



Taking New Steps
Breaking New Ground

SUSTAINABILITY
REPORT
2021

About This Report

Reporting period

This report covers the period from January 1 to December 31, 2021. Part of the content can date back to previous years or be extended to 2022.

Report scope

This report covers the sustainability management practices and performance of China Nonferrous Metal Mining (Group) Co., Ltd. and its subsidiaries.

Preparation basis

This report is prepared in accordance with the *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*; *Guidelines to the State-owned Enterprises on Better Fulfilling Corporate Social Responsibilities*; *GRI Sustainability Reporting Standards* by Global Sustainability Standards Board (GSSB) as well as *Mining Sector Supplement*; *Ten Principles of the UN Global Compact*; *Guidance on Social Responsibility (ISO 26000:2010)* issued by International Organization for Standardization; *GB/T 36001 Guidance on Social Responsibility Reporting*; *Framework of Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)* issued by Chinese Academy of Social Sciences; *Guidelines on Social Responsibility Management for China Industrial Enterprises (2015 Edition)* by China Federation of Industrial Economics, and other standards.

Release cycle

This annual report is the 11th sustainability report issued consecutively by China Nonferrous Metal Mining (Group) Co., Ltd.

Data sources

The data cited herein are all from official documents, statistical reports and official website of the China Nonferrous Metal Mining (Group) Co., Ltd. The currency for the data involved in the report is yuan by default, and other currencies are indicated under special circumstances.

References

For the sake of presentation, "CNMC", "the Company" or "we" in the report refer to China Nonferrous Metal Mining (Group) Co., Ltd.

Commitment

China Nonferrous Metal Mining (Group) Co., Ltd. promises that this report is free from any false records, misleading statements or significant omissions, and is responsible for the authenticity, accuracy and completeness of its content.

Access to report

You can download the electronic version of this report on the website of CNMC.

Website: <http://www.cnmc.com.cn/>

If you need the paper version of the report or have suggestions and comments on this report, please contact our Corporate Culture Department.

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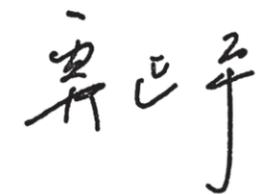
Message from the Chairman

Amid great changes and a pandemic unseen in a century in 2021, CNMC, guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, implemented the important instructions made by President Xi Jinping for CNMC three times and the new development philosophy thoroughly and faithfully. Efforts in reform, development. As a result, we achieved steady progress and breakthroughs, while maintaining stability in our business operation. In addition, more sustainability practices enabled higher quality and efficiency. All these kicked off a good start for the 14th Five-Year Plan period.

We promote reform to improve both quality and efficiency. In our corporate plan during the 14th Five-Year Plan period, the "1+4" development strategy is clarified. As we advance the three-year action plan for SOE reform, we aim for higher business goals, more targeted evaluations, and more effective salary policies. So far, 82.7% of reform tasks have been completed, consolidating the foundation for high-quality development. In 2021, major business indicators registered an all-time increase, with state-owned capital equity rising by 1.704 billion yuan year on year. Our net and total profits, revenue-profit ratio, asset-liability ratio, R&D intensity, and labor productivity reached an all-time high. The Kambove project was put into trial operations two months ahead of schedule. NFCA's Southeast Ore Body Project met its monthly average output target for three consecutive months, and CNMC Daye's 400,000 ton project resolved bottleneck issues in design and procurement. Four technological tasks under pledge progressed steadily and another four key R&D projects under open competition mechanism were conducted. In 2021, we won one second prize of the National Technology Invention Award and four first prizes of the Industry Science and Technology Progress Award. Six achievements were recommended as the scientific and technological innovations of central SOEs. Overall, targets set for the first year of the 14th Five-Year Plan period have been completed.

We pursue harmony to create and share a better new life. It is our firm belief that safety and environmental protection are priorities, without which, everything else would be impossible. Rectification monitored by central environmental protection inspectors has promoted corporate transformation. We spare no effort to protect the health and safety of our employees, with our work safety performance reaching a 10-year high. Seeing environmental protection as the bottom line, we strengthen organizational leadership, control the rise in environmental problems, and reduce outstanding ones. As a champion for rural vitalization, we have invested 41.95 million yuan as assistance funds and attracted other investments of 14.21 million yuan to lift paired assistance areas out of poverty and achieve vitalization. Vigorous support is given to people's livelihood. In 2021, we invested a total of 45.24 million yuan in charitable activities and overseas branches channeled 29.83 million yuan to help local communities. We continue to improve the quality of products and services, consolidate and expand partnerships, optimize supplier management and empowerment, and give play to the leading role to make the industry thrive.

Missions require responsibilities and hard work guarantees success. The year 2022 will witness the convening of the 20th CPC National Congress. It is also a milestone for China to embark on a journey toward a modern socialist country in all respects and the Second Centenary Goal. It is a critical period for CNMC to strive for new development during the 14th Five-Year Plan period. Standing at a new historical starting point, we will remain committed to our original mission, bear in mind the country's most fundamental interests and contribute to the country with resources. With stronger ideological and political awareness and a mindset for action, we will work even harder to contribute excellent performance to set the stage for the 20th CPC National Congress.



Xi Zhengping
Chairman of CNMC

About CNMC

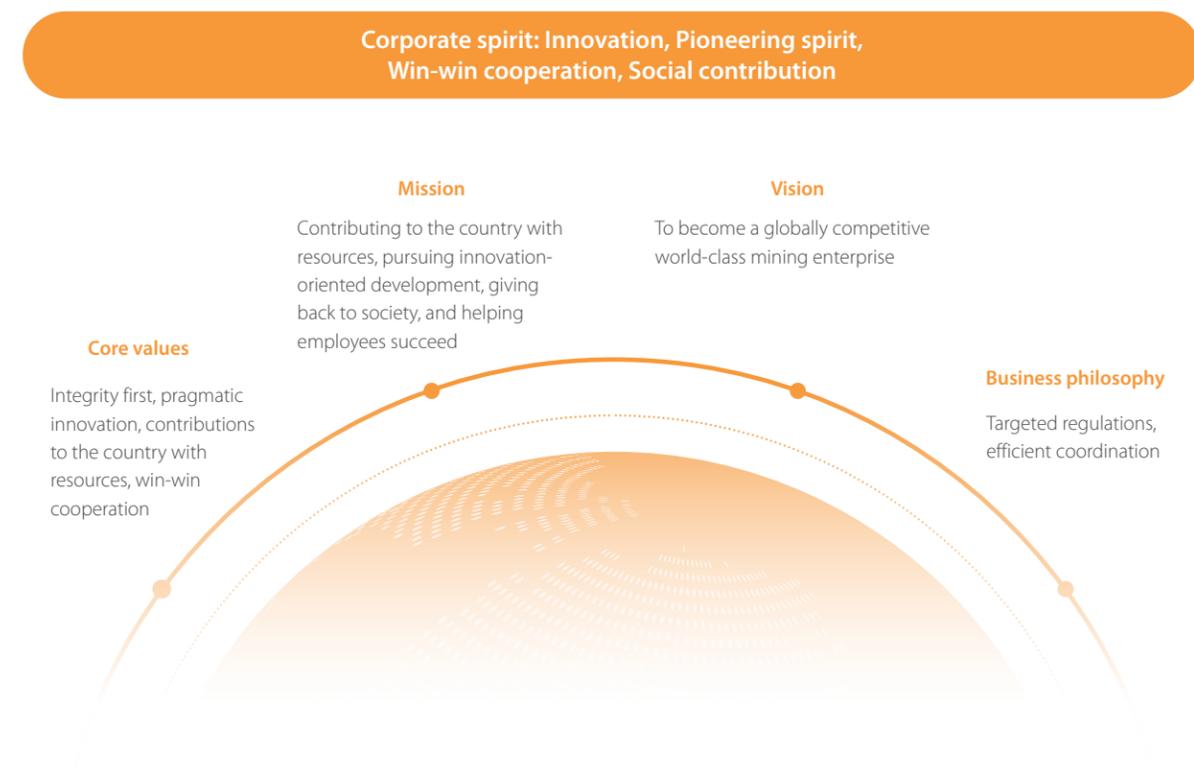
> Company profile

Founded in 1983, China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC) is a large central state-owned enterprise(SOE) managed by the SASAC. CNMC's main business includes the development of non-ferrous metal and mineral resources, new materials, construction projects, and related trade and services.

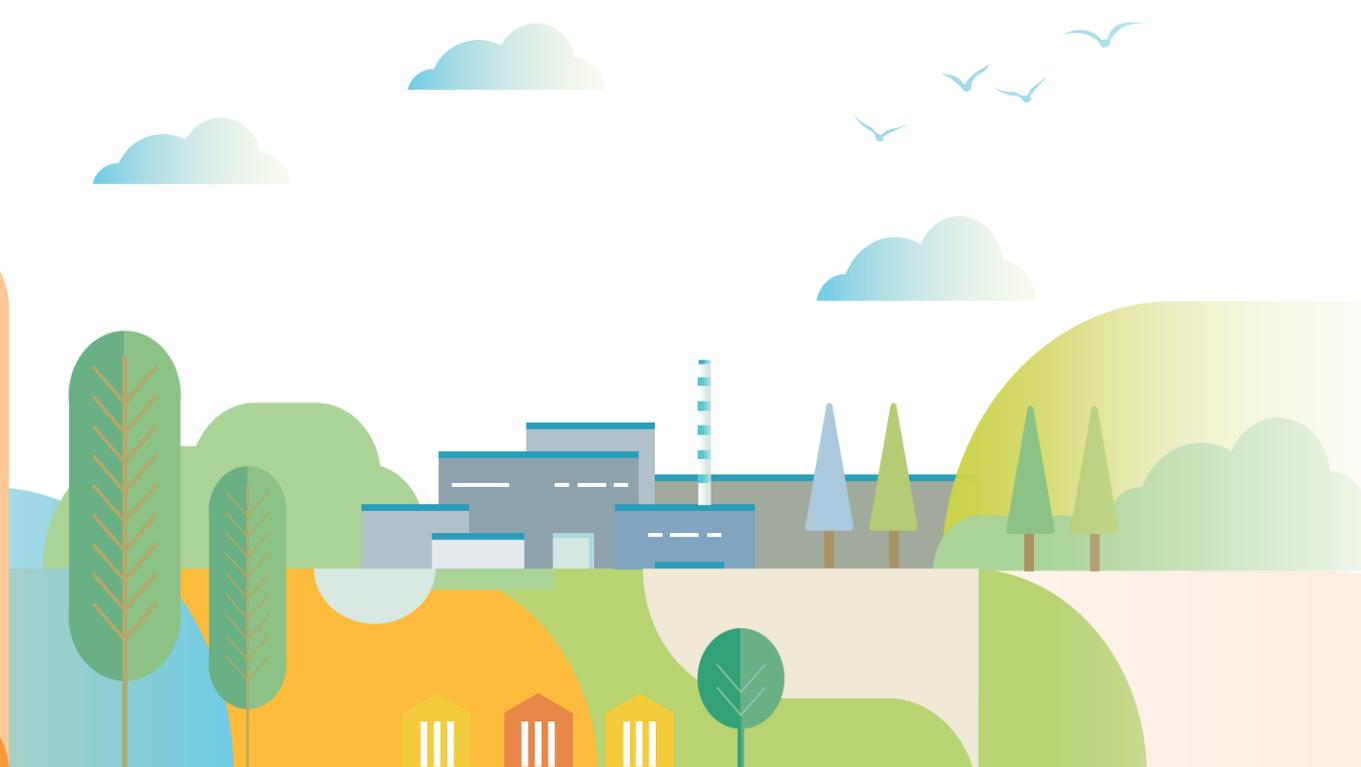
CNMC, the pioneer of China's non-ferrous metal companies to go global. We are the company with the longest history in overseas copper development, the most complete industrial chain, and the largest number of projects. In particular, we have formed industrial clusters in central and southern Africa. In 2021, CNMC ranked 2nd in the international operation index of central SOEs, 36th in the "Top 100 Chinese Multinational Companies", 74th in the "China's Top 500 Manufacturing Companies", and 172nd in the "Top 500 Chinese Enterprises."

