



# 2014

The Sustainable Development Report



**Exploring Resource Value  
Building A Harmonious Society Together**

# About the Report

This is an annual report and the fourth sustainable development report produced by China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC), which has already produced country-level corporate social responsibility (CSR) reports concerning Zambia, Myanmar and Mongolia.

## > Report Basis:

- ▶ *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities* released by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council;
- ▶ *Implementation Program of the State-owned Enterprises Directly under the Central Government on the "Twelve-Five" Harmonious Development Strategy* released by SASAC;
- ▶ *Sustainability Reporting Guidelines (G4) and GRI Reporting Guidelines Sustainable Mining and Recycling* by Global Reporting Initiative (GRI);
- ▶ ISO 26000: Guidance on Social Responsibility (2010);
- ▶ *Guideline of Social Responsibility of Industry (Version 2)* released by China Federation of Industrial Economics;
- ▶ *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises* (CASS - CSR3.0) released by Research Center for Corporate Social Responsibility of Chinese Academy of Social Sciences.

## > Reporting Scope:

This report covers the sustainable development management practices and performances of CNMC and its affiliated enterprises. The time span mainly focuses on 2014, with other years of significance included as necessity requires.

## > Data Sources:

Data quoted in this Report come from official documents, statistical reports and company website of CNMC. Amounts of money involved in this Report are of RMB at default, with special occasions using other currencies marked separately.

## > Names:

For conveniences of presentation and reading, "China Nonferrous Metal Mining (Group) Co., Ltd." referred in the Report is also called "CNMC", "Group Company" and "us".

## > Composition Flow:

With composition of CNMC Sustainable Development Report 2014 as an opportunity, the report composing flow is to be optimized to promote the integral sustainable development capabilities of CNMC.

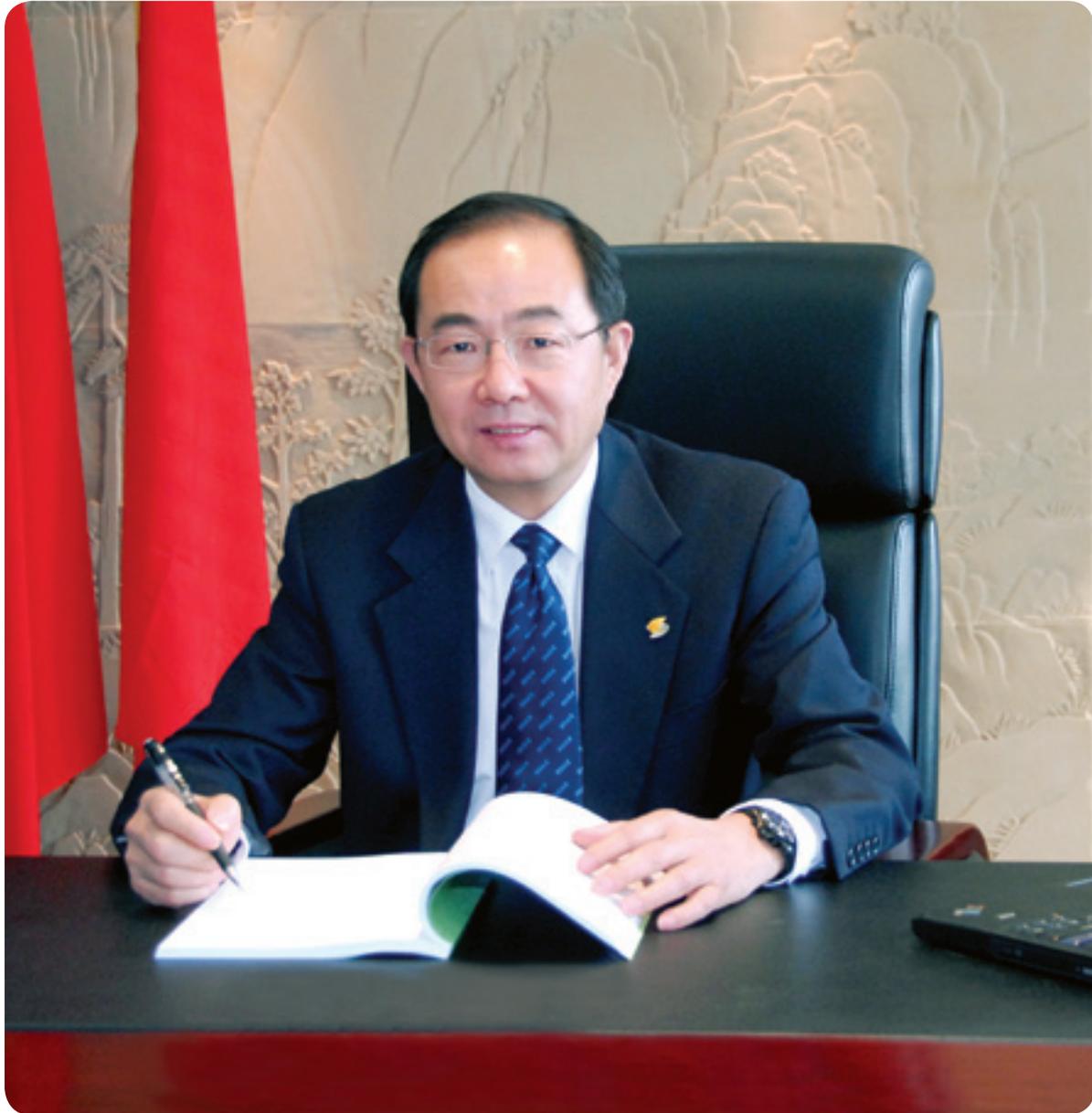
Report Composition Preparation	Report Composition Commencement	Report Material Collection	Report Topics Determination	Report Composing & Perfection	Report Release & Promotion
Set up report composition working team; Domestic and overseas peer benchmarking analysis; Study sustainable development report standards.	Start report composition; Reporting topics discussion.	Functional departments and investing enterprises collect materials; Functional departments and Interview and survey of investing enterprises.	To assort social responsibility topics; Analyze stakeholders' demands; Analyze social and environmental impacts; Analyze Group Company development strategy objectives; Collect opinion from internal and external experts.	Working group composes the report; Report review by relative departments; Review and finalize the Report by Company leadership.	Release the report; Report and promote by making using of internal external platforms.

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# Presidential Address



In 2014, China, upholding the concepts of cooperation, development and win-win, advocated joint construction of the "Silk Road Economic Belt " and the "21<sup>st</sup> Century Maritime Silk Road" with countries from Asia, Europe and Africa. The purpose is to further stimulate the vitalities and cooperation, and open a new page of complementing each other and pursuing common development. We have taken this opportunity, trying our best to forge ahead and to innovate, consummate the industrial chain and expand our businesses, while centering on the strategic development guideline of deepening reform, and raising up volume, production efficiency, management level and technical expertise. The Company's total assets, business revenues and nonferrous metal output have seen remarkable increase and the Company got listed again among the "Fortune 500".



**Forging ahead & Developing Jointly** In 2014, under the “New Normal” situation, we carried out the emission and consumption decreasing and efficiency increasing strategy solidly, while insisting on the collaborative development of three main businesses, and consummating the industrial chain continuously. Under the pressure of downward macroeconomic trend and low nonferrous metal prices, the Company kept making profit and has realized steady progress and growth in an adverse environment.

By the end of 2014, we have possessed 27 mines, 14 metallurgical plants, and 4 large processing bases at home and abroad as well as an overseas economic and trade cooperation zone; the whole year sees an accumulated production of 1.6383 million tons of nonferrous metal products, an increase of 5.55% compared with the previous year. Our construction engineering enterprises actively expands the markets, with newly concluded contracts of 26.821 billion Yuan, a yearly growth of 9.26%. Our trade and related service enterprises are further reinforced in enhancing brand images, perfecting distribution networks, promoting services and support and etc. They have provided significant support to the marketing, purchasing, customs clearance and logistics of the Company's projects abroad.

**Upholding Responsibility First and Values Sharing** Attaching importance to green development, we promote clean production and energy reduction, comprehensive utilization of mine resources, management of water resources and protection of ecological environment. The Company's ten-thousand Yuan comprehensive energy consumption and sulfur dioxide emission have dropped by 6.6% and 1.8% respectively compared with those of the previous year, realizing one year in advance the energy-saving and emission reduction objectives set up by the State-owned Assets Supervision and Administration Commission of the State Council. We stick to the red-line awareness, innovate in our safety management, and have maintained a good performances in keeping "zero large and severe production accident", while lowers the rates of fatal accidents and ten billion value fatal accidents by more than 50%. We uphold the concept of people first, expand our development channels, strengthen employee training and welfare, and try our best to create opportunities for each and every employee so that they may have a splendid life. We see our responsibility as a priority and have devoted much of our attention to meet the community demands, for example, our overseas projects actively donates to help build local infrastructure, support education, and develop medical and cultural undertakings for the benefit of local people. In 2014, we have donated 14.672 million Yuan totally to various social projects to assist the healthy development of communities.

**International Vision & Cooperative Win-Win** As the first "going global" enterprise in the nonferrous metal industry of China, our businesses are distributed in more than 80 countries and regions across the world. Some landmark mine development projects have already been constructed and well put into operation in Zambia, Mongolia, Myanmar, Thailand, Democratic Republic of Congo and other countries and regions. In Zambia, we have accelerated the construction of Zambia-China Economic & Trade Cooperation Zone by building the "going abroad" industrial platform. The Year 2014 witnessed the zone's steady construction, as evidenced by 15 newly introduced enterprises totaling the number of enterprises inside the Zone to 48, which has also added momentum to the stepping-out cluster of China's domestic enterprises. In Myanmar, we have invested and constructed the Tagaung Taung Nickel Mine Project that has already entered commercial production completely. It has facilitated the development of related industries in Myanmar such as coal, building material, logistics, etc. In Mongolia, the Tumurtin-Ovoo Zinc Mine invested and constructed by us has already become a model project in Mongolia-China cooperation. In Democratic Republic of Congo, we have constantly expanded and strengthened our cooperation with the local. Moreover, the Mabende Leaching Project has created many firsts in the metallurgical construction history of Congo (K) and is honored as "Garden Plant in African Forest". We are also committed to international project contracting, labor cooperation and import and export trade relevant to nonferrous metal resource development, forming a benign integral development pattern linking our domestic and overseas businesses.

In 2015, we will continue to uphold the concept of *"Exploring Resource Value Building A Harmonious Society Together"*, actively adapt to China's new development trends, take advantages of the strategic opportunities brought by the "One Belt, One Road", strengthen our management, deepen our reform, pioneer forward, respond to concerns from all walks of society with responsible actions and endeavor to create more values and realize sustainable development together with all stakeholders.

**Zhang Keli**  
President of CNMC

# New International Operation Pattern of "One Belt, One Road"

In order to tighten the economic ties between countries, deepen mutual cooperation and broaden the development, China actively initiates the "One Belt, One Road" development strategy, which provides new opportunities for Chinese enterprises to "go global" and to carry out international business operations.

CNMC is the first enterprise that "go abroad" in China's nonferrous metal industry and has successfully carried out international business operations. By the end of 2014, CNMC has accumulatively invested more than 7.5 billion US dollars in countries along the "One Belt, One Road" and in Africa, paid about 0.3 billion US dollars of taxes, and donated more than 20 million dollars. It is regarded as the envoy and model of China in respect of opening up, inclusiveness, cooperation and win-win between China and countries along the "One Belt, One Road" and in Africa.



**83** Enterprises

Totally 83 overseas enterprises at various levels



**8** Mines

Totally 8 modern mines invested and constructed in countries along the "One Belt, One Road" and in Africa



**8** Plants

Totally 8 metallurgical plants reinforced with advanced technologies and equipment



**7.5** Billion US Dollars

Accumulatively investment of more than 7.5 billion US dollars in Zambia, Mongolia, Myanmar and other countries and regions



**0.3** Billion US Dollars

Totally about 0.3 billion US dollars of tax payment

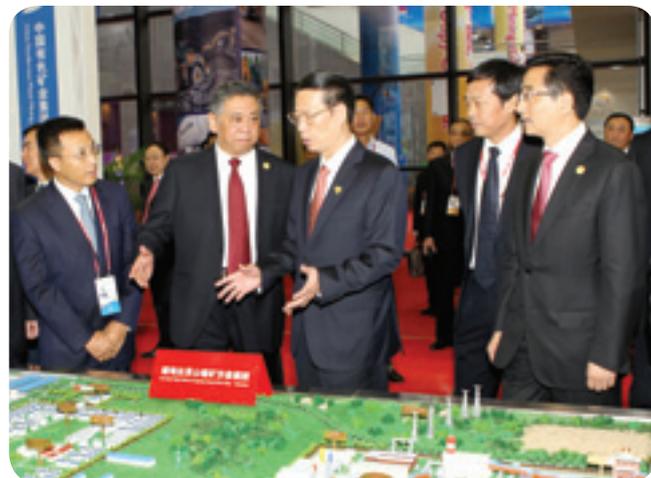


**20** Million US Dollars

Totally more than 20 million US dollars of various donations



On May 6, 2014, Premier Li Keqiang met with Vice President of CNMC Tao Xinghu in Ethiopia



On September 16, 2014, Vice Premier Zhang Gaoli inspected CNMC's booth



## I. Explore Development Pattern

We have conducted sufficient investigations in regions where our projects are located to fully assess the risks faced by the Group Company in respect of politics, economy, law enforcement, society, environment and etc in different countries and regions, to ensure that the Group Company realize stable operation and rapid growth in the host countries.

### Industry Clustering Pattern

We have set up Zambia-China Economic & Trade Cooperation Zone, through which an industrial platform is built to help Chinese enterprises go global in clusters. By the end of 2014, the Zambia-China Economic & Trade Cooperation Zone has seen accumulatively more than 170 million US dollars of investment in infrastructure, attracted around 1.4 billion US dollars of investment and realized 8 billion dollars of sales revenue, which forges a nonferrous metal base in Zambia with the Zambia-China Economic & Trade Cooperation Zone being the platform.

### Industrial Output Pattern

We have turned 'blood transfusion' into the capacity of 'blood generation'. Through overseas resources development and project contracting, the Company has brought advanced technologies and equipment to the localities, which has driven the development of nonferrous metal industries of countries in mid-south Africa and of those surrounding China.

### Enterprise-Locality Sharing Pattern

The Company attaches great importance to mutually beneficial cooperation and joint development with the local and makes contributions to local economic and social development by creating tax revenue, providing job opportunities and engaging in infrastructure constructions in local communities. CNMC Nickel Industry (Myanmar) Co., Ltd. (CNICO Myanmar) has, with "benefiting everyone" as its principle, formulated detailed plans to organize public service activities every year, showing respect to local culture while trying its best to benefit most residents in areas surrounding the project. In 2014, CNICO Myanmar set up a corporate social responsibility fund account, which invests 300 thousand US dollars every year to promote the development of local economy and society.

### Joint Development Pattern

The Company has joined hands with many domestic and overseas enterprises for joint investment, development and operation of nonferrous metal mines, to realize multi-party cooperation, development and innovation and to inspire other enterprises to "go global". China Non-ferrous Metal Industry's Foreign Engineering and Construction Co., Ltd.(NFC) and Metalimpex from the People's Republic of Mongolia have jointly invested and founded TSAIRT MINERAL Co., Ltd. that adopts the board responsibility system with shareholders from both sides, and takes the post of president in turns. Respective advantages of both sides, such as the high quality zinc reserve of the Tumurtin-Ovoo Zinc Mine, the mining qualification of Metalimpex and CNMC talent and technological advantages, have laid a solid foundation for mutual cooperation and for directly driving the rapid development of local transportation and other related service industries.

# New International Operation Pattern of "One Belt, One Road"

## II. Emphasize Support Selection

In countries along the "One Belt, One Road" and in Africa, we have invested in and constructed 8 mines including the Chambishi Copper Mine in Zambia, the Tagaung Taung Nickel Mine in Myanmar and etc., 8 metallurgical plants that are reinforced with advanced technologies and equipment including Chambishi copper smelter in Zambia and etc., and a bunch of key projects covering expressway, residence, cement plant, copper mine, metallurgical plant, etc. in Vietnam, Kazakhstan, Algeria, Angola, Ethiopia and etc. All those overseas projects have been successfully operating and are our backup by providing powerful guarantee to our further development together with the country's "One Belt, One Road" initiative.



### Zambia

- **The Zambia-China Economic & Trade Cooperation Zone** is China's first overseas economic and trade cooperation zone in Africa, and the largest overseas nonferrous metal resources industrial base.
- **The Chambishi Copper Mine in Zambia** is the first nonferrous metal mine built outside China, and is thus honored as the landmark project in Sino-Africa cooperation.
- **The Chambishi Copper Smeltery project** is the first project that was put into practice after the Forum on China-Africa Cooperation (FOCAC) Beijing Summit.

### Myanmar



- **The Tagaung Taung Nickel Mine** is a project with the largest investment in China-Myanmar mine industry cooperation and is thus listed as a key investment project by the Chinese government in its overseas resources development of the "Eleventh Five-year Plan".

### Mongolia



- **Tumurtin-Ovoo Zinc Mine** is China's largest nonferrous metal mine project in Mongolia and is thus honored as the "China-Mongolia Cooperation Model" by both governments.

### Thailand



- **Thai-China Lead-Antimony Alloy Plant** is one of the overseas enterprises that embody China's early attempts in resource regeneration and reutilization and in the recycling economy.

### Tajikistan

- **The Pakrut Gold Mine Project** is a milestone project in the cooperative win-win initiative between China and Tajikistan, and has played a promoting role in the development of the Tajikistan mine industry.

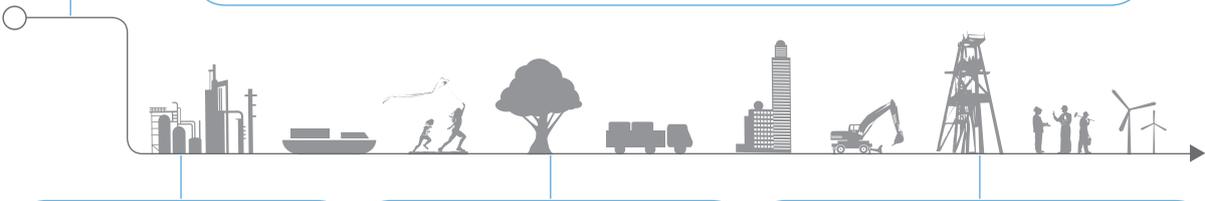




### III. Shoulder the Heavy Burden of Responsibility Implementation

We uphold the concept of "to build a project, to succeed in it; to build a project, to drive local development", therefore shouldering the responsibilities of a central enterprise. CNMC sticks to cooperative win-win and common development, pays attention to safe and green production, environment protection, as well as employee and community development, to promote local economic and social development.

● **In Zambia:** The Company actively organizes China-funded enterprises to participate in charity activities and to fund local charity. We have built the China-Zambia Friendship Hospital and the Luanshya Hospital to provide high-quality medical services to both Chinese and Zambian employees as well as community residents. We have also built such infrastructure as skilled workers training schools, stadiums, highways, etc., which have brought vitalities to the localities.



● **In Myanmar:** Although the local government has agreed with felling down the forest to build power transmission lines, we conscientiously increased 18 million Yuan of investment to elevate the line 20m higher than the normal tower with the sole purpose of maintaining the ecological status of the forest.

● **In Mongolia:** TSAIRT MINERAL Co., Ltd. has concluded a three-year cooperative agreement with the Sukhbaatar Province of Mongolia where the project is located to pay several dozen million US dollars of taxes every year to help infrastructure constructions and to support the development of its educational, medical, cultural and other industries.

