feel that any aspect of mining operations has affected them negatively. Such mechanisms are common amongst socially responsible businesses. In 2011, MMG was asked to help pilot-test some new guidelines, across its mine operations, set out in *Human Rights in the Mining and Metals Industry: Guidance on Handling and Resolving Local Level Concerns and Grievances*, developed by ICMM. Sepon identified the following issues of importance to local communities: access to grievance mechanisms, level of knowledge about them, and availability of information in Lao and English.



GRIEVANCE MECHANISM REVIEW

By gathering input from community members, Sepon aims to make the grievance mechanism more effective and easier to use.

Sepon also reviewed its own grievance mechanism in 2011. Twenty-seven communities around the mine, or approximately 13,000 people, are directly or indirectly affected by either mining or exploration activities. Thirteen of these communities, approximately 7,000 people, are considered to be directly affected. Most grievances received are related to disputes over accurate land boundaries and subsequent compensation payments, requests for employment or environmental concerns.

"While we have a very low number of grievances already, we want to further improve access to our grievance procedures. There are likely to be some issues or questions that community members wish to discuss, but don't know how best to raise them. We want to help local communities by listening, capturing and addressing any issues they might have, as soon as they arise, and before they become grievances," said Sepon Director Saman Aneka.

Community members access the mechanism by contacting one of the mine's community relations officers or writing a letter to the district authorities to raise a concern or complaint. Through the review, Sepon identified and engaged the Village Grievance Committee Framework approach that already exists at a national level. The committee, which comprises village authorities and respected elders, will receive any initial complaints and decide, in cooperation with Sepon, which qualify as a grievance. The committee will aim to deal with complaints (the initial lodgement of disagreements or dissatisfaction), before they escalate into grievances (escalated complaints where it was established that either a service or benefit was not received as agreed, or land or other rights where not respected).



Sepon's community consultation process is fundamental to managing grievances that arise in the twenty-seven communities around the mine.

CASE STUDY: SEPON MOTHER AND CHILD HEALTH PROJECT

Partnering with the Burnet Institute and the Vilabouly District Health Office, Sepon has recognised the importance of the health of women and children in the district with the Maternal and Child Health Project.

The goals of the Mother and Child Health Project, which covered 12 focus villages (16 outreach sites) surrounding Vilabouly town, were to:

- » Extend the capacity of Vilabouly District health personnel to plan, manage and review primary health care interventions for women and children;
- » Improve the health-related practices of women in the target area during pregnancy and in the early months of their baby's life; and
- » Improve the nutritional status of children under five years in the target area.

Country Program Manager for the Burnet Institute in Laos Dr Niramonh Chanlivong shares her thoughts:

"The Burnet Institute is a public health NGO that has been working in Laos for over a decade now. We focus on the development and delivery of responses to community health needs. In practice, this usually means working with government partners and communities. In 2007, we added private industry to the mix when we started to engage with Sepon mine. This, we found, was a whole new ball game!

"Initially we were hired to 'enhance the ability of the mine's employees and young people living in Vilabouly district to protect themselves from HIV and other sexually transmitted infections'. As a result of this successful cooperation, in 2008 the mine asked Burnet to start a new intervention, this time promoting the health and nutrition of women and children living around the mine. This project has been much easier to navigate, and we have appreciated the fact that the company has given us the freedom to implement as we see fit, applying our technical experience in this area.

"As we approach the end of the third year of this initiative, we have started to see some very tangible results: greater capacity of district health staff; more villagers attending outreach activities; more children getting vaccinated; and more women breastfeeding. There are still times when the differing perspectives of a private company and a development organisation create challenges – for example public health programs don't measure 'outputs' in quite the same way as industry, and behaviour change doesn't happen overnight – but the company's recruitment of professional community development staff in recent years has helped to ease this.

"Overall, we are proud of what we have been able to achieve at the community level in Vilabouly, in both our HIV and mother and child health projects, and we don't forget that these achievements are all thanks to Sepon mine – for its financial support, of course, but more importantly for the company's commitment to sharing the benefits of the mine with the communities that surround it."



Recording the weight and height of infants so that their development can be recorded and compared.

CASE STUDY: LOCAL SUPPLIER DEVELOPMENT AT SEPON

At Sepon, "buying local" is central to supporting new local businesses.

Through the preferential sourcing of local goods and providing local entrepreneurial skills training, Sepon aims to develop local businesses. In 2011, Sepon's main catering contractor, Sodexo, partnered with a Lao company to provide all cooking services on-site with a predominantly Lao workforce. With this new presence in Laos, Sodexo is now looking to service hospitals and undertake building management in the country, further increasing its Lao workforce. Regular monthly meetings are held between Sepon, Sodexo, the District Steering Committee and local supplier groups, alongside training on safety standards and production quality.

A number of specific studies and training have helped to further progress support for local businesses supplying Sepon. In March 2011, GIZ conducted a study into Sepon's support to small business groups in the Vilabouly District. The focus of the study was to identify areas needing better support for business development activities. This was followed by a visit from German development service DED, a German volunteer service, which conducted a study of the local business groups. Then, in April 2011, a value-added tax (VAT) workshop was conducted by a professional services firm for local business groups. Finally, in December 2011, Sepon supported a local business study tour in Champasack for six district staff and eight villagers to share and exchange ideas about animal raising and marketing.

These programs represent total purchases of US\$2,217,394 in 2011 to local suppliers of food, laundry services, grounds keeping and clothing production among other services. The figure excludes services to multinational companies.



CASE STUDY: COMMUNITY WATER PROJECT UPDATE

Everyone needs clean drinking water. The Sepon Community Water Project provides an ongoing, safe, and sustainable water supply to 3,400 community members around the mine.

The Sepon Community Water Project uses solar-powered pumps to draw water from bore holes up to storage tanks. The use of solar energy reduces the cost of using the bore-to-tank system, as well as reducing its environmental impact. Each of 12 villages involved has also been provided with multiple tap stands, in addition to a water tank in a tower, which ensures a constant supply of water. Unusually deep bore holes were required as sources of water nearer the surface could not provide a reliable supply, increasing the cost of the project.

"Local people can use the new water primarily for household purposes," said Sepon Director Mr Saman Aneka. "However, to provide water for drinking, community members can use a bio-sand filter that we have provided, and then boil the water," he said.

The project, in partnership with Sunlabob, cost more than US\$800,000 and required 15 months to complete.



Stakeholder relationships

Stakeholders are those groups and individuals with an interest in our activities, including employees, communities, contractors, suppliers, governments, investors, non-governmental organisations (NGOs), media and industry. Building relationships with stakeholders is essential to the sustainability of our business. Stakeholder relationships determine our environmental and social licence to operate.

We have commenced work on our stakeholder engagement standard, which incorporates stakeholder identification and mapping, stakeholder engagement and involvement in decision-making, grievance management and resolution, performance measures and implementation of the standard.

We have also been working through our approach to community development, social investment and maintaining our social licence to operate for the long term. In September 2011, we held a network meeting of our community relations team across the business to kick off the development of our community relations strategy and management system. Internal stakeholders are paramount in making this work, and some culture change is needed. Site-by-site collaboration is central to our approach, building on the initiatives being implemented at each site, some of which are evident in the case studies presented in this report. We are planning to visit every site in early 2012 to progress our community relations strategy and management system.

A community perception survey was conducted in 2011 for our Australian operational sites. The objectives of the research were to better gauge community attitudes, awareness and understanding of MMG, better inform community engagement activities, establish a baseline measurement of the communities' attitudes and satisfaction toward MMG and construct an MMG-wide "Community Trust Index". This will provide a reliable monitor of local community perceptions toward MMG. Qualitative focus groups were conducted in each of the communities serving Century, Golden Grove and Rosebery.

The Community Trust Index results from the qualitative work undertaken in 2011 demonstrate a satisfaction rating of 65.9% at Rosebery, 50.8% at Golden Grove and 38.9% at Century. Although the results appear to be low, they are related to the small number of community members who were available to participate in the survey. In 2012, the survey methods will be reviewed to allow a greater percentage of the local community to be involved across the sites. A survey for Sepon will be undertaken in 2012. Rosebery's score reflects MMG's close association with the local community, including having a shop front in the township.

Golden Grove and Century's results reflect the relative distance, both geographically and in engagement terms, between MMG and those local communities.

Our goal for 2012 is to progress this work with new qualitative and quantitative survey assessments, and beyond that to deliver a 5% increase year on year for the Community Trust Index.



Cultural heritage

We are working with host communities to preserve cultural heritage, both tangible (e.g. historical artefacts found during mining) and intangible (customs, beliefs, songs and stories). As new members of the communities in which we operate, we bring an opportunity to support and foster cultural heritage where there weren't resources to do so before.

We seek to understand community concerns, customs, beliefs and traditions, alongside transparent and open dialogue and preservation of cultural heritage in the regions in which we operate.

In 2011 at Sepon, site-specific cultural heritage management plans were developed and implemented. These plans outline monitoring and management guidelines for all identified cultural heritage sites. In addition, the baseline research on intangible cultural heritage undertaken in developing the plans has led to the development of a district Cultural Heritage Centre, which will focus on the protection of tangible and intangible cultural heritage from the area.

Cultural heritage initiatives were also active at Rosebery and Golden Grove in 2011, with the Rosebery mine celebrating 75 years in operation, and the cross-cultural awareness program at Golden Grove continuing to connect MMG employees with the local Indigenous culture.

At Dugald River, we engaged with representatives from local Indigenous groups to ensure that site operations and powerline access would not impact on culturally important areas. Cultural awareness and training materials were also developed for the project's induction programs.

CASE STUDY: ROSEBERY MINE CELEBRATES 75 YEARS IN OPERATION

The Rosebery zinc ore body was originally discovered in November 1893 by Tom McDonald. Various attempts were made to bring the mine into a commercial operation. However, it was not until February 1936 that full production commenced with the installation of the metals concentrator and transport of metal concentrates to the Port of Burnie via the Emu Bay Railway.

The mine and mill have since been in continuous operation, and on 18 February 2011 the Rosebery community shared in the 75th anniversary celebrations hosted by MMG in conjunction with the annual Rosebery Festival.

Celebration activities included an official reception, a mine Open Day and a variety of MMG-sponsored festival activities, as well as the unveiling of a TasRail locomotive branded "MMG 75 years".

General Manager John Lamb noted in his address, "I cannot promise 75 more years, but I can be confident there are a lot more years to come of the continuing theme".



CASE STUDY: ROSEBERY COMMUNITY LIAISON OFFICE

Bringing the Rosebery mine and the community even closer together.

During 2011, MMG has operated a Community Liaison Office in the main street of Rosebery, only 200 metres from the mine site entry road.

This initiative was General Manager John Lamb's idea. He saw the need for a closer, more personal link between the mine and the community than the Site Entry Administration Centre within the mine environment.

Designed by Stakeholder Relations Officer Christine Winskill and providing past and present information on the mine, the "shop front" is available for both the community and tourists, and facilitates comfortable and personable provision of information and discussion of issues. The office is also used for community meetings, and briefings for mine visitors. The Liaison Office is open Monday to Friday from 10am to 4pm, and is manned on a roster basis by Administration staff from the mine.



