



2013 THE SUSTAINABLE DEVELOPMENT REPORT



Exploring Resource Value
Building A Harmonious Society Together

About this report

This report is the third social responsibility report issued by China Nonferrous Metal Mining (Group) Co., Ltd.(CNMC). From this year, the report is renamed sustainability report, so as to better reflect CNMC's sustainable development concept of "Releasing Resources' Value, Working Together to Build Social Harmony" as well as relevant practices.

Basis for compiling this report:

- <Guiding Opinions for 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
- <Guidelines on the Implementation of the Strategy for Harmonious Development of State-owned Enterprises Directly under the Central Government in the Period of the Twelfth Five-Year Plan> by the SASAC of the State Council
- <The Sustainability Reporting Guidelines G4.0> and <GRI Mining & Metals Sector Supplement of the Global Reporting Initiative (GRI)>
- <ISO 26000: Guidance on Social Responsibility> of the International Standard Organization
- <Guidelines for Social Responsibility of Chinese Industrial Enterprises and Industrial Associations (GSRI-CHINA 2.0)> of the CFIE
- <Guidelines for Corporation Social Responsibility Reporting of Chinese Enterprises> by the Corporate Social Responsibility Research Center of the Department of Economics of the Chinese Academy of Social Sciences (CASS-CSR2.0).

Reporting scope:

This report covers management practices and performances of sustainable development of the CNMC Headquarters and its affiliated enterprises. The time covered is mainly the year of 2013, also including flashbacks of some other important years

Sources of data:

The data quoted in this report are all from the official documents, statistical reports and company websites of CNMC. The currency mentioned in the report, except otherwise stated, means RMB / yuan.

Description of names:

For the convenience of expression and reading, in the report, China Nonferrous Metal Mining (Group) Co., Ltd. is also expressed as CNMC, Group Company, Company and we.

Course of compilation:

We have made full use of the opportunity for compiling the CNMC 2013 Sustainability Report to optimize the work process of report compilation, so as to promote the overall upgrading of the sustainability of CNMC.

Preparation of report compilation	Start of report compilation	Collection of report materials	Establishment of responsibility issues	Improvement of report writing	Release and promotion of report
Establishment of a report compilation working group; Analysis of domestic and overseas benchmarking; Research of standards for sustainability reporting.	Kick-off meeting of report compilation; Training on the special topic of report compilation.	Collection of materials of all functional department and funded enterprises; Interviews with and research of all functional departments and some funded enterprises.	Review of social responsibility issues; Analysis of appeals of stakeholders; Analysis of social and environmental impact; Analysis of strategic goals for the development of the Group; Solicitation of opinions from internal and external experts.	The working team writes the report; Relevant departments review the report; Company leaders finalize the report.	Issue the report; Promote the report by using internal and external platforms.

Stress on the idea of sustainable development. Social Responsibility Report has been renamed Sustainability Report. In the sustainability report, emphasis is laid on disclosing the CNMC concepts, policies, practices and performances in sustainable development.

Innovation in the design and forms of presentation. In line with the idea of nonferrous metal resources serving mankind's good life, forms such as hand painting and data visualization are adopted to demonstrate the operation ecology of CNMC.

Upgrading of readers' reading experience. Demonstration forms such as extended readings and third party testimonials are added to enhance the readability and practicability of the report.

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General Manager's Address

The year of 2013 marked the 30th anniversary of the Group Company; in this year, we were successfully ranked among "Fortune Global 500"; in this year, in face of the grim situation of continuous downturn of produce prices and performances of the nonferrous metal industry, all our employees were united as one to seek progress while maintaining stability, and our assets amount, operating revenues, and output of nonferrous metal products increased by 16 times, 39 times and 30 times respectively as compared with that of the early period of the "Eleventh Five-Year Period"; in this year, we acceded to the United Nations Global Compact and connected with the highest platform in the global social responsibility field; in this year, party and state leaders such as President Xi Jinping and Premier Li Keqiang spoke highly of the development of the Company, encouraged all employees of the Company to keep up the good work and scale new heights.

In the course of developing nonferrous metal mineral resources and global allocation of resources, we follow the sustainable development concept of "Releasing Resources' Value, Working Together to Build Social Harmony". While seeking self-development, we take initiative to shoulder our responsibility for supporting social development and explore a new mode of corporate development in industrial chain sustainable development and regional sustainable development, so that the sustainable development of the enterprise is based on the efficient use of mineral resources, stable safety situation of mines, safety and environmental protection of construction engineering, excellent quality of trade and relevant service products, strict protection of ecological environment and harmonious and stable community development, for the pursuit of comprehensive balance of economic value, social value and environmental value. In 2013, the Group Company's operating revenues hit RMB 190.009 billion, and its output of nonferrous metal products amounted to 1.5522 million tons. By the end of 2013, the total assets of the Company amounted to RMB 112.641 billion.

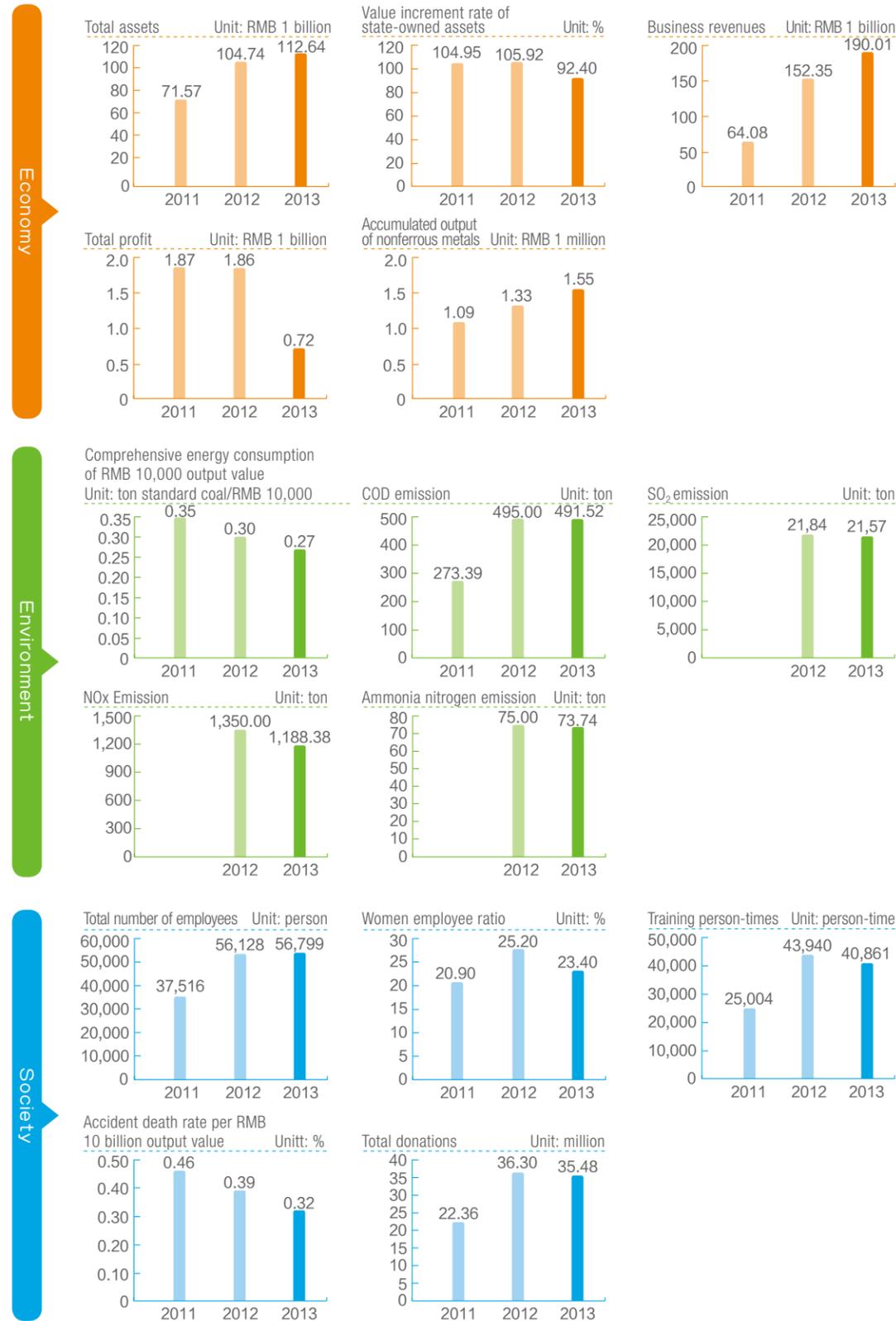
We have comprehensively upgraded our management and established a sound scientific and technological innovation system, New technologies and new processes are widely applied to improve the comprehensive utilization and cyclic utilization capabilities of mineral resources. We resort to scientific and technological innovation to upgrade the Company's sustainable development capabilities and drive and promote work in various aspects. In 2013, the R&D spending of the Company amounted to RMB 2.752 billion.

We keep improving our production safety management system, promoting standardization and IT application of production safety and improving emergency management level, while expanding employees' growth platform by striving to realize the joint growth of employees. We actively fulfill our responsibilities as global citizens and strive to "make every project a milestone". We strive to drive the the development of local economy and society through responsible operation to help the local communities upgrade their capabilities of sustainable development.

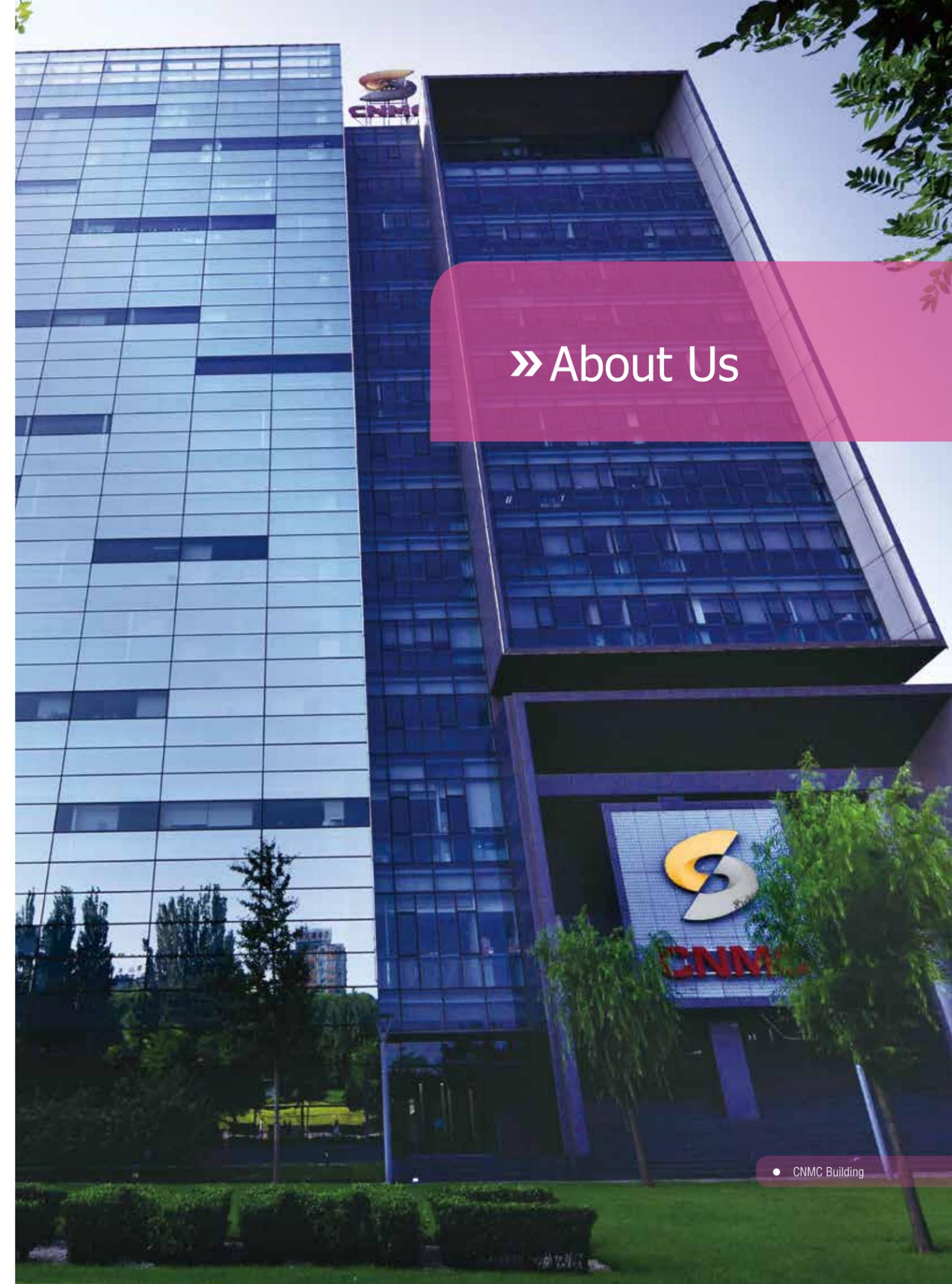
We will more strictly follow the requirements of the international standards and guidelines for social responsibility and sustainable development, cooperate with stakeholders, develop and use resources in a sustainable manner and promote the healthy development of economy and society, so as to contribute to the construction of a beautiful world and the creation of a better tomorrow for the mankind.

General Manager of CNMC

Sustainable Development Performance



Note: Some environmental protection indexes and the data of Daye Nonferrous are accounted



» About Us

● CNMC Building

Company Profile

Founded in 1983 and headquartered in Beijing, China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC) is a central state-owned enterprise under the management of the State-owned Assets Supervision and Administration Commission of the State Council of China. Its major businesses include the development of nonferrous metal mineral resources, construction engineering, and the relevant trade and technological services. Our business covers over 80 countries and regions. We have 261 enterprises of various levels, including 79 overseas enterprises of various levels, and 7 listed companies in Shenzhen, Hong Kong, Sidney and London; we have established and been operating a series of banner mine development projects in countries and regions such as Zambia, Myanmar, Thailand and Congo (Kinshasa).

In 2013, the Company was ranked for the first time among the "Fortune Global 500", placed in the 482nd place; the Company ranked No. 86 among "Top 500 Chinese Companies", No. 28 among "Top 500 Chinese Manufacturing Enterprises", and No. 35 among "Top 100 Chinese Transnational Corporations".

Corporate Governance

Group Governance

The management and the party committee of CNMC exercise some authority of the shareholders' meeting and the board of directors according to the relevant regulations of the State and the Central Government. The Party and Political Leaders' Joint Meeting is the highest decision-making form of the Group Company, while the General Manager's Office Meeting is the main decision-making form of the Company relevant to operation and management work. CNMC is a mixed holding company, which exercises the parent-subsidiary company management system. The Group Company is related to various funded enterprises by capital linkage. The Group Company exercises shareholder's rights and interests and shoulders relevant responsibilities as a sponsor, and dispatches directors to participate in the major operation decision makings of its funded enterprises.

In 2013, the Company held 33 party and political joint meetings; the Group Company dispatched 31 directors to 27 funded enterprises.

Employees' Representative Meeting

CNMC has established an Employees' Representative Meeting system which, by conducting leader and cadre appraisals through democratic discussions, soliciting proposals from employee representatives and reviewing annual work reports, guarantees employees' rights to participate in the democratic decision making, democratic management and democratic supervision of the Company.

In January 2013, the Company held the fourth session of the First Employees' Representative Meeting, which adopted the CNMC Measures for Implementing Democratic Management and formulated the CNMC Employees' Representative Inspection and Check System. By the end of 2013, the Company's Employees' Representative Meeting had solicited 124 proposals from the representatives, of which 117 had been settled, while the others were under discussion and implementation.

Anti-corruption Efforts

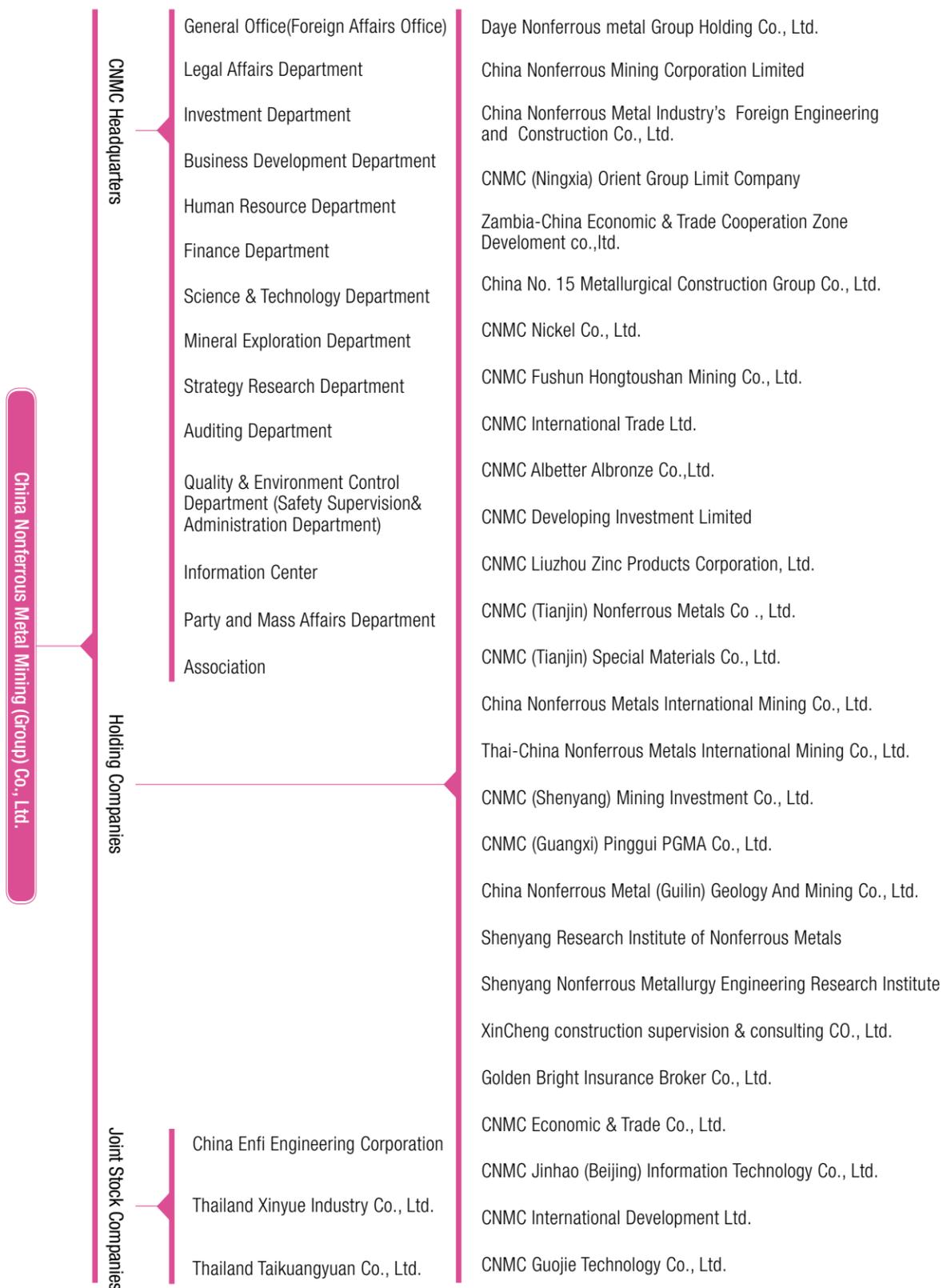
CNMC has established and improved a sound system for punishing and preventing corruption, laying equal stress on education, system and supervision, to enhance our ability to prevent and control corruption risks, actively implement the spirit of the eight regulations of the Central Government and the requirements for rectifying "four corruptive working styles", deepen efficiency supervision, implement the supervision and inspection of decision-making system for "the decision-making of major issues, appointment or dismissal of major cadres and decision making for major project investment, and use of large amounts of fund", actively conduct anti-corruption education and create a clean work environment, in efforts to guarantee the sustainable and healthy development of the enterprise.