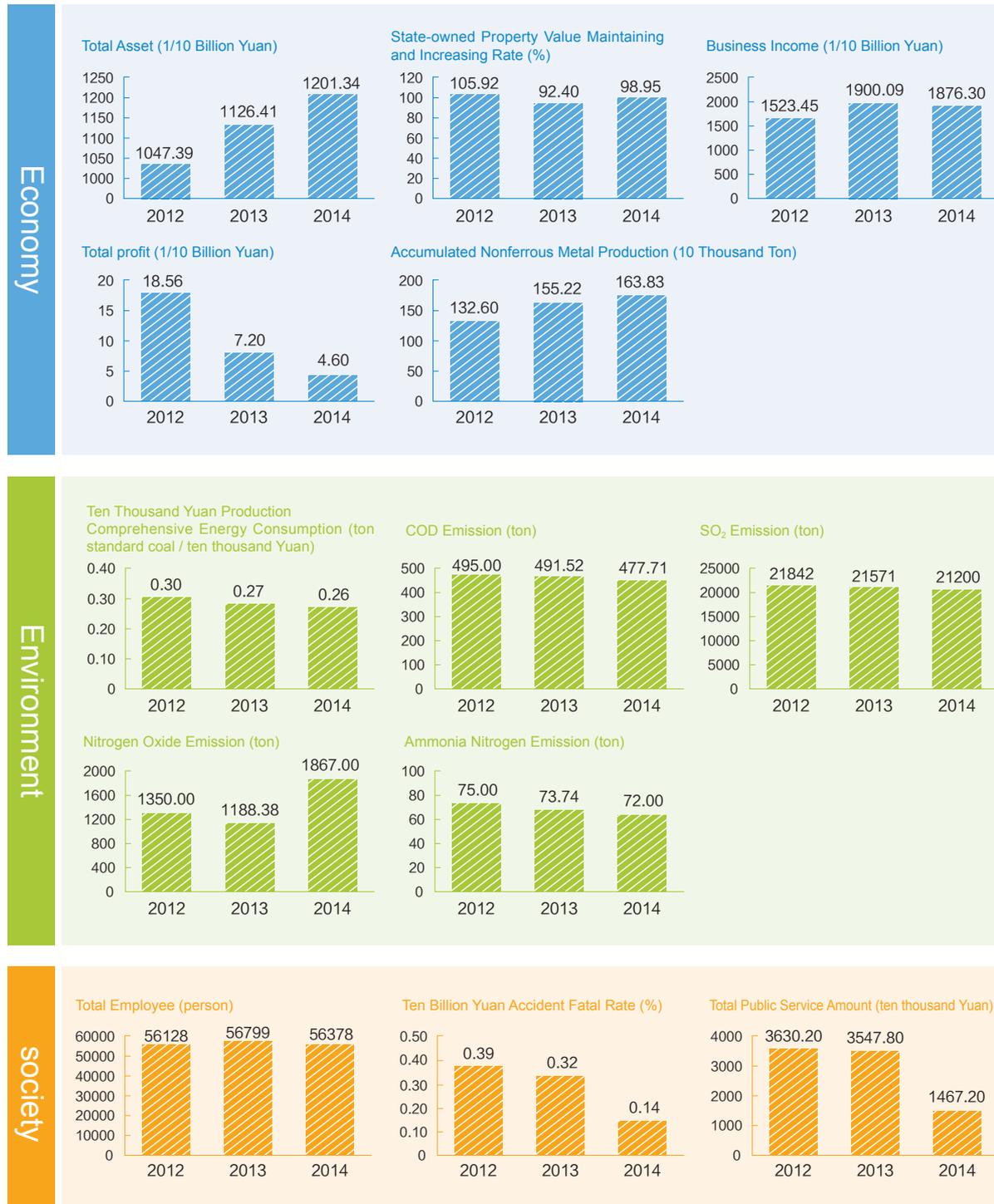
● **In Congo (DRC):** We have invested 100 thousand US dollars to build a 8.5km highway connecting Shabituba; invested 350 thousand US dollars to expand a 12.5km road in the Shangkuluwei area that is previously a country road which has solved the travel problems of local people; and sent our personnel, loaders, crane and other machineries to assist the Likasi power company and GCM to repair electric power equipment so as to guarantee local power supply.

### IV. Vision of Internationalized Development

Opportunity always favors well-prepared enterprises. CNMC will tightly grasp the opportunities brought by the significant "One Belt, One Road" initiative of China, steadily implement its "going global" strategy, and with those supporting projects in Zambia, Congo (K), Mongolia, Myanmar, Tajikistan and other countries and regions, try its best to "win new projects, expand new domains and form new growth points". In the year 2014, the new international project contracts concluded by the Group have made a new record. In a single country of Kazakhstan, the Bozshakol and the Aktogay copper concentrator projects still under construction both are world-class copper mine projects, whose mining scale reaches 25 million tons per year and the total contract value exceeds one billion US dollars. Relying on the first-mover advantages in resource development, project contracting, trade and etc., we will forge our industrial competitive advantages integrating nonferrous metal geological prospecting, mining, dressing and smelting, and forge a new brand and pattern with respect to nonferrous metal equipment, technologies, standards and services, and form a nonferrous metal industrial alliance. Meanwhile, we will also attach great importance to the new challenges and risks in our "go global" efforts so as to ensure that the Group Company may "step out steadily, smoothly and successfully".



# Sustainable Development Performances





# About Us

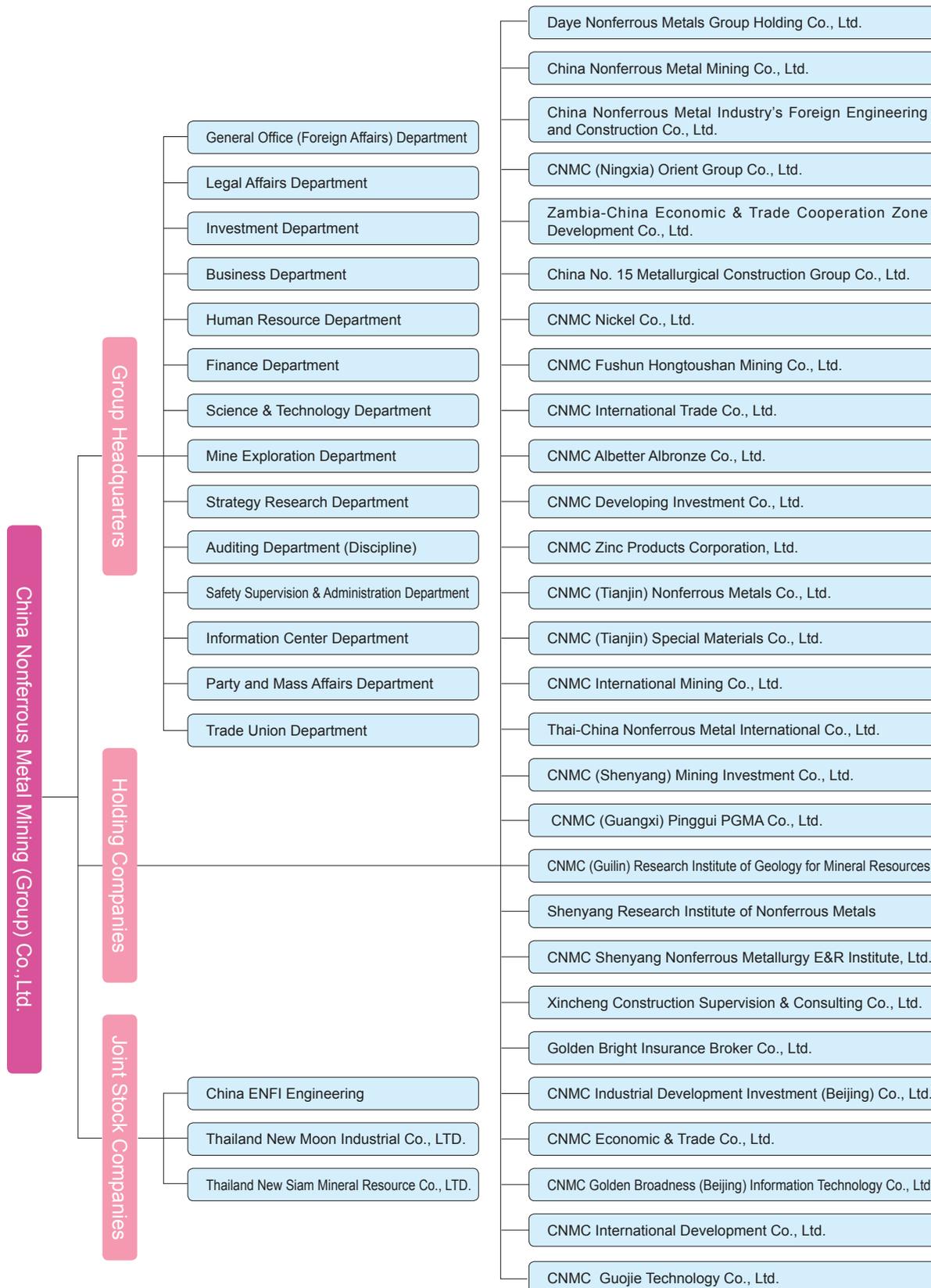
## Company Introduction

China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC), founded in 1983, is a large-scale central enterprise under the management of the State-owned Assets Supervision and Administration Commission of the State Council. Its major businesses include the development of nonferrous metal mineral resources, construction engineering, and the relevant trade and technological services. It is the "go global" pacesetter in China's nonferrous metal industry. By the end of 2014, the Company have businesses operated in more than 80 countries and regions and held in possession 20 million tons of heavy nonferrous metal resources involving more than 40 nonferrous metal varieties including copper, aluminum, lead, zinc, nickel, tantalum, niobium, beryllium, gold, silver, rare earth, etc. It possesses 261 enterprises at various levels, of which 83 are situated outside China, 8 listed companies in Shenzhen, Hong Kong, Sidney, London and Toronto. In Zambia, Mongolia, Myanmar, Thailand, Democratic Republic of Congo and some other countries and regions, the Company has built and is operating a number of landmark mine development projects.

In 2014, the Group Company was ranked at the 398th among "Fortune 500", the 83rd among "China's Top 500 Enterprises", and the 34th among "China's 100 Large Transnational Companies". The Groups Company's brand reputation has been further promoted and it is listed the 3rd in the 2014 Brand Value Evaluation in China with brand strength index being 892.25 and brand value being 27.137 billion RMB.



# Organizational Structure





## Company Governance

CNMC is led by its managers and the party committee, who exercise part of the authority as granted by the board of shareholders and the board of directors. The joint conference of Party and administrative leaders is in charge of the top-level decision-making of the Group Company, and the President Office meeting is responsible for the major decision-making of the Group Company concerning business operation and management.

The Group Company is a hybrid holding company, adopting the parent-subsidary company management system. The capital ties link the Group Company and its various sponsored enterprises. All the sponsored enterprises have their own board of shareholders, board of directors, board of supervisors and the managers, forming a comparatively independent company governance structure. The Group Company, as the sponsor, is entitled the rights of revenues as a shareholder, participation in significant decisions, and manager's right to select and other rights. It is also the center of strategic decisions and capital operation while bears related responsibilities and obligations. A sponsored enterprise has to implement decisions made by the board (general meeting) of shareholders, receive supervision of the board of supervisors, and undertake its production and business operation independently in accordance with the bylaws, as the Group Company's production and operation center, profit center and cost control center.

The Group Company has adopted workers' congress system since 2010, and guarantees employee's rights of participation in the Company's democratic decision making, democratic management and democratic supervision, through works as democratic appraisal of leading group, collection of workers' proposals, review of annual work report, etc. Since the second meeting of the first session of the workers' congress, altogether 161 workers' proposals have been collected, 159 of them well handled, boasting a conclusion rate of 98.8%.

## Anti-Corruption & Integrity Promotion

In 2014, the Group Company carefully studied the important address of President Xi Jinping at the third Plenary Session of the CPC Central Commission for discipline inspection, which deepened our understanding of the Party's new requirements for discipline inspection system and structural reform. The Group Company carefully consolidated the party committee's major responsibility and the discipline inspection committee's supervising responsibility, and formulated and distributed relevant implementing measures. Besides, the Group Company has further expanded and smoothed channels to collect petition letters, complaints and reports, and has set up a network reporting and handling system to fight against corruption and advocate clean governance. Management of clues to problems has been strengthened. The clues found since 2003, in particular those discovered in the past two years have been assorted completely, focusing on significant cases within the group system.

From March 29 to April 1 in 2014, CNMC organized a training course for discipline supervisors of sponsored enterprises in Beijing, where experts from the CPC Central Commission for Discipline Inspection, the Party School of the CPC Central Committee, the Discipline Inspection Commission of SASAC and other central enterprises delivered specialized lectures. Trainees learned, from a deeper perspective, the spirits of the third plenary session of the CPC's 18th Central Committee, and systematically studied professional knowledge concerning the prevention and control of integrity risk, performance supervision, case investigation and etc. In addition, the trainees visited CNMC exhibition hall, Tianjin Municipal Integrity Education Base and CNMC (Tianjin) company and had deep and extensive exchanges over pushing forward party integrity construction and anti-corruption work.

The Group Company pays close attention to the S&T support to anti-corruption work, and its anti-corruption and integrity promotion platform was put into operation in 2014. The information platform goes on line with separate focuses such as report, cases, "three significant & one large" and bidding information, which further enhances the timeliness and effectiveness of the Group Company's supervision over its sponsored enterprises.

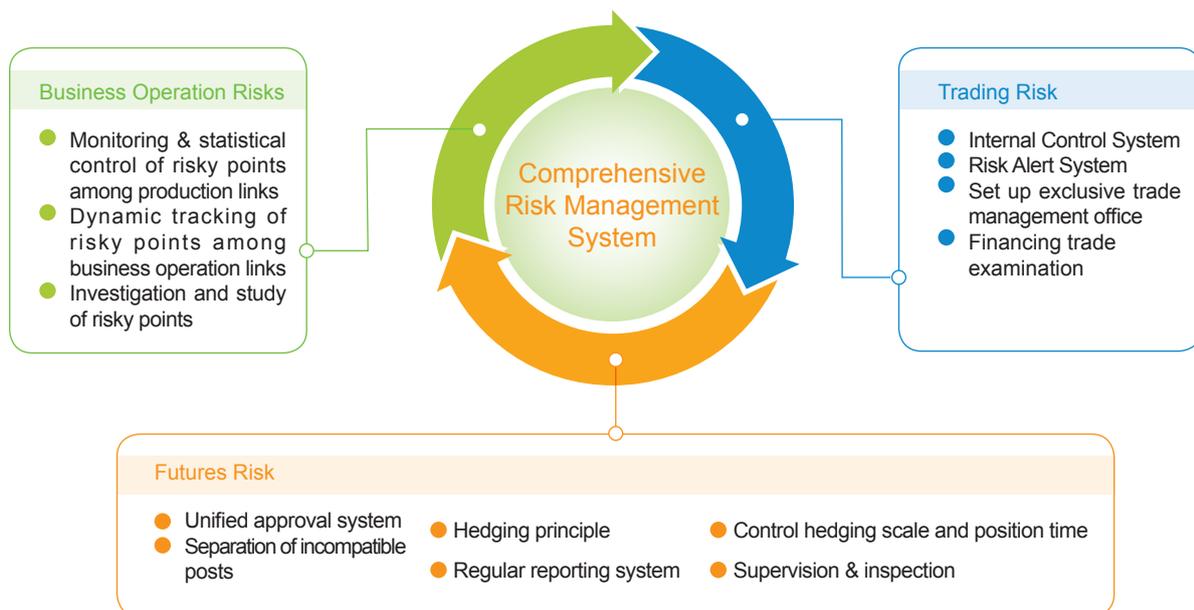


2014 Anti-Corruption & Integrity Promotion Meeting of the Group Company



## Risk Management

The Group Company speeds up the construction of a comprehensive risk management system, and continuously improves its comprehensive risk organization system, institutional system, supervising system and reporting system. It focuses on management of operation risks, futures risks and trade risks and the ability of timely handling various accidents so as to continuously strengthen its competence in countering risks. When developing new projects, attention is paid to analyze country-specific risks, to enhance risk warning system and popularize related laws and regulations and etc. In 2014, the Group Company continued to improve its risk management organizational system, raise its risk management technological competence, integrate risk management into routine operation, and has carried out two-level evaluation over those outgoing investment projects and adopted the accountability system at occurrence of a failed project.



### Case | Sino-Metals Leach Zambia Limited strengthens Legal Risk Management

Sino-Metals Leach Zambia Limited (SMLZ) attaches great importance to the management of enterprise in accordance with relevant laws and regulations. It has established an enterprise legal risk management system with rule and regulations being the foundation, risk prevention being the dependence and legal study and case & dispute management being the support. Based on changes in the Zambian and Congo (K) legal situations as well as problems encountered during its business operations, SMLZ has established and strictly enforced the system of legal review, collective decision-making examination, publication, execution, etc. SMLZ has set up a legal affairs working pattern by hiring general legal advisor, setting up legal compliance affairs office and hiring local lawyers, which has lowered its legal risks to minimum through cooperation of internal and external lawyers complementing each other.



## Development Strategy

In each of its development phase, the Group Company strictly follows the laws of enterprise development. Each upgrade of strategy stems from the objective development reality faced by the enterprise. In particular, the "go global" strategy that we have always been proud of has helped us get familiar with rules of international markets and equipped us with the first-mover advantages to adapt to the new situation.

The Group Company has made its plans and arrangements in advance in combination with the "new normal" and repeatedly adjusted its three-year development strategy and planned to guide its and subsidiaries' reform and development. It has expanded its three major businesses. Always taking resources development especially development of overseas resources as its top priority, it maintains coordinated development of construction engineering with related trade and services. By strengthening its international development strategy within the background of the national resources strategy and "One Belt, One Road" strategy, it actively participates in the global resources distribution and arrangement so as to make the Group Company bigger and stronger.



Office Area of Chambishi Copper Mine

# Sustainable Development Management



Concentrated Parking of Large Machineries in Aktogay



## Concept of Sustainable Development

### Exploring Resource Value Building A Harmonious Society Together

As an international company, we have always been operating our businesses in a responsible manner and carrying out resources development and utilization under the premise of ensuring the sustainable development of the resources and the environment. Efforts have been made to coordinate various links of the Group Company's industrial chains of its three major businesses i.e. resources development, construction engineering, trade and related services, so as to make use at the maximum extent of the nonferrous metal resources to create economic value, social values and environmental values and to drive local economic development, cherish the natural environment and build a harmonious society.

## Sustainable Development Model



The circular structure symbolizes CNMC's internationalized enterprise operation; the multiple circles symbolize its latitudinal direction; the six arrows symbolize its longitudinal direction, with the whole symbolizing the shape of earth.

We uphold the social responsibility of "Exploring Resource Value Building A Harmonious Society Together". We strive to comprehensively integrate our social responsibilities into the Company's strategy and management with sustainable development being the core. Focusing on the six key areas under the three major topics of economics, society and environment, we will continue to promote sustainable development practices and meanwhile maximize the enterprise's overall development values.



"Model of China-Mongolia Cooperation" - CNMC Tumurtin-Ovoo Zinc Mine in Mongolia

### 📍 Key Areas of Sustainable Development

Resources development, innovative management, green development, safety & health, employee growth, community participation

### 📍 Method of Sustainable Development

Study, innovation, communication, cooperation

## 🌱 Construction of Sustainable Development System

### 📍 Organizational Construction of Social Responsibility

CNMC has set up a social responsibility working committee, with clear stipulation of its composition, work and duties. At the top level, managerial members of the Group Company take charge of social responsibility work, and the strategy study office takes the lead with other departments taking coordinated actions. At sponsored enterprise level, responsible departments, persons and liaisons for social responsibilities have been chosen. Such a social responsibility working framework capable of combined actions has provided organizational assurance for the social responsibility related work.

### 📍 Starting Social Responsibility Planning

In accordance with the present situation of the Group Company's social responsibility work, we have initially put forward the development objective, strategic orientation and tasks, the strategic actions and key links in six key areas, basic principles and basic routes in promoting enterprise social responsibility management, and keys in our next move.

