



# SUSTAINABILITY REPORT 2019



HKEX: 1208

A member of:

**ICMM**  
International Council  
on Mining & Metals

**MINING WITH  
PRINCIPLES**



# WE MINE FOR PROGRESS

At MMG, our vision is to be the world's most respected base metal company. To achieve this, we are committed to effectively managing the risks to people and the environment across the communities, geographies and environments in which we work.

FRONT AND INSIDE COVERS:  
Andean Crops program, Las Bambas.



We recognise that the sustainable development of our host countries and communities is the result of many shared steps. Over time these steps lead to real and lasting improvements in the quality of lives of those touched by our operations. Transforming natural resources into sustainable development is how we mine for progress.



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# ABOUT THIS REPORT

## REPORT BOUNDARY AND SCOPE

In this report, 'MMG' refers to MMG Limited and its subsidiaries, unless explicitly stated otherwise. MMG Limited is individually referred to as the 'Company'.

The report covers the activities of MMG's Head Office in Melbourne, Australia, and all MMG's mining, exploration and associated activities. Our Hong Kong and Vientiane offices are not included in this report due to the immaterial nature of their sustainability impacts.

All data listed in this report refers to the period from 1 January 2019 to 31 December 2019. Data relating to the previous reporting period has been included where it is comparable and adds useful context. All people numbers are accurate as at 31 December 2019.

All data is reported on a 100% equity basis.

## REPORTING APPROACH

This report has been prepared in accordance with the Global Reporting Initiative's (GRI) 2016 Sustainability Reporting Guidelines (GRI Standards): Core option, as well as specific GRI indicators as they relate to each of our material issues. The GRI Content Index can be found in the Appendix to the Sustainability Report at [www.mmg.com](http://www.mmg.com).

Our water reporting is aligned with the International Council on Mining and Metals (ICMM) Water Accounting Framework.

Currency is reported in US dollars, unless stated otherwise.

This report has been reviewed and approved by our Disclosure Committee.



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## MATERIALITY ASSESSMENT PROCESS

We periodically conduct a materiality assessment to ensure we are reporting on the issues that matter most to our stakeholders. We review feedback from stakeholders through interviews, Executive Committee and Board papers, investor feedback and media reports.

To build on this insight, in 2018 and early 2019, MMG conducted a materiality assessment and stakeholder engagement process.

This process confirmed that the 12 material issues identified in 2017 continue to represent the material risks and opportunities facing the Company. For more information about MMG's approach to stakeholder engagement and materiality assessment, and to see the full list of its material issues for this year, refer to pages 7-8.

Information and data about emissions to air, water usage and waste produced can be found in the 2019 Annual Report at [www.mmg.com](http://www.mmg.com).

## EXTERNAL ASSURANCE

CECEP (HK) Advisory Company Limited has carried out an independent limited assurance procedure over elements of this report, guided by the ICMM Assurance Procedure (refer to Assurance terms and statement on page 67). This included assurance of our alignment with the requirements of GRI Standards: Core option.

The limited assurance focused on three of the 12 material sustainability issues identified through our materiality assessment process. The three issues selected through a process conducted independently of MMG were:

- › Tailings and Waste Rock Management;
- › Human Rights; and
- › Community Engagement.

## UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

MMG has aligned all social investment initiatives with the first six of the United Nations' Sustainable Development Goals (SDGs). We will highlight our contribution to all 17 SDGs throughout the report where applicable.



### SDG1 – NO POVERTY

End poverty in all its forms everywhere



### SDG4 – QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



### SDG2 – ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture



### SDG5 – GENDER EQUALITY

Achieve gender equality and empower all women and girls



### SDG3 – GOOD HEALTH AND WELLBEING

Ensure healthy lives and promote wellbeing for all at all ages



### SDG6 – CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all



# CHIEF EXECUTIVE OFFICER'S MESSAGE

Dear MMG Stakeholders

I am pleased to present MMG's 2019 Sustainability Report. In 2019 we marked an important milestone – the Company's 10-year anniversary.

Over the past decade we have worked to build a business underpinned by high quality assets, talented people and products leveraged to the global mega trends of decarbonisation, urbanisation and vehicle electrification. Since the beginning, we have been firm in our commitment to *Mine for Progress* – pursuing sustainable development and good citizenship as a way of generating value for all of our stakeholders and I am pleased to share some of the highlights of our performance in 2019.

## SAFETY, HEALTH AND COVID-19

At MMG, the health and safety of our people is our first value. We are working hard to embed a company-wide safety mindset with supporting leadership, behaviours, cultures and processes in every area of our business.

At the end of 2019, our full-year total recordable injury frequency rate (TRIF) was 1.58 per million hours worked, up from 1.00 in 2018. Overall, the result indicated a low frequency of injuries, and we are committed to doing more as we work towards a target of zero injuries.

Driving ongoing improvement in our safety performance remains a key management priority and we continue to invest time and resources in prevention, empowering leadership, and importantly, learning from events. Our continued commitment to improving our safety performance is to ensure our people can return home safely to their families at the end of each day. We must learn from incidents across our industry, both actual and potential, to keep our people safe.

As a business with global operations, we have been affected by the spread of COVID-19 since early 2020. The health and safety of our employees, contractors and host communities remains our first priority. Across MMG, we have dedicated teams

responsible for monitoring local impacts and advice from local authorities as well as our response. We have worked hard to implement additional safety, health, hygiene and social distancing controls to reduce the risk of transmission and to develop business continuity plans for all our operations. Our teams have also worked collaboratively with local communities to ensure they have sufficient resources available.

## CONTRIBUTING TO DEVELOPMENT

At MMG, we mine for progress. The social and economic benefits we provide through our operations, their supply chains and our products support our employees, shareholders, communities, consumers, regions and host countries to develop and prosper.

In 2019, we invested over US\$18.5 million in social development programs and contributed over US\$418 million to taxes and royalties around the world. Our social investment initiatives are aligned with the first six Sustainable Development Goals (SDGs) of the United Nations. We seek to contribute to the improvement of basic resources and services including healthcare, education and food security and we are committed to generating livelihoods through local employment and business development programs across our regions.

We invested US\$16 million in social investment programs at Las Bambas in 2019, including the local business development, Andean Crops and community infrastructure initiatives. We also continue to support local health campaigns throughout the region, including the Nueva Fuerabamba health clinic (see case study on page 45).

At Kinsevere, US\$1.4 million was directed to projects designed to support livelihood generation and food security, including the Farmer's Assistance Program,



vegetable growing program and the sewing workshop, as well as our ongoing support for education and healthcare campaigns in the region.

Our Rosebery and Dugald River operations invested US\$612,760 and US\$206,004 respectively in supporting community initiatives including healthcare and education. Both operations were heavily involved in local employment traineeship programs during the year, furthering MMG's commitment to its host communities.

We are committed to ongoing dialogue with all our communities and stakeholders to create sustainable long-term solutions to any issues that may arise. In 2019, we faced more than 100 days of road blocks at Las Bambas, including a 60-day road block by the Fuerabamba community 130km from the operation at the Yavi Yavi agricultural land. We continue to work closely with all parties involved to ensure the agreements are met. See the case study on page 31 for more information.

## MINIMISING OUR IMPACT

We are committed to minimising our environmental footprint through the efficient use of natural resources.

In 2019, our Las Bambas team continued to implement water management strategies, commenced in 2018, with positive results. The site has implemented a major water infrastructure program focused on the diversion of clean catchment runoff around the mining areas, which has resulted in improved water quality and a more natural flow to the downstream ecosystem. Dugald River upgraded its water storage monitoring systems to obtain real-time data of water levels, improve management and prevent uncontrolled releases.

At MMG we treat the management of our tailings storage facilities (TSFs) as a significant material issue that requires ongoing, rigorous risk management.

Our tailings governance includes independent Dam Review Committees at each of our operations and each TSF is designed, operated and maintained in accordance with leading engineering practices and principles. Our approach meets or exceeds the regulatory requirements in each of the jurisdictions in which we operate.

We also began a mine closure prefeasibility study at Rosebery in 2019 to identify and evaluate all credible mine closure scenarios before recommending a desired pathway. This work will provide more information to support our closure planning and cost estimation and inform stakeholder discussions with community and government, and this work will continue throughout 2020.

Finally, MMG is proud that its products – particularly copper and zinc – are a major input into global efforts to decarbonise and electrify our energy and transport needs. If we wish to drive genuine reductions in carbon and arrest the impacts of global climate change, we will as a community rely more heavily on the role metals in society. MMG also acknowledges the critical contribution that the careful management of our own energy efficiency and mix can make in minimising our own carbon footprint.

I would like to thank our employees, shareholders and host communities for their ongoing support. I would also like to thank our people for their dedication and contributions to our sustainability performance. I look forward to the coming year and the implementation of more sustainability initiatives as we continue to mine for progress.

Geoffrey (Xiaoyu) GAO  
**CHIEF EXECUTIVE OFFICER**

# OUR MATERIAL ISSUES

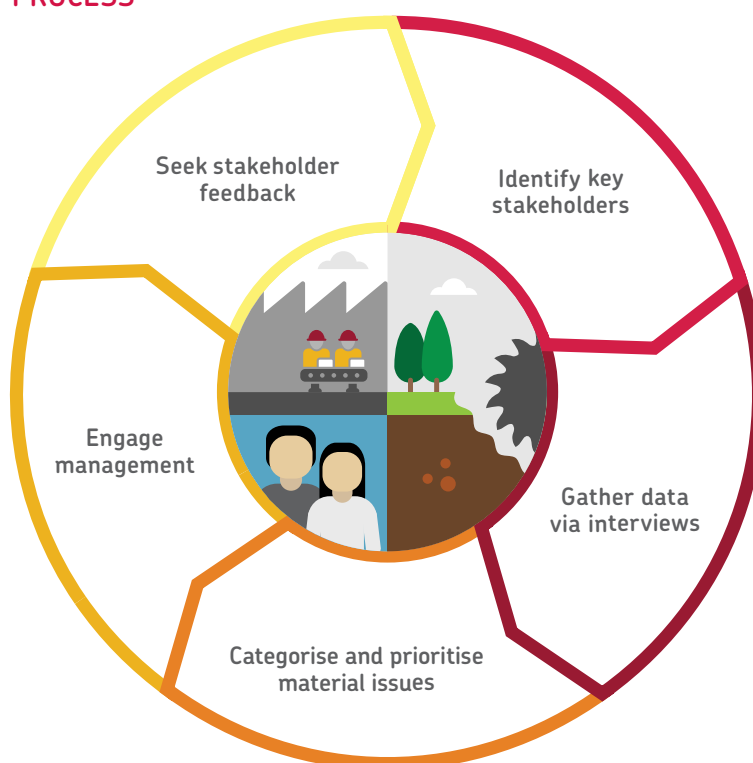
MMG recognises our stakeholders hold differing views on issues that have the potential to impact our business, or the communities and environments in which we work.

Our material issues include social, economic, and environmental risks and opportunities that have the potential to affect our performance or reputation, as well as our ability to create value and deliver progress over the short, medium and longer term.

In assessing our material issues, we undertake stakeholder interviews, take into consideration employee surveys and considerations of our senior leadership, investor and community perception, industry benchmarking and global media reviews. We review this data against our values and business priorities to decide on our material issues for the year.

For more information about our stakeholders and engagement avenues, review this report's Appendix at [www.mmg.com](http://www.mmg.com).

## PROCESS

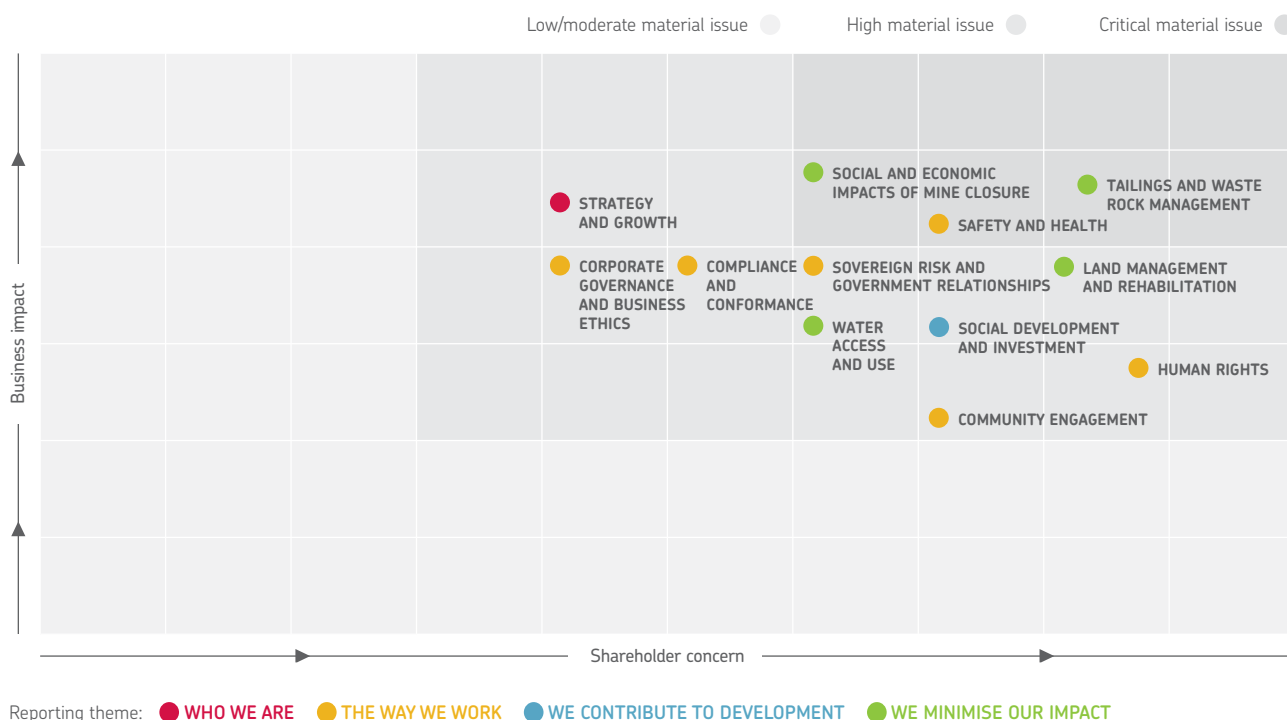


## MATERIAL ISSUES FOR 2019

MATERIAL ISSUE	DESCRIPTION	STAKEHOLDERS AFFECTED	MORE
<b>STRATEGY AND GROWTH</b>	The role of brownfield development and near-site exploration in driving our growth objectives, and the role of asset divestment and acquisition as a platform to underpin future growth.	Employees, communities, suppliers, government, investors, media, industry	p.14
<b>CORPORATE GOVERNANCE AND BUSINESS ETHICS</b>	Maintaining strong corporate governance and business ethics in the context of operations in complex jurisdictions.	Employees, suppliers, government, investors, non-government organisations, media, industry	p.22-23
<b>COMPLIANCE AND CONFORMANCE</b>	Regulatory compliance and acting responsibly across our operations, in line with our values and external commitments.	Suppliers, government, investors, non-government organisations, media, industry	p.23
<b>SAFETY AND HEALTH</b>	Maintaining workforce safety and health.	Employees, suppliers, non-government organisations, industry	p.23-29
<b>SOVEREIGN RISK AND GOVERNMENT RELATIONSHIPS</b>	Managing sovereign risk that impacts our business, and maintaining positive government relationships in the context of significant change in the political and fiscal environments for our operations.	Government, investors, non-government organisations, media, industry	p.30
<b>COMMUNITY ENGAGEMENT</b>	Community engagement and participation in planning and decision-making across life-of-asset.	Communities, government, non-government organisations, media, industry	p.32-34



## PRIORITISE



MATERIAL ISSUE	DESCRIPTION	STAKEHOLDERS AFFECTED	MORE
HUMAN RIGHTS	Managing the impacts of our operations on human rights. This includes labour, Indigenous rights and the rights of women and children.	Communities, government, non-government organisations, media, industry	p.35-37
SOCIAL DEVELOPMENT AND INVESTMENT	Working with communities, governments and other partners to measurably support development and economic livelihoods.	Communities, government, non-government organisations, media, industry	p.41-48
WATER ACCESS AND USE	Recognising that water is an asset with social, economic and environmental value. Managing water access, freshwater withdrawal, water inventory and discharge quality.	Communities, government, non-government organisations, industry	p.52-57
TAILINGS AND WASTE ROCK MANAGEMENT	Managing acid mine drainage and tailings infrastructure.	Communities, government, non-government organisations, media, industry	p.57-61
SOCIAL AND ECONOMIC IMPACTS OF MINE CLOSURE	Managing the impacts of mine closure on community employment and economic development. Exploring opportunities for economic transition and the ongoing use of mining-related infrastructure.	Communities, government, non-government organisations, industry	p.63-64
LAND MANAGEMENT AND REHABILITATION	Managing land holdings effectively over the life of the operation, including their progressive rehabilitation and relinquishment, and provisioning for closure.	Communities, government, non-government organisations, industry	p.63-66

# OUR OBJECTIVES AND TARGETS

OBJECTIVES	TARGETS	PROGRESS TO DATE
<b>Strategy and growth</b> Consistent performance enables us to grow a pipeline of development projects by acquisition and organic growth.	<ul style="list-style-type: none"> <li>› Deliver our growth strategy and become a top mid-tier miner by 2020.</li> </ul>	<ul style="list-style-type: none"> <li>› Advanced projects and feasibility studies for Kinsevere Development and Las Bambas 3rd Ball Mill and Chalcobamba expansion.</li> </ul>
<b>Corporate governance and business ethics</b> Our business ethics underpin the way we work as we grow and develop our operations in complex jurisdictions.	<ul style="list-style-type: none"> <li>› Full compliance with all applicable obligations under HKEx listing requirements.</li> <li>› 100% of relevant MMG employees trained in anti-bribery and corruption policies and obligations.</li> </ul>	<ul style="list-style-type: none"> <li>› Full compliance with all applicable 'comply or explain' obligations under HKEx listing requirements for 2019.</li> <li>› Bespoke on-line training provided/available to all employees of the Company with computer access.</li> </ul>
<b>Compliance and conformance</b> We are committed to environmental regulatory compliance and to operating in alignment with our organisational values.	<ul style="list-style-type: none"> <li>› No environmental non-compliances identified by third party.</li> <li>› No repeat significant environmental events (as per MMG definition of significant).</li> <li>› Establish a mandatory annual environmental audit that fulfils environmental regulatory requirements and provides annual assurance on status of compliance.</li> </ul>	<ul style="list-style-type: none"> <li>› All environmental non-compliances were reported to regulators.</li> <li>› No repeat significant events were reported.</li> <li>› Functional Assurances Reviews to be carried out in the second half of 2020.</li> <li>› A compliance register tool is being used to track information across the company.</li> </ul>
<b>Safety and health</b> We are committed to ensuring that our employees go home from work in the same physical and mental health every day	<ul style="list-style-type: none"> <li>› 100% implementation of fatal risk controls at all sites.</li> <li>› Full implementation of our Safe Task Management approach.</li> </ul>	<ul style="list-style-type: none"> <li>› In 2019 we reinforced our Safe Task Management Standard through continuous training, as an induction requirement for every new employee and through our field tasks observations.</li> <li>› Critical controls and their associated verification activities from the Fatal Risk Standard are in place.</li> <li>› Our Fatal Risk Standard was reviewed and new elements were included such as Carcinogens and land transport of personnel.</li> </ul>
<b>Sovereign risk and government relationships</b> Constructive relationships with our partners in national, regional and local governments enable us to proactively manage sovereign risk and change.	<ul style="list-style-type: none"> <li>› Develop or maintain relationships with key government department stakeholders in the regions in which we operate.</li> <li>› Actively engage in the political process to inform government decision-making on material issues to MMG.</li> <li>› Contribute to the relevant public policy debates to develop and enhance human capability in the regions in which we operate.</li> </ul>	<ul style="list-style-type: none"> <li>› Las Bambas continues to work closely with the Government of Peru to manage community concerns regarding land acquisition and social compensation for the public road used for transporting Las Bambas concentrates.</li> <li>› Kinsevere continues to work with DRC authorities regarding the implementation of aspects of the 2018 Revised Mining Code.</li> </ul>
<b>Community engagement</b> We effectively engage communities and local leadership and encourage participatory planning and decision-making for our life-of-asset.	<ul style="list-style-type: none"> <li>› Affected communities effectively engaged in material project modifications, extensions and expansions.</li> <li>› Application of FPIC in line with the requirements of the ICMC Position Statement on Indigenous Peoples.</li> </ul>	<ul style="list-style-type: none"> <li>› Ongoing engagement with community stakeholders, which includes Kinsevere's participatory planning sessions, Las Bambas' land access and community support dialogues and Rosebery's completed SIOA.</li> <li>› FPIC built into MMG's site-based engagement strategies.</li> </ul>
<b>Human rights</b> We recognise, respect and will remedy the impacts of our operations on the human rights of our employees and the communities in which we work.	<ul style="list-style-type: none"> <li>› Accepted as participants in the VPSHR Initiative.</li> <li>› Grievance management processes at all sites compliant with UN Guiding Principles on Business and Human Rights.</li> <li>› Ensure that all complaints relating to the ILO's four fundamental principles and rights at work, namely freedom of association, forced labour, child labour and discrimination, are reviewed and improvements or action taken where required.</li> </ul>	<ul style="list-style-type: none"> <li>› In late 2019 MMG was approved and became engaged members of the VPSHR Initiative. Awaiting the annual plenary to accept our full membership, which was postponed due to the impacts of COVID-19.</li> <li>› Grievance management processes at all sites are compliant with core remedy requirements of the UN Guiding Principles on Business and Human Rights.</li> <li>› Implementation of the UNICEF Child Rights framework is in process.</li> </ul>



The 12 objectives on these pages are designed to be aspirational goals with specific, measurable targets. The targets will be monitored and progress tracked in this report on a yearly basis. This will ensure our work is constantly aligned with the issues that matter most to our business, our stakeholders and the regions in which we work.

