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MMG LIMITED SUSTAINABILITY REPORT 2022



A MEMBER OF:
ICMM
International Council
on Mining & Metals

**MINING WITH
PRINCIPLES**

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We mine for progress

At MMG, our vision is to be 'a leading international mining company for a low-carbon future'. To achieve this, we seek to positively contribute to our host regions while managing the risks to people, heritage and the environment.

We recognise that the sustainable development of our host countries and communities is the result of many shared steps that, over time, lead to real and lasting improvements in the quality of the lives of those working at or living alongside our operations. Transforming natural resources into sustainable development is how we mine for progress.

Executive Summary



03 • We contribute to development



04 • We minimise our impact

Our ongoing sustainability contribution

MMG is **building a sustainable mining company** and driving economic and social progress through local, regional and national contributions and by supplying **minerals that are essential for a changing world**.

Our **environmental stewardship** guides how we are adapting to a carbon-constrained world, managing waste and biodiversity risks together with reducing greenhouse gas emissions as outlined in the **climate change section of this report**.

Safety is MMG's first value and we mine in a way that that protects our people. We develop **our people** to attract and retain talented and collaborative teams. Reflecting the local communities in which we work, we recently updated our **Diversity and Inclusion Strategy** to lift MMG's female representation.

We drive **social development** through supporting our host communities and providing individual economic livelihoods through improved access to infrastructure, healthcare, education and employment opportunities.

Our spend in the countries where we are based comprises social investment, development programs and tax and royalty payments. Through our **in-country purchasing of goods and services** we are also bringing local businesses a platform to strengthen their own regional supply networks.

We strive to have **open and informed local community dialogue** that aligns with our values and accords with the International Council on Mining and Metals membership undertakings. Our consultative approach recognises our host communities' unique cultural and linguistic attributes as we tailor our business strategies in response to differing expectations and needs.

Our unwavering commitment to progress, our anticipation of emerging trends and our response to unexpected events that affect our business and stakeholders are demonstrated throughout this **2022 Sustainability Report** and inform our future plans.

Chief Executive Officer's message

The need to take meaningful action on climate change is a pressing priority for governments, individuals and organisations.

Dear MMG Shareholders,

I am pleased to present our 2022 Sustainability Report.

Safety

At MMG, our first value is safety.

While we have strived to improve our safety-focused culture, I am saddened to report that two people, employed through our mining contractor Barmingo at Dugald River mine, tragically lost their lives after a light vehicle they were travelling in fell into a stope on 15 February 2023.

The entire MMG team is greatly saddened by the recent incident at Dugald River, and we extend our sincere and heartfelt condolences to the families and friends of Mr Trevor Davis and Mr Dylan Langridge.

The Company has commenced an investigation into how this event has occurred and we will take every measure necessary to ensure our workplaces are safe.

This incident is a reminder to do everything we can to improve and apply our safety controls and to look after each other so that our people return home safely to their families.

In the 2022 year, MMG's Total Recordable Injury Frequency (TRIF) rate was 1.25, higher than the full year 2021 result of 1.09, however, it represents a 16% improvement on the first half of 2022. Our strategies are trained on eliminating fatalities and high risk injuries.

Ongoing COVID-19 pandemic response

In 2022, managing COVID-19 pandemic impacts continued to be a workplace priority as we mitigated health, safety and employee availability risks. Promoting vaccinations and following regional government strategies helped protect our people and the communities in which we live and work.

I am proud of our teams' resilience in working together to implement the necessary protocols.

Zero emissions target

The need to take meaningful action on climate change is a pressing priority for governments, individuals and organisations.

We face challenges and greater demands from host communities to reduce our carbon footprint and deliver growth in a carbon-constrained world. Stakeholder expectations are also informing performance across the non-financial metrics of environment, climate, social performance and governance, among others. To respond to these increasing expectations, in 2022 we launched our Sustainability Framework.

In pursuit of a low-carbon future, we have set a 2050 net zero goal, and an interim target of a 40% reduction in Scope 1 and 2 emissions by 2030, from a 2020 baseline. This is a science-based target, aligned with restricting global warming to 1.5°C above pre-industrial levels. For Scope 3 emissions, we are driving reductions in our value chain and plan to release a target in 2023.



The Las Bambas team has also released its roadmap outlining decarbonisation opportunities, which will be implemented onsite from 2023.

Our Dugald River mine entered into a commercial agreement to supply solar power with the APA Group in 2021, the first across our business. In April 2023 the Dugald River Solar Farm achieved a commercial operation milestone, two months after construction was completed. The partnership will reduce the mine's carbon footprint, supply renewable energy and deliver immediate energy cost savings.

Working with our communities

Our Las Bambas operation continued to face social conflict and rising community expectations, impacting our people, production and logistics.

During the first half of 2022, Las Bambas was forced to temporarily suspend operations due to safety concerns from 21 April until 10 June after community members entered the site. Since June 2022, we continued a respectful ongoing dialogue to transparently review existing commitments.

In 2023, our long-term strategy emphasises sharing our operational success with host communities. Development projects are continuing at Kinsevere and Las Bambas. At our Rosebery mine, we are evaluating options to extend an 85-year operation that supports 530 local jobs while assessing the best location for a future tailings solution in a biodiverse region.

We are excited to realise our strategic growth opportunities in Peru via the Chalcobamba development and the Kinsevere Expansion Project, which will add 13 years of life to the Kinsevere operation, furthering our commitment to these critical regions.

Future focus

In December 2022, the MMG Board approved an updated MMG Strategy with a revised vision and ambition. Our new vision positions us as a leading international mining company transitioning to a low-carbon future. Our revised ambition adds to growth plans, diversifying our assets, commodities and jurisdictions, and bringing together the best of MMG with our Chinese and international expertise.

We remain very confident in the medium to long-term outlook for copper, zinc and cobalt and the role we play in the global shift towards renewable energy sources.

I extend my thanks to our employees, shareholders and host communities for their continued support, and, in particular, to our people for their contribution to our sustainability performance in such a challenging year. I look forward to the coming year as we continue to mine for progress.

LI Liangang
CHIEF EXECUTIVE OFFICER (INTERIM)

Our operations

MMG has four operating sites across the world and employs over 11,000 employees and contractors.



Dugald River

Rosebery



Kinsevere



Las Bambas



Australia (includes Dugald River and Rosebery sites and Australian operations office)

PRODUCTION		2022 WORKFORCE		ECONOMIC CONTRIBUTION (US\$'000)		SOCIAL DEVELOPMENT SPEND (US\$'000)
224,551	38,946	1,328		\$125,952	\$116,311	\$488
tonnes of zinc in zinc concentrate	tonnes of lead in lead concentrate	Total workforce		Total tax incl. royalties	Total capital investment	
1,147		13.0	93.0	\$108,644	\$414,786	
tonnes of copper in precious metals concentrate		% female	% national	Total wages and benefits*	Total national supply procurement	

Democratic Republic of the Congo (DRC) (includes Kinsevere site, and Lubumbashi and Johannesburg offices)

PRODUCTION		2022 WORKFORCE		ECONOMIC CONTRIBUTION (US\$'000)		SOCIAL DEVELOPMENT SPEND (US\$'000)
49,070		2,480		\$116,931	\$79,114	\$2,433
tonnes of copper cathode		Total workforce		Total tax incl. royalties	Total capital investment	
		13.6	94.2	\$50,407	\$216,262	
		% female	% national	Total wages and benefits*	Total national supply procurement	

Peru (includes Las Bambas site and Lima office)

PRODUCTION		2022 WORKFORCE		ECONOMIC CONTRIBUTION (US\$'000)		SOCIAL DEVELOPMENT SPEND (US\$'000)
254,836	3,156	7,421		\$324,386	\$367,263	\$28,323
tonnes of copper in copper concentrate	tonnes of molybdenum in concentrate	Total workforce		Total tax incl. royalties	Total capital investment	
		11.9	98.6	\$153,667	\$1,467,954	
		% female	% national	Total wages and benefits*	Total national supply procurement	

Corporate Office (includes Melbourne, Beijing, Hong Kong and Vientiane offices)

2022 WORKFORCE

178	48.2
Total workforce	% female

Note: For information on royalties and income tax, procurement and employment taxes and benefits, refer to the Tax and Community Contribution section (page 52) of this report.

% national = the percentage of the workforce with the same nationality of the country where the operations are located. This does not include contractor numbers.

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

* Total wages and benefits for Australia include expenses where the role may report but take place outside of the country. This does not include contractor numbers.

Our COVID-19 response



MMG has promoted vaccination information campaigns to **safeguard employees' health, reduce absenteeism and minimise the spread of COVID-19**

During the COVID-19 pandemic MMG worked collaboratively with local communities and authorities to protect our people and host communities from the highly contagious virus. COVID-19 prevention strategies developed by MMG's crisis management and operational emergency management teams are key to our ongoing response plans.

Through posters, emails, our website, and intranet, and for our Las Bambas site through radio communications, MMG has promoted vaccination information campaigns to safeguard employees' health, reduce absenteeism and minimise the spread of COVID-19 and its potential long-term complications. Our messaging is aligned with our host regions' endorsed directives, helping to build public trust and greater understanding of COVID-19 vaccine benefits. To safeguard host communities, MMG focused on mitigating risks arising from workforce transportation (fly-in, fly-out and bus-in, bus-out) and included regional concerns in our continuity plans.

We recognise that the pandemic presented significant challenges for our host communities and our people. In addition to physical impacts, it has also presented impacts to mental health. MMG's Employee Assistance Program has been an integral service during these challenging times. It offers ongoing confidential counselling and mental health and wellbeing support to employees and their families in all regions and local languages.



CASE STUDY

Kinsevere COVID-19 prevention measures

Throughout the pandemic, Kinsevere and the Afya Yetu Clinic site team deployed multiple prevention strategies to limit the spread of COVID-19. Vaccines can be accessed by employees, their families and the wider community. To combat misinformation, ongoing World Health Organization and the Centre for Disease Control updates are shared with teams. At the end of 2022, with no active cases and no virus-related fatalities, Kinsevere continued to adopt hygiene and isolation controls on a case-by-case basis while rolling out vaccination campaigns as a main line of defence to combat the virus. See our Las Bambas response on page 33.



Our commitment to the International Council on Mining and Metals (ICMM)



Our Chief Executive Officer is a member of the ICMM Council, and MMG has been a member of the ICMM for 13 years. We contribute to working groups and align our performance and external commitments to the ICMM's Sustainable Development principles.

In 2003, the ICMM published its 10 principles for sustainable development to inspire necessary mining and metals industry change. Member companies' goals support the principles, which include eight position statements on key issues including biodiversity, water stewardship and revenue transparency. The ICMM's Mining Principles and corresponding Performance Expectations, launched in 2020, provide a comprehensive set of environmental and social requirements on labour rights, resettlement, local content, gender, access to grievance mechanisms, mine closure, pollution and waste that should be validated at the operational level.

In 2020, MMG began a process to align with the Mining Principles with a Company-wide gap assessment and corporate-specific action plans that are regularly revised. Since 2021, we have also engaged an external assurance provider to validate one site's compliance and progress with implementing the Mining Principles. In 2021, Kinsevere was assessed, and in 2022 the focus was our Las Bambas operation.



Read more detail in the Sustainability Report Appendix at:

[mmg.com](https://www.mmg.com)



01: Who we are



The metals we mine

We operate and develop base metal projects across Australia, the DRC and Peru with a balanced approach and regard for the environment when mining for zinc, copper, molybdenum and, from later this year, cobalt.

The metals we mine are in the infrastructure and items we use every day. They are critical to the global energy transition, which requires the production of solar panels, wind turbines, electric vehicles and large-scale batteries and other innovations that will form part of the shift to a lower-carbon economy. We recognise that while our products are critical to a low-carbon future, how we operate also has impact. To that end, MMG has pledged to support measures that will limit global warming and decarbonise our emissions by mid-century.



Read more in our climate change overview on page 62

Our operating model

MMG's vision is to become a 'leading international mining company for a low-carbon future'. We mine to create wealth for our people, host communities and shareholders.

With strong foundations supporting future growth and development, MMG has embedded four strategic drivers into our corporate planning and decision-making processes:

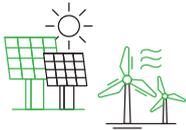
- 1. China Champion:** Building on the strength of the world's largest consumer of metals and mineral resources to create a sustainable competitive advantage.
- 2. Business Miner:** Adopting a mindset that leverages excellence in owning and operating mines to generate superior returns on investment, enhancing our ability to fund and deliver future growth.
- 3. Federation of MMG:** Embracing the advantages of an empowered and diverse operating structure with core Group disciplines and guiding values that drive a unique way of working across our international footprint.
- 4. Delivering Progress:** Taking pride in mining's role in driving social progress through local, regional and national contributions and delivering materials for a changing world.

MMG is structured with largely self-sufficient sites and regional offices. A lowest-cost delivery approach is achieved through our lean corporate presence in Melbourne and Beijing. Common standards applied across our operations manage material risks, support compliance with external commitments, and deliver and maintain competitive advantage.

Portfolio of critical minerals

We are uniquely positioned with a portfolio of base metals assets that are critical to a low carbon future.

Table 1: 2050 Estimated increase from 2020 (annual demand)

						
MMG portfolio	New electric vehicles	Solar/wind power	Power devices and energy storage	Grid enhancement	AET* 1.5°C scenario growth	
 Copper	6.4Mt >300%	0.8Mt ~80%	- -	6.9Mt 85%	>2x	
 Zinc	- -	0.9Mt ~180%	0.1Mt >1000%	- -	~2x	
 Cobalt	49kt >80%	- -	72kt ~120%	- -	~1.5x	

* Accelerated Energy Transition.

Who we are

CONTINUED

Our strategic approach

Purpose	We mine for progress				
Vision	To create a leading international mining company for a low carbon future				
Mission	We mine to create wealth for our people, host communities and shareholders				
Ambition	Grow and diversify our resource, production and value, by leveraging Chinese and international expertise				
Strategic drivers	China Champion	Business miner	Delivering progress	'Federation of MMG'	
Our values	 We think safety first	 We respect each other	 We work together	 We do what we say	 We want to be better
	Producer of copper and zinc: products essential to a low carbon economy.				
	Our commitment to international standards and maintaining strong relationships with stakeholders are critical to enabling our growth ambitions.				
	Support from major shareholder China Minmetals Corporation (CMC) is critical to our success and positioning as China's premier international growth platform.				

Growth strategy

Our growth 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 some of the world's most prospective mining regions containing essential minerals. Our business applies 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.

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, is key to our success.

China Minmetals Corporation (CMC)

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

As China's largest metals and minerals corporation, CMC has strong relationships with overseas institutions and operates resource and construction projects in more than 60 countries. In 2022, it was ranked 58th in the Fortune Global 500 list of companies – the 16th consecutive year of being listed.

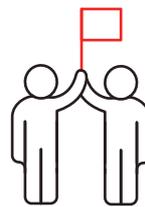
CMC operates across the industry value chain, from resource acquisition and exploration to project design, construction, operation, marketing, distribution and further processing in the global metals and minerals sector.

Committed to the efficient use of natural resources, CMC has achieved a series of technological innovations. Its sustainability philosophy seeks to create the greatest possible integrated value for the economy, society and the environment, achieved by operating with integrity and aligning competencies to stakeholders' goals, based on local economic and social needs.

Employees uphold a sustainable development philosophy through the careful use of limited resources. With the goal of building a world-class metals and minerals business, CMC strives to be a leading state-owned capital investment company in the metals and minerals industry.