As of the end of 2021, CNMC develops business in more than 80 countries and regions, owning more than 18 million tons of heavy non-ferrous metal resources in over 40 varieties. Under CNMC are 235 subsidiaries at all levels, including 77 overseas ones and eight listed ones. Several symbolic mining development projects have been put into operation in Zambia, Mongolia, Myanmar, Thailand, the Democratic Republic of the Congo, and other countries and regions.

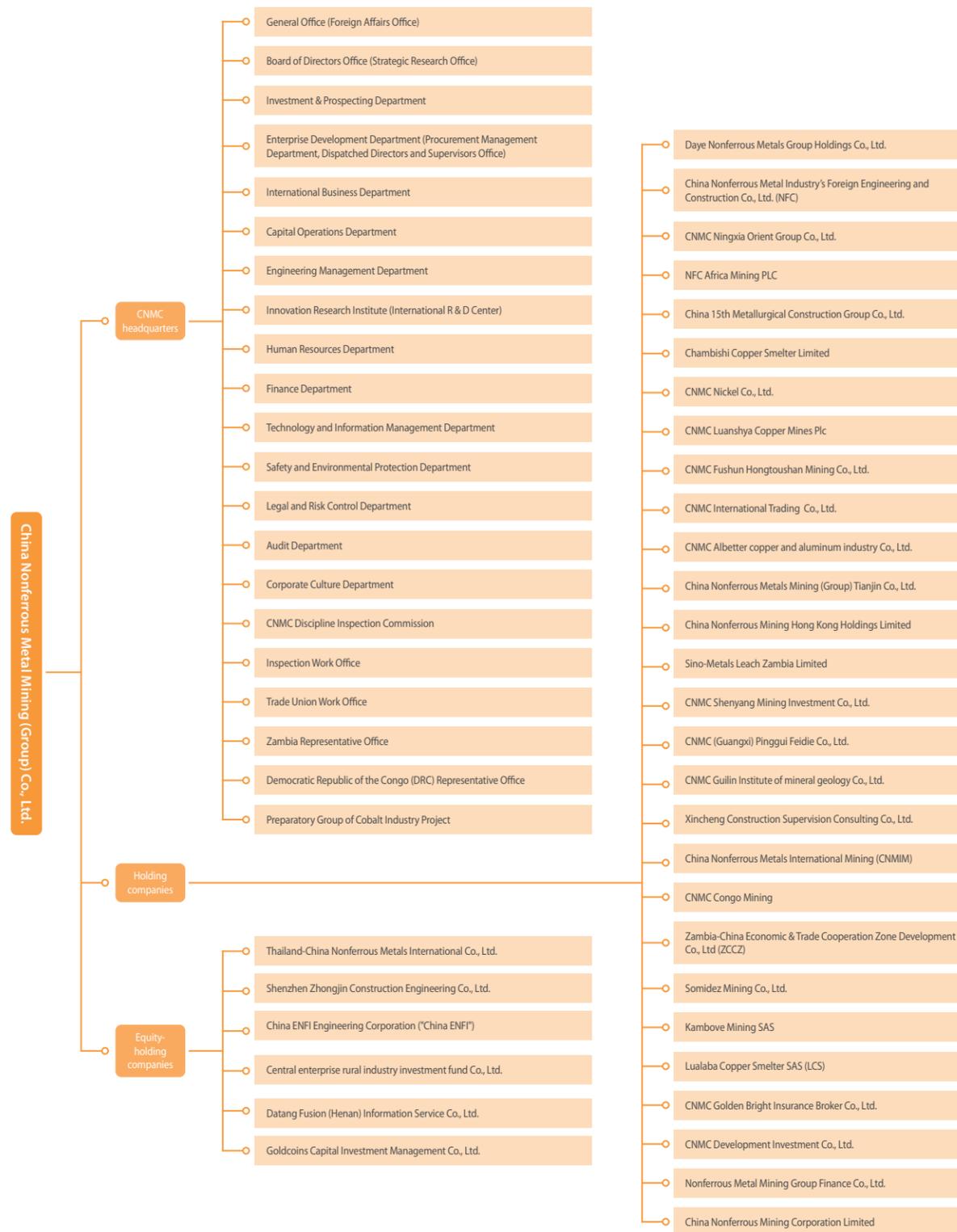
> Corporate culture



> Group strategy



> Organizational structure



Figures in 2021

Honors in 2021



36th in the "Top 100 Chinese Multinational Companies"



74th in the "China's Top 500 Manufacturing Companies"



172nd in the "Top 500 Chinese Enterprises"

Business performance

In 2021

144.467 billion yuan
Revenue

6.954 billion yuan
Total profits

119.16 %
Year-on-year increase

69.06 billion yuan
Total international business assets

62.30 %
Percentage of international business assets in the company's total assets

1.491 billion yuan
Overseas investment

40.53 %
Percentage of overseas investments in the company's total investment

1.84 million tons
Output of non-ferrous metal products

18.85 million tons
Heavy non-ferrous metal resources possessed by the end of 2021

Social performance

In 2021

2.038 billion yuan
Total tax payment

52.1078 million yuan
Donations (Assistance fund included)

409,616
Total training hours of headquarters staff

112,776
Participants of work safety training

46,774
Total employees by the end of 2021

940
Total new recruits

25.37 %
Proportion of female managers

Environmental performance

In 2021

541 million yuan
Total investment in environmental protection

2.276 billion yuan
R&D expenditure

197
New authorized patents

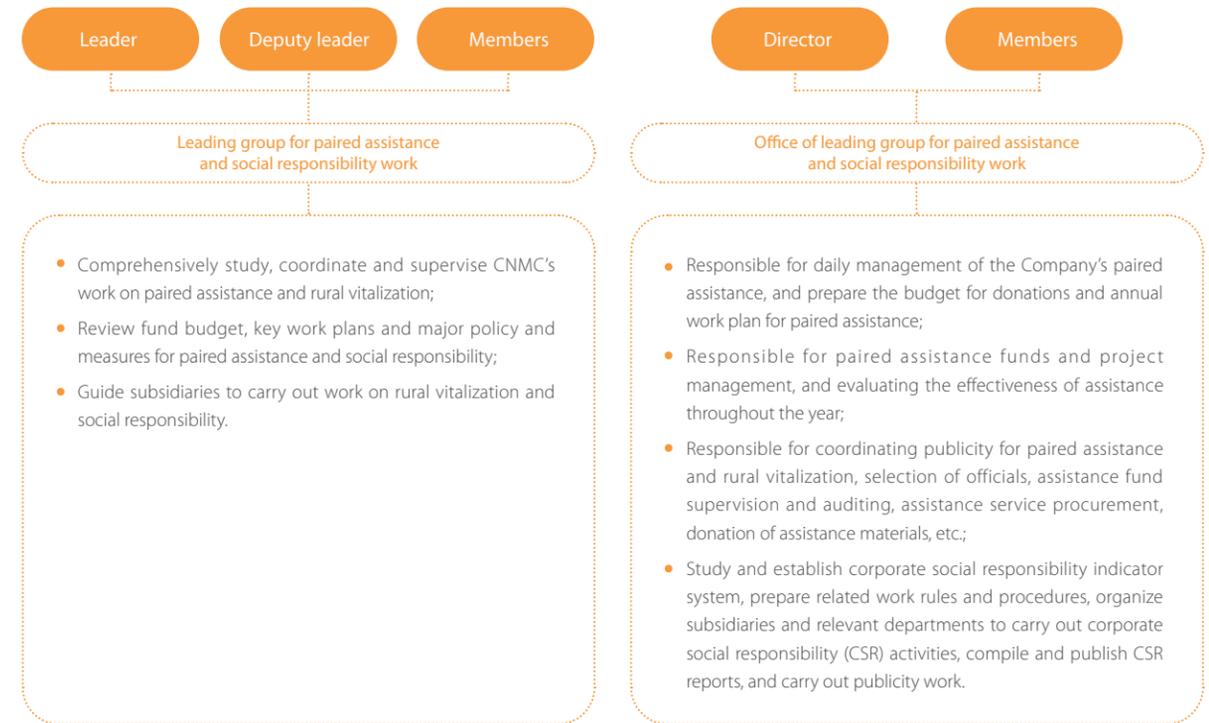
28
Units passed ISO 14001/ISO 24001 certification

Sustainability concept and architecture

Committed to sustainable development, CNMC integrates the sustainability concept into corporate development strategies and operations. During the 14th Five-Year Plan period (2021-2025), we devote to the "1+4" development model, and will continue to create values along our road toward the goal of becoming a globally competitive world-class mining enterprise. Together with stakeholders, we will create a win-win, high-quality, and sustainable development pattern.



CNMC attaches great importance to sustainable development. We have established a leading group for paired assistance and social responsibility work. Headed by the chairman, the leading group guides the work of the Company and subsidiaries on social responsibility. The leading group set up an office. The members of the office (Corporate Culture Department) are heads of departments of the headquarters. Each subsidiary designates a liaison person for social responsibility to promote the implementation of relevant work.