OBJECTIVES	TARGETS	PROGRESS TO DATE
<b>Social development and investment</b> Our activities and investments measurably support development and economic livelihoods in the communities and regions in which we work	<ul style="list-style-type: none"> <li>Investment strategies at sites aligned to regional and national social objectives.</li> <li>Investments deliver measurable positive impact against UN SDGs 1–6 indicators.</li> </ul>	<ul style="list-style-type: none"> <li>All social spend in 2019 is being reported under the relevant SDG 1–6. Work underway to align these further to sub-indicators.</li> <li>Sites working collaboratively with local stakeholders, including regional and national governments, to identify shared social investment opportunities.</li> </ul>
<b>Water access and use</b> We effectively manage our water intake, inventory and discharge to minimise our impacts on other users within the catchment including upstream and downstream communities and the environment	<ul style="list-style-type: none"> <li>Trigger Action Response Plans (TARPs) developed and implemented across all sites.</li> <li>Updated and calibrated site-wide water balance model and water management plan to optimise water management/consumption for each site.</li> </ul>	<ul style="list-style-type: none"> <li>All sites have TARPs for water management, tailored to site-specific risks and management concerns.</li> <li>All sites have a water balance model and all models have been updated within the last six months.</li> <li>Most water management plan reviews were completed in 2019 and implementation of identified upgrades initiated.</li> </ul>
<b>Tailings and waste rock management</b> We effectively manage the safety and environmental risks of tailings infrastructure and acid and metalliferous mine drainage.	<ul style="list-style-type: none"> <li>NAF and PAF criteria is agreed for all sites and a process established to validate criteria.</li> <li>Implementation of independent Dam Review Committees, engineers of record, and independent third-party reviews at all sites.</li> <li>Review all site dams by year end.</li> </ul>	<ul style="list-style-type: none"> <li>Each site has criteria based on scientific analysis for definitions of NAF and PAF, based on the particular mineralogy of the location.</li> <li>Implementation of independent Dam Review Committees, engineers of record and independent third-party reviews at all sites. This includes reviews of major tailings infrastructure revisions.</li> <li>All dams were reviewed by year end.</li> </ul>
<b>Social and economic impacts of mine closure</b> We seek to diversify the local economic base of our communities to manage the impacts of mine closure on community employment and economic development	<ul style="list-style-type: none"> <li>End of life land use planning commenced for all sites within five years of closure.</li> <li>Social impacts of closure integrated into Life of Asset planning and social investment strategies.</li> </ul>	<ul style="list-style-type: none"> <li>A Closure Prefeasibility Study was initiated for the Rosebery mine in 2019. The scope of the study includes assessing various land use options and their associated socio-economic impacts on local communities.</li> <li>Closure risks, opportunities and predicted social impacts have been integrated with life of mine expansion studies at both Las Bambas and Kinsevere. This includes costs associated with social transitioning.</li> <li>Work has begun to better understand social impacts from closure on neighbouring communities at the Kinsevere mine. This includes investigating workforce transition planning, alternative livelihoods and artisanal mining.</li> </ul>
<b>Land management and rehabilitation</b> We effectively manage our land holdings over the life of the operation and seek to protect future land use options.	<ul style="list-style-type: none"> <li>Mitigation Management Plans and Biodiversity Offset Management Plans are developed, implemented and verification processes are in place to track control effectiveness – where these plans are required across the Group.</li> <li>Mitigation hierarchy embedded within the site land clearance and disturbance processes across MMG.</li> </ul>	<ul style="list-style-type: none"> <li>Our Environment Standard requires the development of Biodiversity offset and management plans and we are continuing to work on their full implementation and verification.</li> <li>Las Bambas is located in a region of high biodiversity value, encompassing the tropical Andes biodiversity hotspot. Biodiversity initiatives include maintaining a biodiversity Geographic Information System (GIS) database, avoidance of disturbance in critical habitats, key flora species translocation and annual surveys.</li> <li>The site land clearance and disturbance mitigation hierarchy continues to be embedded and verification is ongoing at all operations.</li> </ul>

# OUR OPERATIONS

MMG has four operating sites across the globe and employs over 10,000 employees and contractors.

DUGALD RIVER

ROSEBERY

KINSEVERE

LAS BAMBAS



## AUSTRALIA (includes Dugald River and Rosebery)

### Amount of production

**253,520**  
tonnes of zinc  
in zinc concentrate

**47,703**  
tonnes of lead  
in lead concentrate

**1,510**

tonnes of copper in  
copper concentrate

### 2019 workforce

**989**  
Total workforce

**9% 93.3%**  
female national

### Economic contribution (US\$ '000)

**\$69,995**  
Total tax  
incl. royalties

**\$68,736**  
Total wages and  
benefits

**\$36,700**  
Total capital  
investment

**\$453,100**  
Total national supply  
procurement

### Social development spend (US\$ '000)

**\$819**

## AFRICA (includes Kinsevere and Johannesburg)

### Amount of production

**67,935**  
tonnes of copper  
cathode

### 2019 workforce

**3,168**  
Total workforce

**14% 96.5%**  
female national

### Economic contribution (US\$ '000)

**\$88,089**  
Total tax  
incl. royalties

**\$57,487**  
Total wages and  
benefits

**\$42,900**  
Total capital  
investment

**\$224,400**  
Total national supply  
procurement

### Social development spend (US\$ '000)

**\$1,406**

## AMERICAS (includes Las Bambas and Lima)

### Amount of production

**384,048**  
tonnes of copper in  
copper concentrate

**1,783**  
tonnes of  
molybdenum  
in concentrate

### 2019 workforce

**5,791**  
Total workforce

**8% 98.8%**  
female national

### Economic contribution (US\$ '000)

**\$336,706**  
Total tax  
incl. royalties

**\$122,890**  
Total wages and  
benefits

**\$396,100**  
Total capital  
investment

**\$1,135,600**  
Total national supply  
procurement

### Social development spend (US\$ '000)

**\$16,047**

## CORPORATE (includes Melbourne, Hong Kong and Vientiane offices)

### 2019 workforce

**313**  
Total workforce

**48.1%**  
female

**73.9%**  
national

### Social development spend (US\$ '000)

**\$275**

Note: For information on royalties and income tax, procurement and employment taxes and benefits, refer to the Tax and Community Contribution section (pages 59-60) of this report.  
% national = the percentage of the workforce with the same nationality of the country where the operations are located.

% female = the percentage of women in the MMG workforce. This does not include contractor numbers.

\* MMG Corporate includes Melbourne Head office, Hong Kong office and Vientiane.

\*\* Total wages and benefits for Australia includes expenses where the act may report into but take place outside of the country.



IMAGE: Employees: Kinsevere.

# 1

## WHO WE ARE

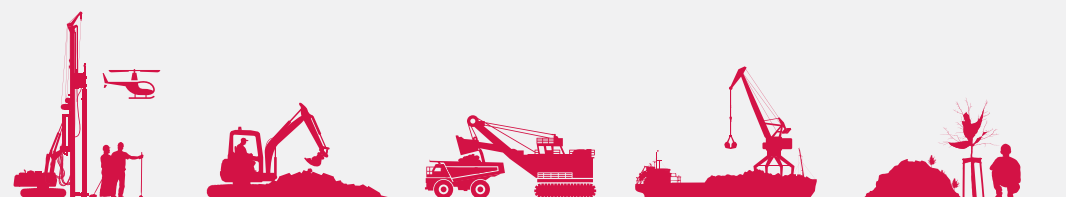
With headquarters in Melbourne, Australia, MMG is a mid-tier, global producer of base metals, including copper and zinc and is listed on the Hong Kong Stock Exchange (HKEx:1208).

We operate and develop copper, zinc and other base metal projects across Australia, the Democratic Republic of Congo (DRC) and Peru.



## VALUE CHAIN

Our value chain extends from the initial work to identify prospective deposits through to managing the responsible closure of operations.



### GEOSCIENCE AND DISCOVERY

Involves project generation, near-mine exploration and extending mine life.

### PROJECT DEVELOPMENT

Involves evaluating geoscience and discovery results, mine design and infrastructure, and social and economic factors to assess the feasibility of developing a mineral deposit into an operating mine.

### OPERATIONS

Involves the extraction and processing of mineral deposits to produce a saleable product.

### MARKETING AND TRANSPORT

Involves supplying raw materials to our customers throughout the world. We manage our impacts during transportation, storage, handling and processing by focusing on product stewardship.

### ECONOMIC TRANSITION AND CLOSURE

We prepare for closure throughout the life cycle of a project. The closure phase involves considering alternative economic uses to maximise the potential value of infrastructure and land-based assets, monitoring environmental and social impacts and restoring land for future use.

## GROWTH STRATEGY

At MMG our ambition is to double the size and value of MMG, and to double again by 2030.

Our strategy is enabled by:

- > building on the strength of China, the world's largest customer and producer, and the second largest economy.
- > providing a safe, healthy and secure workplace and a culture of collaboration, accountability and respect.
- > operating and developing our assets to their full potential with a business owner mindset.
- > being valued for our commitment to progress, long-term partnerships and experienced management.
- > embracing the advantages of a distributed operating structure, supported by a core group of disciplines and common values.

We have built a strong foundation in attractive commodities in some of the most prospective regions. Our business is based on a commitment to international standards, coupled with an operating philosophy of simplicity and efficiency.

The support of our major shareholder, China Minmetals Corporation (CMC), is fundamental to our success. Together, we are building capability and a reputation as China's premier international mining growth platform.

In 2019, we celebrated the 10-year anniversary of MMG. It was an opportunity to reflect on the development of the business from a primarily Australian-focused company, to one spanning four continents with assets leveraged to the current and future mega trends of decarbonisation, urbanisation and vehicle electrification.

Fundamental to our success is maintaining strong relationships with our people, local communities, regulators and host nations, as well as sharing the benefits that flow from our investments and operations.

## WHO WE ARE

continued



IMAGE: SX plant: Kinsevere.

### CASE STUDY

#### INNOVATIVE MANAGEMENT OF SILICA IN A COPPER SOLVENT EXTRACTION PLANT

Due to the siliceous nature of copper ore in the former Katanga province, most copper solvent extraction (SX) plants in the region face severe phase continuity instability due to colloidal silica in copper solution feeding the SX.

While previously this had not been an issue at Kinsevere, from late 2018 instability was also observed at our SX plant.

By working with experts from across MMG, the team at Kinsevere set up an experimental SX pilot plant and tested an alternative coagulant that was manufactured and used for water treatment plants. The laboratory test managed to eliminate silica at around 80%, and tests at the plant also yielded positive results. Today, the SX plant has regained stability and is again working at maximum capacity.

On 6 June 2019, members of the team presented the findings to the Polytechnic Faculty at the University of Lubumbashi, as part of an event designed to showcase innovation and research programs. This was a scientific breakthrough for the copper belt region, which won the team recognition from the University of Lubumbashi and industry peers.

### MMG AND CHINA MINMETALS

Our commitment to sustainable development is supported by our major shareholder CMC.

CMC is China's largest metals and minerals conglomerate and it has a strong relationship with overseas institutions, resource and construction projects in more than 60 countries. In 2019, it ranked 112th among Fortune Global 500 companies.

CMC operates across the whole industry value chain, from resource acquisition and exploration to project design, construction, operation, marketing, distribution and further processing in the global metals and minerals sector.

CMC has a commitment to using natural resources sparingly and has achieved a series of technological innovations related to resource efficiency.

The corporation's sustainability philosophy is based on a firm commitment to create the greatest possible integrated value for the economy, society and the environment. This is achieved by operating with integrity and aligning competencies to the goals of stakeholders and local economic and social needs.

CMC employees uphold the philosophy of sustainable development through the careful use of limited resources. CMC is striving to play the role of a leading state-owned capital investment company in the metals and minerals industry. The Company's goal is to build a world-class metals and minerals business.

### SUPPLY CHAIN

MMG sources goods through a global supply chain to satisfy the requirements of our operating sites. In 2019 we engaged with approximately 3200 suppliers across the globe, of which over 90% were located in Peru, Australia, the DRC, South Africa, and China.

We purchase goods and services related predominantly to site and mining services, energy, logistics and activities associated with fixed plant and mobile assets. We assess suppliers throughout the contract award process to ensure they are aligned with our Code of Conduct and other relevant policies and procedures.





## Supply chain management

As part of our supplier engagement and contract award process, we undertake a comprehensive assessment across a range of criteria including commercial, quality and technical capabilities. When selecting suppliers, we also assess a range of non-financial criteria including health and safety management and performance, environmental management, local capability training, social contribution and commitment to local employment.

Approximately 520 supply contracts were entered into or renegotiated in 2019, with a total value of US\$954 million.

As part of our supplier engagement process, we also seek formal agreement from suppliers to comply with our Code of Conduct and Anti-Corruption policies as well as other relevant Company standards, policies and procedures, including those related to human rights, health and safety and the environment.

In 2019, in partnership with approximately 55 of our key suppliers, we regularly reviewed and reported on agreed contract performance measures as well as identifying and actioning improvement opportunities.

## Our customers

We sell our products to a global customer base. The copper concentrate produced at Las Bambas is predominantly sold to customers in Asia, with China being the largest market. Las Bambas molybdenum concentrate is sold to customers in Chile and Asia. Copper cathode produced at Kinsevere is delivered to copper consumers in Europe, the Middle East and Asia. Zinc and lead concentrates produced at our Australian mines (Rosebery and Dugald River) are delivered to smelters in Australia and Asia.

## Product stewardship and responsibility

The commodities we mine at MMG are critical to realising the global Sustainable Development Goals (SDGs) set out by the United Nations (UN). Many of the minerals and metals we produce are essential building blocks for the technologies, infrastructure and agriculture



IMAGE: Loading concentrate container onto train at Pillones transfer station; Peru.

required to ensure the world can continue to meet the needs of a growing population, and to deliver these in a way that minimises our impact on future generations.

MMG supplies products that consistently meet our customers' quality expectations and are safe for people and the environment. We operate in accordance with processes and procedures that guide us in identifying and managing significant risks to human health and the environment during the transportation, storage, handling and processing of our products.

We are a member of the International Zinc Association (IZA) and a regional member of the International Copper Association (ICA), through which we contribute to the development of new applications for our products that are safe, efficient and beneficial to society.

As of 1 January 2020, the International Maritime Organisation (IMO) mandated that all ocean-going vessels were to burn fuel with a maximum of 0.5% sulphur, rather than 3.5% sulphur fuel, which was the industry standard before this date. With nearly all MMG's sales requiring ocean-going transport to reach customers, this has been a significant change. Through early planning, we have been able to work with compliant shipowners in order to make this transition seamless, and not cause disruption to our supply chains, as well as ensuring that we met these standards before the 1 January 2020 deadline.

Information about the commodities we mine and the roles they play in the development of our sustainable future can be found at [www.mineforprogress.com](https://www.mineforprogress.com)

## WHO WE ARE

continued

### OUR COMMITMENT TO SUSTAINABLE DEVELOPMENT

We are committed to sustainable development. This means mining in a way that seeks to minimise the negative impacts of our operations and maximise the benefits we can provide to our host communities, regions and, through the products we produce, consumers and society. This approach has been endorsed by our Board of Directors and senior management team, and is executed across our Company through our organisational policies and standards.

MMG's commitment to operating in line with the ICMM's 10 Sustainable Development Principles is set out in our Safety, Security, Health, Environment and Community Policy (refer to our Appendix for the ICMM Sustainable Development Principles on  [www.mm-g.com](http://www.mm-g.com)). Our approach to sustainable development is also guided by our:

- › Corporate Governance Policy;
- › People Policy;
- › Quality and Materials Stewardship Policy; and
- › Shareholder Communication Policy.

We are an active member of leading industry organisations, including:

- › ICMM;
- › IZA;
- › Sociedad Nacional de Minería, Petróleo y Energía (English: National Society of Mining Petroleum and Energy);
- › Chamber of Mines of the DRC/Mining Progress Initiative of the DRC;
- › Queensland Resources Council; and
- › Tasmanian Resources Council

We support the Extractive Industries Transparency Initiative (EITI) across all participating jurisdictions.

### OUR OPERATING MODEL

MMG's vision is to build the world's most respected mining company. We mine to create wealth for our people, host communities and shareholders.

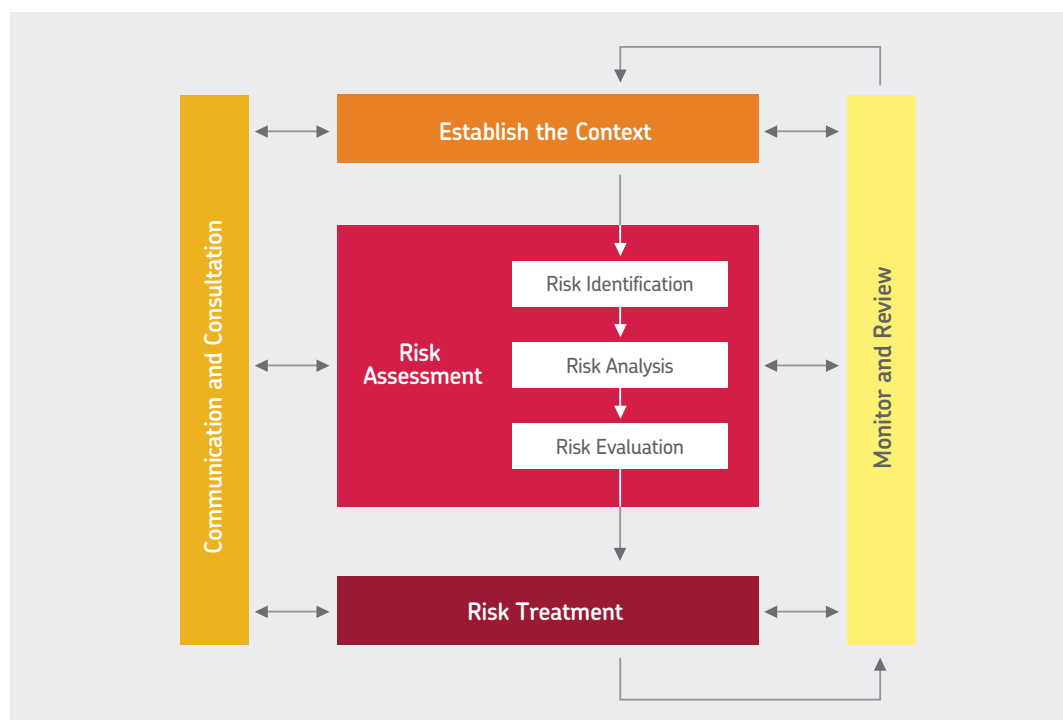
MMG's operating model defines how we organise our operations and our shared service and support functions. It aims to empower decentralised sites to operate as individual business units. The model comprises four key groups:



A key requirement of our operating model is the implementation of common procedures and standardised processes across operations to manage common material risks, support compliance with our external commitments and deliver and maintain competitive advantage. In this way our operating model enables our sites to focus on continuously improving operational performance and our service and support hubs to focus on continuously improving the services and support provided to sites.



## OUR STANDARDS, RISK MANAGEMENT AND ASSURANCE



Our business-wide standards outline MMG's requirements in managing material risks, meeting legal and external obligations, and creating and preserving competitive advantage and organisational effectiveness. MMG's Risk Management Procedure is based on ISO 31000:2009, which is the international risk management standard.

The Risk Management Procedure outlines the process to identify, analyse, control and evaluate risks within MMG. Risks are assessed against consequence criteria to determine the maximum foreseeable losses that would arise in the absence of existing controls. This process helps determine the material risks for the organisation.

We apply a 'Three Lines of Defence' assurance approach to our standards.

