



China Minmetals Corporation



Description of the Logo: The logo of China Minmetals Corporation consists of a red sun above aluminum ingots and steel rods together with MINMETALS, the abbreviated name of the Corporation in English, while the letter M is taken as a main character element in the logo. The red sun symbolizes optimism, selflessness, integrity and magnificent presence, embodying the Group's spirit of "providing quality service, striving for excellence". The aluminum ingots and steel rods imply the industry of the Group

— metals and mining; and the gray steel rods extend endlessly in a perspective view, conveying the sustainability philosophy of the Group to "cherishing limited resources, pursuing sustainable development". The entire logo depicts a road under sunshine paved by our employees with their professionalism and wisdom extending endlessly in the direction of the rising run. It manifests the magnificent openness and vision of the Group, and signifies the Group's bright future and realization of sustainable development.



We Support the Global Compact

About This Report

Reporting Period:

The Report covers the period from January 1st to December 31st, 2015, and part of the content involves the important periods in the development of the Corporation.

Release Cycle:

As an annual report, this Report is the 9th sustainability report successively published by the Corporation since 2007.

Reporting Scope:

The Report covers the information related to the headquarters and subordinate units of China Minmetals Corporation. In view of the different business of various units, there will be slight differences in the boundary and range of specific topics and explanations will be provided in corresponding paragraphs of the Report.

Reference:

For easy reference, "China Minmetals Corporation" is also referred to as "CMC", "the Corporation" and "we" in the Report.

Reference Standards:

In compliance with the requirements in such documents as *Guiding Opinions on Performance* of Social Responsibilities by Central Enterprises and the Outline of the 12th Five- Year Plan for Implementing the Strategy of Harmonious Development by Central Enterprises, released by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), this Report is compiled according to the core scheme of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G4). The following guidelines were also taken for reference, i.e. the international standards in Guidance Standard on Social Responsibility (ISO 26000: 2010), national standards in GB/ T36000-2015 Guidance on Social Responsibility and the Ten Principles of the United Nations Global Compact.

Data Sources:

All data contained herein comes from CMC's official documents, statistics reports and financial statements, as well as the information collected, summarized and reviewed by the sustainable development management information system of the Corporation on sustainable development practices implemented by its functional divisions and operating units. Based on the statistical indicators as submitted to SASAC, the data mainly comes from domestic businesses. Special reference will be given where data from overseas businesses are used.

Report Approach:

The Report is available in both Chinese and English. Please contact us for a hard copy. Besides, for enriching the reading experience, the Report is also available in a web version and WeChat

Address of the headquarters: Tower A, Minmetals Plaza, No.3 North Chaoyangmen Avenue, Dongcheng District, Beijing, China (100010)

Tel: 0086-10-60169882 Fax: 0086-10-60169817

Email: csr@minmetals.com

You may also view the PDF version of the Report in Chinese and English as well as the dynamic information related to CSR activities of the Corporation under "Social Contribution" on the homepage of the CMC official website.

Official website: http://www.minmetals.com.cn

Declaration

Centering on the sustainable development ideology of "cherishing limited resources, pursuing sustainable development", the 2015 CMC Sustainability Report is to communicate to the public the Corporation's desire to create the best value for stakeholders, and demonstrates its efforts and performance on value creation, safety and health, environment, employee, partnership and society. Considering stakeholders as the most important resources for sustainable development of the Corporation and adhering to the main theme of "cherishing stakeholders and making every effort to create unlimited value for them", CMC strives to disclose to the stakeholders its practices and performance on CSR as much as possible in an accurate, true and objective manner, achieve most effective communication with its stakeholders on an equal, comprehensive and in-depth basis, and enhance mutual trust and cooperation with them for common progress and development.

This Report has been certified by the Lloyd's Register Quality Assurance (LRQA) as an independent third party. The certification statement is attached hereto as an appendix.

China Minmetals Corporation

June 2016



China Minmetals Sustainability Report (2007-2014)

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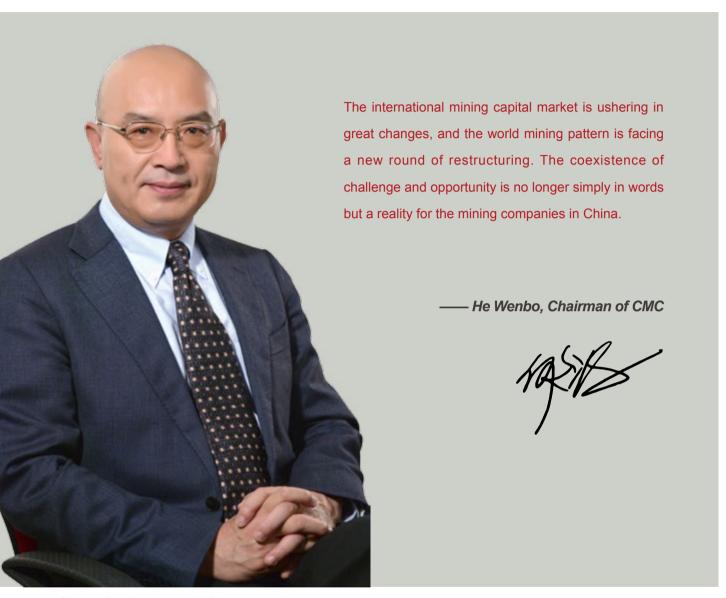
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Message from the Chairman



Global Challenges and Opportunities

In 2015, as the growth of world economy slowed down, the Chinese economy stepped into a new normal. The ten-year golden period of development of the global metals and mining industry came to an end, but new opportunities have emerged for the industry along with the implementation of such strategies as "the Belt and Road", "International Capacity Cooperation" and "Internet Plus" initiated by China. Meanwhile, the UN adopted the Sustainable Development Goals (SDG); the five concepts of development - "innovation, coordination, greenness, openness and sharing" were proposed for China at the 5th Plenary Session of 18th CPC National Congress; and three national standards including China GB/T 36000-2015 *Guidance on Social Responsibility* were released. All these effects have drawn more attention to and higher expectation on the global sustainable development and corporate social responsibility.

Facing the current trend of industry restructuring and alignment, industry players have been active in optimizing their asset portfolio to become more competitive in sustainable development. As an important participant in global metals and mining market and the biggest comprehensive metals and mining company in China, CMC is looking for solutions to address the new development. Our priorities, at the current stage and also in future, lie in how to promote the supply-side structural reform, strengthen international capacity cooperation and build a new type of management system for the promotion of social responsibility.

Meeting Global Challenge and Starting up a New Era

Solutions of CMC

The new normal triggers new ideas, while new ideas call for new initiatives for future development in the coming years. CMC, as an international metals and mining company, possess the advantages of "the weight of metals, the speed of Internet, a global vision and the strong backup of China". It is our responsibility and duty to stay in the front edge of the new developments of the industry, and contribute to the realization of the great rejuvenation of the Chinese nation. It is also where we can make new accomplishments. Despite the challenging situation, we confronted the problems and risks, and enhanced our confidence and efforts, focusing on industrial upgrading and sustainable development. By joining hands with stakeholders, we are willing to assume our social responsibility and accelerate the sustainable economic and social development.

Looking into the market situation and industrial opportunities for innovative profit-making model. We have built a development model covering the entire industrial chain: enhanced integration and protective development of resources in the upper stream, strengthened restructuring and transformation upgrade in the midstream, and increased technological input as well as research and development of high-end product in the downstream, thus to lead the industrial upgrading. We registered a total commodity volume of 83.99 million tons and total operating revenue of USD 30.83 billion, and invested USD 151.4 million in R&D. We practiced the "going out" strategy and successfully constructed and operated the Las Bambas copper mine in Peru, making CMC the biggest copper producer in China and among top 10 in the world. We extended the industrial chain, increased the added value of products, and formulated the "Dark Blue Plan", which aims to upgrade the sectors including cemented carbide from resources advantage to technology advantage, and build an industrial chain from resources all the way to advanced materials, equipment and instruments. We established the Xin Yi Lian E-commerce platform and reconstructed the service system of the iron and steel supply chain. We also undertook strategic restructuring with MCC Group to increase the comprehensive capability of the whole industrial chain.

Continuous focus on the core issues of sustainable development to improve development ability. It is our goal to align our corporate values with the interests of the national and social development. Firstly, we continue safety production by improving the safety production responsibility system, and developing the "five-step closed-loop management model". We promoted safety through advanced technologies and ensured overall safety. Secondly, we continue green development. We joined the Environmental Vanguard Enterprise Consortium of United Nations Global Compact in 2009. Since then, we have continued to push forward cleaner production and green mines construction, improved the comprehensive utilization of resources, and protected natural and ecological environment to address climate change. Thirdly, we continue our care for the employees. We promote the reform on human resources management, contribute

to employee development and help them achieve better work-life balance. Fourthly, we continue cooperation with partners by establishing close cooperation with customers, suppliers, peers and cross-industry partners and sharing the results with them. Fifthly, we continue mutual development with the communities by earnestly enhancing community development in Africa, Asia, South America and Australia. We actively ask the communities for opinions, invest in infrastructures such as highways, hospitals and schools, adopt "localized" management, offer jobs for local residents and increase the local employment rate and satisfaction of residents, in a bid to achieve coordinative relationship with local governments and communities and to facilitate sustainable economic and social development in the areas where our projects are based. In 2015, our total donation amounted to USD 64.38 million. Sixthly, we continue responsible management, undertaking the responsibility of an international corporate citizen. Adhering to the sustainable development idea of "cherishing limited resources, pursuing sustainable development", we push forward the deep integration of social responsibility and operation according to the "value-creating" model of social responsibility promotion, so as to improve our ability and level of sustainable development.

Promoting the change of thinking and the reform of State-owned enterprise while drawing the future blueprint. We changed our thinking by targeting at a "world-class metals and mining group" to build the Corporation into "a guard of resources security", "an innovator of industrial upgrading" and "a driver of business transformation". CMC proactively took the historical mission of improving the national competitiveness and building itself into a State-owned capital investment company. We deepen the reform of State-owned enterprise and release the driving force of reform; we organized the first session of leadership seminar, to identify the core competence of a world-class metals and mining enterprises, and specify the direction of our future efforts.

"An ounce of action is worth a ton of theory". A new start opens the road for a new journey and continued efforts. We will have a better understanding of the economic new normal to develop international capacity cooperation in a better way, carry out operation in a more responsible manner, and unite all CMC people more effectively to step forward hand-in-hand. We will increase communication with stakeholders in goodwill and in a transparent manner, and improve our core competence of sustainable development. We will work to align the responsibilities of a central enterprise with business rules for the realization of the great rejuvenation of the Chinese nation, and create a new development pattern for the global mining industry!



CMC as You See

Industrial distribution — the entire process from mineral exploration to metal products trading
 Products and services — metals and minerals, real estate, and finance

Values — economic, environmental and social values







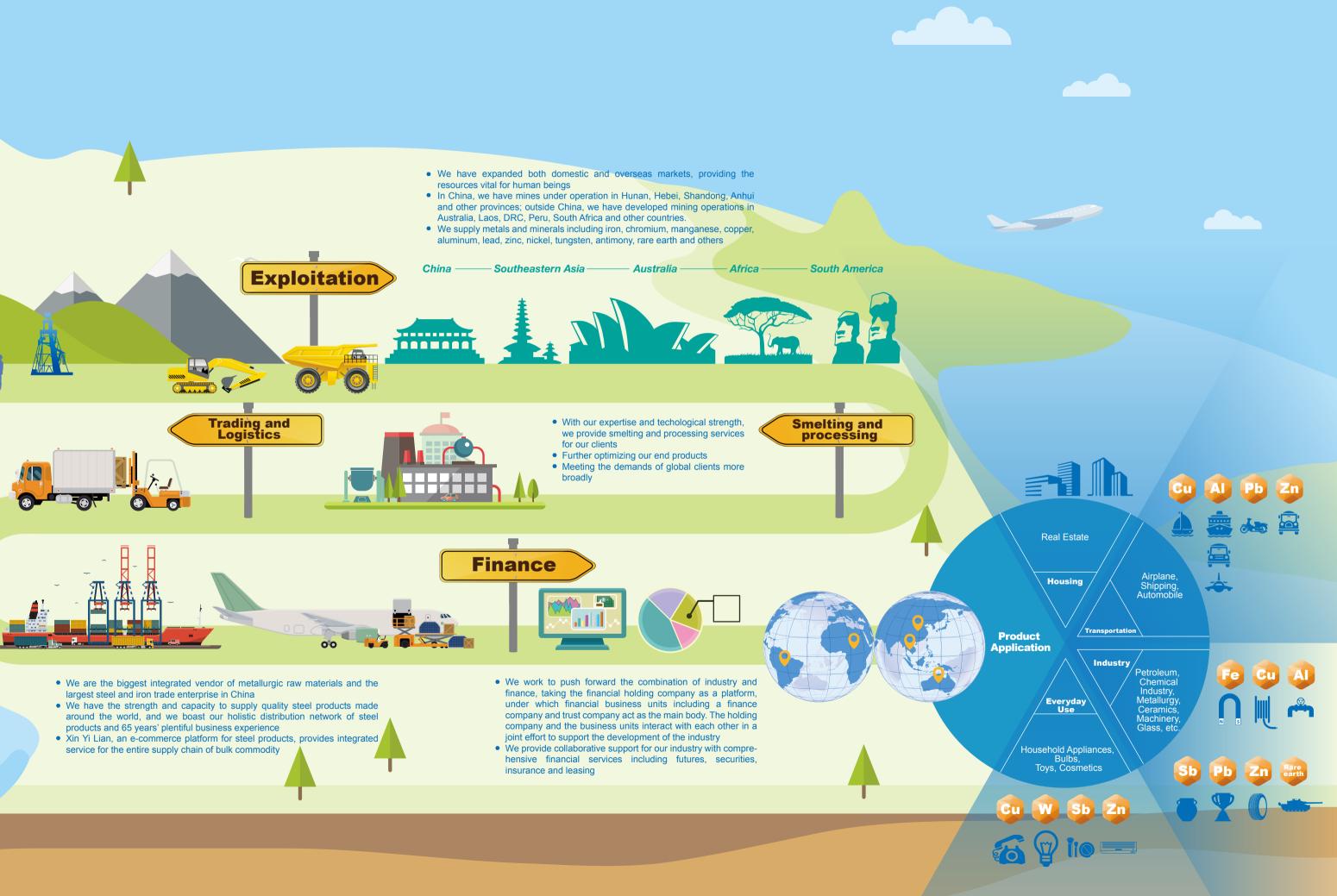
On Land

- Strength in exploring ferrous and non-ferrous metals
- We developed the innovative "Nihe Mode" and "Song County Mode" to vigorously promote the combination of commercial mineral exploration and public-good geological survey. The new mechanism of cooperative prospecting has been recognized by the Ministry of Land and Resources and the geological exploring industry, and promoted all over the country for widespread application and utilization



In the ocean

- Over thirty years in marine scientific research on mineral resources, CMC has participated in many ocean investigations, and possessed full knowledge of the entire prospecting process
- Having obtained the exclusive prospecting right and the preferential mining right of international seabed mining sites
- Having its own national key laboratory for deep-sea mineral resources development, and developed deep-sea mining collection vehicle and seabed walking equipment, which passed underwater tests successfully



Highlights





The total commodity volume stood at **83.99** million tons and the total operating revenue reached USD**30.83** billion, ranking **198**th among Fortune Global 500 and **9**th on the metal industry list of the "World's Most Admired Companies 2015"

Assigned Moody's A3/Fitch BBB+ for the first time; having successfully issued offshore bonds of USD 1 billion

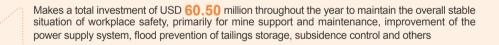
The project of Las Bambas copper mine in Peru has been completed and put into operation as scheduled, and successfully produced the first copper concentrate by the end of December

Joining hands with Alibaba, launched the vertical B2B e-commerce platform for iron and steel business, opening up a new field for State-owned enterprise reform

Having obtained the exclusive prospecting right and the preferential mining right of international seabed mining sites

Made a total investment of USD **151.4** million in R&D; achieved a sales revenue of USD **1** billion from new products; acquired **359** issued patents; facilitated the commercialization of **22** scientific and technological achievements; received **1** national science & technology award and **34** provincial/ministerial level awards

In 2015





3,182 inspections on safety production, 25,938 safety hazards detected, 25,763 rectifications completed, accounting for 97.81% of the total

4,402 training sessions on safety production with **120,110** person-times attendance

USD **7.97** million invested in emergency-related issues, **572** contingency plans revised, **365** emergency drills conducted involving **16**,630 person-times, and **8**,000 person-times emergency rescue trainings involved.

341 occupational health training sessions with 14,363 person-times attendance

Enhancing efforts in detecting safety hazards, and developed the "five-step closed loop management" model

Increasing attention on supply chain safety responsibility. 24 outsourcing mining contracts terminated, involving 2,397 outsourced workers





Accomplishes the government's task for energy conservation and emission reduction. In 2015, the comprehensive energy consumption of per USD 10,000 output (constant price), the emission of chemical oxygen demand (COD), ammonia nitrogen, nitrogen oxides and sulfur dioxide decreased respectively by 1.58%, 18.83%, 57.30%, 16.04% and 11.15% year on year

Increasing efforts to reduce the impact of our business operation on climate change, intensifying technological innovation, facilitating the establishment of the energy management system throughout the organization, and encouraging low-carbon initiatives

Intensifying the comprehensive utilization of water resources and introducing advanced sewage treatment technologies

Taking appropriate protection measures to reduce the impact of our business operation on the biotic population

Land protection and rehabilitation measures put in place as a part of the mineral resources development plan to lower the impact on vegetation and soil

Strengthening waste management and improving our capability of comprehensive utilization of wastes

Promoting green office and encouraging employees to take part in environmental protection





Employee Development .

The total number of employees: 143,517; number of practitioners: 97,828, including 22,324 women. The rate of signed formal labor contract: 100%

Proportion of women in positions of middle level or above: 10,53%

100% of the employees returning to work after the maternity or paternity leave

Trade Unions have been established throughout the entire organization, and have been joined by all employees

Total investment in training: USD **6.71** million throughout the year, with **149,153** person-times attendance, and per capita training hour at **50.24**. Held the Group's first leadership training session

Releasing the Corporation's new position system, and promoting the pilot implementation of the new position system

Adhering to an "inclusive and humanitarian" culture and extending care for employees in achieving better work-life balance

Striving for an active and motivating corporate culture, and diversifying global talent pool to facilitate the development of cultural diversity





The contract performance rate: 100%

Zero health or safety accident reported due to poor quality of products or services

Accelerating the construction of global marketing service network to improve overall customer service capability

Actively promoting the performance of social responsibility by suppliers and established a responsible supply chain together with suppliers

Building the Xin Yi Lian E-commerce platform, and improved the iron and steel distribution network to push forward industrial transformation and upgrading

Active in international industrial forums and seminars such as 2015 China Mining, the 3rd International Mineral Expo and the 4th Asia Copper Week. Shared views and experience on the industry's hotspot areas such as resources development, trade circulation, technological innovation, energy conservation and emission reduction to promote industrial sustainable development



Donations in total: USD **64.38** million

USD **0.74** million donated to targeted poverty alleviation counties, benefiting **50.000** people

The "2015 Annual Star of Poverty Alleviation" awarded by CFPA



Our targeted poverty alleviation work in Yunnan province has been awarded a banner for "Poverty alleviation" by the local government, and recognized as "Company of 2014 for Poverty Alleviation" by Yunnan Leading Group of Poverty Alleviation

608 families have moved into their new homes and neighborhood for the Las Bambas project in Peru, and the "Life Recovery Plan" (LRP) has been developed to entitle each family priorities in capability building, secured income (employment/business development), natural resources, health and education

The local employment rates of the Sepon copper mine, Laos; Kinsevere copper mine, DRC; and Las Bambas copper mine, Peru of MMG reached **95**%, **94**% and **98**% respectively

About Us



Profile

Founded in 1950, CMC is a multinational group specializing in exploration, mining, smelting, processing, and trading of metals and minerals, and engaging in the business of finance, real estate, mining and metallurgical technology. Headquartered in Beijing, it has extended its business to 38 countries and regions, registered a total of 143,517 employees and holds 7 listed companies at home and abroad. In 2015, CMC is one of the 53 key enterprises under the direct administration of the central government, and assigned Moody's A3/Fitch BBB+ for the first time, ranking 198th in Fortune Global 500 for 2015, and ranking 4th among global metal enterprises. The Corporation achieved an operating revenue of USD 30.83 billion. At present, the Corporation's output of tungsten concentrate and the refining ability of lead and zinc rank the first in China, and the yields of antimony oxides and cemented carbide and the capacity of middle and heavy rare earth separation occupy first places worldwide. CMC is also the global leader in the resources of tungsten, antimony, and bismuth, and its production capacity of copper is listed the first in Asia.