Value chain

Our value chain extends from initial exploratory work to identifying and extracting prospective mineral deposits from ore through to responsibly closing sites by monitoring environmental and social impacts and land restoration for future use. Raw materials are despatched by road, rail and sea from our mines in-country to export ports and are marketed to customers as saleable products.



We have built a strong foundation in some of the world's most prospective mining regions containing essential minerals. Our business applies international standards, coupled with an operating philosophy of simplicity and efficiency

Who we are

CONTINUED

Supply chain

To satisfy our operating sites' energy, logistics, fixed plant and mobile asset activity needs we source goods and services that align with our Supplier Code of Conduct. About 906 supply contracts were entered into or renegotiated in 2022, with a total value of US\$1.7 billion. MMG also established business relationships with 560 new suppliers. In total we maintained 4,871 active suppliers.

In 2022, we reported on agreed supplier contract performance measures. Our Modern Slavery Escalation Protocol and Remediation Guidelines advise MMG people on actions to take if they become aware of any suspected or actual modern slavery risks and exposures connected to our operations or supply chains. In preparing these documents, MMG referenced the *Guidance for Reporting Entities* published by the Australian Department of Home Affairs.

A range of non-financial criteria requires our suppliers to comply with laws including the avoidance of inhumane treatment of workers while provisioning fair wages and safe working conditions, and a preference for local employment and employee development, among other actions.

Looking ahead, our supply chain, legal and risk functions are engaging a third party to assess supplier credit and compliance that will extend into 2023.

Our customers

We sell our products to a global customer base and work closely with them to deliver value. 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

MMG strives to meet our customers' quality expectations by mining commodities that are safe for people and the environment during their transportation, storage, handling and processing.




Modern Slavery Risk – Supplier Questionnaire

In 2022, we continued screening new suppliers for modern slavery risks through a questionnaire. Introduced in 2021, this survey process is helping MMG to make detailed assessments of each of our supplier's commitments to the prevention of unethical human rights practices within their own operations and supply chains by assessing potential risks. In 2023, MMG will review the effectiveness of the supplier questionnaire and consider how we can align its use with the findings of our modern slavery risk considerations. MMG's 2022 Modern Slavery Statement will be released in the second quarter of 2023.

As a member of the International Zinc Association (IZA) and a regional member of the International Copper Association (ICA), we contribute to the development of new and safe applications with global benefits.

Our commitment to sustainability

We seek to minimise any negative operational impacts and to maximise the benefits we bring to our host communities, regions and, through the products we produce, consumers and the general public. This approach has been endorsed by our Board of Directors and senior management team and is executed Company-wide through our organisational policies and standards.

MMG's commitment to operating in line with the ICMM's 10 Mining Principles is set out in our Safety, Security, Health and Environment Policy (refer to our Appendix for the ICMM Mining Principles on www.mmg.com). Our approach to sustainability is also guided by our:

- Sustainability Framework
- Corporate Governance Policy
- People Policy
- Quality and Materials Stewardship Policy
- Shareholder Communication Policy

We seek to minimise any negative operational impacts and to **maximise the benefits we bring to our host communities, regions and, through the products we produce, consumers and the general public.**



We are active members of leading industry organisations, including:

	Chamber of Mines of the DRC
	International Council on Mining and Metals
	International Zinc Association
	International Copper Association (Australia)
	Queensland Resources Council
	Peru Sociedad Nacional de Minería, Petróleo y Energía (Peru National Society of Mining Petroleum and Energy)
	Tasmanian Minerals, Manufacturing and Energy Council
	Voluntary Principles Initiative (Full Member)

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

Who we are

CONTINUED

Our standards, risk management and assurance

We manage material risks, meet legal and external obligations and strengthen our competitive advantage and organisational effectiveness through our business-wide standards that align with the ICMM's Mining Principles and the eight ICMM Position Statements. MMG's Risk Management Standard is based on ISO 31000:2018, the international risk management standard.

This Standard outlines how we identify, analyse, control and evaluate risks within the Company. Risks are assessed against consequence criteria to determine the maximum foreseeable losses that would arise in the absence of existing controls. This process helps to determine material risk information, which is presented to the Audit and Risk Management Committee and the MMG Board for active oversight.

MMG's assurance program verifies that the critical controls required to manage material risk events are implemented and effective, applying a 'Three Lines of Defence' assurance approach to our standards.

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.

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

The Third Line of Defence is MMG's internal audit program, which tests the design and effectiveness of our standards and 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 2022, the annual internal audit plan was approved by the Audit and Risk Management Committee. The focus of the internal audit program is on material risks to the business, encompassing both financial and non-financial risks.

CASE STUDY

Las Bambas first climate change and decarbonisation forum

Marking Peru's annual Environmental Education Week, last October Las Bambas convened its first climate change and decarbonisation forum attended by several hundred participants from the mining industry and government, including the Climate Change and Desertification Adaptation Director of the Ministry of the Environment and key ministry heads. Edgardo Orderique, Las Bambas Operations General Manager, noted the significance of copper as a critical metal used for sustainable technologies. Future forums will report on the environmental stewardship required to meet demand while slowing climate change.



Our people

We are equipping our people with the right capabilities and development opportunities to deliver on our strategy.

MMG's global 'People Standard', governing employee benefits, is supported by Work Quality Requirements, systems and processes covering people availability and onboarding, remuneration, performance and development management, equitable treatment and inclusion, and travel approvals.

We select the best people, rewarding them with competitive remuneration that matches market conditions, aligning with relevant statutory requirements in the countries where we are based. Wherever possible, MMG cultivates local employment opportunities, investing in training and education. We recruit talented people from diverse backgrounds, particularly from the communities and regions where we work.

Through MMG's 'My Progress' process, we align our people's skills and experience with the Company business plan to fulfil their role requirements, closing any capability gaps with vocational training and competency verification to drive safety and efficiencies and to manage any material business risks.



CASE STUDY

MMG Las Bambas Women in Copper Program

A number of international studies are proving that gender diversity can directly contribute to companies' profitability. A more inclusive workforce that draws on the capabilities that both men and women offer might also be a way to meet some of the mining industry's expectations and needs. MMG Las Bambas is working to close gender gaps through its Women in Copper Program. The intent is to equip a female talent pool with the necessary tools and skills to be suitable for a variety of roles, with scope for promotion and leadership opportunities. Learnings and insights are further extended through training, seminars, advice from professional consultants and mining industry networking. In 2023, Las Bambas will monitor the program's progress.

MMG people as at 31 December 2022

Table 2: 2022 Total workforce by employment type and site

Site	Permanent	Temporary	Permanent %	Temporary %	Total Workforce
Dugald River	334	433	44%	56%	767
Kinsevere	902	1,578	36%	64%	2,480
Las Bambas	2,623	4,798	35%	65%	7,421
Rosebery	337	193	64%	36%	530
Corporate	172	6	96%	4%	178
Australian Operations	31	0	100%	0%	31
MMG	4,399	7,008	39%	61%	11,407

Permanent employees are those directly employed by MMG. Temporary employees include contractors, consultants and other short-term engagements. Headcount for MMG permanent employees is at 31 December 2022. For temporary, this is an average of the total workforce throughout the course of the year.

Who we are

CONTINUED

Our traineeship, apprenticeship and graduate programs are building global mining expertise. Through our Dugald River operation we are skilling the Indigenous Kalkadoon People of the Mt Isa region. Ongoing professional training is bolstering employment paths for our Rosebery and Kinsevere mines. Our Las Bambas and Australian operations are benefiting from peak body learning opportunities through their respective associations with the Peruvian national training provider SENATI, and Monash University's Mining Engineering course. Key 2022 initiatives included:

- Continuing our Senior Leadership Development program in partnership with the Sustainable Minerals Institute, University of Queensland.
- Maintaining our annual 'My Performance' process comprising objective setting, performance discussions and development planning.
- Holding regular capability planning sessions with the Executive Committee to review succession plans and development actions.
- Re-launching 'Learning Bite' sessions to showcase internal strategic work and to support professional development.

MMG Group-wide 2022 diversity and inclusion initiatives comprised:

- A commitment to increase female participation in MMG's 2023 business plan with targets and programs to increase their representation
- Flexible working arrangements for Melbourne's head office as an ongoing arrangement

In 2022, MMG employed 4,399 employees, an increase on 2021 numbers (4,256). Contractors remain an important part of our business model for the execution of short and medium-term projects and to ensure flexibility in a changing economic environment.

MMG undertakes workforce and community engagement and offers support to individuals affected by changes due to business decisions. Acknowledging that organisational changes and restructures can affect mental health and wellbeing, out-placement programs help to support those made redundant together with counselling services.



Senior Leadership Program (SLP)

MMG is building its future team capability. In partnership with the University of Queensland Business School and the Sustainable Minerals Institute, global senior employees are stepping up thanks to a SLP themed the 'Next Generation Business Miner'. MMG leaders are enhancing their strategic thinking, decision making and leadership capabilities together with a better understanding of organisational effectiveness, sustainable global practices, innovation and the business of mining and risk controls. Personal and professional learning benefits include grasping how to proactively respond to situations, collaborating to manage critical issues and having a shared understanding of key challenges facing MMG and the wider industry. More than 40 participants completed the May and November program which will continue in 2023. Regional leadership programs brought opportunities for groups including:

- Las Bambas' training targeted at the superintendent and above levels.
- Rosebery supervisors attended a leadership and management course (Certificate 4).
- Dugald River supervisors and coordinators completed a 'Challenge of Leadership' course.



CASE STUDY

A voice for future generations

Molly Stanistreet, Senior Mine Geologist at the Dugald River mine, is an active member of the 'Women of Dugald River', a collective that's creating a safe, supportive and encouraging group environment for all female site employees. Molly also mentors high school students by sharing her perspectives on some of the career opportunities that come from working in the resource industry.

"Every day, women are breaking through barriers that generations before us were bound by. It's our responsibility to support, encourage and empower women to pursue a career in anything they choose. By being a voice for future generations, we are not only advocating for the equality of women, but for all personnel, female, male, gender diverse, all cultures, all ages and all backgrounds. Diversity is what makes us human, it's our story, it's our identity and it's our responsibility to continue the pursuit of inclusion and equality that generations before us began."

In 2022, Molly was nominated as a Young Woman in Queensland Resources finalist in the Queensland Resources Council/WIMARQ Resources Awards for Women.



MMG cultivates local employment opportunities, investing in training and education. **We recruit talented people from diverse backgrounds, particularly from the communities and regions where we work.**

Who we are

CONTINUED

Table 3: 2022 MMG permanent workforce by employment type and gender

	Full time		Part time		Casual		Limited tenure F/T	
	Female	Male	Female	Male	Female	Male	Female	Male
Dugald River	31	264			3	7	7	22
Kinsevere	109	629			0	97	14	53
Las Bambas	274	2,196			0	0	38	115
Rosebery	33	292	2		1	3	1	5
Corporate	61	48	2		2		18	41
Australian operations	9	17	3		0	0	1	1
MMG total	517	3,446	7	0	6	107	79	237

This table refers to MMG permanent employees directly employed by MMG. This does not include temporary employees, including contractors or consultants.



Table 4: Percentage of MMG employees on collective agreements

	2021	2022
Dugald River	43.3%	45.1%
Kinsevere	93.0%	92.7%
Las Bambas	42.1%	45.6%
Rosebery	50.8%	46.7%
MMG	50.49%	54.82%

This data represents MMG permanent and temporary employees, not including contractors.

CASE STUDY



Supporting female education in the DRC

The United Nations Sustainable Development Goals (SDGs) highlight the importance of education by bringing people the knowledge and skills necessary to prosper as well as fostering a greater level of understanding and tolerance within communities. MMG Kinsevere endorses the SDGs by supporting local education initiatives, particularly those benefiting young girls.

In 2022, the Kifita village school celebrated the first recipients and graduates of the MMG Kinsevere scholarship program including Irma Mbuyu (pictured) who commenced her first year of university in Lubumbashi after receiving an MMG scholarship to complete her secondary studies.

In the first scholarship program year, 10 girls completed the national state exams with a 99% pass rate, followed by another 41 students, including 17 girls. To date, based on performance monitoring overseen by a non-profit organisation specialising in education, a total of 102 scholarship recipients, including 39 girls, have benefited from Kinsevere's support since primary school. The construction of a secondary school in the Kifita village (see page 46) will progress students' educational opportunities, a basic right that is often denied to girls who face cultural expectations of early marriage.



02: The way we work



The way we work informs our contribution to shared global Sustainable Development Goals.

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

The Board regularly reviews and discusses sustainability-related issues and the quarterly Safety, Health, Environment and Community (SHEC) report. Management decisions are delegated to the Executive Committee. The following principles underpin the way we work at MMG.

- We value our major shareholders' support in bringing MMG access to international capital, facilitating working relationships in challenging jurisdictions and for sharing our commitment to develop opportunities for our people and host 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 informs the way we work. Beyond this, our continuous improvements align to recognising key business risks and opportunities. We adopt international frameworks to ensure a consistent approach.
- We operate ethically and transparently and encourage others to follow our lead.
- We take a life-of-asset approach, planning with the end in mind, maximising the development value of our natural resources and enduring community benefits.
- Our business decisions leverage development outcomes, demonstrating our value to communities and governments within their regions and nations.
- We are supported by a 'Federated' organisational structure – bringing accountability for whole-of-business performance as close as possible to the operations, while maintaining a core of shared values, standards and governance.
- We partner with organisations that share our values and commitment to human progress and development, leveraging greater outcomes from MMG's investments.

Corporate governance

We uphold a high standard of corporate governance through a quality Board, sound internal controls, transparency and shareholder accountability. For MMG, good governance extends beyond the Board, with executive management embedding governance practices across the organisation. 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 ICMM.

Our Audit and Risk Management Committee and the Governance, Remuneration, Nomination and Sustainability (GRNS) Committee operate under clear terms of reference. We also have a number of executive management committees, including the Executive Committee, the Disclosure Committee, Investment Review Committee, Mineral Resources and Ore Reserves Committee and Code of Conduct and People Committee. A function of the Executive Committee is to review safety, health, environmental and social performance to improve efficiency and effectiveness. Specific SHEC matters to be discussed by the Board include identification, review and governance of SHEC-related material issues, significant incidents, remediation/mitigation strategies and any specific areas of focus as identified by the Board.

In accordance with the Company's Sustainability Framework, endorsed by the Board and implemented across the Company, the Board carries out identification, review and governance of SHEC-related material issues consistent with this framework. The framework aligns with the ICMM's Mining Principles. The Company's approach is informed by our Corporate Governance Policy, People Policy, Shareholder Communication Policy, SHEC Policy, Human Rights Policy and Quality and Materials Stewardship Policy.

MMG endeavours to ensure that all applicable transactions comply with the Hong Kong Listing Rules.



More information on our committees and our Corporate Governance Statement is available in our 2022 Annual Report at www.mmg.com

The way we work

CONTINUED

Business ethics

Our values and Code of Conduct inform ongoing, long-term stakeholder relationships with communities and other stakeholders, with formal structures guiding how we review and respond to any potential behavioural, ethical or cultural issues as they may arise.

MMG's Code of Conduct, which sets out the standards of behaviour for our employees, contractors and suppliers, covering areas such as conflict of interest, fraud, anti-corruption and legal compliance, is overseen by our Code of Conduct and People Committee, chaired by the Executive General Manager, Corporate Relations.

MMG engages an independent confidential whistleblower service. The Whistleblower Framework is integral to MMG's Corporate Legal Compliance Standard. In 2022, MMG updated its stakeholder grievance mechanism to fully align with this framework and additional mechanisms for anonymously raising grievances, further strengthening protections for stakeholders who raise issues with MMG. We also have an Anti-Corruption Standard and Framework.