1. The First Line of Defence involves standard implementation by the business and routine testing and reporting of the effectiveness of critical controls for material risks.

2. The Second Line of Defence is undertaken by Group Functions. It involves periodic review of the design of the control framework described by the standards, and validation of business conformance with the standards.

3. The Third Line of Defence is our internal audit program, which tests the design and effectiveness of our standards, critical controls regarding material risks, and the effectiveness of the first and second lines of defence. Internal audit also reviews key process areas highlighting good practices and areas that management may consider for further improvement. The internal audit program is managed by MMG's Audit, Risk and Assurance team in accordance with the Internal Audit Procedure.

In 2019, the annual internal audit plan was approved by both the Audit and Risk Management committees. Effective from 2020, the Audit and Risk Management Committees have merged into a single committee. The focus of the internal audit program is on material risks to the business; encompassing both financial and non-financial risks.

## WHO WE ARE

continued



IMAGE: Employees: Rosebery.

### OUR VALUES



#### WE THINK SAFETY FIRST

We stop and think, then act to prevent injury



#### WE RESPECT EACH OTHER

We are honest, considerate and act with integrity



#### WE WORK TOGETHER

We engage diverse views to achieve better outcomes



#### WE DO WHAT WE SAY

We take responsibility and follow through on our commitments



#### WE WANT TO BE BETTER

We always look for opportunities to improve

### OUR PEOPLE

We are committed to building lasting partnerships with our people and ensuring they have the right capabilities and development opportunities to deliver on our strategy.

We believe that achieving performance outcomes requires us to embrace a diverse and inclusive approach enabling us to benefit from a broader range of experience and more diverse thinking, improving our decision-making. MMG seeks to recruit talented people from diverse backgrounds, particularly from the communities and regions in which we work. We are committed to supporting and encouraging our employees to develop both professionally and personally.

MMG has a targeted approach to training and development. Our primary focus is to ensure that our people have the required skills, qualifications and licences to undertake their work safely and efficiently. We are committed to continually developing our people and helping them obtain further skills and knowledge for both current or future roles. Specific supervisory and leadership training and development activities are also provided to those who are in people leadership roles. Additional development activities include on-the-job coaching, access to online training, opportunities to work on projects with people from across MMG and short- and long-term secondment opportunities within sites or across the Company.

We also work to bring people into the industry through a number of graduate programs, trainee roles (including traineeships and apprenticeships) and support for tertiary education in mining-related disciplines within our Australian operations. These programs include our work with the Kalkadoon people, including the apprenticeship program at our Dugald River operation; traineeships and apprenticeships provided for local community members near our Rosebery operation and support for the Monash University Mining Engineering course. At Las Bambas, we are facilitating entry into the mining industry through a graduate program and New Operator Training Program that involves partnering with Komatsu and national training provider SENATI to train local community members to operate mining trucks.

In 2019, MMG employed 10,260 employees and contractors, a 22.5% decrease from 2018. This is due to a number of factors, including the review and alignment of organisational structures within the operating regions and assets, as well as organisational restructures at our corporate offices. While our overall contractor rate has reduced by 31.4% since 2018, contractors remain an important part of our business model for the execution of short- and medium-term projects and to ensure flexibility in ever-changing economic environments.

Our 2019 annual turnover (voluntary and involuntary) has increased in comparison to 2018. This increase is primarily related to the organisational structure reviews completed throughout the regions and at the corporate office.

We acknowledge the impact organisational changes and restructures can have on mental health and wellbeing and work to support our people through a range of programs including out-placement support for those made redundant as well as counselling and wellbeing support services.

### MMG PEOPLE AS AT 31 DECEMBER 2019

SITE	PERMANENT	TEMPORARY	TOTAL
Dugald River	192	315	507
Kinsevere	753	2,415	3,168
Las Bambas	1,792	3,999	5,791
Rosebery	292	189	481
Corporate	287	26	313
<b>MMG</b>	<b>3,316</b>	<b>6,944</b>	<b>10,261</b>

## CASE STUDY

### ROSEBERY TRAINEES AND LONG SERVICE AWARDS

Our Rosebery operation has been in continuous operation for 84 years and has become an integral part of life on the West coast of Tasmania.

Rosebery holds annual award ceremonies to recognise the service and contribution of employees who have been with the operation for long periods of time. In 2019, we celebrated a total of 550 years of service provided by 23 employees to the operation. This included two people reaching 45 years of service, two achieving 40 years, seven employees with 35 years of service, one person with 25 years and 11 people reaching their 10-year anniversary.

The operation also promotes the involvement and development of younger Tasmanians in the future of the resources industry. Three apprentices and one administration trainee were incorporated into the operation in 2019, allowing the workforce to pass on skills and knowledge to the younger generation.



IMAGES: Employees and trainee program participants: Rosebery.







IMAGE: Employee working at height: Kinsevere.

## 2 THE WAY WE WORK

The way we work at MMG is central to enabling us to contribute positively to the shared global goals of sustainable development.

MMG's Board of Directors (Board) is accountable for the Company's sustainability performance. This includes health and safety, security, environment, social performance, governance, human rights and other sustainability-related issues and for the MMG Sustainable Development Framework.

The MMG Board regularly reviews and discusses sustainability-related issues at its meetings, including a quarterly Executive Safety, Health, Environment and Community (SHEC) report, and decisions are delegated to the Executive for their management.

The following principles underpin the way we work at MMG:


- › We value the role of our major shareholder in supporting us with access to international capital, helping us develop relationships to work in challenging jurisdictions, and the commitment we share to the development of people and communities.
- › We operate in complex social and political environments – however despite the differences in legislative and social contexts, we maintain the same company aspiration to mine for progress while operating in alignment with our corporate values.
- › Legal compliance forms the basis of the way we work. Beyond this our continuous improvement effort is aligned to key business risks and opportunities, and we adopt international frameworks to ensure consistency in our approach.
- › We always operate ethically and transparently and encourage others to follow our lead.
- › We take a life-of-asset approach, planning with the end in mind to maximise the value of the development of our natural resources and to secure enduring community benefits.
- › We recognise the value of using existing business decisions to leverage broader development outcomes as this will enable us to ensure that communities and governments see value in our presence in their communities, regions and nations.
- › We are supported by a 'Federated' organisational structure – providing accountability for whole-of-business performance as close as possible to the operations, while maintaining a core of shared values, standards and governance.
- › We seek to partner with organisations that share our values and commitment to human progress and development, seeking knowledge, delivery and funding partners enable us to leverage greater outcomes from our investment.

## CORPORATE GOVERNANCE

We are committed to maintaining a high standard of corporate governance, demonstrated through an experienced Board, sound risk management and internal controls, and transparency and accountability to all shareholders. MMG applies the principles of good corporate governance, as set out in the Corporate Governance Code of the Hong Kong Listing Rules, and those of the ICM.

Our Audit and Risk Management, and Governance, Remuneration and Nomination, and Risk Management committees operate under clear terms of reference. We also have a number of executive management committees: Safety, Security, Health, Environment and Community; Disclosure; Investment Review; Mineral Resources and Ore Reserves; and Code of Conduct.

All transactions between MMG and CMC subsidiaries are conducted in compliance with the Hong Kong Listing Rules and Connected Transactions Rules.

More information on our committees and our Corporate Governance Statement is available in our 2019 Annual Report, available on our website  [www.mmg.com](http://www.mmg.com).

## THE WAY WE WORK

continued

### BUSINESS ETHICS

Our Values and our Code of Conduct underpin our commitment to establishing and maintaining long-term meaningful relationships with our stakeholders, including governments and employees. We aim to act with integrity in all situations and to provide formal structures to review and respond to any potential behavioural, ethical or cultural issues as they may arise.

The MMG Code of Conduct sets out the standards of behaviour expected from all MMG employees, contractors and suppliers. We expect MMG people to integrate these standards of behaviour into their work practices.

The Code of Conduct covers areas such as conflict of interest, fraud, anti-corruption and legal compliance. Matters relating to the Code of Conduct are overseen by the Code of Conduct Committee. We also engage an independent confidential whistleblower service provider, which is available to all employees globally in their local language.

We recognise that some of the jurisdictions in which we work present unique challenges with respect to transparency and individual freedoms. Because of this we seek to match good governance with a commitment to transparency initiatives, such as the EITI.

### COMPLIANCE AND CONFORMANCE

To further enhance MMG's corporate governance practices, in 2019 the Board approved the restructuring and reconstitution of its Board committees from four Board committees to two Board committees effective from 2020.

The Governance and Nomination Committee and the Remuneration Committee merged and were replaced by the Governance, Remuneration and Nomination Committee. This committee is responsible for developing and reviewing the Company's policies and practices on corporate governance, the Code of Conduct and monitoring the Company's compliance with the Listing Rules and other applicable laws.

In 2019, MMG received one environment-related and three safety-related fines at its Las Bambas operation, relating to incidents that occurred in 2016, 2017 and 2019. Las Bambas has presented judicial claims to request the annulment of two of the resolutions.

MMG also received four environment-related non-monetary sanctions at Las Bambas, relating to environmental incidents that took place in 2017, 2018 and 2019. Las Bambas is complying with the administrative measures and corresponding reports for all four non-monetary sanctions.

### SAFETY AND HEALTH

At MMG, we think about safety first. We are working hard to embed a company-wide safety mindset with supporting leadership, behaviours, cultures and processes in every area of our business. We believe it is possible to have an injury-free workplace.

We have identified four key elements in developing an organisational culture with a strong and effective focus on safety. The four key elements include:

1. Leadership and culture with sites aligned to common MMG leadership attributes;
2. Prevention of fatalities (low probability, high consequence events) – consistent with the requirements of our Fatal Risk Standard;
3. Elimination of injuries (high-probability events) – consistent with the requirements of our Safety, Health, Environment and Community (SHEC) Performance Standard; and
4. Application of learnings from incidents in line with the requirements of our internal safety and health standards.



## Safety leadership at MMG

Safety is our first value at MMG and our approach is based on avoiding any harm to our people.

We are committed to continuous improvement in our approach to managing safety. Through our Safety Leadership Program, we strive to develop a culture where safety leadership is supported through:

- › a commitment to caring for each other and living our values.
- › building safety capability and commitment in MMG people.
- › training our people to be competent in all their tasks.
- › enabling our front-line leaders to effectively implement MMG standards and processes.
- › continually supporting and enabling safe behaviour.

The intent of our Safety Leadership Program is to improve safety leadership behaviours in the field. Through clearly defined leadership attributes, leading to improved behaviours by all our people at our operations, we aim for all our employees to return home safely at the end of every shift.

## ATTRIBUTES OF SAFETY LEADERSHIP

ATTRIBUTE	DESCRIPTION
<b>Integrity</b>	The quality of being honest and having strong moral principles.
<b>Empathy</b>	The ability to understand other people's feelings.
<b>Caring</b>	Displaying genuine interest and concern for others.
<b>Courage</b>	Being brave and confident enough to do what you believe is right.
<b>Accountability</b>	Standing by decisions, actions and being responsible for the overall wellbeing of sites.



IMAGE: Field Task Observations: Kinsevere.

## Safety performance

In 2019, an uncontrolled fatality event occurred on a public road used by our Las Bambas operation. Sadly, an employee of transport contractor Sol del Pacífico sustained fatal injuries following an uncontrolled road accident.

During 2019, 42 people across MMG's operations experienced injuries that required medical treatment, time away from work, or resulted in them being unable to perform their normal duties for a period of time.

At the end of 2019, our total recordable injury frequency rate (TRIF) was 1.58 per million hours worked. Overall the result indicated a low frequency of injuries, and we are committed to doing more as we work towards a target of zero injuries.

Driving ongoing improvement in our safety performance remains a key management priority, and we continue to invest time and resources in prevention, empowering leadership and, importantly, learning from safety events.

Our lost time injury frequency rate (LTIF) was 0.41 for 2019.

We believe a key part of safety performance is the result of reporting hazards, near misses and incidents. We continued to implement and embed our safety standards across the business, including the Safe Task Management and Fatal Risk standards.

## THE WAY WE WORK

continued

### SAFETY STATISTICS BY SITE IN 2019 AND TREND FROM 2018

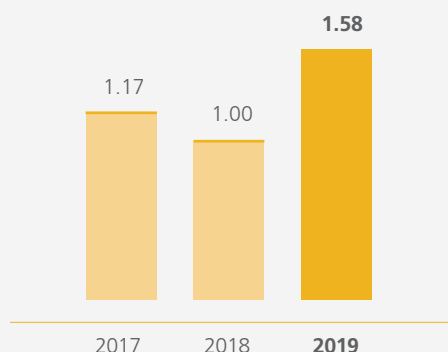
	TRIF		LTIF	
	2019	TREND	2019	TREND
Dugald River	10.88	▲	0	▼
Kinsevere	0.59	▼	0.12	▼
Las Bambas	0.95	▲	0.61	▲
Rosebery	9.94	▲	0.99	▼
<b>MMG</b>	<b>1.58</b>	▲	<b>0.41</b>	▲

TRIF = total recordable injury frequency per million hours worked (fatalities, lost-time injuries, restricted work injuries and medical treatment injuries)

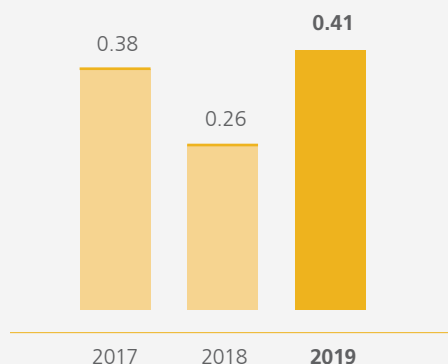
LTIF = lost time injury frequency per million hours worked

▲ depicts an increase relative to 2018 ▼ represents a decrease relative to 2018

#### 2019 TRIF



#### 2019 LTIF



#### Safe Task Management

Our Safe Task Management Standard defines the requirements for conducting work safely. The focus of this standard is to prevent injuries through proper planning and the correct execution of the tasks.

Throughout 2019, we continued to implement the standard across the business. We worked to ensure all work was planned appropriately, with consideration to environmental conditions, people and resource availability, the authorisation of all permits, assignment of tasks to those with skills and capability to complete the work safely, holding people accountable to work to a plan, applying the required controls and being fit for work.

All workplace hazards are identified and managed, and tasks are reviewed to identify hazards and verify the effectiveness of task allocation through Field Task Observations (FTO).

Our people are empowered to stop a task and advise a supervisor if a task cannot be carried out safely or intervene to protect their or others' health or wellbeing or the environment.

## Fatal Risk Management

MMG's Fatal Risk Standard describes the minimum requirements for the identification, assessment and mitigation of specific fatal risks. These risks have been identified as common across all our operations, and we work continuously to ensure all MMG people are aware of the risks – and the controls that should be in place. We manage all our material risks using our Risk Management System.

The 12 fatal risks identified across MMG are:

- › Aviation
- › Carcinogens
- › Clearance to work, isolations and permits
- › Explosives and blasting
- › Ground control
- › Guarding
- › Hazardous materials
- › Land transport of people
- › Lifting operations
- › Lightning
- › Vehicles and mobile equipment
- › Work at height

Site-specific fatal risks not covered by the Fatal Risk Standard are identified and managed using MMG's Risk Management System.

## CASE STUDY HANDSFREE UNDERGROUND DRILLING AT ROSEBERY

MMG believes it is possible to achieve an injury-free workplace.

In drilling operations, 95% of injuries are directly related to people handling drill pipes. When Rosebery was looking to award the contract for underground drilling services in 2017, all tendering companies were asked to supply a hands-free solution for drill rod handling, in-line with our vision for an injury-free workplace.

The successful company, Titeline, was the only tender that presented a viable solution to hands-free drill rod loading and unloading. Within six months of commencing their contract, the management team quickly focused efforts on developing a robotic hands-free solution. For a year and a half, they planned, learnt and built the hands-free solution that is now installed on Rig#9 at Rosebery. The resulting drill and the ancillary rod buggy carrier is a world-first for underground diamond drilling, with the results presented at the Prospectors and Developers Association of Canada (PDAC) Convention in Toronto early 2020.

For more information about this hands-free drilling innovation visit [wemineforprogress.com](https://www.wemineforprogress.com).

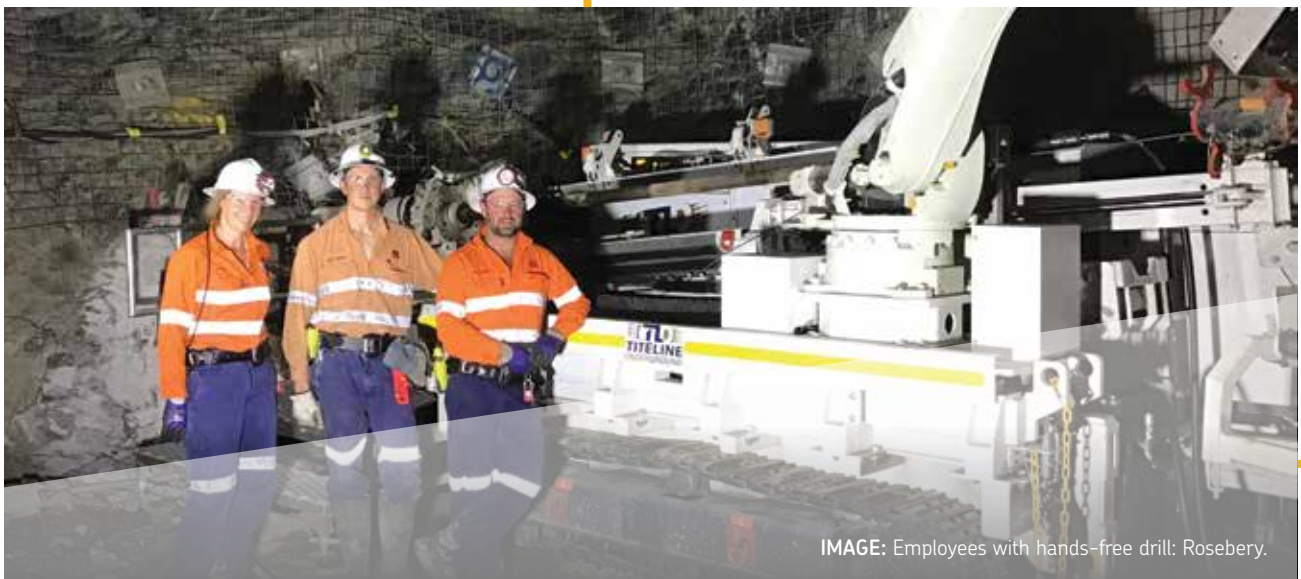


IMAGE: Employees with hands-free drill: Rosebery.



## THE WAY WE WORK

continued

### Safety and Health reporting and investigations

Effective reporting creates opportunities to make informed decisions, undertake timely intervention or corrective action and prevent fatalities, significant events and repeat incidents. Accordingly, the SHEC Performance Standard outlines the minimum requirements for managing safety and health events and achieving accurate and consistent recording and reporting of authorised and meaningful safety and health data.

MMG uses a centralised electronic Incident and Event Management system (IEM) to manage events and corrective actions. These include incidents, near misses, high-risk hazards, legal non-compliances, inspections and audits.

We use the Incident Cause Analysis Method (ICAM) as our common approach to incident investigation. ICAM enables us to assess the underlying causes of incidents and to look at the latent organisational factors such as communication, training, incompatible objectives and change management processes. As part of the ICAM process, MMG uses a 'Work as Intended versus Work as Normal versus Work as Done' investigation methodology to better understand the causes of significant incidents.

We require the sharing of learnings from incident investigations across all MMG sites to prevent repeat incidents within our business. It also ensures that we continuously challenge the effectiveness of control design and control execution for our fatal risk critical controls.

### CASE STUDY

#### EMERGENCY RESPONSE DRILL AT ROSEBERY



IMAGE: Emergency Response team: Rosebery.

In 2019, Rosebery undertook a mock training scenario to test their operation's emergency readiness and plans. The Emergency Management Team and corporate crisis management team participated in the scenario managed by Ironside Risk Partners, with the proactive participation of key stakeholders including local and state emergency service organisations, local government representatives, dam safety and environmental regulators and some members of the local community.

This drill enabled the site to test its emergency planning and response, strengthen relationships with key stakeholders, and understand the limitations of local resources in emergency situations. It also gave the site and the Corporate Crisis Management Team an opportunity to develop an action plan and implement learnings into the way we do business to ensure our people and community are safe.

For more information visit  
[wemineforprogress.com](https://www.wemineforprogress.com).



## Health exposure management

MMG defines the requirements for the management of exposure to harmful agents in the Occupational Health and Hygiene Standard. Health and hygiene management includes health surveillance and hygiene monitoring.

The key processes for the planning and management of Health Exposure Risk is the annual review and update of each operation's Exposure Assessment (Health Risk Assessment).