> , Ltd 00

Upholding the sustainable development philosophy of "cherishing limited resources, pursuing sustainable development", CMC is committed to assuming the social responsibilities and devoting itself to safeguarding resources security, innovating industrial upgrading and driving circulation transformation in China's metals and mining industry.



Organization China Minmetals Corporation China Minmetals Corporation Limited Strategy and Planning Division Division Human Resources Division Health, Safety and Enviror mental Protection Division Division Management Division General Office Financial Division Division **Investment Management** Party Work Division Supervisory Bureau Risk Management Division Investment Banking Management Division Science and Technology Division of Retired Staff Administrative Affairs Information Management **Auditing Division** egal Division _abor Unions Minmetals Mining Metals Co., Ltd Minmetals Non-ferrous Metals Holdings Co., Ltd Minmetals Non-ferrous 00. Holdings Limited Holdings Co. Mining Co., Ltd Minmetals Luzhong Metallurgy Co. Changsha Research Institute of Mining and Development Minmetals Finance (Holdings) China Minmetals H Management Limited Minmetals Development Minmetals Capita Minmetals Land Minmetals Exploration Co., Ltd Minmetals (Beijing) Asset Limited Co., , Ltd. Limited

Note: The corporate enterprises listed here are important subsidiaries under the management of CMC.

Main Subsidiaries

China

North China

China Minmetals Corporation Limited Minmetals Development Co. Ltd. Minmetals Exploration & Development Co., Ltd. Minmetals Non-ferrous Metals Co., Ltd. Minmetals Mining Holdings Ltd. China Minmetals Rare Earth Co., Ltd. Minmetals Capital Holdings Limited Minmetals Finance Co., Ltd. China National Foreign Trade Financial & Leasing Co., Ltd. Minmetals International Tendering Co., Ltd.

Shangri-La Hotel Beijing

Minmetals Logistics Group Co., Ltd. Minmetals Real Estate Co., Ltd.

China National Metal Products Co. Ltd.

Northeast China

Minmetals Yingkou Medium Plate Co., Ltd. Minmetals (Yingkou) Industrial Park Development Co., Ltd.

East China

Minmetals Luzhong Mining Co., Ltd. Nanchang Cemented Carbide Limited Liability Company Ganzhou Gannan Tungsten Co., Ltd. Minmetals Materials (Changshu) Management Co., Ltd. Minmetals Nanjing International Trading Co., Ltd. Minmetals Zhejiang International Trading Co., Ltd. Minmetals Shipping and Forwarding Shanghai Co., Ltd.

Central South China

Minmetals Non-Ferrous Metals Holdings Co., Ltd. Hunan Non-ferrous Metals Holdings Group Co., Ltd. Changsha Research Institute of Mining and Metallurgy Co., Ltd. Kingray New Materials Science & Technology Co., Ltd. The 23rd Metallurgical Construction (Group) Co., Ltd. of Minmetals Zhuzhou Smelter (Group) Co., Ltd. Zhuzhou Cemented Carbide (Group) Co., Ltd. Henan Wu Xin Mining Co., Ltd.

Southwest China

Zigong Cemented Carbide Co., Ltd. Longchuan Yunlong Rare Earth Development Co., Ltd.

America

Minmetals INC

Minmetals Inc. (L.A.)

China Minmetals E Minerals (Brazil) Ltd.

Minmetals Exploration (Canada) Co., Ltd.

South China

Minmetals Securities Co., Ltd. Guangxi Arksun Minerals And Metals Trading Co., Ltd. China Minmetals South Co., Ltd. Minmetals Futures Co., Ltd. Minmetals (Shantou) East Guangdong Logistics New Town Development Co., Ltd. Guangdong Wu Xin Mining Co., Ltd. Guangxi Wu Xin Mining Investment Co., Ltd. Shenzhen Jinzhou Precision Technology Co., Ltd.

Northwest China

Minmetals International Trust Co., Ltd. Minmetals Salt Lake Limited Minmetals Lanzhou Steel Logistics Park Co., Ltd. Minmetals Xinjiang Alataw Trading Co., Ltd.

China Tungsten and Hightech Materials Co., Ltd.

Hong Kong and Macao

China Minmetals H.K. (Holdings) Limited Cheerglory Traders Ltd. Minmetals Capital (Hong Kong) Co., Ltd. Minmetals Resources Limited Minmetals Land Limited Album Trading Company Limited

Other Regions

Asia

Minmetals Japan Corporation Minmetals Korea Co., Ltd. Minmetals South-East Asia Corporation Pte. Ltd. Minmetals Italy Co., Ltd. Xindia Steels Limited Lane Xang Minerals Limited, Laos

Europe and Africa

Minmetals (U.K.) Ltd. Minmetals Germany Gmbh Minmetals Spain S.A. Minmetals North-Europe AB

East Euro--Asia Shipping & Trading Gmbh HP TEC GmbH

Minmetals R.S.A. (PTY) Ltd. ZCC (Zhuzhou Cemented Carbide) Cutting Tools Co., Ltd.

Oceania

Minmetals Australia Ptv. Ltd. China Mining International Limited China Minmetals NZ Ltd MMG

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Strategic Mission, Vision and Orientation, and Values

Strategic Mission	Strategic Vision	Strategic Orientation	Values
To maintain the security of scare metal resources in China, lead the upgrading of the country's advantageous metals and mining industries and uplift the industry's overall efficiency and international competitiveness	World-class corporate group of metals and minerals	Protector of resources security, innovator of industrial upgrading and driver of circulation transformation	Utmost integrity, responsible and diligent, professional, efficient and cooperative

Main Social Organizations Joined by CMC

Co-chairman			
Presidium Member			
Vice Chairman			
Executive Council Member			
Member			
Foundation Member			
Member			
Council Member			
Council Member			
Member			

Governance

CMC is committed to acting as an independent market entity and giving a full play to the vitality of the Corporation, with continued efforts to improve corporate governance structure. In 2015, we began to build a standard Board of Directors, and as a pilot of the SASAC, set up the first Board of Directors as well as its 4 subordinate committees at the corporate level. We revised the Articles of Association, optimized and adjusted the existing decision making process, institutional framework and the operating mechanism of the Board of Directors. We also improved the classified and hierarchical authorization scheme in management, and established a modern governance structure for modern business in efforts to secure the rights and interests of investors, and build for CMC the governance structure and competence of a modern business.

Based on the overall requirements of "rule of law in corporate governance with clear definition of rights and responsibilities", CMC has adopted a classified and hierarchical authorization scheme in the management of its secondary units, and promoted demutualization of the secondary units initiated by the creation of Board of Directors. On a trial basis, we have carried out the delegation of decision making process in the subordinate Minmetals Development Co., Ltd., and developed a delegation list covering 10 aspects, including the main businesses, investment and others, as well as the corresponding supervision and restriction mechanism. We also optimized the organizational structure of non-ferrous and ferrous metals businesses, and have pushed forward the integration process of Minmetals real estate business.

🗹 Case

CMC holds work conference on the creation of standard Board of Directors

The Corporation held a work conference on the creation of standard Board of Directors on July 30th, 2015, at which four persons were appointed as the outside directors of the Corporation, including Shi Dahua, former Chairman of the State Council's Key State-Owned Large-Scale Enterprises Supervisory Board.



Work conference to improve the creation of Board of Directors "Positive results have been achieved in the creation of standard board of directors, and we have promoted the sustainable and sound development of central enterprises by establishing and improving systems for modern businesses."

— Meng Jianmin, Vice Chairman of SASAC of the State Council

"We must actively explore the structure and mechanism of Board of Directors with Chinese characteristics and CMC features."

— Xun Huanzhong, Chairman of the State Council's Key State-Owned Large-Scale Enterprises Supervisory Board

🗹 Case

Joint Equipty Ownership by Subsidiaries

Minmetals Development Co., Ltd. (hereinafter referred to as Minmetals Development) has joined hands with Alibaba in launching a vertical B2B e-commerce platform for iron and steel business. As a new effort to reform State-owned enterprises in terms of its equity ownership (46% and 44% by CMC and Alibaba respectively, with the remaining 10% as equity incentives for employees), the new company created broader opportunities for State-owned capital in social and economic development.

Hunan Golden Furnace Science & Technology Co., Ltd. subordinate to Changsha Research Institute of Mining and Metallurgy (hereinafter referred to as Golden Furnace Science & Technology) was the first pilot enterprise of employee stock ownership. As a result of such new measure, the leading technological team and the management are greatly motivated, and have successfully developed several new products within a short period. Since its official operation, the company has entered into new contracts with a total value of USD 4.92 million by the end of 2015.

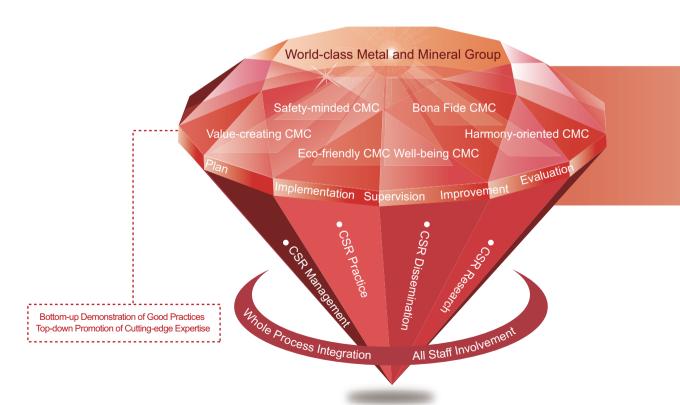
Management of Sustainable Development

Sustainable Development Philosophy

The resources industry presents important opportunities for economic development, poverty relief work and global sustainable development. Based on the context of sustainable development and combining industrial features, its own advantages and CSR practices, CMC has established the system of sustainable development philosophy of "cherishing limited resources, pursuing sustainable development". We value the limited natural resources, human resources and social resources, and manage the economic, social and environmental impact imposed by our decisions and operations by means of transparent and ethical behaviors, in order to create shared values for stakeholders including the government, employees and partners, and promote sustainable economic, social and environmental development.

Sustainable Development Model

Focusing on value creation as its primary goal of business development, CMC has taken value creation capability as the main basis for establishing business portfolio and developing strategic policies, created a "value-creating" model for advancing sustainable development, and put forward approaches and proposals for the Corporation to fully integrate CSR into its business strategies, management and operation.





The diamond model of advancing sustainable development demonstrates CMC's relentless pursuit for sustainable development and firm commitment of maximizing the comprehensive value of economy, environment and society



Approaches of advancing sustainable development are CSR management, practice, communication and research



The internal operation mechanism of advancing sustainable development is integrating the ideas and requirements of CSR into prospecting, developing, smelting, processing, circulating and other business sectors as well as into the functional management areas including human resources management, financial and investment management and procurement management so as to realize the "CSR performance and value creation"

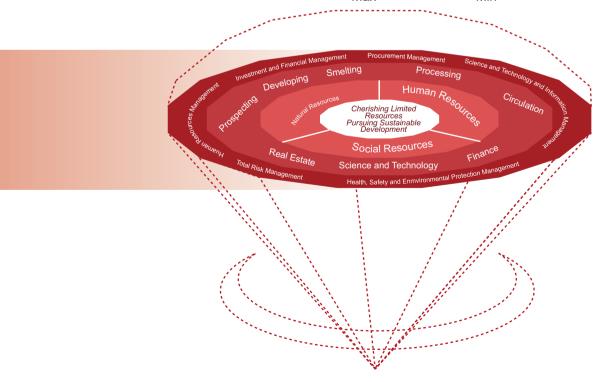


Core themes and strategic goal of advancing sustainable development: building a world-class metals and mining company group through value creation, safety and health, environmental protection, employee development, partnership and social harmony

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Value creation formula of advancing sustainable development: comprehensive value of economy, environment and society (max.) = positive effect on stakeholders (max.) -negative effect on stakeholders (min.)

The Value Creation Formula of CMC $\mbox{Max Comprehensive Value} = \frac{\sum}{\mbox{Max}} \mbox{Positive Effect} - \frac{\sum}{\mbox{Min}} \mbox{Negative Effect}$



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Sustainable Business Model

Business Strategies

Incorporating the sustainable development philosophy of "cherishing limited resources, pursuing sustainable development" into business management and operation

Assets and Resources

- · Optimizing asset quality
- Allocating global mineral resources and integrating social resources

Market and Operation

- · 65 years of market experience
- Possession of core competence of a world class mining company

Talents and Partners

- A total of 143,517 employees on the six continents of the globe
- · Long-term global partnership in both the mining and other industries

Technology and Management

- · Balance in economic, social and environmental benefits based on scientific and technological innovation
- Improvement in quality and efficiency through management reform

Input

Value Creation

Our Businesses

- Metals and Minerals
- Finance
- Real Estate
- Science, Technology and Exploration

Our Approaches

- Stakeholder Engagement
- Benchmarking with and learning from counterparts in and outside China
- Reform and Innovation

Industrial Production and Daily Life











Output

Economic Output

- Shareholder Return
- Government Revenue
- · Remuneration and Welfare
- Scientific and Technological Innovation

Environmental Output

- Energy Conservation and Emission Reduction
- Green Office Practices
- Public Good for Environmental Protection

Social Output

- Safety Production
- Employee Development
- · Cooperative Partnership
- Customer Service
- · Supply Chain Management
- · Community Development

KPI

Economic Performance

- Total Commodity Volume
- Shareholder dividends
- Total Tax Payment
- Operating Revenue
- Salary
- Investment in R&D

Environmental Performance

- Comprehensive Energy Consumption per USD 10.000 Output
- Emission of Chemical Oxygen Demand (COD)
- Emission of Ammonia Nitrogen
- · Emission of Nitrogen Oxides
- · Emission of Sulfur Dioxide

Social Performance

- · Investment in Safety Training
- Contract Performance Rate
- Improved Products and Customer Service
- Responsible Procurement
- · Investment in Employee Training
- · Donations in total

Advancement of Sustainable Development

We have enhanced efforts to advance CSR management, define CSR topics and promote sustainable development practices.

Advancing Sustainable Development Management

CSR represents the responsible corporate image of CMC in the process of industrialization and globalization. In 2015, we promoted the construction of sustainable development management information system, released the CMC sustainability report for the 9th consecutive year, compiled the CSR textbook for employees, and initiated the selection of CSR model base for the first time.

Sustainable Development Management Information System

- Functions include online submission and approval of sustainable development indicators, follow up with such indicators, online submission and approval of internal business excellence cases, share of leading practices in the industry and interactions among employees
- Improving the work on CSR publicity and performance evaluation

Sustainability Report

 The 2014 Sustainability Report was granted the Evergreen Award and Innovation Award of Golden Bee Excellent CSR Report

CSR Textbook for Employees

- The first textbook on social responsibility compiled by a central enterprise, which put together various elements like comics and short stories
- New approaches to improve the willingness, capability and level of CSR performance by employees

CSR Model Base

 Initiated the selection of CSR model base throughout the Group for exchange and share of CSR performance experience

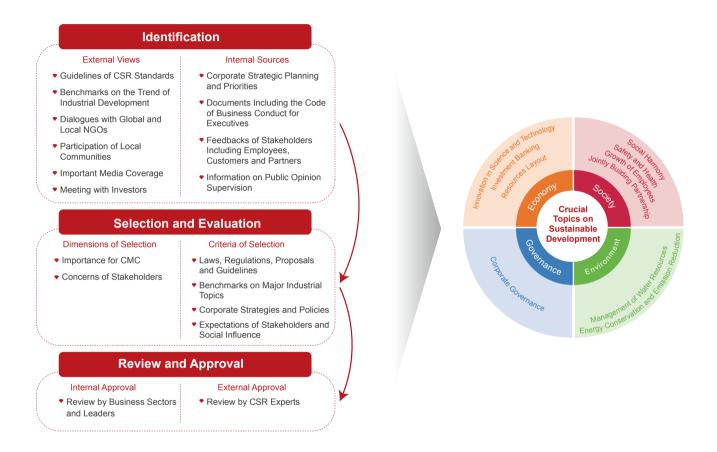


Awarded for Mostly Acknowledged Company in CSR by Youths in the "Survey on the Acknowledgement of CSR by Youths (2014-2015)"

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Topics on Sustainable Development

We reviewed the substantive topics which have influenced and will influence our future development both globally and locally, sorted out the information from stakeholders including the government, employees and partners, and determined the key topics on sustainable development following the process of identification, selection, evaluation, review and approval.

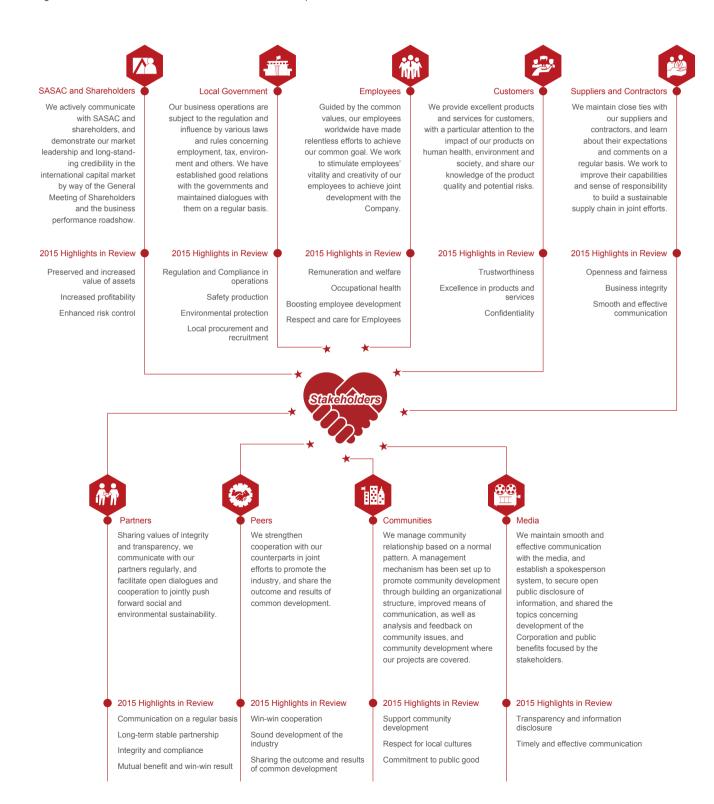


The Four Dimensions for the Determination of Substantive CSR Topics:

Economic		Corporate Strategies	Social Concern	Risk and Influence		egal equirements	Corporate Strategies	Social Concern	Risk and Influence
Resource Layout	•	•	•	•	Safety and Health	•	•	•	•
Investment Banking	g •	•	•	•	Employee Development	•	•	•	•
Scientific and					Partnership	0	•	•	•
technological Innovation	•	•	•	•	Community Development	•	•	•	•
Environmenta	Legal Requirements	Corporate Strategies	Social Concern	Risk and Influence	Corporate Governance	Legal Requirements	Corporate Strategies	Social Concern	Risk and Influence
Energy Conservation and Emission Reduction	n	•	•	•	Corporate Governa	nnce •	•	•	•
Management of Water Resources	•	•	•	•					

Stakeholder Engagement

We work to increase communication with our stakeholders, actively listen and respond to their expectations and demands, and obtain their understanding, recognition and support in order to create a good internal and external environment for business development.