In 2013, the Company conducted 1,350 times of relevant anti-corruption education and training activities, and 100% of the staff members above the level of headquarter department principals and deputy posts of secondary enterprises signed the letter of responsibility for honest governance. By the end of 2013, the Company had established 138 anti-corruption systems.



▲ Further engage in the Party's mass line education practices and activities

Organization Chart



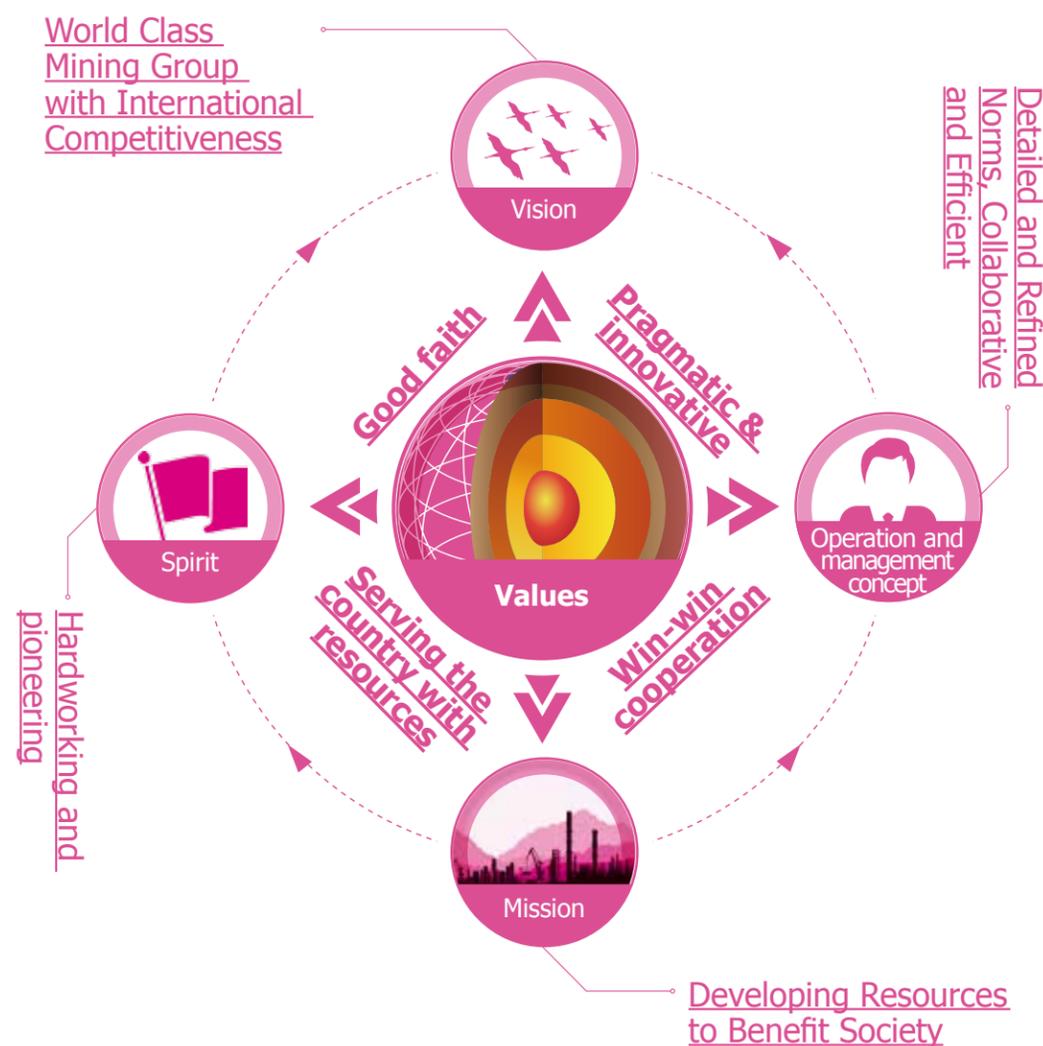
Corporate Culture

CNMC has established a Corporate Culture Construction Leaders' Group and Working Committee, revised its Group Company Corporate Culture Construction Planning, prepared a Corporate Culture Manual, and mobilized employees to conduct intensive discussion on corporate culture, thus developing a systematic corporate culture system.

In 2013, the Company successfully issued the Chronicle of China Nonferrous Metal Mining (Group) Co., Ltd. (1983-2012) and completed the compilation of CNMC Corporate Culture Manual, striving to create excellent corporate culture so as to help the Company become a world class mining industry group.



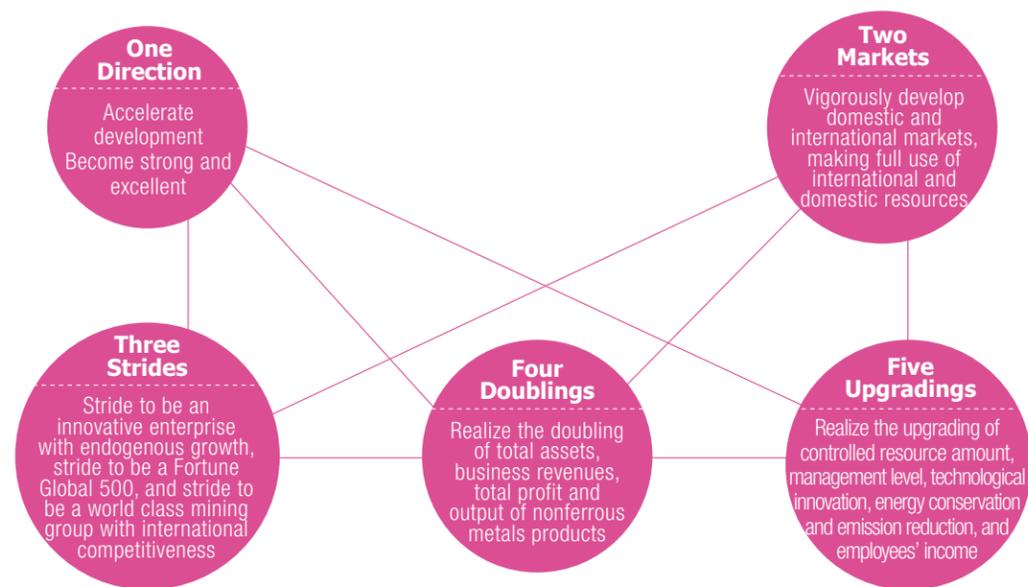
China Nonferrous Metal Mining (Group) Co., Ltd.



Development Strategy

During its development, CNMC has formed three core businesses, of which the development of nonferrous metal mineral resources is its key and special sector, construction engineering business serves its basis, and trade and relevant service businesses are its new growth points. During the period of the “Twelfth Five-Year Plan” and a future period of time, the Group Company will continue to conscientiously implement the guidelines, policies and requirements of the Central Government and the State Council on the reform and development of central state-owned enterprises, step up restructuring and upgrading, develop the three major businesses in a coordinated manner, fulfill the corporate mission of “developing resources to benefit the society”, and actively perform our corporate social responsibility, in efforts to develop into a “world class mining industry group with outstanding core businesses, advanced managerial expertise, independent innovation, harmonious development, and global competitiveness and impact”.

“12345” Development Strategy



Corporate Vision

By 2030, the Company will make major breakthroughs in the development and utilization of domestic and overseas nonferrous metal mineral resources, and will have a total of 80 million tons of heavy nonferrous metal resources, and 1 billion tons of light nonferrous metal resources. It will achieve major progress in corporate reform, independent innovation and scientific management so as to become world class mining industry group with outstanding core businesses, advanced managerial expertise, independent innovation, harmonious development, and global competitiveness and impact.



Special Topic

Special Topic

Make Every Effort to Be a Great Enterprise, Shoulder Responsibility to Win Glory

“ You have scored significant achievements over many years, especially in the recent years, and have made outstanding contribution to the resource strategy and economic development of our country. Your development is pioneering and your prospect of development is very promising. ”

—General secretary of the CPC Central Committee, president of the People's Republic of China (PRC), Chairman of the CPC Central Military Commission, Xi Jinping

• In September 2012, President Xi Jinping visited the CNMC exhibition booth during the 9th China-ASEAN Expo

In 1983, CNMC started from scratch. Along with the great tide of reform and opening-up, the Company kept developing and flourishing. During its three decades of growth, the Company has experienced business startup development, promoted restructuring and realized leaping development. Compared with the early period of the "Eleventh Five-Year Plan", by the end of 2013, the total assets, business revenues and output of nonferrous metal products of CNMC increased by 16 times, 39 times and 30 times respectively. Thus, the Company realized development against the economic downturn, was successfully ranked among the "Fortune Global 500" and took a solid step towards the goal of becoming a world class mining industry group with international competitiveness.

“ The three decades of CNMC witness its development together with the State, the Nation and the whole society, during which several generations work in tandem to create a brilliant company. These three decades see the growth of the Company from a small and weak one to a large and strong group, thanks to the persevering and daring efforts of all its members. ”

—CNMC General Manager Luo Tao

On September 28, 1998, representatives of NFCA and ZCCM signed a takeover memorandum and held the flag-raising ceremony in the Chambishi Copper Mine Meeting Room, which marked the official takeover of Chambishi Copper Mine by NFCA.



▲ On August 16, 1987, Jordan King Hussein inspected the Jordan Maan Site of China Nonferrous Metal Industry Overseas Engineering Company and wrote an inscription.

“ We greatly appreciate our Chinese friends' loyal efforts to the most important project in Maan, Jordan. We value the friendship and cooperation between the two parties and are willing to maintain the development in this field. Best wishes. ”

—Hussein, Jordan King



▲ At its inception, the Company had no fixed office address. Several rooms of a hotel were once rented temporarily as office.

1983

1987

**Start an enterprise in a difficult condition
Survival and development**

The first Chinese enterprise in the nonferrous metal industry to "go global", which mainly provides project contracting services for overseas investors. It has established a responsible brand image with high-quality products and services, "one project, one milestone; one project, extensive impact", and won the wide recognition from clients, thus initially shaping the international image of the Chinese nonferrous metal industry.

From 1997, the Group Company started the development of overseas mineral resources and actively implemented the "go global" strategy.

1997

1998

**Developing resource
Common development**

Expanded from engineering construction to mineral resource development, the Group Company has developed two core businesses. Overseas resource development plays a larger role in drive the economic and social development of the places where our projects are located.

The Group Company and No. 3 Mining Company of the Myanmar Ministry of Mining officially signed *The Myanmar Tagaung Mountain Nickle Ore Exploration and Feasibility Study Agreement*.

2004

2005



▼ On August 28, 2005, GM Luo Tao accompanied Enkhbayar, then President of Mongolia, to attend the Commencement Ceremony of Tumurtin Ovoo Zinc Mine.



▲ On December 21, 2010, the Group Company was rated among "Top Ten Chinese Enterprises in Africa", ranking No. 1 in voting results.

The total assets of the Group Company surpassed RMB 10 billion for the first time, and maintained a growth rate exceeding RMB 10 billion each year for six consecutive years from 2007; raising the "one two three four five" development ideas.

2006

2010

2013

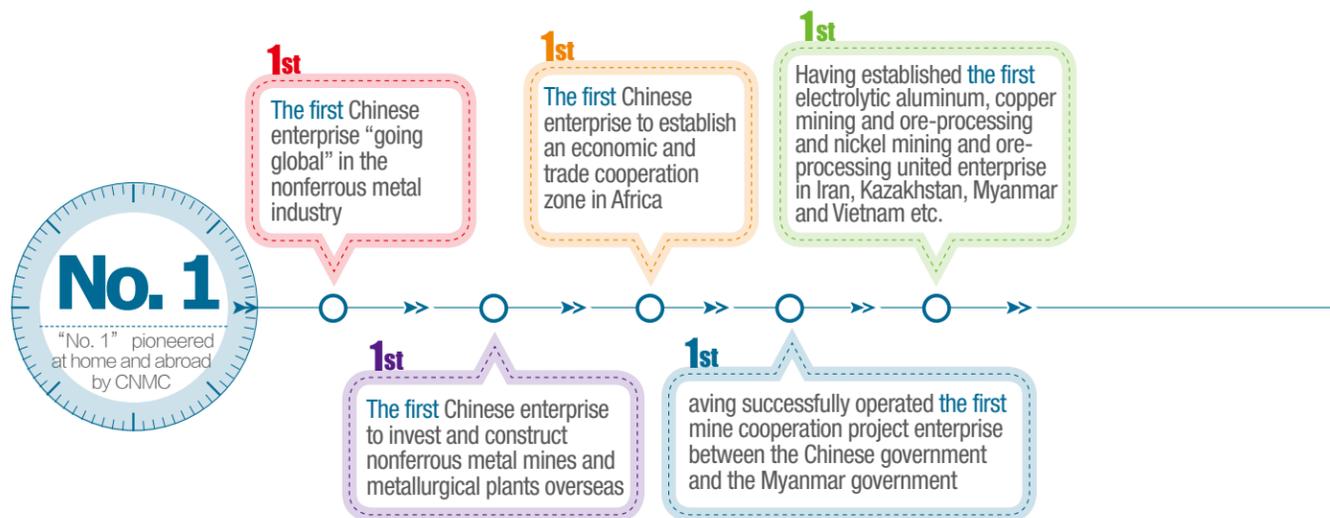
**Extending industrial chain
Sustainable development**

We stick to the concept of "Releasing Resources' Value, Working Together to Build Social Harmony", grasp opportunities to establish a complete nonferrous industrial chain, complete the strategic restructuring to become an international mining company and form three core businesses. We conduct responsible international operation, seek the maximization of economic, social and environmental comprehensive values and are dedicated to the realization of coordinated and sustainable development of enterprises, economy and society.



▲ On April 11, 2013, Zambia President Michael Sata visited the CNMC headquarters and attended the Zambia-China Economic and Trade Forum.

At its inception, CNMC insisted on the direction of international development and invested in major projects such as Zambia Chambishi Copper Mine, Zambia China Economic and Trade Cooperation Zone (ZCCZ), Myanmar Tagaung Nickel Mine, Mongolia Tumurtin Ovoo Zinc Mine, Congo (Kinshasa) Mabende Leach Copper Smelting and Kyrgyzstan Chaarat Gold Mine. The Group Company has become a pacesetter for “going global” in the Chinese nonferrous metal industry.



» Looking back at the course of CNMC in fulfilling its social responsibility in the past three decades, we can find the following five main characteristics.

Pragmatism and innovation, creating responsibility culture



During its three decades of development, CNMC deeply feels the heavy responsibility on its shoulders, keeps exploring and deepening the responsibility concept and awareness in practices, and has gradually developed the core responsibility culture centering on the corporate mission of “developing resources to benefit society” and guided by the sustainable development concept of “Releasing Resources’ Value, Working Together to Build Social Harmony”.



International Operation to Upgrade Supply Capabilities

CNMC is the first enterprise “going global” and the most successful one in conducting international cooperation in the Chinese nonferrous metal industry. In its international operations, the Company timely adjust its developmental strategy. A clear strategic development route has been formed from sole foreign project contracting to mineral resource development and the “123” strategic restructuring objective to the establishment of the “12345” strategic development guidelines. At the same time, the Company actively promotes investment, M&A, restructuring and being listed to realize the upgrading from product operation to capital operation and develop three core businesses of strategic collaboration and effective allocation. Meanwhile, the efficiency of resource development and utilization has been effectively upgraded by its extension of the nonferrous metal industrial chain. The Company has gradually explored and developed an industrial chain sustainable development mode and regional sustainable development mode in its practices.

Reform and Innovation to Enhance Development Capabilities



Over three decades, CNMC has been attaching great importance to the upgrading of internal corporate management, reform and innovation. In management innovation, the Company insists on improving its corporate governance, optimizing business processes, promoting management diagnosis and management upgrading and striving to improve operating efficiency, economic performance and development quality to develop management and cost advantages. As a result, a “refined, standardized, coordinated and efficient” developmental path has been created. In terms of scientific and technological innovation, the Company actively establishes national, provincial and enterprise multi-level scientific and technological innovation platforms, establishes scientific and technological innovation guiding and incentive mechanism, steps up efforts to train scientific and technological talent teams, keeps enhancing our own independent innovation capabilities to drive industrial progress with technological progress.



Put People First for Group Cohesive Force

CNMC takes employees as its most precious wealth. From the deepening of personnel system reform in the early pioneering period to consolidating human resource management basis, realizing standardized management to the comprehensive implementation of the strategy of “strengthening the enterprise by talents” by strengthening the construction of talent teams including operation and management talents, professional technical talents, highly skilled talents and overseas front line talents, and the promotion of the reform of three systems, personnel, labor and distribution, an employee team of high qualification, a strong sense of responsibility and full of vitality has been developed.

In the international operation, the Company keeps strengthening the international compound talent team, actively promotes the localization of employees, and provides equal development opportunities, constructs diversified growth channels for employees of different races, nationalities and genders. The Company sincerely cares for its employees, strives to solve difficulties and problems for those employees in trouble, and is dedicated to share the development results of the enterprise with all its employees.

Enthusiastic Social Participation to Promote Social Harmony



Wherever the CNMC goes, it enthusiastically helps the local community to upgrade its capabilities of development. Such efforts include stepping up investment in the construction of infrastructure, improving development environment; promoting localized purchase to help local SMEs to grow; providing career training to improve the residents’ employment capabilities; making donation to local hospitals and schools to support the development of local medicine and education; participating in disaster relief, among others. By the end of 2013, in Zambia, Mongolia, Myanmar and Thailand alone, the Company had invested nearly USD 3.5 billion, among which investment in infrastructure exceeded USD 150 million, in addition to nearly 20 thousand job opportunities provided to local residents. Over many years, the Group Company keeps helping community development, and such efforts have helped it win the trust of local governments and people.