All MMG employees including management and directors are informed of and required to comply with the Code of Conduct and Anti-Corruption Standard and Framework as a condition of their employment. An online training module is made available to employees and directors and face to face training is conducted from time to time. As part of our new set of Sustainability performance indicators in effect as of 2022, progress against targets relating to the percentage of employees required to complete anti-bribery and corruption training modules as well as grievance response and resolution times were regularly monitored by the MMG Executive Committee and MMG Board. In 2023, ongoing monitoring will be conducted quarterly by MMG's Executive Committee and the GRN Committee.

We recognise that some of the jurisdictions where we are based present unique human rights challenges. Because of this, we seek to match good governance with a commitment to transparent initiatives, such as the Extractive Industries Transparency Initiative (EITI) coupled with open and reciprocal host community discussions.

Privacy and cyber security

Managing cyber security risk is a priority applied across MMG's different jurisdictions. All employees are required to understand and adhere to the acceptable use guidelines outlined in the MMG Technology Work Quality Requirement (WQR). This sets a safe technology use standard to protect our people and data from the risk of cyber security attacks, which could compromise MMG systems and services. In 2022, we reviewed and updated the WQR for mobile phone and USB drive use.

An outsourced professional cyber security organisation delivers MMG's professional security service. Throughout 2022, a number of security activities performed across the business included a Critical Cyber Incident Response Plan desktop exercise, System Access Management, SAP audit, FM Global Risk Assessment, Deloitte audits, external security assessments by The Missing Link, enterprise-wide mandatory security awareness training, internal material risk management and mitigations, and Las Bambas IT and Operations Technology (OT) security assessments. Other 2022 security projects and solutions comprised:

- Carbon Black anti-virus solution implementation
- Enterprise-wide security maturity assessment
- Data and application classification
- Rapid 7 vulnerability management solution
- Cloud-based remote self-service password reset
- USB storage blocking
- IPS (Intrusion Preventing System)
- Forescout OT security management
- Elevated credential management

In 2023, MMG's Enterprise Technology Security team will continue its security weakness identification and risk mitigation oversight, focusing on data protection, insider threat management, authorised software management and web application security.



In 2023, MMG's Enterprise Technology Security team will continue its security weakness identification and risk mitigation oversight, focusing on **data protection, insider threat management, authorised software management and web application security.**

Compliance and conformance

The Governance, Remuneration, Nomination and Sustainability Committee is responsible for developing and reviewing the Company's policies and practices on corporate governance, the Code of Conduct, and monitoring MMG's compliance with the listing rules and other applicable laws.

Our Executive Committee monitors our performance in line with the Company's policies, standards and regulatory requirements relating to safety, health, environment and community.

In 2022, MMG had no material events that took place relating to environment, health and safety or material regulatory enforcement. For material tax matters please refer to the 2022 Annual Report on pages 197 and 198.

Following the rectification of an environmental infringement received by the Kinsevere mine regarding copper concentration and low pH in 2021, a review process for new corrective actions was underway as at 31 December 2022.

The way we work

CONTINUED

Safety and health

At MMG, safety is at the core of everything we do. It 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.

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

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

Safety leadership at MMG

Safety is MMG's first value. Our approach is based on avoiding 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 frontline leaders to effectively implement MMG standards and processes; and
- continually supporting and enabling safe behaviour.

We 'Think Safety First', with MMG's safety performance consistently ranked among the lowest Total Recordable Injury Frequency (TRIF) of ICMM members (Total recordable injury frequency per million hours worked). MMG recorded a TRIF of 1.25 per million hours worked for the full year 2022. This result represents a continuation of the low TRIF when compared with MMG's ICMM peers.

MMG's safety performance in 2022 was 15% unfavourable compared with the 2021 TRIF, but a 16% improvement in second half of 2022 compared with first half of 2022. While we have made significant progress in reducing our TRIF, tragically in February 2023 two Barmingo contractors lost their lives in a safety incident at our Dugald River operation. Investigations into the incident are now underway.

Table 5: Safety statistics by site in 2022 and trend from 2021

	TRIF		LTIF	
	2022	Trend	2022	Trend
Dugald River	3.73	∨	0.62	∧
Kinsevere	0.86	∧	0.14	∨
Las Bambas	0.59	∧	0.18	∨
Rosebery	10.88	∧	4.53	∧
MMG	1.25	∧	0.37	∨

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 2021.

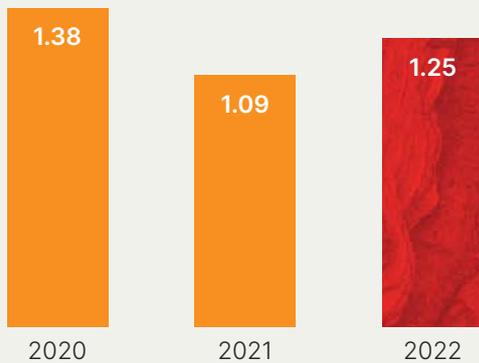
∨ represents a decrease relative to 2021.

Note: More information about our 2022 safety data, by site and by employment type, can be found in our 2022 Sustainability Report Appendix at www.mmg.com.

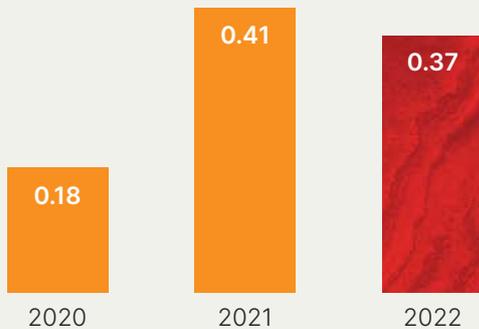
In 2022, MMG recorded a total of 25 significant energy exchange events, with 19 related to vehicle and mobile equipment operation. To mitigate risks, we apply site-specific critical controls and groupwide standards and encourage employees to report events that affect them or that they observe in the workplace. Post incident reviews and investigations are bringing important learnings that inform our safety processes.

Looking ahead to 2023, MMG's focus is on leading safety indicators. By reviewing our safety performance and identifying opportunities for improvement in the early stages, we can prevent serious incidents. We will also continue working with the ICMM on its relevant 2023 initiatives towards eliminating fatalities in the mining industry.

MMG TRIF



MMG LTIF



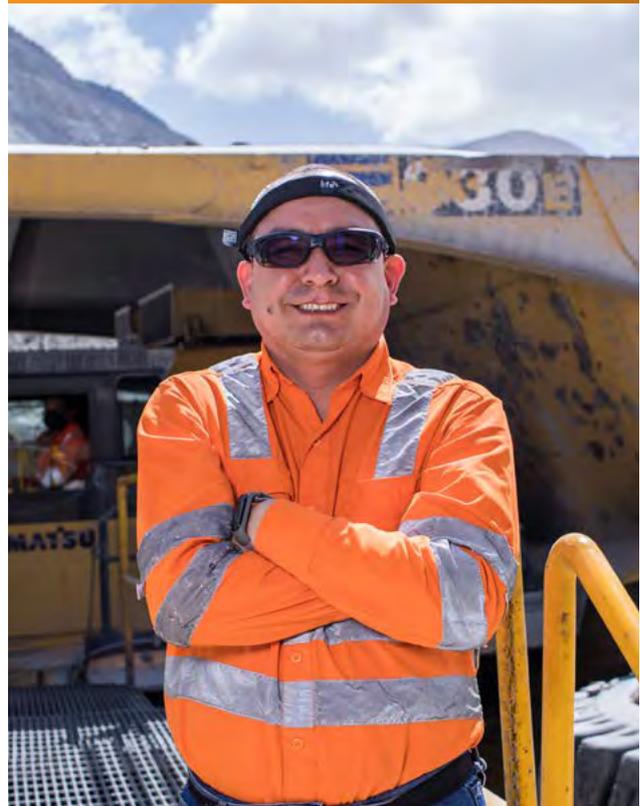
Note: The main types of work-related injuries that occur at MMG are largely first aid (129), followed by lost time (10), restricted work (16) and medically treated (8) injuries. All workers including contractors that perform any task or activity controlled by MMG are included in these disclosures as per the SSHE Performance Standard.



CASE STUDY

Las Bambas fatigue and drowsiness prevention

Safety first is a daily mindset for the Las Bambas team. A site Fatigue Management Plan assesses known risks that can lead to employees feeling tired or drowsy. Teams are trained to identify multi-faceted potential risks when scheduling working shifts to promote a safe and injury-free workplace, including adequate nutrition, occupational medicine, and suitably ventilated rest environments with optimum lighting, noise levels and thermal comfort. Of equal importance to physical wellbeing, the site monitors for potential psychological stress. To mitigate individual risks, several measures are deployed, including occupational exams, self-assessment cards, modifying work zones and by implementing fatigue detection systems. A specially designed cap fitted to employees' heads is an important fatigue detection device that is worn during shifts, as pictured in this photograph.



The way we work

CONTINUED

Safe task management

Our SSHE Performance Standard defines the requirements for conducting work safely, with a particular focus on ensuring our people are trained and competent in identifying and managing hazards and completing tasks safely.

In 2022, we placed a strong emphasis on understanding the opportunities identified through field time observations, in addition to improving the quality of observations.

As well as the implementation of the SSHE Performance Standard, our focus was on the understanding and implementation of the Safe Task Management elements

of the SSHE Performance Standard, including environmental conditions, people and resource availability, the authorisation of all permits, and assignment of tasks to those with skills and the capability to complete the work safely.

All workplace hazards are identified, managed and verified for the effectiveness of task allocation through Field Task Observations (FTO). In 2022, sites continued to comply with the FTO schedule and improvement opportunities from the FTO findings. Our people are empowered to stop a task and advise a supervisor if the task cannot be carried out safely, or, to intervene to protect the health or wellbeing of everyone or the environment in which they work.



CASE STUDY

Rosebery emergency joint response

Anticipating and planning how to tackle an emergency response does not happen in isolation. In 2022, Rosebery mine employees collaborated with the Tasmanian Police, TasWater, HydroTasmania and TasRail to better understand the development and through-life management of MMG's Tasmanian-based mine, focusing on Tailings Storage Facilities (TSF) – reservoirs that store mine by-products. Roles were documented as a preparatory exercise should an emergency event occur at one of the TSFs. The exercise examined the State Special Emergency Management 'Dam Safety Emergencies' Plan and determined relevant stakeholder responsibilities as defined in the plan.



Fatal risk management

MMG's Fatal Risk Standard and Risk Management Standard describe 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 to manage them. 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. During 2022, fatal risks critical controls were undertaken and verified according to our risk management and critical control designs. Risks were also reviewed based on learnings from significant events reported during the period.



Our people are empowered to stop a task and advise a supervisor if the task cannot be carried out safely, or, to **intervene to protect the health or wellbeing** of everyone or the environment in which they work.

CASE STUDY

Four million people-hours without recordable injuries

Preventing incidents is a mindset for all MMG employees. What matters gets measured, and the Las Bambas Mine Operations Department recorded a very welcome safety milestone in 2022 by accumulating four million people-hours while mining 230 million tonnes over 514 days without recording injuries. Las Bambas' Mine Operations Manager, Rafael Ponce de León, said that many factors returned this robust safety record, including the mine's Occupational Safety and Health Management System, policies, values, standards, training procedures and preventive tools such as 'Stop and Think', 'Raise Your Hand' and heeding MMG's first value – 'We Think Safety First'. Drilling, blasting, loading, hauling, and use of explosives and giant mobile equipment are daily high-risk mining activities. Las Bambas is proud of this very welcome safety record while stressing the ongoing efforts required by every employee to maintain an injury-free workplace.



The way we work

CONTINUED

Safety, health and environment reporting and investigations

Timely interventions or corrective actions to prevent fatalities, significant events and repeat incidents are informed through the SSHE and Risk Management Standard. In 2022, we updated the common SSHE reporting and recording Work Quality Requirement (WQR) across all operations, including:

- A central electronic Incident and Event Management system (IEM) overseeing corrective actions for incidents, near-misses, high-risk hazards, legal non-compliances, inspections and audits.
- The Incident Cause Analysis Method (ICAM) as our common approach for assessing the underlying causes of incidents.
- A 'work as intended versus work as normal versus work as done' investigation methodology to better understand significant incident causes. This is part of the ICAM process.
- Sharing learnings from MMG-wide incident investigations to prevent repeat occurrences and to challenge the effectiveness of the design and execution for our fatal risk critical controls.

Emergency management and people and asset protection

To protect people, assets and communities our operations maintain site-specific Emergency Management Plans to mitigate the risk of all material risk events and potential infrastructure failings, with the required protocols, resourcing and regular continuous improvement testing drills. In 2022, we conducted refresher crisis management training in our Head Office with the participation of the Crisis Management Team.

In developing Security Management Plans based on site-specific risks, MMG sites require all private security companies to be signatories to the International Code of Conduct for Private Security Providers and the Voluntary Principles on Security and Human Rights (VPSHR). During 2022, MMG had no VPSHR breaches.

Occupational health and hygiene

In the SSHE Performance Standard, MMG defines requirements for management plans covering exposures to harmful agents, endemic disease and pandemics, fatigue management and employee health and wellbeing. Health exposure risks are informed through yearly reviews. Similar Exposure Groups (SEGs) are reviewed and the annual Occupational Hygiene Monitoring Plan is implemented. In 2022, sites identified critical controls to eliminate or mitigate the sources of hazards and exposure to carcinogens through the following measures:

- Polypropylene balls added to chemical tanks break down bubbles, reducing the likelihood of sulphuric acid mist being released into the 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.
- Mandatory respiratory protection, including training for dealing with welding fumes.
- Surface lead testing programs in conjunction with atmospheric testing programs.



Health exposure risks are informed through yearly reviews. Similar Exposure Groups (SEGs) are reviewed and the annual Occupational Hygiene Monitoring Plan is implemented. In 2022, sites identified **critical controls to eliminate or mitigate the sources of hazards and exposure to carcinogens.**

Air quality management

Preserving a healthy workplace and environment guides MMG's fuel combustion and supply contracts when procuring equipment, electricity and fuel. Most emissions to air are from heavy mobile equipment used for mining, product transport, primary crushing and onsite power generation. Our climate change section on page 62 outlines our emissions reduction strategy.

Dust generated by heavy haul and logistics is suppressed using water and bischofite, and, in Peru, through ongoing government road sealing. Mitigation measures applied across our sites include:

- At Rosebery, live weather stations trigger email and text message alerts when increased dust conditions occur.
- Dugald River remained compliant in 2022 through its Air Quality Monitoring Program that detects arsenic, cadmium, copper and lead.
- At the Las Bambas Ferrobamba pit, water cranes on access roads and sprinkler systems to the Chalcobamba pit have been installed. Water and dust suppressants are applied along the Southern Road Corridor using tanker trucks hired from local businesses.

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

In 2022, our Dugald River site communicated and complied with a requirement that employees and contract partners undertake periodic medicals designed to identify any lung function changes and to prevent lung disease by detecting any early signs or indicators. The site's senior executive is required to arrange respiratory health surveillance for workers prior to commencing work, and then at least once every five years. Respiratory health medical examinations must include:

- a chest X-ray read by qualified radiologists to the International Labour Organization (ILO) standard;
- spirometry tests and comparisons with previous spirometry tests where available; and
- any examination deemed necessary by an appropriate doctor to support the early detection of injury or illness to the person's respiratory system (e.g. high-resolution computed tomography scan).