Opportunities and Challenges





- Our cause is necessary for the national development and the social development of human beings
- Having entered the period of industrial restructuring and pattern rebuilding, the Corporation is facing a strategic opportunity to grow stronger and bigger through transformation and upgrading
- The global metals and mining industry now witnesses a new period when overall prosperity comes to an end and restructuring is necessary to rebuild the pattern of development
- The Corporation is confronted with challenges arising from a big industrial reshuffle



01

Value Creation

Our Major Practices

Building an "aircraft carrier" of the metals and mining industry through the strategic restructuring with MCC Group

Las Bambas Project in Peru successfully put into operation

Minmetals Development Co., Ltd. joined hands with Alibaba Group in launching the vertical B2B e-commerce platform for iron and steel business, opening up a new field for State-owned enterprise reform

Development of the "Dark Blue Plan" to accelerate the development of the tungsten industrial chain

Performance and Highlights

<u> 198</u>

No. 198 among Fortune Global 500



9

No. 9 on the metals industry list of the "World's Most Admired Companies 2015"



83.99

Total commodity volume in 2015: 83.99 million tons



30.83

Total operating revenue in 2015: USD 30.83 billion



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Robust Operation

The slowdown of the Chinese economic development and the global economic instability exert pressure to the operation or even the survival of some global metals and mining companies. In 2015, based on the economic new normal and under such strategic framework of "One Belt, One Road", "International Industrial Capacity Cooperation", "Mass Entrepreneurship and Innovation", "Internet Plus" and "Made in China 2025", CMC worked to promote the supply-side reform, refocused on business operations to improve quality and efficiency amid poor market performance, enhanced value creation though reform and innovation and improved the business layout combining industry and finance to secure robust operation. In 2015, CMC witnessed a total commodity volume of 83.99 million tons and a total operating revenue of USD 30.83 billion.





Business Operation

CMC has optimized its business structure, improved its condition of cash flows, and tightened control of operational risks to secure operational safety.

Mixed reserves of abundant mineral resources. With essential metal resources including copper, lead and zinc from overseas, and high-quality resources from China including tungsten, antimony and rare earth, as well as iron ore resources, there is broad space for extension of the industrial chain, and great potential for industrial integration and technological innovation.

Business structure dually supported by resources and circulation. Based on trade and relying on resources, trading of metals and minerals plays a leading role in the market in various areas covering major regions around the world. There is great potential in the development of e-commerce and intelligent logistics.

Diversified portfolio of finance and real estate. As one of the three central enterprises approved by authorities, CMC has been granted the full licenses for financial business operations as its major business. Its real estate business covers real estate development, industrial real estate and engineering construction.



Las Bambas mine of MMG in Peru

Employee

Upgrading of Processing and Manufacture

Significantly Enhanced Industrial Strength

The Las Bambas copper mine project in Peru put into operation

Las Bambas copper mine is the largest investment project so far in the history of China's metals and mining industry. Its successful operation will make CMC the biggest Chinese copper mining enterprise and one of the world's top 10 copper producers.

USD 10.5 billion

Accumulated investment in the acquisition and subsequent development of Las Bambas project

20%

in total value

USD 100 million

"Go abroad" with Chinese-made

equipment worth USD 100 million

The contribution to the Peruvian The annual output of Las Bambas will be equal to 40% of China's economic growth will go above 20%

300,000 people

total cooper output in 2015

40%

Offer job opportunities to the 300,000 people living in the mine and along the transport lines

The business of cemented carbide accelerates R&D and innovation, improves technological process and product quality, and stabilizes the scale of production and sales. The launch of the "Dark Blue Plan" aims to upgrade the sectors including cemented carbide from resources advantage to technology advantage, and build an industrial chain from resources all the way to advanced materials, equipment and instruments



The Minister-counsellor of the Ukraine Embassy in China, Mr. Viktor Tanasiichuk and his entourage paid a special visit to the Zigong Cemented Carbide Co., Ltd. of Minmetals Non-ferrous Metal Co., Ltd.

Transformation and Upgrade of the **Trade Business**

Consolidation of Commodity **Trade**

We strictly control risks and innovate models for the trade of non-ferrous and ferrous commodities. With its special advantage, copper commodity offers customers a package of services with domestic and overseas cooperation combining procurement and sales; market recognition of the branded "CMC coal" has been significantly improved

Improved Circulation Service

Cooperating with several key steel mills to promote the win-win development of the industrial chain

Creation of the E-commerce Platform

Launch of the innovative business model of "Internet Plus" and built the Xin Yi Lian E-commerce Platform for Steel Products

Offsetting Risks by Diversifying **Businesses**

Finance

All-round cooperation between industry and finance in terms of customer share and industrial chain finance, with sound profitability

Real Estate

Record high in contractual sales in 2015, with profitability greatly improved, and continued increase of market share and brand influence in key cities

Improved Service Support Capability

Technology

Focusing on metals and mining business with enhanced synergic support, the Corporation invested a total of USD 151.40 million in R&D and obtained 359 granted patents in 2015

Exploration

Proved reserves by Minmetals Exploration & Development Co., Ltd. by the end of 2015 included: 334 million tons of coal, 180 million tons of magnetite, 37.8 tons of gold, 1,111.9 tons of silver, 139,500 tons of tungsten, 150,000 tons of lead and zinc and 173,500 tons of rare earth. In addition, the company provided technological service of edge and in-depth prospecting for the mines of CMC and set up a service platform for exchange of prospecting technologies at the corporate level

Risk Management

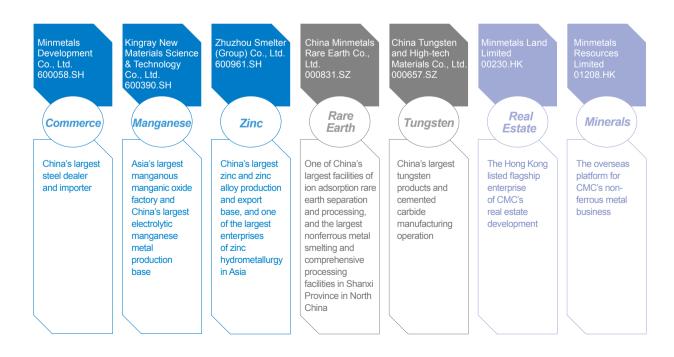
In 2015, our risk management system met serious challenges as a result of the downturn of the commodity market and the continuously deteriorating economic situation. As countermeasures, we adopted the principle of "strict control of operational risks to secure safety operations", adjusted risk management policies and released the *Guidelines of CMC on Present Risk Management Control*. We escalated the risk management mechanism, and established the emergency reporting mechanism for major operational risks to improve the dynamic evaluation and supervision on risky issues. We optimized the debt structure, maintained cash flows, reduced cost, defended the bottom line of no occurrence of systemic risks to secure safe operations and healthy development.

We adopted robust and tight risk control strategies for business risks, particularly those with greatly impact on the Corporation, including overdue risks, risks in estate development, risk of inventory floating profit or loss, risk of interest rates and exchange rates, and risk of commodity safety and quality, and implemented systematic countermeasures.

Capital Operation

In our view, investment will replace trade and play a key role in economic globalization. We stress the "dual engines" of production & operation and capital operation, and implement multi-directional integration by way of effective capital operation, i.e. to promote reform of the State-owned enterprises, and increase the operating efficiency of State-owned capital through management and technology innovation, improved production & operation, and reduced production cost. We aim to build a State-owned investment company and become a world-class metals and mining group by developing sustainable competitiveness in the global metals and mining industry.

- Assigned Moody's A3/Fitch BBB+ for the first time; and successfully issued offshore bonds of USD 1 billion
- Establishing the overseas capital platform using China Minmetals H.K. (Holdings) Limited as the main body, thus having laid the foundation for overseas industrial development and capital operation
- Completed the first register and issuance of corporate bonds of CMC Limited
- · Successfully achieved the re-listing of MMG
- Completed private placement for Kingray New Materials Science & Technology Co., Ltd., advanced the capital operation
 projects including the reorganization of China Tungsten and High-tech Materials Co., Ltd. and the private placement for
 Minmetals Development Co., Ltd., and broadened the space of value creation in the capital market





Resource Capacity

Outstanding mining companies around the world are all seeking new approaches as the industry slows down. In 2015, we pushed forward our resources strategy, optimized the quality of resources and assets, and enhanced the competitiveness of China's metals and mining industry in the global market. We clarified 102 mining rights, established the mining rights and information database, and implemented the whole lifecycle management of mineral resources to build intelligent mines and intelligent mining. We adopted the early warning system of mineral rights protection, initiated construction of the resource evaluation system, and made up for the deficiencies on the management of mineral resources.

Internationally



The project of Las Bambas copper mine in Peru has been completed and put into operation as scheduled, and successfully produced the first copper concentrate by the end of December.



Having obtained the exclusive prospecting right and the preferential mining right of international seabed mining sites.



The output of Anvil copper mine in the Democratic Republic of Congo exceeded the designed capacity.



Completed the optimization of the development scheme of Dugald River lead-zinc mine in Australia, and continued to advance the construction of the project.



Advanced as scheduled the feasibility study process on the development of Townlands chromium mine in South Africa.

Domestically



65,000 tons and 56,000 tons of tungsten detected respectively in the Sanchachong tungsten mine in Guangxi Province and the Dajinshan tungsten mine in Guangdong Province.



Proposal approved for the organization of a large national rare earth conglomerate, which has laid the foundation for the integration and development of rare earth resources.



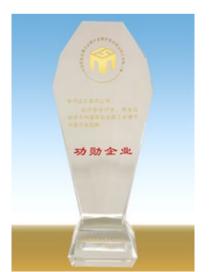
Substantial progresses made in accessing the right to explore the Bachi rare earth mine in Guangdong Province and extending the right to explore the Jianghua rare earth mine in Hunan Province



Main construction of the gold-copper mine project of Minmetals Copper (Hunan) Co., Ltd. completed.



The preliminary design on the potassium chloride project of Yiliping Salt Lake completed and the study on technologies of extracting lithium continued.



In September 2015, CMC was honored as the "enterprise of strategic feats in developing overseas resources" by China Nonferrous Metals magazine

🗹 Case

The Corporation has obtained the exclusive prospecting right and the preferential mining right of international seabed mining sites

On July 20th, 2015, with the approval of the Council of the International Seabed Authority (ISA), the Corporation acquired for the first time the exclusive prospecting right and preferential mining right of the polymetallic nodule mining area in the East Pacific seabed covering an area of 72,740 square kilometers, making it the pioneering enterprise in this field of China. The mining area is located in CC Zone of Eastern Pacific Ocean, which is composed of 8 sub-blocks. Statistics showed that the total amount of Cu, Ni, Co, Mn metals in the mine area exceeded a thousand million tons, which was estimated to be valued at over a hundred billion dollars according to current market prices.



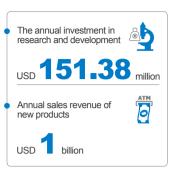
Council of the International Seabed Authority (ISA)



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Scientific and Technological Innovation

Innovation is the greatest driving force of growth, and tops the list of the "five development ideas". Under the economic new normal, only by promoting industrial upgrade and expanding product services through scientific and technological innovation can we have inexhaustible resources to build a world class metals and mining corporate group. In 2015, in the "spirit of craftsmanship", we advanced the formulation of strategic plans for scientific and technological development, and improved the organizational structure. We also explored and established the highly efficient and smooth R&D operating mechanism as well as a rationally structured team of scientific and technological talents, and facilitated the commercialization of scientific and technological achievements. The annual investment on R&D was USD 151.38 million and the annual sales revenue of new products was USD 1 billion.



Innovation System

In 2015, we developed the Scientific and Technological Development Planning of the Corporation in the Period of 13th Five-Year Plan, the Construction Scheme of the Scientific and Technological Innovation System and the Central Research Institute, Standards of the Corporation on the Scientific and Technological Innovation Management System and the Detailed Rules for the Implementation thereof. With these, we have promoted the construction of an advanced innovation system, pushed the Corporation to innovate the efficient allocation and comprehensive integration of resources, and enhanced the in-depth integration of various innovation subjects. Through the efficient linkage of "knowledge innovation — technological innovation — technology transfer", systemic solutions for key issues will be quickly produced to lead the technological innovation and industrial development of the global metals industry.

Platforms of scientific and technological innovation



National Key Laboratories

2

National Engineering Research Centers



National Engineering Laboratory



National Enterprise Technology Centers



National Laboratory of Analyzing and Authenticating Mine Accidents and Harm of Occupational Diseases



National Analysis and Inspection Centers

Innovative Technology

In 2015, the Corporation accepted two national key technology R&D programs as project leader for the first time, and advanced environmental technologies including the "technology of advanced treatment and recycling with electro oxidation for polymetallic dressing waste water". We facilitated the commercialization of 22 scientific and technological achievements, and improved economic efficiency with scientific and technological innovation. In 2015, CMC made 407 patent applications, 359 of which were granted patent rights, including 131 patents on inventions. We received 1 national science & technology award and 34 awards at the provincial and ministerial levels.

Innovation Capacity

We promoted the innovative talent and talent programs. CMC is proud to have 2 academicians, 4 employees shortlisted into the National New Century Millions of Talents Program, and an expert panel of 109 external specialists and 65 internal specialists specializing in 12 fields including geological prospecting, mining and dressing. We have established a science and technology management information platform to facilitate industrial and academic exchanges and cooperation, and organized site visits and exchanges for the Shizhuyuan and Minmetals Salt Lake projects in order to improve innovation capability.

🗹 Case

The Changsha Institute of Minmetals Non-ferrous Metals Holdings Co., Ltd. now boasts 63 experts receiving special government allowance

In 2015, the number of experts in Changsha Institute for Mining Research Co., Ltd. (hereinafter referred to as Changsha Institute) who receive special government allowance increased to 63. These experts have all achieved great accomplishments in such fields as mining engineering, mine safety, test and inspection on mining equipment, mining mechanical engineering, ocean mining and others.

Commercialization of scientific and technological achievements

22



Patent applications

407



Patent rights granted

359



Patents on inventions

131



National science & technology award

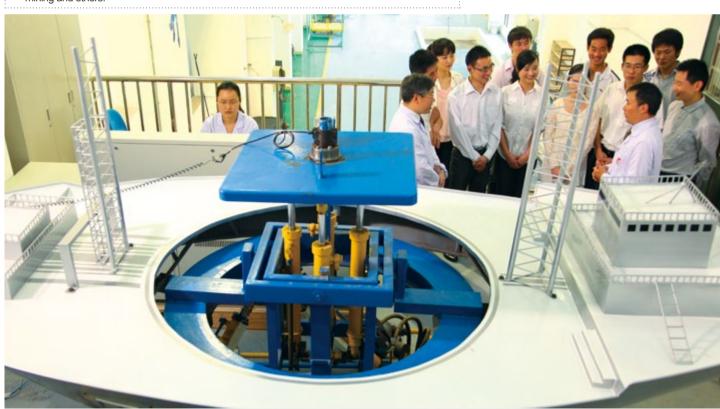




Awards at the provincial and ministerial levels







Six-degree-of-freedom platform simulating the movement of mining vessels in the Deep-sea Research Institute of Changsha Research Institute of Mining and Metallurgy

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Operational Transparency

Upholding the value of integrity, CMC abides by the international, national and local laws, regulations and initiatives, and adheres to business integrity and operational transparency. We communicate and share our management ideas, methods and results in corporate governance, safety production and environmental protection in an open and transparent manner, and have gained the trust and respect of stakeholders.

Laws and Compliance

In 2015, CMC continued its efforts to enhance legal requirements of corporate governance in deepening the construction of the legal system, advancing internal and external trainings, improving legal awareness against legal risks and safeguarding the legitimate rights and interests of the Corporation within the context of the current macro-economic environment and in light of the business transformation of CMC.

Providing In-depth Legal Service

Participating in the strategic restructuring project, ocean project, corporate bonds project and the Zhuzhou Smelter green upgrading project, with more involvement by the legal team





Intensifying Legal Support to Business Operations

Advancing 100% legal review of contracts, systems and investment projects, and provided value-added legal services for major business projects

Strengthening Studies of Professional Knowledge

Preparing investment project brochures, classified the concluded projects in different dimensions and summarized the risks commonly and frequently emerged in investment projects





Enhancing Promotion in Legal Education

Focusing on internal and external training combined to train the employees in a comprehensive and three-dimensional manner

Excellent Results from Legal Work Review

In April 2015, SASAC released the results from the third review of the three-year legal work goal in central enterprises, and CMC was among Class A enterprises with its excellent performance indicators in each area



Internal Audit and Control Supervision & Evaluation

Following the principle of "coping with severe challenges and refocusing on business operations", we implemented audit over 690 projects last year, and presented 1,541 audit proposals, which resulted in a total of USD 17.44 million in revenue and reduced costs. Also, we continued to improve the approach of "combining internal control supervision & evaluation with routine audit supervision", and thus formed a good operational mechanism in which the two aspects are complementary to each other.



Implementing audit over economic responsibilities, special items as well as settlements and final accounts for key engineering construction projects to improve operation and management

Initiating the project of audit information system construction in a bid to advance the audit information process

Innovating the new model of audit implementation, and coordinated efforts from other internal control functions for improvement



Completed internal control supervision and evaluation of subsidiaries including Minmetals Mining and Luzhong Mining

Improving awareness of subsidiaries for defects through supervision and evaluation, and urged them to find out the root causes and solutions to the problems

Achieved good results in the annual internal control supervision and evaluation, escalated the overall level of corporate internal control

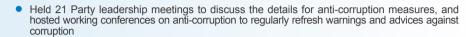
Environmental

Anti-corruption

We continue to further our anti-corruption efforts in that we adhere to the principle of running the Corporation rigorously, increase the awareness of undertaking responsibilities, perform the legal subject responsibility, maintain strict supervision and reinforce accountability to achieve integrity and compliance in operation.



Reinforced the construction of a sound and honest working environment



- Drafted the Measures of CMC on the Administration of Office Buildings, the Detailed Implementation Rules for the Management of Vehicles in the Headquarters of CMC and Interim Measures on the Accountability of Leaders
- Conducting special inspection on office occupancy and use of company cars
- Implementing the eight-point code of CPC Central Committee and standardized the position system and rules for business expenditures



Implemented the legal subject responsibility, and strictly abided by disciplines and rules

- Prepared Breakdown Chart of Anti-Corruption Work in 2015, and assigned 55 tasks to different units at the headquarters and secondary level
- Held anti-corruption exhibitions to educate people with cases known to them
- Held 253 events on Party constitution, Party rules and Party disciplines, involving over 30,000 people
- The discipline inspection and supervision departments of all levels handled 170 corruption cases
- Reformed inspection process, and communicated problems in a timely manner for supervision by employees

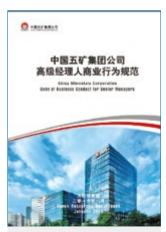


Standardized the operation, and enhanced supervision and control efforts

- Strengthening supervision and management over key links and key personnel
- Conducting special campaign to clean up businesses illegally run by relatives of leaders
- Studying the issues on overseas business supervision, and prevention and control over corruption risks in areas of mineral resources development
- Released the Ten Rules of CMC on Disciplined Operations and continuing operations with integrity
- Revised Measures against Disciplinary Violations by Employees; drafted the CMC Code of Business Conduct for Executives to regulate the conduct of leaders

Operational disciplines are the code of business conduct which operational staff, especially the management, must observe. It would never be excessive no matter how much emphasis was laid on the disciplines under such a severe operational environment at present. Operational disciplines are the red lines which could not be overstepped, and whoever crosses the red lines must pay the price.