» Sustainable Development Concept

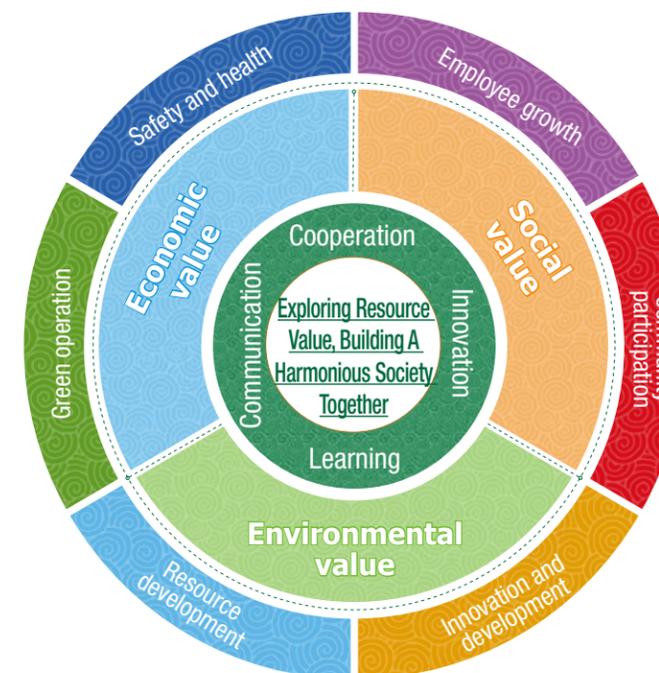


• NFCA Office and Technical Building

• Interpretation of the sustainable development model

The circular structure symbolizes the global corporate operation of CNMC; the multi-level rings symbolize latitudes, and the centripetal six lines symbolize the shape of the earth.

Centering on the concept of “Exploring Resource Value, Building A Harmonious Society Together”, CNMC employs sustainable methods to improve management, and focusing on six key areas of resource development, innovative development, safety and health, green operation, employee growth and community participation, promotes sustainable development practices, to continuously realize the sustainable development objective of maximizing comprehensive economic, social and environmental values.



• Core concept of sustainable development

Exploring Resource Value, Building A Harmonious Society Together

Meaning of the concept: The core idea of development development is to engage in resource development and utilization while ensuring the sustainability of resources and the environment, maximally utilize resources through various links of the industrial chains of the three core businesses, create economic value, social value and environmental value, and strive to realize the coordinated development of economy, society and the environment.

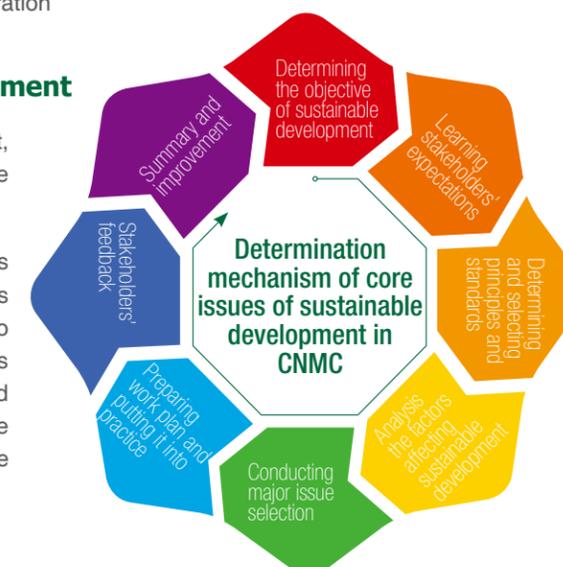
• Methods of sustainable development

Learning, Innovation, Communalization, Cooperation

• Key areas of sustainable development

Resource development, Innovative development, Safety and health, Green operation, Employee growth and community participation

CNMC draws on international standards, follows the benchmark of social responsibility practices of world class enterprises, and takes into comprehensive consideration the enterprise’s development objective, operation strategies and stakeholders’ expectations before it finalizes the enterprise’ core issues concerning sustainable development.



Promotion of Sustainable Development

Construction of the Sustainable Development System Sound Social Responsibility System

• Sound Social Responsibility System

In February 2013, the Company established the Social Responsibility Work Committee, determined the staff composition and work responsibilities of the committee, and developed a social responsibility work mechanism connecting the upper and lower levels, so as to provide organizational guarantee for the Group to perform social responsibility. On the Group level, members of the Group leader team take charge of social responsibility work respectively, with the Strategy Research Department acting as the leading one and other departments working in cooperation; on the level of various funded enterprises, the departments, people and contacts responsible for social responsibility have been determined.

• Improving the social responsibility planning

Initially prepare the overall planning for the social responsibility work of the Group in the next three years, and explore the establishment of a corporate social responsibility objective management system.

• Establishing social responsibility system

Develop regulations such as the CNMC Regulations on the Compilation and Use of Social Responsibility Reports and the CNMC Measures on the Management of External Donations.

Communications on Sustainable Development

• Deepening the coverage of internal employee communications

Conduct social responsibility training to integrate the concept and management of sustainable development into various links of enterprise operation and improve employees' responsibility awareness.

• Expanding external stakeholders' communication channels

Prepare and release the Group social responsibility report and social responsibility reports for countries in Zambia and Myanmar etc.; conduct social responsibility communication activities and strengthen communication with key regions.

• Enhancing the impact of international social responsibility

In July 2013, the Company successfully acceded to the United Nations Global Compact, so as to participate in more international social responsibility affairs, build a responsible image globally and enhance the Company's international impact.

Further Reading

The United Nations Global Compact was proposed by Former UN Secretary-General Kofi Annan at the Davos World Economic Forum on January 31, 1999, who called on enterprises to cooperate with public institutions such as governments to jointly cope with various challenges in the course of globalization and participate in solving major world problems. In July 2000, the Office of the United Nations Global Compact was officially established in the UN headquarters, which advocates that enterprises should abide by ten principles on human rights, labor, the environment and anti-corruption. Currently, the United Nations Global Compact has become the largest and most influential international organization and communication platform in the field of international social responsibility.

Stakeholders' Participation

Stakeholders	Description of stakeholders	Expectations for the Group	Communication methods and channels
Governments	Chinese government and the governments of the places of operation	Implement the State's macro regulations, and promote industry integration, strengthen production safety supervision and protect the environment according to the State plans for the reinvigoration of nonferrous metal industry	Participate in the preparation of laws and regulations, policy documents, and participate in meetings, submit special reports, report statistical statements and financial statements, and pay visits, etc.
SASAC	Exercising the authority of investor on behalf of the State	Realize the value maintenance and increase of state-owned assets, improve corporate governance structure, focus on the owner, improve the enterprise's international competitiveness, actively implement the State's policies on energy conservation and emission reduction, and realize green operation	Implement the relevant requirements of the SASAC, prepare the Company's relevant regulations and systems, work reports, and submit statistical statements and financial statements etc.
Employees	All employees of the Company	Protect employees' rights and interests, provide stable employment opportunities and equitable and reasonable payment guarantee, improve employees' career development channels, and provide safe and healthy work environment	Establish labor unions of various levels, regularly hold employees' representative meeting, and establish smooth internal communication channels, etc.
Clients	Users purchasing the Group's products or services	Abide by commitments, provide high-quality and low-price products and services, and realize equal cooperation for mutual benefits	Closely communicate with clients, strictly perform contracts, and provide rich production service information, etc.
Partners	Suppliers, contractors, financial institutions, research institutions and consulting institutions, among others	Abide by business ethics, laws and regulations, establish long-term partnership and realize mutual benefit and win-win	Strategic cooperation negotiations, high-level meetings, fair and open biddings, regular business exchanges, and regular visits, etc.
Investors and creditors	Holders of the shares and bonds of the Company and its subordinate enterprises	Continue to improve the Company's value, prevent and control risks, operate stably, repay debts on schedule, and pay bonus	Accurately and timely disclose information, pay regular visits, release annual reports and hold shareholders' meeting, etc.
Community and Public	Places where the business and operation of the Company are located	Promote the capability of sustainable development of community economy, support social welfare cause, and protect community environment, to realize joint development	Sign a co-construction agreement, participate in community project construction, have regular communications and conduct co-construction activities, etc.
Social organizations	International and domestic non-governmental organizations, industry associations and local organizations, etc.	Protect the environment and support public welfare activities, etc.	Strengthen information disclosure, actively participate in relevant meetings or activities of environmental protection, and continuously improve production processes and technologies, etc.
Media	Various newspapers, magazines, TV and network media, etc.	Information disclosure and transparency	Strengthening information disclosure and enhancing operation transparency, etc.

Social Recognition

Awards	Awarding Units
Advanced Collective and Labor Model of Central Enterprises	MOHRSS and SASAC of the State Council
Advanced Unit of Poverty Relief and Development of Central Enterprises	SASAC and Poverty Relief Office of the State Council
Award of Scientific and Technological Innovation Enterprise	SASAC of the State Council
2013 Excellent Social Responsibility Practice of Central Enterprise	SASAC of the State Council
2012 Advanced Unit of Central Enterprises in Financial Statements Management	SASAC of the State Council
Sion-ASEAN Expo Tenth Anniversary Partnership Excellent Contribution Award	Department in charge of trade and economy of China and ASEAN ten nations, ASEAN Secretariat, and People's Government of Guangxi Zhuang Autonomous Region
China Nonferrous Metal Industry Scientific and Technological Award	China Nonferrous Metals Industry Association China Nonferrous Metals Society
First Prize of Excellent Results of Corporate Management of the Chinese Nonferrous Metal Industry	China Nonferrous Metals Industry Association
Chinese Enterprise R&D Creativity Award	Development and Research Center of the State Council China Enterprise Evaluation Association
Ten Top Figures of Independent Innovation in Chinese Enterprises-Luo Tao	Development and Research Center of the State Council China Enterprise Evaluation Association
National Advanced Unit of Industrial Transparent and Democratic Management	National Industrial Democracy Coordination Group
Excellent Case of International Social Responsibility	China Foundation for Poverty Alleviation China NGO Network for International Exchanges
Best Practice of Chinese Network Social Responsibility of the United Nations Global Compact	United Nations Global Compact China Network
Golden Bee 2013 Excellent Corporate Social Responsibility Report-Innovative Report Award	WTO Economic Herald, China-German Trade Sustainable Development and Corporate Behavior Code Project Peking University International Research Center for Social Responsibility and Sustainable Development

» Global Operations Create Sustainable Value

CNMC deepens international operations to create a world class enterprise with international competitiveness with sustainable operation, extends the industrial chain of nonferrous metals resource development so as to provide high-quality products and services for social development and cooperate with stakeholders to build a nice future.



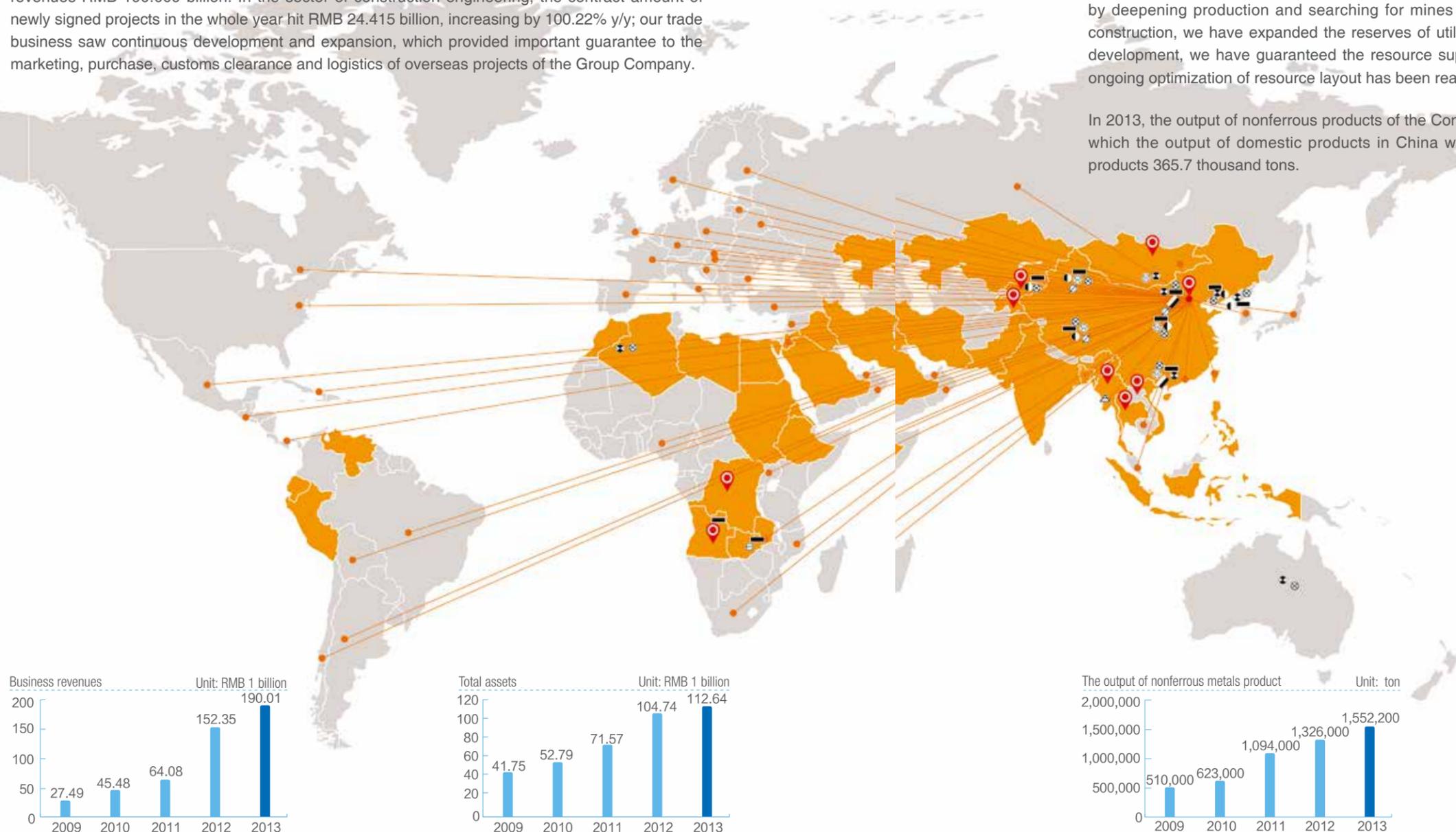
• Wharf of Tagaung-Taung Nickel Mine, Myanmar

Steadily Upgrading Operation Performance

In face of the grim situation of sluggish demand and reduced prices of the global nonferrous metals industry, CNMC has taken initiative to grasp development opportunities, adjusted operation strategies, sought progress while maintaining stability, overcame many difficulties to realize scale upgrading with high quality and performance upgrading with endogenous driving force and score new achievements in reform and development.

»» Operation Performance Hit a New Record High

In 2013, we made concerted efforts to overcome the adverse impact of the economic situation and industrial downturn and realize stable upgrading of operation performance. By the end of 2013, the total assets of the Group Company had amounted to RMB 112.641 billion, and its business revenues RMB 190.009 billion. In the sector of construction engineering, the contract amount of newly signed projects in the whole year hit RMB 24.415 billion, increasing by 100.22% y/y; our trade business saw continuous development and expansion, which provided important guarantee to the marketing, purchase, customs clearance and logistics of overseas projects of the Group Company.



“ We like to congratulate you on your satisfactory achievements. We wish that you keep reforming and innovating, vigorously develop the enterprise through solid work, and actively fulfill the responsibilities of a central enterprise, so as to make new contributions to the quality improvement, efficiency enhancement and performance upgrading of our economy. ”

—Li Keqiang, Premier of the State Council and Member of the Standing Committee of the Political Bureau of the CPC Central Committee

»» Continuous Optimization of Resource Layout

Through resource project M&A, co-development and project in exchange for resources and long-term trade agreement, we have acquired and controlled high-quality mineral resources; by deepening production and searching for mines in the depth and peripherals of mines under construction, we have expanded the reserves of utilizable resources, and by sustainable resource development, we have guaranteed the resource supply meeting social development. As a result, ongoing optimization of resource layout has been realized.

In 2013, the output of nonferrous products of the Company amounted to 1.5522 million tons, among which the output of domestic products in China was 1.1865 million tons, and that of overseas products 365.7 thousand tons.

- Construction engineering
- Relevant trade and services
- 📍 Development of nonferrous metals resources

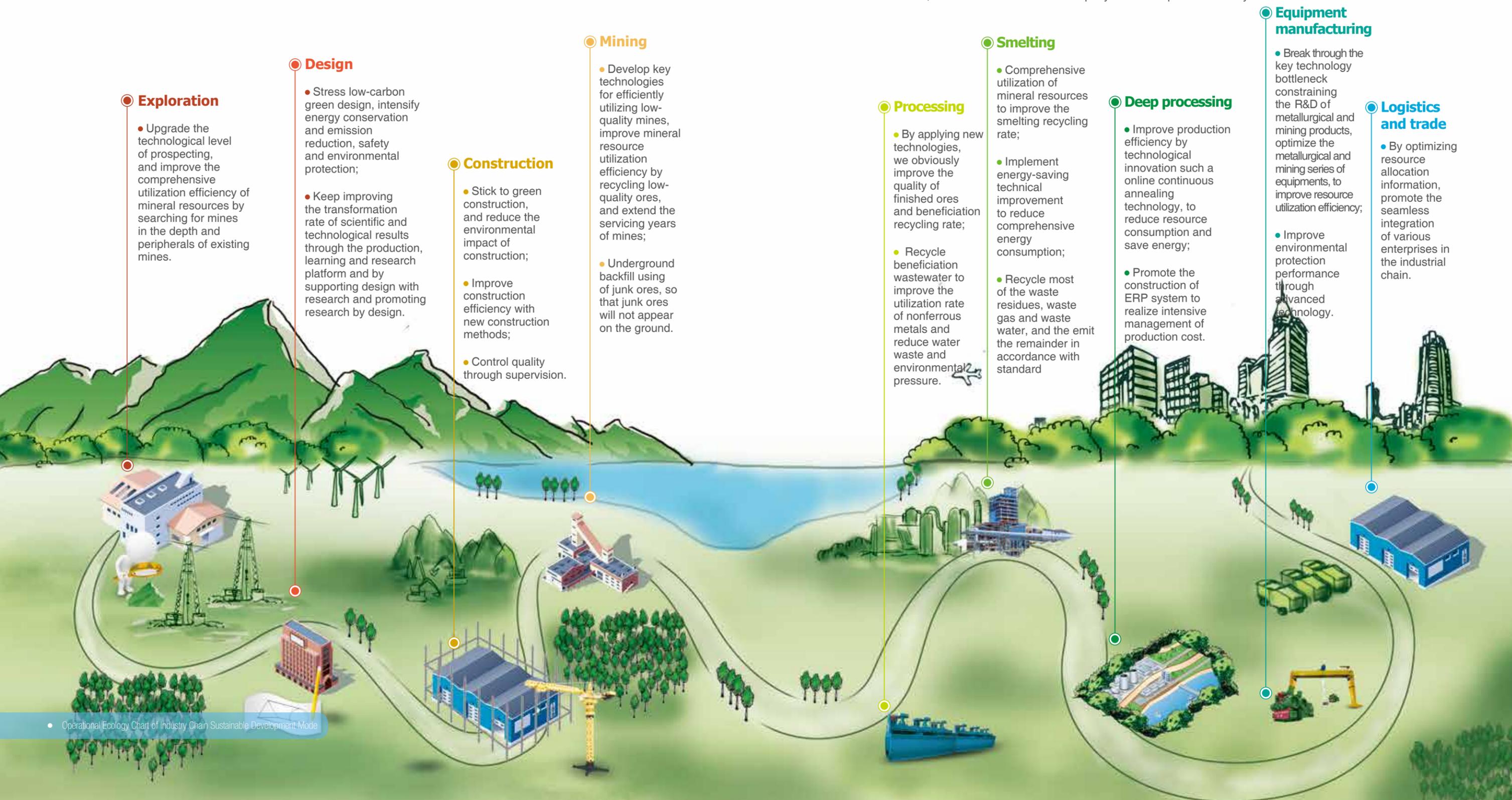
Legends		2013 resource reserves
■	Cu	11,572,400 ton
⊖	Co	248,400 ton
⊗	Zn	5,453,600 ton
⊗	Pb	1,721,000 ton
△	Ni	680,000 ton
●	Au	4,692,500 ton
⊗	Ag	77,513,300 ton
⊗	W	366,300 ton
◆	Sn	48,200 ton
⊗	Mo	119,900 ton

Explore a Sustainable Operation Model

On the basis of a sound industrial chain integrating nonferrous metals prospecting, design, construction, mining, beneficiation, smelting, processing, equipment manufacturing, trade and relevant services, CNMC has developed sustainable development models such as industrial chain sustainable development, regional sustainable development, to service economic and social development with more friendly and sustainable methods of resource utilization.