Following the annual Exposure Assessment, Similar Exposure Groups (SEGs) are reviewed and the annual Occupational Hygiene Monitoring Plan is developed and executed. In addition, health surveillance requirements are reviewed and updated.

Health risks in our workplace include occupational health hazard exposures.

We concentrate on higher level controls with the view to eliminating, controlling or mitigating, as close as possible to the hazard source, our people's potential exposure to carcinogens. For example:

- › Sulphuric acid mist: polypropylene balls added to chemical tanks to breakdown bubbles, reducing likelihood of releases into air
- › Diesel particulate matter: low sulphur fuels, engine selection and ongoing preventative maintenance, exhaust filtration systems
- › Respirable crystalline silica: ongoing site dust suppression via watering or sprayings, enclosed cabin plant and equipment, exhaust ventilation systems, vacuum usage instead of blowing compressed air
- › Welding fumes: mandatory respiratory protection including training

We operate in countries where the prevalence of HIV/AIDS, tuberculosis, malaria, typhoid, dengue fever and other tropical diseases is high. All of our workplaces are required to maintain and implement risk-based Exposure Management Plans.

In 2019, the rate of new cases of work-related occupational illnesses at our operations was 1.43 per one million hours worked, down from 1.66 in 2018.



IMAGE: Employees during health check: Dugald River.

## CASE STUDY

### HEALTH AND WELLBEING MANAGEMENT AT DUGALD RIVER

For MMG, the health and well-being of our employees is of utmost importance, especially for those working long shifts at our operations.


Over the past year, Dugald River has developed an holistic approach to overall employee health and wellbeing. The aim is to deliver healthcare and surveillance that has the employee at its heart.

The team carried out a structured risk assessment of Dugald River's occupational health hazards that could cause harm to our people. They used this information to identify health hazards present, implement controls to minimise risk and support the development of lifelong health monitoring and surveillance practices.

Dugald River also developed a site-specific Health and Hygiene Surveillance program. To evaluate the outcomes from these initiatives, a Health Information Management System (HIM) has been developed by adapting and modifying existing health care software.

We will now use this data to help measure the success of our programs and deliver new programs designed to meet any unmet needs into the future.

For more information visit

 [wemineforprogress.com](https://wemineforprogress.com).



## THE WAY WE WORK

continued



IMAGE: Testing lead levels: Las Bambas.

### Blood lead exceedances

At both our Rosebery and Dugald River operations in Australia we produce lead as a by-product. We take the monitoring of blood levels very seriously and enforce strict protocols to reduce the risk of exposure to lead in the workplace. We have strict hygiene protocols, as outlined in our blood lead management procedures, and conduct ongoing monitoring – making adjustments to work practices and work environments as required.

We follow the National Standard for the Control of Inorganic Lead at Work (NOHSC:1012) and the National Code of Practice for the Control and Safe Use of Inorganic Lead at Work (NOHSC:2015) as a guide for the control of blood lead levels in our people.

### Fit for work

Our commitment is to provide a safe work environment where all individuals are fit for work. Paramount to achieving this commitment is to ensure that all employees, contractors and visitors are in a condition that enables them to perform their work competently, and in a manner that does not threaten the safety or health of themselves or others.

This includes not being fatigued or adversely affected by substances, drugs or alcohol. We provide fatigue monitoring technology to our high-risk fatigue roles and engage in random drug

and alcohol testing. Our employees are also encouraged to notify us if any changes in their personal circumstances, including their mental health, could affect their fitness for work.

### Mental health

Mental health and wellbeing are a priority for MMG. A mentally healthy workforce has clear business benefits, and we recognise that we are in control of certain things that can positively and negatively impact on the mental health and wellbeing of our people.

Our Mental Health Framework describes the broad actions that we will take to promote good mental health practices in the workplace, and to support employees experiencing mental illness, such as depression and anxiety.

Our approach focuses on three key areas: awareness and prevention, capacity building and support and recovery.

A number of initiatives were held across our business in 2019 to support awareness for mental health. These included R U OK Day workshops, professional support drop-in sessions in Head Office, mental health awareness sessions, competitions for International Mental Health Day at Las Bambas, and ongoing work with Mates in Mining at our Dugald River operation.

In 2020, MMG will extend our work further in this space by continuing to work on mental health and sharing positive outcomes from Dugald River at other operations. We will continue to ensure that every MMG person feels safe and supported in their workplace and able to raise their hand when they require support.

### Injury management and rehabilitation

MMG recognises that helping people stay at work, or make an early and safe return after an injury, minimises the impact of injury on them and their families. MMG supports injured employees by having a system of workplace rehabilitation and by providing suitable duties for them while they are recovering. MMG expects that injured people will return to work on suitable duties as soon as it is medically safe for them to do so.



## SOVEREIGN RISK AND GOVERNMENT RELATIONSHIPS

Consistent with our core belief that ‘We mine for progress’, we strive to deliver sustainable benefits and prioritise actions and behaviours that are valued by the communities, regions and nations in which we operate.

At MMG we take both a relationship and a country-level planning approach to the management of these exposures. This includes dedicated roles and structures led in-country, supported by assessment of country-specific issues and relationships from the Group’s functional experts. This approach increases our awareness and understanding of social, economic, governance and non-technical risks and provides the relationships, analysis and policy advocacy to shape and manage responses.

Material risks include security; political stability, fiscal and regulatory change; and amendments to concessions, licences, permits and contracts.

Pressures on government revenues may lead to increases to corporate tax, value added tax and royalty rates – often coupled with increased audit and compliance activity. This is also accompanied by governments’ fiscal inability to pay tax and duty refunds owed to operating companies.

Changes in mining or investment policies, shifts in political leadership or attitudes, or deterioration in business conditions may adversely affect the Group’s operations, reputation and profitability.

Maintaining constructive relationships with host governments and effectively managing sovereign risks are important to our success. Failure to identify and manage relationships, risks and opportunities can negatively impact our reputation; social, operational and financial performance and limit future growth.

## CASE STUDY

### LAS BAMBAS TO FINANCE BRIDGE CONSTRUCTION THROUGH WORK FOR TAXES

In October 2019, the Peruvian Ministry of Transportation and Communications (MTC) awarded Las Bambas with the contract to finance the construction of the Kutuctay bridge and access roads in the Cotabambas province through the Work for Taxes mechanism. This represented a total investment of more than 30 million soles (US\$8.9 million).

The Kutuctay bridge has been pending construction for over 50 years, and its completion will benefit over 50,000 community members in the region. It will also boost the economy of local towns, as well as reduce vehicle transit times by more than two hours between the districts of Coyllurqui, Challhuahuacho, Haquira, Mara and Tambobamba.

For more information about the project and an explanation of Work for Taxes, visit [wemineforprogress.com](https://wemineforprogress.com).



**IMAGE:** Existing pedestrian bridge where Kutuctay bridge will be built: Cotabambas, Peru.



## THE WAY WE WORK

continued

### STAKEHOLDER ENGAGEMENT

MMG aspires to be a trusted partner with our people, our host governments and communities. Our ambition is to develop partnerships based on regular and open dialogue, transparency and mutual respect.

We recognise that ongoing intergenerational engagement is critical to managing the impacts and opportunities for both current and future generations. We also recognise the need to take account of gender-based differences in our engagement and community decision-making processes.

We work in complex jurisdictions and across numerous cultures and geographies, often in communities that have limited or negative previous experience with mining development.

We recognise that strong stakeholder engagement is required throughout the project life cycle from exploration to closure. This is critical to ensuring we make business decisions responsive to the needs and expectations of our host communities and their governments.

Our approach to stakeholder engagement is guided by our commitment to the ICMM 10 Principles, including the commitment to community dialogue and free, prior and informed consent (FPIC) regarding Indigenous peoples.

A matrix of our broad stakeholder groups, their areas of interest and our engagement process is available online in the Sustainability Report Appendix at [www.mmng.com](https://www.mmng.com).

### CASE STUDY

#### CONCENTRATE TRANSPORT AND ROAD BLOCKAGES AT LAS BAMBAS

Las Bambas uses a bimodal transport system for its copper concentrate, trucking the concentrate from the operation to the Pillones transfer station in Arequipa. This is a distance of more than 460km and transverse three regions, four provinces, 14 districts and 49 communities.

While Las Bambas regularly engages with key communities along the road, in 2019 we faced more than 100 days of road blocks. This included the 60-day blockade by the Fuerabamba community 130km from the operation at Yavi Yavi (agricultural land received as part of their resettlement agreement). Certain community members requested payment for Las Bambas' use of the public road, as well as additional compensation.

The Peruvian Government instigated a dialogue process involving the Government, representatives of Fuerabamba, Las Bambas and the Peruvian Episcopal Conference. This process resulted in an agreement, which included the reestablishment of free transit along road.



IMAGE: Dialogue process with Las Bambas, Peruvian Prime Minister, regional and local authorities and the Catholic Church; Cotabambas, Peru.

MMG is committed to continue working with all communities and other stakeholders to build sustainable solutions along the Southern Road Corridor.

For more information about road blocks in 2019 and our approach to community engagement at Las Bambas, visit [www.mineforprogress.com](https://www.mineforprogress.com).



## CASE STUDY

### KINSEVERE PARTICIPATORY PLANNING AND COMMUNITY ENGAGEMENT

Since early 2013, Kinsevere has been undertaking participatory planning sessions to increase local stakeholder involvement in the development, implementation, monitoring and evaluation of social projects.

A large group of different stakeholders from 26 villages near Kinsevere, including over 100 community members, local government officials and NGOs, were invited to attend the two-day community consultation sessions. MMG departments including Human Resources, Security and Environment were also invited to give updates on progress against plans. Topics discussed included job opportunities, environmental issues (including charcoal-making and wild dogs), MMG concession encroachment and relocation strategies and security issues around Kinsevere (illegal artisanal mining, incidents of theft on the mining lease).



IMAGE: Community planning meeting: Kilongo, DRC.

Local NGO Centrale de Libération par les Coopératives pour le Développement was invited to facilitate the process, and they prepared reports with key recommendations and validated community development plans for the following year.

This participatory planning process has improved communication between communities and Kinsevere, and increased the participation of impacted communities in MMG's social development projects.



## COMMUNITY ENGAGEMENT

At MMG we recognise that strong community engagement from exploration through to closure is critical to making business decisions that are responsive to the needs and expectations of our host communities and their governments.

MMG aspires to be a trusted member of each of the communities that host our operations. Our ambition is to develop partnerships based on regular and open dialogue, transparency and mutual respect.

Our dialogue with communities varies depending on the nature of the community and the issues being discussed. Our enduring objective is to ensure that these conversations are conducted in a way that respects the cultures, languages, values and customs of communities.

At Las Bambas, our community relations and social development teams work daily with more than 80 communities to ensure open and ongoing dialogue opportunities continue to meet the needs of local stakeholders. In 2019, the teams engaged on topics that included land access, commitment and project execution, sponsoring and participating in local cultural events, grievance management options and participatory environmental monitoring. Las Bambas also communicates regularly through Radio Surphuy, its community radio station.

Dugald River works with local pastoralists and nearby communities to ensure their expectations regarding employment and local supply opportunities are being met, as well as to support various community programs and initiatives. In February 2019, following severe weather in North Queensland, the livelihoods of local farmers and communities were devastated. Tens of thousands of livestock and native wildlife were lost, as well as significant damage to private property and public infrastructure. MMG donated AUD\$250,000 to recovery efforts and worked with impacted pastoralists to help them clear land and bury dead animals.

Rosebery engages with local communities on a regular basis on issues including mine operations, the tailings facility, water use and employment opportunities. A large percentage of Rosebery's employees are from the local region, and the operation runs a number of trainee and university programs to encourage individuals from North-West Tasmania to find employment in the mining industry.

In 2019, Kinsevere's community development team worked with its nearby communities and local government representatives on a range of issues, including executing sustainable development programs and issues around immigration. We also worked with local communities near our exploration and drilling programs, and supported community members for whom relocation might be required in the future.



## THE WAY WE WORK

continued



IMAGE: Surphuy team: Cotabambas, Peru.

### CASE STUDY


#### RADIO SURPHUY AT LAS BAMBAS

In February 2019, Radio Surphuy launched its new website, designed to support the communication of local news and various activities taking place in the Cotabambas province.

Radio Surphuy is a community radio station established by Las Bambas in 2010, which aims to educate, inform and promote local culture. Eighty per cent of the programming is in Quechua, the local language of the region and it includes topics such as local news, health, agriculture, safety, upcoming events, festivals and Las Bambas supported projects.

The first broadcast program on the station was 'Willarikuy' which in Quechua means 'to inform' and it continues to run from 6am until 8am every morning. As part of the program, community members, local authorities and Las Bambas employees can phone in and share news about activities occurring in the region.

You can access the website at

 [radiosurphuy.com](http://radiosurphuy.com)



### GRIEVANCE MANAGEMENT

MMG is committed to dialogue as the primary tool for avoiding the high human and economic costs of conflict. We engage with communities early and through all phases of our operations we empower communities to actively participate in the consultative process, to ensure their views are reflected in decision-making regarding our operations and in the design and distribution of benefits.

We recognise that, as a company, there is always more we can do to listen to the needs, aspirations and opinions of communities, and to guarantee their timely engagement on issues that are important to them. We aim to ensure that, at all times, they have access to information and open dialogue through direct engagement with our community relations teams, many who come from the communities in which they work.

We also recognise that our business has an impact, and that disagreements on the nature and extent of this impact, as well as our approach to managing it, can occur between ourselves and community members.

To facilitate the timely, culturally appropriate investigation and resolution of these matters, all MMG sites have a site-specific grievance procedure that aligns with the remedy provisions of the United Nations Guiding Principles on Business and Human Rights. This process is non-judicial, complements existing legislative remedies and provides redress for grievances that are related to:

- › MMG's impact on stakeholders;
- › the conduct of MMG personnel and contractors in local communities; and
- › allegations of human rights abuses.

At MMG we consider that stakeholder complaints and grievances provide valuable indicators to help our operations anticipate deeper community concerns and proactively manage social risks. This is just one of the ways that we live our value 'We want to be better' by always looking for opportunities to improve.

In 2019, we received 224 grievances across our operations. Most of our grievances continue to be related to issues of local procurement (167 cases) and local employment (11 cases) at our Las Bambas operation. We have placed significant effort on addressing these concerns at a site and regional level through teams dedicated to local business development, local employment and increased training and upskilling opportunities for community members. We have also increased attention at our three Las Bambas community offices, which has also included additional training for our people who work there. We remain committed to working with local communities to support their opportunities, both with the operation and in the broader market, and to engage with all communities on issues that are important to them.

We have continued to experience community concerns relating to the transport of our concentrate along the Southern Road Corridor. As our concentrate is transported almost 460km by road to the rail transfer station at Pillones, it is an issue that remains front of mind for many. We remain engaged with communities and local and regional governments along this public route and remain focused on improving management of the impact of concentrate transport logistics on local communities along the road. More information can be found in our case study on page 31.



IMAGE: Employees: Kinsevere.

In 2020, as a result of the work carried out with the Centre for Social Responsibility in Mining (CSR/M) at the University of Queensland, and an identified opportunity with all site-based social performance teams, we will review and update the Group and site-level grievance mechanisms. All MMG people who work directly with community and stakeholders will also be retrained in their site-specific grievance mechanism and empowered to resolve grievances in collaboration with those involved with the aim of developing effective dialogue and engagement spaces.

## 2019 GRIEVANCES RECEIVED BY CATEGORY

GRIEVANCE CATEGORY	KINSEVERE	LAS BAMBAS	ROSEBERY	TOTAL
Damage to Property	3	29		30
Local Employment and Supply		178		178
Waste/Noise/Dust/Emissions to Air		5	1	6
Water management		2	2	4
Non-compliance		1		1
Housing	2			1
Road and vehicle safety	1			1
<b>Grand Total</b>	<b>6</b>	<b>215</b>	<b>3</b>	<b>224</b>

Note: no grievances were received at Dugald River in 2019.

# THE WAY WE WORK

continued

## CASE STUDY

### LISTENING TO STAKEHOLDER CONCERNS AROUND DUST MITIGATION

During 2019, engagement with community members found that a theme of particular interest was dust pickup from the Bobadil tailings storage facility (TSF) at our Rosebery operation. A number of grievances were also raised through our grievance mechanism in 2018 and 2019 directly relating to this issue.

In response, Rosebery spent considerable time and resources in additional dust mitigation measures to reduce the likelihood of ongoing cases. They installed three high-powered sprinklers during the 2018–2019 summer and an additional five sprinklers in the 2019–2020 summer. Initial results indicate dust pickup has reduced significantly, and these results were communicated to stakeholders.

Rosebery remains committed to continuous improvement and engages proactively with stakeholders on this and other issues that impact the local region.



IMAGE: Employee and community engagement: Rosebery.

## HUMAN RIGHTS

MMG is committed to respecting the human rights of the communities in which we live and operate, and to providing access to effective remedies where we make an impact. We are also committed to the continuous improvement of the wellbeing of communities surrounding our operations through our commitment to the protection of human rights, the ongoing monitoring and improvement of our grievance management process and our alignment to the UN SDGs.

We recognise that human rights cover a broad range of interrelated issues, requiring an integrated approach across numerous business functions. At MMG, our Human Resources, Legal, Supply, Community Relations, Stakeholders Relations, Security, Exploration and Project Development functions have specific responsibilities for upholding our commitment to human rights.

Our commitment is outlined in our Human Rights Policy and our approach to managing human rights risk is embedded into our broader risk management framework. We integrate human rights considerations into our Code of Conduct, employment and procurement processes, risk-analysis activities, engagement, social investment and formal grievance mechanisms. We also seek to ensure that our stakeholders, including employees, are confident to report instances of unacceptable conduct without fear of intimidation or reprisal.

We further commit to respecting human rights as outlined in the ICMM Sustainable Development Framework.

This commitment has been strengthened through the development of joint industry and civil society guidance on key issues such as FPIC and the Rights of Indigenous peoples, and with the recent release of a set of performance expectations. We also participate in ICMM convened member discussions and peer learning on a wide range of business and human rights issues, including the role of business with regards to civic freedoms and human rights defenders.

We operate in accordance with the United Nations Guiding Principles on Business and Human Rights and the United Nations Global Compact principles. We are also signatories to the United Nations



Global Compact process under the auspices of our major shareholder CMC.

In 2018, the Australian Government introduced the Modern Slavery Act 2018 (Cth) which requires businesses to report annually, from 2020, on the risks of modern slavery in their operations and supply chains. They must also report the action they have taken to assess and address those risks – as well as the effectiveness of their response. MMG will release its first Modern Slavery Statement in June 2021.

### Security and human rights

We operate in accordance with the Voluntary Principles on Security and Human Rights (VPSHR), as well as the rules of engagement, and the United Nations Basic Principles on the use of Force and Firearms by Law Enforcement Officials.

Since 2016, we have standardised our security management plans, and these plans reference the VPSHR in relation to the deployment and conduct of public and private security. We also ensure public security forces that support our sites are adequately trained in the use and application of the VPSHR. To strengthen our alignment, in October 2018 we formally applied to become a participant of the VPSHR Initiative. We were approved and became engaged members at the end of 2019, and will wait for the annual plenary to accept our full membership, which was postponed due to the impacts of COVID-19.

Based on prior examples, we are aware that many issues that can become security incidents have roots in community concerns, which have built up over time. Often these issues are well-understood by our social performance teams, who are working on strategies to resolve these issues before they become security incidents. In line with this, we take the opportunity wherever possible to bring our security and social performance teams together to develop strategies around proactive risk identification and mitigation, grievance management and incident identification processes. We also work collaboratively with other stakeholders to review our human rights exposures and potential risks.



IMAGE: Security forces human rights training: Las Bambas.

## CASE STUDY

### LAS BAMBAS SECURITY TRAINING

At Las Bambas, we work closely with security forces, as well as our own employees, to raise awareness about human rights.

The Las Bambas security team conducts regular security and human rights sessions with all private security forces that work at the site, as well as public security forces who operate in the vicinity of the Southern Road Corridor (the public national road where our logistics are transported). This training includes members of the Peruvian National Police force.

These sessions include explaining what human rights are, the history and development of the Universal Declaration of Human Rights and the UN Global Compact, the Voluntary Principles of Security and Human Rights, and specific details about each framework.

All participants are then explained the expectations placed on each group (private security, public security, private companies, government and individuals), given the tools to identify and protect human rights in the line of duty and required to participate in role play exercises.

For more information visit [wemineforprogress.com](https://wemineforprogress.com)



Any community-related fatalities and injuries close to our operations are of concern to us, even if they occur outside our controlled activities. We investigate these incidents so that we can learn from them, and they are recorded and treated as significant 'uncontrolled incidents'. In 2019, there were no community-related fatalities that occurred on any of our sites.