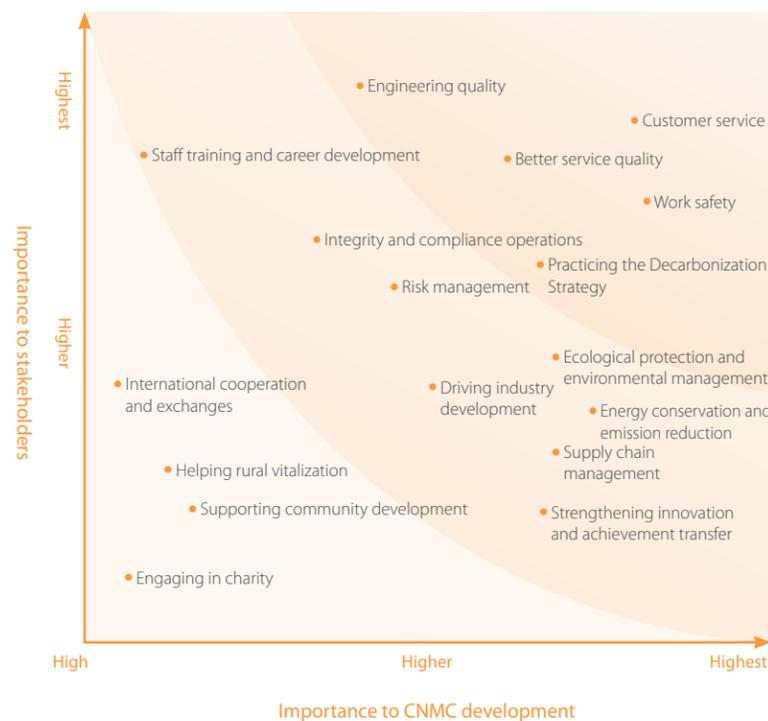
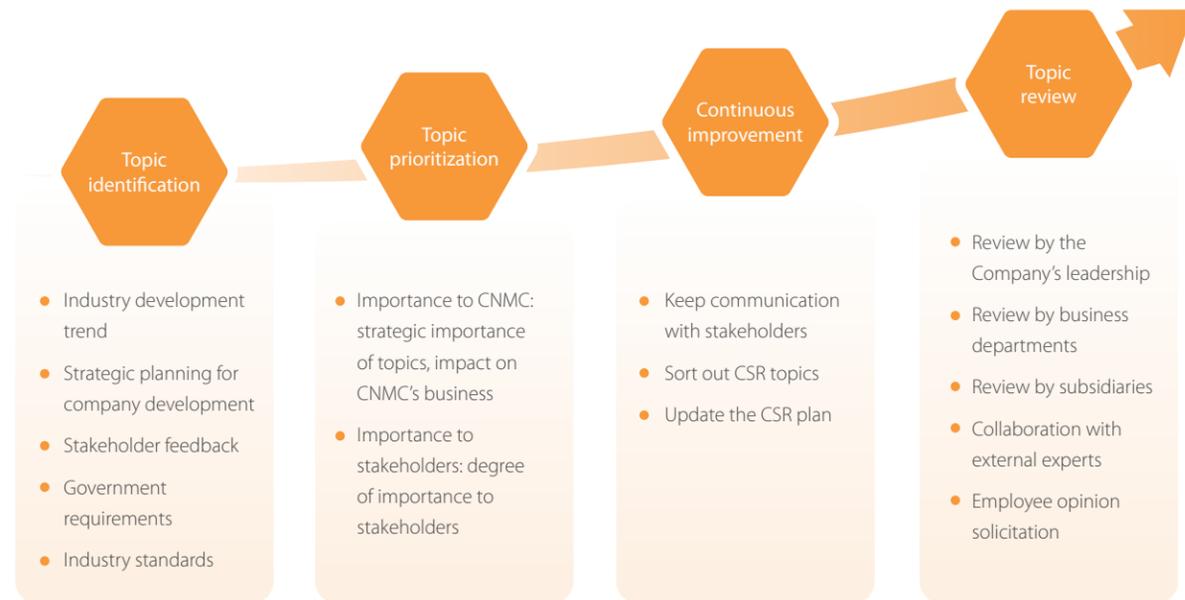
CNMC organization chart for paired assistance and CSR work

Upholding the values of "integrity first, pragmatic innovation, contributions to the country with resources, and win-win cooperation", CNMC presses ahead with social responsibility management and practice, and has formed a CSR culture with CNMC characteristics. The Company actively promotes CSR research and exchanges, and continues to publish sustainability reports in the forms of electronic version, printed version, and a single picture in Chinese, English, and French to bring into play the role of the report for communication and dissemination, thus realizing better communication with stakeholders.



Materiality analysis

The year 2021 marks the start of the 14th Five-Year Plan and is also the first year to propose China's 30-60 Decarbonization Goal. Against increasingly complex external conditions, we adjust our development strategy in a timely manner and evaluate our sustainability capabilities to meet the expectations and demands of stakeholders. We also identify and analyze material topics to deepen sustainable development.



Stakeholder communication

Starting from our operation and development practices, CNMC has created a new model of stakeholder interaction based on industry characteristics. We identify key CSR topics, respond to the expectations and demands of stakeholders, and continue to improve the sustainability framework to move forward together with stakeholders.

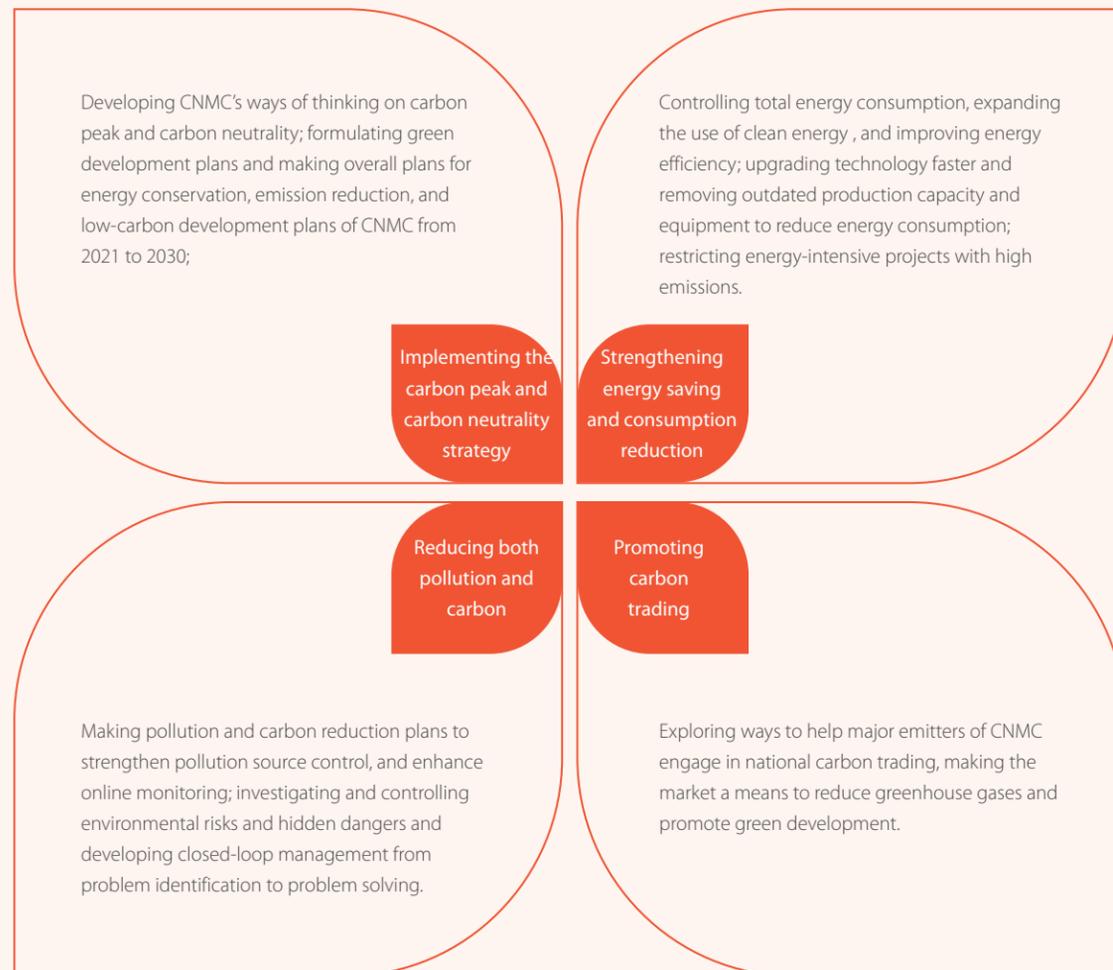
Stakeholders	Communication mechanism	Stakeholder appeals	Corporate responsibility practice
SASAC	<ul style="list-style-type: none"> Work report Report submission 	<ul style="list-style-type: none"> Return on revenue Social responsibility 	<ul style="list-style-type: none"> Complete performance appraisal Strengthen risk management Deepen enterprise reform Accept stationed supervision
Shareholders and investors	<ul style="list-style-type: none"> Board of Directors Daily communication 	<ul style="list-style-type: none"> Continuous returns Protection of rights and interests Open and transparent information 	<ul style="list-style-type: none"> Improve business performance Improve corporate governance Protect shareholders' rights and interests Improve information disclosure
Government	<ul style="list-style-type: none"> Policy guidelines Special meeting report 	<ul style="list-style-type: none"> Response to national strategies Legal compliant operation Paying taxes according to law 	<ul style="list-style-type: none"> Serve the national strategy Adhere to steady operation Comply with laws and regulations
Owners and customers	<ul style="list-style-type: none"> Customer service hotline Satisfaction survey Visit Company website 	<ul style="list-style-type: none"> Strict contract fulfillment Good quality Providing satisfactory service 	<ul style="list-style-type: none"> Ensure the contract fulfillment rate and delivery pass rate Strengthen quality management and technological innovation Improve the service system
Employees	<ul style="list-style-type: none"> Workers' Congress Daily communication Corporate cultural activities 	<ul style="list-style-type: none"> Reasonable compensation and benefits Safe working environment Career development and training Employee care 	<ul style="list-style-type: none"> Protect legitimate rights and interests Ensure occupational health Improve the training and promotion system Provide assistance to needy staff
Communities and the public	<ul style="list-style-type: none"> Community exchanges and visits Community-based charity activities 	<ul style="list-style-type: none"> Engagement in community development Paying attention to special groups 	<ul style="list-style-type: none"> Participate in community charity cause Promote localized procurement and employment Carry out charitable activities
Environment	<ul style="list-style-type: none"> Insight into domestic and international trends Mastering advanced technology Raising environmental awareness 	<ul style="list-style-type: none"> Compliance with environmental regulations Reduction of pollution emissions Environment protection 	<ul style="list-style-type: none"> Energy conservation, emission reduction and carbon reduction Increase investment in environmental protection Increase energy efficiency Build green projects
Industry	<ul style="list-style-type: none"> Joining in industry associations Participation in the formulation of industry standards Business exchange and cooperation 	<ul style="list-style-type: none"> Fair competition Mutual benefit and win-win results Promoting industry progress 	<ul style="list-style-type: none"> Participate in the formulation of industry standards Give full play to the advantages of the whole industrial chain to provide high-quality services for the industry Maintain a fair and orderly competitive environment for the industry

Reducing carbon emissions to protect the environment

As CNMC goes green, we promote low-carbon technology innovation, standardize and institutionalize energy conservation and emission reduction, and heighten environmental protection awareness. Efforts are made in pollution control, green mines, and the environmental management system to safeguard a beautiful environment.