CASE STUDY

Air controls and occupational health and hygiene

Evaluating and responding to occupational health risks is critical for a mining operation. Las Bambas is cultivating a safety culture where everyone onsite understands the potential health impacts of carcinogenic agents, with controls guiding employees to assess and manage risks. A Health and Hygiene Committee is overseeing a review process that implements action plans for measuring and maintaining air quality in closed areas coupled with efficient air filtering systems. These steps are keeping track of consistent air quality across transport, including buses, mining equipment cabins, control rooms and camps.

During 2022, a healthy Las Bambas work environment was bolstered through an occupational hygiene work plan. Together with strategic partners, health assessments and, where necessary, treatment plans, follow-up medical care and return to work arrangements are followed. Program scope is extensive, covering a large remit that includes hearing conservation, respiratory protection, musculoskeletal injury prevention, healthy living, wellbeing, mental health and fatigue and drowsiness management, to name just a few. On-site medical units diagnose and treat employees and recently acquired ambulances, which are used for transportation when required, can also be mobilised. Importantly, the site complies with international standards and best practices in mining health and hygiene. To find out more about how Las Bambas is combating fatigue, see page 27.

The way we work

CONTINUED

Las Bambas has also implemented an annual occupational medical exam for all employees at our designated Antawasi Medical Centre facilities. Occupational health surveillance is an ongoing process that consists of caring for the health of our employees, using identification, assessment, analysis, interpretation and communication methodologies and techniques. To prevent risks, accidents and occupational diseases, we have developed an occupational health surveillance system that involves the following:

- surveillance of the occupational health management of our strategic partners;
- audit of occupational medical exams at standardised occupational clinics;
- occupational medical certificates of fitness in less than 24 hours;
- occupational health statistics for appropriate epidemiological surveillance; and
- follow-up of medical cases.

As part of the progressive improvement and timely healthcare, we have implemented support medical units at the XP and Charcascocha camps.

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. This is done to protect the health and wellbeing of our employees and to comply with national and state requirements. We have strict hygiene protocols, as outlined in our blood lead management procedures, and conduct ongoing monitoring – adjusting work practices and work environments as required. As a result, we are confident that our management of lead exposures is highly effective.

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 guides for the control of blood lead levels in our people.

Fit for work

We cultivate a safe work environment where all individuals are fit for work, extending to not being fatigued or adversely affected by substances through fatigue-monitoring technology in all high-risk roles and random drug and alcohol testing.

In 2022, some sites reviewed existing fatigue-detection technologies for potential improvement opportunities. Rosebery explored a new technology to detect fatigue for underground truck drivers planned for implementation in 2023. Our Las Bambas fatigue and drowsiness program case study on page 27 is an example of this. Our employees are also encouraged to notify us of any changes in their personal circumstances, including their mental health, that could affect their fitness for work.



To prevent risks, accidents and occupational diseases, we have developed **an occupational health surveillance system called SIVISO**

Mental health

Good mental health and wellbeing are priorities for MMG, bringing clear business and employee benefits. We recognise that certain factors can positively or negatively impact the mental health and wellbeing of our people.

Our Mental Health Framework describes the broad actions that we 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.

In 2022, we implemented a number of initiatives to support mental health awareness. These included R U OK Day workshops, mental health awareness sessions and training for mental health first aid officers at Head Office, and ongoing work with Mates in Mining at our Dugald River operation. Las Bambas also launched the 'L-Mental' Emotions program as discussed in the below case study.

Our operations team also spent considerable time working with employees and contractors on the mental health impacts related to the COVID-19 pandemic. This included guidance to support those working from home, how to deal with health and safety controls onsite, how to manage the emotional toll of uncertainty, and additional support for those isolated for significant periods of time during nationwide lockdowns. For more information about our response to COVID-19, see page 08.

Injury management and rehabilitation

MMG recognises that helping people to stay at work or to 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 all injured people will return to work on suitable duties as soon as it is medically safe for them to do so.



CASE STUDY

Managing mental health in a global pandemic

COVID-19 is one of the biggest global crises we have faced in our lifetime. To support our Peru-based teams during this challenging pandemic, Las Bambas launched the 'L-Mental' Emotions program so that employees and their families can better recognise and manage anxiety sparked by the ongoing virus. The program's tools assess psychological wellbeing, how to recognise and control emotions and deal with stress. To further strengthen these health measures, the Las Bambas Family Mental Health Program was developed and rolled out with the support of our medical, nutrition and psychology teams.



The way we work

CONTINUED

Sovereign risk and government relationships

At MMG we strive to deliver sustainable benefits for our stakeholders and prioritise actions and behaviours that are valued by the communities, regions and nations in which we operate.

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 functional experts in Head Office. 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 and protest activity, government policy settings, 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 and security conditions may adversely affect MMG's operations, reputation and profitability.

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

CASE STUDY

Mara district healthcare campaign

Las Bambas assists local authorities and governments by investing in social programs that strengthen acute healthcare needs in communities. In partnership with the Cotabambas Health Network and the Mara district health centre, in 2022 Las Bambas funded medical examinations and assessments delivered by specialists in the fields of gynaecology, paediatrics, ophthalmology, optometry, head and neck medical care and dentistry. Medicines, vitamins, oral care products and eyeglasses were distributed to the general population. The Director of the Cotabambas Health Network, Alex Chafloque, acknowledged the coordinated effort: "Our partner company supports us in disease prevention and the promotion of health in the province districts. We have been working on meeting various community needs, such as by refurbishing of the Pumamarca, Choquecca, Sacsahuilca health centres, a few of the many efforts that we will continue to pursue throughout the year." The Mayor of Mara district, Willinton Guzmán, thanked the Las Bambas team for making specialist examinations and consultations available to Mara residents: "I call on my fellow villagers to take advantage of these campaigns. This will enable them to receive specialised care that we lack at the local health centre."





Stakeholder and community engagement

We aspire to be a trusted member of the communities that host our operations by being open and transparent, showing respect for diversity and gender when engaging in decision-making processes that will affect current and future generations.

The ICMM Mining Principles align with our commitment to community dialogue and free, prior and informed consent (FPIC) regarding Indigenous Peoples. Our discussions vary depending on the nature of the community and pertinent issues, but the objective remains constant – to conduct conversations to respect community cultures, languages, values and customs.

Stakeholder and community engagement relationships

MMG mines for progress with benefits that extend beyond our employees and shareholders.

Business decisions factor in the needs and expectations of host communities and governments in countries where MMG operates. MMG achieves this by:

- **Supporting** local economies and supply chains. Where possible, MMG's local mine operations find opportunities for local enterprises to join their supply chain or enter other regional and national markets.
- **Delivering** employment, business development, healthcare, education, food programs and COVID-19 protection by supporting vaccination programs rolled out by governments.
- **Developing** relationships based on regular and open dialogue, transparency and mutual respect for the cultures, languages, values and customs of host communities.
- **Sponsoring** and participating in local cultural events, grievance management options and environmental monitoring. MMG consistently invites or seeks out valuable information to improve decision-making.

The suggestions, feedback and issues that matter to our stakeholders matter to MMG. Our corporate-level stakeholder grievance mechanism guides each operation with site-specific documentation and processes in the languages spoken by our stakeholders.

The way we work

CONTINUED



El Corazon de Las Bambas – a new model for engagement

The social challenges we continue to face at our Las Bambas operation require us to rethink how we can best support our host communities and local stakeholders. We seek a model that moves beyond a legacy of social conflict while co-designing the most appropriate solutions to meet the needs of our host communities through strong reciprocal relationships. To achieve this, we've established an expert team with interdisciplinary and dedicated resources to help us reimagine our approach for the future and to develop stronger partnerships. When Las Bambas – as the economic heart of Peru's Apurimac region – beats, the whole region prospers. The Corazon program (which means 'heart' in English) is a key priority for Las Bambas in 2023, and we look forward to sharing its progress over the coming months and years.

Our Las Bambas operation is located in the Cotabambas province in Peru's Apurimac region, approximately 700km from the port of Matarani. This includes a 438km road that passes through parts of the Cusco province from Las Bambas to the Pillones transfer station in the Arequipa region, followed by 285km by train to the Port of Matarani. Our community relations and social performance teams maintain strong relationships with over 80 communities to ensure our ongoing dialogue opportunities continue to meet the needs and expectations of local stakeholders. Las Bambas also communicates regularly through Radio Surphuy, its community radio station, which was designed to provide information to communities in both Spanish and Quechua about upcoming events and Las Bambas.

In 2022, engagement with a small number of communities around Las Bambas was limited due to a number of road blocks, as well as national political unrest and events relating to the invasion of our property in April 2022. Despite this, our Las Bambas

team maintained regular, strong engagement with dozens of communities, supporting their local initiatives and participating in community, district and region level development roundtables. We also took the opportunity to reopen the community offices near our operations and along the haul road, which had been closed since early 2020 due to the impacts of COVID-19.

Las Bambas and MMG acknowledge the key role the operation plays, alongside other partners, in supporting the economic livelihood, infrastructure and social development of both the Apurimac and Cusco regions. We will continue to work with community, government and other partners to build a shared vision for the development of these regions.

Dugald River engages with regional stakeholders including traditional landholders and government, encouraging industry development opportunities. During 2022, we worked closely with major suppliers, encouraging them to focus on and report local employment and spend.



CASE STUDY

Kinsevere social endowment fund



MMG Kinsevere’s social endowment fund is managed in collaboration with local DRC communities and regulatory bodies as set out in the DRC Mining Code, building sustainable social development projects including infrastructure works.

In 2022 MMG Kinsevere contributed nearly US\$5.8 million to fund critical social investment and infrastructure projects in our local communities. This investment represents 0.3% of Kinsevere’s turnover from June 2018 to October 2022. The DRC Minister of Mines appointed committee members in an official ceremony.

A recent member training session is facilitating fund management and project allocation capacity, further promoting ongoing training and development.

Rosebery maintains regular dialogue with local communities on matters including mine operations, tailings facilities, water use and employment opportunities. In addition to community consultative meetings, targeted information sessions were also held with local stakeholders about the ongoing tailings storage facility (TSF) projects.

Kinsevere’s community development team worked with its nearby communities and local government representatives on a range of issues in 2022, including water discharge, artisanal mining and road safety near our powerline road. We also continued to collaboratively develop sustainable investment programs and initiatives, including the ongoing work to implement the five-year community investment known as the Cahier de Charge.



A matrix of our broad stakeholder groups, their areas of interest and our engagement process are available online in the Sustainability Report Appendix at www.mmg.com



Our community relations and social performance teams **maintain strong relationships with over 80 communities**

The way we work

CONTINUED

Grievance management

MMG engages with communities early and through all phases of our operations to ensure the views of all our stakeholders are reflected in decision-making processes regarding our operations and in the design and distribution of benefits.

We recognise that 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 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.

Open and transparent dialogue is the best way to manage these disagreements and, if necessary, we involve government representatives and independent third parties to obtain lasting solutions that are beneficial to all. 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.

In 2022, we received 197 grievances across our operations. The majority of these continue to relate to local supply, operational impacts and damage to private property.

We continue to apply significant effort to address 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 dedicated teams working along the supply and logistics corridor for all our operations to ensure regular environmental and road monitoring to mitigate any potential impacts arising from our logistics transport.

All our sites have their own specific Stakeholder Grievance Management Work Quality Requirements, which are aligned with the ICMM's guidance document

Handling and Resolving Local-level Concerns and Grievances: Human rights in the mining and metals sector (2019), as well as the ILO Declaration of Fundamental Principles and Rights at Work, the EITI and the United Nations Global Compact.

In late 2022, we updated our MMG-wide grievance management mechanism to include greater alignment with MMG's Whistleblower Framework and modern slavery remediation protocols. Training for the new requirements set out in the mechanism will be conducted in the first half of 2023 for all site employees who come into contact with host communities and stakeholders, with sites required to update and roll out their own mechanisms by the end of 2023.



Las Bambas dialogue with host communities

MMG continues a respectful dialogue with Peru's communities at a time when more than half of the country's social conflicts are related to mining. The southern mining corridor is an area of high conflict, with blockade risks along logistics and transportation roads, which have become a means for communities to exert pressure on companies and governments. However, MMG continues to make progress with agreements across the six communities involved in the 2022 site protests, as well as with other districts in its area of influence. Achieving a positive, sustainable and enduring agreement with local stakeholders remains MMG's priority and is key to unlocking the next phase of growth opportunities at Las Bambas.



Table 6: 2022 grievances received by case type

Case type	Kinsevere	Las Bambas	Rosebery	Total
Community health and safety	0	1	4	5
Compensation and financial benefits	0	0	1	1
Damage to private property	3	34	0	37
Economic – local employment	0	5	1	6
Economic – local supply	0	132	1	130
Environment	0	4	1	4
Infrastructure and services	0	0	1	1
Operational impact	3	0	4	7
Social investments and commitments	1	0	0	1
Total	7	176	13	197

The way we work

CONTINUED

Human rights

MMG respects the human rights of all our stakeholders and communities in which we live and operate, bringing them access to effective remedies where we make an impact. With human rights covering a broad range of interrelated issues, they require an integrated approach across numerous business functions, which is achieved through MMG’s human resources, legal, supply chain, social performance, stakeholders relations, security, exploration and project development functions.

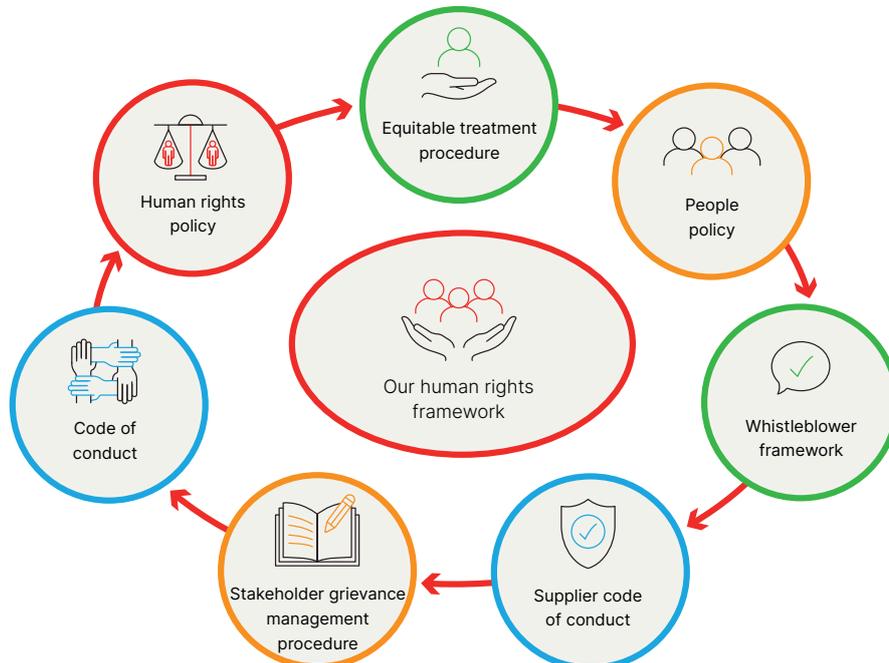
Our commitment is outlined in our Human Rights Policy and our approach to managing human rights risk within our broader Risk Management Framework as well as our Code of Conduct, our Supplier Code of Conduct, employment and procurement processes, Whistleblower Framework, risk-analysis activities, engagement, social investment and formal grievance mechanisms.