## THE WAY WE WORK

continued

### Labour rights

MMG recognises the important work of the International Labour Organisation (ILO) in defining the basic principles and rights at work. MMG operates in each of its host jurisdictions in line with local labour laws, as a minimum, and with consideration of the eight core conventions of the ILO focusing on human rights that are directly applicable to business.

MMG's People Policy provides an overview of the core MMG principles in relation to the management of company employees. Several of the principles directly support the upholding of basic human rights, specifically:

- › People are employed under terms and conditions that are fair and, at a minimum, meet all legal requirements.
- › People are provided with safe and healthy conditions of work and, where feasible, assisted to return to work following illness or injury.
- › People are treated equitably in the workplace – which values diversity and inclusion in terms of gender, age, cultural and ethnic background, religion, sexual orientation, and disability.
- › People are provided with a workplace that is free from harassment.
- › People are confident to raise concerns that will be addressed in a timely and fair manner.

We support the right to freedom of association across our business and ensure that all our employees feel empowered to exercise this right. A significant number of our workforce agreements are collective, covering 38% of employees across the Company, a reduction from 43% in 2018. The sale of the MMG LXML Entity has resulted in the reduction of employees on collective agreements across the Company.

### PERCENTAGE OF MMG EMPLOYEES ON COLLECTIVE AGREEMENTS

SITE	2018	2019
Dugald River	40.0	<b>40.8</b>
Kinsevere	29.1	<b>44.2</b>
Las Bambas	51.9	<b>37.4</b>
Rosebery	51.0	<b>49.6</b>
<b>MMG</b>	43.0	<b>37.8</b>

### Child rights

MMG is committed to the protection of the rights of children and adolescents and does not employ anyone under the age of 18 years at our operations. We recognise and support the International Labour Organisation (ILO) Convention C182 concerning the 'Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour'. We have worked with organisations including UNICEF and government agencies to ensure children's safe access to health, education, and other essential services to support them in achieving their full potential in childhood and adolescence, and their transition to adulthood.

We support young people to fully understand their legal rights and have worked with communities to address areas that restrict the freedoms of children and adolescents. This includes by undertaking child rights' assessments and supporting community education programs on issues such as the impacts of child marriage.



IMAGE: Central pit: Kinsevere.

## ARTISANAL MINING

Artisanal and small-scale mining (ASM) is widespread in the DRC and Peru, and occurs on tenements where MMG holds exploration and mining rights.

In most countries, ASM is pursued as a route out of poverty or an activity to complement insufficient income – particularly in societies where alternative employment is difficult to secure. However, it is also well-recognised that the environmental and safety practices of artisanal miners tend to be very poor. Other negative implications include child and forced labour, inequitable distribution of community benefits, illegal trade and heightened security risks.

The challenge of balancing the human right to safe work, the rights of children and environmental responsibility is complex. A key component of the UN SDGs is the provision of job opportunities, decent working conditions and economic growth while not harming the environment.

Our operations in the DRC and Peru are impacted by the existence of ASM activities on, or near, our tenements and we adopt appropriate strategies to mitigate risks associated with each ASM activity we encounter.

Communication and collaboration with all stakeholders including miners, security personnel, government, local authorities, community organisations and governing authorities is the first step towards developing mutually acceptable outcomes.

MMG is committed to managing security in a manner that respects human dignity. MMG's principles for security management ensure that our site-specific Security Management Plans are aligned with the VPIs and include critical security controls and rules of engagement for MMG-controlled security personnel.

In recent years, there have been efforts by Peruvian authorities to formalise some aspects of ASM. In the DRC, we are mindful that ASM is a growing sector and there is an increasing demand for minerals such as cobalt, which is present on our tenements. The demand for these minerals has the potential to increase significantly with the expansion of the market for electric cars. It is expected that well-considered formalisation initiatives could contribute to better and more equitable socio-economic development; however, it is a difficult and complex issue to manage and we are assessing ways that we could contribute to the solution.



## THE WAY WE WORK

continued

### LAND ACCESS, RELOCATION AND RESETTLEMENT

MMG recognises that project-related land acquisition, resettlement and relocation of families and communities, as well as restrictions on land use, can have adverse social and economic impacts on communities and families. Unless properly managed, relocation and resettlement activities, and particularly involuntary resettlement, may result in long-term impoverishment, as well as environmental damage and social stress in the communities of which they have been displaced.

In our land acquisition processes, we anticipate and minimise social and economic impacts resulting from land acquisition and relocation or resettlement. We do this through a land acquisition process that:

- achieves free, prior and informed consent from Indigenous populations, prior to the development of a major project.
- provides enough time for relocation or resettlement planning and engagement.
- involves experienced relocation or resettlement practitioners as early as possible in the process.

- supports open and transparent engagement of communities throughout the relocation or resettlement process, and enables their effective decision-making on relevant issues.
- provides a culturally appropriate and easily accessible dispute resolution process.
- engages relevant stakeholders in the process, including local government and other government agencies that have a critical role in supporting community infrastructure and service delivery.
- properly resources the relocation or resettlement process, including supporting livelihood restoration, enhancement activities and appropriate monitoring to ensure that displaced communities normalise appropriately over time.

We respect human rights, land tenure rights and the rights of local communities and we operate in accordance with national regulations. We recognise the need to protect the specific rights and interests of Indigenous peoples, ensure the effective engagement of vulnerable and marginalised groups and account for the gender-specific impacts in any acquisition process.



IMAGE: Community consultation: Kinsevere.

Our operations avoid and when not possible seek to minimise, the social, physical or economic displacement of communities by exploring alternative project designs. In instances when involuntary displacement cannot be avoided, our operations provide displaced communities and families with full and fair compensation, along with social and economic assistance packages and programs to restore livelihoods. We ensure that resettlement activities are implemented thoughtfully, through a consultative process and informed participation of all those affected. We also ensure they operate in line with the ICMM process of FPIC, as outlined in the Indigenous Peoples and Mining Position Statement.

In 2019, our land access activities were focused on exploration tenements close to our Las Bambas and Kinsevere mine sites in Peru and the DRC, respectively.

Our Las Bambas operation has been involved in various activities with nearby communities, giving the team a chance to develop ongoing relationships, learn more about local cultural practices and traditions, and understand the expectations of these communities. We have also reached agreements with some communities to commence environmental monitoring and surface geological exploration activities. This is in addition to our existing agreements with the community of Huanquire relating to the Chalcobamba site, which included a number of compensation payments and commitments for activities carried out in the community.

In 2020, Las Bambas will continue these activities with a plan of developing formal dialogue spaces, with a shared agenda focused on the creation of a future of long-term sustainable development for these communities and the region.

In 2019, Kinsevere continued to work closely with community members impacted by drilling and exploration works being done in the area. This included compensation payments for a small group of local farmers whose crops had been harvested ahead of time due to drilling activities at the end of 2018.



#### LAND COMPENSATION PAID IN 2019 (US\$)

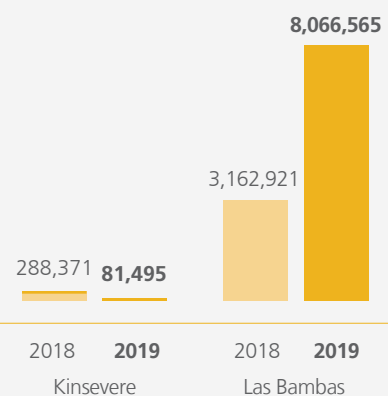






IMAGE: Community members: Haut Katanga province: DRC.

# 3

## WE CONTRIBUTE TO DEVELOPMENT

At MMG we mine for progress. That includes progress for our people, host communities and countries, progress for economic wellbeing via the products and technologies we support and, most importantly for MMG, progress is human development.



The social and economic benefits we provide through our operations and their supply chains support our employees, shareholders, communities, regions and host countries to develop and prosper. This contribution comes through our payment of taxes and royalties, wages and employee entitlements, our purchase of goods and services, through community compensation and benefit sharing, and through our direct investment in addressing the UN SDGs 1–6, specifically:



#### GOAL 1 NO POVERTY



#### GOAL 2 ZERO HUNGER



#### GOAL 3 GOOD HEALTH AND WELLBEING



#### GOAL 4 QUALITY EDUCATION



#### GOAL 5 GENDER EQUALITY



#### GOAL 6 CLEAN WATER AND SANITATION

In addition to improving access and achievement across health, education and livelihood indicators, human development recognises the importance of managing vulnerability and building community resilience.

Communities and countries must be able to withstand ongoing pressures around social and economic security, and the impacts of development and political instability. For example, in reducing and eradicating poverty structural factors such as the lack of housing and healthcare, and persistent vulnerabilities such as food and economic insecurity have the potential to hinder development progress. For this reason, MMG is also committed to supporting initiatives such as the EITI, which aligns with UN SDG 16: Peace, Justice and Strong Institutions.

In 2019, we invested over US\$18.5 million in social development programs across the business, up from US\$17.8 million in 2018.

Our largest operation Las Bambas saw an increase in spend from US\$15.3 million in 2018 to over US\$16 million in 2019. Almost half of this budget was focused on SDG1: No poverty and included programs such as infrastructure projects and road maintenance using local labour, and local business development. We invested heavily in agricultural programs, including guinea pig raising, livestock vaccination and our Andean Crops program (see case study page 43), and we continue to support education through local school and teacher development, our scholarship program and school transport. Healthcare investment in 2019 included vaccination and health awareness campaigns in conjunction with the municipal and regional health directorates, as well as supporting the running of the Nueva Fuerabamba health clinic (see case study on page 45).

At Kinsevere, we invested US\$1.4 million in 2019, up from US\$931,163 in 2018. Kinsevere focused on projects designed to support livelihood generation and food security, including the Farmer's Assistance Program, vegetable growing program and the sewing workshop (see case study page 44). Support for teachers and principals continued to be a focus for the operation, as well as the ongoing success of the scholarship program for students to continue their secondary school education in Lubumbashi (case study on page 44). There was also considerable focus on SDG6: Clean water and sanitation, with particular emphasis placed on installing new boreholes and pumps as well as latrines and ablution blocks for communities (see case study 45).

Our Rosebery operation is an active member of community life in north-west Tasmania and the site continues to invest in the region, with US\$612,760 spent on community initiatives during 2019 (an increase of 20% on 2018). This included support for the Rosebery hospital, the fresh fruit program at local primary schools and sponsorship for various clubs and associations in the region. We also finalised a new walking track around Rosebery, in full consultation with the town and using local labour to complete the work (see case study page 66).







## WE CONTRIBUTE TO DEVELOPMENT

continued

After our first full year of commercial operation, Dugald more than doubled its social investment to US\$206,004 in 2019. This included support for the recovery effort in the aftermath of the extreme weather event in February 2019, as well as various other events in the region during the

year. The operation also invested significant time into increasing local supply opportunities for businesses in Cloncurry and Mount Isa, resulting in near-mine spend totalling US\$38.6 million for the year (see case study on page 48).

### SOCIAL INVESTMENT IN 2019 (US\$)

INVESTMENT BY SDG	DUGALD RIVER	KINSEVERE	LAS BAMBAS	ROSEBERY	TOTAL
 1 NO POVERTY		614,777	8,190,350	1,390	8,806,516
 2 ZERO HUNGER		355,243	2,338,723		2,693,965
 3 GOOD HEALTH AND WELL-BEING	206,004	41,868	1,417,988	391,230	2,057,090
 4 QUALITY EDUCATION		329,257	3,191,045	220,140	3,740,442
 5 GENDER EQUALITY		13,404	616,411		629,816
 6 CLEAN WATER AND SANITATION		51,043	292,949		343,992
<b>Consolidated Corporate spend</b>					275,238
<b>Total</b>	<b>206,004</b>	<b>1,405,592</b>	<b>16,047,465</b>	<b>612,760</b>	<b>18,547,059</b>

### CASE STUDY

#### ANDEAN CROPS PROGRAM

The Las Bambas Andean Crops program began in 2016, with a key objective to support the traditional agricultural sector in the region. Many communities were looking to improve food security, create a reliable source of income for families and create opportunities for employment and sustainable development.

Since 2016, the program has achieved:

- > 1,655 participating families from more than 17 different communities;
- > 120 hectares of cultivated land;
- > co-financing of the program, with costs shared between participants and Las Bambas;
- > 45% of participants are women; and
- > increases in gross value of land per hectare by 100%.

This program has been recognised by the Peruvian mining society as a model agricultural project, and is an example of how mining and agriculture can exist side-by-side.

For more information about the Andean Crops program visit [wemineforprogress.com](https://wemineforprogress.com)



IMAGE: Program participants: Cotabambas, Peru.



## CASE STUDY

### KINSEVERE SCHOOL SCHOLARSHIP PROGRAM

Education is a key area of intervention for all our operations.

One example of our commitment to education is Kinsevere's scholarship program. The initiative was designed to support students who completed their primary education in one of the six supported schools near the operation to continue their education at secondary level in Lubumbashi.

In partnership with local NGOs Réseau des Oeuvres Maman Marguerite and Waza Alliance for Education, MMG supports tuition fees, pedagogical support on behalf of illiterate parents, student counselling, contact with school administrators, attending meetings at schools and reporting to families and general follow-up during the whole school year. Approximately half of all students who have received a scholarship are girls.

The program ensures that students who participate in the scholarship program receive the support needed for them to be successful.



IMAGE: Scholarship recipients: Lubumbashi, DRC.

For more information about MMG's educational initiatives visit [wemineforprogress.com](https://www.wemineforprogress.com)



## CASE STUDY

### KINSEVERE SEWING WORKSHOP

Education is a key area of intervention for all our operations.

Livelihood improvement opportunities are important to many of our local stakeholders, and our social development teams work closely to ensure they can deliver programs tailored to those who wish to participate.

Kinsevere began a sewing workshop four years ago, hiring professional tailors to train an initial 14 participants and supplying equipment including sewing machines, working tables, chairs, material and fabrics. A room at the social development office was converted into a sewing workshop.

Kinsevere sewing workshop now makes MMG employee uniforms, uniform for local village schools and PPE for our contractors.

Today the workshop is made up by 15 women and four men, two of whom have a disability.

The workshop gave participants the opportunity to be valued as a contributing member of their community.

"Today, I can support my family members and now some young people in my village want to become a tailor like me," said Theodore Mufunga, a 60-year-old member of the workshop.

For more information about this program visit [wemineforprogress.com](https://www.wemineforprogress.com)



IMAGE: Sewing workshop: Kinsevere.



## WE CONTRIBUTE TO DEVELOPMENT

continued



IMAGE: Latrine project:  
Haut Katanga province, DRC.

### CASE STUDY

#### KINSEVERE LATRINE IMPROVEMENT PROJECT

Since 2016, Kinsevere has supported a latrine improvement project in local communities. This project was developed in response to community health concerns, which included the close proximity of water bores to ablution blocks and increasing community populations. Sampling undertaken in one of the communities found an average of eight latrines per 100 households.

After its successful completion in the Kifita community with the involvement of the Chef de Secteur of Bukanda, the project has been replicated in 11 other communities with more than 655 latrines distributed by the end of 2018.

In 2019, an additional 249 latrines were built for households in the villages of

Muombe, Denis and others along the powerline road. Kinsevere purchased building materials and hired the contractor, Seralime, to run the project. This included training on how to build a concrete latrine slab and ensuring household involvement. Community members contributed to the project by digging holes and building shade for the latrines.

This project has contributed to the reduction of water-borne diseases, and was a contributing factor in preventing cholera outbreaks in a number of villages in early 2019.



### CASE STUDY

#### SUPPORTING THE NUEVA FUERABAMBA HEALTH CENTRE

As part of the resettlement agreement with the community of Fuerabamba, Las Bambas financed the construction of the centre as well as its full fit-out of medical equipment and supplies, and continues to support the maintenance of the centre and the medical attention of all community members.

Las Bambas has been working closely with the current healthcare provider to improve health outcomes in the community. Some key achievements include a 12.7 percent reduction in chronic child malnutrition in children under five years and a 16 percent

reduction in anaemia in children in their first three years of primary school between 2016 and 2019.

As part of the agreement, Las Bambas is also currently working with the community, the Peruvian Ministry of Health and the Apurímac regional government and local health directorate DIRESA Apurímac to transition the operation and maintenance of the centre to DIRESA Apurímac.

For more information about the Nueva Fuerabamba health centre visit [wemineforprogress.com](https://wemineforprogress.com).



IMAGE: Nueva Fuerabamba health centre: Cotabambas, Peru



## COMMITMENT TO LOCAL EMPLOYMENT

We are committed to the regions where we operate. We aim to share our success with our communities by providing local employment opportunities and investing in training and education to help local residents gain valuable and transferrable skills. In 2019, 99.2% of our workforce in our non-Australian facilities (Kinsevere and Las Bambas) were nationals of the DRC and Peru, respectively.

We recognise that local employee development programs are a life of asset commitment, particularly in host communities where education and training opportunities are limited.

Local employment is a major contributor to socio-economic improvements and is the foundation of positive engagement with local communities. Over time, these programs will establish and develop capability within the local workforce, reduce dependency on non-local employees and build broader community socio-economic resilience.

We are committed to working with Indigenous groups in all regions and our agreement with the Kalkadoon people near our Dugald River operation is focused on increasing participation.

### PERCENTAGE OF NATIONAL EMPLOYEES IN 2019 BY SITE

SITE	% ON SITE
Las Bambas	98.8%
Kinsevere	96.5%
Dugald River	88.0%
Rosebery	93.9%
Corporate offices	73.9%



IMAGE: 'Right Fit' program participants: Dugald River.

## CASE STUDY

### DUGALD RIVER'S RIGHT FIT PROGRAM

Dugald River's Right Fit program is designed for Cloncurry and Mount Isa locals to gain work experience across a variety of jobs in the operation. The 11-week program gives participants an opportunity to experience what it is like to live and work on a mine site.

During 2019, 23 locals participated in the program, which allowed them to spend at least one day in each department on-site. This provided them with the opportunity to learn and receive feedback from multiple teams. They also participated in workshops to equip them with appropriate skills for a role both inside MMG and in the broader resources industry.

Once participants had completed the course, they were invited to apply for work in the team or area of preference. Dugald River looks forward to continuing this program in the future and encouraging locals to consider a career in the resources industry.



# WE CONTRIBUTE TO DEVELOPMENT

continued

## LOCAL SUPPLY

At MMG we are committed to supporting local suppliers to develop sustainable businesses to supply our operations, as well as other customers locally and globally.

Where possible, we aim to source products and services from local suppliers who are able to meet our key selection criteria in safety, environment, quality, technical, social responsibility and commercial viability. Where gaps are identified, we assist local suppliers to meet our standards and support them in building their capability. This process enables them to take up future opportunities to grow their businesses and expand their offering to customers beyond MMG.

In 2019, we spent US\$1.97 billion on goods and services excluding taxes and royalties. Our sites spent US\$1.80 billion with suppliers in-country.

Of this, US\$403 million was spent with suppliers in the same province or state of our operations and US\$35 million with suppliers in the immediate near-mine area.

Dugald River has maintained a steady increase in its local procurement spend in near mine and State regions from a total of US\$96 million (39%) in 2018 to US\$101 million (44%) in 2019 through a concerted effort to actively engage with local and state-based suppliers.

Kinsevere's increase in Provincial/State Level expenditure from US\$173 million (64%) in 2018 to US\$216 million (69%) includes increased expenditure on mining services.

Las Bambas near-mine and region spend decreased slightly from US\$36.4 million in 2018 to US\$34.7 million in 2019. This is associated with supply chain disruptions during the year.

## PROCUREMENT SPEND IN HOST COMMUNITIES IN 2019 (US\$ MILLION)

SITE	NEAR-MINE/DISTRICT (ZONE 1)		PROVINCIAL/STATE (ZONE 2)		NATIONAL (ZONE 3)		TOTAL
Dugald River	38.6	17%	87.6	38%	228.7	99%	230.2
Kinsevere	0.01	0%	216	69%	224.4	72%	313.1
Las Bambas	34.7	3%	41.4	4%	1,135.6	95%	1,197.1
Rosebery	4.8	5%	43.6	41%	105.1	99%	105.8
Corporate	0.2	0%	0.8	1%	51.8	75%	69.1
<b>MMG</b>	<b>78.31</b>	<b>4%</b>	<b>389.4</b>	<b>20%</b>	<b>1,745.6</b>	<b>91%</b>	<b>1,915.3</b>

Note: Local procurement spend is based on the location of the vendor we purchased product from. This does not indicate origin of manufacturer or supplier. Excludes tax and royalty payments. See pages 49-50 for information about additional spend and expenses in regions.



## CASE STUDY

### INCREASING LOCAL SUPPLIER ENGAGEMENT AT DUGALD RIVER

MMG is committed to the regions where we operate. As part of our site-based procurement strategies, we aim to develop sustainable supply options in our host communities.