> Promoting energy conservation and emission reduction to pursue green development

With support for low-carbon technology innovation, we standardize and institutionalize energy-saving efforts, contributing to a new level of green development.



CNMC Zinc's factories



CNMC Zinc Energy Management System certification

CNMC Zinc, a subsidiary of NFC, obtained the energy management system certification for the first time in 2021, further standardizing and institutionalizing energy-saving efforts and improving energy-saving management.

CNMC Daye improves technology to reduce overall carbon emissions

Case

The smelters of Daye Nonferrous Metals Group Holdings Co., Ltd.(CNMC Daye) have studied how to optimize its pyrometallurgical techniques. Through measures such as increasing oxygen concentration and improving matte grade, the coal consumption in copper concentrate smelting has been reduced by 20%, which is expected to lower about 15,000 tons of carbon dioxide emissions every year after it is commercialized.

LCS creates new low-carbon technologies to reduce greenhouse gas emissions

Case

LCS adopts the oxygen-enriched smelting process, with an oxygen-enriched concentration of 75%. It reduces the emission of nitrogen oxides and carbon compared with the 53% oxygen-enriched smelting process of the ISASMELT process. In 2021, the waste heat boiler power generation system was put into use, generating a total of 11.25GWh of electricity. A certain amount of sulfur was added to the smelting process, which guaranteed the process, increased the output of sulfuric acid, and reduced the emission of carbon dioxide.



Factory of Luabala Copper Smelter SAS (LCS)

> Fulfilling main responsibility to control pollution

We fulfill the main responsibility of environmental protection, tackle unsolved environmental problems, and carry out clean production. Resources are recycled and environmental protection is integrated into the whole process of production and development. These efforts show our resolve in the battle against pollution. By the end of 2021, major domestic subsidiaries had conducted clean production audits, and several unsolved environmental issues has been settled.

Protecting the Yangtze River by ensuring rectification

Case

The tailings pond of Fengshan Copper Mine affiliated to CNMC Daye stopped discharge in advance. A new 3,150-meter interceptor trench was built and the original 700-meter trench was dredged. Meanwhile, the newly established tailings pond drainage advanced treatment system and the mine water flow treatment system ensured that all tailings pond wastewater meets discharge standards and does not pose potential threats to the ecology and resources of the Yangtze River.



CNMC Daye Fengshan Copper Mine water treatment facility



The interceptor trench of the tailings pond of CNMC Daye Fengshan Copper Mine



China 15th Metallurgical Construction Group Co., Ltd. (15MCC)'s Lvshilian Project is awarded the "2021 Green Construction Demonstration Project" by the China National Association for Nonferrous Metals Industries Construction

China Nonferrous Mining Hongkong Holdings Limited (CNMHK) efficiently carries out comprehensive resource utilization

Case

The Huachin Leach project of CNMHK adopts the cobalt hydroxide treatment system to treat water and impurities. All liquid in the process is returned to the grinding workshop, saving about 350,000 cubic meters of water and reducing the pressure of water in tailings pond. The process is expected to produce 240 tons of cobalt products.



Water recycling of the Huachin Leach project of CNMHK

> Building green mines and improving the environment

Fully implementing environmental protection requirements, we build green mines and improve the environment of mining areas. In 2021, all eight mines in production in China were awarded the title of green mines (seven national titles and one provincial title).

China Nonferrous Metals International Mining (CNMIM) in Tajikistan promotes green mines

Case

Following the requirements of Tajikistan's environmental protection department, the gold mine project of China Nonferrous Metals International Mining Co., Ltd. in the country works for green mines. Trees are planted in the open space around the factories in the mining area and the original dry tailings pond is suspended for greening projects. Before the end of October 2021, the greening project had been completed, passing the inspection of the local environmental protection authority.



China Nonferrous Metals International Mining (CNMIM) in Tajikistan covers the temporary dry tailings pond with soil and sprinkles grass seeds for greening

> Institutionalizing ecological and environmental protection

We have revised the *CNMC Solid Waste Management Measures* and *CNMC Contingency Plan for Environmental Emergencies*, and other policies. In addition, CNMC has ensured whole-process solid waste prevention and control, improved our capability of prevention and handling of environmental emergencies, and built a more science-based long-term mechanism for solid waste and emergency management.

China Nonferrous Metals International Mining (CNMIM) carries out investigation and implements environmental protection policies

Case

For the gold mine in Tajikistan, China Nonferrous Metals International Mining (CNMIM) is committed to environmental protection during operation by assigning a Tajik full-time environmental protection officer to the work safety technology center, responsible for investigating and treating environmental hazards. The 2021 annual environmental protection management plan and measures to improve the environment and sanitation are formulated. Samples are collected every quarter to analyze the water of the tailings pond water quality monitoring well and the soil of the mining area, which effectively avoids pollution.

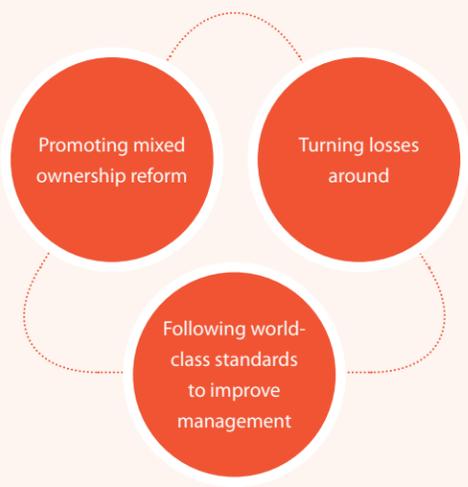


Tajik equipment management personnel carry out daily inspections

Strengthening the driving force and deepening reform

The year 2021 is critical in the reform of SOEs. CNMC formulates the *Assessment Plan for Key Tasks of Deepening Three-year SOE Reform* to achieve better results. In addition, three institutional reforms and mixed ownership reform are advanced to turn losses around and deepen overall reform.

Following the "two no ir resolutions" principle, we advance the mixed ownership reform of central SOEs. The copper pipe business of CNMC Albetter copper and aluminum industry Co., Ltd. attracts investments from Zhejiang Hailiang Co., Ltd. Based on the advantages, positions and complementarity of both companies in the copper pipe and non-ferrous metal industry, their cooperation will upgrade the business through innovation and contribute to the sound development of the copper pipe processing industry for value preservation and appreciation in state-owned assets.



We strive to deal with key loss-making subsidiaries and consolidate our achievements in reversing losses. In 2021, a total of 13 key loss-making subsidiaries met the three-year goal of handling losses and seven turned into profits. The losses of subsidiaries were reduced to a 10-year low.

CNMC follows world-class standards to improve management and creates management improvement examples. In 2021, one model subsidiary and one model project of CNMC were included the list of key SOE management model actions by the SASAC, showing CNMC's contributions to improving management standards.

Model company

Chambishi Copper Smelter

Through continuous progress in management and technology, the company's production technology and business indicators have been steadily improved, all well ahead of the industry's excellent performance. It is a landmark project of China-Zambia cooperation.

Model project

The centralized management of domestic and foreign funds

The three-in-one management and control model of "domestic finance company + overseas finance center + cross-border capital pool" puts domestic and overseas funds into good use, significantly improving the CNMC's capital management.

Key Performance

In 2021



> Fully implementing three institutional reforms

We deepen three institutional reforms related to human resources, labor, and distribution. After releasing the Guidelines on Deepening the Three Institutional Reforms of CNMC and related incentives, we refine the reform task list and link assessment results with subsidiaries' performance assessments and the annual remuneration of people in charge to guarantee the effectiveness of reform.

Three institutional reforms of CNMC

Human resources system	Labor system	Distribution system
Establishing a scientific and reasonable selection mechanism to realize flexible managers appointment	Establishing an employment mechanism responsive to the market and allowing flexible employment	Establishing a market-oriented distribution mechanism and achieving floating incomes
<ul style="list-style-type: none"> Implementing tenure-based and contractual management of managers: 90 subsidiaries at all levels included in the three-year reform action have 100% of their managers sign contracts. Improving the competitive hiring mechanism: in 2021, nearly 70% of new managers were appointed by subsidiaries at all levels after open competition. Eliminating the "unqualified ones": In 2021, 2.65% of labor contracts were terminated due to violations of regulations or incompetence, effectively reducing redundancy. 	<ul style="list-style-type: none"> Linking salaries with business performance. Linking performance evaluation with remuneration: the average proportion of floating salaries for middle-level managers reaches 58%. Strengthening special incentives: by 2021, the accumulated bonuses had exceeded 20 million yuan. 	<ul style="list-style-type: none"> Implementing incentives such as virtual equity for key employees, project co-investment, and excess profit sharing, to improve medium and long-term incentives. In 2021, nine subsidiaries delivered medium and long-term incentives, benefiting 297 employees.

Contents, goals, measures, and results of the three institutional reforms implemented by CNMC



01

A trailblazer for innovation that lays a solid foundation

CNMC continues to improve the corporate governance system and capabilities, strengthen compliance in key areas, and protect investors' rights and interests. Innovative platforms are built with efforts to advance innovative development models. We advance corporate transformation through technological innovation, laying a solid foundation for future development.

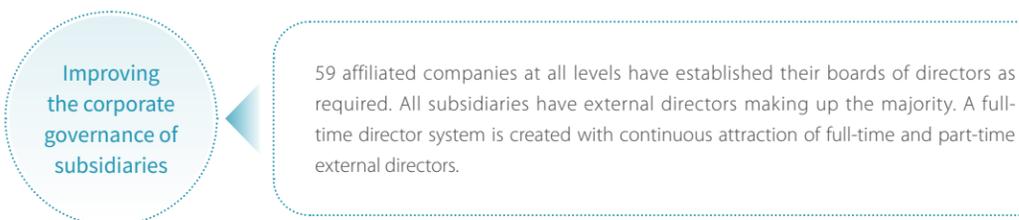
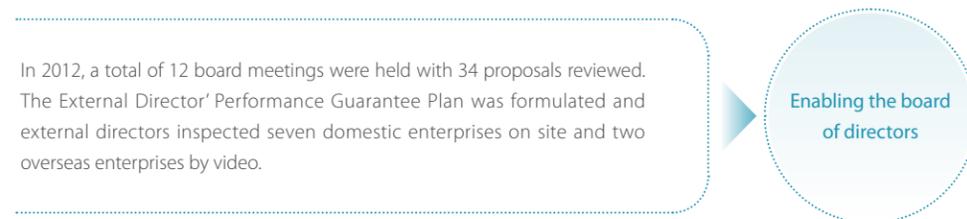


> Strengthening compliance

In pursuit of high-quality development, CNMC optimizes corporate governance and policies, and strengthens risk control to consolidate the foundation for compliance.