CASE STUDY: UNEARTHING "CULTURAL GOLD" AT SEPON

In 2011, Sepon increased its initiatives to understand community customs, beliefs and traditions and preserve local cultural heritage.

As part of Sepon's cultural heritage program, in 2011, an intangible cultural heritage survey was undertaken, capturing the rich oral history, songs, music and religious expression of the local villages. Meanwhile, Sepon's management of tangible cultural heritage finds and preservation resulted in the discovery of a second significant ceremonial copper drum found by local villagers. Plans for a Cultural Heritage Centre were also confirmed, where the drum will be displayed.

INTANGIBLE CULTURAL HERITAGE SURVEY

Villagers' traditional music and song performances have been captured in a unique video record.

Led by eminent anthropologist, James R. Chamberlain, the intangible heritage survey videoed 232 local villagers' music and song performances from across ten Brou (Mon-Khmer-speaking ethnic Makong and Tri groups) and 11 Phou Thay (localised Lao-speaking ethnic group) villages. It provides a unique record of Lao culture and lays the groundwork for the Cultural Heritage Centre, being built in Vilabouly by the end of 2012. Oral genres were categorised as stories and tales; ethno-history; legends of place; and singing and music. For example:

Brou singing and music: tamproop is a form used mainly in courting or entertaining encounters between men and women.

Phou Thay singing and music: sung forms, known only as Lam Phou Thay Nyay and Lam Phou Thay Noy, are generally performed purely for entertainment during festivals (boun). The former type is slower and more drawn out, while the latter is faster. Both involve back-and-forth witty dialogue between men and women.

Brou religious expression: yau refers to spiritual healing and involves inviting spirits to descend and heal afflicted persons. The ceremony is conducted in combined sa'sen and san susung styles accompanied by the flute played in a sombre mode. san wkuun is rare and highly restricted in its usage to invite specific spirits by name for specific ailments to partake of food being offered.

A NEW CULTURAL HERITAGE CENTRE

By the end of 2012, local communities and visitors will benefit from a new place of learning that will display the region's mining and cultural history.

Sepon is operating on an ancient mine site, with evidence that mining occurred as long as 3,000 years ago. This inspired the idea to build a Cultural Heritage Centre in partnership with the Government of Laos and James Cook University of Australia. The centre will be a place of community learning, visitor reception and display of objects of outstanding cultural value for communities local to the mine. The conceptual design was completed in 2011 and the design and build contract will be awarded locally in March 2012, with a view to opening the centre by the end of 2012. Two initial district meetings were held in 2011 and a District Steering Committee set up, involving MMG, the district and provincial governments and the Ministry of Information and Culture.



The ceremonial copper drum found by villagers

An archaeological dig.

CASE STUDY UPDATE: MMG GOLDEN GROVE CROSS-CULTURAL AWARENESS PROGRAM

In 2011, the Golden Grove Cross-Cultural Awareness (CCA) Program was delivered to a total of 140 site employees. A total of almost 300 employees have now participated since the inception of the program.

The program continues to be delivered by traditional land owners and provides an introductory cultural orientation and awareness message.

Also in 2011, scoping commenced for a Cross-Cultural Competency course. This course will target employees at a management and supervisor level, with the intention of supporting the site's Indigenous Employment Implementation Plan. Managers and supervisors will be trained to manage incidents and workplaces in a manner that is both culturally sensitive and tolerant.



2012 CHALLENGES

In 2012, we will review the company's community and stakeholder engagement standards to ensure alignment with the ICMM 10 Sustainable Development Principles. We will develop the Century Mine Closure Strategy and prioritise the implementation of related actions.

In addition to this, we will aim to improve our stakeholder engagement approach and performance with the following initiatives:

» Align site-based social investment initiatives to a group-wide standard and develop the group-wide strategy and system to manage it;

- Improve the strategic collection and interpretation of social investment data;
- » Improve responsiveness to community complaints and grievances;
- Improve consistency of stakeholder management plans for each operating site and region where we operate; and
- » Further develop our corporate reputation management plan including branding, sponsorships, industry partnerships, communications, investor relations and stakeholder and government relations.

RESPECTING OUR ENVIRONMENT

WE RECOGNISE THAT BUILDING EXCELLENCE IN MANAGING ENVIRONMENTAL RESPONSIBILITIES IS ESSENTIAL TO LONG-TERM SUCCESS.



Seedlings growing for site rehabilitation work.

WORKING WITH OUR STAKEHOLDERS

OUR APPROACH

We aim to minimise our environmental footprint and equip our people with environmental standards to effectively manage the environmental aspects of our operations.

Our key environmental priorities are water management, including security, wastewater and tailings; closure/ rehabilitation; biodiversity; energy and greenhouse emissions; air quality; product stewardship; waste rock; and managing hazardous substances to avoid adverse environmental impacts. These priorities are managed through an environmental management system that includes performance standards, consultation, assurance and reporting.

PERFORMANCE

Security of water supply is critical to maintaining operations, in particular in dry climates. Further, communities around mine sites may also be affected by mine use and discharge of water. Balancing the challenges of extremely dry environments, compared with wet climates, requires different approaches to water management dependent on site location.

Water use and supply

Different water challenges are experienced by each of our operations and projects. While a number of sites need to manage excess water from tropical rainfalls, our Golden Grove operation is situated in an arid region of Australia where water is drawn from bore sources. We acknowledge the general importance of water access management across the mining sector and as we grow and acquire or develop operations in different countries, we expect this to become more of a challenge for us.

Wastewater and tailings management

Mining creates wastewater and mineral waste residues, typically stored in tailings storage facilities. Heavy metals and other contaminant levels are carefully monitored and proactively managed through wastewater treatment controls and retention strategies to avoid wastewater discharge issues.

The efficient use of water and the management of wastewater discharges are evolving issues for which we are developing a water management strategy and detailed water management plans for each operation.

In 2011, we commenced work on a functional water balance model for all operations to understand storage, usage and treatment requirements. In addition, water meters that enable accurate data collection on water usage, reuse and discharges are being installed at our operations. To enable benchmarking with our mining industry peers, we are pursuing water reporting in line with the Minerals Council of Australia (MCA) Water Accounting Framework (WAF). Our existing water management standard was reviewed and updated in 2011 and will be finalised and implemented at all sites in 2012.

The water data presented here are aligned with the new MCA WAF. As such, they cannot be directly compared with 2010 data.

Water inputs shown include all water managed by the site, including water extracted for use and managed water from other sources entering the site, such as rain, run-off, groundwater and river or creek water.

2011 MMG water inputs

In 2011, a total of 53,446 megalitres of water was managed by MMG mine operations, of which 34,477 megalitres came from rain and run-off. Due to high rainfall, Century managed 30,639 megalitres of water in 2011. Of the total water managed, approximately 65% was derived from precipitation and run-off from rainwater. Both Century and Sepon are located in tropical climates and Rosebery is located in one of the highest rainfall areas in Australia.



TOTAL WATER INPUTS MANAGED BY SOURCE 2011 (ML)

TOTAL WATER INPUTS MANAGED BY SITE 2011 (ML)



2011 MMG water outputs

Water management, treatment processes and infrastructure are in place at all of our operational sites. We are working to effectively manage our output water quality in line with local licence conditions. As the output data in the following chart shows, the majority of our water outputs, 16,806 megalitres, are to surface water discharge, with a significant water loss via evaporation at most sites (11,146 ML in 2011).

2011 MMG water output quality

Water output quality is monitored at all sites to meet our licence and reporting conditions. We present it here in line with the MCA WAF categories. As charted, around 70% of our water outputs are classified as Category 2, with the remaining classified as Category 1 and the lower quality Category 3.

Century experienced a one-in-150-year rain event in 2011, which resulted in a challenging year for water management at the site. This included several incidents of sediment dam discharges, which were reported to the environmental regulator in line with our licence conditions. A Queensland Department of Environment and Resource Management (DERM) investigation followed. On 9 March 2012, MMG Century Limited received a summons to answer the complaint that Century contravened a condition of its environmental authority (Section 430(3) of the Environmental Protection Act 1994 (Queensland)). During the remainder of 2011, Century focused on improving wastewater containment capacity, including the construction of a diversion channel around the operation's evaporation dam to reduce the volume of surface water entering the system on site during times of high rainfall.

Golden Grove's water comes from the dewatering of our two underground mines. This water is used for ore processing, and treated for dust suppression and discharge to Lake Wownaminya. Potable water at Golden Grove is sourced from bore fields and is treated through a reverse osmosis plant. A new reverse osmosis plant was installed during 2011, greatly improving potable water quality.

On average, 2011 was a slightly drier year for Rosebery, allowing the Rosebery environment team to focus on water monitoring. Water treatment and monitoring were the focus at the satellite South Hercules trial development site, with a new modular and potentially relocatable water treatment plant in operation.

A total of 2,507 millimetres of rainfall was recorded at Sepon, making 2011 the fourth wettest year on record. Rainfall has been measured and recorded at Sepon since 1994, with only 2005 (2,679mm), 2002 (2,627mm) and 1996 (2,621mm) having more rainfall than 2011. The new sediment dams in the western areas of the site performed well during this initial year of operation. The project to provide clean drinking water to villages surrounding Sepon also continued in 2011, with 12 villages and 3,400 people now having access to clean water supplies.

TOTAL OUTPUTS BY DESTINATION (ML)



WATER OUTPUTS BY SITE (ML)



TOTAL OUTPUTS BY WATER QUALITY (ML)



Water quality key

(Minerals Council of Australia Water Accounting Framework):

Category 1 – Close to the drinking water standards, as it only requires minimum treatment (disinfection) to be safe for human consumption. It can be used for all purposes.

Category 2 – Suitable for some purposes. Treatment will be required to remove total dissolved solids and/or to adjust other parameters to be safe for human consumption and more sensitive agricultural and recreational purposes.

Category 3 – Water unsuitable for most purposes due to the high salinity (>5000mg/L of total dissolved solids) or highly unsuitable pH (<4 and >10). Category 3 water will require significant treatment to be suitable for Category 1 and Category 2.

CASE STUDY: MANAGING WATER ISSUES AT CENTURY

Evaporation Dam clean water diversion channel

Between 1 November 2010 and 1 April 2011 a total of 1,115 millimetres of rainfall was recorded at the Lawn Hill Mine at Century, twice the annual average of 518 millimetres. This extraordinarily wet season has been estimated as a one-in-150-year event, which came on the back of a one-in-125-year season in 2008–09 and a one-in-20-year season in 2009–10.

These exceptional events meant the mine's water storage facilities held some 45,000 megalitres of water that could not be released to the environment. This resulted in a number of reportable incidents. The water level in the evaporation dam on 1 April 2011 was 1.8 metres (8,000ML) higher than the design storage allowance (DSA) level. The DSA relates to a requirement where sufficient storage must be maintained to reduce the likelihood of any water entering the receiving environment. This is necessary to capture the run-off and inputs that result in potentially environmentally hazardous contaminated water from a two-month critical wet season.

Sources of contaminated water include waste rock dumps, process areas and the pit. Water from these sources mixes with the clean rainwater falling in the catchment area, before it then flows to the evaporation dam. Sufficient storage to meet the DSA and hold the run-off water must be available on 1 November of each year.