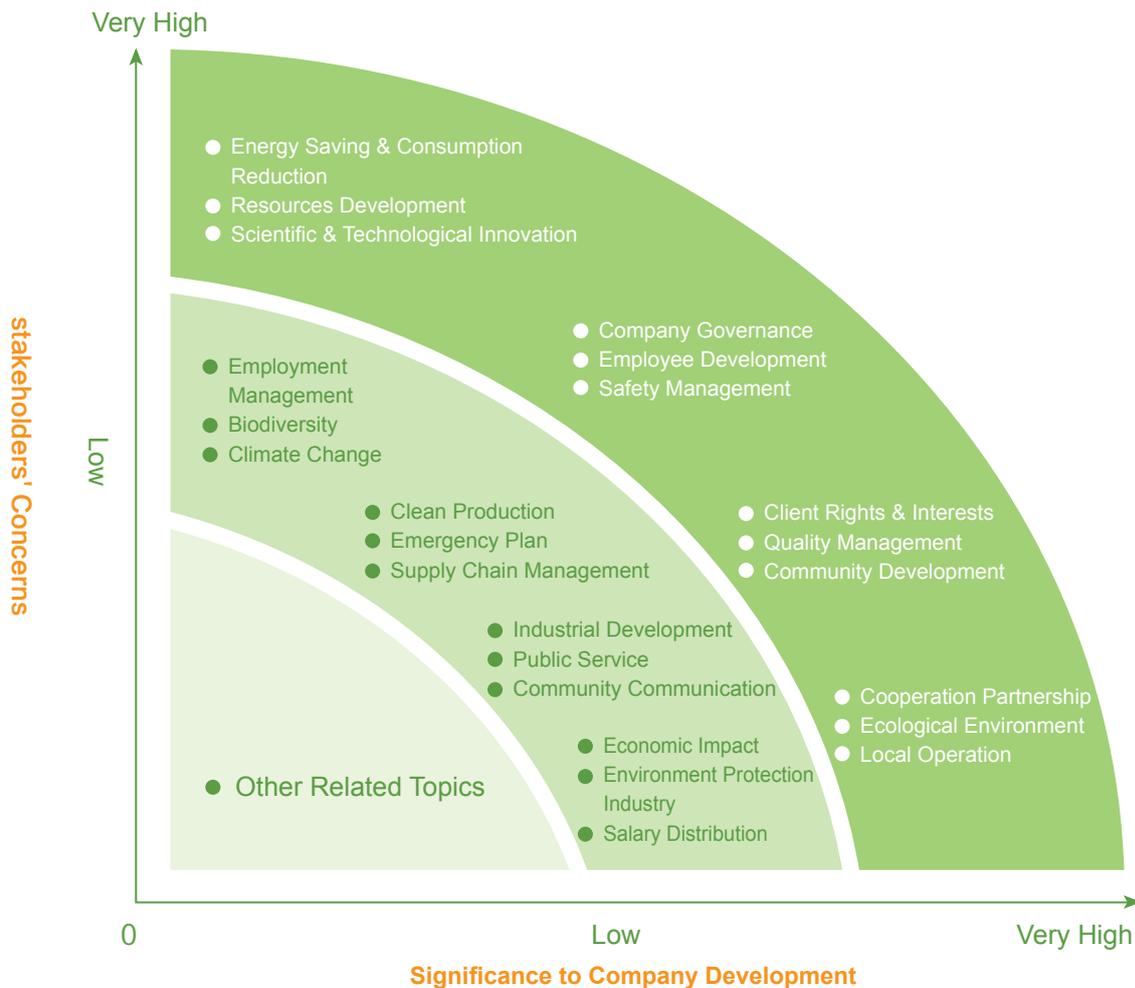


## Identification of Substantive Topics

This report, on the basis of China's macro policies, analysis of domestic and overseas social responsibility standards, corporate development strategy and planning, industrial benchmarking, interview with stakeholders and investigation and etc, identifies the following significant topics in 2014 for CNMC concerning its social responsibility.



The CNMC sustainable development matrix is formulated through analysis of the "extent of concerns of stakeholders" and the "significance concerning the Company's development".



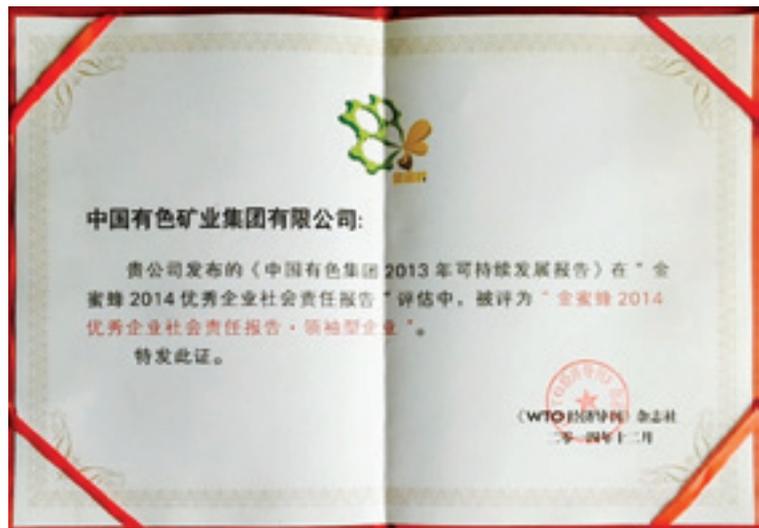
## Participation of Stakeholders

Identification of Stakeholders	Voices	Communication Channels and Response
<p>Government</p>	<ul style="list-style-type: none"> <li>Promoting sustainable and healthy development of economy</li> <li>Serving China's development objectives</li> <li>Paying tax by law, providing more jobs</li> <li>Training local professionals</li> </ul>	<ul style="list-style-type: none"> <li>Work report and communication</li> <li>Serving national macro strategy</li> <li>Driving development of related local industries</li> <li>Taking part in meeting and important activities</li> </ul>
<p>Regulatory body</p>	<ul style="list-style-type: none"> <li>To run businesses in compliance with laws and regulations, following fair competition</li> <li>Stable business operation</li> </ul>	<ul style="list-style-type: none"> <li>To strengthen management in compliance with laws and regulations, to run businesses honestly</li> <li>To improve the Company's governance</li> </ul>
<p>Shareholders</p>	<ul style="list-style-type: none"> <li>Steady profit making</li> <li>Integrated and Internationalized operation</li> <li>Aimed at becoming a world-class mining company</li> </ul>	<ul style="list-style-type: none"> <li>Steady operation and profitability raising</li> <li>To timely disclose related information</li> <li>To benchmark with leading enterprises to raise management capacity</li> <li>Continuous innovation</li> </ul>
<p>Client</p>	<ul style="list-style-type: none"> <li>High-quality low-price product and services</li> <li>Smooth communication channels</li> <li>Information Security</li> </ul>	<ul style="list-style-type: none"> <li>Client visit</li> <li>Demand / satisfaction investigation</li> <li>To protect clients' privacy</li> <li>Service hotline</li> </ul>
<p>Environment</p>	<ul style="list-style-type: none"> <li>Sustainable development of resources</li> <li>Energy saving and emission reduction</li> <li>Green mines</li> <li>Recycling and reutilization of wastes</li> </ul>	<ul style="list-style-type: none"> <li>Scientific mining</li> <li>Pollution prevention and management</li> <li>Land reclamation and protection of water resources</li> <li>Emergency plan</li> </ul>
<p>Employee</p>	<ul style="list-style-type: none"> <li>Perfect right &amp; interest safeguarding system</li> <li>Competitive salary system</li> <li>Benign career development path</li> <li>Comfortable working environment</li> </ul>	<ul style="list-style-type: none"> <li>Workers' congress</li> <li>Collection of opinions and complaints</li> <li>Complaint mailbox</li> <li>Employee demand and satisfaction investigations</li> </ul>
<p>Partners</p>	<ul style="list-style-type: none"> <li>Honesty &amp; reciprocity</li> <li>Cooperation &amp; win-win</li> </ul>	<ul style="list-style-type: none"> <li>Regular visit, exchange and interactions</li> <li>Publicized and transparent cooperation mechanism</li> <li>To carry out strategic cooperation</li> <li>To innovate cooperation patterns</li> </ul>
<p>Peer</p>	<ul style="list-style-type: none"> <li>Fair competition</li> <li>Protection of industrial development environment</li> </ul>	<ul style="list-style-type: none"> <li>Transparent business operation in compliance with laws and regulations</li> <li>To actively organize and take part in peer exchanges and activities</li> <li>To pay attention to and cooperate in formulation and amendment of matching industrial policies</li> <li>To continuously innovate products and services to provide reference for the industry</li> </ul>
<p>Community</p>	<ul style="list-style-type: none"> <li>Have community development in mind</li> <li>Promotion of employment</li> <li>Participation in social service</li> </ul>	<ul style="list-style-type: none"> <li>Joint construction with communities and public service activities</li> <li>To make monetary and material donation and participate in international disaster rescue efforts</li> </ul>
<p>Media</p>	<ul style="list-style-type: none"> <li>Publicized and transparent information</li> </ul>	<ul style="list-style-type: none"> <li>Company website</li> <li>Media interview</li> <li>Information disclosure</li> </ul>



## Responsibilities & Honors

In 2014, CNMC actively set up its image as a responsible enterprise and participated in many public appraisal activities on social responsibility. Because of that, honors such as "Golden Bee 2014 Excellent CSR Report • Leading Enterprise", "Five-Star Enterprise • CIC STARS", "CSR Index Top Five of Metal Industry", etc. were awarded to the Group Company. Meanwhile, the "Implementation of Environment Responsibilities in Overseas Operations 2013 · Promote Green Development" submitted to the Global Compact by the Strategy Study Office of the Group Company was awarded the honor of the "2013 Global Compact Environmental Protection Best Practices" and was chosen to be included in the *Global Compact Network China Yearbook*.



"Golden Bee 2014 Excellent CSR Report • Leading Enterprise" Certificate



"Five Star Enterprise • Chinese Industrial Corporations Sustainability Transition Assessment and Rating System (CIC STARS)" Certificate

# Sustainable Development Practices

## ▶▶ Steady Development & Cooperative Win-Win

Under the pressure of the sluggish macro environment featured by depressed global economy and flagging nonferrous metal prices, to carry out international operation requires bravery, courage and extraordinary wisdom. We have, based on our strategic development guideline of deepened reform, strengthened our management, raised quality and effectiveness, and promoted steady development of the three major businesses, which resulted in stable growth despite the adverse environment.



Luanshya Baluba Copper Mine Shaft

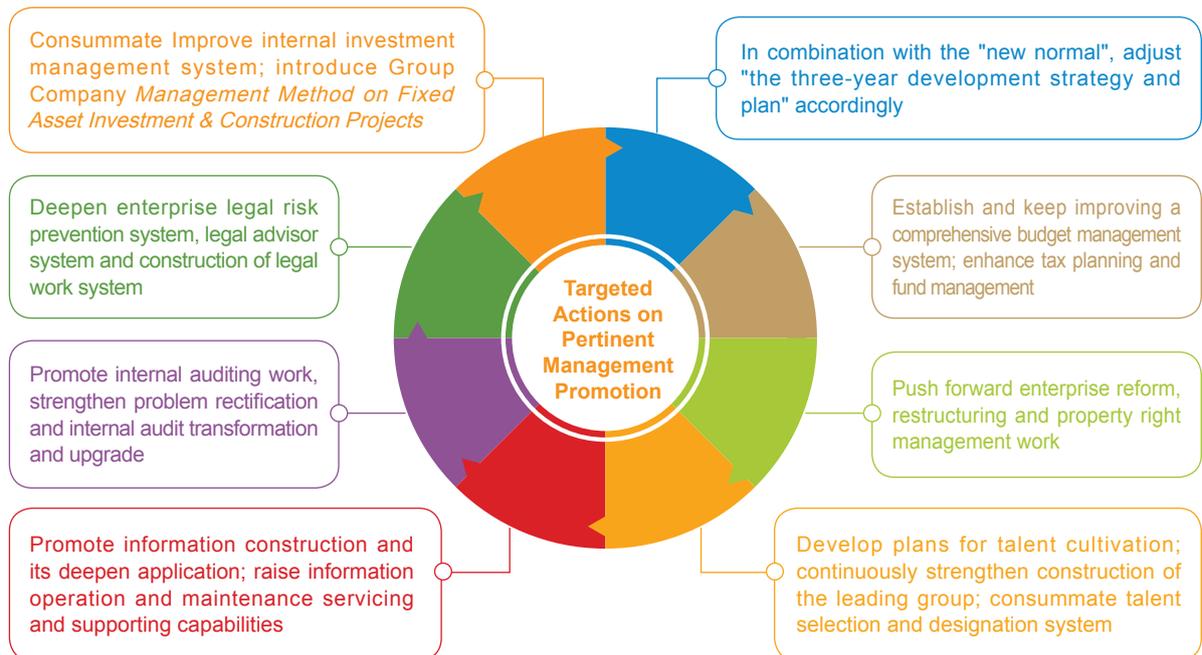


## Deepen Management Reform

Management is an important foundation for business development. CNMC-sponsored enterprises have focused their attentions on the central task of "two raise, one lower", i.e. "to raise production, raise benefits, and lower cost". Besides, it steadily promotes the construction of an elaborate management system, improves specialized management actions and continuously raises quality management levels to be the reliable backup for the development of the three major businesses of the Group Company.

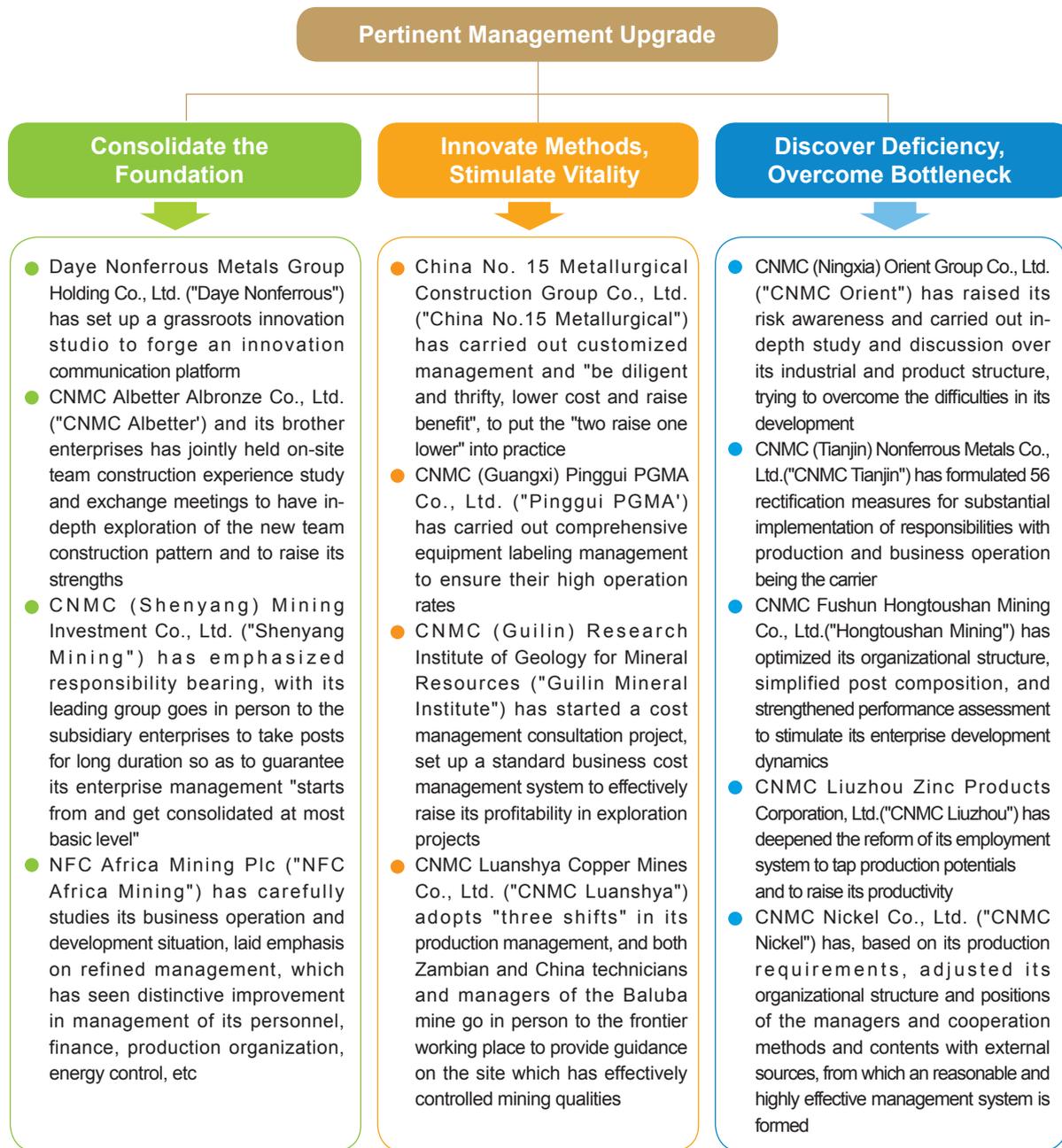
### Consolidate Management Foundation

CNMC has, with "to consolidate foundation, control risks, transform & upgrade, hedge and raise values, be stronger and better, develop scientifically" as its theme of development, carried out substantive and effective multiple works. It has further consolidated its development foundation through "promotion of pertinent management" and provided solid support to the sustainable development of the Group Company.



Targeted Actions on Pertinent Management Promotion of the Group Company





Train of thoughts to raise the pertinent management of sponsored enterprises

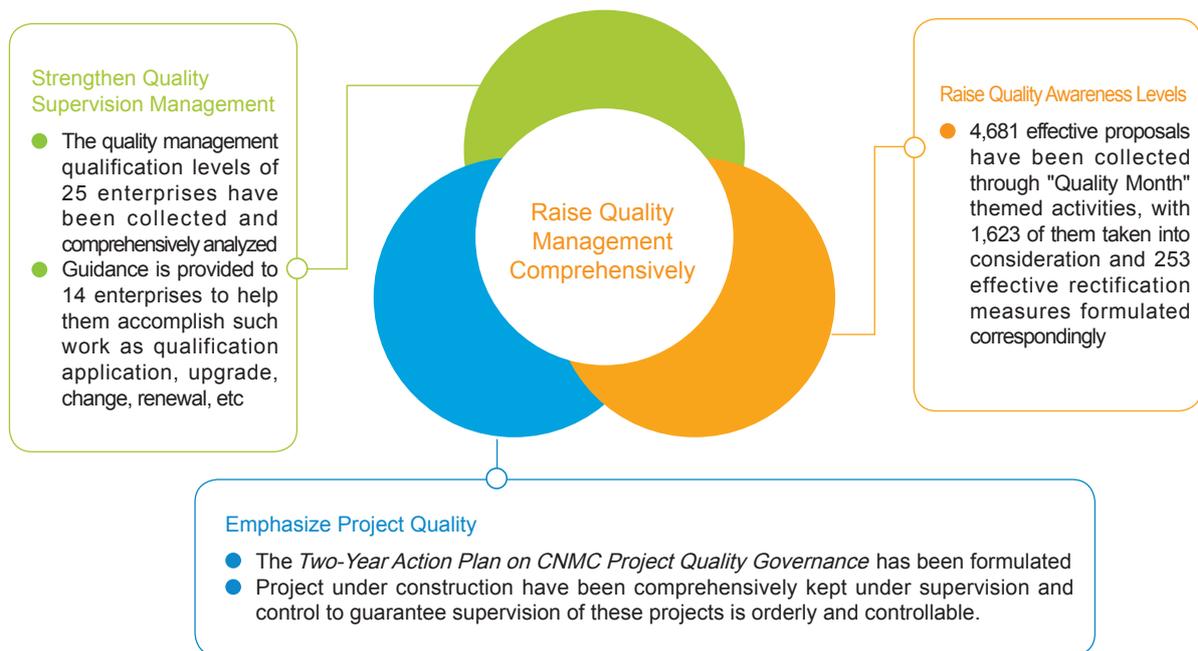


CNMC Albetter Workshop



## 📌 Raise Quality Management

CNMC attaches great importance to project quality management and carries out statistical analysis of basic information concerning quality management, brand, asset and significant projects. Improvements are made based on these analysis, which ensure further improvement of its quality management. In 2014, the qualification ratio of the Group Company's various engineering constructions reached 100% without a single quality accident during the whole year.



### Case | Group Company hosts exchange activities on promotion of quality management

In 2014, CNMC organized experience exchange activities on promoting processing enterprises' quality management, where 18 managers and experts in charge of quality management from the 7 CNMC sponsored processing enterprises attended the discussions. During the activities, relevant persons in charge from Daye Nonferrous, CNMC Orient, CNMC Albetter, CNMC Tianjin Special Materials Co., Ltd., CNMC Liuzhou, CNMC (Shenyang) Metallurgical Machinery Co., Ltd. and NFC Shenyang Pump Industry Co., Ltd. exchanged with each other their experiences in quality management. The person in charge from the Group Company commented on the quality management of the enterprises and encouraged further promotion of the quality management.



## Promote the development of Major Businesses

CNMC continues to expand and extend its three major businesses (i.e. nonferrous metal mineral resources development, construction engineering and related trade and services), accelerates its structural adjustment and transformation, enhances its major businesses profitability, strengthens its international development strategy and actively participates in the distribution and arrangement of global resources so as to make the Group Company bigger and stronger.

### Domestic

- In Hubei, deep mining of Daye Nonferrous Tonglvshan mine and Tongshankou mine
- In Xinjiang, Wuqiasareke copper mine construction project is completed and put into operation
- In Inner Mongolia, CNMC and the people's government of Chifeng City, Inner Mongolia have jointly established the Chifeng CNMC Lead & Zinc Mining Co., Ltd. to operate the Chifeng Baiyin Nuocer lead zinc mine; Shenyang Mining and Dajingzi Mining are operating a 600-ton mining and dressing project. Its 300-ton continuous feeding capability is already realized, with the feeding quality of copper being 0.4% and of zinc being 3%
- In Liaoning, Hongtoushan Mine is the largest copper mine in northeast China
- In Guangxi, Pinggui PGMA is called "cradle of Guangxi Industry"
- In Guangdong, The Zhujiang Rare Earth Co., Ltd. (previously Guangzhou Zhujiang Smelter, called "Zhujiang Rare Earth" in short) is of a forty years' history, and the "Zhujiang" rare earth is one of best known brands in both domestic and overseas rare earth market



## Optimize Overall Resources Arrangement

CNMC has given full play to its "going global" advantage in deepening its internationalized operation, exploiting two markets, overall planning of two resources and optimizing its global resources development layout. In 2014, production enterprises of the Group Company have raised their production efficiencies in domestic and overseas markets with scientific resources development and management strategies, therefore realizing benefit increment.