Optimizing corporate governance

Following requirements of the SASAC on improving corporate governance of central SOEs, we strengthen the management of the board of directors on the Company and subsidiaries, promote reforms and high-quality development, and modernize the corporate governance system and capabilities.

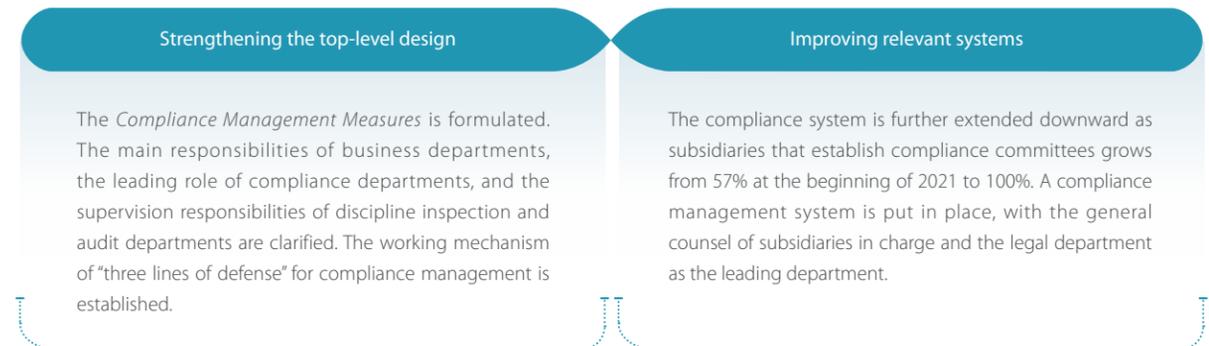


Sticking to integrity and compliance

As a law-abiding enterprise, CNMC improves the compliance management system and upholds integrity in operations. The legitimate rights and interests of stakeholders are safeguarded and the sense of responsibility for compliance is strengthened.

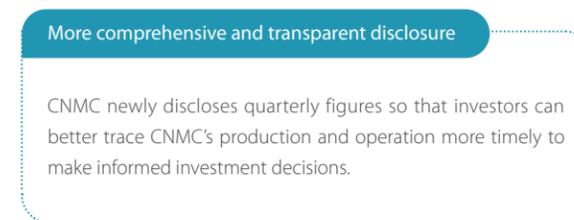
Strengthening compliance

With implementation of supervision and management responsibilities, we establish a management system to provide a solid guarantee for stable operation, thus further strengthening compliance.



Protecting the rights and interests of investors

Committed to safeguarding the legitimate rights and interests of stakeholders, listed companies of CNMC regularly disclose production and operation information and hold press conferences to brief business performance.



In December 2021, CNMC won the Greatest Investment Potential Award issued by China Financial Market.

A trailblazer for innovation that lays a solid foundation

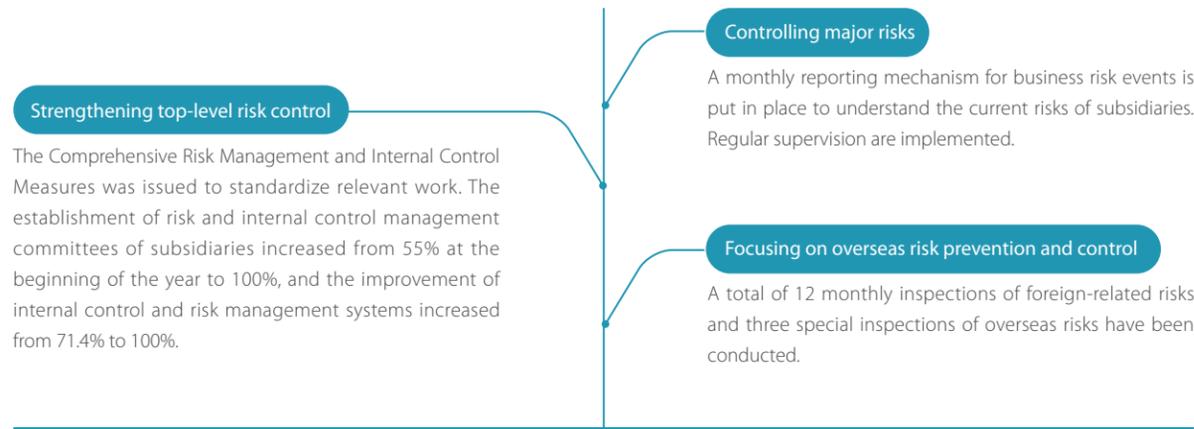
A pioneer that gathers momentum for development

A partner for shared benefits and common progress

A contributor committed to social harmony

Reinforcing risk prevention and control

With an emphasis on risk prevention and control, we focus on important risks abroad and in key areas, keeping a solid bottom line.



Upgrading the innovation management system

In pursuit of better technology management, we build a unified R&D platform, attract more talent, and ramp up R&D input. The innovation management system is also upgraded.

Building systems for innovation-oriented organizations

We continue to formulate or revise policies for technology management, talent teams, assessments and incentives, implement incentives for sci-tech innovation, establish and improve the innovation system.



> Pursuing new development models

Guided by the innovation-driven development strategy, we leverage our advantages in business innovation and project operations. Cooperation with industry, universities, and research institutes is fostered in pursuit of an innovative development model.

Funding construction projects and innovating project operation models

Case

Through design optimization, equipment procurement, employee training, and on-site simulation experiments, NFCA by leveraging the results of research on IT-based high-efficiency trackless mining technology. In 2021, the production capacity of the west ore body increased significantly. The extracted ore tonnage reached 1.39 million tons, exceeding the designed capacity by 39%. The ore grade was 2.02%, and the dilution rate and loss rate of the stope was 7.6% and 21.7%, respectively, a year-on-year decrease of 1.1% and 1.6%. A number of indicators rose to the best level in recent years, with significant economic benefits.

> Enabling development by technological innovation

Following the main business trend, CNMC focuses on significant research projects, thinks out of the box, and drives innovation to stimulate vitality. New measures are implemented to make technology a leading role in improving quality and efficiency.

Creating an innovative platform

We build a unified R&D platform and attract more talent, focus on the technical needs of the country, industry and CNMC, coordinate the R&D direction and tasks. We concentrate on overseas laboratories and optimize resource allocation to support innovation and development. In 2021, a total of 2.276 billion yuan was invested in technology R&D, boosting our independent innovation capability. The analysis and testing center has obtained CNAS certification.

Key Performance



Commercializing research results

The Guidelines on Commercializing Research Results was formulated to promote the innovation-driven development strategy and enhance technological self-reliance. In 2021, four commercialization projects were approved, with a total budget of 25.95 million yuan.

Honors	Companies	Prjects
Second Prize of National Technology Invention Award	Northwest Rare Metal Materials Research Institute Ningxia Co., Ltd.	Key technology and engineering of ITO targets for flat panel display
China Patent Excellence Award	Northwest Rare Metal Materials Research Institute Ningxia Co., Ltd.	A method for effectively reducing chromium element in metal beryllium raw materials
China Nonferrous Metals Industry Science and Technology Award	CNMC	Nine achievements awarded



02

A pioneer that gathers momentum for development

In line with the development idea of “focusing on industry and commerce, giving prominence to main business, and specialization”, CNMC implements the “1+4” development strategy, serves the Belt and Road Initiative (BRI), strengthens lean management, and keeps the bottom line of safety. With the pioneering spirit, we keep exploring and move towards high-quality development with a robust and innovative model.



A trailblazer for innovation that lays a solid foundation

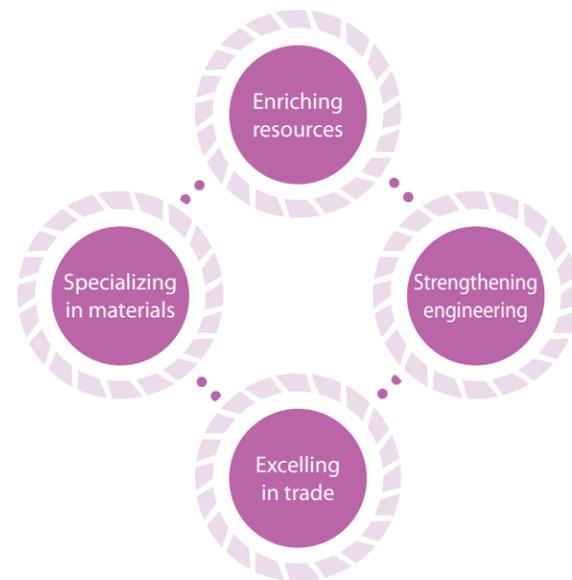
A pioneer that gathers momentum for development

A partner for shared benefits and common progress

A contributor committed to social harmony

> Contributing to the country with resources

Bearing in mind the concept of contributing to the country with resources, we focus on four major business sectors, playing a vital role in supporting the security of national strategic resources and new non-ferrous metal materials.



Developing mineral resources

Taking resource development as the pillar, we support the security of national strategic resources by prospecting for mines and building up reserves. Non-ferrous metal development cooperation is carried out with domestic and overseas players to secure sufficient resource supplies. In 2021, major indicators such as reserves registered new highs.

Key Performance

In 2021

18.85 million tons
Total heavy non-ferrous metal resources owned by CNMC

Nearly **70,000** meters
Drilling footage completed in total

About **100** million yuan
Cumulative investment in exploration

41 Mining rights **1,463** square kilometers
Total area under mining rights

1.84 million tons
Output of non-ferrous metal products

CNMC Baiyinnuoer Mining continues to explore resources in the deep side of mines

Case

In 2021, Chifeng CNMC Baiyinnuoer Mining Co., Ltd. implemented two projects of in-depth exploration of "Baiyinnuoer lead-zinc mine in Inner Mongolia below the 550 level" and "exploration of Saihanqigeaorui lead-zinc mine in Inner Mongolia", which were expected to add lead and zinc output by about 200,000 tons. Such efforts would extend the service life of mines and drive local employment and economic growth.



Underground measurement for the Saihanqigeaorui project

Specializing in material R&D

With the *Guidelines on Supporting the High-Quality Development of the New Material Industry*, we tap into the potential of the new material sector and guide new material companies to develop high-value-added products and import substitutes. In doing so, we move from a non-ferrous raw material provider to a manufacturer of strategic non-ferrous new materials, becoming the main force in ensuring the security of new materials in China.

Performance

In 2021

In terms of new material technology research and development,

5
Technological projects approved by CNMC

2
Commercialization projects

2
Projects under open competition mechanism

2
Projects under pledge

Solving bottlenecks in key materials and advanced technologies

- CNMC Ningxia Orient Group Co., Ltd. (CNMC Orient) solves technical issues of titanium alloy products. The sales of alloy forged billets in the mid-to-high-end consumer market have increased by 52% year on year. Precision titanium billets used in the computer, communication, and consumer electronic industry, have been certified by the Huawei supply chain, BYD, and LY ITECH.
- CNMC Albetter has studied copper-nickel-tin foil materials. Their performance can meet imported copper-nickel-tin alloy indicators, which shows that we resolve bottleneck issues of key materials.