Our water balance modelling showed that without some form of intervention, the water level in the evaporation dam on 1 November 2011 would be greater than the DSA level. The consequence would have been a noncompliance with Century's environmental permit. Furthermore, the modelling suggested that, even under average annual rainfall conditions, the stored water would not drop below the DSA until 2015.

An opportunity existed to decrease the DSA volume by reducing the amount of clean run-off from the catchment area entering the evaporation dam. On 13 April 2011, an application to construct a series of diversion embankments and channels to the south-west of the dam was submitted to the regulator, with final approval granted on 15 August 2011.

The works were conducted to technical specifications developed with a specialist contractor, ATC Williams. Equipment reliability and wet weather have been identified as key schedule risks, but despite some significant rainfall in both October and November 2011, practical completion was achieved only four months later in December 2011, and ahead of schedule. The final result, after the excavation of six drainage channels and five embankments, was a diversion system that is able to redirect clean water from approximately 14 square kilometres of catchment away from the evaporation dam and to Coglan Creek. The revised water balance assessment indicated that the diversion will reduce the maximum volume by as much as 10,000 megalitres.

A cultural survey of the project area was completed as part of the evaporation dam development in 1998; no sites of significance were identified. Also, Century's Project Impact Assessment Study (Dames & Moore, 1994) described and recorded a number of significant species (endangered, vulnerable and rare) in the Century study areas. No species classified as endangered or vulnerable were identified within the diversions project area.



Energy use and carbon emissions

Through energy efficiency projects and consideration of carbon offset activities, our carbon footprint is being reduced.

In 2011, MMG used a total of 6,452,901 gigajoules (GJ) of energy, of which 3,423,836 GJ was indirect energy sourced from the electricity grid, and 3,029,066 GJ was direct consumption of diesel and other fuels. A total of 765,418 tonnes of CO₂e greenhouse gas emissions were produced in 2011, with 555,938 tonnes coming from indirect electricity use and 209,479 tonnes from direct consumption of diesel and other fuels. Energy efficiency and emissions intensity trends have remained, on average, fairly steady throughout 2011.

Throughout our operations, offices and transport activities, the efficient use of energy is important in minimising greenhouse gas emissions. Current energy and emissions reduction programs under way include the preparation of energy management plans for our Australian mining operations, and meeting our Energy Efficiency Opportunities (EEO) commitments. We undertook a Climate Change Study in 2011 (see page 58). We also have systems in place to meet our obligations under the National Greenhouse and Energy Reporting Scheme (NGERS).

2011 energy efficiency

The term "energy efficiency" describes the amount of energy that we consume per unit of production. Energy efficiency indicators, such as gigajoules per tonne of concentrate, are used to measure the effectiveness of our energy-use reduction projects and strategies. Key performance indicators (KPIs) can show improvements in efficiency even when our total energy consumption increases.

Between 2010 and 2011, MMG's operations experienced variations in energy efficiency performance. The energy efficiency KPI is based on the energy required to produce a tonne of concentrate (or copper cathode in the case of Sepon). Consequently, this KPI is greatly influenced by factors such as ore grade, recovery rates and strip ratios (the quantity of waste rock mined to enable one unit of ore).

Sepon experienced an 11% improvement in energy efficiency, resulting from a significant (25%) increase in copper cathode production following commissioning of the expanded copper processing plant, but only a 15% increase in energy consumption. This improvement is offset somewhat by a 25% reduction in gold production. Energy efficiency at Century also improved by 10%, associated with a 12% reduction in energy consumption but only a 3% reduction in concentrate production.

At Golden Grove, energy efficiency worsened by 24%. This was associated with the combination of a 14% increase in material mined due to the reopening of the Scuddles underground mine that was on care and maintenance in 2010, but a 2% reduction in ore processed and a 17% reduction in concentrate production. Similarly, Rosebery experienced an 8% reduction in energy efficiency due to an increase in material mined and processed, but with concentrate production remaining essentially the same as last year.



ENERGY CONSUMPTION (GJ)

*Other: Melbourne Group Office; Exploration; and Dugald River

GREENHOUSE GAS EMISSIONS (T CO2e)



*Other: Melbourne Group Office; Exploration; and Dugald River



2011 emissions intensity

The term "emissions intensity" describes the tonnes of greenhouse gas emissions produced per unit of production. Emissions intensity key performance indicators (KPIs) often trend similarly to the energy efficiency KPIs due to the direct link between energy use and greenhouse gas emissions.

Differences between energy efficiency and emissions intensity exist due to some energy sources having greater emissions intensity than others. For example, the consumption of 1 GJ of natural gas would result in fewer emissions than 1 GJ of diesel, which would result in fewer emissions than using 1 GJ of coal-fired grid electricity. Therefore, reductions in the use of high-emission energy sources such as coal-fired grid electricity will have a greater impact on the emissions intensity KPIs than the energy efficiency KPIs. During 2011, the emissions intensity at all operations was generally consistent with their energy efficiency performance. The exception was at Sepon, where energy efficiency improved by 11%, but emissions intensity increased by 2%. This was largely due to an amendment in July 2011 to the emissions factor for grid electricity, where estimated emissions per kWh of electricity increased by 17%. Another contributing factor was an increase in diesel consumption and a reduction in the consumption of LPG.

An Energy Efficiency Opportunity (EEO) assessment was undertaken at Rosebery in 2011, and the following three projects were identified for implementation: new core crusher (approximately 50GJ saving); mine control system (approximately 5,355GJ saving); underground ventilation upgrade (approximately 11,913GJ saving).



ENERGY EFFICIENCY PER TONNE OF PRODUCT (GJ/TONNE OF PRODUCT)

EMISSIONS INTENSITY PER TONNE OF PRODUCT (TONNES OF CO₂-e/TONNE OF PRODUCT)



CASE STUDY: MMG CLIMATE CHANGE STUDY

We participate in the National Greenhouse and Energy Reporting Scheme (NGERS) and the Energy Efficiency Opportunities (EEO) Program for our Australian operations, and collect equivalent data for our Sepon mine in Laos. We commissioned a climate change risk assessment through our internal audit partner in 2010. As an outcome of this process, the highest-rated risk was lack of a clear Climate Change Policy (CCP) for the company. In November 2011, MMG adopted a CCP mandating a study be undertaken to look at energy efficiency opportunities, prepare MMG for a carbon price and examine the implications of setting a voluntary emissions reduction target. These three objectives form the basis of the MMG Climate Change Study.

The main objectives of this study have been endorsed by the SHEC Committee and the Energy and Climate Change Steering Committee in June 2011 and include:

Biodiversity

Mining activity can impact the habitats of native flora and fauna. Offset projects to balance impacts on biodiversity from operations represent best practice.

The land area held by MMG fluctuates regularly. At the end of 2011, total land area managed globally was 2,121,241 hectares. Some of this land is adjacent to areas of high biodiversity value and high-use value for local communities. Effective and sensitive management of this land and our impacts on surrounding ecosystems is therefore a high priority for us.

Biodiversity management plans are in place at Sepon, Golden Grove, and Rosebery. A plan is currently being developed for Century. In addition, we have a number of biodiversity offset projects operating to rehabilitate and support biodiversity in other disturbed areas in exchange for areas that are disturbed by our operations. We are **Outcome 1:** Site EEO assessments (includes Sepon) – Identify and screen Greenhouse Gas (GHG) reduction projects and meet Australian Federal Government EEO obligations;

Outcome 2: Carbon legislation planning – Evaluate and prioritise GHG reduction projects and prepare Marginal Abatement Cost Curves; and

Outcome 3: Voluntary emissions reduction targets – Describe potential and favoured target scenarios available to MMG.

The Climate Change Study demonstrates MMG's commitment to the ICMM Principles, and to establish a comprehensive and rigorous climate change management program of policy principles and leading practice.

currently investigating options for managing biodiversity offsets where we can strive to achieve no net biodiversity loss and are also developing biodiversity management plans for all mining operations during the next three years.

During 2012, we plan to review and update our existing biodiversity management standard to align with the ICMM Principle 7, to contribute to biodiversity conservation, and the International Finance Corporation (IFC) Performance Standard 6: biodiversity conservation and sustainable management of living natural resources.

Land disturbance and rehabilitation

At the beginning of 2011, a total of 5,183 hectares of land was in use and classified as "disturbed" (as detailed below). During 2011, a further 127 hectares were disturbed and 11 hectares rehabilitated, resulting in a 2011 closing balance of 5,298 hectares of disturbed land. This compares with 2010 where the opening balance was 4,878 hectares.

SITE	TOTAL LAND DISTURBED NOT YET REHABILITATED (2011 OPENING BALANCE) (HECTARES (Ha))	TOTAL 2011 DISTURBED LAND (Ha)	TOTAL 2011 REHABILITATED LAND (Ha)	NOT YET REHABILITATED
CENTURY	2,873	0	0	2,873
SEPON	1,282	26.99	0	1,308
ROSEBERY	2.52	0	0	2.4
GOLDEN GROVE	992.8	91.9	0.88	1,083.9
EXPLORATION	32.7	7.9	9.7	30.9
TOTAL MMG	5,183	127	11	5,298

WORKING WITH OUR STAKEHOLDERS

SUSTAINING OUR ECONOMIC PERFORMANCE

CASE STUDY: DECLARED RARE FLORA MONITORING AND PROTECTION AT GOLDEN GROVE

Stylidium sp. Yalgoo is a small perennial trigger plant that typically flowers between August and September. Approximately 100 millimetres high, it has two green basal leaves on the ground and a single or sometimes branched red stem with one or more pearl-white flowers. The flowers are approximately 20 millimetres across with vibrant pink markings on the upper surface at the base of the petals.

Stylidium sp. Yalgoo was first identified at Golden Grove during a flora survey in 2008 at which time the plant held a 'Priority One' conservation status. In August 2010, *Stylidium* sp. Yalgoo was gazetted as Threatened/ Declared Rare Flora (Minister for Environment, 2010), and ranked as vulnerable, meaning that it is considered to be facing a high risk of extinction in the wild. This status means *Stylidium* sp. Yalgoo is subject to legal protection under the Australian *Wildlife Protection Act 1950* to ensure no loss of known individuals. Only with Ministerial approval can Threatened/Declared Rare Flora be removed.



During field surveys conducted in August and September 2011, more than 158,357 individual plants in a total of 11 *Stylidium* sp. Yalgoo populations were located throughout our tenements. Prior to this, the Western Australian FloraBase had records of 30,000 individuals previously surveyed up to September 2009.

While the populations located throughout our surveys are comparatively large, they remain confined to a relatively small area of the local region. Populations have been mostly located on mining tenements close to active exploration sites, and as such, these populations are potentially under threat.

As we are responsible for the monitoring and protection of the *Stylidium* sp. Yalgoo populations within the Golden Grove tenements, Threatened and Priority Flora report forms were completed for the populations found during the 2011 searches and submitted to the Department of Environment and Conservation (DEC). This information assists DEC in their regional monitoring and management of the species.

Golden Grove's Threatened Flora management program is evolving as part of our ongoing commitment to the protection of conservation-significant flora. This will provide a means to monitor, assess and implement conservation practices to ensure the protection of *Stylidium* sp. Yalgoo at Golden Grove.



CASE STUDY: BUSINESS AND BIODIVERSITY OFFSET PROJECT (BBOP)

A BBOP will protect and enrich plant and animal species beyond where the mine operates.