— He Wenbo, Chairman of CMC



CMC Code of Business Conduct for Executives



Opportunities and Challenges





- Safety production is the guarantee of life and health as well as the foundation for business development
- Our success depends on the capability of improving performance on safety production
- Arduous responsibilities of safety production lie in our production and operation because of the industrial features
- The new Law of the People's Republic of China on Safety Production officially went into effect



02

Safety and Health

Our Major Practices

Integrating "taking people as the foremost and safety as top priority" into the business philosophy, and continuing to "start safety production from zero everyday"

Improving the responsibility system of safety production with the "equal responsibility of the Party committee and the management, dual responsibility for the same post, and common efforts for safety production"

Launched the campaign of "Month of Safety Production" with the theme of "strengthening the rule of law on safety, and ensuring safety production"

Developed the "five-step closed loop management" model" and increased efforts in detecting safety hazards

Our Performance and Highlights

60.46

Total investment in safety production in 2015: USD 60.46 million



The Xishimen Iron Mine won a 3rd prize for Scientific and Technological Achievements on Safety production

3,182

Safety production inspections: 3,182 times



Zigong Cemented Carbide Co., Ltd. passed the review and examination of Sichuan Province for safety operation and was awarded the title of "Excellent Enterprise" for the 13th consecutive year.

4,402

Safety production trainings: 4,402 sessions



Institute of Mine Research was elected the committee member specializing in mines in the Expert Consultative Committee of Work Safety Committee of the State Council

7.97

Emergency investment



17 projects of the 23rd
Metallurgical Construction
Group Co., Ltd. of CMC were
named as the provincial
demonstration projects of safet
standardization

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Safety Management

Updating its concept of safety management, CMC has intensified the construction of responsibility system of safety production, consolidate the safety management system, and implemented layered and classified responsibility management on the key links and sections of safety production on mines to raise the level of safety management, thus providing a strong safety guarantee for building a world-class metals and mining company. In 2015, USD 60.46 million was accumulatively invested in safety production, and mainly used for mine support and maintenance, improvement of power supply system, flood prevention of tailings storage, subsidence control and others.

We have implemented the new law on safety production, and drafted the *Interim Measures on "equal responsibility of the Party committee and the management, dual responsibility for the same post, and common efforts for safety production"* to delegate the safety responsibility to each post and employee and set up a safety responsibility system which expanded "transverse to the edge and vertical in the end" (i.e. to the greatest extent). We have revised the *Interim Measures on Responsibility Investigation of Safety and Environmental Disasters*, and signed the pledges on annual goals of safety production with business units and directly-managed entities. We have also advanced the investigation and research at the primary level, and highlighted the focal and difficult issues concerning business safety and occupational health as well as the key points of safety in the "13th Five-Year Plan" for the Corporation.

Case

MMG Safety Management

MMG is committed to creating an "injury-free" workplace and constantly strengthens safety management.



Building safety

A safety program (friends alert friends program) has been developed and launched at Sepon in Laos. The program challenges Sepon employees to treat every co-worker on site as a family member. The program aims to personalize safety at all levels and to encourage everyone to look after each of the four personal friends. MMG has developed "comprehensive" safe diagnostic tool based Integral Model (Ken V 2000), which looks at four perspectives – n behaviors, culture and The objective is to as each operating site of key positive attributes.



Our approach to protecting safe work is premised on improving the planning and execution of work by supervisors and frontline employees. Critical to this is dedicated leadership time to support our people to work safely so as to achieve further reductions in injuries.



Developing diagnostic tools

MMG has developed a "comprehensive" safety diagnostic tool based on the Integral Model (Ken Wilbur, 2000), which looks at safety from four perspectives – mindsets, behaviors, culture and systems. The objective is to assess each operating site on three key positive attributes across each of the four perspectives. The Roseberry mine has been chosen as the pilot place to apply this tool, the diagnostic result will be released in 2016.



Controlling safety risks

MMG has revised its Fatal Risk Standards to include requirements for the design, construction, operation and closure of tailings storage facilities.



Community Relations employees at Sepon in Laos participating in the "friends-alert-friends" program roadshow

Case

Promoting Risk Management of Job Safety in Mines

Based on the job risk analysis and grading of three pilot mines subordinated to the China Minmetals Non-ferrous Metals Co., Ltd., including Yaogangxian, Xianglushan and Zhangjiawa iron mines, CMC has clarified the standard process and measures of controlling job safety risks from 4 aspects: code of safety conduct of employees, norms of field operation condition, education and training, and emergency management & avoiding risks. We have developed *The Employees' Manual of Safety in Production, Specifications on Site Operation Conditions, Billboards of Hazard Sources and Prevention & Control Measures* and Handbook of Avoiding Emergency Risks to improve the capability of safety production.

Qualities for Safety production

Safety awareness of employees serves as a basic guarantee for less workplace accidents. We cultivate the employees' awareness for safety production, increase publicity and training, and improve employees' safety production skills, to build a workforce with high quality and excellent skills for safety production.

Education and Training

We increase publicity and training on safety production, innovate the training methods, enrich the training materials, intensify the safety awareness, and improved employees' capability of safety production. CMC has organized 4,402 training sessions on safety production, including special trainings focusing on safety and environmental protection for mines, safety production training, and training on emergency management of safety production, with 120,110 person-times attendance.



Case

Minmetals Mining hosting the "Finger to Mouth Safety Confirmation" Contest

Minmetals Mining hosted the "Finger to Mouth Safety Confirmation" contest in Beiminghe Mine. 6 teams of 18 contestants from different subsidiaries from the positions of operating driving cars, 7655 drilling machines, electric scrapers and diesel LHD participated in the contest, which aimed to improve the employees' capability of identifying the sources of hazards, as well as predicting and preventing accidents.

Emergency Drills

We have formulated the *Emergency Response Plan for Safety production Accidents (Simplified Version)* and improved the system of emergency response plan on safety production accidents; carried out drills of emergency rescue, and reinforced the construction of emergency rescue teams and their practical ability. CMC has invested USD 7.97 million in emergency-related issues, updated 572 emergency response plans, conducted 365 emergency drills involving 16,630 person-times, and 8,000 person-times in the emergency rescue training.

Compiled Emergency Response Plans (by the end of 2015)

Comprehensive Response Plan | 185

Specialized Response Plan | 750

On-site Management Plan 1.560

🗹 Case

Emergency rescue drills organized to improve practical skills

CMC Emergency Drill Week

Virtual rescue drills organized jointly by the headquarters and Hunan Shizhuyuan Nonferrous Metals Co., Ltd. in response to a major roof fall emergency

A drill against a hydrogen station fire by Hunan Nonferrous High-tech Materials Co., Ltd. A rescue drill by Minmetals (Hunan) Ferroalloys Co., Ltd. in response to gas leak emergency

A drill against a possible accident of poisoning and suffocation caused by a fire of downhole cables at the Xiaoguanzhuang Iron Mine of Minmetals Luzhong Mining Co., Ltd.

A drill against an accident of flood filling the mines at the Xishimen Iron Mine in Minmetals Hanxing Mining Co., Ltd. A drill by Hunan Yaogangxian Mining Co., Ltd. for inverted ventilation of mines

A rescue drill against a possible accident of poisoning and suffocation in the mine at Anhui Development Mining Co., Ltd.

A drill against sand storm by Minmetals Salt Lake Limited



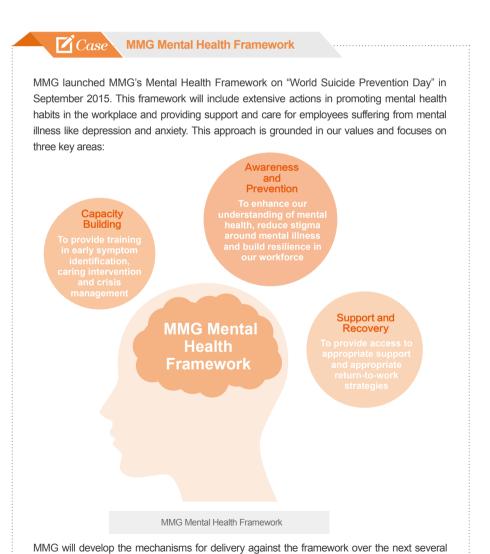
Safety Actions

Through safety measures such as protecting occupational health, enhancing safety through technologies, detecting safety hazards, and managing safety production of contractors, CMC has effectively prevented safety accidents and reduced loss of life and property.

Occupational Health

In consideration of industry features and operating areas, we continue to explore new approaches to occupational health management. We have formulated occupational hazard accountability measures and fulfilled principal responsibility, conducted special researches on occupational health and occupational hazard detection to build a healthy working environment. We have also carried out the "three simultaneities" program concerning occupational health and annual physical checkup for employees. We have launched a publicity week to promote the "Law on Prevention and Control of Occupational Disease" and popularized knowledge of occupational health protection. 341 occupational health training sessions have been organized involving 14,363 person-times.





years and will take into account the cultural context of each operation and the breadth and

availability of support services.



Enhancing Safety through Technologies

CMC works to improve safety through technologies and make continuous efforts in the construction of the "six systems" to prevent risks in mines. The Corporation has fundamentally prevented and curbed the occurrence of major and extraordinarily serious accidents, and improved its safety level through continuous technological advances.

Case

Anhui Development Mining Co., Ltd. has initiated the Project of "Replacing labors with machines and reducing labors through automation"

As a super large underground iron ore mine in China, Anhui Development Mining Co., Ltd. (hereinafter referred to as Anhui Development Mining) was appointed by the State Administration of Work Safety as one of the ten pilot units of strengthening safety through technologies. The project of "Replacing labors with machines and reducing labors through automation" has been initiated, aiming to reduce the number of labors in high-risk workplaces through the improvement of mechanization and automation. The emphasis was laid on three aspects: mechanization of mining, automation of delivery system, and large-scale fixing system and unattended facility automation, to improve the level of safety through technologies.



MMG Las Bambas mine in Peru focuses on safety production

Detecting Safety Hazards

CMC takes safety hazards detection as an effective approach to the strict control of safety production accidents. In 2015, we enacted the *Guidelines for Detecting and Eliminating Safety Hazards for Safety Production of Mining Enterprises*. The Corporation innovated safety inspection measures, and increased inspections at special times such as the Chinese New Year and flood season as well as major inspections on a quarterly basis. By way of expert consultation and forum, we developed the "five-step closed-loop management" model, and launched the campaign of "Month of Safety Production" with the theme of "strengthening the rule of law on safety, and ensuring safety production" and the campaign of "Detecting the Safety Hazards around You", in efforts to disseminate safety knowledge and put in place a scheme for detecting and eliminating safety hazards with all-staff involvement, all-dimensional and around-the-clock manner.

Inspections on safety production

3,182

Completed rectifications

25,763

Detected safety hazards

25,938

Percentage of the total

97.81 %

We have conducted 3,182 inspections on safety production, detected 25,938 safety hazards, completed Warm-up meeting before inspection 25,763 rectifications, accounting for 97.81% of the total. · Formulating special inspection plan of subsidiaries Innovating methods to combine debriefing with physical examination, on-site inspection with data review, and comprehensive inspection with spot check. Accountability will be pursued against the responsible leaders Covering production enterprises and and management personnel functional departments Five-step when any safety production accident is triggered due On-site review and discussions Closed-loop to failure in detecting and organized by operating personnel for eliminating safety hazards opinions and suggestions Management Model Improving the duty pledge on Improving the running accounts safety production for detection and rectification of safety hazards Incorporating detection and rectification of safety "One-on-one" follow-up on hazards into safety production safety hazards rectification assessment

Case License before Minmetals N

License before Production at Xianglushan Tungsten of Minmetals Non-ferrous Metals Holdings

In 2015, Jiangxi Xiushui Xianglushan Tungsten Co., Ltd. (hereinafter referred to as "Xianglushan Tungsten") adopted the system of on-site safety approval license for underground mining. The licensed operating sites included all operational sections, such as mining, tunneling and filling. Items requiring approval include: the results of monitoring toxic and hazardous gas, whether the site safety has been approved, whether there is any safety hazard and whether conditions are ready for operation. Written application is required before operation, and safety approval license is issued only after inspection. No operation is allowed without a license, and the license will be withdrawn after operation is completed. The system aims to eliminate safety hazard, and increase factors of safety.

Contractor Management

CMC emphasizes safety responsibility in the supply chain. In 2015, we drafted the *General Safety Production Requirements for Outsourced Mining Contractors*, and terminated those who were disqualified. We circulated the *Work Plan for Terminating and Regulating Outsourced Contractors*, pushed mining enterprises to develop the "one mine, one policy" work scheme to strictly control safety accidents. CMC looked into the internal coordination of mining operations by mining enterprises, and hosted forums to clearly define requirements for internal coordinative safety management. We terminated 24 outsourcing mining contracts, involving 2,397 outsourced workers.

Dismissed outsourced workers





Terminated outsourced mining contracts

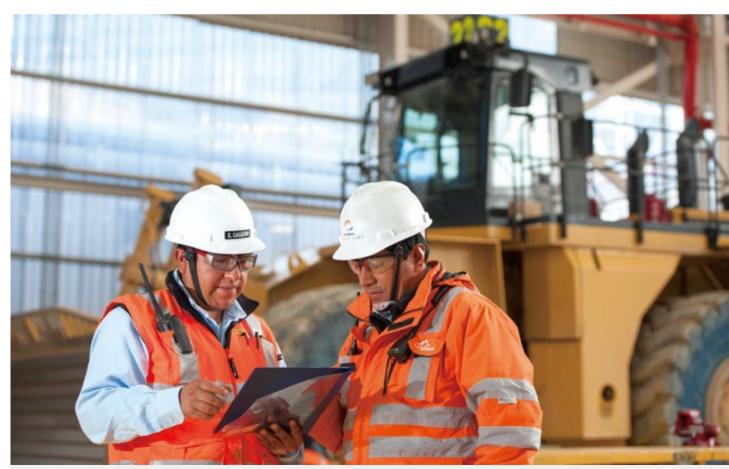
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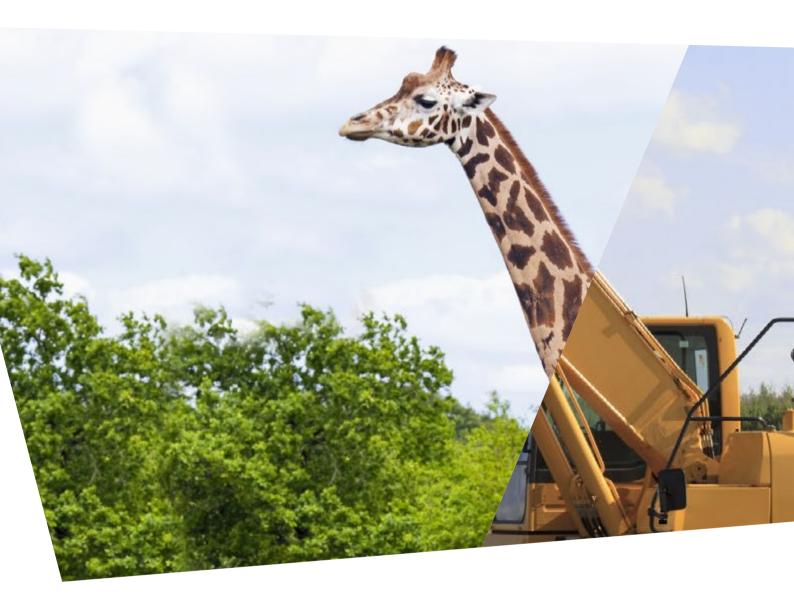
Case

Hengyang Yuanjing Tungsten of Minmetals Non-ferrous Metals Holdings Organized Employees of Outsourcing Teams for Safety Education

Hengyang Yuanjing Tungsten Co., Ltd. (hereinafter referred to as Hengyang Yuanjing Tungsten) has organized the front-line workers of outsourcing teams in the Dazao work area to watch the safety warning video and learn how to perform emergency rescue in response to an intoxication accident. Taking the intoxication and choking accident in the case, the safety director of the Company detailed on how to use self-rescue apparatus as demonstrated by several employees selected randomly. Over 50 members of the outsourcing teams participated in the event and improved their ability of preventing intoxication accidents in production and dealing with poisoning emergencies.



Contractors working for the MMG Las Bambas Project in Peru



Opportunities and Challenges





- Green development and sustainability are trends of the times, and developing green economy is a strategic measure to adapt to the "new normal"
- The 5th Plenary Session of 18th CPC National Congress has taken "green development" as one of the country's five development ideas
- Stakeholders including the government, regulators, and environmental organizations have raised more stringent requirements and higher expectations for environmental protection
- We must minimize the impact of our business operations on the environment, both directly and indirectly



03

Environmental Protection

Our Major Practices

Upholding the idea of green development, optimizing the environment management system, and building a green management platform

Working on energy conservation and emission reduction, breaking down the annual indicators for energy conservation and emission reduction, and signing the Letter of Commitment to Energy Conservation and Emission Reduction

Improving rules and regulations on environmental protection, strengthening corporate management on environmental pollution control and environmental risk prevention

Promoting the construction of green mines and protection of water resources, land resources, tailings management and bio-diversity

Performance and Highlights

Comprehensive energy consumption of per RMB 10,000 output

The chemical oxygen demand (COD)

Ammonia nitrogen

Nitrogen oxides

Sulfur dioxide

1.58%

<u>18.83</u>% →

57.30% →

16.04%

11.15%

2015 witnesses decreases in the comprehensive energy consumption of per RMB 10,000 output (constant price), the emissions of chemical oxygen demand (COD), ammonia nitrogen, nitrogen oxides and sulfur dioxide respectively by 1.58%, 18.83%, 57.30%, 16.04% and 11.15% year on year

The Corporation fulfilled the national assessment of energy conservation and emission reduction

The concentration plant of Hsikwangshan Twinkling Star Co., Ltd. has succeeded in its industrial test of the gravity-flotation workshop section on recycling mine tailings of polysulfur mixed ores.

The "extensive experiment on wet extraction for molybdenum and rhenium from molybdenum concentrate" undertaken by Changsha Research Institute of Mining and Metallurgy Co., Ltd. passed inspection and acceptance

Zhuzhou Cemented Carbide (Group) Co., Ltd. awarded "Integrity Environment Credit Assessment Enterprise in Hunan Province".

Environment Management

CMC has pushed forward the building of the environmental management system, built an environmental emergency response mechanism and intensified efforts in environmental supervision and inspection to raise the environmental management level.

- Promoted key projects of environmental governance and investing USD 96.92 million in environmental control
- Enacted guidelines on the detection and elimination of environmental hazards in the three areas of mining and dressing, rare earth smelting and lead-zinc smelting
- 19 key subsidiaries for environmental protection set up their environment filing system
- Practising cleaner production and implemented the plan of cutting down high-risk lead pollutants in accordance with the requirements by the Ministry of Industry and Information Technology
- Conducting management and assessment of environmental risk sources in 6 selected tailings
- Organizing trainings focusing on identification and prevention of environmental risk for tailings storage, energy conservation and emission reduction data submission, cleaner production and modern corporate environmental management
- 4 training sessions on environmental protection held by the headquarters, with a total of 1,770 person-times attendance

Investment in environmental control



Training on environmental protection held by the headquarters



sessions

Attendance at the training sessions on environmental protection held by the headquarters



Case

Zhuzhou Smelter Group of Minmetals Non-ferrous Metals Holdings Advanced Grid Management

Zhuzhou Smelter (Group) Co., Ltd. (hereinafter referred to as "Zhuzhou Smelter Group") has advanced grid management of environmental risks.

Drafting the Plan for the Implementation of Grid Management of Safety and Environment Risk Points, and identified environmental hazards of production units

Preparing the list of grid management of safety and environment risk points, which defined the responsible persons and sections, and the goals and measures against each environmental hazard

Working on solutions to the results of the grid management inspection at each level, by way of "site visits, review of records, asking questions and publicity"

Improving the comprehensive contingency plan and the on-site disposal plan in response to environmental events

Revising 13 environmental protection and management systems concerning sewage, exhaust, solid waste, noise and on-site management

Employees of MMG Las Bambas Project in Peru testing water quality



MMG Environmental Management

Respect for the environment is a core part of MMG's business strategy and we are committed to minimizing our environmental footprint.