Tackling key technical problems in materials

- **Making China's first-ever magnesium reduction tantalum powder**
CNMC Orient has carried out "research on the production of electronic grade tantalum powder by metal reduction of tantalum oxide." Breakthroughs have been made in the preparation of large-particle and bulk-density tantalum oxide, realizing tantalum powder with world-class electrical properties. This has made the first-ever magnesium reduction tantalum powder in China, breaking the monopoly held by other countries.
CNMC Orient mainly offers tantalum powder and advanced tantalum wires. While tantalum powder accounts for 30% of the world's total, or the second in the world, the advanced tantalum wire makes up 60% of the global market, ranking first in the world in terms of overall quality and market share.
- **Realizing mass production of KTP electro-optic devices with a wide temperature spectrum and high extinction ratio**
Guilin Bairay Photoelectric Technology Co., Ltd., a subsidiary of CNMC Guilin Institute of mineral geology Co., Ltd. has become the first company in the world to overcome growth issues of large-size, great-grey-resistance, and high-electrical-resistivity KTP crystals. Multiple difficulties in the design, preparation, and testing of dual-crystal temperature-compensated electro-optical devices have been resolved. The company is the first and only one to commercialize the mass production of KTP electro-optical devices that have a wide temperature spectrum (-50~+70°C) and a high extinction ratio. Their performance exceeds that of similar foreign RTP electro-optical devices, providing a solid guarantee for China's national defense.

A trailblazer for innovation that lays a solid foundation

A pioneer that gathers momentum for development

A partner for shared benefits and common progress

A contributor committed to social harmony

Strengthening high-quality projects

Committed to the business philosophy of "focusing on CNMC and looking beyond CNMC", we expand the engineering business and formulate development plans for the sector to integrate engineering resources. We strive to build high-quality projects to support our transition to a world-class enterprise.



The Kambove project exceeds production capacity targets

Case

In August 2021, despite a tight project construction schedule, heavy tasks, and the impact of COVID-19, the Kambove project still accomplished the target two months ahead of schedule. Indicators of production technologies met design requirements, with production capacity increasing steadily.

Three projects of 15MCC granted Awards of Luban Prize

Case

In 2021, three projects constructed by 15MCC received the Awards of Luban Prize. The first phase of the 2x660MW ultra-supercritical coal-fired power generating unit built by Hubei Huadian Jiangling Power Generation Co., Ltd. was shortlisted in the first group of Luban Prize (National High-Quality Project) from 2020 to 2021. The exploration and construction project in the southeastern mining area of Chambishi Copper Mine in Zambia and the Letpadaung copper mine of the Monywa copper project in Myanmar with an annual output of 100,000 tons of cathode copper won the 2020 China Construction Engineering (Overseas Project) Luban Prize. These three awards for construction projects granted in the same year show the efforts and achievements of CNMC in making high-quality projects possible.



15MCC participated in the Letpadaung Copper Mine Project in Monywa, Myanmar, which boasts an annual output of 100,000 tons of cathode copper.

Maintaining sound trade business

Regarding trade business as an important pillar of CNMC's strategic development, we build a global logistics network and a supply and distribution network. Vigorous efforts are made to develop special trade, equipment and material procurement, logistics, and overseas mineral products. A better trade structure highlighting key elements and diverse operations is in place to promote the balanced, coordinated, and sustainable development of the main business.



The MOU on Zambia China Cross-Border E-Commerce Industrial Park signed online to boost trade and economic cooperation

Case



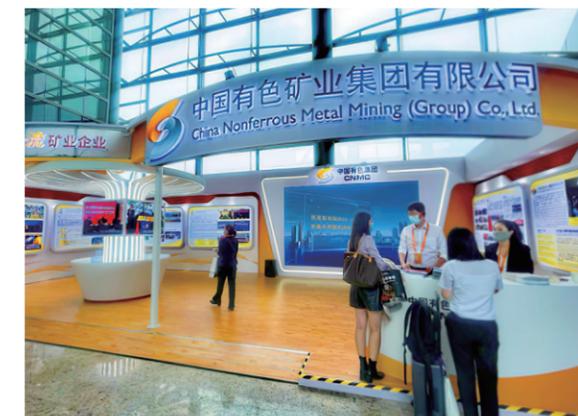
The online signing ceremony of the MOU of Zambia China Cross-Border E-Commerce Industrial Park

On September 14, 2021, an MOU on the Zambia China Cross-Border E-Commerce Industrial Park was signed online by Zambia-China Economic & Trade Cooperation Zone Development Co., Ltd (ZCCZ), a subsidiary of CNMC, and the Zambia Development Agency. By introducing China's fully-fledged "cross-border e-commerce + overseas warehouse" model, the project aimed to gather high-quality products from all over the world, boosting Zambia's development and industrial transformation.

Setting up the booth at the CIFTIS for the first time to demonstrate our achievements

Case

From September 2 to 7, 2021, CNMC participated in the 2021 China International Fair for Trade in Services (CIFTIS) and leveraged its digital cloud platform to display what CNMC had achieved in international trade in services, online and offline. During that period, CNMC's subsidiaries signed seven contracts online and one contract offline. These contracts covered financial services, international logistics, overseas investment consulting, imported goods testing, and overseas personnel health examinations.



CNMC's booth in the comprehensive exhibition area of the CIFTIS

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> Contributing to BRI

Serving China's strategy of "going global", CNMC makes better business plans for international operation and management improvement, and invests in overseas non-ferrous metal and mineral resources to contribute to the Belt and Road Initiative (BRI) and the global non-ferrous metal industry.

Key Performance

In 2021

69.06 billion yuan
Total international business assets

71.55 billion yuan
Revenue of international business

1.491 billion yuan
Completed overseas investment

15.31 million tons
Overseas non-ferrous metal resources

62.30 %
Percentage of international business in CNMC's total assets

49.51 %
Percentage of international business in CNMC's total revenue

40.53 %
Percentage of overseas investment in the total investment

Developing overseas resources

We expand the global market solidly and focus on the strategy of resource security and deployment. Further arrangements in developing overseas resources are advanced to ensure the national strategic resources supply and the security and stability of the industrial chain and supply chain.

The Kambove copper hydrometallurgy project in the main ore body in the Democratic Republic of the Congo has been completed and put into production ahead of the schedule.

Despite the adverse effects of COVID-19 and rising prices of raw materials, the in-depth mining project of the Ovoo Zinc Mine in Mongolia started in November 2021, adding 330,000 tons of lead and zinc metal resources.

Research on more than 10 non-ferrous metal and mineral resource projects located in Central Asian and Southeast Asian BRI countries, such as the Baita copper-molybdenum project in Mongolia and the Frieda river copper-gold mine in Papua New Guinea has been completed.

A total of 20 key tracked projects have been included in CNMC's resource development project database. CNMC selected and reached out to potential projects, continuously monitored market sentiments on international operations and resource mergers and acquisitions.



CCS produced 250,100 tons of copper products and 718,000 tons of sulfuric acid products in 2021, reaching the best since it was put into production for 12 years.

Somidez Mining surpasses production targets in the first year of operation

Case

In January 2021 when the Somidez Mining project marked its first anniversary, it performed well beyond previous production targets, laying a solid foundation for CNMC to achieve the goal of increasing net profit and for central SOEs to realize the "two strives." Somidez Mining, located in Kolwezi, Lualaba Province, southern Congo, is an overseas copper-cobalt development project featuring the single largest investments, latest operation models, and strongest drivers. It also serves local development and employment. The project won the 2020 National Chemical Industry Quality Engineering Award - Overseas Quality Engineering Award in March 2021.



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Engaging in international exchanges

As an active participant in high-end exchanges and cooperation with countries along the BRI, we engage in international conferences and business cooperation with overseas merchants. Such open cooperation raises our international influence and contributes to high-quality BRI.



On November 24, 2021, Xi Zhengping, Chairman of CNMC, met Edgar Blanco, Deputy Minister of Energy and Mining of Chile, via video to expand the trade of copper products in Chile, join hands in upgrading existing capacity and building advanced copper smelting production capacity.

Present at China International Import Expo (CIIE) with unprecedented signed deals

Case

On November 4, 2021, Xi Zhengping, Chairman of CNMC, attended the opening ceremony of the 4th CIIE. In the past four sessions, CNMC has sent trading teams to the CIIE, organized signing activities, and stepped up international cooperation. During the event, with commitments to higher-level open cooperation, CNMC Daye, NFC, and CNMC International Trade signed 15 import procurement contracts worth a new-record value with overseas merchants, raising CNMC's international profile.

Zambia-China Economic and Trade Cooperation Zone recognized as an excellent case by the Second CAETE

Case

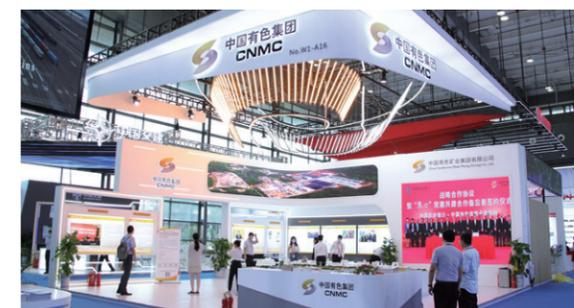
On September 26, 2021, at the Second China-Africa Economic and Trade Expo (CAETE), CNMC displayed successful cases of China-Africa cooperation, which served corporate publicity and business promotion. Zambia-China Economic and Trade Cooperation Zone, China's first overseas cooperation zone in Africa and the first multifunctional economic zone in Zambia. By the end of 2021, it had attracted 77 enterprises, with an industrial investment of USD 2.4 billion, USD 22.1 billion of sales and USD 530 million of taxes paid. More than 10,000 jobs were provided in Zambia. It has become a good example for China and Central and Southern Africa to achieve open integration and win-win results.



The Zambia-China Economic and Trade Cooperation Zone promoted during the CAETE



Foreign merchants consult about the Zambia-China Economic and Trade Cooperation Zone



CNMC's booth at CAETE

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> Guaranteeing the highest quality

Committed to "safety first" and "quality improvement", we highlight safety and quality responsibilities by strengthening the safety and quality management system and risk prevention in key areas. With a sense of responsibility and mission for excellence as well as high-quality products and services, we strive to improve our competitiveness.

Ensuring lean quality management

Upholding the concept of "product quality is above everything else", we take product quality control as an important part of high-quality development. Quality systems are built, the whole-process management of product quality is enhanced, and quality awareness of employees is heightened. We improve the quality of products, projects, and services to make customers more satisfied.



Improving the quality management system

Under the goal of "high-quality management, low-cost competition", we have developed the quality improvement plan for the 14th Five-Year Plan period and built a quality big data platform to standardize and institutionalize quality management for steady improvement.