Miners are usually interested in rock samples. However, over the last year, Sepon has also been collecting samples of something rather different: animal dung. Elephants, gibbons and other important species can be found in eastern Savannakhet province, where the mine is located. Collecting dung samples is just one of the methods used to estimate animal populations and assess habitats around the mine.

In partnership with the Wildlife Conservation Society (WCS), a BBOP is being developed. BBOP compensates for the likely impacts on biodiversity from mining with initiatives to protect and manage species and habitats beyond the places where the mine operates.

Developing the project involved identifying species of animals in the area, mapping their habitats, evaluating threats to them and deciding an appropriate offset measure (usually investment into the enhancement of biodiversity in another vulnerable location).

Around 30 species of animals were identified as potential candidates for conservation, including a number of International Union for Conservation of Nature (IUCN) Red List endangered species. Their presence was confirmed through a review of previous assessments, recorded sightings by camera trap and conversations with local hunters.



A juvenille Siamese crocodile.

SIAMESE CROCODILE ENHANCEMENT PROJECT

Sepon's Siamese crocodile conservation work with the Wildlife Conservation Society (WCS) is highly significant as only 100 of the species are believed to be left in the wild in Laos.

Since 2008, Sepon has been working with the WCS to promote the conservation and enhancement of the Siamese crocodile (Crocodylus siamensis), which is an IUCN Red List species. While not found inside the mine area, crocodiles are found in the western portion of the Savannakhet Province, and elsewhere in Laos. Year 2011 was the third year of the project, which has included habitat mapping, location of animals and nests, habitat enhancement and community education. In May 2011, a Siamese crocodile nest was discovered containing 20 eggs, which was highly significant as only 100 such crocodiles are believed to be left in the wild in Laos.

In late August 2011, the eggs were taken to Vientiane Zoo to raise the juveniles in captivity for 18 to 24 months. They will be released into the wild when they are large enough to fend off predators.

SEPON ELEPHANT POPULATION UPDATE

The size and genetic diversity of the Sepon elephant population is of national significance.

Sepon has also been researching Asian elephant (Elephas maximus) populations in the immediate region around the mine to develop a better understanding of the population and habitat requirements. This is one of a handful of such scientifically rigorous population assessments conducted in Laos. Two areas of the mine site are considered to be "hot spots", with elephants frequently sighted by Sepon employees and local farmers. The research uses DNA techniques to analyse dung samples and identify individual animals. One hundred and forty-two dung samples were analysed, and a statistical test was carried out to estimate the population size of 51 animals.



WORKING WITH OUR STAKEHOLDERS

CASE STUDY: SUSTAINABLE DEVELOPMENT IN ACTION IN A UNIQUE LOCATION

In 2011, MMG embarked on a project to trial "best-practice" stakeholder engagement, safety and environmental responsibility in the development of a trial pit at a satellite ore body.

The South Hercules deposit is located in a unique and sensitive alpine environment, 7 kilometres from, and 700 metres higher than, the Rosebery mine and township on Mount Hamilton.

The ore body was originally discovered 40 years ago and sits along a strike of the historic adjacent Hercules mine, which operated from 1894 to 1986. The two sites are linked both environmentally and through future development potential.

The challenges facing the project include environmental, safety, access, stakeholder relations and operational issues, just some of which are:

- » Climate well above the winter snow line with temperatures frequently below zero;
- » Water management up to 4 metres of rain per annum;
- » Winds in excess of 120 kilometres per hour;
- » Threatened species including the Grooved Cheeseberry and the Toothed Orites;
- » Unique stands of hybrid King Billy and Pencil Pines, which only occur where King Billy Pines and Pencil Pines are located in very close proximity;
- » Access by a steep single-carriage track, which required a significant upgrade to allow truck movement;
- » Acid mine drainage issues from the Hercules mine legacy site and the potential for similar issues from the proposed South Hercules development;
- » Visual scarring and land degradation; and
- » A variety of interested groups including environmental and government stakeholders.



The Grooved cheeseberry (*Planocarpa sulcata*).

Development of the site included engagement of stakeholders, communication of issues, engagement with the workforce, and senior management support. Results include:

- » Minimal disturbance to the environment in all aspects, from the road upgrade through to water treatment plant design and test pit excavations;
- » Successful translocation and protection of some threatened species such as the Grooved Cheeseberry;
- » Installation of an innovative modular and relocatable water treatment plant;
- Development of a communications trail with signs detailing both mining and natural heritage information;
- » Development of an upgraded access track along the same route as existing 4WD-only access track, with minimal disturbance to sensitive vegetation, and including passing and emergency run-off bays; and
- » Good health and safety results, including zero injuries to date and a total non-smoking site.

We aim to rehabilitate the Hercules site, facilitated by the improved access to and profitable development of South Hercules.



Mineral waste management

During our mining and processing we generate mineral and non-mineral wastes requiring management. Understanding the characteristics of the waste streams, planning and managing them assist in reducing the potential long-term environmental impacts that can result.

Managing mineral wastes is a risk for MMG both from an operational perspective, and beyond the life of the asset. We are striving to integrate mineral waste management within life-of-asset planning to manage waste facilities consistent with established final landform designs. We understand the need to design and plan for such landforms prior to commissioning such facilities to promote beneficial post-mining land uses, and minimise post-mining rehabilitation and closure liability.

The existing tailings management and waste rock management standards will be combined into one standard in 2012, namely the Mineral Waste Management Standard. This standard will cover tailings, waste rock and low-grade stockpiles until such time as they are processed.

2011 MINERAL WASTE MANAGEMENT

CENTURY CENTURYWaste rock is managed through the encapsulation of potentially acid-forming material with non-acid-forming material. Tailing is pumped to a tailings storage facility.5,29734,5804,390SEPONWaste rock is managed (encapsulated) within a specific acid- material waste disposal site. Non-acid-forming material is used in construction of facilities such as tailings dam walls, outer batters of waste rock dumps and roads. Tailings are deposited into 2 constructed tailings storage facilities.3,42214,8993,651ROSEBERYWaste rock generated is used to backfill underground areas and disused development procedures and processes. Tailing is pumped via a flume to the Bobadil Tailings Storage Facility (TSF).788376595GOLDEN GROVEWaste rock is stored on the run-of-mine (ROM) pad and used with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock.1,5684561,300TOTAL MMGTOTAL MMGTotal MMGTotal MMG11,07550,3119,936	SITE	SITE MINERAL WASTE MANAGEMENT PRACTICES	ORE PROCESSED (KT)	WASTE ROCK MINED (KT)	TAILINGS GENERATED (KT)
SEPONWaste rock is managed (encapsulated) within a specific acid- material waste disposal site. Non-acid-forming material is used in construction of facilities such as tailings dam walls, outer batters of waste rock dumps and roads. Tailings are deposited into 2 constructed tailings storage facilities.3,42214,8993,651ROSEBERYWaste rock generated is used to backfill underground areas and disused development areas in accordance with mine planning and development procedures and processes. Tailing is pumped via a flume to the Bobadil Tailings Storage Facility (TSF).788376595GOLDEN GROVEWaste rock is stored on the run-of-mine (ROM) pad and used with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock.1,5684561,300	CENTURY	acid-forming material with non-acid-forming material.	5,297	34,580	4,390
Waste rock is managed (encapsulated) Winn a specific acid- material waste disposal site. Non-acid-forming material is used in construction of facilities such as tailings dam walls, outer batters of waste rock dumps and roads. Tailings are deposited into 2 constructed tailings storage facilities.3,42214,8993,651ROSEBERY Waste rock generated is used to backfill underground areas and disused development areas in accordance with mine planning and development procedures and processes. Tailing is pumped via a flume to the Bobadil Tailings Storage Facility (TSF).788376595GOLDEN GROVE Waste rock is stored on the run-of-mine (ROM) pad and used with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock.1,5684561,300		lailing is pumped to a tailings storage facility.			
Waste rock generated is used to backfill underground areas and disused development areas in accordance with mine planning and development procedures and processes. Tailing is pumped via a flume to the Bobadil Tailings Storage Facility (TSF).376595GOLDEN GROVEWaste rock is stored on the run-of-mine (ROM) pad and used with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock.1,5684561,300	SEPON	material waste disposal site. Non-acid-forming material is used in construction of facilities such as tailings dam walls, outer batters of waste rock dumps and roads.	3,422	14,899	3,651
Waste rock is stored on the run-or-mine (ROM) pad and Used 1,568 456 1,300 with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF 456 1,300 plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock. 456 456 456	ROSEBERY	disused development areas in accordance with mine planning and development procedures and processes. Tailing is pumped via a flume to the Bobadil Tailings Storage	788	376	595
TOTAL MMG 11,075 50,311 9,936	GOLDEN GROVE	Waste rock is stored on the run-of-mine (ROM) pad and used with Cemented Hydraulic Fill (CHF) to backfill stopes underground. CHF is comprised of tailings and cement generated at the CHF plant. Tailings not used for CHF are deposited into a TSF. In preparation for the Gossan Hill Copper Open Pit, a waste rock	1,568	456	1,300
	TOTAL MMG		11,075	50,311	9,936



WORKING WITH OUR STAKEHOLDERS

SUSTAINING OUR ECONOMIC PERFORMANCE

CASE STUDY: APPROVAL OF THE DUGALD RIVER ENVIRONMENTAL IMPACT STATEMENT

In January 2011, MMG released its Environmental Impact Statement (EIS) on the proposed Dugald River project. In November 2011, the EIS assessment report advised that the project was suitable to proceed to the next stage of the approval process. Approval of the full Environmental Management Plan is expected around the middle of 2012. The release of the EIS was an important step for the project and followed the completion of a feasibility study in 2008, which was updated in 2010.

Dugald River is an important part of our strategy to build a leading global diversified base metals company. As a result of the impending closure of several major zinc mines over the next few years, including our Century mine, which is expected to close around 2016, the timing of the development of Dugald River is important.

It is expected that Dugald River will produce concentrates containing approximately 200,000 tonnes of zinc, 25,000 tonnes of lead and 900,000 ounces of silver annually over a 23-year mine life.

An important element of the current phase of this project is consultation between MMG, the local

community and other key stakeholders. In 2012, we will establish a local office in Cloncurry to assist with this consultation process.

In December 2011, Dugald River was included in MMR's Mineral Resources and Ore Reserves for the first time. Coinciding with this, the MMR Board was pleased to approve expenditure of A\$157 million to develop the next stage of the project. In addition, the Environmental Impact Statement for the mine received approval from the former Queensland Department of Environment and Resource Management (DERM).

The next stage will progress project activities up to receipt of the full Environmental Management Plan. Major work will include detailed engineering, metallurgical testwork, long lead-time major equipment procurement, continuation of early site works and underground decline development. Key local infrastructure development including load-out, power and accommodation will also be advanced. Following completion of this phase the MMR Board will consider final approval of project development and construction.