Industrial Chain Sustainable Development Models

By relying on the advantages of three core businesses, we implement the concept of industrial chain sustainable development in the whole business process. By technological renovation and searching for mines in depth, we improve the resource utilization efficiency of each link, and through planning and management of the Group, we bring into play the role of industrial chain synergism, optimize resource allocation among links, realize efficient utilization of nonferrous metals resources, promote the development of the industrial value chain towards high technologies and high added value, and thus consolidate the Company's leadership in the industry.



Exploration

- Upgrade the technological level of prospecting, and improve the comprehensive utilization efficiency of mineral resources by searching for mines in the depth and peripherals of existing mines.

Design

- Stress low-carbon green design, intensify energy conservation and emission reduction, safety and environmental protection;
- Keep improving the transformation rate of scientific and technological results through the production, learning and research platform and by supporting design with research and promoting research by design.

Construction

- Stick to green construction, and reduce the environmental impact of construction;
- Improve construction efficiency with new construction methods;
- Control quality through supervision.

Mining

- Develop key technologies for efficiently utilizing low-quality mines, improve mineral resource utilization efficiency by recycling low-quality ores, and extend the servicing years of mines;
- Underground backfill using of junk ores, so that junk ores will not appear on the ground.

Processing

- By applying new technologies, we obviously improve the quality of finished ores and beneficiation recycling rate;
- Recycle beneficiation wastewater to improve the utilization rate of nonferrous metals and reduce water waste and environmental pressure.

Smelting

- Comprehensive utilization of mineral resources to improve the smelting recycling rate;
- Implement energy-saving technical improvement to reduce comprehensive energy consumption;
- Recycle most of the waste residues, waste gas and waste water, and the emit the remainder in accordance with standard

Deep processing

- Improve production efficiency by technological innovation such a online continuous annealing technology, to reduce resource consumption and save energy;
- Promote the construction of ERP system to realize intensive management of production cost.

Equipment manufacturing

- Break through the key technology bottleneck constraining the R&D of metallurgical and mining series of equipments, to improve resource utilization efficiency;
- Improve environmental protection performance through advanced technology.

Logistics and trade

- By optimizing resource allocation information, promote the seamless integration of various enterprises in the industrial chain.

» Regional Sustainable Development Model

Mineral resources are non-renewable. By the development of nonferrous metals resources, we drive local economic growth and social development, improve local infrastructure, enhance the professional qualifications of local residents, provide job opportunities for local residents, and bring along the formation and clustered development of relevant industries, logistics and trade in the region so that the reliance of local economic development on mineral resources is gradually reduced. By active exploration of mineral projects in Zambia, Congo (Kinshasa), Myanmar and Mongolia, regional modes sustainable development of special characteristics have been developed.

CASE

Zambia-China Economic and Trade Cooperation Zone (ZCCZ) Drives Regional Development

The Zambia-China Economic and Trade Cooperation Zone (ZCCZ) is the first multi-functional economic zone in Zambia, reputed as a “paragon of China-Africa cooperation”. The Zambia-China Economic and Trade Cooperation Zone, which includes the Chambishi Park and the Lusaka Park, is planned to cover an area of 17.28 square kilometers. Chambishi Park relying on the rich nonferrous metals mineral resource advantages of Zambia, and constructing a comprehensive park focusing on the nonferrous metals industry with radiation and demonstration effects, the ZCCZ has comprehensively improved the technological level and production, operation and management levels of mining, beneficiation, smelting and processing in Zambia, upgraded the development of industries such as food processing, bio-pharmaceuticals, and machinery processing in Zambia, created a multi-cultural investment and development environment, provided new job opportunities and improved local capabilities of sustainable development and the life quality of local people.

By the end of 2013, 28 enterprises had settled in the ZCCZ, involving industries such as mining, prospecting, smelting, nonferrous metals processing, chemical manufacturing, architecture and trade; the total investments in infrastructure amounted to about USD 150 million, the sales revenues realized were USD 7.9 billion, output value created reached USD 8.4 billion, and 8,618 job opportunities were provided to local residents.

“ZCCZ is the best interpreter of the all-weather friendship of China and Zambia!”

—Kaunda, former Zambia President

“The Myanmar Tagaung Nickel Mine Project is “an outstanding project in China-Myanmar cooperation” and “witness of the traditional friendship between China and Myanmar”. We will go all out to support the development of CNMC in Myanmar. Myanmar will, with a more open manner and stable development, attract and welcome Chinese companies to continue to participate in the economic construction of Myanmar and jointly promote the lasting, healthy and stable development of comprehensive strategic partnership between China and Myanmar.”

—Myanmar President Thein Sein

▼ Zambia-China Economic and Trade Cooperation Zone--the first overseas economic and trade cooperation zone established by China in Africa



▲ On September 3, 2013, Premier Li Keqiang listened to the CNMC report in the Tenth China-ASEAN Expo

| Creating a Quality Brand Image

CNMC sticks to the quality development strategy of “quality first and success through quality”, keeps improving professional quality management measures, actively serves funded enterprises and helps enterprises improve their quality management level. The Company integrates the whole-course quality ideas into each link of production and operation, strives to realize the “zero defect” quality objective, constructs first-class corporate quality culture and industrial brand, improve the quality management system and quality integrity system, and meets client demand with excellent nonferrous metals products and project construction services.

» Continuous Improvement of Quality System

We have incorporated quality development into the overall planning of the Group Company for coordinated arrangements. Centering around the overall work objective of the Company, we have established a quality supervision system and guarantee system, fulfilled quality management responsibilities, promoted quality benchmarking management, improved quality information report mechanism, and keep improving our product quality and project construction quality.

By the end of 2013, nearly 90% of the funded enterprises had passed the ISO9000 management system.

» Continuous Improvement of Brand Value

We keep strengthening quality management, gradually break down quality supervision responsibilities and identify weaknesses in quality management work. By strengthening team quality management, we have realized “indexing of product quality, standardization of product quality, sequencing of equipment operation, and digitalization of production assessment”. Various forms of quality management activities such as “quality month” theme exhibition activities are organized to enhance employees’ quality awareness, and allocate responsibilities each each link and position.

We keep improving our product quality and project construction quality and upgrading our quality management performance. As a result, we have created a number of famous enterprises such as Daye Nonferrous, NFC, CNMC Orient, China No. 15 Metallurgical Construction, CNMC Alberter, Guilin Research Institute, Shenyang Metallurgical Machinery, CNMC Pump Industry, and Tieling Reagent, and a large number of famous product brands such as “Dajiang”, “Baoshan”, “Hongye”, “Bajiao”, “Feidie”, “Kuangyou”, “Ao” and “Zhujiang”. Brand value-added effect has been created through high-quality products.

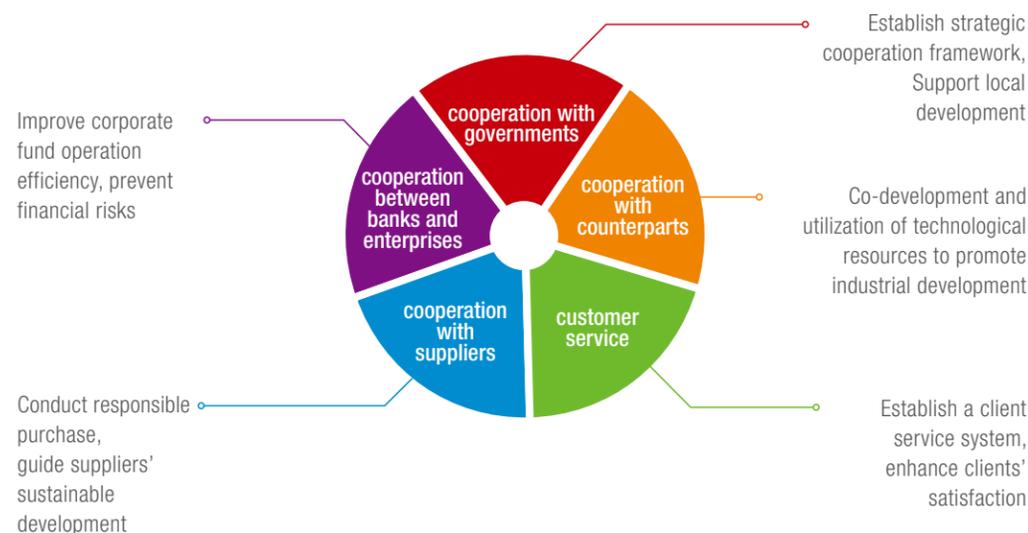
» Dedicated to Creating Quality Assured Projects

We attach great importance to the quality management, perfect the construction of quality management systems for project contracting, identify and break down the major processes of breakdown projects and their sub-processes, promote all-people and all-course quality management, improve the qualifications of affiliated construction enterprises, and create quality assured projects for our clients.

By the end of 2013, China No. 15 Metallurgical Construction Co., Ltd. (CN15MCC) had won several awards for its high-quality projects, including Luban Award for Chinese Construction Projects, National High-quality Project Award, and Construction Structure High-quality Project; and NFC has been rated among “Top 225 International Contractors” and “Top 200 Design Companies” by Engineering News-Record for several consecutive years.

Work with Partners to Create Value

Centering around business development layout, CNMC brings into full play its own resources, management and technological advantages, deepens its cooperation with stakeholders such as various levels of governments, suppliers and clients, to create new global partnership, keep raising cooperation levels, expand cooperation fields, and guide suppliers and other business partners to actively fulfill social responsibilities, in efforts to jointly promote the healthy development of the global nonferrous industry.



» Innovative management promotes restructuring and upgrading

CNMC drives technological innovation through management innovation, provides system support for technological innovation by improving management systems, drive enterprise development through technological innovation, and improve production and operation level by improving technological level.



• Copper belt production line of CNMC Alberter



▲ Cathode copper production workshop of Daye Nonferrous

Continuous Deepening of Management Upgrading

CNMC has promoted corporate development with management innovation. The problems and risks in corporate management have been sorted out and rectified; in efforts to “upgrade management specifically”. The Company actively implements the overall deployment of the SASAC of the State Council about management upgrading, to accelerate the transformation of the management methods of the Group Company from extensive management to intensive and refined management.

Rolling Adjustment of Strategic Planning

We have organized various departments of the headquarters and 24 main funded enterprises to adjust their three-year development strategy and planning on a rolling basis, further standardized the compilation of strategic planning of funded enterprises, regularly surveyed the implementation of strategies by funded enterprises, promote “two improvements and one reduction”, which have vigorously promoted the improvement of efficiency.

In 2013, the CNMC Development Strategy and Planning 2013-2015 was submitted to the SASAC of the State Council, which was also issued to various departments and funded enterprises.

Promote IT Application Management

We spare no efforts to promote IT application, and strengthen the integration of IT application development and Group development. With “Five Unification” management of IT application as the starting point, we focus efforts to build an operation system integrating “management, construction, maintenance and application”, combine the ERP corporate information management system with Internet information, By data integration sharing and process optimization, we have improved decision-making efficiency, upgraded information service quality and the ability to guarantee IT application operation and maintenance services, and effectively supported the Group to realize the strategic objective of “creating a world class mining group” by strengthening IT application.

In 2013, the Company started the construction of 15 new projects such as ERP, BI, comprehensive budget management, collaborative office, network security system, video conference reconstruction and production safety IT application, and solved over 1000 application problems in systems such as ERP; over 110 thousand main data were maintained; terminals were maintained for nearly 600 times; video meetings were guaranteed for over 30 times; and over 4000 pieces of information were updated and released. Through various methods, a total of about RMB 8.82 million was saved.

Promote Team Management Mode

Centering on team construction, we promote management upgrading in grassroots units, and conduct activities such as on-site experience exchanges on team construction, so as to comprehensively enhance the team management capabilities of funded enterprises.

In 2013, the Company had 131 team leaders who participated in the long-distance training of team management capability qualification certification of central enterprises. By the end of 2013, 690 team leaders of 17 funded enterprises had participated in the training.

CASE

CNMC Albetter Team Construction

CNMC Albetter Albronze Co., Ltd. (CNMC Albetter), makes major efforts to implement semi-military team management of “operation standardization, post standardization and process clarification”. The overall objective of work content indexing, work requirement standardization, work process sequencing, work assessment digitalization and work management systemization has been realized.

Special efforts on “standardization”: Vigorously promote team standardization, popularize kanban management and visual management, implement “fixed index”, and comprehensively promote “benchmark” team construction.

Comprehensively promoting “process clarification”: Simplify contents and compile Collection of Team Construction Process “Clarification”; further promotion and practice of “semi-military” management before and during meetings, so as to attain the objective of “clearly expressing processes and skillful operation without the least error”.

Actively creating a pragmatic team culture atmosphere: Make efforts to upgrade the skills of the employees in a team, change the traditional lecturing methods in accordance with the characteristics of team leaders, encourage team members with “Sword Action”, establish an employee tracking service mechanism, creating family culture, and further enhance employees’ sense of ownership.

Strengthening supervision mechanism: According to the requirements of the Measures of CNMC Albetter Albronze Co., Ltd. On Evaluating Team Construction”, conduct supervision and check to effectively promote the solid and effective proceeding of team construction work.

Effectively Strengthening Financial Management

We keep strengthening financial management and improving the Group Company’s comprehensive budget management system. We have started the comprehensive budget management IT application pilot work and completed and launched the budget compilation system testing work. We continuously optimize the function and applications of the financial ERP system, conduct financial performance evaluation to promote the “two improvements and one reduction” of funded enterprises, strengthen fund management, improve accounting information management, and promote the reduction of cost and increase of efficiency, so as to realize the healthy development of the Company.

In 2013, the Company won the “Best Comprehensive Budget Management Award” in the awarding ceremony of the “Oracle Hyperion Ten-Year Lean Financial Classic Cases”.

» Strengthening Management of Operation Risks

We strengthen the guidance on the construction of internal control systems of funded enterprises, to upgrade their capabilities to prevent risks and vigorously prevent uncontrollable risks caused by trade business and new derivatives.

CASE

Funded Enterprises Established a "Legal Saloon" in Zambia

On October 18, 2013, the "Legal Saloon" of CNMC Enterprises in Zambia was officially established, for the purpose of effectively integrating CNMC's overseas legal resources through this platform, establishing a benign interactive mechanism among funded enterprises in Zambia and between domestic and overseas enterprises, strengthening concentrated research on the regularity of general, multiple and major legal risks, and jointly exploring unified solutions. Zambia-China Economic and Trade Cooperation Zone Development Co., Ltd. (ZCCZ Development Company) acts as the secretary-general unit of the "legal saloon", responsible for organizing the monthly communication activities of the funded enterprises of the Group Company in Zambia.

| Further Promoting Technological Innovation

CNMC closely combines technological innovation with corporate development, organizes the implementation of technological plans and projects, makes great efforts to strengthen the transformation of technological results, promotes corporate performance with science and technology.

» Improving the Technological Innovation System

• Establishing a technological Innovation Platform

We step up efforts in constructing the technological innovation system and establish technological innovation platforms. Starting from project sources, we bring into plan the supporting and guiding role of technological plans and projects of the Group for the sustainable development of funded enterprises, gradually establish and upgrade multi-level technological R&D platforms at national, provincial and enterprise levels.

By the end of 2013, the Company had 7 research and design institutes, 3 national engineering technology research centers, 3 national corporate technological centers, 2 national accredited laboratories, 11 provincial and nonferrous metals industry engineering technology research centers, 6 provincial corporate technological centers, 6 provincial and nonferrous metals industry key laboratories, 1 provincial R&D center, 3 academician work stations, and 5 postdoctoral research work stations.

• Increasing Input in Technological Innovation

We keep increasing input in technological innovation, conduct special on-site research, determine key support areas through technological plans and projects, and guide funded enterprises to actively conduct technological innovation. In 2013, the Company invested a total of RMB 2.752 billion in R&D.



▲ Multi-functional set exported to Iceland from Shenyang Metallurgical Machinery



▲ 1200 KV electrical shaft furnace of CNMC Orient

» Building a Technical Talent Team

We strengthen the development of professional technical talent teams centering on leading technical professionals. By further improving technological innovation assessment and incentive mechanism, we provide excellent research conditions for technical talents, and keep improving the total number, quality and structure of technical talents. By the end of 2013, the Company had 2 academicians of the Chinese Academy of Engineering, 11 influential figures in the Chinese nonferrous metals industry, 124 experts entitled to special government subsidy, 9 national candidates for the New Century Talents Project, and 6,741 technical talents with senior professional titles.

CASE

GIMR Established an Academician Work Station

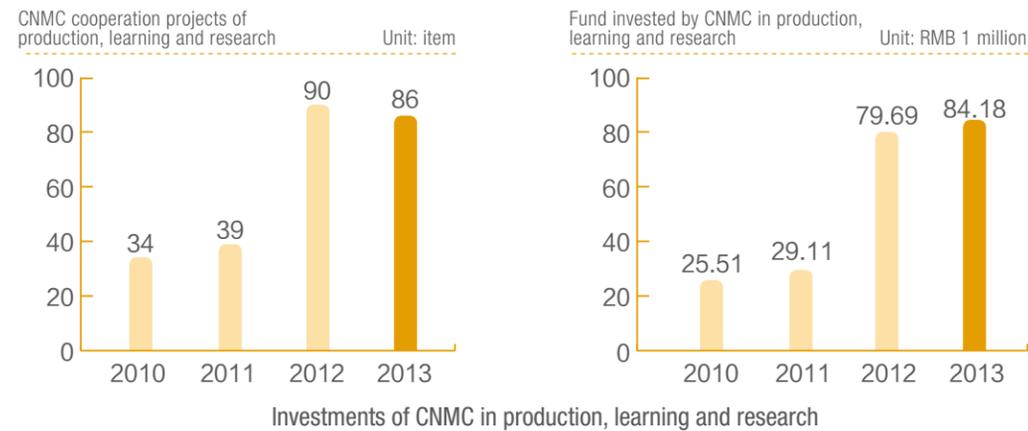
On September 26, 2013, the CNMC Guilin Institute for Mineral Resources (GIMR) officially established an academician work station, and CAE academicians Wu Yicheng and Chen Yuchuan joined the work station. Vice Director Li Guozhong of the Department of Science and Technology of Guangxi Zhuang Autonomous Region congratulated the establishment of GIMR, one of the first batch of 60 accredited academician's work stations in Guangxi.