Human rights are considered a material sustainability issue for our business, and are represented at a corporate level by the Executive Code of Conduct and People Committee as well as the Governance, Remuneration, Nomination and Sustainability Committee (GRNS) of the Board, which are charged with confirming compliance with our Voluntary Principles Initiative (VPI) action plan, compliance with Australia’s modern slavery legislation across our entire business, and reviewing any human rights grievances received through site-specific grievance mechanisms.

MMG human rights working groups have been established in Peru, the DRC and Australia to further support this work in collaboration with the Code of Conduct and People Committee. We also seek to make sure 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 by the ICMM Mining Principles and through the development of joint industry and civil society guidance on FPIC and the rights of Indigenous Peoples. 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 regarding 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 signatories to the United Nations Global Compact process under the auspices of our major shareholder CMC. Las Bambas is also an active member of the Human Rights Committee of Peru’s National Society of Mining, Petroleum and Energy.





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 2022, no community-related fatalities were recorded; however, we continue to strengthen our systems and train our site teams in case any future event is brought to our attention.

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. MMG has been an engaged member of the VPI since 2020, and we were accepted as full members of the VPI in May 2022.

We work with private and public security forces at our Kinsevere and Las Bambas sites. This work involves ongoing training and mentoring on security and human rights. In 2022, the MMG Peru and DRC human rights working groups continued their work to progress their individual action plans for each site, as well as look for opportunities to embed other aspects of human rights controls into their processes. Further information can be found in our VPI Annual Report at www.mmg.com.

Child rights

MMG is committed to the protection of the rights of children and adolescents and we do not employ any person under the age of 18 years at our operations. We recognise and support ILO Convention 182, 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 in 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 undertaking child rights assessments and supporting community education programs on issues such as the impacts of child marriage.

In recognition of our commitment to protecting human rights, in 2022 MMG was confirmed as a full member of the VPI. We align with the VPI by standardising the VPSHR across our policies, standards and security management plans. Read more about MMG's commitment to human rights here:

www.mmg.com/sustainability/human-rights/ 

The way we work

CONTINUED

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 the DRC, we are mindful that ASM is a growing sector with increasing demand for minerals such as cobalt, which is present on our tenements.

Demand for these minerals has the potential to increase significantly with the expansion of the market for electric cars. It is a difficult and complex issue to manage and in many instances is either illegal or unregulated.

Positive impacts from ASM may include poverty alleviation, increased community capital, decreased rural-urban migration and diversified local economies. However, these are often offset by poor environmental practices, low levels of health and safety, the spread of disease, child and forced labour, inequitable distribution of community benefits, illegal trade and heightened security risks.

Many of the negative attributes of ASM have human rights implications. We have developed and adopted appropriate strategies to mitigate risk associated with each ASM activity we encounter.

In some circumstances it may not be possible for our activities and ASM to co-exist. Communication and collaboration with all stakeholders, including the miners, government, local authorities, community organisations and governing authorities, are our first steps towards developing mutually acceptable outcomes.

The Kinsevere Social Development and Security teams work closely together to monitor and assess ASM, with regular meetings held onsite with artisanal mining and community leaders for open and transparent discussion regarding the risks to all parties.

Communication and collaboration with all stakeholders, including the miners, government, local authorities, community organisations and governing authorities, are our first steps towards developing **mutually acceptable outcomes**

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 for them. 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 from which they have been displaced.

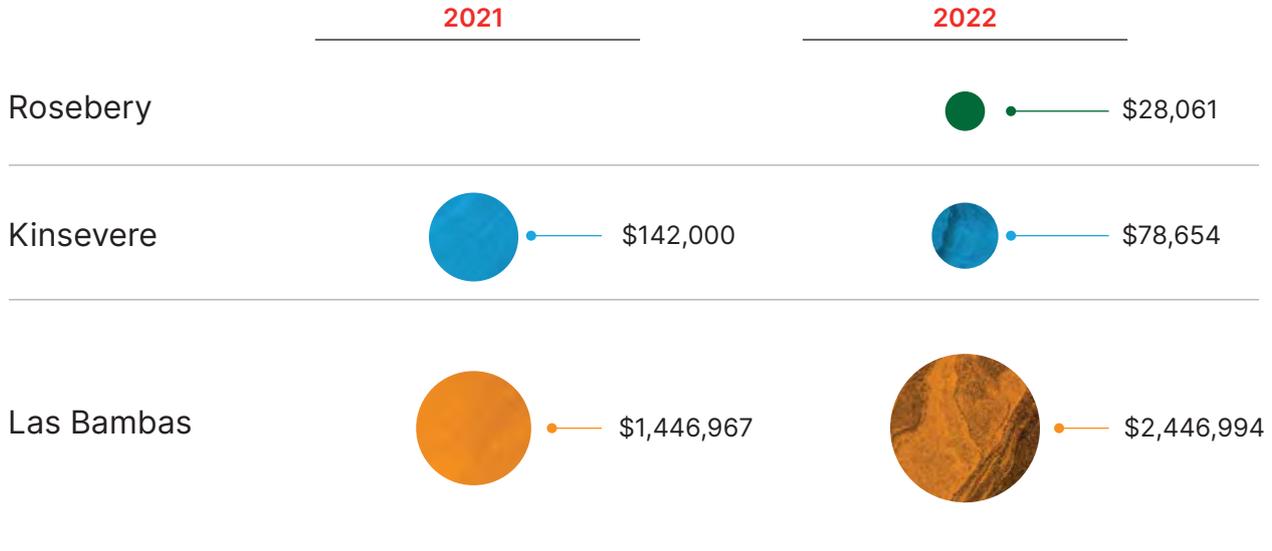
We anticipate and minimise any resulting social and economic impacts resulting from land acquisition and relocation or resettlement through our land acquisition process that:

- achieves FPIC from impacted communities, including Indigenous Peoples, 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, including local government and agencies that have a critical role in supporting community infrastructure and service delivery; and
- properly resources the relocation or resettlement process, including supporting livelihood restoration, enhancement activities and appropriate monitoring to make sure displaced communities normalise appropriately over time.

We respect human rights, land tenure rights and the rights of local communities consistent with national regulations. We recognise the need to protect Indigenous Peoples, ensuring the effective engagement of vulnerable and marginalised groups, and accounting for gender-specific impacts in any acquisition process.

Our operations avoid and, when not possible, seek to minimise the social, physical or economic displacement of communities by exploring alternative project designs.

Total land compensation paid (\$) in Rosebery, Kinsevere and Las Bambas



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 pursue thoughtful resettlement activities through a consultative process and with the informed participation of all those affected, in line with FPIC, as outlined in the Indigenous Peoples and Mining Position Statement.

Where cultural heritage finds are identified, we engage with community representatives, indigenous groups and other local stakeholders to determine appropriate management actions. We develop, implement and maintain site-specific cultural heritage management procedures that include registering cultural heritage finds and plans for collaborative management. Controls are in place so that land access for exploration and operations follows a process ensuring that we don't explore or mine within the boundaries of the United Nations Educational, Scientific and Cultural Organization's (UNESCO) 'World Heritage List' properties, only exploring or mining adjacent to World Heritage Listed properties where the proposed activity is compatible with the outstanding universal values.

In 2022, access agreements' work with **Las Bambas** communities has led to commencing environmental monitoring and surface geological exploration activities. This is in addition to existing Huanquiere community agreements about the Chalcobamba site, which were

impacted during 2022 as a result of community actions and ongoing dialogue to find a future solution. Our team undertook social support initiatives, virtual education and healthcare programs and created casual employment opportunities during exploration works.

The team at **Kinsevere** has an ongoing dialogue with communities impacted by nearby land access drilling and exploration works through the Kinsevere Expansion Project (KEP), as well as other exploration and development sites. Requirements for compensation or land acquisition are being developed collaboratively between Kinsevere, the impacted communities and the regional government.

Dugald River engages regularly with the Kalkadoon People, who are the traditional land owners where the operation is based. Our partnership agreement with them covers regular site engagement and consultation mechanisms in the event that we undertake any development, including identifying any potentially culturally sensitive sites that would require developing management plans.

Rosebery continues to update the local community and Tasmanian Government to determine a potential location for a new tailings storage facility (TSF) that meets all regulatory, environmental and community expectations. This includes community information sessions and briefings with senior government ministers about our plans.

03: We contribute to development



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

The social and economic benefits delivered 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, royalties, wages and employee entitlements; our purchase of goods and services; and through community compensation, benefit sharing and our direct investment in addressing the United Nations' SDGs 1–6, as listed below:



SDG1: No Poverty



SDG2: Zero Hunger



SDG3: Good Health and Wellbeing



SDG4: Quality Education



SDG5: Gender Equality



SDG6: Clean Water and Sanitation

In addition to improving access to health, education and other 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, as well as the impacts of development and political instability. We seek to support our communities as they go through this journey and plan for a resilient, sustainable future.

At Las Bambas, social investment was over US\$28 million in 2022. A large percentage related to SDG1: No Poverty, and included infrastructure projects, road and housing maintenance, reforestation and agriculture initiatives using local labour, as well as local business development. Communities were also supported in their own long-term (2030) development planning.

The Las Bambas education investment increased in 2022 with the return of face-to-face school learning. Education efforts during the pandemic focused on government support to improve internet access for virtual classroom technology, school book and supply distribution and additional training for teachers, with 19 Las Bambas scholarship students completing their studies in 2021 and a further 119 participating in the program.

Table 7: Social investment in 2022 (US\$)

Investment by SDG	Dugald River	Kinsevere	Las Bambas	Rosebery	Total
 SDG1: No Poverty	\$7,627	\$479,784	\$15,389,357	\$1,387	\$15,878,155
 SDG2: Zero Hunger	\$3,467	\$893,743	\$4,731,430	\$8,238	\$5,636,878
 SDG3: Good Health and Wellbeing	\$77,297	\$336,189	\$3,036,215	\$307,729	\$3,757,430
 SDG4: Quality Education	\$26,349	\$523,397	\$4,593,127	\$42,060	\$5,184,933
 SDG5: Gender Equality	\$11,753	\$0	\$158,235	\$1,734	\$171,722
 SDG6: Clean Water and Sanitation	\$0	\$200,090	\$414,519	\$0	\$614,609
Total	\$126,493	\$2,433,203	\$28,322,883	\$361,148	\$31,243,727

We contribute to development

CONTINUED



CASE STUDY

Kinsevere local literacy program

Education opportunities are vital for the DRC national workforce, as well as providing skills for future MMG Kinsevere employees. To achieve this longer-term goal, MMG Kinsevere funds local adult literacy programs to lift education levels and increase site employment opportunities. A recent graduation ceremony in the Kifita village saw 90 program participants acknowledged for completing a reading, writing, numeracy and public health course. MMG Kinsevere celebrated 74 women and 16 men who finished this course and, in doing so, take tangible learnings back to benefit their communities. MMG Kinsevere continues its work with community leaders and representatives to promote small and medium enterprises, as well as extending learning and scholarship programs.



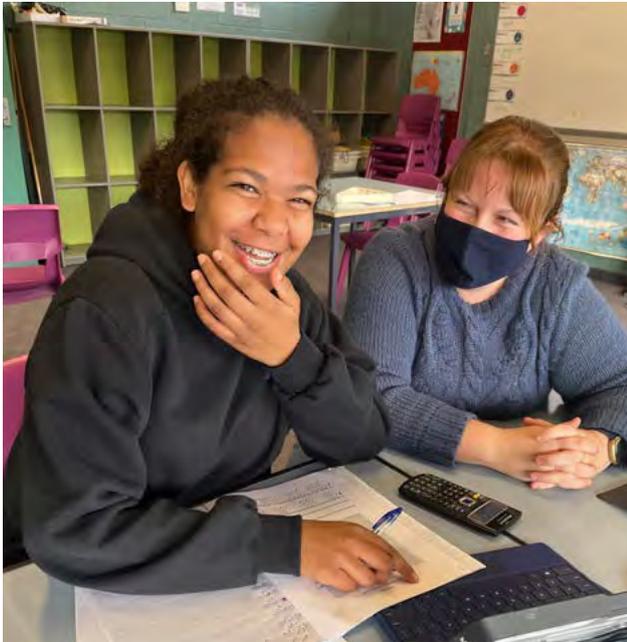
A reduction in healthcare investment in 2022 is attributed to a decreasing number of COVID-19 cases and the severity of the virus, resulting in a reduction of equipment, supplies and personnel resources to the state health sector.

The Kinsevere operation invested US\$2.43 million during 2022, recognising nearby main villages' growing populations and social welfare needs. A key infrastructure rollout in Kilongo, Kifita and Sela villages is improving access to roads, power, health and education, which includes the construction of new school buildings, a bridge in Kilongo village, and a powerline and transformer to support over 350 households.

Education expenditure increased in 2022 on the prior reporting year, which includes ongoing support for Kinsevere's successful scholarship program.

A healthcare investment totalling more than US\$400,000 is extending urgently needed essential medical treatment for local communities in Kifita and Sela. The Kifita health centre is benefiting pregnant women and children. The Sela facility has a multi-healthcare focus, bringing in-community care rather than long-distance access to medical support.

Dugald River continues to support initiatives to increase local supply opportunities for businesses in Cloncurry and Mount Isa, resulting in near-mine spend totalling US\$28.4 million for the year.



CASE STUDY

Supporting local students

MMG values education and with a large part of learning now online, we are making laptop devices free of charge to high school students at the Rosebery District School. MMG's device sponsorship brings local students equal access to classroom resources, which is helpful for parents who can't afford to purchase computers. At the completion of year 10, students can keep the device to further ongoing education, training studies and other workplace pursuits. Students and parents have provided feedback on the benefits of being able to retain the laptops to use for research and job applications.



Table 8: 2022 procurement spend in host communities (US\$'000)

Site name	Near-mine/district level		Provincial/state level		National level		Total spend US\$
	(Zone 1)		(Zone 2)		(Zone 3)		
Corporate	\$16.0	27.4%	\$18.7	32.0%	\$49.2	84.2%	\$58.4
Dugald River	\$28.4	9.9%	\$114.6	39.9%	\$278.0	96.9%	\$286.8
Kinsevere	\$190.2	62.2%	\$199.6	65.3%	\$216.3	70.8%	\$305.7
Las Bambas	\$64.6	3.9%	\$95.4	5.7%	\$1,468.0	88.3%	\$1,663.4
Rosebery	\$19.7	14.2%	\$64.1	46.3%	\$136.8	98.9%	\$138.3
Total	\$318.9	13.0%	\$492.3	20.1%	\$2,148.2	87.6%	\$2,452.7

Note:

- Local procurement spend is based on the location of the vendor we purchased products from. This does not indicate origin of manufacturer or supplier.
- Total spend includes international spend during the year.
- See Sustainability Report Appendix at www.mmg.com for local supply identification.

We contribute to development

CONTINUED



Socioeconomic development plan for communities located along the southern road corridor

In 2021, the Las Bambas social development team commenced a study of the economic and growth opportunities of the local communities located along the Southern Road Corridor. The study was designed to measure, understand and assess the opportunity for economic development in the communities located along the Southern Road Corridor, the route travelled by the trucks loaded with the copper concentrate produced at Las Bambas. Las Bambas continued its work with the community to progress the study and deliver on its outcomes in 2022, while identifying opportunities to support and help the local community to grow and develop.

The site is an active participant in the life of its local communities. The Kalkadoon Development Fund remains a priority, providing educational and training initiatives for the Indigenous community. Local Cloncurry, Mount Isa and surrounding community events and programs, such as the NAIDOC Week Celebrations, the Stockman's Challenge, the Quamby Rodeo, Merry Muster, Beat the Heat event, International Women's Day events, Men's Mental Health Summit and school fundraisers, support the community with a number of social benefits.