	REPORTABLE INCIDENTS	NON-COMPLIANCE WITH LICENCE CONDITIONS	NO. OF FINES	COMMENTS
CENTURY	32	5	0	Implementation of new licence conditions at Karumba resulted in increased number of reportable events to the Regulator. The mine site also experienced a one-in-150-year rain event that resulted in numerous sediment dams discharging, for which each required the Regulator to be notified.
SEPON	0	0	0	For the second year in a row there have been no reportable or significant environmental incidents. This is attributable to a comprehensive monitoring plan and integration of environmental performance criteria in all aspects of the operation, from exploration, through mining and processing.
GOLDEN GROVE	1	1	0	This exceedance was associated with elevated levels in a groundwater bore. An investigation included the drilling of new monitoring bores. Further aquifer investigation and a revision of the licence conditions are planned for 2012.
ROSEBERY	6	2	0	One exceedence occurred during a heavy rainfall event when a filter plant retention pond was found to be discharging offsite. The other was an exceedence of zinc licence limit from a polishing pond resulting in a minor exceedence.
ROSEBERY (SOUTH HERCULES)	0	0	0	For the entire development and trial production of the South Hercules site in 2011, there were no environmental compliance incidents.
AVEBURY	0	12	0	The Avebury mine, currently on care and maintenance, experienced 12 technical licence breaches in which nickel, arsenic or iron, which occur naturally in the Avebury ore body, were recorded in water discharges. The Tasmanian Environment Protection Authority has acknowledged that current data, while technically over the licence limit demonstrates no measurable harm to the receiving waters from site activities. MMG has completed investigations which have identified a number of sources of Acid Mine Drainage and a program of works that would support compliance with future discharge limits. Once the new discharge conditions are in place, we are expecting the exceedances to cease.
EXPLORATION	0	0	0	There have been no reportable or significant environmental incidents for the 2011 period. This successful year can be mainly attributed to the high standards of pre-engagement auditing for all drill contractors, excellent supervision and regular inspections.

Environmental management and compliance

Mining is subject to a large number of environmental regulatory and statutory requirements. Environmental management systems are required to ensure compliance. Certification to the international standard for environmental management systems (EMS), ISO 14001, represents widely accepted good practice.

We aim to minimise our impact on the environment, comply with legal requirements and reduce our legacy issues through continuous improvement. Toward these aims, we are developing an integrated SHEC management system that incorporates ISO 14001 environmental management system requirements. It will include formal, risk-based development and implementation of SHEC policy, standards and a supporting assurance program to measure operational performance against environmental performance standards. We are working to ensure that operations maintain or receive ISO 14001 certification and achieve zero non-compliance with our operational licence and other legal requirements.

All sites operated an ISO 14001 environmental management system in 2011, with certified systems at Sepon, Rosebery and Golden Grove, and a newly established ISO 14001-compliant environmental management system at Century.

2011 environmental incidents and compliance

In 2011, MMG had a total of 39 reportable incidents, of which eight represented a non-compliance with site licence conditions (see the table, left). In comparison, there were 32 recordable incidents in 2010, of which 14 were non-compliances with licence conditions. While there was a reduction in non-compliances in 2011, this increase in reportable incidents was due to the water management challenges associated with the one-in-150 year rain event in Queensland. The event affected Century particularly severely, resulting in 32 incidents on site, of which five were non-compliances.

2012 CHALLENGES

In 2012, our key environmental management challenges are to:

- » Deliver continual improvement in water management, including enhancement of operational water balance models for proactive risk management in both dry and wet climates. The aim of this being to ensure water supply security in current operations and future development projects in dry climates;
- » Reduce the incidence of environmental non-compliances with operating licences in line with the targets outlined in our three-year goals;
- » Review group environment standards to update with developing industry standards;
- » Embed the concentrate handling strategy and product stewardship standard, as detailed under "Product Stewardship" on page 14, developed this year;
- » Address the Australian Government's Clean Energy legislation to meet obligations and minimise impact; and
- » Gain full approval of the Environmental Management Plan for Dugald River, our first major development project.



A transport vessel at Geraldton waits to load high precious metal concentrate from Golden Grove.

OUR AIM IS TO EXPAND OUR POSITION AS A LEADING INTERNATIONALLY DIVERSIFIED BASE METALS GROUP, AND OUR OBJECTIVE IS TO BE ONE OF THE WORLD'S TOP THREE MID-TIER MINING COMPANIES WITHIN FIVE YEARS. WE AIM TO ACHIEVE THIS THROUGH A CONSIDERED APPROACH TO GROWTH AND DEVELOPMENT.



Work has commenced on the development of two exploration declines at Dugald River.

OUR APPROACH

We aim to grow and develop our upstream, diversified base metals operations through exploration and discovery, organic growth and acquisition. Our growth strategy aims to meet the following objectives:

- » Commit to leading practices in corporate governance, production standards, safety, operational excellence and environmental protection;
- » Continue strong commitment to local economies and communities to support our social licence to operate ensuring that local economies continue to receive tangible benefits from our operations;
- » Continue to leverage on the expertise and experience of China Minmetals Corporation;
- » Pursue available organic growth opportunities through our project pipeline and exploration strategy; and
- » Target value-focused acquisitions.

Minmetals Resources Limited, the entity listed on the Hong Kong Stock Exchange (HKSE) that operates the MMG assets, reported its financial performance for the full year 2011 with total net profit after tax attributable to equity holders of US\$540.9 million, up 32% from the full year 2010, as shown in the table below.

This result was driven by significant one-off benefits, including the gain realised on the investment in Equinox Minerals Limited ("Equinox") and the sale of non-core assets.

Earnings Before Interest and Tax (EBIT) from continuing operations was US\$755.3 million, up 45% from the full year 2010. Underlying Earnings Before Interest, Taxes, Depreciation and Amortisation (EBITDA) for the company's continuing operations, excluding one-off items, were US\$887.8 million, a 2.2% decrease on 2010.

Operating costs remain a focus across our business with industry-wide cost pressures remaining evident. Cost management will remain a challenge and focus for the Board and management in 2012.

The majority of the company's revenue was received from sales of copper and zinc, accounting for 82% of sales revenue.

Our largest customer, by revenue, continues to be Australia, followed by Asia (namely Thailand and Vietnam, with sales of copper cathode from Sepon), as shown in the chart below. Sales to China continue to account for approximately 24% of our revenue. Of this, approximately 6% of sales were to MMR's ultimate majority shareholder China Minmetals Corporation, on arms-length agreements with commercial terms.

PERFORMANCE

2011 FINANCIAL RESULTS FOR MINMETALS RESOURCES LIMITED FINANCIAL HIGHLIGHTS (US\$ MILLION)

FINANCIAL HIGHLIGHTS (US\$ MILLION) CONTINUING OPERATIONS:	2011	2010	%
Revenue	2,228.3	1,919.9	16%
EBITDA	1,063.8	820.9	30%
Operating profit (EBIT)	755.3	521.3	45%
NET PROFIT AFTER TAX ATTRIBUTABLE TO:			
Equity holders of the Company	540.9	409.4	32%
Non-controlling interests	33.6	21.0	60%
PROFIT ATTRIBUTABLE TO EQUITY HOLDERS OF THE COMPANY:			
Continuing operations	454.1	335.8	35%
Discontinued operations	86.8	73.6	18%
EARNINGS PER SHARE – FULLY DILUTED			
Continuing operations	8.99 cents	7.41 cents	21%
Discontinued operations	1.72 cents	1.63 cents	6%
TOTAL EARNINGS PER SHARE	10.71 cents	9.04 cents	18%





2011 REVENUE BY DESTINATION



Minmetals Resources Limited's (MMR) share price performance

With a current free float of 28%, and the rest of our stock held, ultimately, by majority shareholder China Minmetals Corporation, it is challenging to realise a full valuation from the market of our company in our share price and market capitalisation. This has the potential to limit our ability to attract high-potential candidates to the business and to meet our growth targets.

Over the course of 2011, MMR's share price (HKSE 1208) performance largely mirrored the performance of the HSBC Global Base Metals Index. MMR's share price also follows the movements of global commodity prices, namely copper and zinc, our major products. The index ended the year down 28%, but MMR's share price ended the year down 44%, so MMR underperformed against the index.

Three research analysts initiated coverage on the company this year. MMR intends to continue communications with the investment market, including the development of an Investor Relations Strategy in 2012, to ensure balanced valuation of our stock.

Volatility in commodity prices

The price of metals, such as copper, gold, lead and zinc, fluctuates on the market as a result of changes in demand and currency exchange rates. This directly affects the profit attainable from our products, our intent to invest in organic growth and our ability to retain key employees.

The price of our products in the market is directly related to the economic sustainability of our business, determining the level of profit attainable from our operations and the financial viability of operating our mines. Prices for our key commodities of copper and zinc declined in the latter part of 2011 with concerns around European debt issues reducing general commodity demand.

Rapid urbanisation in China continues to drive background demand for natural resources. While China's gross domestic product (GDP) growth is expected to slow to around 7–8% in 2012, this is still impressive growth off such a large base.

Demand is now being driven more by domestic consumption within China, with a focus on public housing development. We believe base metal demand will continue to be strong but may face some short-term fluctuations, with recent economic difficulties in some parts of Europe and the United States.

In order to manage this risk, we closely monitor and analyse commodity price movements and update our internal financial models and forecasts. Our growth strategy includes the long-term analysis and demand for a variety of base metal commodities.

In addition to this, we work with industry partners to promote our products, increase demand through new uses and markets, and maintain the quality of our products to market to attain the best possible prices.

In 2011, Chief Executive Officer Andrew Michelmore was made the Chairman of the International Zinc Association (IZA), the peak industry body for the zinc industry. The IZA aims to sustain the long-term global demand for zinc and promote its importance to human health and agriculture.

Acquisition and project investment

We are investing in new assets through mergers and acquisitions to create shareholder value. We are working to ensure the smooth integration of acquisitions into business activities to achieve synergies and maximise opportunities.

When MMG was formed in 2009, we established a clear vision for the business – to build the next generation's leading global diversified minerals and metals group. While we currently have a market capitalisation of around US\$2 billion, our objective is to be recognised as one of the top three mid-tier base metal mining companies in the world. This would require growth of around three to five times our current size through discovering, acquiring, developing and sustainably operating base metals projects around the world. New and difficult jurisdictions and environments of available economic deposits will challenge growth of this scale.



In 2011, MMR announced an intention to make an offer for Equinox Minerals Limited (ASX, TSX: EQN) ("Equinox"), a mining company with copper assets in Zambia. This was our first step into the global merger and acquisitions market and signalled our interest in expanding into the highly prospective southern African copper belt. While we chose not to pursue this acquisition, the high price ultimately paid for Equinox enabled us to realise an attractive gain on our investment of US\$152.1 million (pre-tax) from the sale of our 4.2% stake in that company.

In September 2011, we announced an offer to acquire Anvil Mining Limited (ASX, TSX: AVM) ("Anvil"). We were pleased to complete the C\$1,330 million acquisition, which brings the Kinsevere copper cathode operation in the Democratic Republic of Congo into MMR's portfolio. Our first priority is to smoothly integrate the Anvil operations into our business in 2012.

Supporting our growth aspirations will be the delivery of two important projects, Dugald River and Izok Corridor, which are targeted to replace Century mine production post closure, in zinc equivalent. The Dugald River development project in Queensland, Australia, advanced with the Board approving further expenditure of A\$157 million toward the next stage of the project. A pre-feasibility study of the Izok Corridor Project in Nunavut, Canada, was completed in 2011 and work has now commenced on a feasibility study.