MMG maintains a close focus on managing our environmental impacts and aligns our environmental management activities with our "Life-of asset Plans".



All mines seek to improve the efficiency of our water use and maximize water recycling



Water Access and Use



Our operations have managed a total of 83 gigalitres (GL) of water. Water inputs for dust control, drinking water and processing (40GL) represent approximately half of the total water managed



Gradually integrating our "water balance models" and our "Life-of-asset Plans"



Water retention and treatment infrastructures are in place across all MMG operations





Through the implementation of our "Mineral Waste Management Plans", we focus on characterizing mineral waste and managing its storage to limit environmental impact



29.2 million tons of waste rock were generated and 15.4 million tons of tailings were placed in tailings storage facilities





All mines have implemented "Land and Biodiversity Management Plans"



Undertaking some rehabilitation work on an annual basis and building allowances into our closure plans and budgets



All operations have plans on their closure, and the maturity of closure is decided by the phase of the mine's life cycle

Climate Change

CMC strives to reduce the impact of our business operations on climate change. With focus on reducing the emission of greenhouse gas in the process of operation, we have intensified technological innovation and promoted the building of energy management system by subsidiaries. We have conducted the work on energy conservation and emission reduction to drive the Corporation to develop in a low-carbon way.





Training and Working Seminar on "Carbon Emissions Trading and Submission of Data on Energy Conservation and Emission Reduction"

The Corporation has organized the training and working seminar on "carbon emissions trading and submission of data on energy conservation and emission reduction" for key energy consumption enterprises, which explained how enterprises could participate in the "carbon emissions trading" and the key points about "carbon emissions trading". The working seminar, along with the training on submitting data on energy conservation and emission reduction, has helped clear the channel for the communication of the energy management system.

∠ Case

Anhui Development Mining Reduced Energy Consumption

Anhui Development Mining has released energy consumption assessment indexes of 2015 and formulated energy assessment methods. It has urged the implementation of "avoiding peak and filling valley" policy, utilizing the measures of reward and punishment to reduce electricity cost. An "energy management inspection group" has been set up to conduct regular special inspections against leakage. The Company has also continued its efforts to improve metering facilities and the detection of metering tools and has organized trainings on energy conservation, knowledge contest on energy conservation and other publicity activities in various forms to increase awareness of energy conservation among all employees.

Green Mines

CMC strictly abides by the ecological protection red line, keeps assessment and works hard to reduce the impact of mining and production on the water resources, creatures and soil. We stick to green mining, rehabilitation and afforestation, trying to prevent, reduce and eliminate the impact of mining on the environment during its whole life cycle, so as to build eco-harmonious green mine.



Mining

- Assessing environmental impacts before development and construction
- Monitoring ecological impacts during the mining process
- Conducting the work on soil and water conservation, land rehabilitation and environmental protection when the mine is to be closed

Cleaner Production

- Screening enterprises involving high-risk pollutants, and working out plans on reducing high-risk lead pollutants
- Intensifying the capability of and efforts in dealing with "sewage, exhaust and solid waste", and conducting pollution source investigations

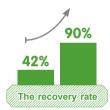
Tailings Management

- · Placing tailings in specially designed pools filled with tailings and water
- Constantly monitoring the tailings equipment to ensure its integrity and structural stability

Case

Shizhuyuan Nonferrous Metals of Minmetals Non-ferrous Metals Holdings Builds Green Mines

Hunan Shizhuvuan Nonferrous Metals Co., Ltd. (hereinafter referred to as "Shizhuvuan Company") mined by means of sublevel caving, has witnessed an increase in the recovery rate from 42% to more than 90%, and the rate of depletion was controlled under 5%: Shizhuyuan Company has developed its own "Shizhuyuan Mine Beneficiating Method", which has increased the ore dressing recovery percentage of low-grade tungsten complex by 38.5% compared with the initial period and reduced the emission of waste ore by 200,000 tons annually; molybdenum and bismuth have been recovered from smelting slags and exhausts, decreasing smelting slags by over 600 tons annually; production equipment became more energy-saving, leading to an average 11.62% annual drop of energy consumption per RMB 10,000 output.



Land Rehabilitation and Mine Re-afforestation

Water Recycling



Building an "Ecoharmonious Home'

- · Built three rehabilitation areas: the school front land on the east bank of Donghe River, the Youyi Bridge and the Wenhua Road
- Afforestation in the smelter, polymetallic dressing plant, polymetallic mining plant, Yejiwei Concentrator and the community
- · Re-afforested the closed onethousand-ton tailings storage and the former "three eight zero" tailings storage
- The afforestation rate of land that has ownership increased to account for 87.5% of the feasible afforestation area
- Recycled water utilization rate reached 75%, with more than 5 million tons of water recycled each vear
- Flotation machine replaced by flotation column, saving 66% water more than before, with 4.07 million tons of water saved each year
- · Increasing new green land as strictly planned, creating an atmosphere of afforestation, and fostering and protecting the forests
- · Having implemented the demonstration projects of mine geological environment improvement and heavy metal pollution control, covering an area of 870 mu (1 mu=0.07 hectare), with 42,000 tons of mill tailings moved away safely
- · Having afforested areas of 212 mu and constructed wet land of 52.34 mu
- · Having implemented the renovation and reconstruction project of the mine, with 41,000 square meters of areas afforested along the streets and around the houses

Water Resources Management

Mining and sewage discharge are both likely to bring about adverse impact on local water resource. CMC released the *Guidelines on the Implementation of the Action Plan for Prevention and Control of Water resources Pollution*, aiming to strengthen the comprehensive utilization of water resources, import advanced sewage treatment technology and minimize the influence of our operations on water resources.



Recycled Use of Waste Water Urged by the Hunan Shuikoushan Nonferrous Metals Group of Minmetals Non-ferrous Metals Holdings

The Hunan Shuikoushan Nonferrous Metals Group Co., Ltd. (hereinafter referred to as "Shuikoushan Company") has asked all of its subordinate production units to strictly control the utilization of fresh water in production and increase the recycled use of industrial wastewater. Sewage treatment and recycling facilities have been constructed or improved, and the treatment and recycle project of heavy metal sewage produced from lead-zinc dressing and smelting processes has been implemented. The operation has remained normal and stable in 2015, and has saved 14,878.37 m³/d fresh water, with a total of 3.57 million m³/a sewage discharge reduced on a comprehensive basis.

Sewage discharge reduced on a comprehensive basis

3.57 million m³/a



Designing Water Management Infrastructure for Las Bambas Project in Peru

MMG designed water management infrastructure for Las Bambas Project in Peru in an effort to minimize impacts on the community and the environment. The design was based on the environmental impact assessment and water licensing processes as well as consideration of both environmental flows and downstream water requirements. The design aimed at zero discharge of process water.

Installing Storage Facilities

- Collecting rainfall and run-off to maximize recycled use of water
- The sedimentation dam can be used to collect run-off from the waste rock dump and other mine areas

Setting up Diversion Channels

 Separating clean water from mine contact water and keeping operational water in the site's tailings storage facility to a minimum volume

Performing Ongoing Monitoring

 Improving water balance and water quality models to ensure that discharge criteria be met





Biodiversity

With concerns about the impact of mining process on the biological habitat, CMC has taken appropriate measures to protect biological population from the impact of our operations.

Case

Biodiversity Management at MMG Dugald River in Australia

During the routine biodiversity monitoring at Dugald River, a marsupial mouse species protected by the federal government was spotted, which had an established habitat on the Dugald River mining lease within the footprint of the proposed project.

MMG consulted biodiversity experts to identify the best solution to minimize impact on the species, and submitted a proposal to the Commonwealth Environment Minister in accordance with the Environment Protection and Biodiversity Conservation Act 1999 and was granted approval. Monitoring data collected by MMG has helped with scientific research into the species to facilitate better knowledge of their lifecycle, habitat and dietary requirements for future conservation efforts to protect Carpentarian antechinus.



Marsupial mouse species "Carpentarian antechinus" (Photo provided by Mask Sanders, EcoSmart Ecology)

Land Management

CMC includes its land protection and rehabilitation actions into the design for the development of mineral resources in order to minimize impacts on vegetation and soil, and to involve stakeholders including the aboriginals to participate in the land rehabilitation plan.

🗾 Case

Land Management in the MMG Canada Izok Corridor Project

The Izok Corridor project includes the Izok and High Lake deposits located in the Slave Geological Province in Nunavut, northern Canada. MMG took the opportunity in 2015 to undertake clean-up and rehabilitation work at three camps of Izok, High Lake and High Lake East, as well as to address legacy disturbance. The footprint of the facilities has now been greatly reduced.

Site inspections were conducted by the federal government and the Kitikmeot Inuit Association in July 2015 in relation to land use permits. Both parties gave positive feedbacks regarding MMG's efforts:

"I am impressed with the measures that have been taken to all-but-eliminate potential future environmental liabilities from this site. MMG's excellent standing in compliance and environmental stewardship has made a mark in the region.

Inspector, Aboriginal Affairs and Northern Development Canada

"The KitlA is very satisfied with the demobilization of the High Lake East site and efforts by MMG to restore the area to conditions prior to any activities. The KitlA would desire to see all companies in the exploration industry strive to achieve the same high standard and level of detail as demonstrated by

Project Officer, Kitikmeot Inuit Association



Waste Management

Mining and processing work would produce mineral and non-mineral wastes. Without effective classification and management, some mineral wastes (waste stones and tailings) may have impact on water quality and recovery effect of land. We have strengthened waste management, uplifted our capability of comprehensive utilization of wastes, and operated a certain number of tailings dams and waste storage facilities to lower the potential long-term impact.

Case

Solid Waste Management by Hunan Shuikoushan

In its efforts to manage solid waste, Shuikoushan Company has established a running account to standardize identification marks, and has strictly followed the submission and approval process as well as the "five-duplicate copies" procedures for environmental transfer of the solid waste in external sales. According to the Indicator System for Standardized Management of Hazardous Wastes, we have conducted standardized management on subsidiaries and have brought in the scoring evaluation method. We have also carried out experimental researches concerning solid waste reduction, reduced solid wastes that entered the landfill and improved comprehensive utilization level of solid wastes.

Z Case

MMG Addressing Tailings Pipeline Leaks at Sepon in Laos

In 2015, Sepon reported several leaks in the tailings transfer pipeline. Soil and water testing confirmed limited environmental impact, however, the leaks are of concern to MMG, the local community, and the Lao Government. To address the impact, Sepon has replaced sections at risk of failure and introduced a management program in 2015 to control the ongoing risk. This program included:

Replacing the high-risk pipeline sections, clearing vegetation, and implementing daily inspections;

Proactively repairing and improving containment, including installation of an additional environmental containment pond and drainage bunds;

Maintaining consistent, regular and transparent engagement with local communities and government

MMG attaches great importance to the health and safety of our employees and the community. We have conducted testing to ensure that any leaks are contained and have taken additional steps to prevent recurrence. MMG is strongly committed to setting an example of environmental protection with Lao regulations and international standards.

— Suresh Vadnagra, General Manager, Sepon



Employees at Sepon monitoring quality

Green Actions

We advocate green office, and perform low-carbon practices in respect of office supplies, equipment access, conference and training, and the use of corporate vehicles. We encourage employees to take part in environmental protection and communicate environmental protection ideas.



First Green Demonstration Project Developed by the 23rd Metallurgical Construction Group Co., Ltd. of Minmetals

As the first real estate project striving to become a national demonstration project for green construction, Wanjing Caizhi Center, developed by the 23rd Metallurgical Construction Group Co., Ltd. of Minmetals (hereinafter referred to as "23" Metallurgical Construction"), has created a new path towards green construction.

Before Construction



Setting up a leading group and an implementation team of green construction



Preparation of the construction plan according to the Guidelines for Green Construction and Evaluation Standards for Green Construction

During Construction



Setting stringent limit for construction noise



Instrumentalizing and standardizing the temporary facilities and safety protection facilities can help reduce the consumption of materials



Pumping the residual construction water and the precipitated rain into reservoir for construction use



The whole community equipped with energy-saving facilities



Trainings for employees on green construction



The South China Building project of Minmetals Finance SBU granted precertification of LEED Gold

Case

World Environment Day — Living a Green Life

To celebrate the "June 5th World Environment Day", the Corporation organized a publicity campaign to communicate the latest concepts on environmental protection among employees. The campaign focused on the theme of "living a green life", and used large LCD screens and display





More than 300 employees from the Corporation have taken part in the tree planting activities and planted over 2,000 trees



Opportunities and Challenges





- Retaining a diverse, multilevel, and pioneering talented workforce, highly efficient, problem-solving, and having a strong sense of customer service
- A strong base of talented employees is our core assets. We work to create broader space for the career development of our employees who have dreams, ambitions and capabilities
- There is still gap between the compensation structure and job value of employees
- Increasing turnover due to M&A, reshuffle, transfer, dismissal and other practical issues



04

Employee Development

Our Major Practices

Abiding by employment equity in compliance with the requirements of policies, laws and regulations

Promoting the implementation of the position system, pushing forward the human resources allocation system of being competent to work both at the top and at the grass roots, and transfer to and from other jobs

Having organized the first leadership training of the Corporation

Performance and Highlights

100%

The rate of signed formal labor

100%

Trade Unions established throughout the entire organization, and joined by all employees (100%)



CMC included in Universum's 2015 China's Most Attractive Employers

<u>6.71</u>

Total investment in training: USD 6.71 million throughout the year, with 149,153 person-times attendance, and per capita training hour at 50.24.



CMC awarded the titles of "2015 Best HRM Company" and "2015 Best HR Management Team" by 51 job. com. <u> 10,53%</u>

Share of women in positions of middle level or above: 10.53%



CMC selected as "The Best Partner for Year 2014-2015" by Guanghua School of Management, Peking University

CMC listed among "Top 100 Best Employers in China 2015" by Zhaopin.com

Safeguarding Rights and Interests

CMC respects the rights and interests of employees, provides equal opportunities, market-based compensation and competitive incentive mechanism to its employees around the world. We have fostered harmonious labor relations and enhanced employee engagement and their sense of belonging.

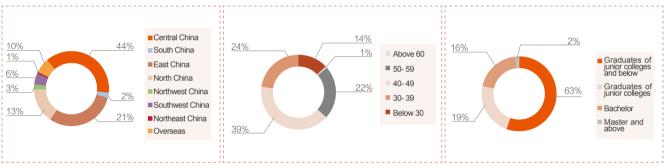
Equality in Recruitment

CMC abides by employment equity in strict compliance with the requirements of policies, laws and regulations. We forbid all forms of discrimination in employment and forced labor, enter into labor contracts with employees, and ensure that employees are not discriminated against their race, gender or other factors. We have built an employment platform via channels such as campus, Internet and social network, and improved the procedures and standards in the recruiting process. In 2015, the total number of employees: 143,517; number of practitioners: 97,828, including 22,324 women. The proportion of women in positions of middle level or above: 10.53%. 100% of the employees have returned to work after the maternity or paternity leave. The staff turnover rate of the Group and the directly managed units in Beijing is 2.60%.



Distribution of CMC Employees' Age Structure

Distribution of CMC Employees' Educational Structure



Remuneration and Benefits

CMC has put emphasis on gross compensation management and explored a medium and long-term incentive mechanism to ensure market competitive compensation for employees and improve their satisfaction. We have put in place a platform for V5 IV-Phase Project for unified compensation management in a bid to push forward the information management process for compensation management and promote the unified management of employee compensation. We have initiated the construction of the "one-stop social security" online service platform in Beijing to make it easier for employees to process business.

Z Case

Minmetals Land Launched a Pilot Program for Income Distribution Reform

Minmetals Land has launched a pilot program for income distribution reform. By carrying forward job evaluation, it has built up a position system and a compensation system in line with features of the real estate industry. It continues to optimize the position system to form a development channel of supervisory sequence and professional sequence, and improve the incentive mechanism, aiming to motivate the working enthusiasm of employees by implementing ways of quarterly sales inducements and by timely cashing out the bonus based on sales volume. In 2016, Minmetals Land will continue its efforts to promote the position system and the compensation system on a larger scale.

Case

Construction of the "one-stop social security" online service platform in Beijing

In order to improve the efficiency and quality of social security service, the Corporation has initiated the construction of "one-stop social security" employee self-service platform. Employees could handle on line the "seven insurances and one fund" business (endowment insurance, medical insurance, unemployment insurance, maternity insurance, employment injury insurance, enterprise annuity, supplementary medical insurance and housing public accumulation fund) and check information online around the clock. In 2015, the platform processed and approved over 7,900 social security cases.

Social security cases processed and approved



7,900

CMC has advanced employees' engagement in management and held staff representative forums. We have convened the third session of the second employee representatives conference, to secure employees' rights to information and supervision of major issues related to the development of the Corporation and issues of their vital interests. The first board of employee directors has been elected in accordance with the law, thus creating a good situation where corporate operational management and employees' engagement in management are closely connected and supporting each other. 18 motions from staff representatives have been received, and feedback on the results has been given to them in a timely manner. The Corporation has established trade unions throughout the entire organization, which are joined by all employees (100%).

Trade Unions established throughout the entire organization



100%





100%

☑Case

Forum of Staff Representatives Convened

On September 11, 2015, the Corporation held a forum attended by staff representatives. Eleven workers from primary production and management positions attended discussions on business reform and development. They shared their views on current difficulties and challenges, and voiced their opinions and suggestions for the sustainable and sound development of the Corporation. Some of the opinions and suggestions were taken into consideration by the Corporation as important references to advance management and reform.

Case

Youth Forum Hosted by the Corporation

In 2015, the Corporation hosted a forum attended by 42 representatives of young employees. Chairman He Wenbo and other executives of the Corporation discussed with the attendees on some hot topics, including the corporate development strategies, reform and innovation, and industrial restructure. The representatives came up with constructive suggestions on practical issues, such as the mechanism of self-development, education and training. Trendy thoughts sparked wisdom during the discussions.





Youth Forum

Case

Employees Encouraged for "Great Ideas"

Zhuzhou Smelter (Group) Co., Ltd. has initiated a campaign for constructive suggestions. The "Golden Ideas "event called on employees to give comments or suggestions regarding production and management of the company. 384 suggestions have been received, covering areas of technology, equipment, management and others, of which, 5 have been awarded the golden prizes, 2 silver and 2 bronze.



5 golden prizes



2 silver prizes



2 bronze prizes

Stimulating Employees' Vitality

CMC works to create a sound career development environment for employees, enhancing diverse trainings, promoting career development, and stimulating employees' engagement and sense of pride and accomplishment.

Employee Training

Per the requirements of "massive training, intensive skills and all-round competitions", CMC continues its efforts to push forward the training concept of "training by all employees and for all employees", and implemented special trainings on a hierarchical and classified basis to build a learning organization. In 2015, total investment in training: USD 6.71 million, with 149,153 person-times attendance, and per capita training hour at 50.24.



Case

First Leadership Training for Executives

In 2015, the Corporation organized its first leadership training themed on "coping with severe challenges and refocusing on business operations", and the trainees included senior executives from the headquarters, leaders from the functional departments and secondary units, employees for some key positions and business experts of the front line.

The two-day training deeply analyzed both internal and external risks and challenges faced by CMC, comprehensively interpreted CMC's mission, tasks as well as approaches to advancing the reform and included "panel discussions + comments" to share the excellent business practices. As such, the training achieved satisfactory results in building consensus, enhancing confidence, addressing challenges, promoting reforms and elevating the general skills of the Corporation's key management teams.