“The academician’s work station is an important measure for the party committee of the government of the autonomous region for establishing a high-level technological innovation platform, strengthening cooperation of production, learning and research, and upgrading independent innovation capability. We wish the GIMR further strengthen the construction of the academician work station, organize resources, provide guarantee for talents, finance and materials, fulfill responsibilities, and adopt effective measures to serve research cooperation.”

—Vice Director Li Guozhong of the Department of Science and Technology of Guangxi Zhuang Autonomous Region

» Promoting Integration of Production, Learning and Research

We attach great importance to the integration of production, learning and research and actively expand channels for the cooperation of production, learning and research for funded enterprises. We have signed strategic cooperation agreements with institutes of higher education such as Central South University and University of Science and Technology Beijing to create active and health atmosphere of cooperation of production, learning and research, promote product upgrading and technical innovation of funded enterprises, and realize the combination of endogenous capability of technological innovation and application of external resources. In recent years, the number of production, learning and research projects conducted by the funded enterprises of the Company and the amount invested therein have been gradually increasing.



CASE

CNICO “Key Technology Development Project of Efficient Utilization of Low-Quality Nickel Laterites” Passed Quality Acceptance

On March 26, 2013, the national major industrial technology development project sponsored by CNMC, undertaken by CNMC Nickel Co., Ltd. (CNICO), and jointly partaken by Central South University and Shenyang Nonferrous Metals Research Institute (Shenyang Research Institute)--“Key Technology Development Project of Efficient Utilization of Low-Quality nickel laterites” successfully passed the acceptance check by the expert group. This project has solved the technical difficulty of low quality nickel and iron ores, which are susceptible to reaction with impurities, making it difficult for nickel to concentrate and separate. A nickel iron pilot plant test line with an annual output of 3,000 tons has been established. The recycling rate of nickel in the whole course of magnetic selection and smelting has reached 85.42%, and the smelting waste gas up-to-standard emission and comprehensive utilization of waste residues have been realized, providing key technical reserves for the development of low-quality nickel laterites in Tagaung.



▲ Advanced production line in the CNMC



▲ Students of Cambrian College, Canada visited the Shenyang Research Institute for internship and academic exchanges



▲ Membrane pumps produced by CNMC Pump



▲ The National special Mineral Material Engineering Technology Research Center of the Guilin Institute for Mineral Resources

» Significant Results of Technological Innovation

We keep strengthening management of technological projects. In fields such as nonferrous metals mining, beneficiation, smelting, processing and equipment manufacturing, we have developed a number of core technologies with independent intellectual property rights, to provide new impetus for the sustainable development of the enterprise.

In 2013, the Company organized all the funded enterprises for result appraisal. Among the 11 results, 2 results reached international leading level, and 9 reached international advanced level; altogether 360 patents were applied, including 161 invention patents; 274 patents were awarded, including 56 invention patents. By the end of 2013, the number of patents awarded for every thousand people in the Company was 20, including 4 invention patents, and the rate of patent implementation reached 78.7%.

CASE

A result of CNMC Luanshya won the First Prize of Scientific Progress of the Chinese Nonferrous Metals Industry of 2013

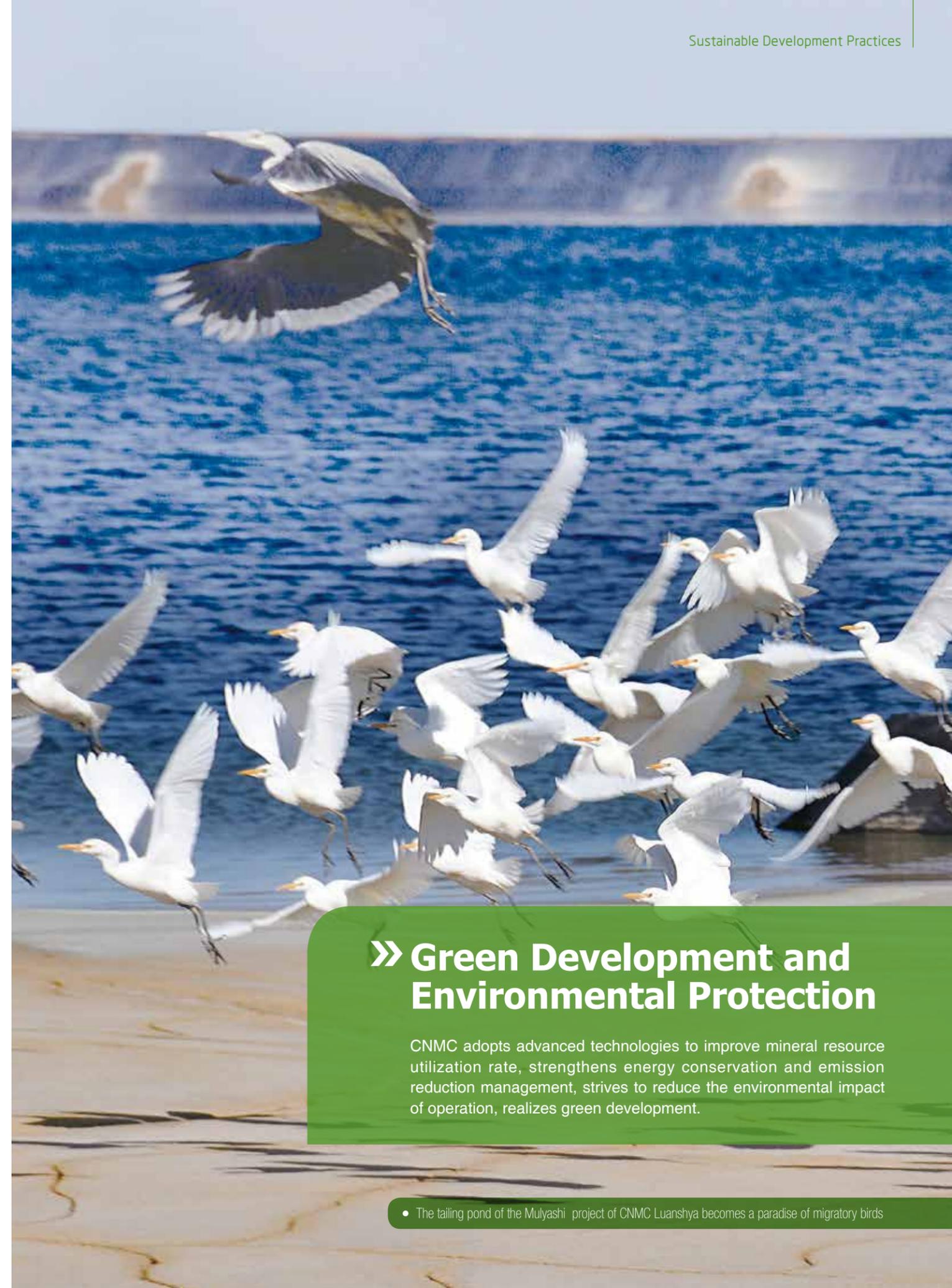
On November 22, 2013, as the No. 1 unit in the 2013 Chinese Nonferrous Metals Industry Scientific and Technological Award appraisal, CNMC won 16 awards of scientific and technological results, among which the result of “Research and Industrialization of Leach Smelting Process of Complex Copper Oxide Mine in Mulyashi of Zambia” led and completed by CNMC Luanshya won the first prize of the scientific and technological award of the Chinese nonferrous metals industry. This was the fourth time on a row that funded enterprises in Zambia won first prizes in this award.

• **Appraisal of results of technological innovation by CNMC funded enterprises in 2013**

International leading level	<p>2 results :</p> <p>Research and Industrialization of Leach Smelting Process of Complex Copper Oxide Mine in Mulyashi of Zambia; New process of recycling silver, gold and zine from wet zinc smelting high zinc leaching residue .</p>
International advanced level	<p>9 results:</p> <p>R&D of smart crown block for aluminum electrolysis With super current intensity (600KA); Innovation and application of integration of Ausmelt smelting system in Daye Nonferrous Smelting Plant; New process of O/A/O biochemical process of comprehensive wastewater from the beneficiation reagent production; Ore process mineralogy research and beneficiation application of the west ore body of the Chambishi Copper Mine in Zambia; Beneficiation process technology optimization research and application of the Baruba Copper Mine in Zambia; Research, development and industrialization of high precision red copper thin and soft belt; R&D and industrialization of 300mm silicon slice process sputtering target materials; Clean and efficient packaged technologies and equipments for copper oxygen-enriched side-blown smelting; R&D of key technologies for high-precision large heavy beryllium bronze plate, sheet and strip.</p>

• **Results of technological innovation of CNMC in 2013**

Technological awards	<p>Won the first "Technological Innovation Enterprise Award" of the SASAC; Won 19 technological progress awards of the China Nonferrous Metals Industry Association, of 16 awards were won with CNMC playing the leading role; Won the 2013 "Independent Innovation • R&D Creativity Award"; Won 3 national technological progress awards as participating unit; Won 5 provincial technological awards, of which 4 were won with CNMC playing the leading role.</p>
Undertaking technological projects	<p>Undertake 4 national 863 and technological support plan projects; Undertake 54 provincial and ministerial technological plan projects; Undertake 2 national defense and military project research tasks;</p>
Participating in standard compilation	<p>Direct 1 national standard, and participate in the compilation of 5 national standards; Direct 4 industrial standard, and participate in the compilation of 11 industrial standards.</p>



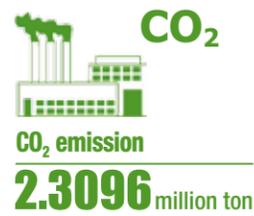
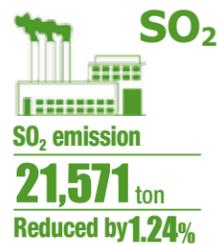
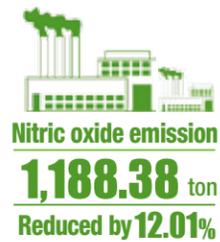
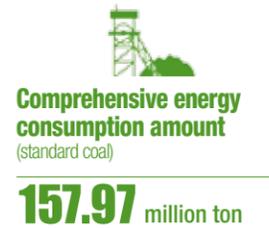
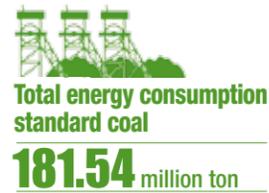
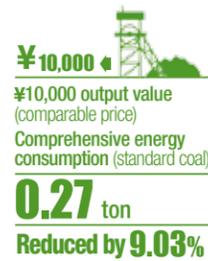
» **Green Development and Environmental Protection**

CNMC adopts advanced technologies to improve mineral resource utilization rate, strengthens energy conservation and emission reduction management, strives to reduce the environmental impact of operation, realizes green development.

• The tailing pond of the Mulyashi project of CNMC Luanshya becomes a paradise of migratory birds

Continuous Improvement of Environmental Performance

CNMC has established the objective of green development, improved the “three systems” for energy conservation and emission reduction, i.e., statistics, monitoring and assessment, comprehensively fulfilled the energy conservation objective for the Period of the “Twelfth Five-Year Plan”, promoted resource comprehensive utilization, actively conducted energy auditing and environmental protection risk assessment, strengthened energy conservation and environmental protection monitoring, and improved emergency management of emergency environmental incidents. In 2013, the environmental protection performance of the Company was further improved, and 100% of the energy conservation objective for enterprises in the Period of the “Twelfth Five-Year Plan” was fulfilled; no environmental pollution incident occurred.



Deep Utilization of Mineral Resources

CNMC stress on the sustainable development and utilization of mineral resources. In 2013, the “CNMC Special Plan for Resource Comprehensive Utilization (2013-2015)” was launched. Relevant funded enterprises actively improved their processes, to realize full exploitation, efficient beneficiation and deep use of low-quality ores; developed diversified mineral products by recycling associated metals, using waste residues and liquid to make cement and plaster; improved tailings recycling technology and improved the metal recycling rate in tailings.

In 2013, the Hongtoushan Copper Mine of CNMC Fushun Hongtoushan Mining Co., Ltd. (Hongtuo Mining) and the Coral Mine of CNMC (Guangxi) Pgma Co., Ltd. (Pgma) won the title of “model mines for the promotion and application of advanced applicable technologies of mineral resource saving and comprehensive utilization”.

CASE

Pgma develops circular economy industrial chain network

CNMC (Guangxi) Pgma Co., Ltd. (Pgma) vigorously develops circular economy. In 2013, the company used 2,837 ton of waste residues and beneficiation tailings in the production of cement; used 4,032 ton of titanium gypsum produced from the treatment of titanium dioxide waste water; completed the technical reconstruction of coral mine ultra-thin ore vein beneficiation method, and successfully recycled resources such as copper, zinc, sulfide ore and associated tungsten and tin. It established circular economy industrial chain network such as “nonferrous metals smelting--smelting residues, boiler residues--cement”, and the solid waste recycling rate and harmless treatment rate both reached 100%.

CASE

Daye Nonferrous realizes comprehensive recycling of various valuable metals

Daye Nonferrous Metals Group Co., Ltd. (Daye Nonferrous) extracts precious metals such as gold, silver as well as platinum, palladium and tellurium from waste residues and liquids in the course of copper smelting. It recycles platinum and palladium from anode sludge of copper electrolysis, with a direct recycling rate of about 50-60%; recycles rhenium from flue gas washing waste acid of the acid-making with gas with copper fire, with a comprehensive direct recycling rate of about 50%; the rhenium output is about 600 kg/year. In 2013, the company developed the construction tellurium refining system, with a direct tellurium recycling rate of about 30%; with the adoption of the Ausmelt furnace oxygen-enriched top-blown bath smelting process, the copper, gold and silver technical indexes rose by 0.03%, 7.3% and 1.03% respectively from 2012, and the comprehensive recycling of various valuable metals was realized.

▼ Ausmelt furnace of Daye Nonferrous





▲ Isa Furnace of CCS

CASE

Copper Smelting Company successfully invests in the gas recycling environmental protection project

The sulfuric acid II system of the supporting system of the Phase II expansion project of Chambishi Copper Smelting Co., Ltd. (CCS) of China Nonferrous Mining Corporation Limited has been successfully put into production. The sulfuric acid II system can recycle gas for large comprehensive smelting projects. Also, the sulfuric acid II system has further optimized the configuration of processes and equipments and improved the safe operation capability and recycling rate of the complete equipment, so that the sulfuric acid recycling and production capacity of the CCS has risen from 280 thousand ton/year in the first phase to 600 thousand ton/year, and the damage of hazardous gas emission to the environment has been effectively reduced.

CASE

NFCA efficiently exploits mineral resources

Over the 15 years since the takeover of the Chambishi Copper Mine by CNMC Africa Mining Co., Ltd. (NFCA), the company has been continuously improving the technical index of beneficiation process and improving the beneficiation recycling rate and ore concentrate quality. The level and coverage of automatic beneficiation operation have been substantially upgraded. In 2013, with the joint efforts of all Chinese and Zambian employees, NFCA realized a beneficiation recycling rate of 93.5% at the end of the year.

Practice Green Low-Carbon Economy

CNMC actively implements the State's policies on energy conservation and emission reduction, conducts technical reconstruction for energy conservation and emission reduction and has realized recycling of "three wastes" and up-to-standard emission; conducts green construction to reduce the impact of project construction on surroundings; promotes comprehensive utilization of water resources, strengthens the environmental protection management of tailings ponds, keeps reclaiming mines and strives to protect eco-systems and bio-diversity.

» Promoting Energy Conservation and Emission Reduction in the Group

We actively promote energy conservation and emission reduction. We have released the Interim Regulations of the Group Company on Reporting of Information on Energy Conservation and Emission Reduction and revised the Measures on Performance Assessment of Energy Conservation and Emission Reduction to incorporate environmental protection responsibilities into performance assessment. We vigorously engage in R&D of environmental protection technologies, extensively apply new technologies of energy conservation and emission reduction, promote the recycling of "three wastes" in the course of production and operation, and realize up-to-standard emissions.

In 2013, the Company realized all the objectives of energy conservation and emission reduction; CNMC Albetter was awarded the title of "2013 Low-carbon Contributing Unit in Shandong; Daye Nonferrous won the title of "National Leading Enterprise among Energy Conservation and Emission Reduction Pioneers".

CASE

CNMC Luanshya Strengthens Management of Energy Use

CNMC Luanshya has strengthened the objective management in the course of energy use. The Company's energy average utilization rate rose from 72.58% in 2012 to 85.81% in 2013. By adopting effective measures, the wind supply reduced by 14.02% from the first half year, the three sand pump electric motors of the primary pump station of the tailings transportation system saved over 1/3 of energy. The Mulyshi Leach Smelting Plant recycled residue steam emitted from the upper part of the cold water, which can improve heat efficiency by about 10.2%. The above measures alone can save 4,880 KWh electricity each year.

CASE

Daye Nonferrous Ausmelt Furnace Saves Energy and Reduces Emission

Daye Nonferrous strengthens the application and research of Ausmelt smelting technologies so that the process technical indexes of Ausmelt Furnace keep improving. Over the three years since the Ausmelt Furnace put into operation, the annual crude bronze output reaches over 200 thousand ton, and the recycling rate of copper smelting reaches 98.8%; the comprehensive energy consumption of crude copper reduces from 578 kg standard coal to 319 kg standard coal, saving 49 thousand ton of standard coals each year; the overall rate of sulfur reaches 99.1%, the water circular utilization rate reaches 96.5%, and upon the confirmation of the environmental protection department, the emission of SO₂ is reduced by 36.1 thousand ton each year.

» Comprehensive Green Construction

We stick to integrating the concept of environmental protection in the course of project construction, strive to reduce environmental impact in each link of project planning, site selection and construction, and ensure that the emission of dust, noise and construction wastes reach the local requirements of environmental protection standard.

In 2013, for all the newly constructed, reconstructed and expanded projects of the Company, the environmental assessment rate reached 100%, and the environmental assessment acceptance rate reached 100%.



CASE

CNMC Nickel Constructed a Model Project of Power Transmission Route

In the design of the power transmission route for the CNMC Tagaung Taung Nickel Mine, Myanmar Project, in order to prevent the primitive forests along the route from being damaged, the tall tower was adopted in the design of pylon types, and the pylon passing the forest was heightened from 40 m to 60-80 m. This design alone resulted in an over USD 3 million increase of investment, but such a measure helps preserve several million square meters of primitive forest for Myanmar. Besides, full consideration is given to the forest in the location design of power transmission route, and the best effort is made to select more reasonable areas.

This project has been confirmed by the Myanmar government as a model construction project of power transmission route. Thereafter, the Myanmar Ministry of Electric Power will require all similar power transmission route projects under construction to adopt the construction method of CNMC Nickel.