By the end of 2014, CNMC has in its possession:

Mine	27
Smeltery	14
Large Process Base	4
Overseas Trade & Economic Cooperation Zone	1

The accumulated production of nonferrous metals has reached 1.6383 million tons, with a 5.55% year-to-year growth.

### Overseas

- **In Zambia**, CNMC has accumulatively invested more than 2.6 billion US dollars into the whole industrial chain concerning prospecting, mining, dressing and smelting. The Zambia Chambishi Copper Mine and the Chambishi Copper Smeltery are the largest copper mine and copper smeltery invested by China overseas. The Zambia-China Economic & Trade Cooperation Zone is the first overseas trade and economic cooperation zone in Africa set up by China, and is also the first multi-functional economic zone in Zambia, thusly is honored as "Model of China-Africa Cooperation"
- **In Myanmar**, CNMC Nickel Co., Ltd. participated in the Myanmar mining industry transparent action plan symposium organized by the Myanmar Ministry of Mines, and was elected as the only foreign invested enterprise member of the MSG (Note: MSG is a committee jointly founded by the Myanmar government, enterprises and social groups.)
- **In Mongolia**, TSAIRT MINERAL Co., Ltd. saw significant mine prospecting achievements there, with the newly found zinc reserve at 310 thousand tons; it has concluded a strategic cooperation framework agreement with the Mongolia Adamas Mining LLC and Ken Bo Jin Sha Mining Corporation
- **In Laos**, CNMC has newly reached contracts of 3 large geological mine exploration projects and already put into operation
- **In Tajikistan**, The Parkut gold mine construction invested by China Nonferrous Gold Limited (CNG) has already been put into construction
- **In Canada**, China Nonferrous Metals (Guilin) Geology and Mining Co., Ltd. has smoothly accomplished the merger and acquisition of the Canada Azul resources corporation, which has formally changed its name to Austin Resources Co., Ltd. This has filled in the blank before that CNMC previously do not have a listed company in America
- **In Algeria**, The Tala Hamza lead and zinc mine project has already in its orderly progress
- **In Russia**, The Ozernoye lead & zinc mine engineering contracting project is in its orderly progress



## Expand Construction Engineering Projects

Construction engineering is one of the Group Company's major businesses, and an important advantage of the Group Company in market competitions. The year 2014 witnessed an active expansion of the overseas markets by the engineering enterprises of the Group Company, evidenced by leaping of both amount of newly concluded contracts and their profitability. 16 projects undertaken by the China No.15 Metallurgical, CNMC Shenyang Nonferrous Metallurgy E&R Institute, Ltd. (CNMC Shenyang Institute), China Nerin Engineering Co., Ltd. (NERIN), Daye Nonferrous and etc. have been granted such honors as high-quality projects at national and provincial level, excellent design awards and excellent supervision awards.

In 2014, its construction engineering businesses totaled an accumulative 26.821 billion Yuan of newly concluded contracts value, 9.26% higher than that of the previous year.

● NFC actively explores new construction contracting markets. Devoted to preserve potential projects, it focuses on the countries along the "One Belt, One Road" and in Africa. The newly concluded contracts of 0.53 billion US dollars including the Kazakhstan Aktogay copper concentrator and other important projects consolidates its position in the international market. The value of newly concluded contract during the whole year reaches 14.674 billion Yuan, 22.13% higher than that of the previous year.

● China No.15 Metallurgical has, with its "iron army" spirit, set its attention on the integral planning of both domestic and overseas markets and actively handling of market transformation pressures. By making the best of the situations it has shifted its marketing emphasis to major customers, civil construction projects and overseas projects. Its yearly new contracts has reached 1.2 billion Yuan, with three of its projects honored as National High-Quality Projects, and 11 ministry-level awards of the nonferrous metal industry, as well as the honor of the "China Top 100 Competitive Construction Enterprise" for 4 consecutive years.



Key Engineering Project Contracted by CNMC



## 📌 Promote Trade and Services

The Group Company's trade and related service enterprises continuously enhance their brand images, improve distribution networks and strengthens the capacity of providing services and support and etc., which provides significant support to the marketing, purchasing, customs clearance and logistics of the Company's projects abroad.

### CNMC International Trade Co., Ltd. (CNMC Int'l Trade)

CNMC Int'l Trade is set to forge a core trade and service platform for the Group Company. Besides continuously expanding its domestic and overseas markets, it is also determined to strengthen the capabilities to support its trading services. The in-depth implementation of its "four-wheel drive" business operation strategy improves its self-controlled distribution network. Besides, it has further consolidated the markets in central and south Africa, adjusted markets in America, Europe and southeast Asia, successfully opened up energy and chemical industry business channels and realized breakthroughs in many aspects such as brand influence, electronic commerce, etc. These all have made great contributions to the Group Company's its comprehensive strength and industrial influence. The whole years saw a business revenue of 36.5 billion Yuan, continuous holding of "China's Top 500 Foreign Trading Enterprises".

### CNMC (Tianjin) Huabei Branch

The Company is active in its development of major clients and terminal clients. By innovating its trading and operating patterns, its nickel distribution is further expanded, which helps formulate its new profit increment points. At the same time, by accelerating its business capital turnover and concluding free commission charge agreements with the banks and etc., it has effectively lowered its financial costs and raised economic benefits.

### Daye Nonferrous Investment & Trade Co., Ltd.

By innovating its trading patterns, it carries out agent services concerning domestic and overseas imports and exports, entrepot trade, overseas precious metal trading and etc. and strengthens the integration of trade and finance, strenuously develops businesses, such as domestic and overseas trade equity trading, trade financing, exchange rate and interest related products, etc., which have shown remarkable performances.



## Case | CNMC International Trade launched electronic businesses

By fully relying on the Group Company's influences, CNMC Int'l Trade has given play to its brand effects, and launched its electronic business services for the first time. In July 2014, aiming to alleviate the enterprises' marketing cost, lower client purchasing risks and promote new trade patterns, the CNMC Int'l Trade formally opened its Internet franchise shop on the Antech metal pricing net, focusing on nonferrous metal products and mineral products, such as aluminum, lead, zinc, etc.. The formal online operation of this shop not only stimulates upgrade of traditional industrial chains, but also symbolizes CNMC Int'l Trade's first step in expanding the electronic markets.

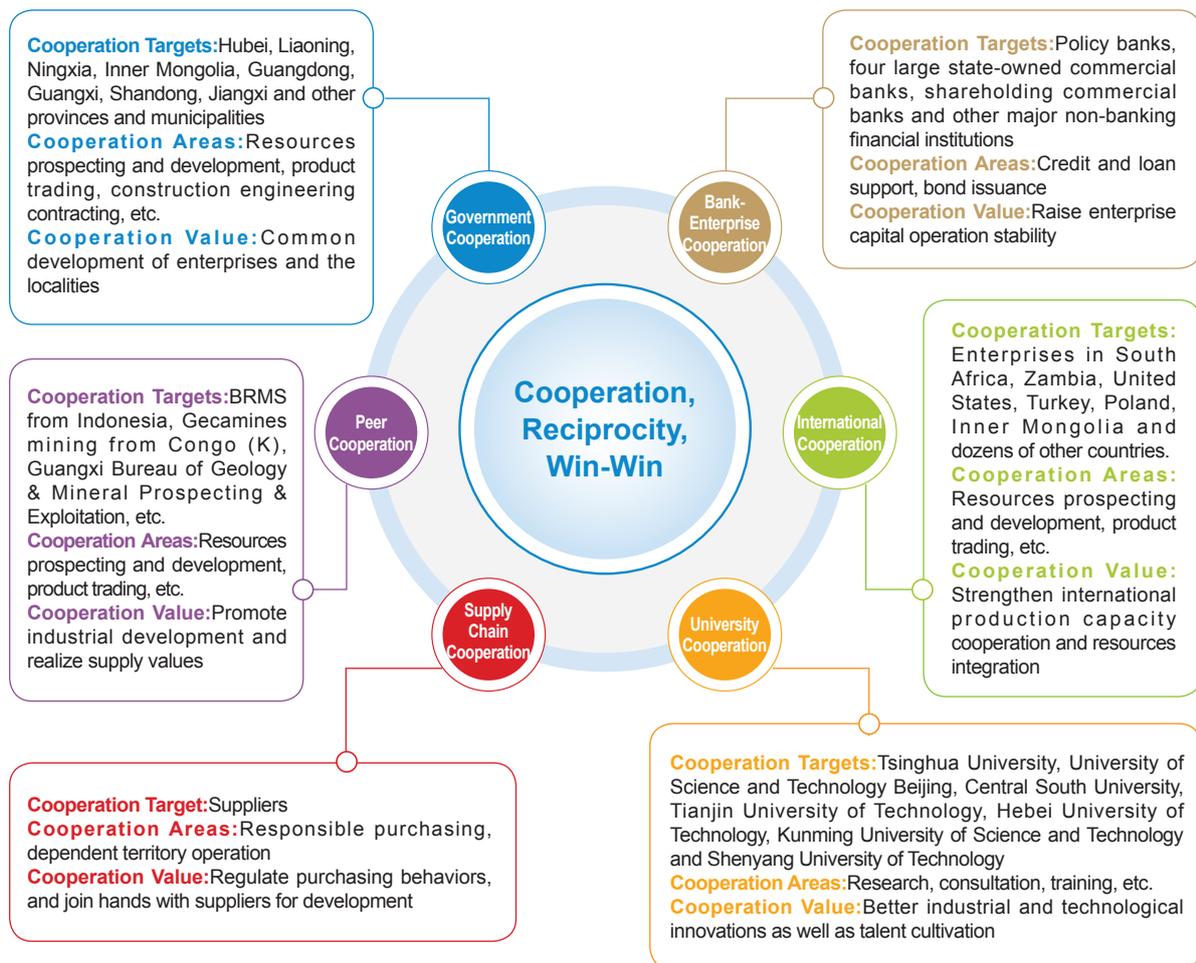


Formal Online Inauguration Ceremony of CNMC International Trade on Antech metal quotation net



## Join Hands with Partners

CNMC is devoted to strengthening its communication with stakeholders. By centering its development on the company's own businesses, it has established mutually reciprocal win-win cooperative relationship with stakeholders, such as governments at various levels, banks, peer enterprises, etc., Through utilizing its own core advantages such as its own resources, technologies, talents, etc., it realizes common development with its partners.



### Case | CNMC Nickel drives development of local suppliers in Myanmar

CNMC Nickel needs about 300,000 tons of coal every year for its nickel and iron production, and purchases most of it in Myanmar, though Myanmar lacks high quality coal as well as convenient transportation. Through coordination with the Myanmar Ministry of Mine, communication with local coal supplies and enlarging purchases of local coal, CNMC Nickel purchased about 80 thousand tons of coal every year, amounting to about 9.6 million US dollars, which effectively drives the development of local coal mining industry and its technological levels. Meanwhile, most of the living commodities, office materials, and spare parts and components purchased by the company are from the local, which amounts to about 12 million US dollars every year and drives the development of local medium-sized and small enterprises, and this realizes mutual dependence, mutual reciprocity and common development.

# Sustainable Development Practices

## ▶▶ Innovate Technologies & Pursue Excellence

Innovation is our undying force for development and raising innovative capabilities is the key for us to integrate business resources and to raise our comprehensive strength. We highlight and closely follow world technological development trend, take every opportunity to promote autonomous innovation, and implement the innovation-driven-development. In this way, we are to build a learning and innovative enterprise that combines technological innovation with national demands and market demands, and continuously raise core competitiveness of the enterprise.



Shenyang Research Institute is hosting international academic exchanges



## Innovation-Driven Strategy

In 2014, the Group Company released its *Scientific and Technological Program Application Guidelines and National R&D Platform Policy Guidelines*, to overall arrange key projects in its scientific and technological planning. Meanwhile, it continues to push forward the "Five Major Projects" development strategy of its S&T innovation. It has also strengthened the stimulation, cultivation and transformation of S&T achievements, and enhanced its industry-university-research cooperation management and S&T examinations.

We have, with autonomous innovation capability construction as the center, technological innovation system construction as the foundation and institutional and systematic innovation as the guarantee, made great efforts to carry out the innovation capability cultivation projects, R&D platform construction projects, significant technology brainstorming projects, institutional and systematic innovation projects and economic benefit raising projects. We are trying our best to march towards the goal of "playing a supporting and leading role in the progress to become a world first-class mining group, a pillar role in the S&T development of the nonferrous metal industry, and an important role in the construction of an innovative country".



Sci & Tech Innovation Five Major Projects

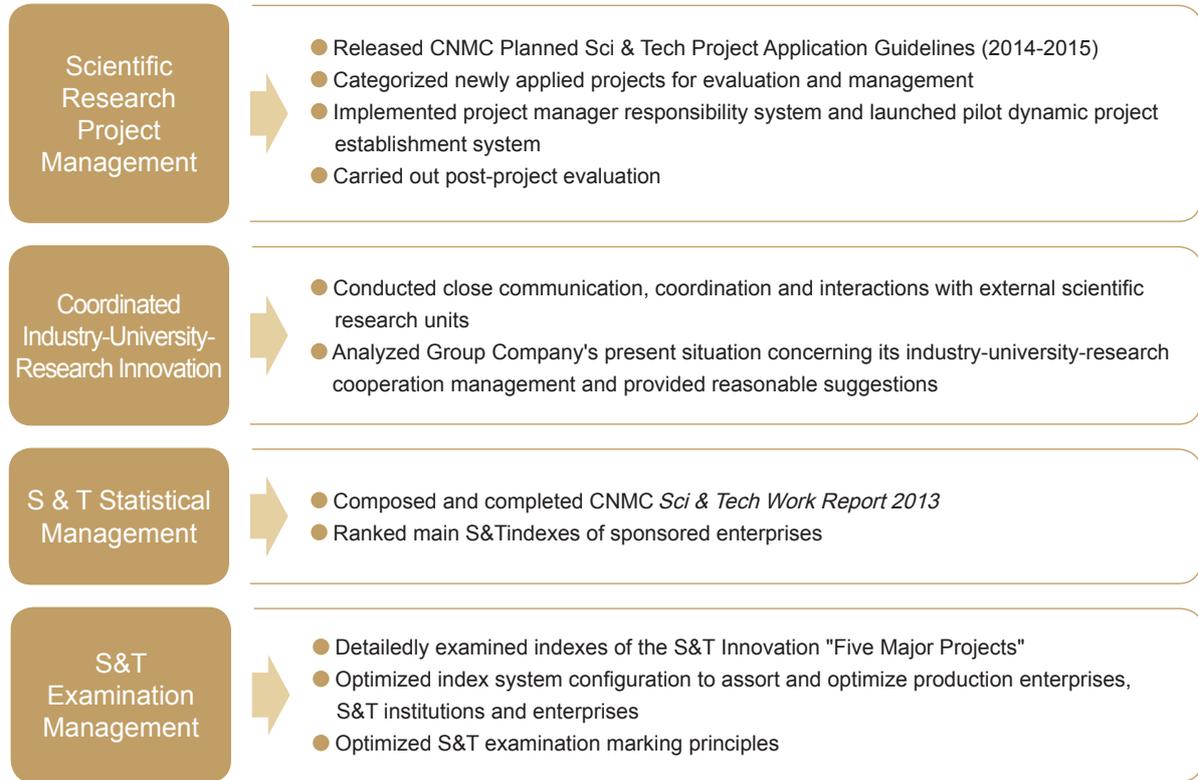
## Improve Innovation System

To realize sustainable development, CNMC continuously improves its S&T innovation system. It aims at cultivating innovative talents through upgrading its innovation management and building an innovation platform, which is conducive to its sustainable development.



## Upgrade Innovation Management

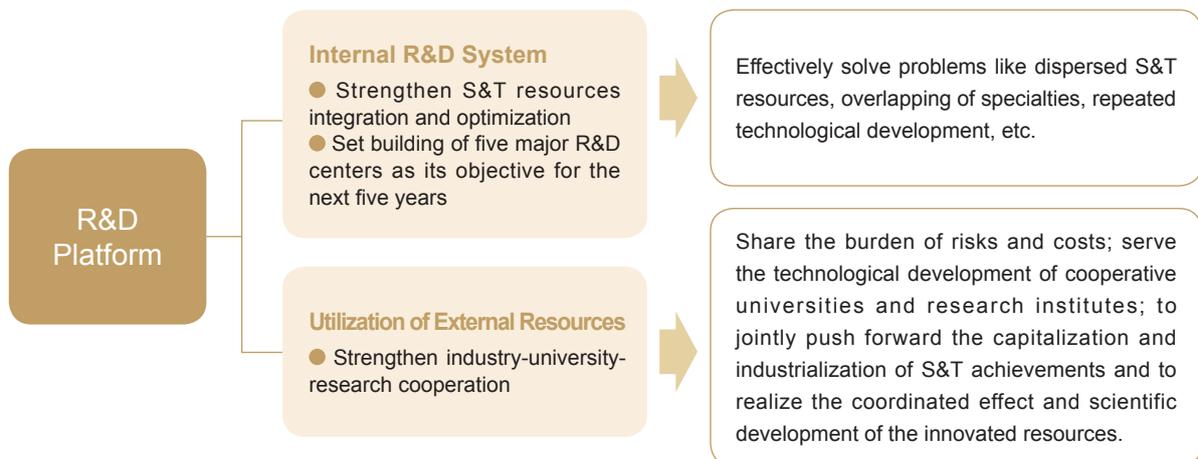
In 2014, the Group Company strengthened the construction of its S&T innovation system, upgraded its innovation management levels and improved its innovation management systems so as to provide more comprehensive innovation management support to the Group Company and various sponsored enterprises.



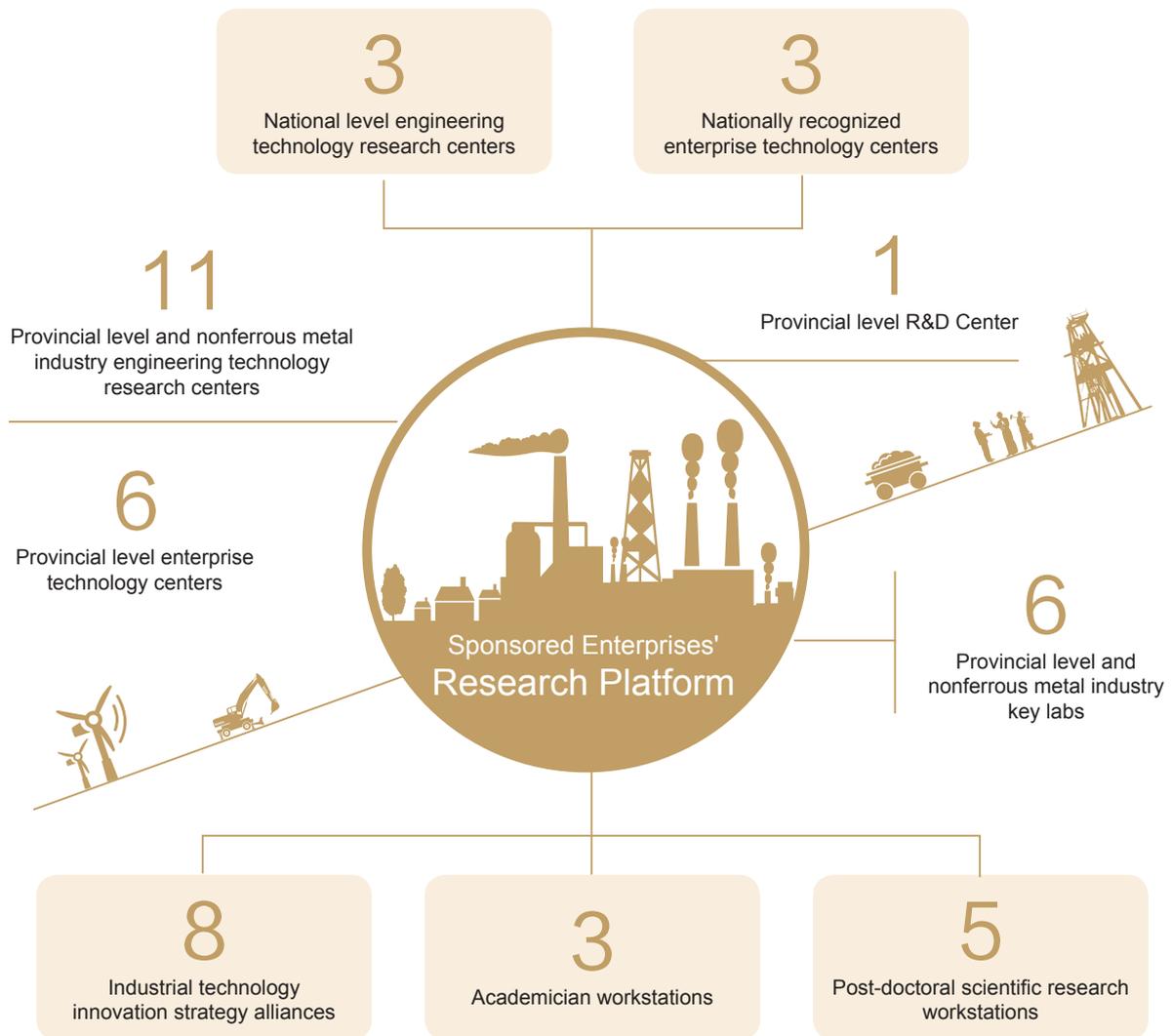
CNMC Innovation Management System

## Build Innovation Platform

Centering on the Group Company's core businesses, CNMC has forged its S&T innovation platform to support its S&T innovation development. Besides, it has composed and issued the *National R&D Platform Policy Guidelines*, to guide sponsored enterprises to build and upgrade their own R&D platforms.