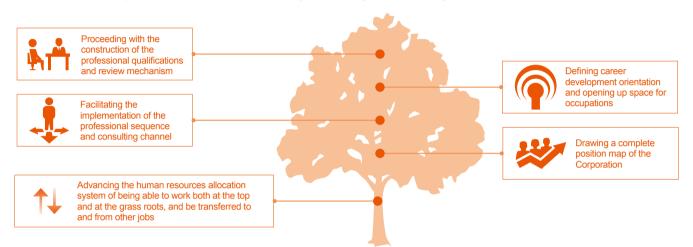
CCase

Lean Production Training for Outstanding Team Supervisors

To meet the demands of grass-roots teams, the Corporation organized a lean production training for outstanding team supervisors. The training focused on the lean production practice of Shenzhen Jinzhou Precision Technology Corp. (hereinafter referred to as "Shenzhen Jinzhou Corporation"), which is subordinated to China Minmetals Non-ferrous Metals Co., Ltd. By introducing the cutting-edge theory, sharing the best practices and live study and discussions, the training aimed to help the participants to profoundly understand the significant effects of lean production on improving production index, cutting costs and increasing efficiency, as well as achieving operating goals on a continuous basis. It also assisted them in learning a series of advanced management methods and tools.

Career Development

Committed to building the core competitive advantage of industrial elites and leading talents in the industry, CMC has officially released its new position system. The new system aims to advance the pilot implementation of the new job system, push forward the human resources allocation system of being competent to work both at the top and at the grass roots, and transfer to and from other jobs, and facilitate the flow of talents in an orderly manner across main businesses, across units and across job sequences within the Group to provide access to their career development with various channels for a layered talent pool and achieve the strategic pattern of "grand Minmetals, great talents".



Promoting the implementation of the position system rapidly and in an all-round way



Minmetals and Jingyi Futures Co.,Ltd of Finance SBU Promoted Management of the Position System

Minmetals & Jingyi Futures Co., Ltd. (hereinafter referred to as "Minmetals & Jingyi Futures") has released *The Administrative Measures* on *Position System* and defined the dual-channel promotion mechanism and qualifications of the front, middle and back office staff. The measures have not only opened up the promotion path explicitly and publicly, creating opportunities for fair competition based on performance and qualifications, but also allowed employees to be able to develop their career in the professional sequence and flow across majors, or even transfer between the professional sequence and management sequence. The new mechanism fully leverages the value of employees in the position flow process.

Case

Public Competition for Job Openings

To push forward the development of modern enterprise system, adapt to the reform trend, and stimulate the business vitality, subordinated companies of Minmetals Nonferrous Metals Holdings have all initiated the campaign of publicly competing for job vacancies.

- Minmetals Copper of Hunan Non-ferrous Metals Holdings Co., Ltd. (hereinafter referred to as "Minmetals Copper") has announced job vacancies for public competition to the subsidiaries subordinated to Minmetals Non-ferrous Metals Holdings including Hunan Shuikoushan Company and Minmetals Copper to select the leaders and team members for the 4 sections of the gold-copper project
- The fine metallurgy factory of the Hsikwangshan Twinkling Star Co., Ltd. has organized a public competition for the 297 job vacancies among the middle level managers, section members, and other employees
- Ganbei Tungsten Co., Ltd. has held a public competition process for a deputy general manager



Minmetals Copper has organized a public competition for the posts of its sub-project management team

Respect and Care for Employees

CMC has adhered to an "inclusive and humanitarian" culture and extended care to employees in achieving better work-life balance.



Care for Young Employees

We have organized various activities including sports meet for employees, 2016 Chinese New Year Gala, and others.



Care for Female Employees

We work to protect the legitimate rights and interests as well as special interests of female employees. The Corporation has paid for two plans of the special illness insurance for the 834 female employees to relieve their economic burden caused by the initial special disease.



The 13th Sports Meet for Employees

Case

Intensive Care Extended to Female Employees

By coordinating efforts of the trade unions at different levels, the 23rd Metallurgical Construction (Group) Co., Ltd. has worked to well protect the female employees by purchasing the special illness insurance for the 915 female employees in a total amount of USD 2,815.00. The Company organized various activities, including hiking, selection of model families and many others to provide guidance on how to achieve a good balance between work and life and to foster a happy and harmonious family atmosphere. We have also set up rooms for mothers and their babies equipped with refrigerator, microwave oven and other appliances.

Purchased special illness insurances



2,815.00

☑ Case

Lectures on Parenting

On June 17th, 2015, the weekend school for females of Zhuzhou Smelter Group sponsored a lecture focusing on parents and kids, attracting nearly 100 female employees. This lecturer analyzed some puzzles parents may have while raising kids in the process of raising children, and explained how to better understand the needs behind children's behaviors, how to better interact with their kids and how to build harmonious relationship between parents and kids, which greatly benefited the attendees.



Care for the Retired

The Corporation has actively carried out positive activities with the theme of "demonstrating optimistic mind, experiencing beautiful life and talking about development and changes", and has conscientiously implemented the relevant rules and policies concerning the retired. On a routine basis, we extend care and service to each veteran cadre, both mentally and physically. Before the Chinese New Year, we paid visits to some of the retirees, including 48 veteran cadres retired with honors, 7 senior workers and veteran Chinese Communist Party members who began to work for the CPC before 1949, 2 family members of returned overseas Chinese, 17 family members of deceased employees receiving living allowances, 3 veteran cadres living in nursing homes, 14 retired veteran cadres at senior age and 47 employees suffering cancer or other critical illnesses.

Cultural Diversity

We have formulated The CMC Guidelines on Building Corporate Culture to strive for an active and motivating corporate culture, diversify global talent pool to facilitate the development of cultural diversity. MMG has established the Diversity and Inclusion Council, making sure that all employees from any gender, culture, language or religion background are treated with respect and can give full play to their talents.

Case

International Talent Team of MMG

MMG boasts an international workforce which is an operation team combining both Chinese and Western specialists. The Chinese team is strong in areas of financing, government relations and bilateral ties. The Western staff are top specialists in operating international projects, due diligence and project evaluation.

The employees come from China, Australia, Laos, Peru, DRC, and other countries and regions

An international, diverse and professional management team, having working experience with international mining companies including BHP Billiton and Vale, and experienced in mine operation and management

The only member from China in the International Council on Mining and Metals (ICMM)

Training on Mine Operation and Management

In 2015, at the invitation of the Corporation, MMG executives and the management personnel of the MMG mines hosted training sessions on the best practices of mine operation and management in Hefei and Beijing. The training aimed to share with mining managers in China the advanced experience on mining safety production, production organization and planning, as well as operation management and improvement, and introduce the excellent international management philosophy of mining operation and management into the domestic mining management, thus to promote integration of Chinese and western cultures and management philosophies.



CMC Chairman He Wenbo visits Las Bambas mine in Peru

Case

Realize Your Dream with Minmetals

CMC respects the value of each employee, and considers each employee as a creator with ambition and pursuit. The Corporation demonstrates the employees' Minmetals dreams through its official WeChat and other platforms to express the aspiration of the Corporation to help realize their dreams, and encourages them to make utmost efforts to make their dreams come true.







Opportunities and Challenges





- Competition among businesses today has gone beyond any single aspect of technology, cost or management, and extended to the entire industrial chain
- Cooperation with our customers and suppliers allows us to improve the value creation in the industrial chain
- Our cooperation with the government, counterparts, banks, colleges and universities has allowed us to expand our vision and innovate our thinking in order to seek a path of sustainable development of the industry
- In face of the industry downturns amid an economic slowdown, we have to build a community of common destiny with our stakeholders, including customers, suppliers, government and industrial counterparts
- We strive to balance the interests of the stakeholders, and achieve co-existence, co-development, and shared prosperity of stakeholders and CMC



05

Partnership

Our Major Practices

Innovating products and services while promoting the level of product quality and customer services

Improving the tendering system, implementing responsible procurement, and evaluating the CSR performance of suppliers regularly

Carrying out strategic cooperation and innovating cooperation modes

Organizing and participating in industrial exchanges, guiding and involved in the development and improvement of industrial policies

Performance and Highlights

100% contract performance

Minmetals Development E-commerce Co., Ltd. listed as "Top Ten Steel E-commerce Enterprises". The project of Qilian Tianjing Grand Hotel awarded the "Jiangheyuan" Cup in Qinghai Province.

Minmetals International Bidding Co., Ltd. awarded the "Five-star Quality Service of Bidding Agencies in China".









The Jinrui brand manganous-manganic oxide products awarded the title of "Hunan Famous-Brand Product".

Hunan Non-ferrous
Hightech Materials
Co., Ltd. has passed
the international quality
management system
certification.

Zhuzhou Smelter (Group)
Co., Ltd. awarded as
"The Demonstration
Base of International
Standard Innovation and
Development".

Minmetals Land listed as "Top 50 in 2015 China Real Estate Excellence 100".

ZCC (Zhuzhou Cemented Carbide) Cutting Tools GmbH given the NRW.INVEST AWARD

Circle of Friends



Government Relations



CMC attaches much importance to strengthening relationship with governments in aspects of mineral resources development, infrastructure construction and ecological protection. We work to promote the economic development in the places where we carry out operations and bring more benefits to the local people.

CMC



The Corporation Conducted Strategic Cooperation with the Government of Guangxi Autonomous Region

On April 17th, 2015, CMC signed the framework agreement on strategic cooperation with the People's Government of Guangxi Zhuang Autonomous Region. CMC matched its capital, technological and management advantages with the resources, location and ecological advantages in Guangxi, thus realizing the win-win cooperation between central enterprise and local government.

· Resources Development

Strengthening cooperation in areas of exploration and development of nonferrous metals and minerals, especially in the tungsten, antimony and other fields where our country has advantages, while fostering the resource economy with Guangxi characteristics

Processing and Manufacturing

Combining the industrial target of Guangxi with the development of new modern industry, deepening cooperation in industries such as deep processing of mineral products, especially in high value-added manufacturing industries

Trade and Circulation

Relying on the port advantage of Beibu Gulf and conducting cooperation in trade and circulation of mineral products

Industrial Service

Expanding industrial service, promoting the formation of modern industrial clusters and giving impetus to the industrial upgrading and optimization of Guangxi

Hunan, Zhejiang, Gansu, Qinghai, Tianjin, Shandong, Jiangsu, Guangdong, Guangxi, Liaoning, Hebei, Chongqing, Beijing, and others.

Circle of Friends



Business Partnership



Bonded by the industry, CMC has deepened mutually beneficial cooperation in dimensions such as technology, business, market, capital, human resources and others by means of information sharing, platform establishment, business collaboration, joint growth and capital combination, so as to expand development space and promote common progress.

CMC



The Corporation Signed the Strategic Cooperation Frame Agreement with Jiangxi Copper Corporation

On September 23rd, 2015, CMC signed the strategic cooperation frame agreement with Jiangxi Copper Corporation. Guided by the principle of co-construction and sharing, both sides would display their respective advantages and develop long-term and stable cooperation with each other in copper trade business, overseas resource development and technical exchange and support.

Alibaba Network Technology Co., Ltd., HBIS, TISCO, Ansteel Group Corporation, CECEP, Jiangsu Huaxi Group, MOMA (China) Co., Ltd., Jiangsu Province Jiaqing Water Services Co., Ltd., China Resources (Holdings) Co., Ltd., China Communications Construction Company Limited, SINOTRANS&CSC and Limited

Creating Shared Values through Cooperation

CMC has laid emphasis on mutually beneficial interactions with internal and external partners. We have expanded the content of cooperation and improved our ability of value creation. In addition, we have also expanded channels for cooperation and promoted deep cooperation within and across industries. We have actively combined our advantages with the development needs of local economy and society, strengthened exchanges and communication with stakeholders and driven multiple parties to develop together.

Circle of Friends



Partnership with Foreign Players



CMC proactively participates in international cooperation, exchanges experience with international enterprises, and gradually builds a long-term stable cooperative relationship, so as to jointly propel the comprehensive utilization of international mineral resources and promote the economic and social sustainable development.

CMC



Austrian Wolfram Bergbau und Hütten AG (WBH) visited Jiangxi Xiushui Xianglushan Tungsten Co., LTD. for technological exchanges

On June 1st 2015, Austrian Wolfram Bergbau und Hütten AG visited Jiangxi Xiushui Xianglushan Tungsten Co., Ltd. to have technological exchanges. The representatives visited its field operations of underground mining, dressing, production and tailing filling, and others. Furthermore, they learnt more about the processing technology of Xianglushan Tungsten Co., Ltd. and introduced WBH's technologies and recovery index in mining and dressing, and others. This exchange mutually reinforced each other and promoted the elevation of technologies like mining, dressing and filling, and others together.

Australia, Chile, Ukraine, Peru, Japan, South Africa, Denmark, South Korea, Canada, Laos, and others.

Circle of Friends



Cooperation with Institutes



Bringing its own industrial advantages into full play, CMC has deepened cooperation with colleges, universities and research institutes in the fields of innovation of mining technology as well as cultivation and exchange of talents, carried out projects tackling key scientific and technological problems, and trained scientific and technological talents, all in an effort to accelerate industrial development.

CMC



Changsha Research Institute of Mining and Metallurgy jointly established a collaborative innovation platform for fundamental research with Hunan University and Tsinghua University

Relying on the advantages of Hunan University in areas of mechanical characteristics of seabed sediment, Changsha Research Institute of Mining and Metallurgy signed the "Agreement on Cooperation of Basic Theoretical Research on Exploitation of Marine Mineral Resources" with Hunan University. We also launched Offshore Test Site and Base of Deep-water Equipment in South China (Shenzhen) with the graduate school of Tsinghua University in Shenzhen.

Central South University, Tsinghua University, Peking University, Hunan University, CAS Institute of Salt Lakes, Chinese Academy of Geological Sciences, Beijing General Research Institute of Mining and Metallurgy, Northeastern University, China University of Geosciences (Beijing), University of Science and Technology Beijing, and others.

Circle of Friends



Cooperation with Banks



CMC has strengthened cooperation with financial agencies in the banking industry. We have striven for financial support from financial sectors to lay a foundation for the stable development of the Corporation.

CMC



Huarong Xiangjiang Bank joined hands with the 23rd Metallurgical Construction (Group) Co., Ltd. of Minmetals

On June 16th, 2015, the Changsha branch of Huarong Xiangjiang Bank held the signing ceremony for agreement on strategic cooperation with MCC 23. The two sides cooperated closely with each other following the principle of mutual-benefit and complementing each other. According to the agreement, the Changsha branch of Huarong Xiangjiang Bank would provide all-around financial service for MCC 23 and offer a line of credit support amounting to USD 153.85 million.

China Development Bank, Bank of China, Industrial and Commercial Bank of China, China Construction Bank, China Merchants Bank, Bank of Communications, Huarong Xiangjiang Bank, Societe Generale, Commerzbank, Bank of America Merrill Lynch, ING Bank, Hang Seng Bank, JPMorgan Chase & Co, ANZ Bank, Banco Bilbao Vizcaya Argentaria, The Bank of Tokyo-Mitsubishi UFJ, Commonwealth Bank of Australia and others



Las Bambas Project of MMG — An Example of Cooperation among the Government, Enterprises and Banks for International Operation

Las Bambas Copper Mine was put into operation in January, 2016, marking a periodic achievement of a major overseas investment project in the mining field of our nation. In the process of implementation, multi-cooperation played a key role.



Great support from the National Development and Reform Commission, the Ministry of Commerce, the State-owned Assets Supervision and Administration Commission, the Ministry of Foreign Affairs, the State Administration of Foreign Exchange and other ministries and commissions

Enterprises

Bidding in the form of consortium, complementing advantages with members of the consortium — the Guoxin International Investment Co., Ltd. and the CITIC Metal Co., Ltd.

Banks

All-around support from China Development Bank, Industrial and Commercial Bank of China, Bank of China and the Export-Import Bank of China



Central enterprises jo going overseas

Las Bambas Project













中国五矿







MMG Las Bambas Project in Peru

Customer Values

CMC has strengthened quality management system and improved the quality of products. While focusing on improving the value of product, we have also provided quality and considerate services to customers and met the demands of customers around the world.

Product Quality

CMC has constantly improved the quality management system to provide quality products for clients, meet the demands of customers from different areas, and create shared values for the customers and the Corporation. In 2015, CMC reported zero health or safety accident due to poor quality of products or services.



GX Alloy Products of Zhuzhou Smelter under Minmetals Nonferrous Metals Holdings Won Users' Trust

GX alloy is a new and high energy rare earth alloy developed by Zhuzhou Smelter Group in recent years. Since 2013, the engineers of Zhuzhou Smelter Group have conducted hundreds of experiments and timely communicated with users on the performance of the tested products. By adjusting the newly-added composition of the product, great improvement has been made to the indicators of the premature capacity loss of GX alloy lead-acid storage battery, charge retention ratio, charge and discharge performance, rate of water loss, gassing performance, and battery life, and recognized by the users. By now, the alloy has been successfully applied to the field of electric vehicles.

Case

Enhanced Efforts to the Building of the Quality Management System

Minmetals Luzhong Mining has developed a set of effective quality management system. In 2015, the company witnessed a smooth production operation, stable and consistent product quality and zero major quality accidents.

Reference Standards of the System

- GB/T19001-2008
 Requirements of the Quality
 Management System
- GB/T19000-2008 Basis and Terminologies of the Quality Management System
- GB/T50430-2007 Quality
 Management Specifications for Engineering Construction
 Enterprises

Internal Audit Plan

 Formulating Annual Internal Audit Plan of the Quality Management System

Distinctive Operation Modes

- Providing different forms of communication such as annual meetings for staff representatives and semi-annual and quarterly briefing of mining
- Organizing QC group activities

Continuous Promotion of Management

 Forming the key points of annual quality work, including 4 targets at the corporate level, 20 targets for subsidiaries and 5 measuring targets

Z Case

Quality Products of China Minmetals Corporation



Shuikoushan Company has passed the ISO9000 quality system certification, and has been honored as the "World Lead Capital" and "Chinese Lead/Zinc Industrial Cradle". Lead ingot and zinc ingot under the "Shuikoushan" brand have been registered in the London Metal Exchange while silver ingot has been registered in the London Bullion Market Association. Zinc oxide under the "Flywheel" brand is the product winning the National Gold Quality Award;



"Diamond" brand cemented carbide of Zhuzhou Cemented Carbide (Group) Co., Ltd. was entitled "China Famous Brand" by the State Bureau of Technical Supervision;



Over the past decade Hsikwangshan Twinkling Star Co., Ltd. has been leading the industry in the quality of antimony trioxide products.

Customer Service

Adhering to the corporate spirit of "providing quality service, striving for excellence", CMC has taken customers as its priority. We have innovated our service mode, enriched our service content, and pushed forward the building of global marketing service network so as to improve our ability of safeguarding customer service.

Case

Customer Service Management

We have constantly improved the customer service system and practiced standardized and professional service processes, to guarantee the clients' health and safety and try to provide diversified, individualized and all-around services for clients in the business areas of trade and logistics, finance, e-commerce, real estate and others.

Logistics in CMC

We work to specialize and strengthen every link in the logistics chain, strengthen the Corporation's competitiveness by using the strategy of comprehensive logistics, and increase the extended demands from point to area. Meanwhile, we strengthen the development of core clients and the ports sector. We have successfully developed a market with a rational business structure, broad logistics coverage, rational client base, high market share and industrial leading position.

Finance SBU

We have established the platform of capital management and financing, and by means of inter-bank borrowing and credit assets transfer, we provide financial services of centralized assets management, setting and trade finance and others. The subsidiaries of the SBU have accelerated the development of branches and the newly established small business offices, and thus have formed a multi-license business pattern in Beijing, Tianjin, Yangtze River Delta and Pearl River Delta areas, which divided our business into the North, East, South and Southwest regions.

Xin Yi Lian

Centering on the goal of "achieving platform prosperity and value creation", we have achieved the online and offline coordinated services, customizing services for corporate clients.



Case

WeChat Platform Launched for the Hallstatt Project

A tribe WeChat platform has been developed and built for the Minmetals \cdot Hallstatt Project to facilitate communications among customers, developers, property management company and owners, offering members wireless mobile value-added services in customer service, property management and community entertainment.



Case

Customer Satisfaction for 13 Consecutive Years

Zigong Cemented Carbide Co., Ltd. (hereinafter referred to as "Zigong Company") has achieved customer satisfaction for 13 consecutive years. The result came after the Evaluation Center of Sichuan Association for Quality interviewed or called nearly 100 dealers and users of the company in 2015. The Company verified and rectified the problems raised by the evaluation report based on customers' feedbacks and suggestions.