Preparing a work plan to follow world-class standards to improve quality and formulating the quality improvement plan for the 14th Five-Year Plan period;

Strengthening quality process control by incorporating 21 indicators of three categories into monthly management reports and building a quality big data platform.

Heightening quality awareness

"Quality Month", QC group activities, and special training on quality improvement are organized, strengthening employees' quality awareness and quality management.



Organizing quality activities to engage all employees in quality improvement

Case

CNMC Orient improves the promotion and management mechanism of quality activities. A sound management model for centralized filing at the beginning of the year, monthly statistical supervision, quarterly on-site inspection, and year-end checks and results release is established. The company also enhances the supervision over the approval of projects, and process, and conducts final evaluation to ensure that the results are trustworthy. At the same time, employees participate in the quality training organized by the China Association for Quality and the non-ferrous metal industry. A team of professionals that can guide and train other employees and assess results is fostered. CNMC Orient currently has three employees of quality control intermediate qualifications, five employees of quality control primary qualifications, and two quality trustworthy team evaluators.



The reduction quality control team of the tantalum powder branch receives the national excellence certificate



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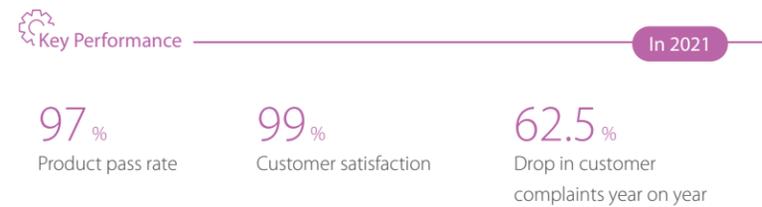
In 2021, CNMC Daye was rated as one of the "Excellent Enterprises with 40-Year Quality Improvement Teams" by Hubei Quality Association



CNMC Orient organizes a quality-themed speech contest to create a quality culture

Satisfying customers

We enhance our communication with customers and optimize products and services to meet their needs swiftly while protecting customer privacy.



CNMC Orient takes multiple measures to improve customers' satisfaction

Case

In 2021, CNMC Orient conducted a satisfaction survey among 245 key customers, with 198 questionnaires collected. The results indicated that the customers' overall satisfaction rate with the Company's products and services reached 97.4%. Specifically, customers were more satisfied with the product quality and after services, while the score of "product delivery timeliness" satisfaction was relatively low. In response to the slow delivery, CNMC Orient took a series of targeted measures while maintaining stable improvement of product quality. For example, it prepared materials in advance, adjusted the raw material procurement policies, lowered the raw material price risks, and enhanced real-time management of orders and on-site material production schedule. With all these efforts, CNMC Orient strived to provide quality products and improve customer satisfaction.

Keeping the bottom line of safety

Adhering to the policy of "safety first, prevention first, and comprehensive management", we take proactive safety measures and improve the safety management system to strengthen work safety. Occupational safety and health of employees are emphasized. The three-year action for work safety is carried out to ensure work safety and production stability.



Improving safety management

As we continue to institutionalize and standardize safety management, we focus on the three-year action for work safety and inspect key areas such as underground mines and tailings ponds. A total of 3,595 hidden problems have been found and over 95% of them have been rectified.



NFCA emergency rescue team conducts an emergency drill



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Enhancing work safety

We adopt advanced, mature and reliable processes and equipment, design targeted standard operation procedures, and strengthen risk management to build a solid defense in work safety. In 2021, we had zero major and above work safety accidents. The number of general work safety incidents and related fatalities dropped by 40% year on year respectively, reaching the lowest level in the past 10 years.

Improving the safety monitoring system

- CNMC Baiyinnuoer Mining builds the safety management information platform, online monitoring of tailings ponds, risk prevention "six systems", and the microseismic monitoring system.
- CNMC Hongtoushan removes underground non-flame-retardant wires and improves the ground pressure monitoring system to reduce the risks of underground operations.
- CNMC Nickel has added monitoring and early warning devices for the main transport belt.



Subsidiaries' measures on work safety

Strengthening standard certifications

- CNMC Guilin Institute of mineral geology Co., Ltd. and its main production unit, Guilin Tebon Superhard Material Co., Ltd. have been certified the third-level work safety standardization.

Improving automation control

- Chambishi Copper Smelter has upgraded the anode furnace reduction system.
- Somidez Mining has realized remote automatic control and interlock protection.
- CNMC Albetter has installed alarms that send out warnings if liquid levels, temperature, and pressure of liquid ammonia tanks exceed limits.

Optimizing mining technology

- China Nonferrous Metals International Mining (CNMIM) cooperates with third-party organizations to optimize mining methods.

Improving the casting technique to eliminate the hidden danger of explosion

Case

The CNMC Zinc casting branch has explored new practices. By designing better casting techniques and setting up a reasonable casting system, it has realized the mass production of alloys without shrinkage cavities, which avoids the explosion of zinc pots used by manufacturers. These efforts are conducive to improving product quality, meeting customer needs, and ensuring stable production.



Guaranteeing occupational health

Under the principle of "safety first, life first", we carry out occupational health management in an all-round way. Specifically, we reinforce safety facilities and protective equipment, improve working conditions, monitor and assess hazards, and organize employee health examinations. Employees' knowledge and skills about their health and safety are also improved based on relevant training. All of these efforts enhance the occupational health of employees.



CNMC Daye holds the second workshop on work safety for middle and senior managers

NFCA employs VR technology in the work safety education center

Case

Drawing on the best practices in safety training at home and abroad, NFCA introduces VR technology in its first-class employee work safety education center in Africa. The new three-in-one model featuring safety culture publicity, VR simulations, and outdoor experiences raises the quality of safety training for Zambian employees, making the center a model for Zambia's mining safety training. It has been highly recognized by the Mines Safety Department and the Ministry of Mines and Minerals Development of Zambia.



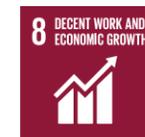
A VR simulation classroom for safety education



03

A partner for shared benefits and common progress

CNMC holds fast to the strategic positioning of “being the pillar force to ensure the security of national important resources and new non-ferrous metal materials.” Committed to the prosperity of the mining industry, we focus on promoting strategic cooperation to build a responsible supply chain and establish sustainable and long-term partnerships with suppliers. Putting people first, we stress value creation together with our employees and join hands with them to build a world-class brand in the resource and mineral industry.



> Empowering industrial prosperity

Focusing on promoting strategic cooperation, we work on all fronts to push forward the "going global" strategic transformation and have gradually developed our own characteristics and advantages. Our pioneering spirit has provided valuable experience for other non-ferrous metal companies.

7 strategic cooperation agreements signed

- We tied up with 15 local governments, enterprises, and institutions to push for the signing of strategic cooperation agreements with 7 institutions and enterprises, including the Agricultural Bank of China (ABC), China Banknote Printing and Minting Corp (CBPM), China National Nuclear Corporation (CNNC), Xiamen Tungsten Co., Ltd. (XTC), etc. Five signed the agreements in 2021.
- To ensure the implementation of these agreements, we worked with CBPM and XTC to form special teams for business cooperation.

Strategic cooperation agreements implemented

- We provided 5,563.3 tons of coinage metal strips to Shenyang Mint Co., Ltd., a substantial increase of supply compared to that of 2020. The "1+3" cooperation framework led by technological innovation has been clarified with XTC, with 11 specific tasks formulated.

20 times of business cooperation completed

- We cooperated and established business connections with 15 institutions for over 20 times.



On May 8, 2021, CNMC signed a strategic cooperation agreement with Hailiang Co., Ltd.



On April 26, 2021, CNMC signed a strategic cooperation agreement with CNNC.

> Building a responsible supply chain

CNMC establishes honest, transparent and trustworthy business relationships with partners, and strives to safeguard the win-win cooperation. We sustain our efforts to improve the supplier management system and advance centralized and responsible sourcing, to establish sustainable and long-term partnerships with our suppliers.

Strengthening supplier management

Following the principle of "strict access, classification and grading, dynamic evaluation, and competitive elimination," we operate a two-tier supplier management system, establish a mechanism for supplier sourcing, access, selection, evaluation, rewards and punishments, and exit, to build a stable, competitive, and qualified supplier team.

Supplier access

Qualified suppliers shall be able to sign and perform contracts as well as safety and environmental credentials. Preference will be given to high-rating suppliers. Suppliers shall be selected according to the category of the procured biddings, with their performance in the field as a reference.

Supplier management

We sort and evaluate the qualification of active middlemen and traders, enhance direct cooperation with brands and manufacturers, and step up management of suppliers and bid evaluation experts. In addition to supervising suppliers' malpractices, we take prompt action to re-organize, optimize, and expand the supplier list, terminate, remove and blacklist unqualified suppliers.

Supplier evaluation

We conduct investigations on the social responsibility of suppliers, middlemen, and enterprises on the upper and lower supply chain, mainly through on-site research, telephone, online information, and third party verification, etc. These approaches enable us to subjectively evaluate suppliers' ability and will to perform contracts. Evaluation and rating activities will be carried out at least twice each year.

Building raw material supply channels to safeguard stable production

Case

In the procurement of raw copper, CNMC Daye built a stable supply chain to ensure stable smelting and production. To improve the quality and efficiency of raw copper procurement, CNMC Daye established long-term and stable partnerships with mining companies and suppliers of ore-refined raw copper and anode plates. In 2021, CNMC Daye stepped up cooperation with international mining companies and significantly scaled back procurement of the relatively impure domestic mixed ores. Instead, it signed long-term copper concentrate procurement contracts with BHP, Anglo American, and other international companies. As a result, the supplies directly from mines account for over 60% of the total imports, providing a guarantee for raw material supply and production stability.