CNMC R&D Platform



**Case | CNMC African Mining Industry-University-Research Innovation Research Project**

CNMC Africa Mining has, centering on the *Chambishi Mine Paste Back-Fill Key Technology & Process Research Project*, joined hand in research with Beijing University of Science and Technology and relevant equipment manufacturers to build a mine paste back-fill lab. The lab has produced qualified paste. On such basis, they completed the debugging of the west mine paste back-fill system, optimized the back-fill processes, and then realized the smooth back-fill into the underground mining areas. The research has successfully overcome technological difficulties such as mine blasting, fast construction of paste back-fill sealing barricade, mining area back-fill roof enclosing, etc. Moreover, it has realized the two-step recovery of the west mine large thick mining areas, with the recovery ratio rising from 55% to higher than 75%, a tremendous leap for recovery of resources. By the end of December 2015, accumulatively about 104,000m<sup>3</sup> of mine paste would have been filled back, with a single round of continuous back-fill reaching 2,000m<sup>3</sup>/30h, provided that the system has reached an internationally advanced level.



### 📌 Cultivation of Innovative Talents

CNMC emphasizes the "ten, hundred, thousand" S&T talent cultivation project to improve its talent choosing, evaluating and stimulating system. Through the cultivation of experts, leading persons and pillars needed in key technological domains, S&T project and key technology posts, it has gradually forged an innovative talent group featured clear ranking, reasonable structure, high quality and competence.



CNMC "3-Step Study" Strategy

CNMC has 7 research institutions, 3 national-level innovative enterprises, 10 national high-tech enterprises, 2 National Torch Plan key new tech enterprises, 2 national technological innovation demonstration enterprises, 2 academicians, 10 candidates for the national-level thousand-talent plan and hundred-thousand-ten thousand talent project and 130 experts enjoying State Council's government special allowances. They all have gathered great momentum for the development of the Company.



- 1 Having recommended an expert to the International Science Exchange of China, who has been awarded "Outstanding Engineer Encouragement Prize"
- 2 Having recommended 2 experts to the Nonferrous Metals Society of China, who have been awarded the "National Excellent Young Nonferrous Metal Scientist" prizes

**1 Expert**  
An expert was recommended to the China Association for Science and Technology and was awarded the "National Excellent Scientist" prize

**1 Expert**  
An expert was recommended to the State Administration of Science Technology and Industry for National Defense and registered in the "National Defense Science and Technology Industry "Thirteenth Five-Year Plan" Composing Expert"

**2 Expert**  
2 experts were recommended to the State Intellectual Property Office and registered as "Panel Judges of WIPO-SIPO Award for Chinese Outstanding Patented Inventions"

**4 Candidates**  
4 candidates were recommended to the heavy metal, rare metal, material processing and other specialized committee and the Chinese Materials Research Society as committee (council) member candidates



## Case | Innovation workshops of Daye Nonferrous Smelter

Daye Nonferrous Smelter sets up three innovation workshops focusing on smelting, maintenance and instrument control in early 2012. They are the employee innovation demonstration workshops of the Group Company now. In order to promote cultivation of innovative talents, the Smelter formulated the Employee Innovation Workshop Operation Rules, giving full play to the 1st and 2nd class engineers in the form of supervisor mentoring apprentices. It actively carries out relevant activities to pass on experiences and knowledge, as well as help solving problems. It has strengthened S&T exchanges, formulated training plans and repeatedly organized peer industry exchanges for the employees. It has also implemented a research topic and project bid invitation contracting system, which has successfully cultivated a number of specialists in metallurgy, machinery, electrical apparatus, instruments, etc. The employee innovation workshops have already become a well-known brand for employees of the Smelter to pursue technological innovations, the incubator of their achievements and gas station to raise employee technological qualities.

### The innovation workshops have seen remarkable achievements since its foundation.

- Altogether 82 persons have published a total of 56 theses on such journals as the *Sulphuric Acid Industry*, the *Metallurgical Equipment*, the *Chinese Journal of Nonferrous Metals*, etc. at various levels;
- They have also participated in the drafting of the *National Standards on Copper Smelting Energy Consumption and on Copper Matte*, and are in charge of the composition of the *Heavy Metal Smelting Production Technology and Management Manual* (Copper) Part Electric Furnace and Part Rotatory Furnace, which is highly recognized in the industry;
- 15 achievements such as "One Solution to Coking of Ausmelt Furnace Uptake Flue", "One Acid Device for Concentrated Sulfuric Acid Train", "One Non-standard Copper Sorting Device in Copper Electrolysis Refinery", etc. have won national patent authorization;
- The copper smelting energy saving and emission reduction project has won the National High Quality Project prize.



## Case | CNMC launches S&T forums

With the continuous expansion of CNMC and the increase of new businesses and new products, employees have to equip themselves with corresponding new theories and knowledge. The Company launched the "S&T Forum" related activities in 2014 aiming at helping employees understand the industrial knowledge and various sponsored enterprises systematically and comprehensively. It requires the learning competence of employees, to jointly build learning departments and enterprises. In order to raise pertinence and fitness of the forums, internal experts of various domains deliver lectures during the series of "S&T Forum" activities. In 2014, the forum was divided into 5 topics of geology, mining, mineral dressing, smelting and materials. 5 lectures were held with the formats of main sessions and video sessions, in which more than 1,500 persons have taken part.

## Outstanding Innovation Achievements

In 2014, 17 scientific achievements of the Group Company won the "2014 China Nonferrous Metal Industry Science and Technology Prize", of which the number of first prizes ranked the top in the whole industry. The Group Company has presided over the formulation of 10 international, national and industrial standards ("Standards" in short), and taken part in the formulation of 7 Standards. By the end of 2014, the Group Company had accumulatively presided over the formulation of 163 Standards, participated in the formulation of 186 and possessed 1,212 effective patents, 267 of them being invention patents. These achievements have fully demonstrated the Group Company's scientific and technological strength as well as its innovative style, and have won extensive praises among the industry, enterprises and experts.



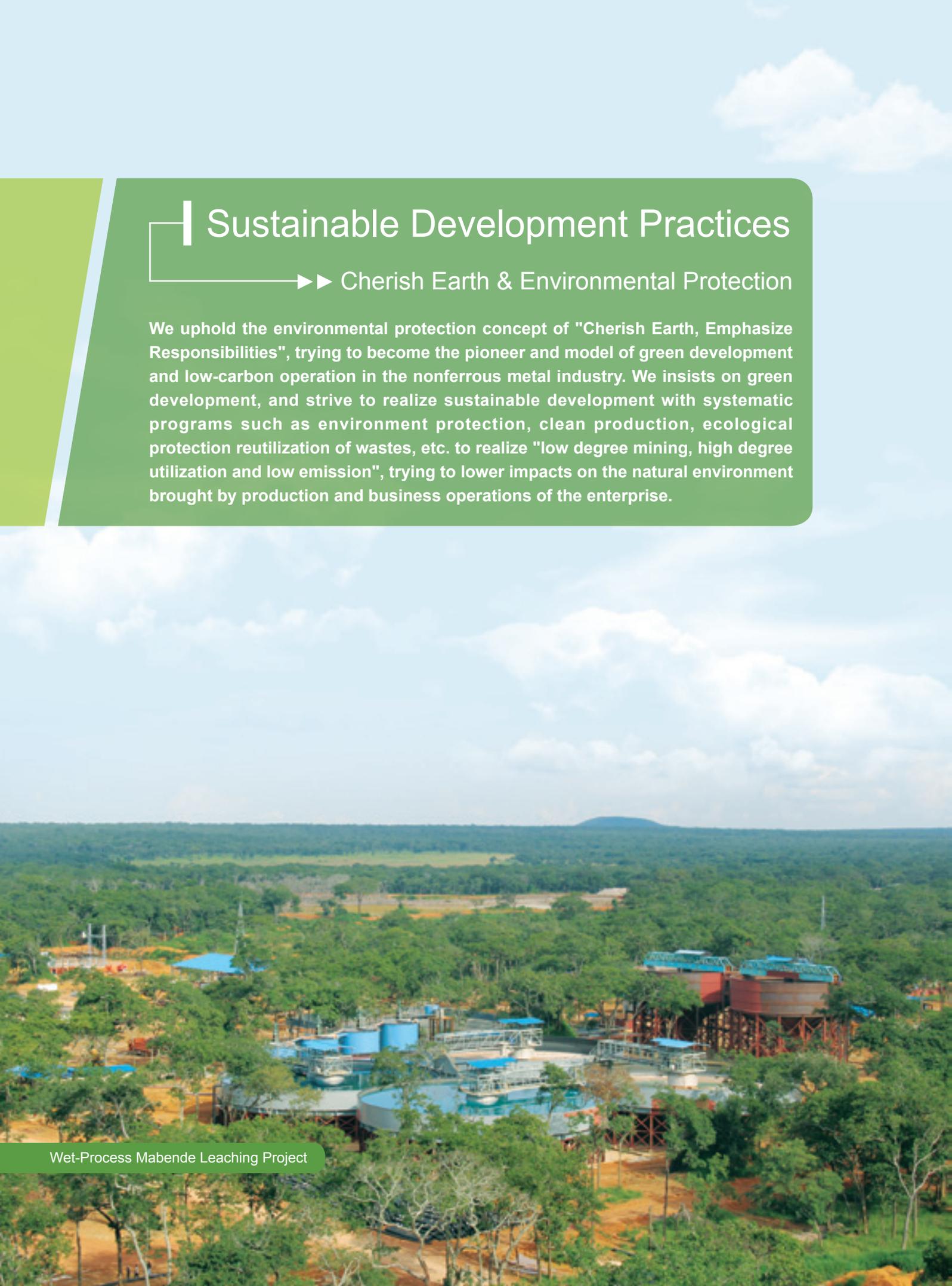
	Prize	Achievement Name	Winning Enterprise
Sci & Tech Awards of China Nonferrous Metal Industry	First Prize of S & T Award of China Nonferrous Metal Industry	Geological Prospecting, Survey and Application of	Group Company, CNMC
		Daye Nonferrous Metals Ausmelt Smelting System	Daye Nonferrous Metals
		Technological Research Concerning the Difficult	CNMC Luanshya
		Processes and Equipment on Smelting of Scrap	NERIN
		Ultra Large Scale Integrated Circuit 300mm Wafer Process	CNMC Orient
		Copper Electrolysis Permanent Cathode Stripping Machine	Jiangxi Nerin Equipment Co.,Ltd.
	Second Prize of S & T Award of China Nonferrous Metal Industry	China National Standard: Methods for Chemical Analysis	Daye Nonferrous Metals
		Vacuum Hot-Pressed Beryllium Material	Northwest Rare Metal Materials Research
		Research, Development and Industrialization of High Precision Red Copper Belt	CNMC Albetter
		Complete Analysis and Testing Technologies of Laterite Nickel Ore Ferronickel Smelting Process and Its Application	Shenyang Research Institute of Nonferrous Metals
		Comprehensive Copper & Silver Recovery	Shenyang Institute
		Code for Design of Underground Opening of Non-ferrous Metals Mine	NERIN
	Third Prize of S & T Award of China Nonferrous Metal Industry	CNMC Full Business Operation Flow Budget	Group Company
		Study and Formulation of <i>Nonferrous Metal Concentrate Products—Packing</i>	Daye Nonferrous Metals
		Zinc Hydrometallurgy - Green Smelting Technology to Recover	CNMC Zinc
		Research and Application of Zero Waste Water Discharge	Hongtoushan Mining
		Development of High Performance Diamond Circular Saw Blade	China Nonferrous Metals (Guilin) Geology And Mining Co., Ltd. (National)
		Method to Produce Iron Oxide Red Pigment with Calcium Salt as Neutralizer	Pinggui PGMA
Provincial Level Sci & Tech Awards	First Prize of Hubei Province Science and	Integrated Innovation and Application of Ausmelt	Daye Nonferrous
	First Prize of Anhui Province Science and Technology Progress Award	Key Technology on High Efficiency Green Acid Production with High Sulfuric Content Smelting	NERIN
	Second Prize of Jiangxi Province Science and Technology Progress Award	Development of Significant Packaged Smart Equipment on Copper Electrolysis with	NERIN, Jiangxi Nerin Equipment Co., Ltd.
	Third Prize of Jiangxi Province Science and Technology Progress Award	Integration Process Technologies of Clean High-Efficiency Energy-Saving Ausmelt Nickel Furnace	NERIN
	Third Prize of Shandong Province Science and Technology Progress Award	New Industrialized Production Technologies of $\Phi 5$ Series High Precision Seamless Internal	CNMC Albetter
	Third Prize of Guangxi Autonomous Region Science and Technology Progress Award	Research on Key Multi-object Modeling Techniques of Complex Vein Orebody	China Nonferrous Metals (Guilin) Geology And Mining Co., Ltd.

# Sustainable Development Practices

## ▶▶ Cherish Earth & Environmental Protection

We uphold the environmental protection concept of "Cherish Earth, Emphasize Responsibilities", trying to become the pioneer and model of green development and low-carbon operation in the nonferrous metal industry. We insist on green development, and strive to realize sustainable development with systematic programs such as environment protection, clean production, ecological protection reutilization of wastes, etc. to realize "low degree mining, high degree utilization and low emission", trying to lower impacts on the natural environment brought by production and business operations of the enterprise.

Wet-Process Mabende Leaching Project

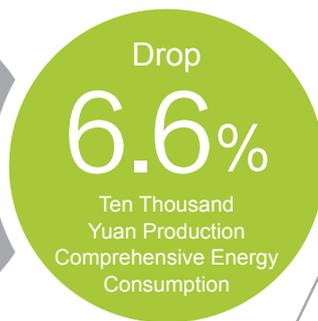




## Strict Environment Management

CNMC lays great emphasis on the implementation of environment protection responsibilities. It has formulated strict environmental supervision regulations, strengthened environment management and expanded its energy saving and emission reduction assessment scope to cover enterprises abroad. Besides, indexes of unit product energy consumption are increased, so that the assessment is more scientific and reasonable. Based on the environment management experiences of 27 central enterprises, it has assorted its management risks to raise its energy saving and environment protection supervision levels. It has, in accordance with the Environmental Protection Law, strictly controlled its environmental risks, carried out environmental risk examination against environmental assessment replies, pollution discharge permissions, pollution prevention, emergency management and other prominent problems to avoid possible environmental risks. It has also further improved its environment emergency response mechanism, formulated the *Contingency Plan in Response to Emergent Environmental Incidents*, for effectively control and proper handle of those emergent environmental incidents.

The Group Company has organized and carried out activities such as "Energy Saving Publicity Week", "World Low Carbon Day", new environmental protection law publicity and implementation gatherings, etc. Moreover, it has conducted in-depth interpretation of new concepts, measures and impacts on the nonferrous metal industry of the environmental protection law, and put into practice related requirements of the law.



In 2014, the comprehensive energy consumption for every ten thousand Yuan production of the Group Company was 0.26 standard coals, 6.6% lower than that of the previous year. Its sulfur dioxide emission was 21,200 tons, 1.8% lower than the previous year. Besides, it realizes the phase iv energy saving and consumption reduction objectives released by the State-owned Assets Supervision and Administration Commission of the State Council one year in advance.



A Corner of Zambia Chambishi Smelter (CCS)

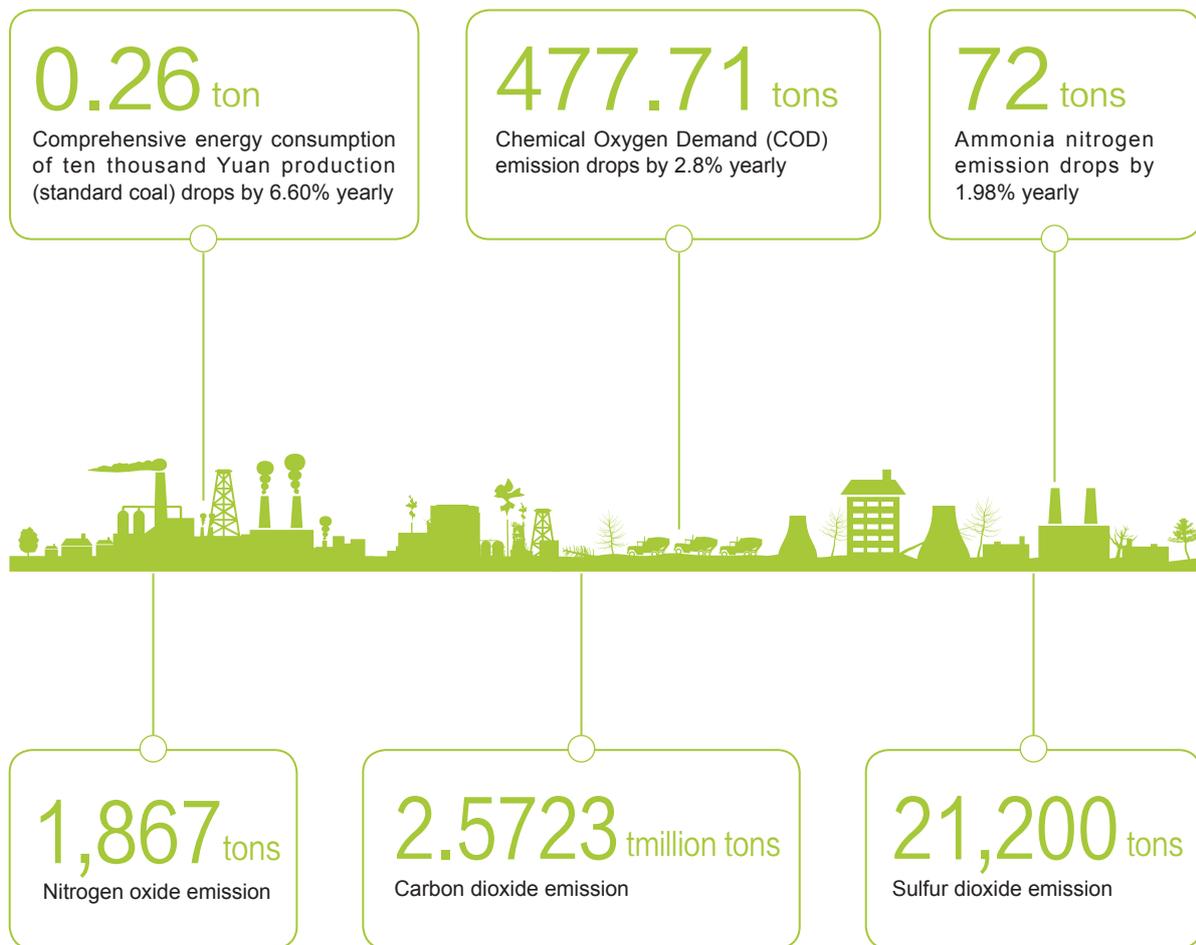


## Promotion of Clean Production

We have comprehensively carried out requirements of the state for energy conservation, emission reduction and prevention of pollutants, preserved resources and reduced emission of "three wastes" through technological innovation, process improvement and other means.