Our Rosebery operation is an active member of community life in north-west Tasmania. In 2022, the site increased regional funding with a US\$261,428 Tasmania Health hospital grant coupled with ongoing support for sporting, arts, tourism initiatives, traineeship and apprenticeship programs to boost employment.



Rosebery increased regional funding with a \$261,428 Tasmania Health hospital grant coupled with **ongoing support for sporting, arts, tourism initiatives, traineeship and apprenticeship programs**



CASE STUDY

Neighbourhood house partnership 'learner driver' vehicle donation

MMG's Rosebery mine has forged close local community ties through its 'working together' value. In a region with limited public transport within a remote location, driving a car is necessary for finding employment and travelling to work. That's why MMG donated a vehicle to Rosebery Neighbourhood House, a social enterprise that offers a learner driver mentor program run by staff, volunteers and community members who help future drivers prepare for their tests. The program demonstrates how MMG mines for progress, creating direct and indirect jobs and investing in community infrastructure, bringing long-term economic growth and prosperity to Tasmania's west coast.

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 2022, over 96% of our workforce across our operations were nationals.

Local employment is a major contributor to socioeconomic improvements and is the foundation of positive engagement with local communities. Over time, we are developing local workforce capability, reducing dependency on non-local employees and building broader community socioeconomic resilience.

Our Las Bambas operation continued to work on increasing local employment initiatives. Out of a total workforce of 7,421 (100%), 2,831 were local (38%).

At Kinsevere, discussions held in 2022 with village chiefs and officials from areas around the mine have resulted in recruitment opportunities for young people. A total of 875 people, including 124 on permanent contracts and 104 on fixed-term contracts, have benefited from direct local Kinsevere mine employment, with the following breakdown:

110	permanent security guards for Warrior Insight Security
14	permanent contracts for the mine contractor, Mexco
86	fixed-term contracts for LOMI, a local supplier constructing the health centre, secondary school and administrative office in Kifita village, as outlined on page 46
18	fixed-term contracts for Mining, Construction and Equipment Services (MCS), the company responsible for the electrification of Kilongo and Kalilanda villages
647	day labourers hired from the villages surrounding the Kinsevere mine

We contribute to development

CONTINUED



In 2022, **over 96% of our workforce** across our operations were nationals

Throughout 2022, a total of 114 employment offers were made including for operator-level employees. Professional roles were filled by local, interstate and international candidates.

Dugald River worked closely with major suppliers, encouraging them to focus on and report local employment and spending. In 2022, regular meetings were held with local labour hire, shutdown labour and service providers to ensure the locally based workforce is fully utilised before engaging fly-in fly-out employees.

Table 9: Percentage of national employees by site

	2021	2022
Dugald River	98.00%	91.98%
Kinsevere	94.50%	94.15%
Las Bambas	98.63%	98.55%
Rosebery	95.00%	93.37%

This data represents MMG permanent and temporary employees, not including contractors.

Local supply

The provision of goods and services across our operations is helping local suppliers to develop sustainable businesses. Where possible, we source from providers who meet our key selection criteria in safety, environment, quality, technical, social responsibility and commercial viability. Where gaps are identified, we aid our suppliers to take up future opportunities to grow their businesses and expand their offering to customers beyond MMG.

In 2022, MMG spent US\$2.45 billion on goods and services excluding taxes and royalties. Our sites spent over \$2.1 billion with suppliers in-country. Of this, \$492.3 million was spent with suppliers in the same province or state of our operations and \$318.9 million with suppliers in the immediate near-mine area.

Our Las Bambas operation engages with hundreds of small and medium-sized businesses and works to integrate them into its value chain. In 2022, Las Bambas supported local supplier resilience, delivering training and technical assistance for health, business management, safety, human resources, environment and marketing achieving the following outcomes:

 468	companies have been trained in health protocols
 42	local companies received business management training
 \$95 million	was dedicated to regional company purchasing as of 31 December 2022
 262	local companies provided direct services to Las Bambas (maintenance (29), construction and civil works (16), service (201) and transportation (16))
 590	local companies delivered indirect services to Las Bambas; lodging (268), restaurants (33), laundry (29) and transportation (260)



CASE STUDY

Local business comes out on top

Supporting local business is a key priority for MMG's Dugald River mine, with the team participating in key events to boost spending while delivering community economic benefits.

Engaging in events brings local suppliers and buyers together, facilitating greater supply chain opportunities. MMG's attendance at the annual North West MPX event, hosted in Queensland's Mount Isa mining town, connected MMG with over 100 exhibitors offering goods and services for mining operations. The three-day event promoted networking, matching supplier solutions to MMG's needs and enhancing the industry-leading standard of MMG's business.

The Dugald River team used the event as a forum to deliver a local supplier roadshow, visiting host and regional communities and meeting relevant businesses. As a result of the team's engagement and local participation, Dugald River increased its local business spend in Cloncurry and Mt Isa by 58.8% in 2022.

Our tax and community contribution

MMG makes significant contributions to the economies of countries within which we operate as a major investor, taxpayer, employer and purchaser of local goods and services. For the financial year ended 31 December 2022, total taxes paid was US\$447.2 million, and total royalties paid was US\$120.1 million. Taxes paid in relation to previous years are available on the MMG website for tax and community contribution together with a broad overview of corporate income taxes specific to the mining sector.

MMG's 2022 Sustainability Report is prepared with reference to the Global Reporting Initiatives' (GRI) Sustainability Reporting Standards. The disclosures in this report are guided by the GRI 207 Tax Standard, and include corporate income taxes, value-added taxes, royalties on mineral extraction, withholding taxes and taxes paid on significant uncertain tax positions.

Our approach to tax governance, control and risk management

As a multinational company with mining operations in Peru, the DRC and Australia, as well as companies present in Hong Kong, China, Canada, Singapore, Brazil, Zambia and South Africa, MMG is committed to maintaining a high standard of corporate governance practices. This is demonstrated through an experienced Board and sound risk management and internal controls, with transparency and accountability to all shareholders.

Tax risk management is embedded within this mandate of corporate governance. Internal tax standards and tax exposure management procedures are in place and regular reviews of MMG's tax function are conducted to ensure compliance with these standards. External assurance is further provided as part of the audit process for the purpose of publishing MMG's Annual Report on the Hong Kong Stock Exchange.

Our approach to stakeholder engagement and management of concerns related to tax

MMG operates 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.

MMG is a member of numerous industry associations such as the DRC Chamber of Mines, International Council on Mining and Metals, International Zinc Association, the Extractive Industries Transparency Initiative, Transparency International (Australia), Queensland Resources Council and Tasmanian Minerals Council. As a result, MMG is often party to regular dialogues involving matters of tax transparency and reporting. MMG also often conducts robust and active discussions with local tax authorities in matters of tax policy implementation and interpretation.

Our approach to tax transparency and reporting

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

There are broadly two approaches to tax disclosures. The first discloses taxes effectively paid, that is a company's economic contributions to governments for public expenditure. The second discloses a company's assistance in collecting taxes from third parties in addition to its own contributions. MMG's current approach reflects the former. The following initiatives further show MMG's commitment to transparency:

- disclosures in line with OECD's BEPS (Base Erosion and Profit Shifting) Action Plan regarding country-by-country reporting and transfer pricing documentation;
- 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 Extractive Industries Transparency Initiative (EITI) requirements as a reporting entity in Peru and the DRC, and a participant in the Australian EITI pilot project;
- participation in the ICMM annual tax contribution survey, providing information on MMG's corporate income tax and royalty payments (aggregated in the ICMM members' tax contribution publication); and
- annual disclosure of tax information in the Australian Corporate Tax Transparency Report.

In accordance with the 2015 OECD Report on Transfer Pricing Documentation and Country-by-Country Reporting, China Minmetals Corporation meets the requirements for filing the country-by-country report to the tax authority in Beijing, China, by May each year. This report contains information regarding multinational enterprises (MNE) on a tax jurisdiction by tax jurisdiction basis, which includes tax jurisdiction per entity, revenues from related and unrelated parties, number of employees and main business activities.

MMG



US\$'000	2022	2021
Total taxes paid (excluding royalties)	447,160	248,552
Total royalties paid	120,109	167,829
National supply procurement	2,148,211	1,770,365
Goods and services (excluding taxes and royalties)	2,452,661	1,909,094
New property, plant and equipment	519,915	553,000
Employee benefits	321,892	306,333
Social development programs	31,244	32,912

Peru



US\$'000	2022	2021
Royalties ¹	64,179	105,394
Income Tax ²	165,526	50,510
Withholding tax ²	13,988	13,916
Other Taxes ³	30,030	35,017
Employment related taxes	50,663	42,918
Total tax contribution⁴	324,386	247,755

DRC



US\$'000	2022	2021
Royalties ¹	22,438	26,367
Income Tax ²	53,364	32,626
Withholding tax ²	3,893	3,740
Other Taxes ³	19,966	10,231
Employment related taxes	17,270	16,446
Total tax contribution⁴	116,931	89,410

Australia



US\$'000	2022	2021
Royalties ¹	33,492	36,068
Income Tax ²	46,131	0
Withholding tax ²	1,155	820
Other Taxes ³	0	0
Employment related taxes	45,174	42,328
Total tax contribution⁴	125,952	79,216

Notes:

1. Paid/accrued in respect of FY2022.
2. Income tax liability does not always align with tax payments. This disclosure has been made on a cash tax paid basis. Relevant to Peru, the FY22 disclosure relates to the Annual FY21 corporate income tax liability of \$165m.
3. This category includes amounts such as taxes paid in dispute, unrecovered VAT and net GST paid.
4. Components of total tax contribution are all assured on an aggregate level during the 2022 annual reporting audit (assured by Deloitte Touche Tohmatsu).

04: We minimise our impact



At MMG we 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 environmental and biodiversity activities with our life-of-asset plans.

Water access and use

Our water management approach

Water is used during our mining and extraction processes and by our site-based people.

In supporting the ICMM Position Statement on Water Stewardship, we contribute to initiatives promoting better water use, effective catchment management and improved security and sanitation for surrounding communities.

We are committed to strong and transparent water governance at our operations and collaborate with our communities to achieve responsible and sustainable water use with water management strategies tailored to each site.

Our water balance models use site-specific water inputs, storage and discharge to inform our management of water-related risks. We are in the process of aligning our life-of-asset plans with structured investment decisions regarding infrastructure, processing demands and community requirements.

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



In supporting the ICMM Position Statement on Water Stewardship, we contribute to initiatives promoting better water use, effective catchment management and improved security and sanitation for surrounding communities

We reduce potential socio-environmental impacts and safely implement mine dewatering plans. Operational improvements and extreme weather events led to 2022 changes in our water balance. Across MMG's operating sites the following Initiatives were applied in 2022:

- Las Bambas authorised use of water runoff from the Chalhahuacho River. Water recycling and re-use within the mine eliminates negative impacts with any discharge meeting relevant Peruvian environmental standards.
- Rosebery's fresh water comes from the Pieman and Stitt Rivers through a calibrated water balance model overseeing use and consumption. Risk management systems and site controls minimise stakeholder impacts within the catchment. Discharge occurs at a licensed discharge point downstream of the tailings dam. No exceedances were recorded in 2022. Discharge standards are developed with local authorities, respecting the biophysical conditions of the local receiving environments.
- Dugald River's water management structures are appropriately designed to oversee the high intensity flow events of the wet season through defined catchment zones and dams while during the dry season an emphasis is placed on balancing water conservation and optimising reuse.
- Kinsevere's dewatering program is managing increasing water volumes with water either used onsite or released after appropriate quality testing. Additional drilling of boreholes in 2022 is reinforcing capacity and bringing the site additional clean water.

Water balance and management of water risks

We proactively manage water quantity and quality to reduce potential socio-environmental impacts and realise opportunities whilst implementing our mine dewatering plans that allow us to safely operate.

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.

We minimise our impact

CONTINUED

Freshwater (cat 1) inputs by site 2022 (%)

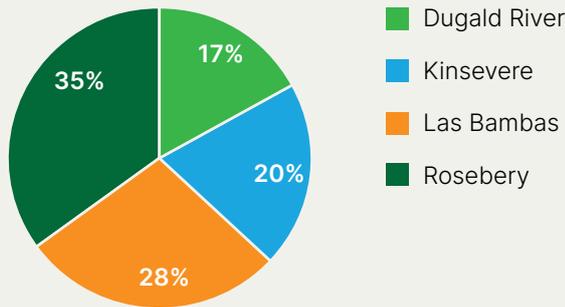


Table 10: 2022 water balance

	ML	(%)
Diverted water	11,931	
Water inputs	37,679	
Borefields	2,523	4
Precipitation and runoff	20,618	37
Rivers and creeks	7,270	13
Aquifer interception	205	0
External surface water storages	3,407	6
Entrained in ore that is processed	1,801	3
Contract/municipal	1,856	3
Third party wastewater	0	0
Water consumption	18,797	33

Table 11: 2022 Freshwater inputs by site %

	ML	(%)
Diverted water	21,176	
Water outputs	33,736	
Evaporation	7,682	23
Entrainment	12,538	37
Discharge to surface water	10,252	30
Seepage	1,234	4
Supply to third party	141	0
Other	1,890	6



CASE STUDY

Renewable energy secures community fresh water supply

MMG Kinsevere's *Cahier des Charges* program is maintaining and increasing community access to fresh water with the provision of village solar-powered water pumps with 1.5 HP capacity connected to a 10 m³ water tank and a six-tap standpipe. The introduction of renewable energy is crucial for the villages as local people can effectively manage a sanitary and continuous water supply. Kinsevere's ongoing program of work will also bring future enhancements. In 2022 MMG Kinsevere's team, led by the Deputy General Manager Project Delivery and the Social Department Manager, visited two local villages near the Nambulwa Exploration site, where this critical infrastructure has been installed, for a water pump hand-over ceremony.





CASE STUDY

Dugald River climate change preparedness – sediment dam upgrade

A predicted increase in extreme and intense rainfall events and weather patterns has mobilised the Dugald River environment team to upgrade a sediment dam as a mitigation strategy. The Sediment Dam F upgrade supports a higher throughput of stormwater runoff and improved release of water quality. The team also redirected additional runoff from non-acid forming waste rock to the dam, which houses an automated dosing station. The dam upgrade work increased capacity by about 200% to 7.7ML. Water quality was also improved with the inclusion of a flocculant dosing system (water treatment for mineral extraction) coupled with other adjustments to adapt to rainfall intensity and maintain water release quality.



We contribute to initiatives **promoting better water use, effective catchment management and improved security and sanitation** for surrounding communities

We minimise our impact

CONTINUED

Tailings and waste rock

Mining and processing metals such as copper, zinc and cobalt generate tailings known as mineral waste. Tailings are safely stored in tailings storage facilities (TSF) compliant with strict international standards and guidelines, such as the Australian National Commission on Large Dams (ANCOLD) and the GISTM.

In 2022, MMG generated in total 1.1 million tonnes of potentially acid forming (PAF) waste rock, 122.77 million tonnes of non-acid forming (NAF) waste rock and 47 million tonnes of tailings generated rock, presenting a reduction of 8.78% of mineral waste generated across MMG compared with the previous year. The complete tables with MMG's 2022 mineral waste data can be found in the Appendix at www.mmg.com.

In Las Bambas, no PAF waste rock was generated in 2022. Rosebery's only PAF waste rock was generated and kept underground in old stoping areas to avoid environmental impact and to improve stability. Additionally, in Dugald River we use approximately half of tailings to create paste backfill that is re-injected into underground voids.