▲ Power Transmission Route of Tagaung Taung Nickel Mine, Myanmar



▲ Chambishi Leach Smelting Plant

» Comprehensive Utilization of Water Resources

We attach great importance to saving limited water resources. By measures such as tailings waste water sinking and backflow and treatment of waste liquid from smelting processing, we improve the recycling rate of industrial waste water and reduce the consumption of water resources. At the same time, we keep taking samples from rivers and underground water outside the and testing them, so as to ensure that water sources are free from pollution. In 2013, the industrial wastewater recycling rate of the Company reached 63.71%.

CASE

CNMC Albetter Waste Water Treatment Project

CNMC Albetter conscientiously implements all the national laws and regulations on environmental protection and manages to make the treatment of all pollutants up to standard. The enterprise strengthens the treatment of production wastewater. By adjusting wastewater treatment process, the suspensions and COD of wastewater are reduced, with COD reaching about 50 mg/liter, ammonia nitrogen reaching about 4.5mg/liter, and PH about 7. All the water after treatment is recycled, saving water by 180 thousand m3 each year.

» Strengthening Environmental Protection of Tailings Pond

We strengthen the treatment of tailings pond, and strive to minimize the environmental impact of tailings by adopting measures such as multi-level leak-proof design. In 2013, no leakage accident occurred.



Leakage accident

CASE

Leach Company attaches great importance to the environmental protection management of the tailings pond.

In 2013, 4 environmental protection dewatering pools were built in the tailings pond, to further optimize the dehydration process. The dehydration efficiency reaches 70%, and 1,300-1,500 m3 production water is saved every day. In this way, the water swelling pressure of the tailings pond, the consumption of acid and lime is reduced, and copper metal loss is decreased. Also, the construction of the 15-A environmentally friendly tailings pond has been completed. 70,000 m2 of HDPE board has been laid, a pond capacity of 400 thousand m3 has been developed, to prevent the leakage of pollutants.

»» Keep Reclaiming Mine Land

We have prepared a mine reclaiming and comprehensive rehabilitation scheme. According to the geological conditions of the place where a mine is located, we adopt multiple methods to pertinently increase vegetation coverage. After the completion of mining, we reclaim land by “backfilling of exfoliated waste soil--refitting it into terraced slope according to the topography--building slope protection with stones--covering it with surface soil with humus--planting trees”. In the future, mining and reclaiming will be conducted at the same time each year. Meanwhile, personnel will be specially assigned to maintain and manage such land, regularly check the reclamation, strive to restore and maintain the original ecological environment and minimize the environmental impact of mining.

By the end of 2013, the Company's mine reclamation plan preparation rate was 100%, and the execution rate of reclaiming plan of mines after being exploited was 100%. In 2013, in the comprehensive resource utilization rating of the Ministry of Land and Resources, Hongtoushan Mining, and Chifeng Dajingzi Mining Co., Ltd. (Dajingzi Mining) affiliated to CNMC Shenyang Mining Investment Co., Ltd. (Shenyang Mining) were rated as “Green Mines”; Daye Nonferrous Fengshan Copper Mine was rated among the “Third Batch of National Green Mine Pilot Unit”.

»» Protecting Bio-diversity

In the course of operation, we attach great importance to the protection of bio-diversity, strictly observe the relevant laws of the countries where our operation is located, and make special efforts to implement special protection measures in various links of project construction to protect the natural habitats of animals and plants. Before exploitation, we make good plans and arrangements, to avoid exploitation during mating seasons of wildlife; during exploitation, we identify rare animals and plants within the project areas; after exploitation, we regularly implement mining vegetation, and strive to maintain ecological balance.

Spreading the Concept of Environmental Protection

CNMC actively practices green office, strengthens publicity on energy conservation and environmental protection, and practices the concept of environmental protection with actions, to boost sustainable development of the environment.

We have established a collaboration OA office system to improve the level of office automation, and promote paperless office, which saves a large quantity of paper; we conduct activities such as recycling of waste batteries and ink boxes to reduce office wastes; we save electricity by implementing energy management in our office building, and adopting measures such as equipment power off after work and airconditioning not lower than 26°C . In 2013, we saved 162,600° electricity by using LED energy conserving lights in elevator vestibules, staircases and underground parkings, removing 261 lights and reducing lighting equipments for work.

We attach great importance to the spread of the concept of environmental protection, actively conduct energy conservation and environmental protection publicity activities in our community, issue manuals for environmental protection to residents in the community, and participate in the 2013 national energy conservation publicity week and national low-carbon day activities, in efforts to create an atmosphere of environmental protection with the participation of all people.



»» People-Oriented, Protect Safety and Health

CNMC keeps improving the safety management system, promotes the development of safety culture, vigorously removes and controls hidden problems concerning safety, strengthens the ability of emergency response, pays attention to employees' occupational health, and goes all out to create an essentially safe enterprise.

• An employee's daughter were wearing helmet for her father

“ Create a safer and stabler work environment for all employees, and lay a more solid safety foundation for the family happiness of all employees. ”

—Luo Tao, CNMC General Manager

Strengthening the Basis for Safety Management

CNMC has established and improved a production safety management system. In 2013, the Company invested a total of RMB 358.66 million in production safety. There was 0 major production safety accident, 6 ordinary fatal accidents of production safety, in which 6 people died; accident mortality rate for RMB 10 billion output value was 0.32, decreasing by 18% y.y, continuing the downturn trend. The Company successfully passed the production safety performance assessment of the SASAC of the State Council.

Systemization of Safety Management

We have established a production safety management system of “upper and lower linkage, and horizontal collaboration”, prepared the Company’s plan for production safety and relevant regulations and systems, and strictly implemented the production safety responsibility mechanism.

In 2013, the Company promulgated policies on production safety such as Measures for Management of Production Safety Information Reporting, provided opinions on the revision of the national Law on Mine Safety to the SASAC.

Standardization of Production Safety

We take the standardization of production safety as a key measure for upgrading our capability to safeguard production safety. By the end of 2013, the Company’s production safety achieved rate reached 95%, with 22 secondary up-to-standard enterprises and 12 tertiary up-to-standard enterprises. Among the main production businesses that have reached standard, Daye Nonferrous, CNMC (Ningxia) Orient Group Co., Ltd. (CNMC Orient), and CNMC Albetter realized secondary standardization of its main production businesses.

IT Application of Production Safety

We take the production safety IT application system as an important platform for implementing production safety management. By the end of 2013, the Company established basic business criteria and technical standards for the construction of production safety IT application adapted to the Company reality, and preliminarily completed the development and pilot joint exam work of three major application systems for production safety information management (production safety basic management system, online supervising and monitoring system, and production safety emergency management system). The basic framework for the production safety IT application system has been preliminarily developed.

CASE

CNMC Established a Production Safety Emergency Command Center

In 2013, CNMC established an emergency command center. We conduct production safety work such as on-site precautionary measures to strictly guarantee the operation safety on the production sites by monitoring the operation process of production sites in real time and adopting IT application measures such as safety basic positioning management.



▲ CNMC Production Safety Emergency Command Center

Implementing Measures of Production Safety

CNMC strictly implements the entity responsibilities for production safety, regular conducts checks on production safety, establishes “six major systems” for preventing safety risks, keeps improving capabilities for emergency management and upgrading the technological level for safety, and conscientiously implements measures for production safety in the course of production.

Conduct Checks on Hidden Safety Problems

We conduct production safety checks to identify hidden safety problems, draw on experiences and lessons of accidents in other companies, conduct a series of special remediation activities in various funded enterprises such as explosion prevention, fire prevention and tailings pond rectification, to reduce hidden problems of production safety.

In 2013, the Company, in light of the national deployment of major safety check activities, conducted 2,135 times of safety checks at various levels, which identified 7,528 hidden problems, of which 7,385 problems were rectified, resulting in a rectification rate of 98.1%.

Upgrade Emergency Management Level

We attach great importance to the management of emergencies in production safety, prepare and improve our emergency management plans, keep improving our emergency management system, regularly conduct emergency exercises, to keep upgrading emergency response capabilities and emergency management level.

In 2013, the Company conducted 339 emergency exercises. By the end of 2013, the Company has compiled 414 emergency plans.



▲ CNMC Orient and Dawukou District Government jointly conducted emergency exercises on earthquake, other disasters, and leakage of hazardous chemical products



SPECIAL

Hongtoushan Mining Established a Mine Rescue Team

The Hongtoushan Mining Mine Rescue Team has three rescue squads and a fire control squad, with 52 people. It has a tertiary qualification "Mine Rescue Team Qualification Certificate" issued by the Liaoning Provincial Administration of Production Safety Supervision. The team is mainly responsible for the emergency rescue in non-coal mines east to Liaoning Province and west to Jilin Province. While coping with mine emergencies, the rescue team also follows the government dispatching to engage in emergency rescue work such as fire control of the surrounding community to help improve urban safety.

By the end of 2012, the mine rescue team obtained a special fund (RMB 52.65 million) allocated by the State to strengthen the construction of the rescue team. In 2013, the rescue team responded to emergency for 57 times, mobilizing 285 person-times, including 5 squad-times and 38 person-times for rescue work; 52 squad-times and 247 person-times for fire fighting. In the "8.16" flood rescue of Fushun area, the rescue team dispatched 369 truck-times for rescue, used 1,869 ton water, mobilized 1,107 person-times, performed its professional rescue capabilities, and played a key role in preventing water from bursting under hole and maintaining the stability of the tailings pond.

▼ Mine Rescue Team of Hongtoushan Mining Company



» Establish a Safety Management System

We keep promoting the basic construction work of "six systems" for mine safety and risk prevention, conduct research on production safety technologies, employ technologies such as modern monitoring, risk prevention and ventilation to guarantee employees' production safety, and keep upgrading the supporting role of technological innovation for production safety.

By the end of 2013, the "six systems" for mine safety and risk prevention of five domestic mine enterprises of the Company had all been completed. System self-check was conducted, and applications for government acceptance check had been filed with the local government. Among them, Chifeng CNBC Baiyinnuoer Mining Co., Ltd. And the Dajingzi Mining affiliated to Shenyang Mining had both passed the on-site acceptance of the local safety supervision department.

Further Reading



CASE

Shenyang Design Institute Conducts Production Safety Project Research

In 2013, CNMC SY Nonferrous Metallurgy E&R Institute Ltd. (Shenyang Design Institute) conducted the "Research on the Three-Dimensional Simulation Analysis of Complex Network Ventilation and Optimization Method of Ventilation Network of Hongtoushan Copper and Zinc Mine". The results of the project can improve the quality of the working environment of workers on the site, improve their working conditions and meet the demands of production safety.



▲ Holding Production Safety Exercise

» Attach Importance to Mine Safety Construction

We attach great importance to mine safety management and strictly prevent mine safety accidents. We strictly safeguard mine safety by conducting standardized construction of mines, exercising strict management of underground safety and tailings pond safety, and establishing and improving measures such as emergency response system and supervision and monitoring system.

In March 2013, the Company raised hidden problem rectification requirements on the tailings pond of Hongtoushan Mining, such as cleaning spillways and improving displacement monitoring facilities of the tailings pond. The tailings pond after rectification stood the test in the “8.16” serious flooding in 2013, and guaranteed the safety of the mine and its surroundings.

» Strengthen Contractor’s Safety Supervision

In accordance with policies such as the CNMC Measures on the Management of Production Safety and the CNMC Regulations on the Supervision and Management of Construction Engineering Safety, we sign agreements on the management of production safety with subcontracting units, to clarify each party’s safety responsibilities, strengthen the safety control of construction teams, incorporate subcontracting units and labors into enterprise management, strengthen operation process control and strictly control the access and examination of subcontracting teams.

| Enhancing Production Safety Awareness

CNMC brings into full play the guiding role of safety culture, conducts safety culture publicity activities of various forms, steps up efforts in the training of production safety, keeps enhancing the teams’ safety awareness, and accelerates the transformation of the Company’s safety culture management from passive control to independent management.

» Actively Publicize Safety Culture

By conducting various forms of “production safety month” activities such as warning education, culture publicity and safety consulting, we create a strong cultural atmosphere of production safety and promotes the harmonization of the concept of production safety and employees’ daily work.

In 2013, the Group Company organized the solicitation of publicity slogans and proposals from funded enterprises in the “production safety month” activities. Altogether over 380 safety publicity slogans were collected, which laid a foundation for unifying slogans of safety standards.

CASE

NFCA Rescue Team Won the First Prize in the Zambia National Mine Emergency Rescue Contest

In the 8th National Mine Emergency Rescue Contest organized by the Zambia Mining Association, the NFCA rescue team, with its consummate emergency rescue skills and excellent spirits, stood out from 18 representative teams to win the first place for the second time, vividly reflecting the safety concept of “care for life and prevention foremost” constantly followed by NFCA.

▼ Zambia National Mine Emergency Rescue Contest



» Keep Conducting Safety Training

We keep standardizing the safety education training system, strive to realize the normalization and systemization of safety training, and effectively improve the safety awareness, safety qualifications and safety operation capabilities of all employees, especially those working on the front line. In 2013, the Company held 98,070 person-times of production safety training of various types.

CASE

SMLZ Strictly Conducts Production Safety Training

In 2013, SMLZ specially invited teachers recommended by the Zambia Mine Safety Bureau to conduct 6 batches full-time education and training without leaving any gap or dead area within the whole company. The contents of training are divided into six topics, “first aid, fire control, awareness of safety, health and environmental protection, safety management of smelting workshops, risk management and safety operation regulations”. The trainings mainly take the form of lecturing on safety, supplemented by safety talks, safety knowledge competition and drills. Of 35 Zambian senior managers, 77 grassroots managers, and 345 workers on the front line, 100% passed the training assessment.

Paying Close Attention to Occupational Safety and Health

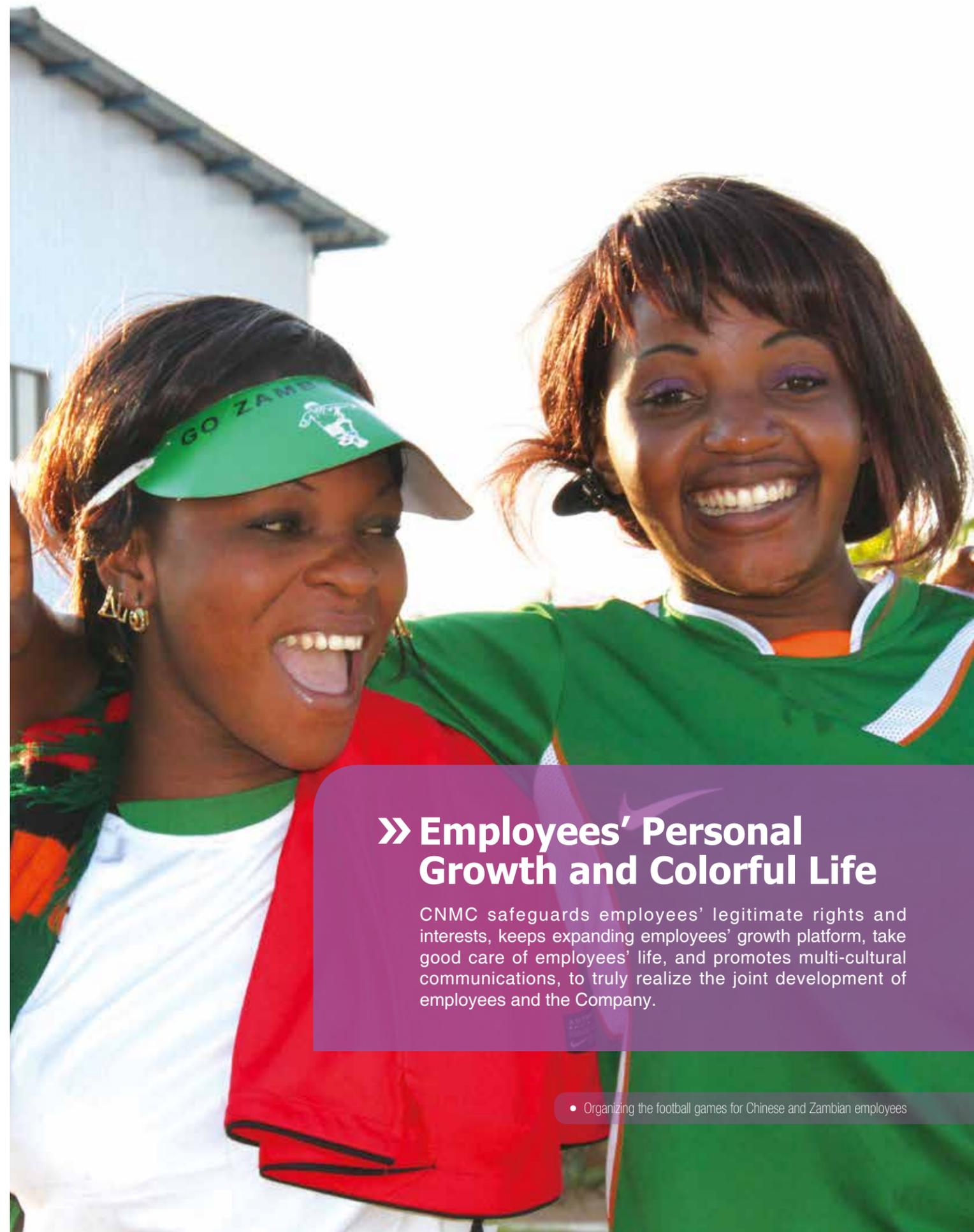
We have prepared and issued the Measures for Implementing the Occupational Health Infrastructure Activities. We actively conduct the occupational health infrastructure activities, regularly organize employees’ physical examinations, improve the occupational disease prevention system, identify potential risk factors of mine lot environment, and provide employees with protection equipments to effectively guarantee employees’ life safety, physical and mental health.

In 2013, 10% of the employees participated in the physical examinations organized by the Company. The employee protective equipment intact rate and supply rate were both 100%. The standard achieved rate of the Company’s work place was 100%.

CASE

Liuzhou CNMC pays close attention to employees’ occupational health

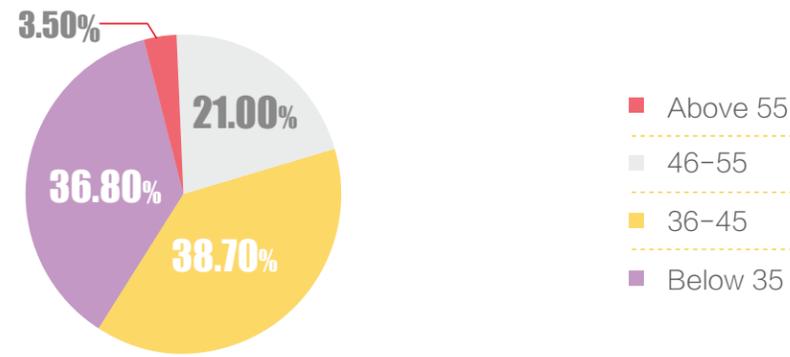
Liuzhou CNMC Zinc Product Co., Ltd. (Liuzhou CNMC) has formulated relevant occupational health management systems of such as the Standard for Issuing Employees’ Labor Protection Appliances and the System for Publicity and Education on Occupational Disease Prevention and Control. The company arranges occupational health examinations for employees such as orientation health check, on-post occupational health check and women employees’ health check, timely purchases and equips employees with labor protection appliances according to different work types and work environment, and regularly conducts occupational health training centering on laws and regulations on occupational health, prevention and control of occupational diseases, protective equipments against the harm of occupational disease and methods of using such equipments.