CASE STUDY: ZINC SAVES KIDS

MMG supports UNICEF micronutrient powder gifts. Zinc is an essential micronutrient for healthy human development as it helps generate cells and is important for growth and brain development. Zinc Saves Kids is an IZA program that improves the survival, growth and development of undernourished children by funding UNICEF-supported zinc micronutrient programs around the world.

UNICEF's charity gifts program gives people the opportunity to purchase a gift that will make a difference to children in need. We are supporting purchases of micronutrient powder valued at \$16 for 480 sachets, which we are matching dollar for dollar up to \$25,000. The powder contains micronutrients that are lacking in many infants' diets in developing countries. The little sachets also help to give children's emergency food rations a powerful boost.

MMG is now a key supporter of the IZA's Zinc Saves Kids program. The IZA, meanwhile, has a crucial role to play in sustaining long-term global demand for zinc and promoting its criticality to human health, crop nutrition and sustainable development.

Anyone can support Zinc Saves Kids by purchasing micronutrient powder gifts through the UNICEF Inspired Gifts website: http://www.unicef.org.au/ Charity-Gifts/Products/micronutrient-powder.aspx





An International Zinc Association initiative in support of UNICEF



Realising the full value of assets

Extracting the maximum value from our current assets will be a key driver in delivering sustainable economic performance.

In 2011, our mining assets performed within cost guidance for both production and operating costs. Stand-out results were seen at our Sepon copper and gold operation following the completion of the copper cathode expansion project, which has expanded nameplate capacity from 65,000 to 80,000 tonnes per annum.

At Golden Grove, we commenced development of an open copper pit, above existing underground operations, that will deliver an additional 20,000 tonnes of copper in concentrate a year from 2012 to 2014.

At Rosebery, our exploration programs continued to identify additional mineral resources and source feed for the processing plant which this year celebrated 75 years of continuous operation. Combined with the establishment of an innovative sustainable extraction operation at the nearby South Hercules deposit, Rosebery's mine life now extends to 2024.

While the potential to discover additional discrete-style mineralisation near our Century mine is effectively tested and current operations are expected to cease in 2016, we continue to examine a number of near-mine initiatives for

identification of additional feed for the processing plant from smaller vein-style occurrences nearby. The viability of using Century infrastructure to exploit the phosphate deposits that occur on our tenements will be further studied this year. Our aim is to continue to identify opportunities to unlock the full production potential, and ultimately shareholder value, of our current assets.

Product shipping and logistics

Access to markets for our products is essential to the sustainability of the business. We work with infrastructure service providers and regulators to responsibly maintain access.

We use a combination of logistics channels to transport product from our mines to customers. This is different at each site depending on its location and that of its customers. For example, at Century, concentrates are transported in slurry form in a 304-kilometre underground pipeline to our port facility in Karumba, where they are dewatered, loaded onto a barge and transported and transferred to deep-water export vessels at sea. At Sepon, located in Laos, a land-locked country, copper cathode is transported by truck to customers in Thailand, Vietnam and China. Unique product stewardship and material-handling challenges are present along all logistics chains as outlined in the "Product stewardship" section of this report.

CASE STUDY: ACQUISITION OF ANVIL MINING

On 19 March 2012 we completed the acquisition of Anvil Mining Limited ("Anvil"). Anvil's copper operations are an excellent fit with our strategy to build an upstream base metals company. The key asset acquired is 95% of the Kinsevere copper operation and a 70% interest in the Mutoshi development project, both located in the southern Katanga province of the Democratic Republic of Congo (DRC).

Now the acquisition is complete, our immediate focus and challenge is to integrate the Anvil operations into our business. Integration is a demanding phase for both the acquirer and the target company. A project team has been deployed to identify, transition and integrate Anvil's business processes, systems and standards into MMG. Our focus will be to extend MMG's safety, health, environment and community management systems to the Anvil operations.

Copper cathode production at Kinsevere operations in the DRC have been impacted by power supply issues caused by unexpected network outages within the Katanga region. A combination of low water levels in hydro-electricity systems, infrastructure failure and inability to access power from neighbouring Zambia has led to an extended period of no, or limited, power allocation to the Kinsevere site. We continue to work closely with site management and electricity providers in the DRC and Zambia to improve the reliability of supply. In addition, plans are under way to provide a level of temporary on-site generation to ensure that Kinsevere continues to ramp up effectively.

In addition, we recognise that the geopolitical risks present in the DRC will be a challenge in the future.

Anvil made significant investments in the local community supporting the establishment of schools, local businesses, health programs and other social investment projects. We intend to continue this support for the local community to ensure the benefits of the mine's operations flow back to the local community.
RESPECTING OUR ENVIRONMENT

Loading ore at Sepon.

CASE STUDY: PRIMARY GOLD POTENTIAL AT SEPON

Sepon mine currently mines and processes oxide gold ore – gold ore that is at, or very close to, the surface. A study of primary gold ore, which lies beneath the oxide gold ore, is expected to report later this year. If favourable, a substantial investment would be needed to modify the processing plant in order to process this different type of ore.

Since its commencement, the Sepon gold operation has produced over one million ounces of gold through open pit mining and conventional treatment of oxide gold ore. Current reserves of oxide gold are not expected to last much beyond 2012.

Customer economic sustainability

Our customers are smelting businesses who on-sell our product after refining it further, for consumption in a range of end uses, such as construction materials or automotive vehicles. When global demand for these end uses falls, our customers may respond by reducing their demand for our product.

While we have life-of-mine contracts in place for a large portion of our current production, we negotiate annual treatment and refining charges. In addition to this, we sell product to customers on short-term, spot-market contracts.

To maintain our economic sustainability, we must be able to sell our products to market, and therefore the demand for our products from customers is pivotal to our economic sustainability. Through the IZA, the ICMM and the MCA, we are working on various initiatives to promote our products to the global market for established and new uses. We believe that access to growing economies, such as China, provides our products with strong customer markets.

As with commodity prices, we monitor customer demand for our products and adjust our internal forecasts and operational plans accordingly.

Financial implications of the Australian Government's Clean Energy legislation

The Australian Government's Clean Energy Bill will introduce carbon pricing to Australian industries from 1 July 2012.

In 2011, the Australian Government announced a proposed carbon tax on selected businesses of A\$23.00 per tonne of carbon dioxide equivalent (CO₂-e). The tax will apply from 1 July 2012 and will increase at 2.5% plus inflation annually until 1 July 2015, when an emissions trading scheme will be introduced.



Major disruptive event impacts

A key risk for the business is that of a major disruptive event, such as a fatality, mine closure, reputational damage and loss of community support or legal action, that leads to a disruption to production.

In order to manage these risks, we implement a variety of preventative measures, including site emergency management and corporate crisis management plans. In addition, our approach to sustainability management, as detailed earlier in this report, incorporates site and corporate risk registers, governance structures, including reporting of performance and issues to a Board committee, and operating standards, such as certification to ISO 14001 at all of our operating sites.

Management reporting and decision-making Good management reporting is necessary to facilitate effective decision-making and improve our ability to integrate future acquisitions smoothly.

In 2011, a program commenced to review and upgrade our information technology (IT) systems required to eliminate reliance on legacy systems and support management reporting and decision-making. There was a significant step-up in investment in IT in 2011, relating to the transformation of key management systems to provide a foundation for the company's simplification and growth including essential infrastructure. Work has commenced on a standardised and simplified business management system, underpinned by common global processes and standard SAP mining platform. This transformational program aims to improve management responsiveness and overall operational efficiency.

The economic and social contribution of mining is important to our stakeholders and we anticipate will continue to be a challenge in the future. Mining and exploration businesses pay royalties and other fees to governments in order to explore for and extract minerals resources. The investment and long term focus required to bring these projects to production is significant. Companies must ensure that the benefits of their operations are reinvested to all stakeholders, be they shareholders, employees or local communities. However, companies need to be assured of a long-term economic return on their investment. This is an issue that MMG will continue to monitor as governments around the world continue to assess their expectations of the minerals industry.

2012 CHALLENGES

The business will continue to confront challenges in 2012 as it develops a number of the opportunities in its project pipeline, focusing on:

- » Progressing the Dugald River Project, moving from the feasibility phase into project development;
- » The transition and integration of Anvil's business processes, systems and standards into MMG.
- » Progressing the Izok Corridor Project, moving from pre-feasibility to feasibility phase; and
- » Continuing to target acquisition opportunities with the aim to complete at least one material acquisition per year.

CASE STUDY: MINE RESCUE TEAMS AT MMG

In 2011, MMG's high-performing mine rescue teams received a number of commendations for their efforts after competing at various Australian state-run mine rescue competitions.

Century's Emergency Response Team excelled at the North West Mine Rescue Challenge at the end of October. The team won first place in the Road Accident Rescue, second place in the Vertical Height Rescue (Ropes) and third place in the First Rescue categories of the challenge.

Also in October 2011, the Golden Grove Mine Rescue Team achieved an outstanding result at the Chamber of Minerals and Energy's annual Underground Mines Rescue Competition held at Mount Charlotte in Kalgoorlie, Western Australia, finishing second overall. The team produced consistent results, placing in the top three in nine out of the 11 available awards. Adding to the success, first-time team Captain Frank Vink was rewarded with the competition's Captain's Award for outstanding leadership.

In November 2011, in the Tasmanian Emergency Rescue Competition held at Vedanta Copper Mines, the Rosebery Mine Rescue Team secured the overall championship for the third time in four years. Led by Elmar Van Breda, who secured the Captain's Award, the team produced excellent results, placing first in six of nine categories: safety, first aid, team skills, confined space, vehicle extraction, and underground rescue.



local fire fighters with personnel, resources and machinery during the recent local bush fires

GLOBAL REPORTING INDEX FINDER

This table identifies the Global Reporting Initiative (GRI) indicators addressed in this Sustainability Report and where to find the content that relates to each indicator. Where the indicator is addressed directly in the table, the explanation appears in italics. MMG has reported to the GRI (G3) Guidelines and Mining and Metals Sector Supplement.