CSR Supply Chain

CMC has followed open, fair and impartial procurement principles, deepened cooperation with suppliers, and driven suppliers to perform their social responsibility and build a responsible supply chain.



Improving the management system, standardizing the operating conducts, and promoting clean and transparent procurement



Taking "green" materials and funds as the first choice and joining hands with suppliers in building a beautiful ecosphere



Following up closely on suppliers' implementation of social responsibility and building an ethical ecosphere



Social Responsibility Management of MMG Supply Chain

While choosing suppliers, apart from evaluating their capabilities and manifestations in business, society, safety, environment, quality, technology and others, MMG also takes into consideration the non-financial standards like social influences, including factors of community support, social contribution and local employment promises, and others. When signing the contract, MMG also asks the opposite role to obey to MMG's "Code of conduct", "Anti-corruption framework" and other standards, policies and processes related to human rights. MMG strengthened its contract management process in 2015 to include measures of contract performance. These measures include demonstrated adherence to and conformance with our MMG Supply Standard. We seek to work in partnership with our suppliers to improve their capacity and performance. Our contracts provide for the right to formally audit suppliers should material concerns exist regarding their performance.

Case

Minmetals Salt Lake Limited of Minmetals Non-ferrous Metals Holdings Carried Out supplier Management

Minmetals Salt Lake Limited has required its suppliers to provide information to give a full account of their behaviors and actions in reducing social and environmental impact. Meanwhile, the company organized on-site inspection, supervised suppliers' efforts to increase social and environmental performance, and brought the relevant inspection information into the assessment of business requirements. To leverage the inspection, the company invited management personnel and workers from the suppliers to participate in the inspection, and offered them relevant training and guidance, in order to help them develop their own codes of conduct and identify problems effectively.



Quality Services from Xin Yi Lian of Minmetals Development

Development of the Industry

Leveraging its leading role in the industry, CMC has optimized the iron and steel distribution network, and promoted the industrial transformation and upgrading. The Corporation has also actively participated in international industrial exchanges and forums such as 2015 China Mining, the 3rd International Mineral Expo and the 4th Asia Copper Week. By sharing experience and making contribution to industrial hotspot areas such as resources development, trade circulation, technological innovation, energy conservation and emission reduction, we have worked to promote the industrial sustainable development.



70

Deepening Cooperation with Key Steel Mills while Increasing the Operating Efficiency of the Industrial Chain

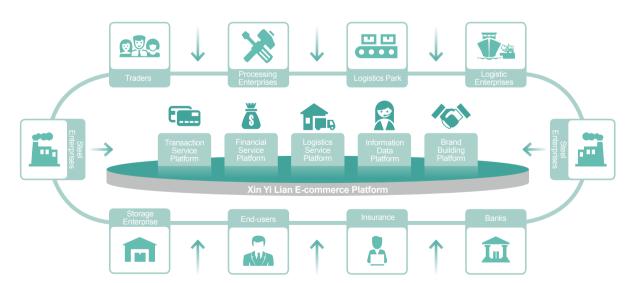
CMC deepens strategic cooperation with multiple key steel mills. Based on the principles of mutual respect, honesty and trustworthiness, equality and willingness, and sharing of resources, we have expanded cooperative space in areas like raw and fuel materials of steel, trading and logistics of steel products, processing and distribution of steel and e-commerce under the new Internet environment, increasing the operating efficiency of the steel industrial chain.



Case

Pushing Forward the Reform of Steel Circulation Industry

The Alibaba Venture under Alibaba has entered into an agreement on cooperation with Minmetals Development under CMC, and co-built an e-commerce platform for the entire steel market, providing services for individuals and enterprises and creating a metal and mineral transaction platform. The steel B2B vertical e-commerce platform created by both sides will offer support for the steel market, such as storage, processing, finance and freight, and others. In addition, it will also bring various e-commerce services like online transactions, logistics and finance for different roles and related service providers along the industry chain so as to improve the overall operating efficiency



"The cross-industry fusion gives full play to advantages of each side in Internet and the steel industry, expedites a new business model and creates more value for clients, thus jointly promoting the elevation of the overall efficiency of China's steel circulation industry."

- Zhang Yong, CEO of Alibaba Group

"By joining hands, both sides can create a new business model in commodity trade and service areas including those of steel, thus assisting the transformative development of China's steel industry."

— He Wenbo, Chairman of China Minmetals Corporation

Case

"Dark Blue Plan" Speeding up the Industrial Upgrading

In face of the downturn of the global mining industry, CMC has developed the "Dark Blue Plan" to upgrade the sectors including cemented carbide from resources advantage to technology advantage, and build an industrial chain from resources all the way to advanced materials, equipment and instruments. The Corporation aims to speed up the development of the tungsten industrial chain and enter top three in the world in the next five years

🗹 Case

Minmetals Japan under Minmetals Development Pushed Forward the Industrial Development

In May, 2015, the 9th assembly of representatives of China Enterprises Association in Japan, also the founding conference of the Federation of the China Enterprises Association in Japan, was held in Tokyo. Peng Bugang, President of Minmetals Japan, serving as the 9th president of the Association and the first president of the Fereration, led the Association members to strengthen exchanges and communications between Chinese enterprises on one hand, and the Japanese government and agencies, as well as economic and trade institutions from various countries in Japan on the other hand.



Peng Bugang, President of Minmetals Japan

Case

Conducting High-level Talks, Enhancing Industrial Exchanges

April 8th, 2015

China Minmetals Rare Earth Co., Ltd. participated in China International Rare Earth Exhibition 2015.



October 20th – 23rd, 2015

中国五矿集团公司

The Corporation was invited to participate in the China Mining 2015, introducing the conditions of CMC's implementation of the "go global" strategy and the development of overseas mineral resources.

November 13th - 15th, 2015

China Minmetals Non-ferrous
Metals Co., Ltd. participated in the
China Non-ferrous Metals Industrial
Achievements Exhibition, and also
had an on-site introduction about
the accomplishments in
industrialization and "go
global".



November 17th – 19th, 2015

Jiao Jian, Vice President of the Corporation, attended Asian Copper Conference and co-hosted the CEO Summit Conference in Asia Copper Week with the Chairman of CESCO. The Chilean mining minister and more than 40 business leaders of copper enterprises worldwide attended the conference.



Opportunities and Challenges

Opportunities



- Promoting the development of community in places where operations are based to win trust and support from local communities and stakeholders
- Creating mutual benefits and supporting sustainable growth
- Community interest is one of the factors that must be taken into consideration in mining industry development
- Good community relation has become an important condition to maintain normal business operation



06

Social Harmony

Our Major Practices

Emphasizing community construction, identifying stakeholders and their appeals, and managing our social impact

Providing medical health service and investing in undertakings of culture, sports and education in communities

Maintaining multi-party dialogue, building infrastructure, pushing forward local employment and business development, and driving community development

Organizing voluntary activities and carrying out targeted poverty alleviation

Our Performance and Highlights

<u>64.38</u>

Donations in total in 2015: USD 64.38 million



Our targeted poverty alleviation work in Yunnan province awarded a banner for "Poverty alleviation" by the local government, and recognized as "Company of 2014 for Poverty Alleviation" by Yunnan Leading Group of Poverty Alleviation.

0.74

In 2015, we made cash donations to targeted poverty alleviation counties totaling USD 0.74 million, benefiting 50,000 people



Awarded the "2015 Annual Star of Poverty Alleviation" by CFPA

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Local Development

Different communities in different countries have different appeals. CMC has strengthened cooperation with communities, achieved balance between business operation and community demands, and supported sustainable development in places where our operations are based.



MMG Las Bambas Project Supporting the Local Development of Peru

While constructing the biggest national mining project, MMG also contributed to promoting the sustainable development of local people. In 2015, MMG invested USD 53.60 million in Las Bambas Project, aiming to deliver maximum value to shareholders and host communities through effective decision making, partnerships and strategic investment.

The Proportion of Community Investment in Las Bambas Project in 2015









18%
Securing

Progress has been made in the settlement of newly-built communities

In late 2014 Las Bambas commenced the physical resettlement of eligible families of the Fuerabamba community to a newly built town — Nueva Fuerabamba. This town was designed collaboratively with community members and has modern facilities and infrastructure, including running potable water, sewage collection and treatment, and medical, educational and recreational facilities. By the end of 2015, 608 families have been successfully resettled. MMG paid USD 25.40 million in 2015 in compensation for land access, with 88% of this associated with resettlement agreements at Las Bambas.

Carrying out "Livelihood Restoration Program (LRP)"

In order to ensure that the livelihoods of resettled households and their future generations are restored and enhanced over the long term, MMG proposed the "Livelihood Restoration Program (LRP)" so as to realize individual households' priorities in five areas: capacity-building, access to a secure income (employment/business development), natural resources, health and education. In 2015, Las Bambas Project delivered specific development programs to the Nueva Fuerabamba community across 13 priority areas: health, education, land, cattle breeding, agriculture, employment, economic development, vulnerable group support, natural resources, organization strengthening, capacity building, educational infrastructure and sanitation.

Progress of "Livelihood Restoration Program (LRP)"

Providing Special Service for the Elderly in Communities

- Constructing a dedicated facility for 79 elderly members of the community, including kitchen, dining room, entertainment and recreation areas, physical rehabilitation room, warehouse and six bedrooms
- Workshops are regularly scheduled to assist elderly community members to maintain exercise, lead healthy and active lifestyles, achieve balanced nutrition, and prepare and maintain vegetable gardens
- Implementing an occupational program for the elderly residents

Carrying out the "Nueva Fuerabamba Scholarship program"

- The Nueva Fuerabamba Scholarship program provides direct support to young students who are children of Nueva Fuerabamba community members, by providing payment for college tuition
- By the end of 2015, 80 students had received the scholarship, among which 34 had finished their studies

"Education is the only way out of poverty and exclusion; we want our children to be professional and not as we – shepherds, farmers and illiterate."

> — President of the Peruvian Education Commission



Newly-built communities



Children enjoying the newly built recreation facilities



Newly-built schools

Secondary economic hub Supports economic diversification

and builds on existing DRC

capability in agriculture. Lessens

direct and indirect community

dependence on Kinsevere

Case

MMG Developed Community in DRC and Tapped the Potential

MMG actively honored the requirements of the United Nations Millennium Development Goals and shared fruits of corporate development with residents in Kinsevere community in DRC.

- Environmental - Protection

Community Management

Reviewing the management process in Kinsevere community, and evaluating community management indicators in accordance with the Safety, Health, Environment and Community (SHEC) management system, thus helping Kinsevere strengthen its management ability

Medical Care

Donating medical facilities worth USD 10,000 to Kinsevere community hospital to improve the medical condition

Agriculture

Carrying out Kinsevere's Farmers Assistance Program (FAP). In December 2015, Kinsevere acquired a large-scale farm covering approximately 1,690 hectares. This provides an opportunity to improve community income security and transition towards a more independent, sustainable business model for the region (see the right figure)

Road Safety

Building new, safe and convenient roads for cars entering Kinsevere, setting up monitoring stations at the beginning of roads with contractors to monitor the safety, and managing road utilization together with local traffic police department so as to improve safety level

Disease Prevention and Control

Decreasing the prevalence of disease by applying the new spray machine and medicine supply and others. Guiding residents to change their hygienic habits and preventing cholera from spreading. Implementing disease prevention, publicity and screening activities on the World AIDS Day

Culture and Education

Being devoted to local education and giving stationeries to local students

Untied

Provides direct and indirect economic opportunities that will continue beyond closure.

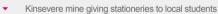
Upskill agricultural capability

Provides educational and training pathways with a view to increasing yield outside of the direct farm production.

Leverage, enhance and support existing social investment by Kinsevere

"CMC is willing to invest in social responsibility and made certain investment indeed. They have made brilliant achievements in many aspects.

— Katubi, Governor of Katanga province, DRC





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Promoting Local Economic Development

With the advantages in capital, equipment and talents, we have provided assistance to local enterprises and supported the economic development in places where our operations are based.

🗾 Case

MMG Las Bambas Project in Peru Implemented "Local Entrepreneur Development Program"

Wildor Berrios Carrasco established an electrical maintenance business with his brother in 2011, after participating in the Local Entrepreneur Development Program (LEDP) at Las Bambas. Over the past four years, his business Procon Electric SAC has grown nearly tenfold in terms of the number of employees and almost 75 times in terms of operating capital. Just over half of Mr. Berrios' turnover in 2015 was derived from business with Las Bambas. MMG has provided ongoing advice on managing and selling, which has assisted Mr. Berrios in his business, both within the local region and to potential customers in neighboring Bolivia. Mr. Berrios aspires to achieve ISO 9001 Quality Certification and to become an electrical contractor of choice in Peru and Bolivia.



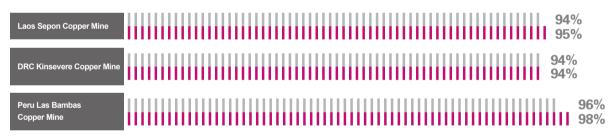
Electrical maintenance business, Procon Electric SAC, continues to grow and expand

Advocating Localized Employment

We have offered job opportunities to local residents in places where our operations are based. Except the management and personnel in key positions, almost all the employees are local.

Employment Rate of Local People (%)





Case

MMG Laos Sepon Mine Promoted Local Employment

Building local capability and a commitment to hiring from our communities is a strategic focus for Sepon and will remain a priority for the life of the operation. At Sepon, the role of expatriate employees is to assist local employees to develop technical skills. Succession planning of Lao employees across the site is aligned with the overall objective of a gradual reduction in the number of expatriate employees. The operation currently draws 61% of its supervisors from the local communities.



Supervisors of Sepon mine are from the local communities



Local employees at the Sepon mine in Laos

Construction of Infrastructure

Infrastructure is an important basis for business operation and community affairs. We supported the construction of roads, churches, schools and other infrastructure to uplift the welfare of local residents and promote the sustainable development of local communities.



Improvement to Infrastructure Construction of the Local Community

Since the establishment of Hengyang Yuanjing Tungsten Co., Ltd., a total of over RMB 5 million has been invested in supporting the construction of several roads in local counties, towns and villages.



Medical Care and Health Services

We built community hospitals, improved medical conditions and provided superior medical and health services to local residents.



Luzhong Mining Improved Community Hospital

Luzhong Mining focused on the health conditions of its employees and the local community and also improved the hospital facilities.



Formulated Implementation Plan for Actions to Comprehensively Improve Medical Services

 Strengthening the sense of service, innovating approaches, measures and actions, improving medical service, optimizing procedures, and strengthening communication between doctors and patients



Promoting Hospital Facilities

- Completed the free installation of Fluorescence Immunoassay Quantitative Analyzer worth USD 30,769.00
- Advanced the introduction of 16-row CT by means of financing lease



Carrying out New Technologies and Projects

 Convening access conferences for new technologies and projects, organizing experts to evaluate the safety and practicability of 7 new technologies and projects and promoting their clinical application 78 China Minmetals Corporation 2015 Sustainability Report

Focusing on Community Communication

Through multi-channel community communication mechanisms like face-to-face forums and project meetings, we have achieved regular communications with the locals and responded to their expectations and appeals, thus making efforts to establish an equal relationship with mutual trust. Meanwhile, we have our professional community work team in MMG, which can effectively deal with the related issues.

Z Case

MMG Las Bambas Properly Handled Community Protests

In 2015, protests from the surrounding communities happened to Las Bambas Project. After the protests, the Corporation initiated the emergency response mechanism immediately, set up the emergency working group and sent the senior leaders of the Corporation to coordinate the on-site emergency work. Under the proper dealing and quick reaction of frontline team and the strong support of the Peruvian government, the event was properly handled within a short time, and we brought community relations back to normal. After the event, the Las Bambas project group established a dialogue list with the government of Peru and local community, strengthened its relationships with local stakeholders and established continuous dialogues.

CMC's response mechanism was quick and efficient in case of emergency. It adopted proper measures in time so that emergencies could be duly handled. The ability to handle crisis and the emergency management mechanism that the Corporation showed gained recognition from the Peruvian government and China's relevant ministries and commissions.





Delegation of the Peruvian Government composed of Minister of Energy and Mines, Minister of Environment, Minister of the Interior, Minister of Housing and three deputy ministers paid visits to Cotabambas Coyllurqui in Apurimac, communicated with relevant community leaders and reached a consensus

Z Case

MMG Las Bambas Promoted Cultural Integration through "Mallow Radio"

"Mallow Radio" set up by Las Bambas mainly broadcasts information related to mining to the locals and sets up hotlines, answering and replying to the questions from the local residents, which therefore strengthened the interaction with the locals.

"We only tell the truth and popularize science in our programs. We make people know what kind of enterprise could protect the environment in the mining process, improve people's life and inherit local culture. The residents trust us now."

— Jiyeer Mo, who had been an journalist for the biggest broadcasting station in Peru for 10 years (now a broadcaster of the "Mallow Radio")



Chairman He Wenbo sending a message of CMC to the communities in the broadcasting studio

Recreation, Sports and Education

We have invested in recreation, sports and education for the communities to uplift the living standard of the local people.

Case

Luzhong Mining Enhanced Local School Education

In 2015, Luzhong Mining followed the idea of "comprehensively enhancing primary education, pushing forward vocational education, and popularizing preschool education", focused on reform of education and examination, and uplifted the quality of education.

No. 1 Primary School of Luzhong

- Cooperating with "Weike" to develop ideal classes and setting up the "Weike Workshop" for teachers
- Increasing measures concerning teachers' off-campus training and establishing a system for interaction between teaching and research

No. 2 Primary School of Luzhong Mining

- Deepening reform of teaching and carrying out activities such as "one teacher, one excellent course"
- Conducting regular teaching and research in the mode of "small seminar"

Middle School of Luzhong

 Building up teaching and research departments and carrying out serial activities such as auditing each other's lesson at school, and others.



Case

MMG Las Bambas Project Built Community Stadium for Pitic Community

In 2015, Las Bambas Project built a multi-functional stadium supporting training at night for Pitic community in Departamento de Apurímac, which served as a football and volleyball training field for the local villagers and enriched the locals' leisure time. The project company also donated sports shirts and sports equipment to the clubs, village committee and education center.

"The stadium carried the expectations and trusts. The stadium was delivered on time, which showed that the Company could cooperate with community."

Valery, Community Relations Manager

"The building of the stadium provides great help for local children and the youth."

- Jesus Alvarez , President of San Martin Sports Club in Pitic Community



Pitic Community Stadium in Departamento de Apurímac

Case

Zhuzhou Cemented Carbide under Minmetals Non-Ferrous Metals Carried out 2015 "Caring Students in the Autumn" Activity

Since the beginning of the activity "Caring Students in the Autumn" in 2002, Zhuzhou Cemented Carbide Group Co., Ltd. has granted over USD 138,462 to more than 100 children of the needy workers. In 2015, CMC also prepared grants, varying from USD 615 to USD 770 to 11 underprivileged students admitted to universities, whose parents are CMC employees.