## Energy Conservation & Consumption Reduction

The Company has guided its enterprises to actively carry out technological and equipment innovations, continuously lower their energy costs, as well as improve the energy management system construction of Daye Nonferrous Metals, CNMC Orient, CNMC Albetter and etc., so as to raise their capacities of energy management. 10 enterprises of the Group Company participated into the national "Ten Thousand Enterprise Energy Conservation & Low Carbon" initiative and have all met the energy saving targets. CNMC Pump's "Large Reciprocal Ore Pulp Diaphragm Pump" has won the advanced and useful energy saving equipment prize awarded by the China Industrial Energy Conservation and Clean Production Association and its diaphragm pump was evaluated as the 2014 International Energy Conserving & Environment Protective Advanced Technology / Equipment.



2014 Group Company Environmental Protection Performances



## Case | Fubang Copper sees remarkable achievement in its transformation of electro-thermal fore hearth

Fubang Copper sponsored by Shenyang Mining conducted a comprehensive technological transformation of the electro-thermal fore hearth in September 2014. After that, the electrical furnace was removed, which simplifies the process flow and increases capacity of side blown converter hearth and siphonic well. With copper matte stored in the side blown converter, it satisfies periodic working requirements of the converter while reducing heat losses. Furnace clinkers and copper matte are released in turn and clinker ladles are changed via the middle inverting chute without oxygen consumption, which lowers the labor intensity. A smoke hood is installed at the discharge outlet of liquid copper and furnace clinkers, which effectively avoids smoke outflow and improves the work environment. After transportation, it is suitable for high iron low silicon production, with substantial reduction of per ton copper power consumption, fireproofing materials consumption, diesel consumption, electrode consumption, oxygen blow amount, etc., which, based on initial estimate, is expected to lower a yearly cost by more than 6 million Yuan.

### ▶ Prevention and Control of Pollutant

The Company has further specified its control over the enterprises' present pollution, strengthened the processing capacity of "three wastes", carried out pollution source investigations against 9 key industrial enterprises with 145 pollution sources examined, and increased its supervision over key pollution sources.

In 2014, CNMC Zinc managed to reduce discharge of sulfur dioxide by improving addition method of desulfurizer. Meanwhile, electric dusting collecting boiler is also reasonably used to realize rapid de-dusting and pollution reduction. In the same year, it was honored as an enterprise with outstanding contributions to China on reducing pollutant discharge into the atmosphere.



Distant View of CNMC Africa Mining Dressing Plant



## Case | Dajingzi Stannum cuts off pollution source from designing

Chifeng Dajingzi Stannum Co., Ltd. has attached great importance to the prevention and control of pollutants from the designing stage in its fine stannum metallurgical project with 10,000 tons annual productivity. It has selected mature processes, where hot state stannyl and other stannum containing materials as well as furnace clinkers are taken directly to the next step, thusly reducing power consumption and fuel consumption. The heat recovery boiler recovers residual heat of the smoke to raise heat utilization. Heat preservation of industry kiln, heat recovery boiler and heat-supply pipeline network system have been enhanced and effective control measures have been taken to deal with waste gases, water and cinder generated during the production process. The project design has won the second prize of Excellent Design Award granted by the China National Association for Nonferrous Metals Industries Construction.

- Smoke and gases discharged into the atmosphere have all been processed through the dedusting, desulfurizing and cleansing processes, and its discharged smoke dust and sulfur dioxide contents are both lower than the standard limits as stipulated in the national emission standards.
- Water used for production is recycled with no discharge of waste water; living water is reclaimed through biological and chemical procession, with zero discharge;
- Rain water is reclaimed too after arsenious waste water treatment; water-quenched slags can be sold out, and arsenious slags are sold to cooperative enterprises directly;
- Noise reduction measures are taken on those noisy equipment.



Panorama of Luanshya's Muliashi Project



## Comprehensive Resources Utilization

Mineral resources are non-renewable, and therefore strengthening their comprehensive utilization has become an important path to raise enterprise benefits and improve environment quality. CNMC has been continuously improving its prospecting and processing technologies to reclaim and reuse the gangues and to raise its comprehensive utilization of mineral resources.

Water is on high demands during the different mineral production stages of prospecting, mining, smelting, etc. CNMC has strengthened its comprehensive utilization of water resources to avoid pollution of the surrounding water systems.



### Case | CNMC Luanshya Copper Mines Co., Ltd. utilizes furnace clinkers comprehensively

CNMC Luanshya mining areas have 10 million tons of copper smelting clinkers, with an average copper content of 1.10%. Stacking of these clinkers for a long time may be risky to the environment and is also a waste of resources. From 2011, CNMC Luanshya has started prospecting process studies trying to reclaim the copper from these clinkers. On July 1 2014, the comprehensive mineral waste utilization project was constructed and put into operation. This has not only realized the objectives of turning waste into wealth and comprehensive utilization, but also lowered environmental risks brought by stacking of furnace slags.



### Case | Pinggui PGMA builds circular economy industrial chain & network

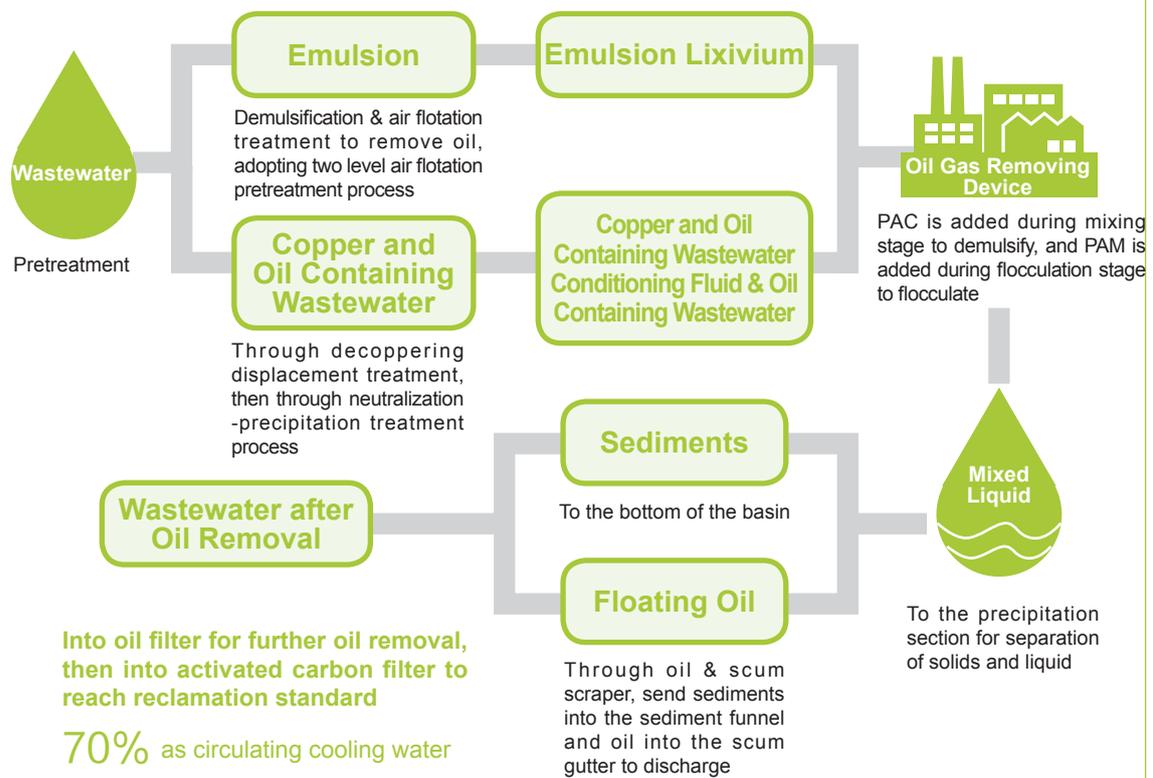
Pinggui PGMA has attached great importance to the comprehensive utilization of resources, developed projects such as Shanhu Mine gangue rocks utilization project, TIO wastewater reclamation project, etc. in combination with its own industrial realities, built the circular economy industrial chain, and reclaimed the industrial slags at the maximum extent with its technological advancement. Based on existing circular economy industrial chain, Pinggui PGMA has tried to make technological breakthroughs on comprehensive sulfide ore reclamation and TIO wastewater reclamation, to raise its comprehensive resources utilization levels and scopes, to extend its original circular economy chain and gradually expand and form the circular economy network. The ladder shape circulation utilization of resources and wastes between upstream and downstream industries and between the inside and outside of an enterprise has been realized, which has effectively raised the comprehensive utilization level of resources.

In 2014, Pinggui PGMA reclaimed 201,000 tons of various industrial wastes, from which it has reclaimed 9 tons of tungsten, 90 tons of copper, 657kg of silver, 8,000 tons of fine sulfuric and arsenic products, more than 500kg of raw scandium oxide and 350 tons of titanium as converted from titanyl sulfate solution.



### Case | CNMC Albetter's comprehensive wastewater utilization

The "Comprehensive Utilization of Wastewater" project launched by CNMC Albetter is an industrial pollution prevention and treatment project of the *Haihe River Valley Water Pollution Prevention and Control Plan (2011-2015)* under the national "12th Five-year Plan". The project has established a pollution treatment system of "governance, utilization & protection" and realized full recycling of water resources within plant area, while reducing wastewater discharges. Wastewater to be treated by the project includes emulsion and oil containing water generated during the production of copper pipes, plates and belts. The designed processing capacity is 2,120m<sup>3</sup>/d, with a total investment of 35.9503 million Yuan. All the output water quality indexes meet designing requirements and discharge standards.





## Case | Green and environmentally protective economy of Daye Nonferrous Metals

With the increase of pressure brought by the environment and declining resources, various social circles and enterprises have also raised their requirements for environmental protection technologies and equipment. CNMC has taken advantage of this opportunity to increase its input in technological research and development, equipment promotion and industrial construction, to carry out environmental protection related businesses.

As a pilot enterprise of circular economy in Hubei Province, Daye Nonferrous Metals has continuously explored and developed circular economy for many years, basically forming the "Daye Nonferrous Metal" mode integrating diversified recycling, clean treatment and scale utilization.

### Develop Urban Mineral Products

In 2014, Boyuan Environmental Protection Limited under Daye Nonferrous Metals has, based on its waste electrical and electronic product disassembly project, obtained the qualification to disassemble and utilize waste electromechanical products and waste vehicles. Trial operation of the project has already started. The project is able to realize an overall annual output of 4.85 billion Yuan, and provide 300,000 tons of various recycled resources every year.



Daye Nonferrous Metals Boyuan Environmental Protection Household Appliance Disassembly Line



Waste Electromechanical Equipment Disassembly Workshop

Daye Nonferrous will continue the construction of "Daye Nonferrous Renewable Resource Cyclic Utilization Industrial Park". It actively applies for the national "Urban Mineral Resources" demonstration base, and gradually realizes the effective linkage of "purchase, disassembly & utilization, waste reduction, pollutant free disposal", which form an industrial system matching the reclamation, utilization and disposal.

### Build Highly Efficient & Environmentally Protective Agriculture

The Great Yangtze River Environment Engineering Technology Co., Ltd. under Daye Nonferrous has, with ecological governance as the core, relied on patented and specialized technologies like "Jingshuibao No.1" and etc., participated in such domains as rural wastewater treatment, breeding wastewater treatment, industrial wastewater treatment and soil renovation. Hereby, it is to forge an ecological and environmentally protective economy, while exploring its multi-path commercial operation patterns.

### Develop Environmentally Protective Mine Products

The Hubei Xinying Environmental Protection Technology Co., Ltd. ("Xinying Tech") under Daye Nonferrous has developed and manufactured high-frequency vibrating fine screens, wear-resistant anti-blockage polyester screen mesh and vibrating high capacity inclined tube thickeners. These products, under the category of significant technological equipment, are the sole nationalized high-end products in the prospecting, energy conservation and environmental protection industries. Presently, products of Xinying Tech have seen their applications in many domestic and overseas mining enterprises, which effectively promote resource utilization of the mining industry.

## Protect Ecological Environment

In order to reduce impacts of mining on surrounding ecological environment, the company strictly observes related laws and regulations: before project development and construction, its ecological impacts are assessed; during the mining, its ecological impact is monitored and the comprehensive renovation and ecological recovery of the mining area is promoted; after a mine is closed, the geological environment of mining area will be restored, with implementation of related work of water-soil conservation, land reclamation, environmental protection and etc.



### Case | TSAIRT MINERAL establishes the most beautiful oasis on the Gobi

The Tumurtin-Ovoo Zinc Mine of TSAIRT MINERAL is located in interior Mongolia, where the ecological environment is fragile. TSAIRT MINERAL has attached great importance to ecological protection from the very beginning of its construction. According to related requirements of Mongolia, more than 4,000 trees have been planted at water sources and in plant areas for water and soil conservation. Great efforts have been made to maintain the earth-depositing site in order to ensure the integrity of the land as well as the sustainable development of its ecological environment. The year 2014 saw 4,600m<sup>3</sup> of earthing in the waste rock stacking site and 40,000m<sup>2</sup> of reclamation and greening area. After years of governance, TSAIRT MINERAL plant area has been covered by lush green plants, and has become the most beautiful oasis in the wild.



Tumurtin-Ovoo Zinc Mine



### Case | Chifeng Baiyin Nuocer Mining Co., Ltd. South Tail Pond Closure

Chifeng Baiyin Nuocer Mining Co., Ltd. has invested 26 million Yuan to carry out the south tail pond closure project. Except for the greening project and the renovation of water conservation pond, all the remaining projects have been completed.

- **Dam Surface Renovation:** After the closure, the tail pond needs dam surface renovation. It includes maintenance of the riding track, renovation of dam surface drainage ditches, construction of dam revetment and plantation, etc.

- **Pond Renovation:** after the closure, in order to maintain the tail pond surface morphology and restore its ecological environment, earthing and greening has to be carried out on tail pond surface area.

# Sustainable Development Practices

## ▶▶ Respect Life & Safe Production

Safe production is the life line of an enterprise. CNMC upholds the safety production concept of "Respect Life, Prevention First". It is engaged in continuously raising the safety awareness and responsibility awareness of all employees in accordance with newly promulgated national *Production Safety Law* and local laws and regulations. Through carefully implementing the safety standardization and safe production informationization, it guarantees the life safety and physical and psychological health of its employees to the maximum with consolidating safe production foundation as the emphasis.

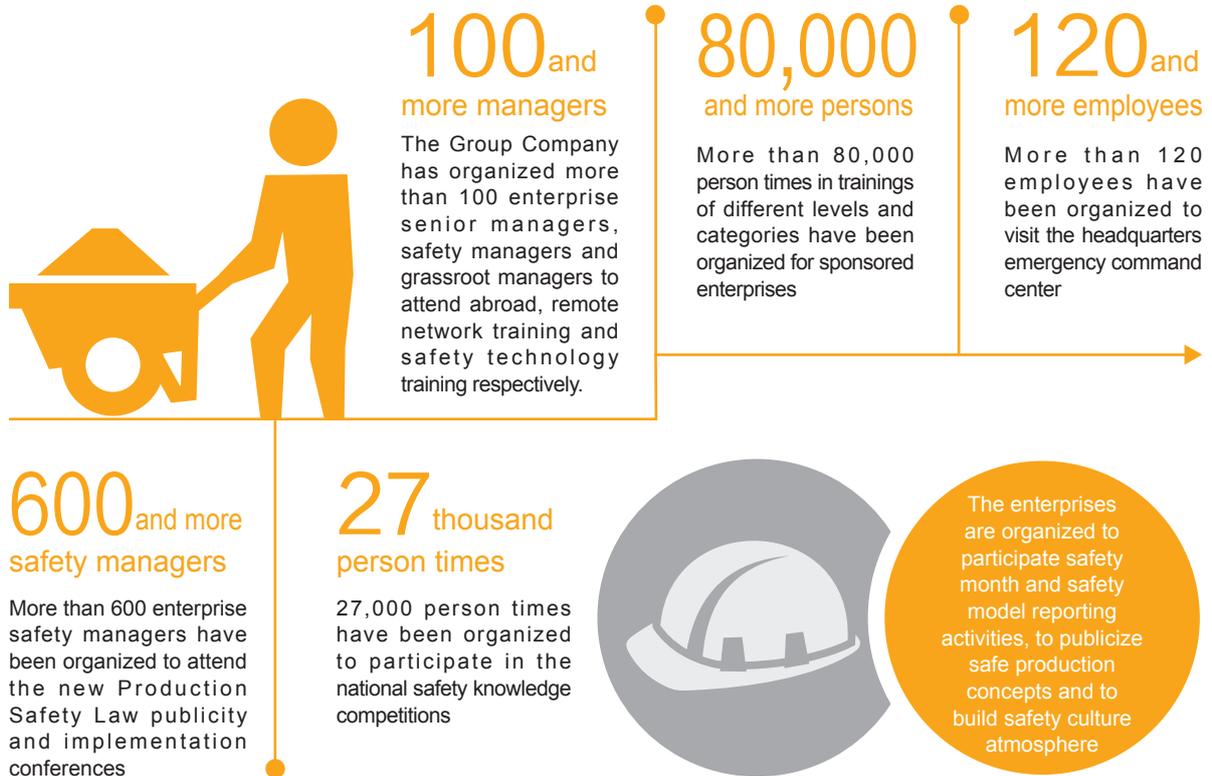


Pinggui PGMA employees are working devotedly



## Raise Safety Awareness

Giving full play to the leading role of safety culture, CNMC has carried out diversified safety culture publicity and education activities, strengthened safe production training, and raised the safety awareness of the groups and teams.



### Case | China No.15 Metallurgical pays attention to contractor safety management

China No.15 Metallurgical has specifically formulated the *China No.15 Metallurgical Construction Group Co., Ltd. External Team Practical Manual* in special pertinence to contractor safety management and carried out safety and quality trainings for each externally connected team. It holds morning briefs and meetings of these teams every week to brief them hidden safety and quality dangers and their rectifications, and carries out regular major safety and quality inspections every month. Meanwhile, in the annual "safe production month" event, activities targeted at external teams are organized including publicity of policies and regulations, safe production training, major safe production inspection, safe production knowledge competitions, safety emergency drills, etc. to strengthen on-site workers' safety awareness and self-protection capabilities and to reduce safety risks.

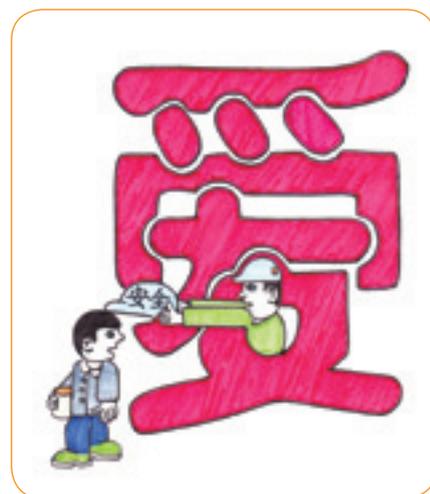
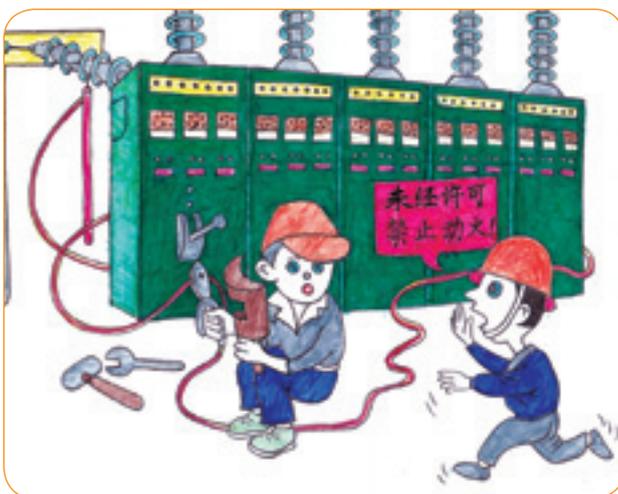
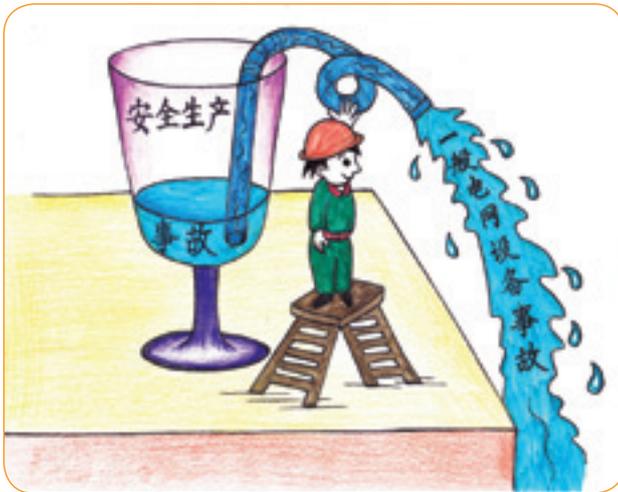


China No.15 Metallurgical Safe Production Month Launching Ceremony



## Case | CNMC Albetter safe production cartoons help create the cultural atmosphere

In order to further raise the safe production awareness of all the front line employees and cultivate a benign safe production cultural atmosphere, the labor union of China Albetter organized and carried out safe production knowledge cartoon competition among employees. The employees have, in combination with their work and through their understanding of safe production behaviors, safe production laws and regulations, drawn a great number of cartoons that are novel in conception, distinctive in theme and of practical significance, via their humorous, exaggerating and witty skills. The safe production knowledge cartoon collection and appraisal activities have effectively created a benign safe production atmosphere in CNMC Albetter, which enables the participants to have an in-depth understanding of the importance of safe production through their creative work. It has successfully raised the employees' safe production awareness.