In 2022, at our Las Bambas operation, the Independent Tailings Review Board (ITRB) annual review was completed onsite with the lifting of COVID-19 restrictions. The ITRB committee confirmed the TSF is designed and operated consistent with applicable standards and industry practice. We are continuing with our evaluation of future tailings management options to minimise impacts from ongoing tailings management, including post-closure.

During 2021, our Rosebery site continued studies to develop additional tailings capacity using existing facilities, as well as investigating a new facility consistent with ANCOLD guidelines and the requirements of the GISTM. An emergency dam break drill took place at Rosebery in 2022 involving MMG, relevant authorities, Tasmanian Emergency Services and the community members.

Rosebery synchronously operates two tailings storage facilities. Current approved projects provide tailings storage until 2024.

Kinsevere and Dugald River tailings operations continued as usual with capital improvements including raising an existing TSF and commencing construction on a new TSF to safely manage future tailings production.

At Dugald River, a new Progressive Rehabilitation and Closure Plan was finalised and submitted to the regulator, including a revision of the TSF consequence category based on up-to-date studies. At Las Bambas, geochemical characterisation studies and onsite rehabilitation trials reacting to waste rock and tailings are ongoing. Kinsevere has also initiated some revegetation trials, and continued the progressive reprocessing of historic TSF1 tailings, reducing closure liability.

Closure prefeasibility studies continued in 2022 for the Hercules legacy and Rosebery operational mine sites in Tasmania, which, when complete, will allow an evaluation of all credible closure scenarios to select the best option(s), in consultation with the community and other external stakeholders. A large-scale (~10ha) TSF closure cover and trial plot area installed in 2021 continued to be regularly monitored at Rosebery. Data obtained to date from the trial is providing valuable information for the cover system design for all TSFs, and will support the final closure designs.

These studies will bring MMG more definitive information to support closure planning and cost estimation, as well as informing community and government stakeholder discussions. The current financial provision for closure of all MMG operations (including TSFs) is reported in our Annual Report, which can be found here and has been externally audited.



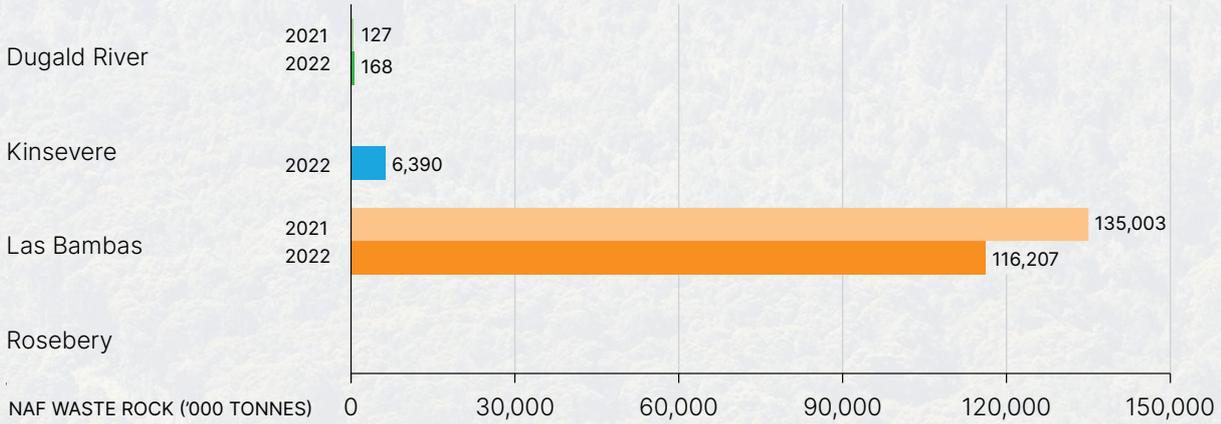
Read more detail in the Annual Report at:

mmg.com

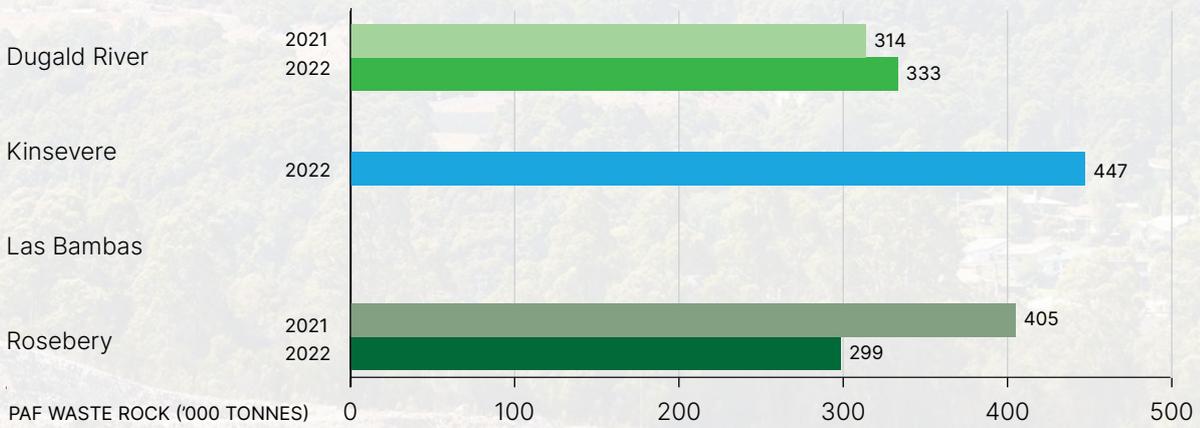


Waste rock generated in 2022

NAF waste rock mined



PAF waste rock mined



Tailings generated



● Dugald River ● Kinsevere ● Las Bambas ● Rosebery

We minimise our impact

CONTINUED

CASE STUDY

Rosebery mine life extension

Rosebery continues to work in consultation with the Tasmanian Government and our local community to determine how best to construct additional tailings capacity that meets all regulatory, environmental and community expectations. The site requires expanded tailings storage to continue operations beyond 2025. Since 2022 MMG Rosebery has been looking for additional storage and, from that time, has undertaken a successful raise and is now progressing with a further raise. Rosebery has conducted studies for over a decade to develop solutions that best balance biodiversity values with geotechnical and environmental considerations of the local area. The 2022 year was challenging for Rosebery. With the existing tailings storage facility (TSF) close to capacity, safe future options, in addition to the preferred South Marionoak location, continued to be investigated. Stage one of Rosebery's Life Extension Program has been completed and alternative TSF sites have been identified that are both within the existing footprint of the operation and external to Rosebery. Key to this is approving an accelerated exploration program to grow and improve confidence in Rosebery's future mining inventory. The Rosebery team is reviewing filtered tailings as an alternative disposal method and potential expansion of existing storage sites. In support of the second stage of Rosebery's work program, MMG has bolstered its leadership capability by appointing a Senior Manager of Development. Noting the critical role MMG has in driving Tasmanian state economic activity and employing over 500 people, our number one priority is to secure a strong future for the operation.





Table 12: 2022 MMG TSF summary

TSF	Type (ground, valley, mountain or other)	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	
Las Bambas TSF1	Valley	Downstream	Extreme	220m	780Mm ³	2016	2032	Oct.22
Dugald River TSF1	Valley	Downstream for future raises - currently a single stage construction	High C	37m	11.1Mt	2018	2029	Feb-23
Kinsevere TSF1	Side valley	Upstream	High C	~10	1.1Mm ³	2006	2010	Sep-22
Kinsevere TSF2	Paddock	Downstream	Extreme	43m	30Mt	2011	2025	Sep-22
Rosebery 2/5 Dam	Side valley	Upstream/ downstream	High A	29m	3.3Mm ³	2018	2025	Jun-22
Rosebery Bobadil	Side valley	Upstream/ downstream	High C	37m	12.6Mm ³	1974	2025	Jun-22

Mm³ = 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 77 for the consequence table.
- For more information about our TSFs, visit www.mmg.com.

Climate change

In 2022, global attention was again focused on the urgency of climate change following several years of pandemic-induced lockdowns. The 27th United Nations Climate Change Conference of the Parties (COP27) was held in Cairo, Egypt, urging participants to increase the ambition in their current climate commitments. The International Council on Mining and Metals (ICMM) attended this event, representing member companies such as MMG. Global emissions are not reducing as fast as they should be in order to secure a well below 1.5 degree Celsius warming in 2100, increasing the urgency of industry-wide involvement and commitment to reduce operational emissions.

Due to the observed increase in frequency and intensity of extreme global weather events, MMG is improving our understanding of local and worldwide climate-related risks and building business resilience to respond to a changing climate. We are pursuing decarbonisation efforts by optimising energy use and migrating to renewable energy sources. We welcome the progress made by governments to cooperatively reach the Paris Agreement and support long-term global climate goals, balancing greenhouse gas reductions with economic and social development.

In addition to our goal of net zero carbon emissions by 2050, we have set an interim 2030 target of reducing Scope 1 and Scope 2 operational greenhouse gas emissions from our operated assets by 40%, from a 2020 baseline. This interim target aligns with science-based methodologies to help reduce global warming to 1.5°C, as per ambitions of the Paris Agreement. We will also drive reductions in our value chain emissions (Scope 3) through initial measurement and disclosure by the end of 2023, followed by target setting and working with our supply chain partners on emission-reduction opportunities.



In addition to MMG's goal of net zero carbon emissions by 2050, we have set an **interim 2030 target of reducing Scope 1 and Scope 2 operational greenhouse gas emissions** from our operated assets **by 40%**, from a 2020 baseline.

Demand for critical minerals and other base metals necessary for the decarbonisation of the economy has increased and is expected to continue growing in coming years. MMG plays a key role in providing these metals to our customers to drive the development of green technology that will replace fossil fuels.

The minerals that we produce are essential to our transition plans as we move in step with global efforts to achieve a lower carbon economy. The need to take tangible steps is becoming more urgent for governments, organisations and the wider public in the face of extreme weather events and the challenges this brings for food and water security. In addition to our investment projects that are assisting to build local capability where we live and work, we're working with the governments and communities where we live and work to achieve these goals.

During 2022, Las Bambas saw a decrease in overall operational emissions mainly due to the social conflicts that kept production below targets. As Kinsevere advanced with its expansion project, MMG's total emissions grew slightly. Rosebery and Dugald River both remained stable in 2022, with a slight lift in Dugald River's emissions caused by deeper mining and increased diesel consumption through moving materials. The mining industry overall faces diesel dependency challenges. This is a key focal point for MMG's ongoing research and development initiatives. We are focusing on collaborative partnerships to bring our sites solutions for replacing diesel and other fossil fuels with renewable options.



Table 20: Total greenhouse gas (GHG) emissions (tonnes CO₂-e)

		Direct GHG emissions	Indirect GHG emissions	Total
Dugald River	2022	15,771	91,562	107,333
	2021	15,492	84,351	99,843
Kinsevere	2022	54,454	8,599	63,053
	2021	22,919	2,593	25,512
Las Bambas	2022	416,473	206,580	623,053
	2021	464,699	201,213	665,912
Rosebery	2022	15,258	23,662	38,920
	2021	16,078	22,983	39,061
MMG	2022	501,956	330,403	832,359
	2021	519,188	311,140	830,328

Climate change

CONTINUED

MMG's approach to sustainability

Our approach to sustainability is aligned to ICMM's 10 Mining Principles and the United Nations' SDGs.

MMG's Sustainability Framework

Group-wide Sustainability Metrics have been developed to drive sustainable performance through the business plan and individual incentives



Towards zero emissions



Commitment
Commitment to a goal of net zero carbon emissions by 2050



Scope 1 & Scope 2
2030 target of reducing greenhouse gas (GHG2) emissions by 40%, from a 2020 baseline



Scope 3
Further identify and drive emissions reductions in our supply chain. Report on this by end of 2023

Delivering on commitments and partnering with our communities



No poverty



Zero hunger



Quality education



Good health and wellbeing



Gender equality



Clean water and sanitation



MMG Climate Strategy update

MMG's Climate Strategy is now tied to business planning, with all sites determining potential decarbonisation pathways and credible timelines for implementing greenhouse gas (GHG) reduction opportunities. Carbon emissions data, reporting and projections have been strengthened, and a Scope 3 emissions (indirect greenhouse gases) inventory is to be developed in 2023 together with customers and suppliers. Transitioning to 100% renewable electricity supply is the fastest and most reliable way to cut emissions, as technology is still being developed to displace diesel from mobile equipment fleets. MMG also participates in several industry research consortiums to learn how peers are using technology to drive their decarbonisation progress. MMG is committed to strengthening GHG emission data collection, reporting, risk assessment and future projections. These steps will boost transparency of how MMG tracks and publicly discloses GHG emission targets, reinforcing a key company value: 'We do what we say'. MMG will also stress-test emission projections under several climate change and carbon pricing scenarios to strengthen the climate strategy. To learn more visit: wemineforprogress.com.

CASE STUDY

Dugald River Solar Farm



In its push to transition to a lower carbon economy and realise cost savings, MMG has become a foundation customer for power sourced from an 88MW solar farm, built and operated by APA Group at Mica Creek in Mount Isa, Queensland. Dugald River, which has a 15-year contract with APA, is a foundation partner sourcing 33MW of renewable electricity. Currently, 87% of Dugald River's carbon emissions are generated from its primary reliance on the Mount Isa-based Diamantina gas-fired power station. The 33MW of power will be supplied by the solar farm, with most of Dugald River's energy needs sourced during daylight hours. The solar farm is expected to bring cost savings and reduce Dugald River's energy-related CO₂ emissions by 33%. These benefits are critical for a remote mine that requires multiple power sources to reduce the rising costs incurred with limited power supply options. MMG is exploring further options to reduce Dugald River's emissions.



We minimise our impact

CONTINUED

Biodiversity and land management

MMG implements considered strategies and actions when identifying and managing any potential biodiversity impacts. We actively manage our land holdings over the life of our operations by implementing low or 'no disturbance' areas that may form future conservation reserves, controlling invasive species, restoring degraded ecosystems and translocating endangered plants and supporting the breeding requirements of vulnerable animals.

We avoid disturbing the local environment setting wherever possible. When planning mining-related closures, we strive to re-establish vegetation cover and find opportunities to develop self-sustaining ecosystems that support the social, cultural, environmental and economic objectives of our host communities and the surrounding landscape.

As an ICMM member MMG complies with its Mining and Protected Areas Position Statement.

The lease of our Dugald River operation is home to the *Petrogale purpureicollis* (Purple-necked rock-wallaby) protected species. Through our bi-annual monitoring to collect data on the species and its habitat, MMG has recorded a case of successful rehabilitation with no change to this species' population in 2022. Ongoing monitoring is key to future biodiversity and rehabilitation activities.

MMG Dugald River's work with the University of Sunshine Coast (USC) and Queensland University of Technology (QUT) is researching the Carpentarian Pseudantechinus (*Pseudantechinus mimulus*), a small carnivorous native mouse-like marsupial. Over the past five years the project has gathered information on the distribution, habitat preferences, ecology and taxonomy of the Carpentarian Pseudantechinus, with MMG contributing over US\$300,000 to the cause.



2022 Cumulative land disturbance and rehabilitation at our operations (ha)

		Total land disturbed and not yet rehabilitated	Total land rehabilitated
Dugald River	2021	372	1
	2022	372	1
Kinsevere	2021	535	0
	2022	785	1
Las Bambas	2021	2,403	102
	2022	2,422	104
Rosebery	2021	318	0
	2022	319	0



CASE STUDY

Dugald River working with landholders

Weed invasions threaten native plants and animals as they compete for nutrients to survive. To combat their growth and spread, Dugald River's environment team has collaborated with the local site's landholder on an annual weed control program targeting the invasive weeds called Calotrope and Rubbervine. Additional resources outside of the mining lease help with vehicle and plant equipment inspections prior to site access by stemming the spread of noxious seeds. Dugald River's Land and Biosecurity Management Plan and Weed Control Program are informed by the local municipality's Biosecurity Plan.