In the second half of 2019, the Dugald River Supply team interviewed 37 local suppliers in Cloncurry and established supply agreements with 23, based on identifying some capability which they could offer MMG.

These changes in the site's approach to local supply resulted in near-mine spend increase from US\$4.3 million in 2018 to US\$38.6 million in 2019.

Dugald River invites established local businesses to contact them and become registered in the site's database of suppliers for participation in future tender processes.

For more information visit  
 [wemineforprogress.com](http://wemineforprogress.com)



IMAGE: Engaging with local suppliers: Dugald River.

# OUR TAX AND COMMUNITY CONTRIBUTION

As a major investor, taxpayer, employer and purchaser of local goods and services, MMG makes significant contributions to the economies of countries within which we operate. For the financial year ended 31 December 2019, MMG's revenue was US\$3,032 million.

Corporate income tax is one of many types of taxation revenue collected by governments and it is a direct tax levied on company profits. Other forms of indirect taxes such as value added tax, royalties paid on the extraction of minerals, and taxes paid in relation to employee remuneration and benefits form part of MMG's overall fiscal contribution.

Governments use other mechanisms to derive income from a company's activities as well. These include a wide range of mineral royalties, taxes on employee remuneration and benefits provided, and withholding taxes on the payment of interest and dividends. These additional sources of government revenue are often substantial and represent an important contribution to public finances. Therefore, it is essential to take these government revenue-raising mechanisms into account when assessing the extent to which a company is contributing to public revenue.

Corporate income taxes are paid on profits, not on revenues. Where a company makes little or no profit, it will generally pay less corporate income tax. Without such an approach, companies experiencing periods of low profitability would be faced with disproportionate tax demands and significant disincentives for investment. The payment of other taxes that are levied on revenue, such as mineral royalties, can decrease the amount of profit a company makes and will, in turn, reduce its corporate income tax liability.

The resources sector is capital intensive and, as a result, has high operating costs. Governments seeking to encourage job creation and attract capital investment, such as the development and construction of mining operations, allow companies to claim tax allowances for capital expenditure and on the interest on debt raised to fund investment. The claims for capital allowances and other operating costs will initially be higher

than the revenues generated by these operations as they ramp up to full production, resulting in low profits in the early years of operation and lower corporate income taxes paid.

## **Our approach to revenue transparency**

As a multinational company, with operations in Peru, DRC and Australia, MMG adheres to the highest standards of corporate governance in all matters related to tax. This includes operating under a policy of full transparency and cooperation with all tax authorities and the payment of all taxes properly due under the law wherever we operate.

Transparency on mineral revenues paid to governments is important to regulatory stability and stakeholder understanding of the responsible use of taxes, and the role they play in supporting the provision of citizenship entitlements.

MMG's approach to transparency includes the disclosure of tax and royalty payments, as well as broader social contribution detailed in annual and sustainability reports.

The following initiatives further support MMG's commitment to transparency:

- An anti-bribery and anti-corruption policy through the Company's Code of Conduct.
- Public disclosures in line with the Foreign Investment Review Board, Australian Taxation Office and Hong Kong Stock Exchange disclosure requirements, complemented by voluntary disclosure of key payments in annual sustainable development reports for MMG and Las Bambas.
- Engagement with the EITI requirements as a reporting entity in Peru and DRC, and a participant in the Australian EITI pilot project.
- Membership of Transparency International Australia.

MMG pays taxes, royalties and other payments in accordance with the tax regulations and laws applying in the jurisdictions in which we operate.

## 2019 TAX CONTRIBUTION

IN US\$ '000	2018	2019
Total tax contribution	338,561	<b>418,305</b>
Total royalties paid	126,132	<b>100,154</b>
National supply procurement	1,744,400	<b>1,745,600</b>
Goods and services (excluding taxes and royalties)	2,034,500	<b>1,915,300</b>
New property, plant and equipment	337,500	<b>563,000</b>
Employee benefits	320,400	<b>302,901</b>
Social development programs	17,935	<b>18,547</b>

PERU US\$ '000	2018	2019
Total tax contribution	207,302	<b>282,733</b>
Royalties	75,794	<b>53,973</b>
Income tax	38,058	<b>50,122</b>
Employment related taxes*	42,417	<b>48,108</b>
Withholding tax	51,033	<b>130,530</b>

DRC US\$ '000	2018	2019
Total tax contribution	55,877	<b>65,577</b>
Royalties	25,548	<b>22,512</b>
Income tax	9,775	<b>21,327</b>
Employment related taxes*	16,615	<b>16,619</b>
Withholding tax	4,264	<b>5,119</b>

AUSTRALIA US\$ '000	2018	2019
Total tax contribution	75,382	<b>69,995</b>
Royalties	24,790	<b>23,669</b>
Income tax	-	-
Employment related taxes*	50,592	<b>45,339</b>
Withholding tax	-	<b>987</b>

Note: Royalties, income tax, withholding tax and employment related taxes are all assured on an aggregate level during the 2019 Annual Reporting audit (assured by Deloitte Touche Tohmatsu). More information about this can be found in our 2019 Annual Report at [www.mmg.com](http://www.mmg.com).





IMAGE: Tailings thickener: Las Bambas.

# 4

## WE MINIMISE OUR IMPACT

At MMG are committed to minimising our environmental footprint through the efficient use of natural resources, management of waste produced and effective life cycle management. We are focused on managing our impacts and align our social development activities with our life of asset plans.

## WATER ACCESS AND USE

### Our water management approach

We use water in both our mining and extraction processes, as well as for use by our people at our operations. Therefore, we need to secure water for the efficient and consistent performance of our operations. We regularly monitor and actively manage the quantity and quality of the water we use and discharge. We are particularly mindful about using water resources that are required for maintenance of environmental ecosystems and are shared by surrounding communities.

In supporting the ICMM Position Statement on Water, we commit to support water stewardship initiatives that promote better water use, effective catchment management and contribute to improved water security and sanitation for surrounding communities. We have a company-wide objective to effectively manage our water intake, inventory and discharge to minimise our impacts on other users within the catchment, including upstream and downstream communities and the environment. Targets tailored to site-specific requirements and risks are set against these objectives.

We uphold commitments to apply strong transparent water governance, manage water at our operations effectively and efficiently, and collaborate with our communities to achieve responsible and sustainable water use.

We have different strategies for managing water, depending on our site requirements. Some of our operations are located in areas with high seasonal rainfall and abundant water resources, and others are located in areas where securing water can be more challenging.

Each of our site-specific water balance models predicts water inputs, use, and outputs to inform our management of water-related risks. We are increasingly integrating our water balance models and our life of asset plans to make structured investment decisions regarding infrastructure, and to align water supply with processing demands and community requirements.

We have established clear accountabilities for regularly reviewing our water balance models and measuring the effectiveness of our critical water management controls.

We report our water inputs, outputs and diversions in line with the Minerals Council of Australia (MCA) Water Accounting Framework.



IMAGE: Water storage: Dugald River.

# WE MINIMISE OUR IMPACT

continued

## OUR WATER MANAGEMENT SYSTEMS

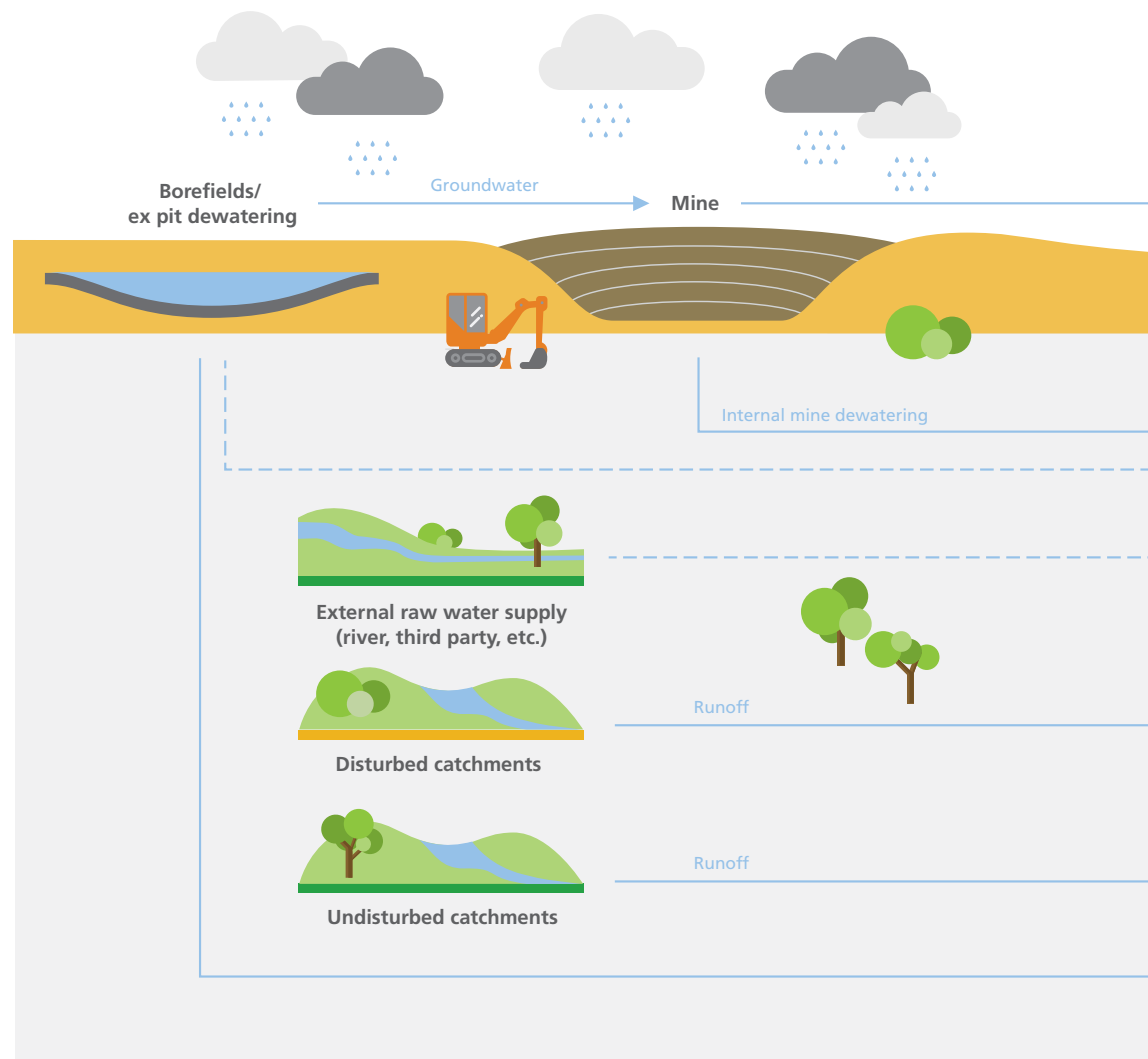
At a high level, the water management systems at our sites consist of two interconnected sub-systems:

- › Process water (contact)
- › Dewatering and stormwater (clean and dirty)

Our overall water management strategy consists of three general principles:

### 1. Clean water separation:

clean water, which includes runoff from undisturbed catchments, borefields and external mine dewatering is, as far as possible, kept separate from dirty or contact water. Clean water is diverted away from active mine areas and allowed to pass through or around the site, without contamination.



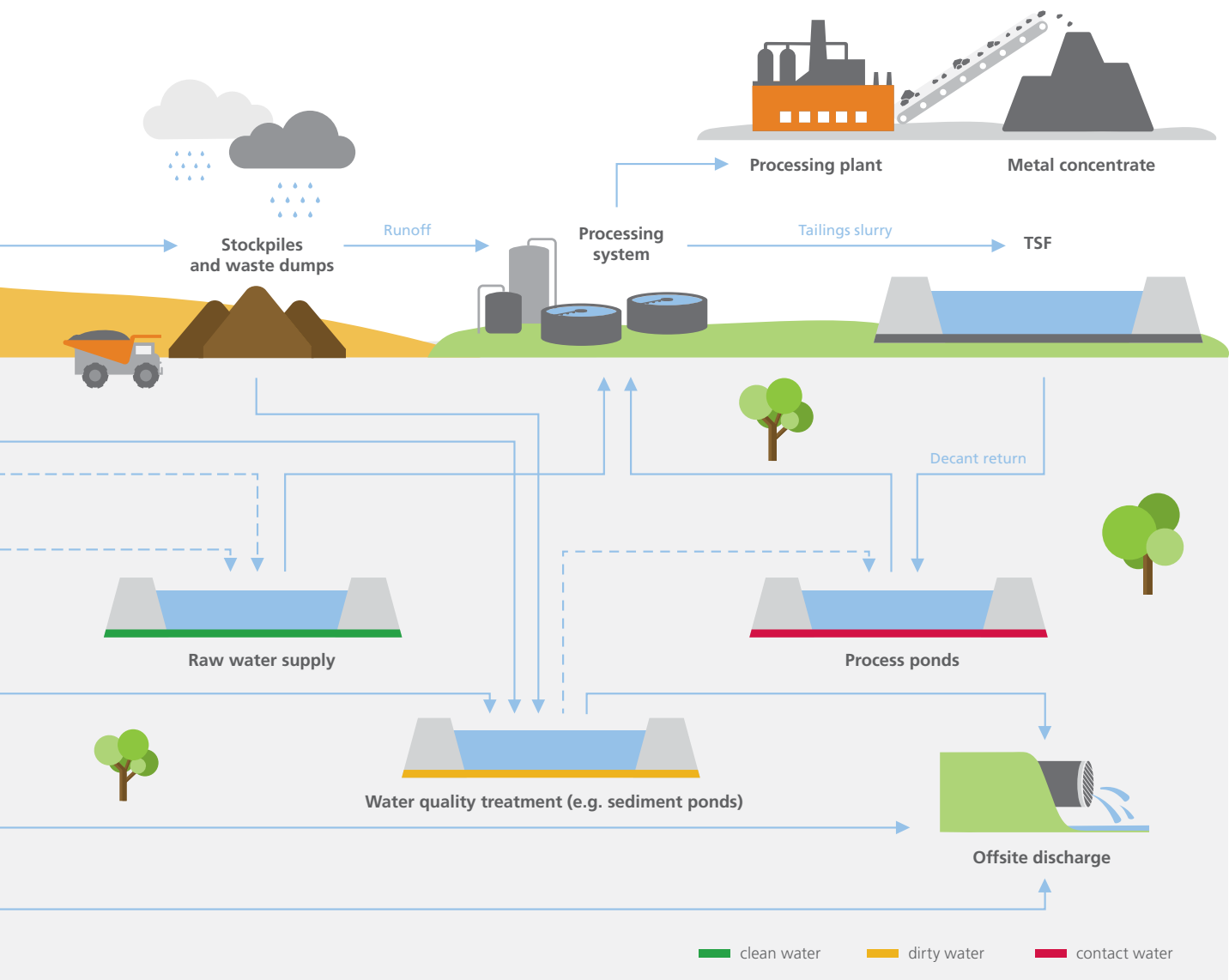


## 2. Dirty water treatment and discharge:

dirty water which includes runoff from disturbed areas, internal mine dewatering is contained and treated generally through sediment ponds before it is discharged offsite, once it meets discharge criteria. This water may be used onsite, if required.

## 3. Reuse and recycling of contact water:

water that has been used in the processing system is high in metals, and this water is contained and reused onsite. Runoff from stockpiles and the processing plant area is also high in metals and this water is diverted into the process water system for reuse.



## WE MINIMISE OUR IMPACT

continued

### WATER BALANCE AND MANAGEMENT OF WATER RISKS

We proactively manage water quantity and quality to reduce potential socio-environmental impacts and realise opportunities.

There are several factors that have led to changes in our water balance over the past year, mainly related to operational improvements as well as extreme weather events.

Our Las Bambas mine is our largest asset and continued to improve its water management approach during 2019. Our staff have worked diligently to improve the operational efficiency of the process water system and increasing the volume of water drawn from the tailings storage facility (TSF) for operations. As a side effect of this, the volume of raw water drawn from the Challhuahuacho River to top up operations has also reduced substantially.

The amount of water reported entering the site increased in 2019 compared to 2018, through the increased use of vertical wells, increased precipitation and runoff. Reported outputs and diversions from the site have also increased due to higher water use in our improved Dust Management Program, and better measurement of seepage and entrained water. Notwithstanding these factors, the site has been able to reduce the amount of excess water stored in the TSF.

We have also implemented a major water infrastructure program focused on the diversion of clean catchment runoff around the operational mining areas. This program has greatly reduced the generation of suspended sediment loadings ('dirty water'), providing both improved water quality and a more natural flow regime to the downstream ecosystem. We have ongoing programs to find opportunities for improvements in catchment management at all our operations.

Our Dugald River site is located in an area of Australia that is prone to water stress, particularly in the dry season. In the wet season, the site can receive very large volumes of rain in a very short period of time. In February 2019, the site experienced a high rainfall event estimated at an annual exceedance probability (AEP) of 0.4% (or an average recurrence interval (ARI) of one in 250 years). This contributed a significant volume of water to the TSF and drawing down this volume is an ongoing focus for operations. We have also upgraded the monitoring systems at our water storages in order to obtain real-time data of water levels for each pond and dam, improving management and preventing uncontrolled releases.

Our Kinsevere operation in the DRC is located in an area with a high-water table and, as mining progresses and the pit floor lowers, we are managing increasing volumes of water from our dewatering program. This water is either used onsite or released to the river system after appropriate quality testing.

An ambitious upgrade to the surface water management system was initiated at Kinsevere in 2018, and is ongoing. This is gradually delivering improvements in water quality, reduction in nuisance flooding, diverting water away from entering the pits or recharging local ground water, as well as operational benefits such as reduced risk of geotechnical failure. As part of this project we have constructed a new sediment pond to improve discharge water quality offsite, and expanded the environmental containment ponds and stockpile sumps to strengthen the containment of contact water.



IMAGE: Water quality testing: Challhuahuacho river, Peru.

We have also continued to work with local communities to ensure the supply of clean drinking water and to minimise the risks from waterborne diseases. We now work with 26 different village water management committees, training people to manage and monitor key water projects in their local communities.

In-line with our ICMM commitments regarding water, we ensure all employees have access to clean drinking water, gender-appropriate sanitation facilities and hygiene across all operations. At Kinsevere we have worked with schools in our local communities to ensure

students have access to clean drinking water and ablution facilities.

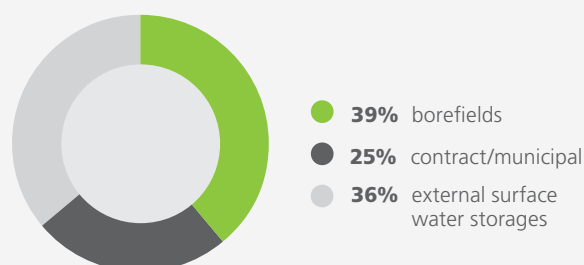
Our Rosebery mine in Tasmania has been operating since 1936, and the site is affected by numerous legacy issues. One of these is the collection and treatment of seepage from historic tailings facilities. This has been an emerging issue over 2019, and investigations are underway to identify the most effective long-term solution. Plans are also underway to replace and upgrade ageing infrastructure in the mine water supply system in 2020.

## 2019 WATER BALANCE

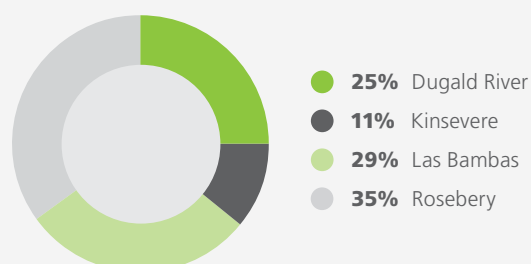
	ML	(%)
<b>DIVERTED WATER</b>	<b>14,008</b>	
<b>WATER INPUTS</b>	<b>27,129</b>	
Borefields	2,454	9
Precipitation and runoff	14,619	54
Rivers and creeks	1,819	7
Aquifer interception	2,330	9
External surface water storages	2,208	8
Entrained in ore that is processed	2,143	8
Contract/municipal	1,556	6
Third party wastewater	-	0
<b>WATER CONSUMPTION</b>	<b>20,364</b>	

	ML	(%)
<b>DIVERTED WATER</b>	<b>30,322</b>	
<b>WATER OUTPUTS</b>	<b>105,048</b>	
Evaporation	80,406	77
Entrainment	16,831	16
Discharge to surface water	3,585	3
Seepage	3,079	3
Supply to third party	30	0
Other	1,117	1

### FRESHWATER (CAT 1) INPUTS BY SOURCE (ML) 2019



### FRESHWATER (CAT 1) INPUTS BY SITE (ML) 2019





## WE MINIMISE OUR IMPACT

continued



IMAGE: Tailings storage facility: Las Bambas.