GRI CATEGORY	INDICATOR		SUSTAINABILITY REPORT REFERENCE				
	NUMBER						
STANDARD DISCLOSURES: STRATEGY AND PROFILE							
STRATEGY AND ANALYSIS	1.1	CEO Message.	Message from the CEO. See also http://www.mmg.com /en/Investors-and-Media/Reports-and-Presentations/ Annual-Reports.aspx				
	1.2	Sustainability impacts, risks and opportunities.	About our report; 2011 sustainability highlights and challenges.	inside front cover; 8			
ORGANISATIONAL PROFILE	2.1–2.9	Company, products, operational structure, organisational footprint and scale, significant changes during the reporting period.	Message from the CEO; About MMG; About our report; Sustaining our economic performance – Performance; Customer economic sustainability; Acquisition and project investment.				
	2.10	Awards.	Sustainability highlights and challenges.	8			
REPORT PARAMETERS	3.1–3.4, 3.6–3.8, 3.10, 3.11	Report profile and contact point for this report; report scope and boundary.	About our report; Back cover; Management approach; GRI finder; ICMM Principles index.	inside front cover; 12; 73; 77			
	3.5	Process for defining report content.	Our Approach – Materiality determination.				
	3.12	Standard Disclosures.	GRI finder.	73			
	3.13	Assurance.	About our report; Independent assurance statement.	inside front cover; 78			
GOVERNANCE, COMMITMENTS AND ENGAGEMENT	4.1–4.4, 4.9	Governance.	About MMG; Our approach – Business ethics and governance; Our approach – Materiality determination. For details of the MMG board and governance structure, please refer to the MMR 2011 Annual Report at www.mmg.com	4; 12			
	4.12–4.13	Commitments and engagements.	Our approach – Alignment with the ICMM Principles; Management approach; Sustaining our economic performance – Volatility in commodity prices.	11; 12; 68			
	4.14-4.17	Stakeholder engagement.	Working with our stakeholders – Key stakeholders; Our approach – materiality determination.	38; 12			
ECONOMIC	EC1, EC3, EC4,	Direct economic value generated and distributed.	Sustaining our economic performance – performance; Working with our Stakeholders – 2011 Social investment expenditure; Sustainability performance; 3-year goals; 2011 Annual Report (see www.mmg.com).	67; 40; 9			
	EC2	Financial implications due to climate change.	Sustaining our economic performance – Financial implications of the Australian Government's Clean Energy legislation; Respecting our environment – Greenhouse gas emissions.	71; 56			
	EC3	Coverage of the organization's defined benefit plan obligations.	MMG adheres to local legislated benefit plans, including 9% superannuation contributions for all Australian employees and 5.5% contribution to Social Security Organisation and health and accident insurance benefits for Lao national employees at Sepon.				
MARKET PRESENCE	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	Our approach – Sustainable procurement; Working with our stakeholders – Case study – Local supplier development at Sepon.	12; 47			
	EC7	Procedures for local hiring and proportion of senior management and workforce hired from the local community at significant locations of operation.	Our people – workforce localisation; Case studies – Localisation of the workforce at Sepon; Apprenticeship program update; Apprenticeships change lives; An opportunity to study; Data clerks traineeship program update.	22; 23			

GLOBAL REPORTING INDEX FINDER CONTINUED

GRI CATEGORY	GRI INDICATOR NUMBER	INDICATOR DESCRIPTION	SUSTAINABILITY REPORT REFERENCE	PAGE
INDIRECT ECONOMIC IMPACTS	EC8	Infrastructure and services provided primarily for public benefit.	Working with our stakeholders – 2011 Community investment expenditure; Case studies.	
MATERIALS	EN1, EN2	Materials.	About MMG – Map; Respecting our environment – Mineral waste management. Materials used (such as site supplies, food, vehicle maintenance supplies etc) is not considered an important impact area in the context of the material mined, product produced and mineral waste produced and managed.	4; 62
ENERGY	EN3, EN4	Direct and indirect energy consumption.	Respecting our environment – Energy use and carbon emissions; 2011 energy efficiency.	56
WATER	EN8, EN10	Water withdrawal, water source and reuse.	Respecting our environment – 2011 water outputs; 2011 water output quality; Water and wastewater discharge management; Case study – Managing water issues at Century.	53–54
BIODIVERSITY	EN11 EN12	Location and size of land in or adjacent to protected areas and description of impacts.	Respecting our environment - Biodiversity; Land disturbance and rehabilitation; Case studies. <i>Sepon mine is adjacent to</i> <i>protected area in Laos, and Rosebery operations are adjacent</i> <i>to 138 hectares of protected area in Australia.</i>	58; 58–63
	MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated.	Respecting our environment – Biodiversity – Land disturbance and rehabilitation; Sustainability highlights and challenges.	58; 8
	MM2	Sites identified as requiring biodiversity management plans and the number (%) of those sites with plans in place.	Respecting our environment – Biodiversity, Case studies; Sustainability highlights and challenges.	58; 8
EMISSIONS, EFFLUENTS AND WASTE	EN16-18	Greenhouse gas emissions.	Respecting our environment – MMG Climate Change Study, 2011 greenhouse gas emissions. For project detail visit: http://www.mmg.com/en/Sustainability-and-Community/ Climate-change.aspx	58; 56
	EN21	Total water discharge.	Respecting our environment – 2011 MMG water outputs; 2011 water output quality.	54
	EN22	Total weight of waste.	Respecting our environment – Mineral waste management.	62
	EN23	Number and volume of significant spills.	Respecting our environment – 2011 environmental incidents and compliance.	64–65
	MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks.	Respecting our environment – Mineral waste management; 2011 MMG water outputs; 2011 water output quality.	62; 54
PRODUCTS AND SERVICES	EN26	Initiatives to mitigate environmental impacts.	Respecting our environment – Environmental management and compliance.	64–65
	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	This is not applicable to MMG as concentrates are sold in bulk and not packaged for the end consumer.	
COMPLIANCE	EN28 Monetary value of fines.		Respecting our environment – Environmental management and compliance – 2011 environmental incidents and compliance. There were no fines to be paid in the 2011 reporting period.	64–65
Community	SO1	Programs that assess and manage the impacts of operations on communities.	Working with our stakeholders – Community and regional development; Case studies – Community development initiatives in Laos, Sepon Trust Fund update, Sepon village microfinance update, Sepon mother and child health project; MMG Golden Grove launches an education engagement program; Bringing electricity to 900 local families at Sepon; Sustainability highlights and challenges.	44; 42
	MM6	Significant disputes relating to land use, customary rights of local communities and Indigenous Peoples.	Working with our stakeholders – Human rights – Community complaints management.	42
	MM7	Use of grievance mechanisms to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples	Working with our stakeholders – Human rights – Community complaints management.	42

GRI CATEGORY	GRI INDICATOR NUMBER	INDICATOR DESCRIPTION	SUSTAINABILITY REPORT REFERENCE	
COMMUNITY	MM8	Company operating sites where artisanal and small scale mining takes place on, or adjacent to, the site, associated risks and actions taken.	There was no informal or artisanal mining at MMG's Australian sites in 2011. Some dredging activity was investigated within Sepon's tenement area during the reporting period. These investigations involved Environment Officers of the Government of Laos, and resulted in an official MMG memorandum to the Lao government ministries explaining the activities and their associated risks.	
	MM9	Sites where resettlement takes place, the number of households resettled and how livelihoods were affected.	No resettlements occurred during the reporting period.	
	MM10	Operations with closure plans.	Working with our stakeholders – Closure planning; Case study – Century Mine closure planning. <i>New closure planning standards are being developed in 2012, to be implemented by all sites.</i>	40; 41
CORRUPTION	SO2	Analysis for risks.	Our approach – Risk management.	14
	SO3	Employee training.	An improved Code of Conduct, including corruption, will be rolled out with accompanying training in 2012.	
	SO4	Analysis for risks, and actions taken in response to corruption.	Our approach – Management approach – Anti-corruption.	12
PUBLIC POLICY	SO5	Public policy positions and participation in public policy development and lobbying.	Our approach – Management approach – Public policy initiatives. No political donations were made in the period.	
COMPLIANCE	SO8	Fines for non-compliance with laws and regulations.	Our approach – Business ethics and governance; Anti-corruption.	12
MATERIALS STEWARDSHIP	MM11	Programs and progress relating to materials stewardship.	Our approach – Product stewardship. MMG works with the International Zinc Association (IZA), the ICMM and the MCA on material stewardship programs.	14
CUSTOMER HEALTH AND SAFETY	PR1	Health and safety impacts of products and services.	MMG works with its trade and smelter customers to ensure our products are handled correctly, provide Material Data Safety Sheets, ensure the handling and movement are done with appropriate care and improve this where required.	
PRODUCT PR3 AND SERVICE LABELLING		Product and service information.	MMG's products are sold as either concentrates in bulk, copper cathode or refined precious metals. MMG complies with the product handling, safety and labelling requirements applying to the sale and transport of our products to customers.	
MARKETING	PR6	Adherence to laws, standards and voluntary codes related to marketing communications.	MMG does not undertake marketing communications for our product as they are sold to buyers with whom the company has well-established relationships.	
COMPLIANCE	PR9	Fines concerning the provision and use of products and services	No fines occurred in the reporting period.	
EMPLOYMENT	LA1 LA2	Workforce by employment type, region and employee turnover	Our people – Performance; People profile; People profile by site; Diversity, roles and remuneration. See table, page 76.	21; 25
	LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	Our people – Performance – People profile. Part time employees have the same entitlements as full time. Temporary employees do not have access to St Luke's healthcare, novated leasing, paternity leave, or site short-term incentives unless specifically outlined in their contract or if they are with MMG for at least 12 months.	21
LABOUR/ MANAGEMENT RELATIONS	LA4	Employees covered by collective agreements.	Sepon – All employees are on individual employment arrangements. Century – 414 or 60.7% of Century employees are covered by	
			the MMG Century Mine Employee Certified Agreement 2010. Rosebery – 45% of Rosebery employees are covered by	
	LA5	Minimum notice periods regarding operational changes	Enterprise Bargain Agreement for the underground workforce. There is no specific minimum notice period, however, once MMG has made a definite decision to pursue a specific course of action then MMG would notify all relevant parties.	
	MM4	Number of strikes and lock-outs exceeding one week's duration, by country.	There were no strikes or lock-outs during the reporting period.	

GLOBAL REPORTING INDEX FINDER CONTINUED

GRI CATEGORY	GRI INDICATOR NUMBER	INDICATOR DESCRIPTION	SUSTAINABILITY REPORT REFERENCE	
OCCUPATIONAL HEALTH AND SAFETY	LA7–LA8	Health and safety committees and rates of injury and work-related fatalities.	Health and safety – Performance; Staff safety and wellbeing.	
TRAINING AND EDUCATION	LA10	Staff training.	Our people – Training and development.	26
LDUCATION	LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	Our people – Training and development; Case studies – Rosebery young trainee program; Australia's largest zinc mine launches 'Women in Resources Network'; An opportunity to study; Apprenticeship program update; Apprenticeships can change lives; Data clerks traineeship program update.	26; 27; 23
DIVERSITY AND EQUAL OPPORTUNITY	LA13	Composition of governance bodies and employee categories.	For details of the MMG board and governance structure, please refer to the MMR 2011 Annual Report at (www.mmg.com).	
	LA14	Salary ratio of men to women by employee category.	Our people – Gender diversity; Diversity, roles and remuneration.	25
INVESTMENT AND PROCUREMENT PRACTICES	HR1–HR2	Significant investment agreements that include human rights and suppliers and contractors that have undergone screening.	Currently 0%. Human rights screening is not currently part of the investment and procurement processes at MMG. All security personnel at Sepon are trained in how to manage security issues and the rights of people involved.	
	HR3	Employee training on policies and procedures concerning human rights		
NON- DISCRIMINATION	HR4	Incidents of discrimination and actions taken.	There were no reported incidents of discrimination in the period.	
FREEDOM OF ASSOCIATION AND COLLECTIVE	HR5–7	The right to exercise freedom of association and collective bargaining. Child labour, compulsory labour.	MMG employees have and exercise rights of association and collective bargaining.	
BARGAINING			MMG's Human Resources department manages employee individual agreements, collective agreements, and all employee grievances in regard to these agreements.	
			No incidents of restriction of these rights, or child or forced labour, have been identified in the reporting period	
SECURITY PRACTICES	HR8	Security personnel trained in relevant human rights policies or procedures	All security personnel at Sepon are trained in how to manage security issues and the rights of people involved.	
INDIGENOUS RIGHTS	MM5	Operations taking place in or adjacent to Indigenous Peoples' territories, and operations where there are formal agreements with Indigenous Peoples' communities.	MMG's Century, Sepon and Golden Grove mines are all adjacent to indigenous people's territories. At all these sites MMG has agreements and community development programs in place with these indigenous communities.	