Henan Wu Xin Mining Co., Ltd. of Minmetals Exploration & Development Co., Ltd. donated to the construction of "home of dreams" library for 6 primary schools in Huaishuping Mine, Song County, Henan Province

Public Welfare

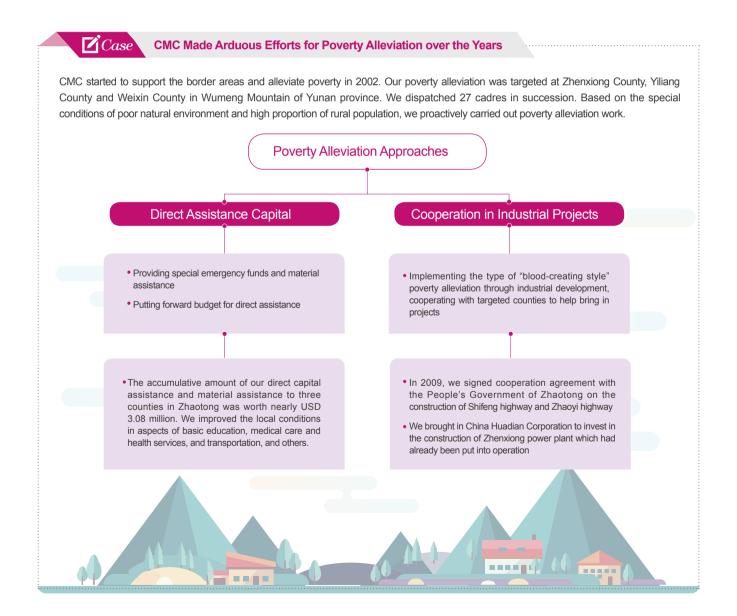
China Minmetals Corporation

While pursuing its own development, CMC persists in sharing development fruits with the society. We actively participated in public welfare, carried out poverty alleviation and volunteering work to make contribution to the social harmony.

Implementing Targeted Poverty Alleviation

On the basis of summarizing previous achievements and experience in poverty alleviation, CMC explored targeted measures for poverty alleviation to help the poor out of poverty. In 2015, CMC cooperated with China Foundation for Poverty Alleviation to change the way of donation by means of Internet and therefore launched an official account on WeChat; the target poverty alleviation work in Yunnan province won the "alleviating poverty, resolving difficulty, building friendship and helping each other" banner delivered by the local government. We were also honored "Model Poverty Alleviation Group in 2014" by the leading group of Yunnan provincial poverty alleviation. We donated a total of USD 0.74 million to targeted poverty alleviation counties, helping 50,000 people.





Voluntary Activities

CMC has promoted volunteer activities and helped the vulnerable groups in society as much as we could.

🗹 Case

Minmetals Property Hunan Development of Minmetals Land Carried Out Serial Activities with the Theme of "Learning from Lei Feng"

In March, 2015, Minmetals Property Hunan Development Co., Ltd. carried out serial activities in the month of "Learning from Lei Feng".

Being Devoted to Education by Donating Books

On March 1st, Minmetals Land (Xiangtan) organized a book donation activity in Shimen Primary School, Qingshanqiao Town, Xiangtan County. We donated a total of 2,000 books for children living in mountainous areas.



Book Donation Activity in Shimen Primary School

Stepping into Communities to Care for the Elderly

On March 5th, we organized young employees to make, boil, distribute and send the glue pudding to old people and handicapped children. We also helped the old people guess lantern riddles and win gifts.

Planting Trees to Build Homes Together

On March 14th and 15th, in our Wanjing Shui'an projects in Changsha, Xiangtan and Tai'an, we formed a "Learning from Lei Feng Voluntary Service Group" to plant trees with 300 property owners. We spread green and made contribution to the blue sky and green homes.

Protecting Environment by You and Me

On March 5th, Minmetals Land (Xining) carried out cleaning activities, cleaning streets and buildings around our Qaidam Square Project. Minmetals Land (Zhuzhou) organized all staff to clean public parking areas and parking stalls of the real estate project Xin Cheng Yi Hao.









Activities of Caring for the Elderly

Diversified Service to Bring Warmth to Property Owners

Jiasheng Property Management Company of Minmetals Property Hunan Development Co., Ltd. of Minmetals Land called on 12 service centers to implement featured voluntary activities such as free medical treatment, free blanket laundry, free air conditioner repair, caring for empty-nesters, checkup for safe electricity use and cleaning up the white garbage.



Jiasheng Property Management Company of Minmetals Land offering free medical treatment

82 2015 Sustainability Report

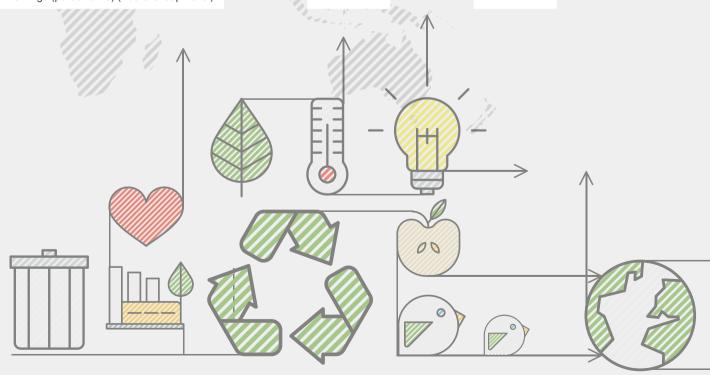
Performance of Sustainable Development

Indicators of Economic Performance

	2011	2012	2013	2014	2015
Operating Revenue (USD million) *	54,215.85	50,286.77	63,792.30	49,654.92	30,825.69
Total Tax Payment (USD million)	1,512.62	1,354.00	1,231.38	1,249.85*	1,197.69*
Research & Development Input (USD million)	124.62	87.69	132.00	163.23	151.38
New Patents (Number)	· w . 6,10	233	212	286	198

Indicators of Environmental Performance

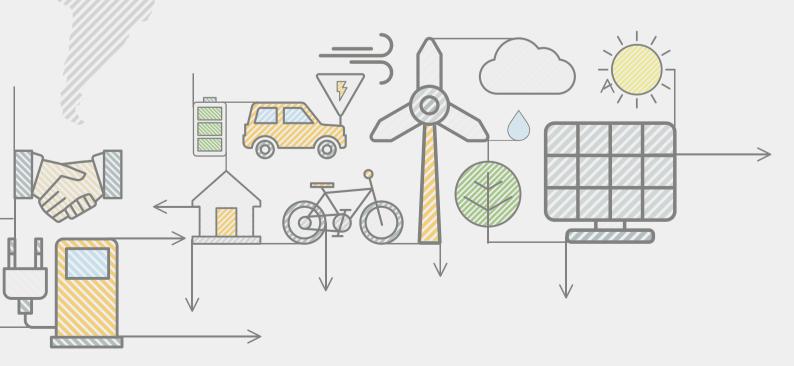
		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>			
	2011	2012	2013	2014	2015
Year-on-year Decline in Comprehensive Energy Consumption (%)		-8.7	-1.19	-14.19	-24.01
Year-on-year Decline in COD Emissions (%)	-	-45.41	-9.18	-22.83	-18.83
Year-on-year decline in SO ₂ Emissions (%)		-12.68	-19.38	-12.28	-11.15
Number of Environmental Protection Training Sessions (time)(At the Group Level)		10	15	16	4 2
Person-times of Environmental Protection Trainings (person-time) (At the Group Level)	_	1,224	1,266	1,405	1,770



Indicators of Social Performance

	2011	2012	2013	2014	2015
Headcount*	177,931	177,469	171,829	170,292	143,517
Female Headcount	28,619	29,428	31,061	35,236	22,324
Proportion of Women in Positions of Middle Level or above (%)	16	16	14	16.67	10.53
Input for Safety Production (USD million)	65.33	143.85	65.34	71.38	60.47
Number of Seriously Injured Employee(s)	1	8	2	4	2
Death Toll of Employee(s)*	9	2	5	4	3
Total Input for Employee Training (USD million)	8.84	8.08	7.69	8.38	6.71
Person-times of Training	149,737	191,874	156,665	200,711	149,153
Contract Performance (%)	100	100	100	100	100
Total Donations (USD million)	12.68	23.29*	24.27*	17.92*	64.38*

*Data covering overseas subsidiaries
Based on exchange rate for RMB/USD on December 31, 2015



Outlook for 2016

Review of 2015

- ▶ Total operating revenue: USD 30.83 billion
- ► First Board of Directors set up with four special committees at the corporate level
- Optimizing the layout of multiple businesses
- Maintaining cash flows, cut cost and no systemic risks guaranteed
- Promoting the transformation of scientific and technological achievements, promoting new technologies, and improving economic benefits
- ► Formulation of The Interim Measures for the Implementation of the "Equal Responsibility of the Party Committee and the Management, Dual Responsibility for the Same Post, and Common Efforts for Safety Production"
- ▶ In 2015, the total investment in safety production amounted to USD 60.46 million, the total number of safety inspections reached 3,182 and the number of training on safety production reached 4,402
- Having formulated The Guidelines for Detecting and Eliminating Safety Hazards for Safety Production of Mining Enterprises
- Enacting guidelines on environmental hidden danger screening and control in three areas: mining and dressing, rare earth smelting and leadzinc smelting
- Pushing 19 key enterprises for environmental protection to set up their environment filing system
- Advancing key projects of environmental protection with a total investment of USD 96.92 million in environmental protection
- Having selected 6 tailings storages to conduct management and assessment of environmental risk sources

Commitment of 2016

- ▶ To build the modern corporate governance structure
- ▶ To optimize business layout, sticking to prudent operation and preventing risks
- ▶ To deepen the reform comprehensively, strengthen capital operation, and transform into a State-owned capital investment company
- ▶ To manage the Corporation according to laws, and play a safeguarding role for the business operation, reform and development
- ▶ To cultivate new growth drivers for technological innovation and provide new potential for the transformation of scientific and technological achievements

Safety and Health

Value

Creation

- ▶ To implement the requirements of amended Production Safety Law, carry out grade- and category- specific management of responsibility over key links and sectors of safety production in mines
- ► To detect and rectify safety hazards and bring accidents of safety production under stringent control
- ▶ To push forward the occupational health work
- ▶ To enhance safety through technologies and improve the safety level
- ➤ To continue efforts to terminate outsourced mining contracts
- ▶ To strengthen the statistical work and management of data on energy conservation and emission reduction
- ▶ To improve the environment risk assessment, screening and rectification of tailings storages
- ▶ To strengthen the examination of environmental compliance and deepen the rectification of compliance issues
- ► To strengthen supervision over energy conservation of key energy consumption enterprises

To advance the evaluation and application of the energy management framework

Environmental Protection

Review of 2015

- ► The V5 IV-Phase Project for unified compensation management has been put into operation
- Having launched the construction of the "one-stop social security" online service platform in Beijing
- ► The first worker director has been elected in accordance with the law
- Having promoted the pilot implementation of the new position system and built supplementary mechanism for the implementation
- ▶ Having hosted the 13th sports meet for employees
- Having formulated CMC Guidelines on Building Corporate Culture
- Promoting quality management, and providing high value-added products through technological innovation
- ▶ Forging a responsible supply chain
- Having joined hands with Alibaba to forge steel e-commerce, developed the "Dark Blue Plan", and attended international seminars, in efforts to accelerate the sustainable development of the industry
- Boosting the mutually beneficial cooperation with the governments, businesses, banks and research institutions in aspects of resources development and financial services
- Promoting local economic development and supporting the development of local entrepreneurs
- Implementing infrastructure construction of roads, schools, stadiums and others.
- Performing local recruitment and organizing skilldeveloping trainings for local employees
- ▶ Providing medical and health services
- Focusing on interaction and communication with communities and properly handled community protests

Commitment of 2016

- ► To promote the unified management of employees' remuneration
- ▶ To implement the new position system, providing multiple paths for employees to develop themselves and building a talent team
- ► To strengthen care and respect for employees, safeguard the legitimate rights and interests of female employees and help employees in need
- ► To build and improve the corporate culture system and facilitate the development of cultural diversity
- ▶ To initiate the "2025 Plan on Young Industry Champions", and intensify the cultivation of high quality young talents with huge potential
- ➤ To continue efforts on quality management, provide quality products and upgrade service level to meet the needs of customers around the world
- ▶ To further forge the responsible supply chain
- ➤ To actively participate in and push forward the drafting of the industrial development plan and standards, to facilitate the sound development of the industry
- ► To deepen cooperation with the governments, financial institutions, colleges and universities to achieve joint development
- ► To maintain community communication and actively listen and respond to appeals of communities
 - ▶ To promote local employment
 - To boost the development of cultural and educational undertakings in communities
 - ➤ To give support to the local small-and-mediumsized businesses and advance the development of featured industries
 - ► To push forward the targeted poverty alleviation in designated areas
 - ▶ To continue voluntary services



Employee

Development

Partnership

Report Assurance



LRQA Assurance Statement

Relating to China Minmetals Corporation's Sustainable Development Report 2015 for the financial year ending 31st December 2015

This Assurance Statement has been prepared for China Minmetals Corporation in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

Lloyd's Register Quality Assurance Ltd. (LRQA) was commissioned by China Minmetals Corporation (CMC) to provide independent assurance on its 'Sustainable Development Report 2015' ("the Report", Chinese version) against the assurance criteria below to a limited level of assurance and at a materiality level of the professional judgement of the verifier using LRQA's verification approach. LRQA's verification approach is based on current best practice and uses the principles of AA1000AS (2008) - inclusivity, materiality, responsiveness and reliability of performance data and processes defined in ISAE3000.

Our assurance engagement covered CMC's operations and activities and including its holding subsidiaries, from which part of the economic performance, safety performance, environmental performance, employee performance, partner performance and social performance data and information is verified according to the range of CMC reporting to SASAC (China State-owned Assets Supervision and Administration Commission) as requirements (refer to the Data Explanation Section on Page 2 of the Report), and specifically the following requirements:

- Evaluating the accuracy and reliability of specified sustainability performance data and information
- Confirming that the Report is in accordance with GRI G4's Reporting Guidelines and core option.

Our assurance engagement excluded the data and information of CMC's suppliers, contractors, overseas entities and any third-parties mentioned in the Report.

LRQA's responsibility is only to CMC. LRQA disclaims any liability or responsibility to others as explained in the end footnote. CMC's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of CMC.

LRQA's opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that CMC has not:

- Met the requirements above
- Disclosed accurate and reliable performance data and information as no errors or omissions were detected
- Covered all the issues that are important to the stakeholders and readers of this Report.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites.

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification approach. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing CMC's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through document review of associated records.
- Reviewing CMC's process for identifying and determining material issues to confirm that the right issues
 were included in their Report. We did this by benchmarking reports written by CMC and its peers to
 ensure that sector specific issues were included for comparability. We also checked CMC's criteria and
 process for risk assessment of its material issues.
- Auditing CMC's data management systems to confirm that there were no significant errors, omissions or
 mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures,
 instructions and systems, including those for internal verification. We also spoke with those key people
 responsible for compiling the data and drafting the Report.



- Reviewing supporting evidence made available by CMC at their head office at Minmetals Plaza Tower A, No.3 Chaoyangmen North Avenue, Dongcheng District, Beijing, P. R. China in accordance with our contract.
- Interviewing key business and management departments of CMC and the people responsible for the issues related with the Report.
 - Note 1: Economic performance data was taken directly from the audited financial accounts.
- Checking that the GRI index allows stakeholders to access sustainability performance indicators.

Observations

Further observations and findings, made during the assurance engagement, are:

- · Stakeholder Inclusivity:
 - CMC has defined processes for stakeholder engagement, and at group level have identified stakeholders' views, expectations and material issues. CMC has set vision, target and concept for addressing sustainability development. We are not aware of any key stakeholder groups that have been excluded from CMC's stakeholder engagement process.
- Materiality:
 - We are not aware of any material issues concerning CMC's sustainability performance that have been excluded from the Report. It should be noted that CMC has established extensive criteria for determining which issue/aspect is material and that these criteria are not biased to the company's management. However, we believe that future reports should focus on fully disclosing CMC's performance associated with its material issues, for example disclosing occupational health and safety performance of its contractors and more complete emission information related with environment and climate change.
- Responsiveness:
 - CMC and its subsidiary companies have processes in place to respond to government authorities, employees, customers, communities, business partners, investors and NGO etc. in a variety of ways. We believe that these communication processes are effective in explaining CMC's aim in contributing towards sustainable development as we found nothing that would cause us to contradict this conclusion.
- · Reliability:
 - Data management systems are considered to be properly defined. We are not aware of any data and information disclosed in the Report that is not reliable. It is recommended that CMC could further improve its internal data management collection and the internal verification process to ensure the data and information disclosed is complete. Future reports would also benefit in covering CMC's performance data and information of its overseas entities completely.

LRQA's competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

The verification assessments are the only work undertaken by LRQA for CMC and as such do not compromise our independence or impartiality.

Dated: 12th May 2016

Signed LRQA Lead Verifier

On behalf of Lloyd's Register Quality Assurance, Shanghai

19th Floor, Ocean Towers, No. 550 Yan An Dong Road, Shanghai, People's Republic of China

LRQA Reference: QAC6013442

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CMC's Implementation of the UN Global Compact's Ten Principles in 2015

	The 10 Principles	Index
	To support and respect the protection of international proclaimed human rights	Formulating standards and codes for supporting and respecting the protection of internationally proclaimed human rights within our sphere of influence, and fully integrating human rights and labor practices into strategies and operation to facilitate the staff's all-round development
Human rights	To make sure that businesses are not complicit in human rights abuses	Establishing a democratic environment, trade unions and a democratic management system in the form of employee representative meetings; expanding the channels and scope of democratic involvement; and fully maintaining employees' rights to information, participation, expression and supervision in corporate management
	To uphold the freedom of association and the effective recognition of the right to collective bargaining	Strictly observing the relevant laws, regulations and policies of the States and the places where the operations are based, as well as the international conventions on human rights and labor
Labor	To uphold the elimination of all forms of forced and compulsory labor	Sticking to fair and standardized employment, ensuring that all tasks are fulfilled by lawfully recruited personnel, and prohibiting all forms of discrimination in respect of employment
	To uphold the effective abolition of child labor	
	To uphold the elimination of discrimination in respect of employment and occupation	Resolutely prohibiting child labor and compulsory labor
	To support a precautionary approach to environmental challenges	Focusing on global climate changes; aiming at low energy consumption, low pollution and low emission; advancing energy conservation and emission reduction as well as green development
Environment	To undertake initiatives to promote greater environmental responsibility	Strengthening R&D and application of technologies on environmental protection; increasing the input in energy conservation and emission reduction technology improvement; minimizing the environmental
	To encourage the development and diffusion of environmentally friendly technology	impact of production and operation by bringing in experts in environmental protection and enhancing the introduction and application of new equipment, technologies and processes
Anticorruption	To work against corruption in all its forms, including extortion and bribery	Stick to administrating the Party strictly and running the Corporation rigorously, advancing solidly and effectively the construction of corruption prevention and punishment system, and continually raising the scientific level of combatting corruption and building a clean Corporation

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Feedback Sheet

Dear readers,

Thank you for reading the report. We sincerely look forward to your comments to improve our CSR-related tasks.

You may contact us at:

Tel.: 0086-10-60169882

Fax: 0086-10-60169817

Mail: CSR Dept. of the General Office of China Minmetals Corporation

Tower A, Minmetals Plaza, No.3 Chaoyangmen North Avenue, Dongcheng District, Beijing, China (100010)

Email: csr@minmetals.com

Multiple choice: (please tick in the box of your choice)

	1.	Your overall impression of the	e report:	□ Very good	□ Good	□ Fair	□ Not good	□ Bac
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2. The quality of CSR-related information contained in the report:

□ Very good	□ Good	□ Fair	□ Not good	□ Bad
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- 3. The structure of the report: $\ \square$ Very good $\ \square$ Good $\ \square$ Fair $\ \square$ Not good $\ \square$ Bad
- 4. The layout of the report: $\ \square$ Very good $\ \square$ Good $\ \square$ Fair $\ \square$ Not good $\ \square$ Bad
- 5. Overall evaluation: $\ \square$ Very good $\ \square$ Good $\ \square$ Fair $\ \square$ Not good $\ \square$ Bad

Open-ended question:

What is your comment or suggestion on the 2015 report?	





Cherishing Limited Resources Pursuing Sustainable Development

Address of the headquarters: Tower A, Minmetals Plaza, No.3 Chaoyangmen North Avenue, Dongcheng District, Beijing, China (100010)

Tel: 0086-10-60169882 Fax: 0086-10-60169817 Email: csr@minmetals.com

You may also read the PDF version of the Report in Chinese and English as well as the dynamic information related to CSR activities of the Corporation under the tag of "Social Responsibility" on the homepage of the CMC official website.

Official website: http://www.minmetals.com.cn







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