### CASE STUDY

#### INTEGRATED WATER MANAGEMENT PLANNING AT LAS BAMBAS

Water is one of MMG's material issues, and we work proactively at all our operations to develop plans for the responsible management of this resource.

In 2019, our Las Bambas team developed an integrated water management plan for the effective use of water throughout the operation. This includes a catchment scale water management plan that incorporates the impact of climate change, evaluating current and future potential scenarios and the development of integrated hydrogeological modelling.

The modelling will also enable the operation to analyse production scenarios, generate reports for the TSF, incorporate all current and planned pits and updated input data on a regular basis.

A status update of this work will be included in next year's sustainability report.



### WASTE ROCK MANAGEMENT

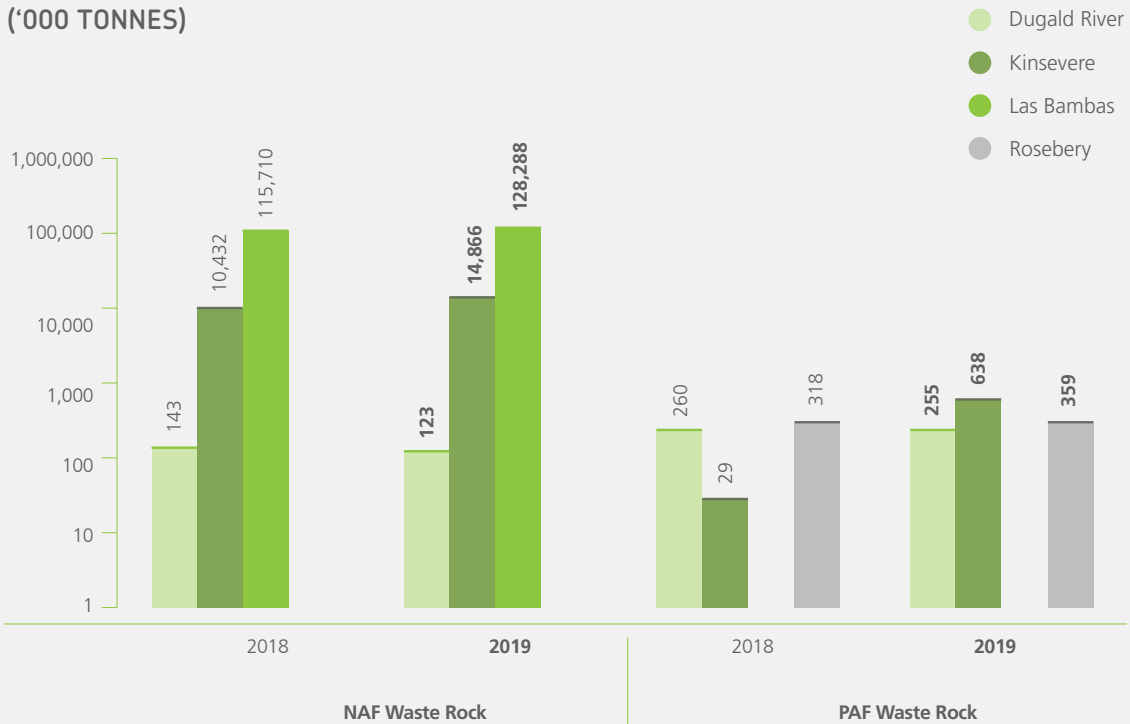
Our mining and processing activities generate significant quantities of mineral waste. Our aim is to minimise our impacts by managing our waste safely and appropriately, reducing our overall footprint of disturbed land and supporting long-term closure planning.

We utilise appropriate waste rock in the construction of surface containment facilities; for example, at our Las Bambas mine and, where possible, we place waste into mined-out areas or pits such as at our operation in Rosebery. This ensures that for the remainder of Rosebery's current life, all waste rock will remain underground as part of the mining process. At Las Bambas we construct landforms in accordance with engineering designs based on MMG guidelines and Work Quality Requirements (WQR). The waste rock containment facilities are designed for appropriate engineering performance of the slopes and geochemical performance of the materials.

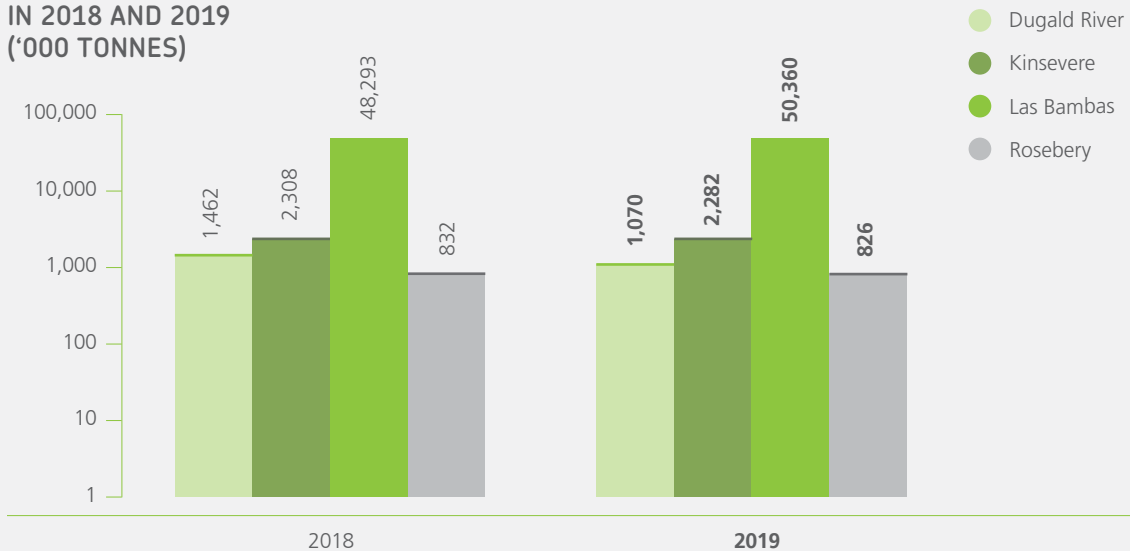
In implementing our mineral waste controls, we focus on characterising mineral waste and managing storage to limit environmental impact and minimise operating and closure costs, such as at Dugald River where we use tailings materials to create paste backfill that is re-injected into underground voids.

Some of this mineral waste is chemically reactive, with the potential to form acid and metalliferous drainage (AMD). Geochemical characterisation studies inform site-specific definitions for potentially acid forming (PAF) waste rock and non-acid forming (NAF) waste rock. These classifications enable us to identify, schedule and appropriately encapsulate PAF waste rock to mitigate the generation of AMD and reduce environmental and closure liabilities.

### WASTE ROCK GENERATED IN 2018 AND 2019 (‘000 TONNES)



### TAILINGS GENERATED IN 2018 AND 2019 (‘000 TONNES)



## WE MINIMISE OUR IMPACT

continued

### TAILINGS STORAGE

At MMG we treat the management of our TSFs as an important material issue that requires ongoing, rigorous risk management. Our management approach specifies mandatory requirements for all sites to ensure the protection of life and the environment through a suite of critical controls for the design, inspection, operations, maintenance, management of change and emergency response risks of TSFs.

Our approach to these controls has been developed using internal and external subject matter experts and aligning it to the requirements of the Australian National Committee on Large Dams (ANCOLD), Canadian Dam Association (CDA) and the Mining Association of Canada (MAC). Our approach also meets or exceeds the regulatory requirements in each of the jurisdictions in which we operate.

MMG applies critical risk design and execution requirements that are based on a risk assessment process, which is reviewed annually. These aspects focus on operating and non-operating TSFs and seek to minimise environmental and community impacts with a secondary objective to maximise operational efficiency. The risk management and control execution measures are subject to internal, external and independent audit.

There has been increased scrutiny of TSF integrity from both within the industry and from external stakeholders. Recent failures of large upstream constructed dams have been the primary driver for this concern. The majority of MMG's TSFs, including Las Bambas, are engineered rock and earth fill structures constructed using downstream construction methods. We have smaller facilities at our Rosebery operation in Australia that incorporates upstream construction methods in a portion of the containment dam.

In 2016, the ICMM issued a position statement on preventing catastrophic failure of TSFs. The statement is composed of six key elements:

1. Accountability, responsibility and planning
2. Planning and resourcing
3. Risk management
4. Change management
5. Emergency preparedness and response
6. Review and assurance

MMG's approach to the governance of TSFs fully aligns to this framework, including the use of an Independent Dam Review Committee and Engineer of Record at each of our TSFs.

MMG has a strong commitment from our Board and Executive Management Team to provide the necessary governance and resources to protect safety and the environment. We work towards continuous improvement to further refine and strengthen our TSF controls, benchmarking them with the input from the dam safety committee reviews and annual performance audits as defined by ANCOLD. We are also engaged in the work of the ICMM, the United Nations Environment Program (UNEP) and the Principles for Responsible Investment (PRI) towards the development of a new international standard on the management of TSFs. As such, we are contributing to collaborative efforts towards developing safe and sustainable alternatives to conventional wet TSFs.

In 2019, at our Las Bambas operation, we undertook an extensive review of our TSF design using a third-party reviewer to ensure the TSF design is robust and in accordance with accepted engineering practices. The review confirmed the TSF is designed appropriately for the geological setting and for the projected tailings production. In addition, an extensive geotechnical investigation program was undertaken to confirm the tailings design parameters incorporated into the original TSF design. The results of the investigation determined the tailings will consolidate better than initially thought, leading to more efficient storage within the facility. We also undertook an evaluation study for the optimisation of our life of asset tailings storage requirements and recognised the potential for storage of all tailings within a single facility. This will minimise the environmental and social



impacts of the Las Bambas tailings storage requirements, as well as ensure the minimal area of disturbance for closure.

During 2019, our Rosebery operation undertook an Emergency Dam Break drill with involvement from MMG, relevant authorities and Tasmanian Emergency Services. The drill was deemed successful by the participants and served as a valuable training tool highlighting several areas for improvement.

Seepage downstream of the Dugald River tailings dam, identified in early 2018, is now managed by a solar pumping system (with diesel backup) that returns the seepage water back into the TSF. This has eliminated the discharge of seepage offsite and reduces the risk of not being able to fuel and service the previous diesel-powered system during flood events, which restricted access to the area. In addition, a fully automated monitoring system including survey monuments and high-resolution cameras has been installed. Additional instrumentation will be added in 2020.



IMAGE: 2/5 tailings storage facility: Rosebery.

## 2019 MMG TSF SUMMARY

TSF	TYPE	DAM RAISING TYPE	ANCOLD DAM FAILURE CONSEQUENCE RATING	TOTAL DESIGNED HEIGHT	TOTAL DESIGNED CAPACITY	TSF SERVICE LIFE		MOST RECENT EXPERT REVIEW DATE
						CAME INTO SERVICE	END OF SERVICE	
<b>Las Bambas TSF1</b>	Valley	Downstream	Extreme	280m	477Mm <sup>3</sup>	2015	2029	August 2019
<b>Dugald River TSF1</b>	Valley	Downstream	High C	37m	8.7Mm <sup>3</sup>	2018	2039	December 2019
<b>Kinsevere TSF1</b>	Side valley	Upstream	High C	~10m	1.1Mm <sup>3</sup>	2006	2010	March 2019
<b>Kinsevere TSF2</b>	Paddock	Downstream	High	38m	23Mt	2011	2023	March 2019
<b>Rosebery 2/5 Dam</b>	Side valley	Upstream/ downstream	Significant	26m	5Mt (plus unknown existing)	2018	2028	April 2019
<b>Rosebery Bobadil</b>	Side valley	Upstream/ downstream	High C	35m	36.6Mt	1974	2019	April 2019

Mm<sup>3</sup> = Millions of cubic metres

Mt = Million metric tonnes

Note: the ANCOLD dam failure consequence rating is based on the potential impacts of a failure in a TSF. Refer to definition on page 71 for the consequence table. For more information about management of consequence ratings for tailings dams, visit [ancold.org.au](http://ancold.org.au).

For more information about our TSFs, visit [mmg.com](http://mmg.com).

## WE MINIMISE OUR IMPACT

continued



IMAGE: Water level monitoring: Dugald River.

### CASE STUDY

#### DUGALD RIVER CONTAINMENT DAM MONITORING

As part of its environmental permitting, Dugald River is required to continuously monitor water levels in its containment dams. The data extracted is used to predict the potential for offsite releases and provide the operation and environment team the opportunity to mitigate the impact of a release. The sensor measurements are also used to calculate the volume of water released. The volume and water quality results are used to identify and quantify potential offsite environment impacts.

In order to have real-time monitoring of containment dams and discharge volumes, level sensors have been installed at all water storages onsite, all spillways have been surveyed and discharge rating curves developed for each dam. The instruments are solar powered with the data transmitted to a cloud-based database. Data is accessed via a web-based dashboard, with action level alarms programmed to be sent to appropriate personnel for action.

Moving forward, the sensor measurements will be used to calibrate the Dugald River water balance model and inform future water infrastructure improvement projects.



### AIR QUALITY MANAGEMENT

At MMG we strive to be as efficient as possible in our combustion of fuel to manage costs and preserve a healthy working environment for our people (particularly those working underground). We consider environmental and health implications in our supply contracts for equipment, electricity and fuel via our procurement processes.

The bulk of our emissions to air are generated by heavy mobile equipment used for mining, product transport, primary crushing and onsite power generation.

We continually improve our management of the nuisance impacts from dust generated by our activities. This includes watering heavy haul and logistics to keep dust to a minimum for surrounding communities and, in Peru, supporting the government in the progressive sealing of roads.

We report our emissions in accordance with the Australian Government's National Pollutant Inventory emission estimation techniques and our materiality-based sustainability reporting processes.

### CASE STUDY

#### DUST MITIGATION ALONG PERU'S SOUTHERN ROAD CORRIDOR

Las Bambas is committed to the minimising its impact and implements strict controls to ensure it complies with national standards. This includes potential impacts that may occur in the transport of its concentrate and other logistics vehicles.

Some measures that have been implemented to minimise the impacts of transport logistics include:

- Maintenance and improvements of the public road
- Road irrigation

## CLIMATE CHANGE

MMG recognises the impacts of human-induced climate change on the environment, economy and communities, and that addressing the impacts of climate change poses significant short- and long-term challenges for society.

We welcome efforts made by governments to cooperatively reach the global climate agreement and support long-term climate goals that balance greenhouse gas reductions with economic development. Together with other members of the ICMM our principles for climate change policy design are as follows:

- › Provide clear policies for a predictable, measured transition to a long-term price on greenhouse gas emissions.
- › Apply climate change related revenues to manage a transition to a low carbon future.
- › Facilitate trade competitiveness across sectors.
- › Seek broad-based application.
- › Be predictable and gradual.
- › Be simple and effective.
- › Support low-emission base-load generation technology development.

- › Speed control of all vehicles by GPS control, with speeds established by the Peruvian Ministry of Transport and Communication (MTC). Speed limits along some stretches of the road (including through towns) is more rigorous than what is mandated by MTC.
- › Application of dust suppression sprays, as approved by the MTC

In 2019 the Peruvian Agency for Environmental Assessment and Enforcement (OEFA) undertook an independent environmental audit in Chumbivilcas province, approximately 100km from the operation. The audit took place between May and September 2019 and included air quality, dust, soil and dust, amongst other elements.

We are committed to be a part of the global solution by taking appropriate actions that will reduce our emissions intensity, and sourcing the key mineral and metals required to help the global transition to a low-carbon future.

MMG's focus on energy efficiency will reduce our existing power requirements and minimise our greenhouse gas emissions footprint. Our global operations are also working to support extensive reafforestation of our neighbouring lands, which will deliver more carbon abatement outcomes now and into the future.

Data relating to energy consumption (direct, indirect and total), greenhouse gas emissions, air emissions, hazardous and non-hazardous waste and total water consumption for the 2018 and 2019 reporting periods can be found in the 2019 MMG Annual Report at [www.mmg.com](http://www.mmg.com).

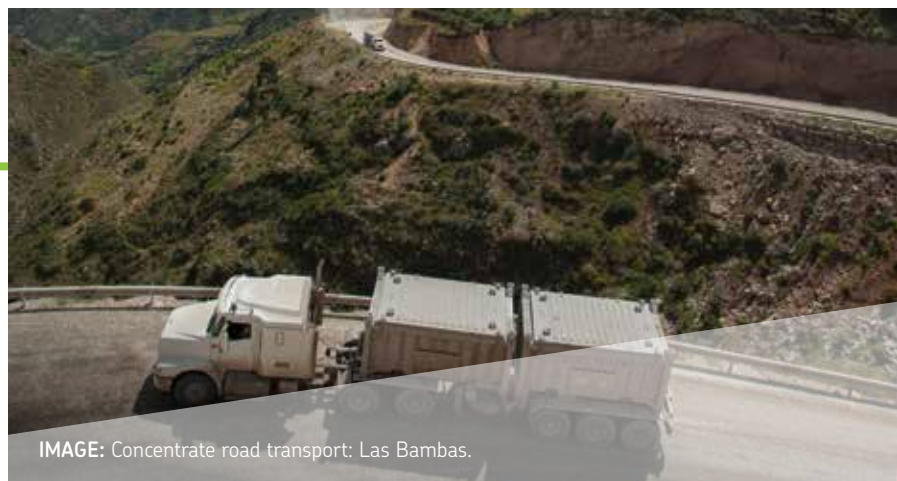


IMAGE: Concentrate road transport: Las Bambas.

The results showed that PM2.5 was 100% and PM10 was 83% compliant with Peruvian air quality requirements, and that 76% of water quality samples met environmental requirements. Those that did exceed could not be demonstrated to be solely as a result of Las Bambas' operations.

For more information visit [wemineforprogress.com](http://wemineforprogress.com)





## WE MINIMISE OUR IMPACT

continued



IMAGE: Plant nursery: Kinsevere.

### MINE CLOSURE AND REHABILITATION

Effective closure planning and site rehabilitation are important priorities for MMG. We have an integrated approach to planning the closure and relinquishment of our assets, commencing from the development stage and continuing throughout the asset life cycle. We have a Progressive Rehabilitation and Closure Standard with supporting Work Quality Requirements that provides a consistent approach to closure and progressive rehabilitation across all of our global operations.

Minor amounts of progressive rehabilitation are currently undertaken by our operations as disturbed areas are largely limited to operational areas that continue to be in use, or will be used in the future. This is driven largely by the ore body and mining method, with underground metalliferous mines, in particular, having limited opportunities for rehabilitation prior to the end of mine life. To this end we have not set annual rehabilitation targets, but instead build allowances into our closure plans and operational budgets where there are opportunities to rehabilitate areas that are no longer required for operational purposes. These are reviewed annually.

Where progressive rehabilitation or rehabilitation trials have been implemented, monitoring of the rehabilitation performance is in place. Monitoring results can then be used to revise the rehabilitation plans as necessary, ensuring that the rehabilitated land can achieve an appropriate postmining land use.

MMG actively contributes to the ICMM Mine Closure Working Group and leverages the participation of peer companies to continually benchmark our own internal processes and improve performance on mine closure. In 2019, our focus was to improve internal processes, with a revision of the Closure Standard completed; closure core competencies developed for internal personnel managing closure planning and cost estimation; strengthening the closure governance and assurance framework; and the introduction of closure due diligence guidelines for merger and acquisition processes.

Another major focus for 2019, was working to better understand potential closure impacts on our communities, through the future economic transition process. External studies were undertaken at both Rosebery and Kinsevere on this. Post-closure landform designs were also undertaken at Kinsevere for the waste rock dumps and TSFs, which included simulation modelling of their long-term geotechnical, geochemical and erosional stability. Outcomes of this work were fed back into mine plans and development studies, including optimising closure costs and material movements.

Prefeasibility studies were initiated for closure of the Hercules legacy site and the Rosebery mine, to undertake a comprehensive closure options assessments and design work, which will continue throughout 2020. These studies will provide more definitive information to support MMG closure planning and closure cost estimation, but also inform stakeholder discussions with community and government. The current financial provision for closure of all MMG operations is reported in our Annual Report and has been externally audited.



## CASE STUDY

### CLOSURE PLANNING AT ROSEBERY

In alignment with the 2019 ICMM Closure Good Practice Guide, Rosebery is advancing mine closure planning activities from the 'conceptual' to the 'detailed design' phase. In 2019, Rosebery commenced a mine closure prefeasibility level of design study that aims to identify and evaluate all credible mine closure scenarios before recommending a preferred mine closure pathway. This study will also involve discussions with regulatory organisations, the community and other key stakeholders to identify suitable site relinquishment criteria for the mine.

A key part of the project is the identification of potential opportunities to progressively rehabilitate landforms and infrastructure during the operational life of the mine. This will help



IMAGE: Bobadil TSF rehabilitation: Rosebery.

minimise final closure costs, efficiently utilise onsite personnel and assets and, wherever possible, restoration of the site can be commenced well before production ends. Two full-time employees have been employed to help run this prefeasibility closure study, along with the use of external consultant experts.