TOTAL WORKFORCE MAKE-UP

	CENTURY	GOLDEN GROVE	ROSEBERY	SEPON	EXPLORATION	CORPORATE	TOTAL MMG 2011
TOTAL WORKFORCE	1,030	748	504	5,763	70	398	8,513
FULL TIME	756	468	258	1,832	56	290	3,660
PART TIME	0	0	2	0	3	23	28
CASUAL	10	10	12	1,566	8	22	1,628
CONTRACTORS	264	270	232	2,365	3	63	3,197
FEMALE RATIO (%)	13%	12%	13%	18%	39%	43%	17%
INDIGENOUS RATIO (%)	24%	3%	1%	0%	0%	0%	10%
LOCAL EMPLOYEE (VS EX-PAT) RATIO (%)	87%	0%	0%	87%	25%	0%	
TURNOVER (%) (JAN-DEC 2011)	12.0%	9.6%	6.3%	8.4%	4.3%	7.7%	8.5%

> ICMM 10 SUSTAINABLE DEVELOPMENT PRINCIPLES INDEX

	ICMM PRINCIPLES	REPORT SECTION	PAGE
01	Implement and maintain ethical business practices and sound systems of corporate governance.	Our approach – Management approach; Business ethics and governance; Feature – Sepon ICMM Report.	хх
02	Integrate sustainable development considerations within the corporate decision-making process	Our approach – Alignment with the ICMM 10 Sustainable Development Principles; Management approach; Business ethics and governance; Materiality determination.	XX
03	Uphold fundamental human rights and respect cultures, customs and values in dealings with	Our approach; Feature – Century indigenous community development.	XX
	employees and others who are affected by our activities	Our people – Our approach; Performance.	XX
		Working with our stakeholders – Our approach; Performance – Human Rights.	XX
04	Implement risk management strategies based	Message from the CEO.	XX
	on valid data and sound science	Our approach – Risk management.	XX
		Health and safety – Our approach – Aviation risk management; Performance.	XX
		Working with our stakeholders – Post-closure community expectations.	XX
		Respecting our environment – Mineral waste management; Environmental management and compliance; 2012 challenges.	ХХ
		Sustaining our economic performance – Volatility in commodity prices; Major disruptive event impacts.	ХХ
05	Seek continual improvement of our health and safety performance	Overview – Sustainability performance summary and 3-year goals.	XX
		Our approach.	XX
		Health and safety – Our approach; Our performance; 2012 challenges.	ХХ
06	Seek continual improvement of our environmental performance	Overview – Sustainability performance summary and 3-year goals.	XX
		Our approach.	XX
		Respecting our environment – Our approach; Our performance; 2012 challenges.	ХХ
07	Contribute to conservation of biodiversity and integrated approaches to land use planning	Respecting our environment – Our approach; Our performance – Biodiversity.	XX
08	Facilitate and encourage responsible product	Our approach – Product stewardship.	ХХ
	design, use, re-use, recycling and disposal of our products	Respecting our environment – Our performance – Mineral waste management; Water and wastewater discharge management, 2012 challenges.	ХХ
09	Contribute to the social, economic and	Our approach.	ХХ
	institutional development of the communities in which we operate	Working with our stakeholders.	ХХ
		Respecting our environment – Closure planning.	ХХ
		Sustaining our economic performance.	хх
10	Implement effective and transparent engagement,	Our approach.	хх
	communication and independently verified reporting arrangements with our stakeholders	Working with our stakeholders – Our approach, Our performance, 2012 challenges.	XX



Statement GRI Application Level Check

GRI hereby states that **Minerals and Metals Group** has presented its report "MMG 2011 Sustainability Report" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 02 May 2012

Nelmara Arbex Deputy Chief Executive Global Reporting Initiative



The "+" has been added to this Application Level because **Minerals and Metals Group** has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 17 April 2012. GRI explicitly excludes the statement being applied to any later changes to such material.



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Independent Limited Assurance Report to the Directors of Minerals and Metals Group Limited

We have performed a limited assurance engagement in relation to selected subject matter contained in Minerals and Metals Group's ('MMG') 2011 Sustainability Report ('the Report') in order to state whether anything has come to our attention that would cause us to believe that the subject matter has not been presented in accordance with the criteria described below, including the application of elements of International Council on Mining and Metals ('ICMM') *Sustainable Development ('SD') Framework*.

Subject Matter and Criteria

The subject matter and criteria for our assurance engagement for the year ended 31 December 2011 for the reported boundary included:

- Whether MMG has disclosed its material sustainability risks and opportunities within the Report in line with the AA1000 Principles Standard's ('AA1000 APS') definition of materiality; and
- ICMM Subject Matters 1 to 4, as described in the table below

-		
Area	Subject Matter	Criteria
ICMM	The alignment of MMG's sustainability policies to	MMG's reported alignment of its sustainability policies to
Subject	ICMM's 10 SD Principles and mandatory requirements	ICMM's 10 SD Principles and mandatory requirements set
Matter 1	set out in ICMM Position Statements	out in ICMM Position Statements (p11)
ICMM	MMG's material sustainability risks and opportunities	MMG's description of its process for identifying material
Subject	based on its own review of the business and the views	issues and the Global Reporting Initiative ('GRI') definition
Matter 2	and expectations of stakeholders	of completeness and AA1000 APS definition of
		materiality (p12)
ICMM	The existence and status of implementation of	MMG's description of the systems and approaches to
Subject	systems and approaches used by MMG to manage a	manage the selected material sustainability risks and
Matter 3	selection of material sustainability risks and	opportunities
	opportunities (selected by MMG) including:	MMG's process for identifying the material sustainability
	Water inputs, water outputs, water output quality	risks and opportunities selected for review is recorded in
	(pp53-54)	the 'Materiality Determination' section of the Report
	Responding to stakeholder issues (pp38-39)	(p12)
	Total recordable injury frequency rate, contractor	
	selection and management of health and safety	
	performance (pp29-31)	
	Gender diversity - % female employees (p25)	
ICMM	MMG's reported performance during the reporting	Performance information criteria disclosed by MMG for
Subject	period for the material sustainability risks and	each indicator including:
Matter 4	opportunities identified in Subject Matter 3 above	 Water inputs, water outputs, water output quality - refer p53 of the Report
		Total recordable injury frequency rate - refer p30 of
		the Report
		Responding to stakeholder issues - AA1000 APS
		criteria for responsiveness
		Gender diversity (% female employees) - refer p25 of
		the Report

The subject matter of our work did not include:

- Any assessment of MMG's management's process for selecting the areas for our limited assurance engagement or the materiality or relative significance of the selected subject matter
- Assessing the accuracy, fairness or balance of data sets, statements, information, systems or approaches relating to areas other than the subject matter
- Management's forward looking statements
- > Any comparisons made against historical data
- > Sustainability data relating to the 2010 financial year performance

Management Responsibility

The management of MMG ('Management') are responsible for the collection, preparation and presentation of the subject matter in accordance with the criteria and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process.



Assurance Provider's Responsibility

Our responsibility is to express a limited assurance conclusion on whether the subject matter is presented in accordance with the criteria. Our limited assurance engagement has been planned and performed in accordance with the International Federation of Accountants' International Standard on Assurance Engagements 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000'), with regard to ICMM's SD Framework: Assurance Procedure. Our limited assurance engagement does not include any testing of controls or performing procedures relating to checking aggregation or calculation of data within IT systems, which would have been performed under a reasonable assurance engagement. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Level of Assurance

A limited assurance engagement consists of making enquiries and applying analytical and other limited assurance procedures. Our procedures were designed to provide a limited level of assurance and as such do not provide all the evidence that would be required to provide a reasonable level of assurance. 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. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our Approach

Our procedures performed included, but were not limited to

- Interviewing a selection of MMG staff and management at both a site and corporate level responsible for subject matter and the preparation of the Report
- Reviewing the report to determine if material topics and performance issues identified during our procedures had not been adequately disclosed
- Sample testing of reported data, performance statements, claims and case studies included in the subject matter against supporting source information, MMG's reported boundary and GRI's principles of balance and completeness
- Sample testing as to whether the methods used for calculating data were not aligned with the stated criteria
- Reviewing selected management information and documentation supporting assertions made in the subject matter
- Reviewing MMG policies and standards and assessing alignment with ICMM's 10 Sustainable Development Principles and other mandatory requirements as set out in ICMM's Position Statements

Inherent Limitations

There are inherent limitations of any assurance engagement arising from the evidence on which the auditor draws conclusions upon being persuasive, as it relies on selected data to be representative, rather than conclusive. There are additional inherent risks associated with assurance over non-financial information including reporting against standards which require information to be assured against source data compiled using definitions that are developed by the reporting entity. Finally, principles of materiality and responsiveness are subjective and will be interpreted differently by different stakeholder groups.

Use of Our Report

Our limited assurance report has been prepared for distribution to the management and directors of MMG. We disclaim any assumption of responsibility for any reliance on this assurance statement or on the subject matter to which it relates, to any person other than management and directors of MMG, or for any purpose other than that for which it was prepared.

Our Independence and Assurance Team

In conducting our assurance engagement we have met the independence requirements of the APES 110 Code of Ethics for Professional Accountants. We have the required competencies and experience to conduct this assurance engagement.

Matters relating to electronic presentation of the Sustainability Report

Our review included web-based information that was available via web links as of the date of this statement. We provide no assurance over changes to the content of this web-based information after the date of this assurance statement.

Assurance conclusion

On the basis of our procedures for this limited assurance engagement, nothing has come to our attention that causes us to believe that subject matter has not been presented in accordance with the criteria.

Ernst & Youna

Ernst & Young Melbourne, 4 May 2012

> GLOSSARY

REGULARLY OCCURRING ACRONYMS

CEO	Chief executive officer
CSR	Corporate social responsibility
DERM	Department of Environment and Resource Management (Queensland)
DSA	Designed storage allowance
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
EEO	Energy Efficiency Opportunities
EIS	Environmental Impact Statement
FIFO	"Fly-in fly-out"
GCA	Gulf Communities Agreement
GRI	Global Reporting Initiative
HKSE	Hong Kong Stock Exchange
ICMM	International Council on Mining and Metals
ISO (including 14001)	International Organisation for Standardisation of management standards
IZA	International Zinc Association
Lao PDR	Lao People's Democratic Republic
MCA	Minerals Council of Australia
MMG	Minerals and Metals Group
MMR	Minmetals Resources Limited
SHEC	Safety, health, environment and community
VDF	Village Development Funds
WAF	Water Accounting Framework (of the Minerals Council of Australia)
REGULARLY OCCURRIN	NG UNITS OF MEASURE

Australian dollar(s)
United States of America dollar(s)
Canadian dollar(s)
Gigajoules (of energy)
Megalitres (of water or other liquid)
Micrograms per decilitre (of substance)

 \rangle KEY CONTACTS

We are interested in your comments on this report. Please contact James Porteous, Communications Advisor at james.porteous@mmg.com with your feedback or suggestions.

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