Some of the Safe Production Cartoons



## Substantiate Safety Management

CNMC has consolidated its safety management foundation and improved its safe production management regulations. Through innovating safe production management measures and promoting the informationization and standardization of safe production, it tries its best to guarantee employees' safety.



In 2014, the Group Company maintained the "zero comparatively large and more severe production safety accident" safety performance. With various accident indexes continue dropping, production safety accidents were effectively controlled. The safe production situation has been consolidated.

50%

Lethal accidents drop by 50% yearly

56%

Ten billion Yuan fatal accident fatal rate of 0.14, 56% lower than the previous year

100%

Overseas enterprise fatal accident stays zero, 100% yearly drop

### Major Responsibility Guarantee Safety Practices

The Company has improved its safety management mechanism from the institutional organization level and has comprehensively put into practices major responsibilities of safe production.

- To revise five regulations including the safe production responsibility regulation against the Production Safety Law, and further improve the safety management system and mechanism;
- To guide enterprises in signing safe production responsibility agreements in order to guarantee the safety of all employees, to specify responsibilities, and to pass on the pressure of safety production;
- To supervise and urge enterprises to comprehensively carry out the system of taking charge in person at specific time for specific work, so as to raise the safety risk control capabilities of leaders at various levels;
- Supervision over safety responsibilities of the contractors has also been strengthened.



#### Case

#### Zambia-China Economic & Trade Cooperation Zone pushes forward its safe production management

The Zambia-China Economic & Trade Cooperation Zone attaches great importance to its safety production management. It has distributed the responsibilities of safety production to specific persons with the Deputy Manager in charge of overall safety. Starting from routine safety management and engineering construction management, it has formulated various safety management regulations that are complete, accurate and operable, and actively put the safety responsibilities into practice.

- **Strengthening routine safety management to ensure its full coverage.** The Zambia-China Economic & Trade Cooperation Zone has carried out strict safety examinations in the Chambishi headquarters and the Lusaka office to verify local safety management capacities through examinations over safety preventive measures, fire and electric power usage, vehicle situations, house safety situations, etc., with solutions proposed.

- **Strengthening construction safety examinations and taking preventive measures.** The Zambia-China Economic & Trade Cooperation Zone has re-examined qualifications of the construction units and responsibility performances of persons in charge, and put forward prevention requirements with respect to protective clothing, usage of machineries, facade prevention, etc.

- **Enhancing safety education and publicity.** Great efforts are made to publicize safe construction related laws, rule and regulations, to raise the awareness of construction workers in observing laws, and to cultivate a benign atmosphere that all care for safety and cherish life.



## Case | CNMC Luanshya puts the new safety management methods into practice

CNMC Luanshya has carefully studied, analyzed and summarized effective measures taken to strengthen safety management. Sticking to the concept of "new starting point, new standards" all the time, it manages safety of mines in accordance with the international OHSAS 18001 standards. CNMC Luanshya has set up a safety & environmental protection department to comprehensively manage mine safety related affairs. The 36 specially appointed managers are all Zambians. Meanwhile, persons bearing safety responsibilities at all levels have been assigned based on requirements of Zambian laws and regulations concerning mine safety. These persons are responsible for specific safety affairs during routine production activities. CNMC Luanshya has effectively implemented its safety responsibilities through education and training, safety examinations, regulation formation and safety monitoring. Since its founding, its safe production performances continue to improve; accident rate stays at the bottom among mines of the same scale in Zambia. It is one of the best mines among Zambian mining enterprises with respect to safe production performances.

### 📌 Standardization Raises Safety Efficiency

Safe production standardization reflects the guidelines of "Safety First, Prevention the Pillar, Comprehensive Renovation" and the scientific development view of "People First" and lays emphasis on the standardized, scientific, systematic and legalized promotion of the enterprise safe production. We have closely combined the standardized management system with current production and business operation realities, to regulate various management elements. Besides operating the production in accordance with standard management factors, we have established system of self-evaluation, self-examination, self-improvement and self-advancement, which gradually raises the levels of safe production standardization.

In 2014, the Group Company guided accordingly and pushed forward the standardization construction of enterprises' safe production. For those qualified enterprises, it paid attention to the operation of their supervision and inspection systems. For those yet to be qualified, the emphasis was laid on whole-process guidance and supervision. By the end of 2014, 38 domestic enterprises are qualified with respect to safety standardization, which further regulated the enterprises' safety management and working environment.

- Hongtoushan Mining has pushed forward its safety standardization construction comprehensively, with remarkable effects shown in the safe production galleries of the mining, prospecting and smelting systems. In August 2014, Hongtoushan Mining successfully passed the Class II standardized enterprise assessment and acceptance inspection of experts organized by Liaoning Administration of Work Safety.
- CNMC Africa Mining Golden Credit has, with building "a standardized tunnel, a standardized stope" as its objective, carried out trial underground safety standardization work, steadily marched ahead with it and remarkably improved on-site safe production.



CNMC Africa Mining First Aid Team Won First Prize in the Zambian First Aid Competition



## Informationization Aids Safe Production

The construction of CNMC safety production information system project is among China's first 100 "key progress projects to promote safe production through integrated informationization and industrialization". The system has, by comprehensive utilization of modern technologies such as computer, network, video, communication, satellite positioning, etc., realized online management, monitoring and supervision of the basic information, important risk sources, key posts and key parts of safe production, while possessing the important function of remote emergency command. The system is an important carrier to realize the Group Company's safe production management via scientific, technological and informationized approaches, and is bound to further promote the development of the Group Company's safety production management. Presently, the system has about 1,500 registered institutions and users. About 320,000 pieces of various basic safety management data have been inputted. It is able to monitor 900 work sites of 10 enterprises in real time. The safe production information system is gradually showing its effectiveness.



Video Monitoring System to Provide Safe Production Information

Meanwhile, the "six major systems" deployed by the Group Company to avoid underground safety risks have successfully performed their technical functions. This system includes pre-accident damage prevention, in-accident damage avoidance and post-accident damage reduction, and have played their supportive role in five domestic mining enterprises to enhance their safety production.





## Practice Safety Actions

CNMC, following its major responsibilities for safety production, actively conducts various safety actions. It has seen desirable achievements in such aspects as hidden risk examination, emergent safety management, employee career health protection and etc.

### Hidden Risk Examination

In 2014, The Group Company conducted safety inspections at 15 key enterprises in 5 domestic and overseas areas. 51 safety management weak spots and hidden risks were discovered and 36 proposals were given. During the whole year, more than 3,000 safety inspections were conducted, more than 8,000 hidden risks were found and 7,840 were solved, with the renovation accomplishment ratio of 98%. The Company carried out specialized central enterprise activities to counter illegal activities, and corrected 13 non-compliances. It urged the enterprises to implement the installation and upgrade of the mine safety risk avoidance six major systems, underground smart wiring, smart production control system and other new technologies, from which the work safety preventive conditions were further improved.



#### Case | CNMC Luanshya carries out safety actions

In order to keep improving its safety & environmental protection management, CNMC Luanshya has implemented the safe production responsibility system, explored and promoted appraisal and encouragement system for local employees of overseas enterprises. It continuously optimizes its safe production regulations and has made great efforts to find safe production management leaks. In 2014, CNMC Luanshya organized 27 company-level safety inspections, 103 department-level inspections and 13 internal safety examinations within the Company's safety and environmental protection departments, issued 26 hidden risk rectification notices and punished 53 violators. All the identified hidden risks and regulation violators were properly handled in accordance with related procedures. Meanwhile, CNMC Luanshya invited external institutions, according to local Zambian laws and regulations, to carry out specialized safety evaluations against the safe operation of tail ponds and waste rock stacking sites.

### Emergency Management

The Group Company continuously improves its emergency management means to raise its coping capacity in case of emergency.

- Completing equipment installation and debugging in the headquarters emergency command center, specially designated person is arranged to supervise the safety situations of production sites of key enterprises.
- Urging the enterprises to consummate emergency plans at different levels, with more than 1,000 newly formulated or modified emergency plans and on-site emergency response plans during the whole year. have improved The integrity, connectivity and operating convenience of these emergency plans have been improved.
- Formulating annual emergency response exercise plans and organizing the enterprise through varieties of accidents easily happened in high risk industries. Altogether 450 emergency exercises at various levels and in various patterns were conducted, involving more than 15,000 person times.
- Composing the *Metal Mine Front Line Worker Emergency Manual*, 452 pieces of emergency rescue knowledge and publicized emergency response knowledge were collected to strengthen the employees' emergency handling competence.



## Career Health

The Company strengthens career health management by incorporating career disease prevention into the Group Company's safety management. Starting from organizing the identification and monitoring and prevention of occupational disease detrimental elements, it regulates various work covering enterprise career health system, training, labor protection, physical examination, occupational disease report, etc., so as to effectively prevent damages caused by occupational disease.



### Case | Pinggui PGMA titanium pigment factory conducts testing and evaluation of occupational disease hazardous elements

In November 2014, in order to reduce employee occupational health risks, Pinggui PGMA assigned the Guangxi Research Institute of Safety Science to conduct testing and evaluation of occupational disease hazardous element at the working sites in the titanium pigment factory. In the same time, it was discovered that the dust concentration at the hanging post and de-packaging post in the acid decomposition workshop of the titanium pigment factor exceeded required levels, and the ventilation was not good outside the coal gas generating furnace duty room door when air pressure was low, and some working posts suffered from noises. Through implementation and practices of overall renovation measures, the titanium pigment factory has effectively prevented the occurrence of employee occupational diseases.

- Occupational disease hazardous elements bulletins were erected along both sides of the factory roads and at obvious places outside certain posts;
- Dust, poison and noise preventive labor protection necessities were issued in accordance with standards, and ventilation and illumination of the working environment have been improved;
- Manual operation at the hanging and the depackaging posts in the acid decomposition workshop were changed into mechanical operation, which greatly lowered their dust concentration.
- A heavy duty fan was installed outside the coal gas generating furnace duty room, which has successfully improved its poor ventilation situation.
- Ear muffs were issued to those noise-suffering posts to lower harm to the employees.



Panorama of Pinggui PGMA Shanhu Mine



## Sustainable Development Practices

### Universally United & Outstanding Team

Based on the mass employees' aspirations and their responsibilities in team work, we have seen our businesses spreading to more than 80 countries and regions, and flourishing businesses. United universally, we follow both domestic and overseas labor policies and standards. By showing our respect to the employees and care for their lives, we have built a harmonious large family that connects and integrates multiple cultures.

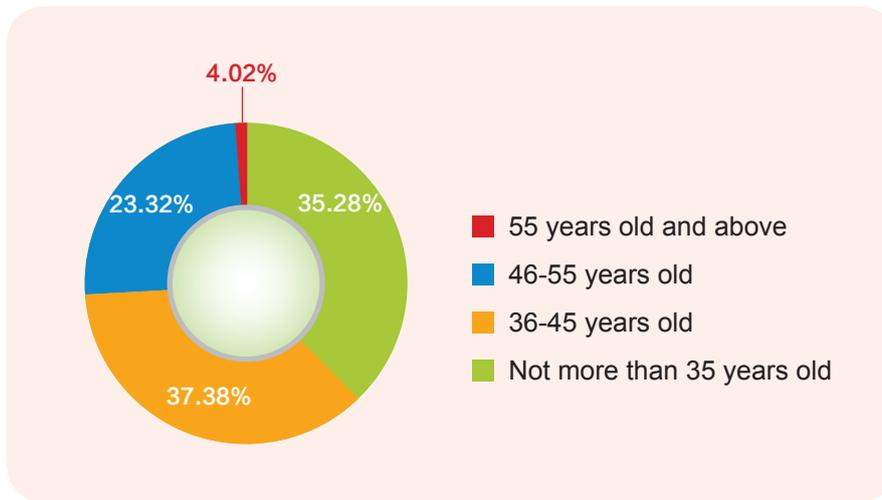


## Safeguard Employee Rights & Interests

CNMC has formulated related stipulations and taken multiple measures to safeguard legal rights and interests of the employees. The equal employment and democratic management makes the employees feel the respect shown by the Company for their rights and interests.

### Equal Employment

We, following international conventions and related laws, regulations and policies, equally treat employees with different nationalities, gender, religious, beliefs and cultural backgrounds. Meanwhile, we oppose forced labor in whatever form and refrain ourselves resolutely from child labor. By the end of 2014, the Company had altogether 56,378 employees, of which 8,943 are overseas.



Group Company Employee Age Distribution



### Case | Investigation of overseas employees' rights and interests protection

The trade union of the Group Company organized representative employees from the sponsored enterprises and invited trade union chairman of the China Federation of Machinery & Metallurgy Industry to carry out four inspections of sponsored enterprises in Zambia under the themes of "Chinese Employee Rights & Interests Safeguarding Situation in Sponsored Enterprises in Zambia" and "How to Handle Relations between the Enterprise and Local Trade Unions".

The Group Company has provided the Chinese employees working in Zambia with various opportunities to participate in enterprise management and continuing diploma education, and to enjoy employee vacations, living benefits and etc. This has effectively safeguarded their rights and interests. In colloquia, the Chinese employees of the Company shared their feelings with the enterprises and put forward their opinions and suggestions on problems concerning protection of their rights and interests.



China-Zambia Employees Recreational Activity

## 🔍 Democratic Management

The Company lays emphasis on its democratic management and shows full respect to the employees' opinions and proposals. In 2014, the Company continued to push forward the "two raise one lower" reasonable suggestion activity and initially set up a durable and normal mechanism to incorporate reasonable suggestions into enterprise management. The activity has altogether collected 119 reasonable suggestions from the sponsored enterprises, of which 105 are about productive operation and have generated a common benefit of more than 200 thousand Yuan.



### Case | NFC Africa Plc invites Zambian employees taking part in company management

In order to raise the subjective initiative of Zambian employees in the Company's production and business operation, NFC Africa Plc encourages them to actively take part in the various stages of the Company's production and business operation. A regular production and operation report meeting mechanism for Zambian employees was set up, and is held accordingly every month. A production and business operation management team with participation of Zambian senior employees from production sections was established to go to the underground and surface working sites irregularly to check for insufficiencies and report to the Company's managing group. Meanwhile, regular coordination meetings are held every month where trade union representatives and employee representatives from various departments are invited to put forward their opinions and suggestions on the Company's development, which are collected by the managing group for timely renovations.



## Assist Facilitate Talent Development

CNMC continuously improves its talent cultivation and development mechanism, improves the working environment to provide help and build platforms for employee development. It creates development opportunities for business operation managers, professional technicians, overseas construction talents, etc.

### Consummate Salary Distribution

In 2014, the Company further improved its overseas employee income distribution policies and participated in the "Central Enterprise Overseas Unit Employee Income Distribution Management Research Project" launched by the State-owned Assets Supervision and Administration Commission of the State Council. Investigation, research and analysis were conducted over employee distribution situations of sponsored enterprises located mostly in Zambia, Myanmar, Mongolia and Thailand and the *CNMC Overseas Enterprise Employee Income Distribution Situation Research Report* was formulated. The Company participated and composed the energy industry sub-topic report, and laid the foundation for the Company and central enterprises sticking to marketized and internationalized reform oriented policy studies on their overseas income distribution management.



#### Case

#### CNMC Liuzhou innovates its production and business operation contracting evaluation and settlement methods

In 2014, CNMC Liuzhou innovated its production and business operation contracting evaluation and settlement methods. The proportion of floating salaries was improved. Key indexes and employee monthly benefit salaries were linked up directly. Meanwhile, it further consummated the contracting responsibility agreement, highlighting output and quality indexes to closely link employee income with output, quality, consumption and other indexes, which greatly stimulated enthusiasm of front line employees and remarkably raised the various indexes that were incorporated into the evaluations. Through the joint effects of the rotary kiln and employees working at the 18m<sup>2</sup> fluidized bed combustion boiler production line, its output achieved a new historical record while its cost dropped by large margin.

### Career Promotion

The Company has strengthened the construction of its talent team and actively explores new talent cultivation and management mechanism. It set up specific employee career promotion sequences aiming at business operation managers, technicians and professionals of special skills. With corresponding incentive measures, we encourage each employee to formulate his own career development plan to become an internationalized multi-faceted talent through expansion of his growth path. At the same time, the evaluation methods are also improved as well as talent selection and assignment mechanism.

By the end of 2014, the Group Company had altogether 9,799 business managers, 12,675 specialized technicians and 40,830 professionals of special skills. The Company has accomplished the 2014 job title evaluation. Through the valuation of the Company and the authorized sponsored enterprises, totally more than 300 persons within the whole Company got promoted, which further improved the professional technician group structure of the Company and various enterprises.



## Employee Training

CNMC has adopted diversified training patterns in both content and format, including lectures, skill competition, pass-help-lead, etc. to safeguard the development of various talents.



### Case | Skill competitions shows effects

In July 2014, the trade union of the Group Company successfully held the fourth Employee Skill Competition, including competition categories, i.e. maintenance electrician, chemical analyst, vehicle driver, accountant and group leader comprehensive management. 141 candidates from 15 sponsored enterprises of the Group Company attended the competition. The top three best performers of each category were awarded the honor of "CNMC Tech Master". Meanwhile application for the honor of a "Central Enterprise Tech Master" was submitted to the State-owned Assets Supervision and Administration Commission of the State Council while the application for the honor of "Nonferrous Industry Tech Master" was submitted to the industrial association for approval.

The competition started a competitive category of "group leader comprehensive management", where theoretical examination and group management scenario simulations are used to comprehensively evaluate and train the comprehensive managing capabilities of leaders comprehensively. This is by far a category never configured by a central enterprise or the All-China Federation of Trade Unions and has won praises of the State-owned Assets Supervision and Administration Commission of the State Council, China Federation of Machinery & Metallurgy Industry and other superior authorities and the participating sponsored enterprises. It provides precious experiences for the Group Company Trade Union to enrich employee skill competition patterns and build employee quality increment platforms.



A China No.15 Metallurgical maintenance electrician is attending a skill competition



## Care for Employee Livelihood

CNMC has made great efforts to create comfortable family alike working environment for the employees. It continuously improves the working facilities and conditions and cares for their psychological demands. Besides, it provides heartwarming employee support and has carried out rich cultural and sports activities to enrich their life during spare time, and thus raises their sense of belongings and happiness.

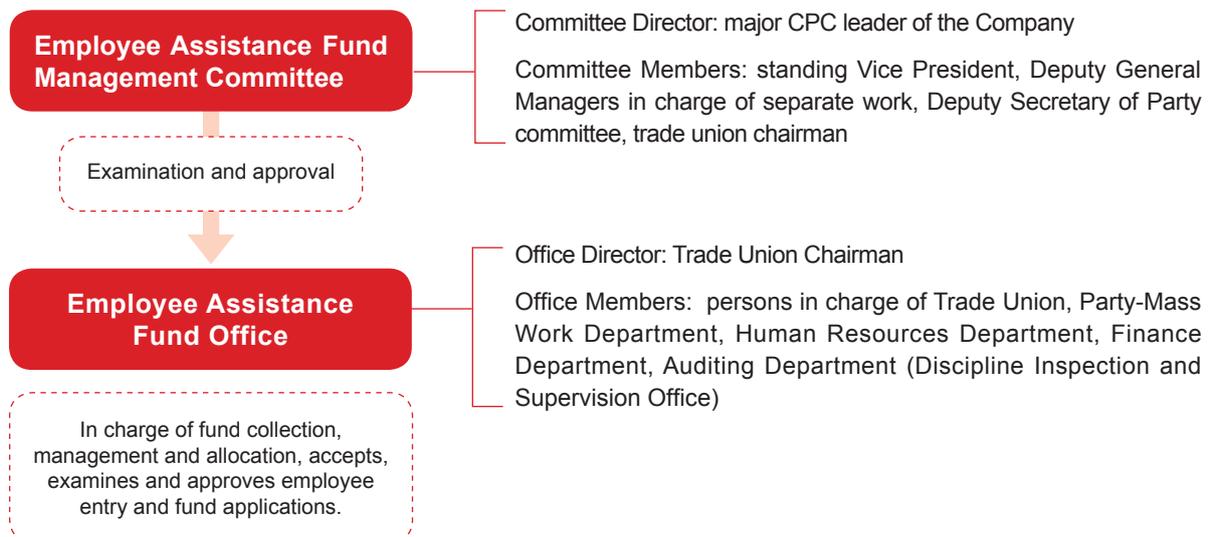
### Provide Support to Employees

In order to overcome the great difficulties brought by the grim economic situation to the enterprises and the employees and to prevent the family from trapping into difficult lives caused by serious diseases, the Company has formulated a set of management methods to help employees in distress. Every year 200,000 Yuan is allocated administratively, 50,000 Yuan is sponsored by the trade unions and 20 Yuan is paid by each employee, totaling 300,000 Yuan as the fund of the "Employee Assistance Fund". In case of serious illness, serious accident, family stricken by major natural disaster, needy family, offspring education of a most financially distressed family or other difficult situations, 2,000~100,000 Yuan will be given to employee at one time.