For more information visit  
 [wemineforprogress.com](http://wemineforprogress.com).



## BIODIVERSITY AND LAND MANAGEMENT

MMG recognises that compared with many other land uses, the direct impacts of mining on biodiversity and ecosystem services are often small, due to the relatively small area of land disturbance. At the same time, however, we recognise that this disturbance is often very significant on a local scale and may be globally significant where limited populations of threatened or vulnerable endemic species may be exposed to risk of disturbance.

Our operations are managed to identify potential impacts to biodiversity and to implement mitigation strategies to avoid or offset these impacts. This management includes:

- › using environmental assessments and strategic regional assessments prior to the commencement of mining, or disturbance activities, to identify potential biodiversity impacts.

- › ensuring the effective application of the mitigation hierarchy in relation to any proposed land clearance activities onsite, with avoidance being the preferred option where practicable.
- › planning for closure in a way that focuses, not just on the reestablishment of vegetation cover, but more broadly on opportunities to develop self-sustaining ecosystems that support the social, cultural, environmental and economic objectives of our host communities and the surrounding landscape.

We actively manage our land holdings over the life of the operation and seek to protect biodiversity and future land use options. Some of the management actions actively used at our operations focus on:

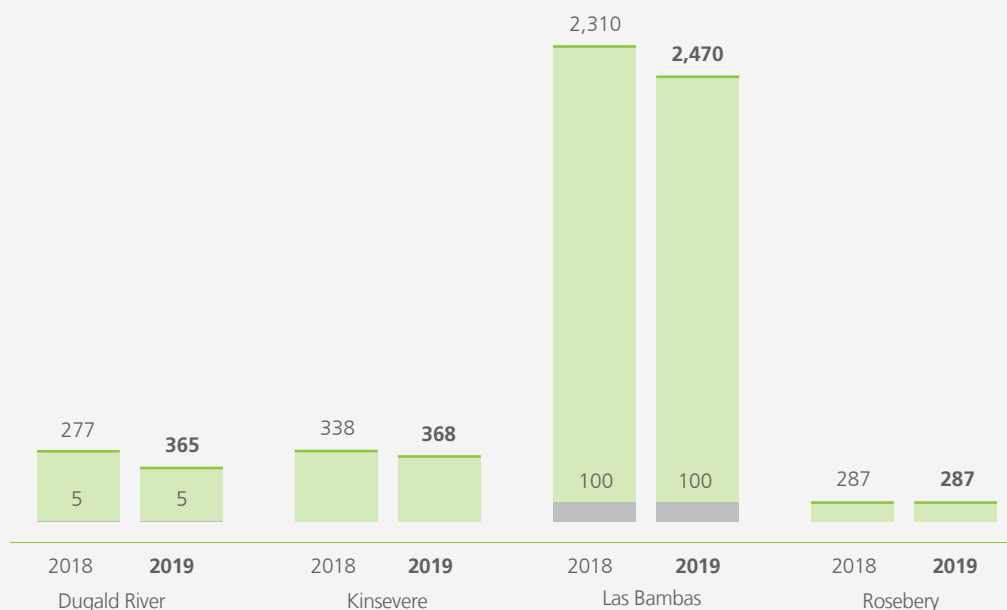
- › implementing low or no disturbance areas that may form future conservation reserves.
- › controlling invasive species.
- › restoring degraded ecosystems.
- › translocating endangered plants and supporting the breeding requirements of vulnerable animals.

continued

biodiversity. As a member of the ICMM, we act in accordance with the ICMM's Mining and Protected Areas Position Statement.

2,859,906.17  
(99% HELD FOR  
EXPLORATION)

Area of land managed by our operating sites and advanced projects at end of 2019	172.2
> Area disturbed and not yet rehabilitated at end of 2018 (opening balance)	32.0
> New disturbance in 2018	2.8
> Disturbed areas rehabilitated in 2018	–
> Rehabilitated areas redisturbed in 2018	–
> Area disturbed and not yet rehabilitated at end of 2019 (closing balance)	34.9



## CASE STUDY

### ROSEBERY WALKING TRACK

During negotiations with the Rosebery township about the development of the 2/5 tailings facility, MMG's Rosebery operation made a commitment to replace recreational areas being acquired during the process.

In consultation with the community, it was decided that a community walking track would be built through the town.

Community members were consulted about the best place for it to be located and a local contractor was engaged to undertake the work.

The walking track was completed towards the end of 2019 and an official opening is due to be held in the first half of 2020.



IMAGE: Community walking track: Rosebery township.

# ASSURANCE TERMS AND STATEMENT

## TO THE BOARD OF DIRECTORS OF MMG LIMITED:

CECEP (HK) Advisory Company Limited ("**CECEPAC (HK)**" or "**We**") has been engaged by MMG Limited ("**MMG**") to conduct an independent limited assurance engagement on the information and data in the 2019 Sustainability Report ("**Sustainability Report**") of MMG, which covers the period 1 January to 31 December 2019.

## I. ASSURANCE SCOPE

CECEPAC (HK) conducted a Moderate (Limited) Type 2 assurance for the Report in accordance with the *AA1000 AccountAbility Assurance Standard (2008)* ("**AA1000AS**"), and the assurance criteria were the following:

- › International Council on Mining and Metals ("**ICMM**") Subject Matters 1-5 ("**Subject Matter**") and the corresponding criteria ("**Criteria**") prescribed in the *Sustainable Development Framework: Assurance Procedure* ("**ICMM Framework**"), as set out in the below table:

AREA	ICMM SUBJECT MATTER	CRITERIA
<b>ICMM Subject Matter 1</b>	The alignment of MMG's sustainability policies to ICMM's 10 Sustainable Development (" <b>SD</b> ") Principles and mandatory requirements set out in ICMM Position Statements.	MMG's reported alignment of its sustainability policies to ICMM's 10 SD Principles and mandatory requirements set out in the ICMM Position Statements.
<b>ICMM Subject Matter 2</b>	MMG's material sustainability risks and opportunities based on its own review of the business and the views and expectations of stakeholders. Assessed with regard to the AA1000AS and the <i>AA1000 AccountAbility Principles Standard (2008)</i> (" <b>AA1000APS</b> ").	MMG's description of the process for identifying material issues, and the Global Reporting Initiative (" <b>GRI</b> ") definition of completeness per the GRI 2016 <i>Sustainability Reporting Guidelines</i> (" <b>GRI Standards</b> ") issued by the Global Sustainability Standards Board (" <b>GSSB</b> ").
<b>ICMM Subject Matter 3</b>	<p>The existence and status of implementation of systems and approaches used by MMG to manage a selection of material sustainability risks and opportunities ("<b>Selected Indicators</b>") and corresponding relevant metrics ("<b>Performance Information</b>") (selected through a random double-blind process), including:</p> <p><b>Human Rights</b> GRI 412-1: Total number and percentage of operations that have been subject to human rights reviews or impact assessments</p> <p><b>Tailings and Waste Rock Management</b> G4-MM3: Total amounts of overburden, rock, tailings, and sludges and their associated risks</p> <p><b>Community Engagement</b> G4-MM6/MM7: Number and description of significant disputes relating to land use, customary rights of local communities and indigenous peoples; and the extent to which grievance mechanisms were used to resolve disputed relating to land use, customary rights of local communities and indigenous peoples, and the outcomes</p>	MMG's description of the systems and approaches to manage the Selected Indicators as outlined in the 2019 Sustainability Report and MMG's internal policies and procedures.
<b>ICMM Subject Matter 4</b>	MMG's reported performance during the 1 January 2019 to 31 December 2019 reporting period for the Selected Indicators.	Criteria of Selected Indicators disclosed by MMG in accordance with internal policies and procedures, and reference to GRI Standards and other relevant guidelines. Limited assurance on the reliability and accuracy of Performance Information.
<b>ICMM Subject Matter 5</b>	MMG's self-declared application level of the GRI Standards.	GRI Standards "in accordance" Core criteria.



The following has been excluded from the assurance scope, and hence we do not express any conclusions on this information:

- › Any information outside the 1 January 2019 to 31 December 2019 reporting period or any other data disclosed in the Sustainability Report not included within the assurance scope;
- › Financial data or other information already supported by existing verified documents; and
- › Data and information in the Sustainability Report unrelated to MMG and its subsidiaries, which include MMG's suppliers, contractors, and data or information provided by other third parties.

The scope of the assurance engagement was confined to the information provided by MMG only. Any queries regarding the contents or related matters within this assurance statement should be addressed to MMG only.

## II. LEVEL OF ASSURANCE AND LIMITATIONS

A moderate level of assurance under AA1000AS has been provided for this engagement. A moderate assurance is limited to evidence gathering at corporate/management levels in the organisation and a limited depth of evidence gathering at lower levels in the organisation as necessary. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

## III. MMG'S RESPONSIBILITIES

MMG has been responsible for the preparation and presentation of the Sustainability Report in accordance with the GRI Standards: Core option, and other reporting requirements prescribed in the ICMM Framework. MMG has also been responsible for implementing internal control procedures to ensure that the contents of the Sustainability Report are free from material misstatement, whether due to fraud or error.

## IV. CECEPAC (HK)'S RESPONSIBILITIES

CECEPAC (HK) has been responsible for issuing an independent assurance statement to the Board of Directors of MMG. This independent assurance statement applies solely to express a conclusion on the assurance work in the specified scope of MMG's Sustainability Report, and does not serve any other intents or purposes.

CECEPAC (HK) has ensured that all personnel involved in the assurance work meet professional qualification, training and experience requirements, and are demonstrably competent. All results of assurance and certification audits are internally reviewed by senior staff to ensure that methodologies used in the process are sufficiently stringent and transparent.

## V. INDEPENDENCE

CECEPAC (HK) was not involved in collecting and calculating data, nor in the preparation of this Sustainability Report. CECEPAC (HK)'s activities are independent of MMG. There is no relationship between MMG and CECEPAC (HK) beyond the contractual agreement for providing this assurance engagement.

## VI. METHODOLOGY

CECEPAC (HK)'s assurance engagement procedures were conducted with MMG personnel based at MMG's Melbourne headquarters and Rosebery mining site, and the assurance work included:

- › Conducting interviews with management and documentation reviews to understand MMG's approach to assessing and managing SD risks and opportunities, and ensuring the alignment between MMG's internal policies and the ICMM SD Principles (and other requirements set out in the ICMM Position Statements);
- › Understanding and testing MMG's approach to stakeholder identification, engagement, feedback collection, analysis and reporting, and MMG's materiality assessment process for the purposes of reporting and assurance;
- › Assessing whether the reporting and management approach for the Sustainability Report have been conducted in line with the AA1000AS principles of Inclusivity, Materiality and Responsiveness;
- › Understanding and testing on a sample basis with Selected Indicators, MMG's management system (and underlying objectives, architecture and expectations), and MMG's adherence to management system requirements at corporate and site levels;

# ASSURANCE TERMS AND STATEMENT

continued

- › Understanding and testing on a sample basis with Performance Information, the data measurement, collection, aggregation and reporting processes and management controls for ensuring the quality of data;
- › Reviewing and sampling evidence used to report on Performance Information, recalculating quantitative metrics against stated methodologies and assumptions;
- › Assessing the content in the Sustainability Report and supporting GRI Content Index against the claim that it has been prepared “in accordance” with the GRI Standards: Core option;
- › Checking representations in the Sustainability Report were consistent with conclusions reached; and
- › Performing other procedures we deemed necessary.

Assurance work was performed and the conclusions formed were based upon information and data provided by MMG to CECEPAC (HK), and on assumptions that the information provided was complete and accurate.

## VII. CONCLUSIONS

Based on the assurance procedures undertaken and the evidence obtained, nothing has come to our attention that causes us to believe that the:

- a) Subject Matter has not been prepared, in all material respects, in accordance with the Criteria for the Sustainability Report; and
- b) Disclosures of the Performance Information in the Sustainability Report are unreliable, inaccurate, or have not been prepared, in all material respects, in accordance with the reporting approach outlined in the Sustainability Report.

## VIII. KEY OBSERVATIONS

The following key observations, which do not affect our conclusions expressed above, were identified during the course of the assurance engagement:

### a. ICMM Subject Matter

#### **Subject Matter 1**

MMG’s Sustainable Development Framework affirms MMG’s support and alignment with the ICMM Position Statements, as well as its upcoming phases of work to transition to the implementation of, and meeting the intent of, the ICMM Sustainable Development Performance Expectations. Furthermore, MMG has updated its internal ICMM Alignment Framework, mapping the alignment between relevant sections of MMG Policies, MMG Standards, and MMG Code of Conduct, and the ICMM 10 SD Principles and Position Statements. MMG has also included tables in the Sustainability Report Appendix which identify sections of the Sustainability Report that relate to the 10 SD Principles and ICMM Position Statements, and has indicated the extent of MMG’s alignment with mandatory requirements set out in the ICMM Position Statements.

#### **Subject Matter 2**

MMG’s materiality assessment approach and process are outlined in its Sustainable Development Framework, and MMG’s material issues include social, economic and environmental risks and opportunities that have the potential to affect MMG’s performance or reputation, as well as its ability to create value and deliver progress over the short, medium and longer term. In the preparation of its Sustainability Report, MMG cross-referenced and identified material sustainability issues with a stakeholder engagement and issue analysis report, and a desktop review of current and emerging ESG trends and issues relevant to MMG. Sustainability issues’ ubiquity, importance to the mining and metals industry, and importance to stakeholders were considered and used to prioritise MMG’s list of material sustainability issues for 2019.

#### **Subject Matter 3**

MMG has a Risk and Assurance Standard, which defines the requirements for identifying, analysing and controlling common, site-specific, function-specific and project-specific risks, and specific workflow procedures for this are outlined in MMG’s Risk Management Procedure and Assurance Procedure. Each site has a Risk Champion nominated by their respective General Manager that is responsible for facilitating the risk management process across their area of accountability, and Risk Owners and Control Owners are assigned to analyse and understand material risks and the effectiveness of corresponding critical

controls in place. Reporting on Safety, Health, Environment and Community (“SHEC”)-related events are guided by the SHEC Reporting Standard, and these risks and their corresponding assigned risk ratings are captured in site-level and group-level risk registers. Infrastructure and critical controls, and assessments conducted on these risks are documented, consolidated and brought to the attention, when breaches have been identified, of the Audit and Risk Management Committee and Executive Committee. Formal reporting on the progress of the annual risk process occurs periodically to both the Audit and Risk Management Committee and Executive Committee. The implementation of these Standards and Procedures was observed during the assurance process.

#### **Subject Matter 4**

MMG has established reporting instructions in Work Quality Requirements and in data collection forms for sites to refer to when reporting on SD key performance data, and internal control measures to ensure the reliability of reported data. The Company reports against topic-specific disclosures with detailed figures and metrics, case studies, and progress against targets in the Sustainability Report.

#### **Subject Matter 5**

The assurance findings provide confidence that the Sustainability Report has been prepared in accordance with the GRI Standards: Core option. Topic-specific disclosures and their corresponding page numbers are referenced in the GRI Content Index, which is located in the Appendix of the Sustainability Report, available at [www.mmg.com](http://www.mmg.com).

### **b. AA1000AS Principles**

#### **Inclusivity**

MMG has identified key stakeholders and engaged them via various avenues to identify their areas of interest. At a corporate level, MMG’s Shareholder Communication Policy provides a framework for which ongoing dialogue with shareholders and the investing public is maintained. MMG’s SHEC Policy and supporting MMG Standards and processes define the minimum requirements for community obligations of MMG people, including consulting with parties that may be affected by MMG’s operations. At a site-level, in accordance with requirements set out in MMG’s Social Performance Standard, site-specific Community Stakeholder Engagement Management Plans have been developed to map key stakeholders in relation to their interest in mining operations, along with the influence they hold within the community, and amongst their peers, and to describe stakeholder engagement activities conducted to address and mitigate identified social and reputational risks. Regular updates on these matters are reported to the CEO, the Executive Committee - Safety, Security, Health and Environment, and the Board of Directors. In our professional opinion, MMG adheres to the principle of Inclusivity.

#### **Materiality**

MMG has accounted for key stakeholders’ areas of interest, and through the materiality process conducted for the Sustainability Report (described in Subject Matter 2 above), has identified, categorised, and prioritised its material SD risks and opportunities, and disclosed corresponding qualitative and quantitative key performance indicators in the Sustainability Report. These material SD risks and opportunities are grouped under four reporting themes (“We Contribute to Development”, “Who We Are”, “The Way We Work”, and “We Minimise Our Impact”) which form the content of the Sustainability Report. In our professional opinion, MMG adheres to the principle of Materiality.

#### **Responsiveness**

MMG has developed multi-faceted means of communication with internal and external stakeholders, including meetings held with the community consultative committee and the Environment Protection Authority (EPA), and enquiries directed through the community liaison office, which provide opportunities for stakeholders to voice their concerns, needs and expectations. At a corporate level, minimum requirements for ensuring that relevant information is communicated to stakeholders in a comprehensive, accurate, timely, accessible and balanced way are outlined in MMG’s Disclosure Framework. At a site level, in accordance with MMG’s developed Stakeholder Grievance Management Work Quality Requirements, site-specific Grievance Procedures have been developed to acknowledge, record and investigate complaints raised from a community member or stakeholder. The storage, tracking and management of stakeholder grievances are performed via a cloud-based tool, and site monthly reports are issued to site General Managers and the Stakeholder Relations function at Head Office. In our professional opinion, MMG adheres to the principle of Responsiveness.



Joy Song  
Vice General Manager, CECEPAC (HK)

12 May 2020  
Hong Kong



# GLOSSARY

<b>AMD</b>	acid and metalliferous drainage
<b>ANCOLD</b>	Australian National Committee on Large Dams
<b>ASM</b>	artisanal and small-scale mining
<b>CMC</b>	China Minmetals Corporation
<b>CSRMI</b>	Centre for Social Responsibility in Mining
<b>DRC</b>	Democratic Republic of the Congo
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>FPIC</b>	Free, Prior and Informed Consent
<b>GL</b>	gigalitres
<b>GRI</b>	Global Reporting Initiative
<b>GRI Standards</b>	Global Reporting Initiative's 2016 Core Sustainability Reporting Guidelines
<b>HKEx</b>	Hong Kong Stock Exchange
<b>ICA</b>	International Copper Association
<b>ICMM</b>	International Council on Mining and Metals
<b>ILO</b>	International Labour Organisation

<b>ISO</b>	International Organisation for Standardisation
<b>IZA</b>	International Zinc Association
<b>LTIF</b>	lost time frequency rate
<b>MCA</b>	Minerals Council of Australia
<b>MMG</b>	MMG Limited
<b>NAF</b>	non-acid forming waste rock
<b>NOHSC:1012</b>	National Standard for the Control of Inorganic Lead at Work
<b>NOHSC:2015</b>	Safe Use of Inorganic Lead at Work
<b>PAF</b>	potentially acid forming waste rock
<b>SDG</b>	Sustainable Development Goal
<b>TARP</b>	Trigger Action Response Plans
<b>TRIF</b>	total recordable injury frequency
<b>TSF</b>	tailings storage facility
<b>UNICEF</b>	United Nations International Children's Emergency Fund
<b>VPSHR</b>	Voluntary Principles on Security and Human Rights

## DEFINITIONS

**acid and metalliferous drainage / acid mine drainage (AMD):** AMD is created when rocks that contain naturally occurring sulphide minerals are disturbed and exposed to air and water. This accelerates the natural weathering process and may lead to the release of low pH (acidic) or neutral drainage water with elevated salinity and metals concentrations. If not responsibly managed, AMD can impact the revegetation of mining wastes, and degrade surface and groundwater quality. Waste rock with the potential to form AMD is termed 'potentially acid forming' or PAF waste rock.

## CONSEQUENCE CATEGORIES BASED ON POPULATION AT RISK

POPULATION AT RISK	SEVERITY OF DAMAGE AND LOSS			
	MINOR	MEDIUM	MAJOR	CATASTROPHIC
<1	Very low	Low	Significant	High C
≥1 to <10	Significant (note 2)	Significant (note 2)	High C	High B
≥10 to <100	High C	High C	High B	High A
≥100 to <1,000	(Note 1)	High B	High A	Extreme
≥1,000		(Note 1)	Extreme	Extreme

Note 1: With a PAR in excess of 100, it is unlikely that the severity of damage and loss will be "Minor". Similarly with a PAR in excess of 1,000 it is unlikely Damages will be classified as "Medium".

Note 2: Change to "High C" where there is the potential of one or more lives being lost.

The area of TSF management requires significant technical expertise and interpretation. For more information regarding consequence tables visit [www.ancold.org.au](http://www.ancold.org.au)



# OUR CONTACTS

We welcome your comments on this report.  
Please contact us with your feedback or suggestions.

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