» Employees’ Personal Growth and Colorful Life

CNMC safeguards employees’ legitimate rights and interests, keeps expanding employees’ growth platform, take good care of employees’ life, and promotes multi-cultural communications, to truly realize the joint development of employees and the Company.

- Organizing the football games for Chinese and Zambian employees



The number of employees at various age groups and their ratio

Safeguarding Employees' Legitimate Rights and Interests

CNMC sticks to treating employees equally, and is against all sorts of discriminations. It strictly abides by the employees' representative meeting and the system of publicizing plant affairs, actively pays social insurance for employees, and effectively respects and maintains employees' various legitimate rights and interests.

Strictly Standardize Employment System

We strictly abide by the relevant laws, regulations and policies of the State and the place where our operation is located, follow relevant conventions on human rights and labor, equally treat employees of different nationalities, races, genders, religious beliefs and cultural backgrounds, firmly oppose any form of forced labor, and absolutely refuse to employ child labor.

In 2013, the headquarters of the Group Company revised and formulated 7 personnel policies; the employees' contract signing rate was 100%; the coverage of endowment insurance and housing provident fund was 100%; employee satisfaction rate was 90%; employee turnover rate was 11.2%.

Actively Practice Democratic Management

We actively establish labor union organizations, improve the employees' representative meeting system, prepare and issue documents such as the Measures on Implementation of Democratic Management, strictly implement publicity of plant affairs, improve the information sharing platform. By the end of 2013, 100% of the labor unions were funded by the Company.

CASE

CNIT CNMC African Logistic and Trade Company Set up an Opinion Box

CNMC African Logistic and Trade Company affiliated to CNMC International Trade Ltd. (CNIT) have set up an employees' opinion box. After the setup of the opinion box, Zambian employees enthusiastically put forward their requirements and suggestions concerning work and life, to which the company respond one by one. Zambian employees satisfactorily say to their family members and friends, "Chinese colleagues are our trustworthy labor union."



▲ Team development training

Promoting Employees' Career Development

CNMC regards talents as the important resources for the development of the Company, prepares HR development strategic planning, keeps improving the incentive and constraint mechanism, upgrades employees' abilities and qualifications, opens up employees' career development channels, attaches great importance to training international compound talents, keeps improvement employees' work environment, and strives to create a broader development platform for employees.

“ I worked with a laboratory of Xindu Mining Co., Ltd. after graduation. The Company provides me with a development platform, makes me learn new knowledge and methods and upgrade my work skills. In work, I found my lifelong companion, and purchased an employee's residence at a preferential price. I sincerely thank the Company. ”

— Xi Xiurenqige, Laboratory Technician of the Xindu Mining Quality Inspection Center

Conduct Employees' Skill Training

Aiming at "comprehensive improvement and joint development", and following the principle of "learning for practice and striving for practical results", we keep strengthening systematic and pertinent training, establish a comprehensive talent training and tempering system, train innovative and pragmatic talents committed to learning, and promote the construction of a learning-oriented enterprise.

In 2013, the Company's vocational education center was accredited by the Chinese Ministry of Human Resources and Social Security as a "National Professional Technical Talent Continuing Education Base".

» Expand Employees' Development Channels

We keep expanding employees' growth channels. We have established employee career growth sequences, and have prepared relevant training and incentive measures, so that each employee can locate the career development path adapted to themselves.

By the end of 2013, the Company had 9,767 operation management talents, 13,094 professional technical talents, and 38,089 professional skilled talents.

» Improve Compensation and Appraisal Incentive

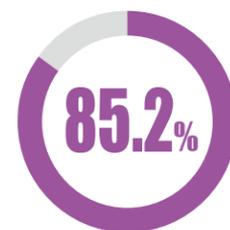
By rigorously enforcing total wage bill management, strengthening corporate leaders' compensation management, and strengthening performance appraisal management, we have improved the Company's compensation and performance management system. At the same time, we abide by the laws and regulations of the places where our operation is located, prepared work hour and compensation systems meeting local realities.

In 2013, the Company added an appraisal result feedback link to commend and reward employees with excellent results in performance appraisal. Besides, we have conducted ERP compensation module construction pilot project, to further optimize personnel and compensation management.

» Promote Employee Localization

In overseas projects, we actively promote employee localization, keep improving the ratio of local employees among middle and senior managers, prepare systematic encouragement and support policies to promote the growth and development of local employees.

In 2013, the number of overseas jobs provided was 7,880, and localized employees accounted for 85.2% of the total number of employees in the places where our operation is located.



Ratio of local employees in the Company's overseas operation

CASE

CNICO Myanmar Tagaung Nickel Mine Trains Local Industrial Workers

Angtai lives in a village 26 miles from Mandalay. He worked in a nearby sugar plant before he came to work in the Tagaung Nickel Mine of CNMC Nickel Myanmar. Now he is a vice-monitor of the driver's team of the Tagaung Nickel Mine. CNMC uses Chinese fund, technologies, equipments and management to vigorously promote the technical progress and industrial upgrading of the industry in Myanmar and train local employees and has trained a great number of industrial workers. In the Tagaung Nickel Mine, there are over 1,000 Myanmar employees like Angtai, accounting for over 60% of the total number of employees.

“Such modernized workshops almost do not exist elsewhere in Myanmar. As young men, we feel it an honor to work in such modernized workshops. We have good pay here and feel proud to work here. Many people of my age admire me for being able to work here.”

—Angtai, vice-monitor of the driver's team of the Tagaung Nickel Mine

“ZCCZ and CNMC funded enterprises in Zambia provide a large amount of job opportunities to Zambia. They have achieved significant economic benefits and social benefits, making outstanding contribution to the economic and social development in Zambia. The Zambian government will go all out to support the construction and development of the ZCCZ and promote the sustainable growth of economy in Zambia.”

—Dr. Guy Scott, Vice President of Zambia

CASE

CNIT Supports Employees' Growth

Amon, an employee of CNIT Africa Logistics, under the patient guidance of the logistic supervisor, studied hard to grasp logistic operation knowledge. His business expertise and HR management capabilities constantly improved, he has rapidly risen to be a vice director of the logistical department of the company. At the same time, his wife, under the sponsorship of the company, carefully studied computer skills and also successfully won the opportunity to work in another foreign-funded enterprise in Zambia.

The Company communicated with Faustina, who just graduated from a school, to ask her to attend regular trainings on customs clearance knowledge, while encouraging and sponsoring her to participate in various customs clearance training classes and lectures held by the taxation bureau and the customs. Through three months' training, she is able to independently undertake export customs clearance business as a registered customs clearance officer, and becomes an expert in relevant businesses.

While provide jobs, we fully respect the culture, customs and religious beliefs of various places, and provide worship venues for employees of different beliefs. Also, we organize overseas excellent employees to visit China and other activities to promote mutual understanding of employees of different cultural backgrounds and promote multi-cultural communications.

Taking Good Care of Employees' Life

CNMC keeps improving employees' work and living conditions, and enthusiastically helps employees. By various forms of activities, we strive to create a healthy, comfortable and harmonious working environment and keep enhancing employees' sense of belonging and happiness.



▲ Purchase commuting vehicles for employees



▲ Women employees of CNMC Luanshya jointly celebrated the International Women's Festival

»» Further Measures for Caring Employees

Through activities such as “employees’ home”, “medical assistance”, “golden autumn student subsidies” and “sunshine employment help”, we help employees with difficulties, care women employees, so that employees feel the loving care of the Company.

In 2013, the medical assistance system of the Group Company in Beijing helped 3 employees suffering from critical illness, and donated a support fund of RMB 470 thousand; 619 employees dispatched overseas joined the enterprise medical support fund of the Group Company in Beijing. The employee support system expanded to overseas funded enterprises for the first time, realizing 100% full coverage.

“I feel very delighted to see the really happy mood and joyful smile of our Myanmar employees while working.”

—Dr. Myint Aung, Myanmar’s Minister of Mines

CASE

CNIT Conducts “Beauty” Series of Special Women Employees’ Talent Show Activities

From 2011, on the 3.8 International Women’s Day each year, CNIT organizes women employees to engage in a series of activities such as “beautiful chefs”, “beautiful flower arranger” and “beautiful needlewoman”, and establishes platforms for women employees to demonstrate their talent and enrich their spare time.

CASE

CNMC Tianjin Establishes a Long-Acting Mechanism for Helping Needy Employees

CNMC (Tianjin) Nonferrous Metals Co., Ltd. (CNMC Tianjin) has established a “needy employee support work site” online platform has been established to put the information of 287 needy employees including their family conditions and skills into microcomputers for IT application management, so that dynamic tracking needy employees is realized. At the same time, using this online platform, the Company has realized the networked support with the Tianjin General Labor Union and relevant grassroots enterprises.

By the end of 2013, the Company had helped nearly 600 needy employees, and issued over RMB 300 thousand student subsidies for the children of needy employees.

CASE

CN15MOC Held Young Employees’ Group Wedding

On September 29, 2013, CN15MOC held the fourth young employees’ group meeting. Witnessed by over 200 guests, 12 couples from various units of CN15MOC were happily married in the Wuhan Headquarters of the Company. Holding young employees’ group wedding is a tradition in CN15MOC. To help the newly-weds and their parents learn more about Wuhan, the Company specially arranged for the newly-weds and their family to take part in the Wuhan One-day Trip on September 30, so that they can fully feel the beautiful scenery of Wuhan by the Yangtze River and the care of CN15MOC.

»» Enrich Employees’ Cultural Life

We attach importance to our employees’ balance of work and life. By holding speech contest, knowledge contest, singing contest and sports met etc, we help enrich employees’ cultural life, meet their spiritual and cultural needs and promote the mental and physical health of the employees.

CASE

Xindu Mining Establishes a “Smart Xindu” Youth Club

Xindu Mining Co., Ltd. (Xindu Mining) affiliated to CNMCL has established a “Smart Xindu” Youth Club in order to enhance young employees’ moral cultivation and upgrade their creative thinking skills. At the same time, a club group has been set up at facebook to regularly publicize and organize young employees’ activities.



▲ Xindu Mining sponsors the Mongolian traditional “goat grabbing” contest



▲ NFCA employees held “NFCA” Cup Pingpong Friendship Match with the Zambian National Pingpong Team



▲ CCS Held Tug-of-War Match



▲ Daye Nonferrous Organized the Employees’ Sports Meet

| Constructing Harmonious Community Relationship

CNMC attaches importance to community participation, respects local culture and religious beliefs, takes initiative to strengthen communication with local government departments, supervisory departments and communities, actively participates in the local folk activities, promotes multi-cultural communications, and strives to establish lasting partnership with local communities.

» Strengthen Local Communications

We take initiative to have communications with local communities, strengthen communications with local governments, social organizations and media, actively undertake or participate in the relevant meetings and special activities, and are committed to realizing the joint development with our stakeholders. In 2013, the Company maintained fine relationships with local communities by on-site visits, press conferences, meetings with local suppliers, and regular reporting.

» Respect Local Folk Culture

In the course of international operations, we attach great importance to protecting local cultural heritage, respect local customs and religious belief, and organize and participate in local folk cultural activities. In 2013, the Company helped the places where its operations are located to repair temples and sponsor local football or sepaktakraw matches, and visit local old people during the Water-Splashing Day. In this way, the Company establishes profound friendship with local residents.



▲ CNMC actively integrates with local community



▲ SMLZ employees wear traditional Zambian costumes

» Community Participation as a Corporate

CNMC takes an active part in the community where its operations are located, respects local cultures, invests in infrastructure construction, help the local communities upgrade their capabilities of sustainable development, pays close attention to social welfare, supports the development of local medical and education services, enthusiastically participates in domestic and overseas disaster relief efforts, and strives to be an excellent global citizen.

Improving Community Development Environment

CNMC actively participates in community construction, and improves the residential environment of the local communities by investing in infrastructure such as building roads and bridges and reconstructing shanty towns. The Company provides free employment training and skill tutorship to local residents, helps the local communities to upgrade their capabilities of development, and promotes the development of local economy and the improvement of residents' living standard.

Help with Infrastructure Construction

We fully understand the demands of local communities for development, actively participate in the local infrastructure construction such as water conservancy, roads and bridges, and contribute efforts to the development of local communities. In 2013, the Company donated a road grader to Karu Rusi, a bronze belt province of Zambia, and built a long-distance bus station near the Tagaung Nickel Mining Area of Myanmar, to provide employees and villagers with a place for resting, drinking water and shelter.

CASE

NFCA Donated a Road Grader to Karu Rusi, a Bronze Belt Province of Zambia

NFCA is located in Karu Rusi, a bronze belt province of Zambia, where roads are mostly made of mud, and the rain season lasting four months each year makes the roads bumpy and muddy. Therefore, NFC Africa Mining Plc invested ZMK 730.8 thousand (equivalent to USD 138 thousand) to donate a road grader to the Karu Rusi government, to be specially used to maintain roads for local residents to make their travel more convenient.

Support Reconstruction of Shanty Towns

We keep increasing input in the local projects to improve people's livelihood. We constantly support local governments to reconstruct shanty towns, and have invested in constructing houses in shanty towns in the Hongtoushan Mining Area, provide property management to effectively benefit local residents.

By the end of 2013, Hongtoushan Mining has invested RMB 100 million, and there were 3,415 households in the Hongtoushan shanty town, with 105 shop front rooms and 68 garages.

▼ New buildings after the reconstruction of the Hongtoushan Mining Shanty Town



Improve Employability Skills of Local Communities

By implementing community development projects, building training schools and providing free training to local residents, we help the residents in the local communities improve the employability skills and upgrades the development capabilities of local communities. In 2013, the Company conducts free forklift training in the Zambia ZCCZ to help train local technical personnel.

Active Participation in Public Welfare Cause

CNMC enthusiastically participates in public welfare cause, keeps relieving poverty in fixed places and making donations to communities, to contribute to the eradication of poverty; makes donations to build hospitals and schools in local communities, and supports the development of local medical and education services; enthusiastically helps needy people such as stay-at-home children and lonely old people, and has developed normalized volunteer services; actively participates in domestic and overseas disaster relief efforts, effectively fulfills its corporate citizen's responsibilities, and actively repays the society.

Actively Help with Eradication of Poverty

We make unremitting efforts to relieve poverty in fixed locations. With "poverty relief starting with supporting education, and supporting education starting with cultivating talents" as the breakthrough, we support Lianghe County, Yunnan Province. By improving teaching and learning conditions and students' living conditions, sponsoring poverty-stricken college students and education and training, we help the county to overcome poverty as soon as possible.

In 2013, on the basis of on-site investigation and full communication with local government, we donated a total of RMB 1.38 million as poverty relief project fund. By the end of 2013, the Company had altogether donated over RMB 5.87 million to Lianghe County as poverty relief fund, of which Rmb 4.19 million was used in education, RMB 1 million was used in drought and disaster relief, and over RMB 680 thousand was used in the drinking water facilities. We continue to sponsor foundations and charity organizations of domestic and overseas communities, cooperate with relevant organizations and jointly contribute to the eradication of poverty in the local communities.

▼ Make donation to the "Zambia First Lady Happy Home Fund"





▲ Surgical operation on patients in the China-Zambia Friendship Hospital

» Make Collaborative Efforts to Improve Medical Environment

By making donations to build hospitals and providing medical equipments and medical teams, we strive to improve the medical environment of overseas communities, and conduct publicity activities on disease prevention so that more local patients can enjoy better medical services.

By the end of 2013, the Company had made donations to build several hospitals and clinics in Zambia, Myanmar and Mongolia.

CASE

CNMC Establishes China-Zambia Friendship Hospital

The China-Zambia Friendship Hospital strives to provide timely medical assistance to local people and over overseas enterprises as well as enterprises of other countries. The ZCCZ keeps increasing investment in the hospital, and has introduced equipments such as nuclear magnetic resonance and laparoscope, which substantially improve the hardware level of the hospital.

By the end of 2013, the China-Zambia Friendship Hospital had 12 departments such as the outpatient department, inpatient department, emergency department and internal medicine. There are over 100 beds and 111 medical service professionals. The total number of registered patients amounts to 37,000, and the average daily amount reaches 180 person-times; the amount of people hospitalized reached 10,000 person-times, over 650 surgical operations had been realized, and 480 babies were born in the hospital. At the same time, 4 clinics have been opened in the mine and miner residential areas, able to timely serve miners and their family.

CASE

CCS Donated to Build Clinics and Doctors' Residence in Karu Rusi, Zambia

On March 2, 2013, CCS handed over the clinics and supporting doctors' residence built with its donations to the Karu Rusi government of Zambia. Fred Mublue, Vice Minister of Labor of Zambia and city counselor of Karu Rusi enthusiastically pointed out, "CCS has not only provided good job opportunities to local residents, but also brought about substantial welfare to local communities and Zambian people by their donations. Other investors in this field should follow the example of CCS to jointly contribute to local development."

» Vigorously Support Education Cause

We actively support the development of the community education cause, and strive to improve local education conditions through various forms such as donating to education in poverty-stricken areas. In 2013, the Company made donations to schools in many poverty-stricken areas to build students' canteens and set up scholarships, so that more children have opportunities to learn happily and grow up healthily.



▲ CNMC Luanshya employees support education in the local Confucius school



▲ Zhajiao Village Primary School Canteen established with the donation from CNMC Pigma

» Volunteer Service Activities

We take an active part in public welfare activities. We have established the Guo Mingyi Caring Team to regularly conduct volunteer service activities and actively repay the society. In 2013, by activities such as learning from Lei Feng, supporting children of rural migrant workers, and visiting lonely old people, we actively contribute to charity work and spread care.

CASE

CNMC Orient Employees Donated Hematopoietic Stem Cells

Ningxia Oriental Tantalum Co., Ltd. (Oriental Tantalum) affiliated to CNMC Orient always pays close attention to public welfare cause. In May 2013, Gui Yuping, an employee of the company, successfully donated hematopoietic stem cells to a leukemia patient. After 24-year-old Gui Yuping knew that his stem cells matched a patient's, he felt it obliged for him donate hematopoietic stem cells to the patient. With the humming of the blood cell separator, the "life seeds" within Gui Yuping were separated from blood one by one, and then transported to Beijing by air, into the body of the patient to kindle his hope of revitalization.

“Gui Yuping's donation of his hematopoietic cells in Beijing fully reflects his generosity of selfless dedication to save another person's life, and fully reflects the Red Cross spirit of "humanity, love and devotion". He has also contributed his young strength to building a national model city and constructing a harmonious, beautiful and rich new industrial city.”

—Zhang Jianrui, Vice Mayor of Shizuishan, Ningxia Hui Autonomous Region and President of Municipal Red Cross Society

» Enthusiastically Participate in Disaster Relief and Rescue

We enthusiastically participate in disaster relief and rescue, actively make donations to relieve domestic and overseas disasters, and make concerted efforts with the whole society to overcome difficulties. In 2013, we successfully coped with the natural disasters such as Hongtoushan "8.16" serious flood and Aobao zinc mine prairie fire, to safeguard the life and property safety of the resident of the places of operations and surrounding areas.