In 2014, the Company modified the management method of the Fund based on employee adjustment in enterprises in Beijing and the fact of covering 619 Chinese employees working overseas. Since its founding, with 720,000 Yuan supporting fund, the Fund altogether helped 5 employees who suffer from serious illness (2 Chinese employees working in overseas sponsored enterprises).



CNMC free shuttle bus for employees in Zambia





### ↻ **Balanced Work and Life**

The rich leisure time and diversified activities effectively relax CNMC employees during their spare time, which cultivates their healthy living and working habits. Besides, it deepens the friendship among them who become partners in work and friends in life.



Employees' Rich Spare Time Life



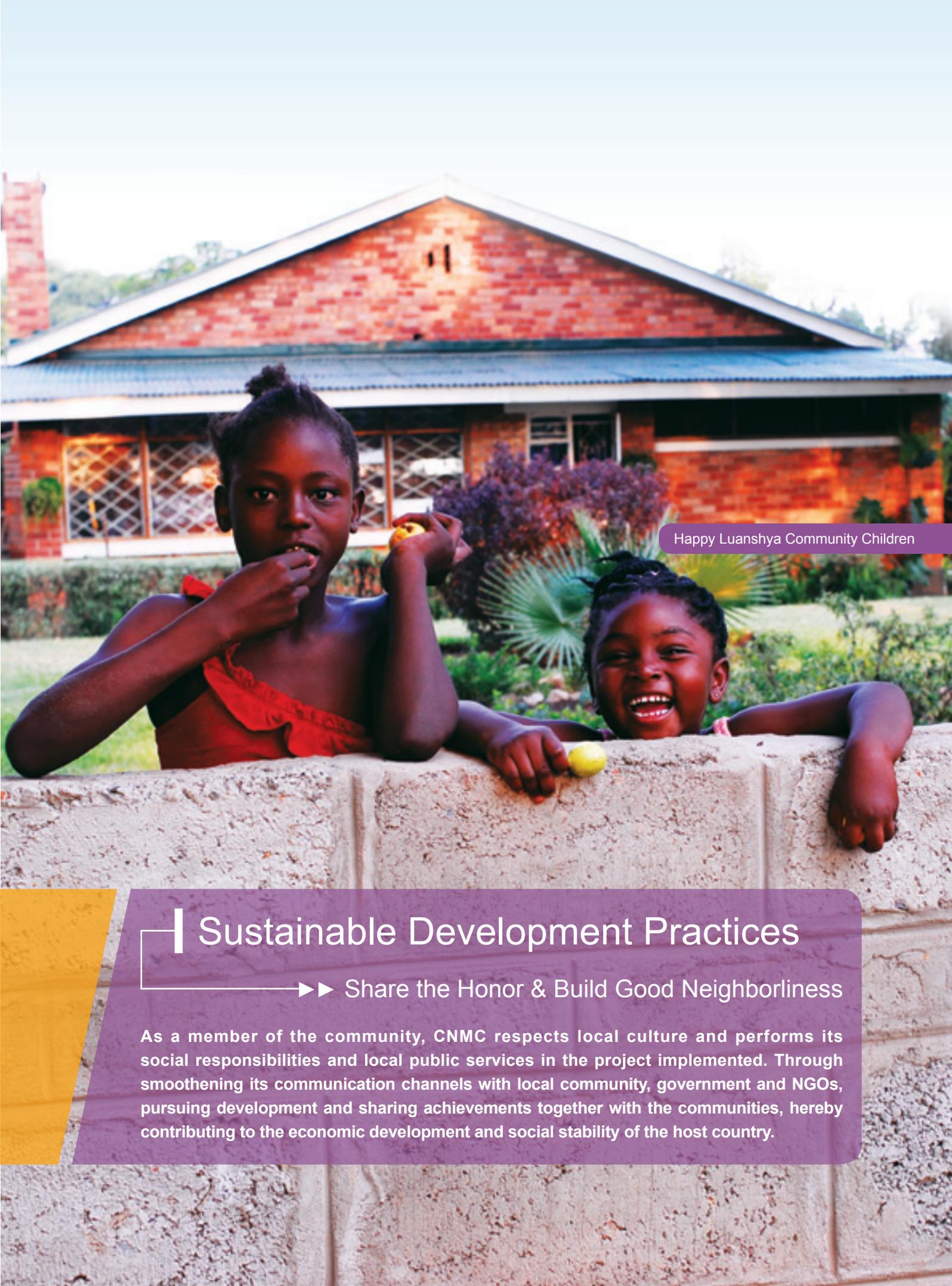
## Case | China No.15 Metallurgical builds a "family culture"

The China No.15 Metallurgical takes the "family culture" as the core of its enterprise culture and endeavors to make the enterprise a permanent home for its employees, where they can enjoy warmth and conveniences like in a family. Meanwhile, the employees also see the enterprise as their home and are loyal to it. For such a purpose, China No.15 Metallurgical has taken measures in the following aspects:

- Standardizing logistic management, where employee dormitories are managed in a uniform manner to help employees get rid of worries;
- Establishing double channel development pattern for the future of employees;
- Establishing beneficiary policies, including birthday greetings, consolation money, visits to model workers, distress relief, etc.;
- Carrying out golden autumn education support, to help children from financially distressed families;
- Issuing pension allowance, to provide 500 Yuan to senior members of each employee's family ;
- Providing free physical examinations caring for employees' physical health;
- Caring for employee marital requirements by organizing various matchmaking activities.

Through years of practices, the "family culture" of China No.15 Metallurgical has gone deep into the heart of its employees and the enterprise culture, and has powerfully promoted the cohesive force of the enterprise.





Happy Luanshya Community Children

## Sustainable Development Practices

### ▶▶ Share the Honor & Build Good Neighborliness

As a member of the community, CNMC respects local culture and performs its social responsibilities and local public services in the project implemented. Through smoothing its communication channels with local community, government and NGOs, pursuing development and sharing achievements together with the communities, hereby contributing to the economic development and social stability of the host country.



## Community Communication

Smooth and normalized communication is the foundation of understanding a community and establishing a good relationship with it. For such a purpose, we actively establish communication channels. By carrying out communication and dialogue with local communities in various forms such as media, meeting, conference, reporting, exhibition, etc., we understand their needs and also publicize Company concepts through such mutual and interactive communications.



CNMC Albetter's Community Care Rendering Activity



### Case | CNMC Nickel gets recognized through communication with the community

CNMC Nickel maintains long-term communication with local communities to promote mutual understanding. In 2014, during the Myanmar Songkran Festival, CNMC Nickel organized a team to visit local monks and more than 3,000 senior villagers from 3 villages and 7 temples in the surrounding areas of the factory. Meanwhile, CNMC Nickel, local communities, local governments and members of the parliaments visited each other repeatedly to communicate on the development of the Company and local communities. During the visits, CNMC Nickel formulated community support plans jointly with the communities based on their demands. Their actions won top down recognitions from Myanmar including Myanmar President U Thein Sein.

## Promote Local Operation

Localized operation is an important way to merger into local communities and to obtain long-term development. CNMC has won respects of the communities through combined efforts such as localized pursuing, local management, cultivation of local talents, etc. and has laid a solid foundation for its further development in the localities.

### Localized Employment

We actively promote employment localization in overseas projects to continuously raise proportion of local employees in medium and higher level management. By formulating systematic encouragement and support policies, growth and development of local employees is promoted. By the end of 2014, the Group Company's overseas comprehensive localization rate reached 89.97%.

### Localized Purchases

On the precondition of guaranteeing quality, we try our best to purchase raw materials, living necessities, fuel and etc. locally.

### Localized Management

The Company set up local management system. It respects local politics, economy and culture on the basis of observing Company's management guidelines and principles, and explores the management pattern that suits local operation.



### Case | Zambia-China Economic & Trade Cooperation Zone improves its recruitment and management of local employees

The Zambia-China Economic & Trade Cooperation Zone has successively invited local Zambians to take up key positions such as manager of human resources department, human resources officer, finance officer, security team leader and etc. It conducted and in-depth explored new patterns in its localized construction, which allowed local employees to play an ever increasingly important role in the development of the cooperation zone. It strived to satisfy the zone's new requirements through its localized constructions. Based on requirements for introducing multi-faceted talents and gradually realizing localization of employment and personnel allocation, the Company emphasizes on the recruitment of new employees and development of present human resources so as to save the cost of human resources.



### Case | Sino-Metals Leach Zambia Limited conducts training of local employees

In order to enhance the pilot production leadership, the Company set up a pilot production headquarter for the Mabende Leaching Project to take charge of its commissioning test run. Under this leadership, Chinese and local Congo (K) employees were organized to attend courses on safety production and operation regulations, and the regulations were translated into French. Efforts were also made to solve the problem of spare parts and components shortages. With activities to make use of the waste, the equipment operation ratio was guaranteed.



Luanshya Skilled Worker Training School provides training for company employees and local population



## Case | Enterprises in Zambia invite trade unions to take part in company management

The Zambian mining industry has a long history and abundant trade unions that have significant influences on the development of Zambian enterprises. CNMC has many subsidiary companies in Zambia including CNMC Luanshya, NFC Africa Plc, SMLZ and the Zambia-China Economic & Trade Cooperation Zone. In order to improve its employee management, the Company cooperates actively with Zambian trade unions, and has made active contributions in guaranteeing Zambian employees' rights and interests and regulating the Company's development. Some CNMC enterprises in Zambia hold regular meetings every month to invite local trade unions to take part in the consultation on labor-capital relationship. Some enterprises in Zambia cooperate with trade unions to allow employees to buy living necessities from the trade union on credit, such as flour, edible oil, etc., which is then deducted from the employee's next month salary and paid to the trade union. Some enterprises issue granulated sugar and other benefits to the employees via trade unions.

In May 2014, the trade union of the Group Company participated in the "Labour Relations and Role of Trade Unions in MNCs - Sino-Africa Trade Union High Level Seminar" hosted by the All-China Federation of Trade Unions. It introduced the practice of the Group Company's overseas sponsored enterprises of inviting local trade unions to take part in company management, which won universal praises from representatives participating in the seminar. The trade union leaders from 9 African countries included Namibia, Zambia, Tanzania, etc.



Deputy Secretary of Group Company, Xu Shuseng, delivered a theme lecture at the seminar



## Keen on Public Services

CNMC actively takes part in community public services. It has carried out fixed-point poverty alleviation, community donations, domestic and overseas disaster relief and voluntary services to realize its enterprise social responsibilities and to serve the society whole heartedly. In 2014, the total amount donated by the Company reached 14.672 million Yuan.

### Public Facility Construction

As a member of the community, CNMC is willing to participate in community infrastructure construction and make its contribution to improve local production and living conditions.



Sino-Zambia Friendship Hospital invested by CNMC is the best local hospital in terms of establishment and environment



- The Zambia-China Economic & Trade Cooperation Zone built the office building for the Sino-Zambia Friendship Hospital and renewed their medical equipment, which improved the medical conditions for local community and miners' families
- China No.15 Metallurgical invested more than 2 million Yuan to introduce Simens dual-slice spiral CT and automatic biochemical analyzer to upgrade medical facilities of community hospital



- In April 2014, the Group Company donated 600,000 Yuan to 8 towns and townships and 15 villages in Lianghe County to help them building water reservoirs, laying water supply pipelines, water distribution network and other water supply facilities
- Daye Nonferrous invested 200, 000 Yuan to support the new rural construction of the Pingyuan Village, Baisha Town, Yangxin County, Daye City



- China No.15 Metallurgical provided strenuous support to the community on the construction of a China No.15 Metallurgical neighborhood committee office building
- NFC Africa Plc donated transportation tools to Kalulushi municipal government of Zambia for convenience of its municipal constructions



### Case | CNMC Nickel sets up CSR account to boost community development

In order to plan and perform its corporate social responsibility more systematically, CNICO Myanmar set up a corporate social responsibility fund account in 2014, which invests 300 thousand US dollars every year on social responsibility related work. By the end of 2014, it has provided more than 495 million kyats totally (about 3.3 million Yuan) to support Myanmar community constructions.

We have set up 5 water supply stations near our factory to help surrounding villagers to get more clean living water, and donated 5 water wells to local schools, hospitals and temples that are far from the water supply stations so as to solve their water related problems.



Donate well to local temple



Supply electrical power to Yinai Village

CNMC Nickel has invested more than 300 million kyats, i.e. about 2 million RMB, to build electrical power supply lines for more than 1,600 households in Yinai Village, Yexin Village, Mongong Village, and Angsong Village. Meanwhile, we invest more than 2 million kyats every month to provide 10 kw/h of power to every household and 400 kw/h of power to the temple, schools, road lamps and other public facilities for free.



## Support Cultural Education

Each region has its unique cultural heritages and folk customs. By taking part in protection of these cultural heritages and cultural activities, CNMC has, in its internationalized operation, shown full respect to and actively merged into the local culture. Besides, it has forged solid friendship with local residents. Based on its poverty alleviation guidelines, the Group Company has been providing supports to the education undertakings of Lianghe Country in Yunnan Province for years, with 4.035 million Yuan investment to build teaching buildings and teacher and student dormitories for Menglong Primary School in Xiaochang Township, Liangzijiawan Primary School and Xiaochang Middle School in Lianghe County. The teaching buildings help solve the problem of severe teaching facility shortage and students are able to study in the spacious libraries and laboratories. The teacher and student dormitories have effectively improved living conditions of local teachers and students. In 2014, we donated 10 thousand books to Lianghe No.1 Middle School via Guangcai Fund. In addition, 300 thousand Yuan of student subsidies were also provided to 50 extraordinarily poor students and 200 poor students.



### Case | NFC supports youth development in poor regions of West China

On August 10, 2014, the first "Support Talent Growth 'Village Chinese Dream' Quality Expansion Program" came to NFC, carrying out quality expansion and sharing activities. NFC provided activity site and related supports to the 25 young participants from Wenchuan County.

The "Support Talent Growth 'Village Chinese Dream' Quality Expansion Program" is promoted in west China rural regions to support the development of poor young talents and to converge positive energy of youth. NFC has actively participated in related youth education and development activities to contribute to the healthy growth of these youths.



CNMC supports cultural education in poor regions



MCNICO Donation Site at Sino-Myanmar Friendship School



TSAIRT MINERAL donates education supplies to students of Sukhbaatar Province of Mongolia



CNMC Luanshya sponsors a local football team to compete in the Zambian Super League

### 📌 Aid the Distressed and the Poor

CNMC sees well performing its global corporate citizenship as its own task and persists in fixed-point poverty alleviation, disaster rescue, charity and donation, voluntary services and other charitable businesses to help the weak and solve real-life difficulties. In February, the foot and mouth disease struck eastern Sukhbaatar Province of Mongolia. TSAIRT MINERAL allocated its financial resources and personnel to establish 3 roadside disinfection stations and 2 large vehicle disinfection stations, which helped control the epidemic situation effectively.



China No.15 Metallurgical Workers' Hospital is carrying out free health care in the community



### Case | CNMC Orient spreads positive energy via Weibo

CNMC Orient has organized two rounds of "old clothes collection" activity under the "Employee Caring Project", where more than 500 employees have actively donated totally 3,981 T-shirts, jackets and other clothes and 98 books for "Shizuishan Hope Project". Meanwhile, all its Youth League cadres and employees donated altogether 3,000 Yuan to Zhao Jie, a student in Grade 2 Class 1 of Longhu Yizhan Middle School, who was suffering from chronic granulocytic leukemia. CNMC Orient also took up and consummated the role as a national civilized unit volunteer group to spread Internet civilization. By publishing 21,606 micro-blogs, it spreads positive youth energy and practices Internet civilization volunteer spirit.





# Prospect

The Year 2015 is the last year of the "12th Five-Year Plan". In face of the new economic situation, CNMC will closely stick to and uphold the sustainable concepts of "Deepen Reform, Strengthen Management, Raise Quality and Efficiency" and "Exploring Resource Value Building A Harmonious Society Together", in order to actively adapt itself to the new normal, maintain steady growth and march towards the objective of "Be Better and Stronger, To Forge World First-Class".

**Raise Operational Capability.** We will take nonferrous metals resources development as the emphasis and our characteristics to highlight development, construction engineering as the basis to pursue sustainable development, and trade and related services as new growth points to realize steady development.

**Promote S&T Innovation.** We will deepen reform of scientific research project management, upgrade the construction of the R&D platform, consummate the management and supervision mechanism over scientific and technological innovation of the sponsored enterprises, strengthen construction of the talent team and promote transformation of S&T innovation achievements.

**Strengthen Environmental Protection.** We will further implement the enterprise's responsibilities for environmental protection, promote clean production and comprehensive energy utilization, continue to carry out environmental protection and public services, and endeavors to practise the Group Company's environmental protection concept of "Green & Environmental Protection, Low-Carbon Operation, Harmonious Development, Common Development".

**Strengthen Safe Production.** We will, in accordance with the new "Production Safety Law", consummate the various safe production rules and regulations and put them into strict practice. we will continue to improve our safety supervision efficiency and quality, and consolidate our safe production management with our standardized and informationized tools.

**Accomplish Talent Management.** We will push forward the innovative talent mechanism to realize the transformation of talent resources management and methodological innovation. We will emphasize on the construction of the four talent groups, i.e. business operation managing talents, professional and technical talents, skilled talents and internationalized talents to realize the overall optimization of human resources and talent team structure.

**Promote Community Development.** We will show full respect to community wills, strengthen our communication with them, support community cultural education and contribute to community construction and development. We steadily promote localized operations so that enterprises of the Group Company may really merge into the communities and become "local enterprises".

Congo (K) Kasongbo Gangue Re-Selection Project



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# Reader Feedback Sheet

**Dear Readers:**

Thank you very much for reading CNMC Sustainable Development Report 2014. CNMC attaches great importance to your opinions, and invites you to feed back you precious ideas and suggestions so that we can continue to improve this Report.

**CNMC Sustainable Development Report Composing Team  
July, 2015**

**Your Remarks of This Report (Please mark  $\surd$  at corresponding places)**

Report Structure:	<input type="checkbox"/> very good	<input type="checkbox"/> good	<input type="checkbox"/> average	<input type="checkbox"/> not so good	<input type="checkbox"/> disappointed	
Information Quality:	<input type="checkbox"/> very good	<input type="checkbox"/> good	<input type="checkbox"/> average	<input type="checkbox"/> not so good	<input type="checkbox"/> disappointed	
Literal Statement:	<input type="checkbox"/> very good	<input type="checkbox"/> good	<input type="checkbox"/> average	<input type="checkbox"/> not so good	<input type="checkbox"/> disappointed	
Design & Typesetting:	<input type="checkbox"/> very good	<input type="checkbox"/> good	<input type="checkbox"/> average	<input type="checkbox"/> not so good	<input type="checkbox"/> disappointed	
General Opinion:	<input type="checkbox"/> very	<input type="checkbox"/> very good	<input type="checkbox"/> good	<input type="checkbox"/> average	<input type="checkbox"/> not so good	<input type="checkbox"/> disappointed

1. Which part are you most interested in in this Report?
  
2. What do you want to know more but is not included in this Report?
  
3. What suggestions do you want to give for our future sustainable development reports?
  
4. What suggestions do you want to give for our future social responsibility work?

Thank you very much for your support, please fill in your opinions on the above sheet and mail it to the Strategy Research Department of China Nonferrous Metal Mining (Group) Co., Ltd.  
 Address: CNMC Building, No.10, Anding Road, Chaoyang District, Beijing, China or you can send you email to: [csr@cnmc.com.cn](mailto:csr@cnmc.com.cn)





**Exploring Resource Value  
Building A Harmonious Society Together**



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