Dugald River also commissioned a team of ecologists to conduct a flora study focused on refining the current broad scale regional ecosystem mapping, bringing the site more detailed maps and a better understanding of the unique and sensitive regional ecosystems in which it operates. This study will help determine future rehabilitation success criteria and rehabilitation plans.

The conservation of biodiversity is embedded in Las Bambas, with environmental management plans and rescue and relocation protocols for amphibians and rodent species. Las Bambas has proudly pioneered this initiative in Peru. In 2021, the Forestry and Wild Fauna Service (SERFOR) granted Las Bambas approval to relocate the following species:

- Dark field mouse (*Akodon subfuscus*)
- Painted big-eared mouse (*Auliscomys pictus*)
- Aquatic frog (*Telmatobius jelskii*)
- Warty toad (*Rhinella spinulosa*)
- Marsupial frog (*Gastrotheca marsupiata*)
- Marbled frog (*Pleurodema marmoratum*)

All relocation activities were executed in compliance with SERFOR's Wild Fauna Management Regulation, and IUCN's criteria for translocations for conservation purposes.

Closure and rehabilitation studies continued in 2022

In 2022, MMG again applied a consistent approach to closure and progressive rehabilitation planning across our four global operations, with ore body locations and mining methods influencing available outcomes. As underground mines have limited opportunities for rehabilitation prior to end of life, MMG has not set annual progressive rehabilitation targets. Instead, we annually build allowances into our closure plans where there is scope to progressively rehabilitate areas no longer required for operational purposes, as well as undertaking trials and closure studies.

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 our mine closure performance.

In 2022, MMG continued our major industry sponsorship of the Cooperative Research Centre for Transformations in Mining Economies (CRC TiME), a 10-year, US\$130 million research initiative between

We minimise our impact

CONTINUED



the Australian Government, industry and academia, focused on delivering resilient post-mining futures. This year the final research report was published from a CRC TiME project completed at Rosebery on understanding local readiness for closure, via initiation of an ongoing multi-stakeholder participatory approach. A second CRC TiME project at Rosebery continued on improved prediction, remediation and closure of acid and neutral metalliferous drainage (AMD/NMD) sites, in collaboration with several other industry peers.

At Dugald River, a new Progressive Rehabilitation and Closure Plan was finalised and submitted to the regulator. At Las Bambas, geochemical characterisation studies and onsite rehabilitation trials reacting to waste rock and tailings were initiated. Kinsevere has also initiated some revegetation trials, and continued the progressive reprocessing of historic TSF1 tailings, reducing closure liability.

Closure prefeasibility studies continued in 2022 for the Hercules legacy and Rosebery operational mine sites in Tasmania, which, when complete, will allow an evaluation of all credible closure scenarios to select the best option(s), in consultation with the community

and other external stakeholders. A large-scale (~10ha) TSF closure cover and trial plot area installed in 2021 continued to be regularly monitored at Rosebery. Data obtained to date from the trial is providing valuable information for the cover system design for all TSFs and will support the final closure designs.

These studies will bring MMG more definitive information to support closure planning and cost estimation, as well as informing community and government stakeholder discussions.



The current financial provision for closure of all MMG operations (including TSFs) is reported in our externally audited Annual Report which can be [found here](#).



CASE STUDY

Kinsevere's commitment to plant over 60,000 trees

With trees known to reduce air pollution and greenhouse gases while bringing many other environmental benefits, MMG Kinsevere was keen to commit to planting over 60,000 trees across its mining lease and nearby villages over the next year. To mark the initiative, Kinsevere representatives joined with the MMG Kinsevere Health, Safety and Environment team and local people in a tree planting ceremony. Over the next year, the plantings will feature citrus, guava, avocado and other fruit trees, becoming a place of reflection and peace – a tangible symbol of MMG Kinsevere's goal of enhancing local community benefits.



Assurance 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 2022 Sustainability Report (“**Sustainability Report**”) of MMG, which covers the period from 1 January to 31 December 2022 (“**Reporting Period**”).

I. Assurance Scope

CECEPAC (HK) conducted a Moderate (Limited) Type 2 assurance for the Sustainability Report in accordance with the *AA1000 AccountAbility Assurance Standard (V3)* (“**AA1000AS V3**”), and the assurance criteria were the following:

- International Council on Mining and Metals (“**ICMM**”) Assurance Subject Matters 1-5 (“**Subject Matters**”) and the corresponding criteria (“**Criteria**”) prescribed in the *Assurance and Validation Procedure* issued by the ICMM (“**ICMM Procedure**”), as set out in the below table:

Area	ICMM Assurance Subject Matters	Assurance Criteria
ICMM Subject Matter 1	The alignment of MMG’s sustainability policies, management standards and procedures to the ICMM Principles, the corporate-level performance expectations (“ PEs ”) and corporate-level aspects of combined PEs (collectively, the “ relevant PEs ”) as well as mandatory requirements set out in ICMM Position Statements.	MMG’s reported alignment of its sustainability policies, management standards and procedures to and the ICMM Principles, the relevant PEs, as well as mandatory requirements set out in the ICMM Position Statements.
ICMM Subject Matter 2	MMG’s material sustainability risks and opportunities based on its own review of the business and the views and expectations of its stakeholders. Assessed with regard to the AA1000AS V3 and the AA1000 AccountAbility Principles (2018) (“ AA1000AP 2018 ”).	MMG’s description of the processes in place to identify and prioritise the sustainability risks and opportunities faced by the business during the Reporting Period and the outcome of these processes, and the description’s alignment with the Global Reporting Initiative (“ GRI ”) Principles of Completeness and Materiality (in GRI 1: Foundation 2021 and GRI 3: Material Topics 2021).
ICMM Subject Matter 3	The existence and status of implementation of management systems and approaches that MMG is using to manage a selection of the identified material sustainability risks and opportunities (“ Selected Indicators ”) and corresponding relevant metrics (“ Performance Information ”) (selected through a random double-blind process), including: <ol style="list-style-type: none"> Employee value proposition Responsible water consumption Biodiversity and land management 	MMG’s description of the systems and approaches that MMG is using to manage the Selected Indicators in line with the requirements of GRI 3: Material Topics 2021, and MMG’s description of the status of implementation of the systems and approaches.
ICMM Subject Matter 4	MMG’s reported performance during the Reporting Period for the Selected Indicators.	Performance Information for the Selected Indicators disclosed by MMG in accordance with internal policies and procedures, and reference to GRI Standards and other relevant reporting standards. Limited assurance on the reliability and accuracy of Performance Information.
ICMM Subject Matter 5	MMG’s prioritisation process for the selection of assets for PE validation.	MMG’s description of the process and criteria used to identify assets for PE validation, and the outcome of this process (assets selected) during the Reporting Period.

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

- Any information outside the 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 V3 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 with reference to the GRI Standards, and other reporting requirements prescribed in the ICMM Principles and relevant PEs, as well as mandatory requirements set out in ICMM Position Statements. 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 as well as other third-party validation and audit engagements as part of the requirements of the ICMM and Voluntary Principles Initiative.

VI. Methodology

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

- Conducting interviews¹ with management and documentation reviews to understand MMG's approach to assessing and managing sustainability risks and opportunities, and ensuring the alignment between MMG's internal policies and the ICMM Principles, relevant PEs and mandatory 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 AccountAbility Principles of Inclusivity, Materiality, Responsiveness and Impact;
- 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;
- 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 "with reference to" the GRI Standards;
- 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 Matters have not been prepared, in all material respects, in accordance with the Criteria for the Sustainability Report;
- b. The Sustainability Report has not been prepared, in all material respects, in accordance with the principles of Inclusivity, Materiality, Responsiveness and Impact in the AA1000AS V3; and
- c. 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.

¹ Being limited by the spread of coronavirus disease (COVID-19), the Assurance Engagement was conducted through online means and interviews were conducted in forms of video conference.

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 Matters

Subject Matter 1

MMG adopted its Sustainability Framework to manage its sustainability risks and align with the ICMM Principles, relevant PEs and mandatory requirements set out in ICMM Position Statements. Furthermore, MMG has updated its internal ICMM Alignment Framework, mapping the alignment between relevant sections of MMG Policies, MMG Standards, MMG Code of Conduct, and MMG's Sustainability Framework, and the ICMM Principles, relevant PEs and Position Statements. MMG has also included tables in the Sustainability Report Appendix which identify sections of the Sustainability Report that relate to the ICMM Principles and relevant PEs as well as mandatory requirements set out in ICMM Position Statements, and has indicated the extent of MMG's alignment with the said ICMM reporting criteria.

Subject Matter 2

MMG has outlined its materiality assessment approach and process in its Sustainability Framework. 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 2022, MMG conducted one-on-one interviews with 9 internal and 5 external stakeholders via video conference, taking into consideration the views of the senior leadership, employees, investors and communities, industry benchmarking, and global risk to confirm the 17 material topics of MMG for the year.

Subject Matter 3

MMG has a Risk Management Standard, which defines the approach to identify and manage risks that can impact the achievement of MMG's Strategy and business plans, as well as the requirement of reporting and investigation of significant events. Site-specific risk register is developed in accordance with requirements set out in the Risk Management Standard to manage the risks. MMG has established the three lines of defence to provide three levels of assurance to ensure the implementation of management systems regarding the material sustainability risks and opportunities. The implementation of Safety, Security, Health and Environment ("SSHE") policies and measures are guided by the SSHE Performance Standard. Reporting of SSHE events is guided by the SSHE Performance Standard. Site-level social events are reported in the forms of weekly minutes, monthly reports, and meetings with group-level management of MMG. Employee value proposition is guided by Social Performance Standard. The implementation of responsible water consumption is guided by the SSHE Performance Standard – water reporting requirements. Biodiversity and land management is also guided by Social Performance Standard and SSHE Performance Standard.

Subject Matter 4

MMG has established and executed the reporting instructions in the Work Quality Requirements and Performance Standards accordingly, as well as the internal control measures to ensure the reliability of reported data. Sites are to report on key sustainability performance data through specific software. MMG reports against topic-specific disclosures with detailed figures and metrics, case studies, and progresses against targets in the Sustainability Report.

Subject Matter 5

As disclosed in the Sustainability Report, MMG rotates its third-party validation through all of its operations. For the Reporting Period, one of the four sites, namely, Las Bambas, was selected for third-party validation.

b. AccountAbility Principles

Inclusivity

MMG has identified key stakeholders and engaged them via various avenues to identify their areas of interest. MMG attaches importance to its stakeholders, and has developed a set of standard working framework related to stakeholder engagement. MMG's Social Performance Standard has defined the minimum requirements and accountabilities relating to interactions with the communities to reduce impacts, maximise benefit, and deliver on commitments based on MMG values and to respect to the local culture and traditions. At the site-level, in accordance with requirements set out in MMG's Social Performance Standard, a site-specific Social Baseline Study and a Social Impact and Opportunities Assessment have been conducted to identify key demographic aspects, issues, and perceptions of stakeholders and interested parties of the regions and communities, while a site-specific Social Development and Community Plan have been developed to guide the implementation of socio-economic development projects and investments. Regular updates of these matters are reported to the Executive Committee and the Corporate Affairs Function. 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 sustainability risks and opportunities, and disclosed corresponding qualitative and quantitative key performance indicators in the Sustainability Report. These material sustainability risks and opportunities are discussed in different chapters 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, such as meetings, interviews, written communication and media, which provide opportunities for stakeholders to voice their concerns, needs, and expectations. At the corporate level, the material issues were reviewed and updated for disclosure to ensure that relevant information is communicated to stakeholders in a comprehensive, accurate, timely, accessible, and balanced way. At the site level, in accordance with MMG's Code of Conduct and according to the site-level monthly Social Performance Report displayed, Las Bambas has responded to stakeholder concerns in issues. MMG continues to refine mechanisms to capture sustainability performance data in respect of the updated materiality issues. In our professional opinion, MMG adheres to the principle of Responsiveness.

Impact

MMG's Risk Management Standard has set out the requirements for the identification, reporting, analysis, and control of risks and significant events, where the material risks are identified based on their consequence and likelihood. At the corporate level, MMG understands, measures, evaluates, and manages its impacts through the risk identification and management process (described in Subject Matter 3 above) and the support of the Work Quality Requirements and Performance Standards. At the site-level, risk and impact assessments are conducted in accordance with requirements of the SSHE Performance Standard and the Social Performance Standard. In our professional opinion, MMG adheres to the principle of Impact.



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Glossary

AMD	acid metalliferous drainage
ANCOLD	Australian National Committee on Large Dams
ASM	artisanal and small-scale mining
BEPS	base erosion and profit shifting
CAE	Employee Attention Centre
CDA	Canadian Dam Association
CMC	China Minmetals Corporation
CRC TIME	Cooperative Research Centre for Transformations in Mining Economies
DRC	Democratic Republic of the Congo
EITI	Extractive Industries Transparency Initiative
ESG	Environmental, Social and Governance
FAP	Farmer's assistance program
FDL	Functional Discipline Lead
FEC	Federation of Businesses of Congo
FPIC	free, prior and informed consent
FTO	field task observations
GL	gigalitres
GISTM	Global International Standard on Tailings Management
GRI	Global Reporting Initiative
GRI Standards	Global Reporting Initiative's standards for sustainability reporting
GST	goods and service tax
ha	hectare
HKEx	Hong Kong Stock Exchange
ICA	International Copper Association
ICAM	Incident Cause Analysis Method
ICMM	International Council on Mining and Metals
ILO	International Labour Organization
ISEM	The Mine Safety Institute of Peru
IZA	International Zinc Association
LTIF	lost time frequency rate
MAC	Mining Association of Canada
MCA	Minerals Council of Australia
ML	megalitre
MMG	MMG Limited
Mm ³	million cubic meter
MNE	multinational enterprises
Mt	million metric tonnes

Glossary

CONTINUED

MW	molecular weight
NAF	non-acid forming waste rock
NGO	non-governmental organisation
NMD	neutral metalliferous drainage
NOHSC:1012	National Standard for the Control of Inorganic Lead at Work
NOHSC:2015	Safe Use of Inorganic Lead at Work
OECD	The Organisation for Economic Co-operation and Development
PAF	potentially acid forming waste rock
PCR	Polymerase Chain Reaction
PPE	personal protective equipment
PRI	principles for responsible investment
QUT	Queensland University of Technology
SDG	Sustainable Development Goal
SEG	similar exposure group
SENATI	Servicio Nacional de Adiestramiento en Trabajo Industrial (National Industrial Work Training Service)
SHEC	Safety, Health, Environment and Community
SSHE	Safety, Security, Health and Environment
STEM	Science, Technology, Engineering and Maths
TARP	Trigger Action Response Plans
TRIF	total recordable injury frequency
TSF	tailings storage facility
UN	United Nations
UNEP	United Nations Environment Program
UNICEF	United Nations International Children's Emergency Fund
USC	University of Sunshine Coast
VAT	value added tax
VPI	Voluntary Principles Initiative
VPSHR	Voluntary Principles on Security and Human Rights
WQR	Work Quality Requirement

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

Our contacts

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

HEAD OFFICE

Level 24
28 Freshwater Place
Southbank
Victoria 3006
Australia
T +61 3 9288 0888

GENERAL ENQUIRIES

wmp@mmg.com

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