In 2013, the Company donated a total of RMB 10.92 million to relieve disasters; donated RMB 5 million to relieve Ya'an Earthquake in the name of the Group, and RMB 489.7 thousand was raised from employees as donations.

CASE

Xindu Mining Fought Prairie Fire

On April 2, 2013, a prairie fire occurred around the Aobao Zinc Mine Area. Upon the request of the Sühbaatar Emergency Bureau, Xindu Mining immediately organized fire control equipments and personnel to speed to the site and timely put down the prairie fire, thus preventing local pasture and herdsmen from suffering from huge loss.

CASE

Hongtoushan Mining Successfully Coped with the "8.16" Serious Flood

On August 16, 2013, Fushun of Liaoning suffered from the worst rainstorm in the meteorologic record. While actively conducting disaster relief, Hongtoushan Mining, under the guidance of the municipal and county quarantine department, regularly disinfected the public places where people were concentrated and the sites of disaster; according to the requirements of the municipal, county and town governments, supplied production electricity for civil use when the civil electricity supply was not restored; assisted the China Railway No. 19 Bureau in repairing the Shenji Railway; helped Hongtoushan Dongfeng Primary School to clean waterways and removed 90 trucks of sludge amounting to about 2,850 m³, restored two public toilets, paved a playground of 335 m², to create conditions for school opening.

▼ Hongtoushan Mining built temporary waterways to divert flood



Sustainable Development Commitment

In 2014, CNMC will center on the mission of "Developing Resources to Benefit the Society" and the sustainable development concept of "Releasing Resources' Value, Working Together to Build Social Harmony", be dedicated to managing and improving economic, environmental and social performances, and cooperate with stakeholders to create the best value, so as to realize the sustainable development of economy, society and the environment.

- **Steadily upgrading development capabilities.** Optimize global resource distribution, explore and summarize the modes of sustainable operation of the industrial chain and regions, and stick to coordinated development of three core businesses. Provide high-quality products and services, comprehensively control operation risks, and strengthen win-win cooperation with partners. Strengthen technical innovation and management innovation, establish a technological support system and R&D platform, build professional skilled talent teams, and promote IT application construction.

- **Constantly safeguarding safety and environmental protection.** Improve the production safety systems, promote standardization and IT application of production safety, strengthen emergency management, build safety culture, and safeguard employees occupational safety and health. Efficiently and reasonably utilize mineral resources and water resources, strengthen energy conservation, emission reduction and tailings pond management, stick to green construction and mine reclamation, protect eco-systems and bio-diversity, and spread green and environmental protection concept.

- **Boosting harmonious development of the society.** Strengthen communication and cooperation with the community, promote cultural integration, invest in infrastructure construction, provide skill training and technical support, actively help poverty and disaster-stricken areas and regularly conduct volunteer services. Safeguard employees' legitimate rights and interest, upgrade employees' skills and qualifications, provide fine platforms for employee development and be committed to employee localization in overseas operations, and care about employees' health and life.

On the occasion of the 30th anniversary of CNMC, we will take the opportunity of releasing a sustainability report to command a new starting point and march along a new journey. We will always bear in mind President Xi Jinping's entrustment that "overseas enterprises should fulfill social responsibility", comprehensively analyze the macro situation, firmly grasp the main thread of development, following the ten principles of the UN Global Compact, seek joint growth, joint development and joint prosperity with stakeholders, promote the sustainable development of the enterprise, the society and the environment, and make unremitting efforts to realize the vision of building a world class mining group with international competitiveness.



● "A Model of Sino-Mongolian Cooperation"-CNMC Tumurtin Ovoo Zinc Deposit in Mongolia

» Comparison Table of Principles of the United Nations Global Compact

Ten principles of global compact	2013 action performance
Human rights	
<p>Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and</p> <p>Principle 2: Make sure that they are not complicit in human rights abuses</p>	<ul style="list-style-type: none"> Follow the international conventions and international customary practices signed or recognized by the Chinese government, respect conventions and declarations such as the Universal Declaration of Human Rights and the United Nations International Covenant on Civil and Political Rights Follow the laws and regulation of the countries where our operations are located Never participate in any action disrespecting human rights and safeguard employees' respect
Labor standard	
<p>Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;</p> <p>Principle 4: The elimination of all forms of forced and compulsory labour;</p> <p>Principle 5: The effective abolition of child labour; and</p> <p>Principle 6: The elimination of discrimination in respect of employment and occupation</p>	<ul style="list-style-type: none"> Strengthen the dialogue and communication between the Company and employees, establish the employees' representative meeting system, and solve and reply the proposals of the employees' representative meeting; Strengthen democratic management and supervision of employees, establish labor unions at various levels, and stick to equal negotiation; Absolutely abolish forced labor and employment of child labor; Establish an open, equal, competitive and optimal talent selection and use mechanism
Environment	
<p>Principle 7: Businesses should support a precautionary approach to environmental challenges;</p> <p>Principle 8: Undertake initiatives to promote greater environmental responsibility; and</p> <p>Principle 9: Encourage the development and diffusion of environmentally friendly technologies.</p>	<ul style="list-style-type: none"> Conduct environmental assessment in the early period of a project, to protect the balance of ecosystems, and pay close attention to the protection of bio-diversity; Stick to sustainable exploitation, and improve the utilization rate of mineral resources and water resources by technical innovation; Reclaim mines after exploitation, treat waste residues and pollutants, and standardize tailings pond management; Implement the energy saving and emission reduction policy, and reduce the emission of "three wastes"; Control project noise and dust; Publicize the concept of environmental protection, and advocate green and low-carbon work and life styles.
Anti-corruption	
<p>Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery</p>	<ul style="list-style-type: none"> Stick to transparent operation, and strengthen information disclosure; Strengthen internal control management, construct a punishment and preventive system, conduct efficacy supervision and clean governance education, and oppose all forms of corruption.

» GRI Index

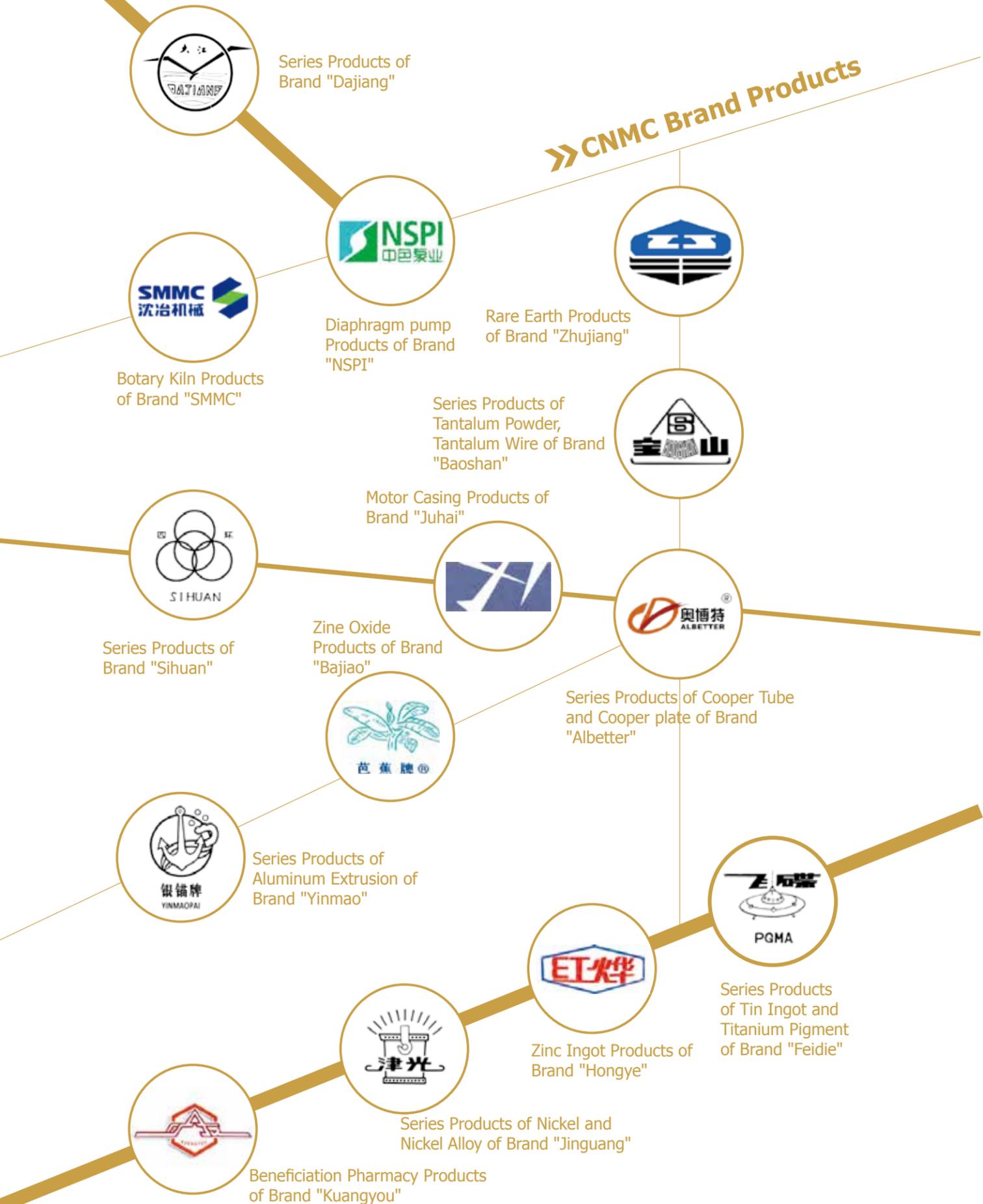
Indicators classification	Ranking	Content	Page
Strategy and analysis	G4-1	Provide a statement from the most senior decision-maker of the organization.	P1
	G4-2	Provide a description of key impacts, risks, and opportunities.	P20-21 /P30
Organizational profile	G4-3	Report the name of the organization.	P4
	G4-4	Report the primary brands, products, and services.	P22-23 /P25
	G4-5	Report the location of the organization's headquarters.	P4
	G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	P4/ P20-21
	G4-7	Report the nature of ownership and legal form.	P4
	G4-8	Report the markets served (including geographic break down, sectors served, and types of customers and beneficiaries).	P4/ P20-21
	G4-9	Report the scale of the organization, including: Total number of employees Total number of operations Net sales (for private sector organizations) or net revenues (for public sector organizations) Total capitalization broken down in terms of debt and equity (for private sector organizations) Quantity of products or services provided.	P2/ P20-21 /P52
	G4-10	Report the total number of employees by employment contract and gender.	P2/P52
		Report the total number of permanent employees by employment type and gender.	-
		Report the total workforce by employees and supervised workers and by gender.	-
		Report the total workforce by region and gender.	P54
	G4-10	Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors.	not applicable
		Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors.	not applicable
	G4-11	Report the percentage of total employees covered by collective bargaining agreements.	P4
	G4-12	Describe the organization's supply chain.	P48
	G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.	-
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	P30/P45	
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	P66	
G4-16	List memberships of associations (such as industry associations) and national or international advocacy	P1	
Identified material aspects and boundaries	G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents.	-
	G4-17	Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	-
	G4-18	Explain the process for defining the report content and the Aspect Boundaries.	Titlepage 2/P15
	G4-18	Explain how the organization has implemented the Reporting Principles for Defining Report Content.	Titlepage 2
	G4-19	List all the material Aspects identified in the process for defining report content.	contents
	G4-20	For each material Aspect, report the Aspect Boundary within the organization	P19-64
	G4-21	For each material Aspect, report the Aspect Boundary outside the organization.	Titlepage 2
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	Titlepage 2	
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	Titlepage 2	

Indicators classification	Ranking	Content	Page	
Stakeholder engagement	G4-24	Provide a list of stakeholder groups engaged by the organization.	P17	
	G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	P15	
	G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	P17	
	G4-27	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	P17	
Report profile	G4-28	Reporting period (such as fiscal or calendar year) for information provided.	Titlepage 2	
	G4-29	Date of most recent previous report (if any).	Titlepage 2	
	G4-30	Reporting cycle (such as annual, biennial).	Titlepage 2	
	G4-31	Provide the contact point for questions regarding the report or its contents.	P73	
	G4-32	Report the 'in accordance' option the organization has chosen.	Titlepage 2	
		Report the GRI Content Index for the chosen option .	Titlepage 2	
	G4-33	Report the reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but it is not a requirement to be 'in accordance' with the Guidelines.	-	
		Report the organization's policy and current practice with regard to seeking external assurance for the report.	-	
		If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided.	-	
	G4-34	Report the relationship between the organization and the assurance providers.	-	
		Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	-	
	Governance	G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	P6/P16
		G4-35	Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	P16
G4-36		Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	P16	
G4-37		Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	-	
G4-38		Report the composition of the highest governance body and its committees.	P4/P16	
G4-39		Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	-	
G4-40		Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members.	P4	
G4-41		Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders.	P4	
G4-42		Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	P4	
		Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	P4-5	
G4-44		Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment.	-	
		Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.	-	
G4-45		Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes.	-	
		Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.	P17	
G4-46		Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	P16	
G4-47	Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	-		

Indicators classification	Ranking	Content	Page
Governance	G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	-
	G4-49	Report the process for communicating critical concerns to the highest governance body.	P15
	G4-50	Report the nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	P19-64
	G4-51	Report the remuneration policies for the highest governance body and senior executives	P54
		Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.	P39
	G4-52	Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.	-
	G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	P4/P52/P54
	G4-54	Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	-
	G4-55	Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	-
	Ethics and integrity	G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.
G4-57		Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	P73
G4-58		Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	-
Economic Performance	G4-EC1	Direct economic value generated and distributed.	P2
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	P36-42
	G4-EC3	Coverage of the organization's defined benefit plan obligations.	-
	G4-EC4	Financial assistance received from government.	P46
	G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	-
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation.	-
	G4-EC7	Development and impact of infrastructure investments and services supported.	P60-64
	G4-EC8	Significant indirect economic impacts, including the extent of impacts.	-
	G4-EC9	Proportion of spending on local suppliers at significant locations of operation.	-
Environmental	G4-EN1	Materials used by weight or volume.	P36
	G4-EN2	Percentage of materials used that are recycled input materials.	P35-38
	G4-EN3	Energy consumption within the organization.	P36
	G4-EN4	Energy consumption outside of the organization.	-
	G4-EN5	Energy intensity.	P36/P39
	G4-EN6	Reduction of energy consumption.	P36-38
	G4-EN7	Reductions in energy requirements of products and services.	P36-38
	G4-EN8	Total water withdrawal by source.	-
	G4-EN9	Water sources significantly affected by withdrawal of water.	-
	G4-EN10	Percentage and total volume of water recycled and reused.	P41
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	P42
	G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	P42
	G4-EN13	Habitats protected or restored.	P42

Indicators classification	Ranking	Content	Page
Environmental	G4-EN14	Total number of iucn red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	-
	G4-EN15	Direct greenhouse gas (ghg) emissions (scope 1).	P36
	G4-EN16	Energy indirect greenhouse gas (ghg) emissions (scope 2).	P36-39
	G4-EN17	Other indirect greenhouse gas (ghg) emissions (scope 3).	P36-39
	G4-EN18	Greenhouse gas (ghg) emissions intensity.	P36-39
	G4-EN19	Reduction of greenhouse gas (ghg) emissions.	P36-39
	G4-EN20	Emissions of ozone-depleting substances (ods).	-
	G4-EN21	Nox, Sox, and other significant air emissions.	P36
	G4-EN22	Total water discharge by quality and destination.	-
	G4-EN23	Total weight of waste by type and disposal method.	P36-41
	G4-EN24	Total number and volume of significant spills.	-
	G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the basel convention2 annex i, ii, iii, and viii, and percentage of transported waste shipped internationally.	-
	G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff.	-
	G4-EN27	Extent of impact mitigation of environmental impacts of products and services.	P36-42
	G4-EN28	percentage of products sold and their packaging materials that are reclaimed by category.	-
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	-
	G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce.	-
	G4-EN31	Total environmental protection expenditures and investments by type.	P37-P42
	G4-EN32	Percentage of new suppliers that were screened using environmental criteria.	-
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken.	-
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms.	-	
Employment	G4-LA1	Total number and rates of new employee hires and employee turnover by age group,gender and region.	P2/P52
	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or parttime,employees, by significant locations of operation.	P53-57
	G4-LA3	Return to work and retention rates after parental leave, by gender.	-
	G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements.	P52
	G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	-
	G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism,and total number of work-related fatalities, by region and by gender.	-
	G4-LA7	Workers with high incidence or high risk of diseases related to their occupation.	-
	G4-LA8	Health and safety topics covered in formal agreements with trade unions.	P50
	G4-LA9	Average hours of training per year per employee by gender, and by employee category.	-
	G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	P53-54
	G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category.	-
	G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	-
	G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	-
	G4-LA14	Percentage of new suppliers that were screened using labor practices criteria.	-

Indicators classification	Ranking	Content	Page
Employment	G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken.	P48
	G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms.	-
Human rights	G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.	-
	G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	-
	G4-HR3	Total number of incidents of discrimination and corrective actions taken.	-
	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.	-
	G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	-
	G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	-
	G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations.	-
	G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken.	-
	G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments.	-
	G4-HR10	Percentage of new suppliers that were screened using human rights criteria.	-
	G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken.	-
	G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms.	-
Society	G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	P60-61
	G4-S02	Operations with significant actual and potential negative impacts on local communities.	-
	G4-S03	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified.	-
	G4-S04	Communication and training on anti-corruption policies and procedures.	P5
	G4-S05	Confirmed incidents of corruption and actions taken.	-
	G4-S06	Total value of political contributions by country and recipient/beneficiary.	-
	G4-S07	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	-
	G4-S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	-
	G4-S09	Percentage of new suppliers that were screened using criteria for impacts on society.	-
	G4-S010	Significant actual and potential negative impacts on society in the supply chain and actions taken.	-
	G4-S011	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms.	-
Product responsibility	G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement.	-
	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes.	-
	G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements.	-
	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	-
	G4-PR5	Results of surveys measuring customer satisfaction.	P25-26
	G4-PR6	Sale of banned or disputed products.	-
	G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.	-
	G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	-
	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	-



Feedback Form

Dear reader:

Thank you very much for your reading of CNMC 2013 Sustainability Report. CNMC is very concerned about your opinions on the report. Please put forward your valuable opinions and suggestions on this report and return the form to us, so that we will continuous improve the report.

Choice questions (Please fill in the relevant number in the relevant , 1 for "yes", 2 for "no", and 3 for "can not tell")

- 1 Do you think this report can highlight CNMC's active performance of social responsibility in various aspects?
- 2 Do you think the information disclosed in the report clear and accurate?
- 3 Do you think that the presentation of the contents of the report is convenient for reading?

Please offer your suggestions on this report:

- 1 Which part of this report is the most satisfactory for you?
- 2 Which part of the report do you think affects your life the most?
- 3 Which information do you wish to learn more about?
- 4 Your suggestions on the future report we are to release?

Thank you very much for your support. Please write your opinions on the above form and mail it to the CNMC Strategy Research Office

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Or email it to: csr@cnmc.com.cn

2013

Exploring Resource Value
Building A Harmonious Society Together



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