A trailblazer for innovation that lays a solid foundation

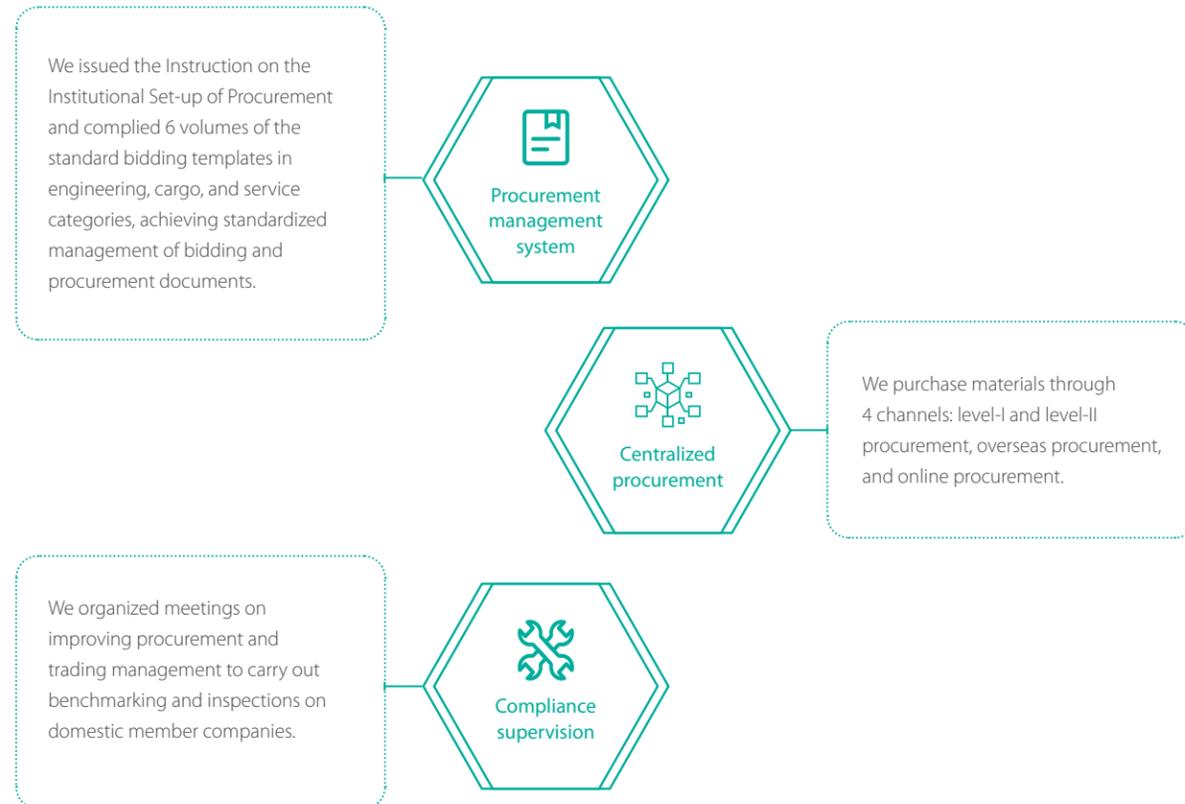
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Promoting responsible procurement

We strengthen centralized procurement management to prevent related risks and tighten compliance supervision for better supply quality, lower costs, and more benefits.



> Realizing employee value

Putting people first, we are committed to supporting employee development and appreciate the value of talents. We protect employee rights and interests in accordance with laws, endeavor to build harmonious labor relations and a friendly and happy workplace, and encourage every employee to realize self-worth in life and work.

Realizing employee value

We design compensation strategies, improve the compensation management system and employee welfare system, and emphasize talent training, in a bid to promote employees' growth and self-fulfillment at work.



We pay social insurance (endowment insurance, medical insurance, unemployment insurance, employment injury insurance, maternity insurance, housing provident fund) on time and in full for employees according to national regulations.

We have established a supplementary commercial insurance program based on employees' actual needs. Covering supplementary medical insurance, critical illness insurance, group accident insurance, etc., the insurance program reassures employees to focus on work.

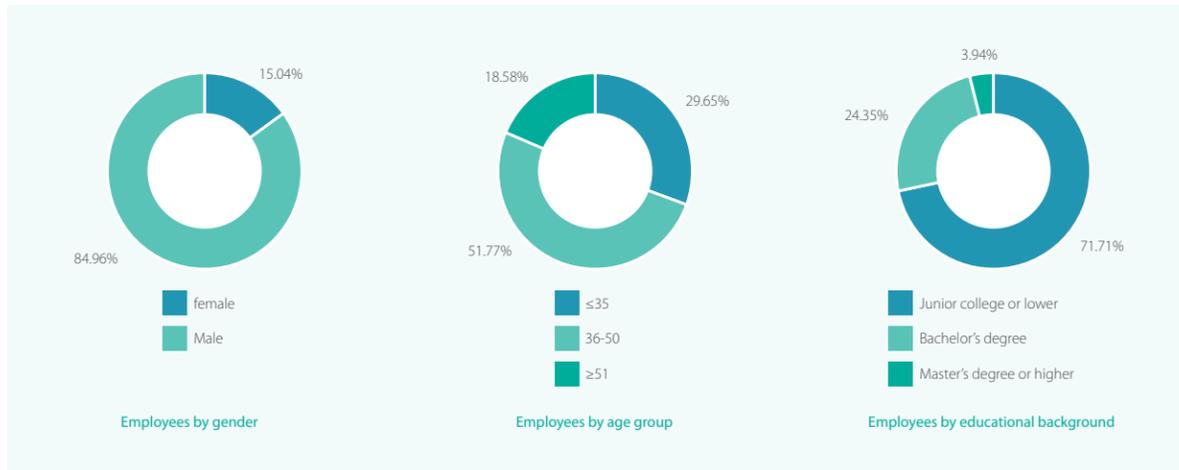
We provide benefits such as annual leaves for family reunions, airfares, and overseas allowances for our overseas subsidiaries, and also add anti-pandemic allowances into the benefits package.

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CNMC International Trading concentrates on the "Keep-growing Project" designed for employee training Case

CNMC International Trading trains employees through the Keep-growing Project and establishes a system to provide initial, follow-up, and whole-process training. By the end of 2021, the human resource department has carried out 3 sessions of the training. In 2021, a total of 694 participants engaged in the training on political theory, professional knowledge, and other subjects, including 42 employees with over 1 month of participation. The training offered employees a platform to improve their professional skills.

Iconic image of Sino-Zam Vocational College of Science and Technology put into the ideological and political textbook for primary and secondary school students Case

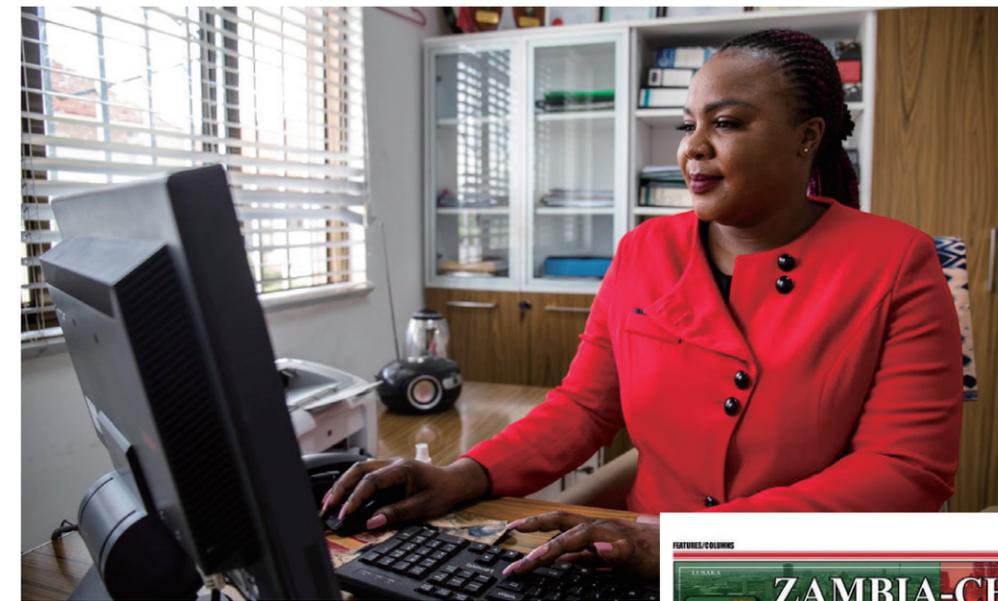
The Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era (Student Book), approved by the CPC Central Committee, organized and compiled by the Ministry of Education, and published by People's Education Press, became available in the primary and secondary schools nationwide in the autumn semester in 2021. Notably, the iconic image of Sino-Zam Vocational College of Science and Technology was put into the first chapter of the fascicule for primary school seniors—"Great cause starts from dreams." CNMC will continue to cultivate talents for overseas companies to achieve high-quality development, and make our share of contribution to the talent cultivation and educational development in the host countries.

Building a happy workplace

We provide employees with a sound benefits system, care about female employees, and show concerns for employees with difficulties. As the first to build a Comprehensive Service Center for Mining Employees, we endeavor to enriching employees' life after work and create a happy and harmonious work and life atmosphere.

NFCA provides room for growth to female employees in Zambia Case

NFCA upholds the idea of "China-Zambia cooperation for common progress" and endeavors to promote the core values of "loyalty and devotion." It respects employees, especially female ones, and value creation. The application of mechanical, automatized, and digitalized devices unleashed productive forces and allowed for more space for female employees to develop in the mining industry. Around 150 female workers have been employed in NFCA. Working at various posts, they have brought special significance to the company's efforts of localization.



Rebecca, assistant manager of the HR department in NFCA, at work



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Employees of Lualaba Copper Smelter draw impressive posters

Case

The posters themed on safety, environmental protection, and employee health drawn by Congolese employees in Lualaba Copper Smelter SAS (LCS) were exhibited in the company's factory. The vivid paintings enabled local employees to understand more precisely that the company puts a high value on the three topics and strives to enrich employees' life after work.



Posters created by Congolese employees in Lualaba Copper Smelter to promote safety, environmental protection, and employee health



- 1
- 2

- 1 NFA constructed the first Comprehensive Service Center for Mining Employees in Zambia, which consists of dressing rooms, bathrooms, laundry rooms, and an on-site clinic. Providing full service, the center received acclaim from the local employees. The photo is about the journalists from Times of Zambia in front of the on-site clinic.
- 2 NFA provides laundry services to employees



Brisk walking organized by NFC Labor Union



NFC Labor Union organizes employees to have a Fun Games



CNMC Xincheng Labor Union organizes a movie-watching activity for employees



04

A contributor committed to social harmony

Bearing in mind people's aspiration to live a better life, CNMC delivers President Xi Jinping's important speeches and instructions on consolidating achievements of poverty alleviation and working for rural vitalization. Localization efforts are made to support community development and share what we have achieved with stakeholders.

1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION
8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	

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> Advancing rural vitalization

With constant efforts to support rural vitalization, CNMC never scales back investments in previous assistance projects and strengthens relief measures to prevent people from slipping back into poverty. More efforts are paid to relocation sites public infrastructure, talent training, and entrepreneurial leaders cultivation, laying a foundation to stop returning to poverty among rural households and residents.

Key Performance

In 2021

8.3 million yuan
Invested and attracted assistance funds

1.52 million yuan
Procurement and assistance by CNMC in agricultural products sales from poverty-alleviated areas

33,767
People benefited from poverty alleviation

94
Primary-level officials trained

461
Entrepreneurs in agri-business trained

386
Technicians trained

Effective organization

- Setting up a CSR task force for paired assistance, formulating a paired assistance plan in 2021, and making detailed measures.
- Carrying out three visits led by CNMC leaders in paired assistance counties, from which the assistance mechanism is improved, two special reports were made, and five rectification measures were adopted for seven major problems.
- Assigning two CNMC employees to work in designated areas, who are rated as "excellent" in the local assessment, becoming the front-line force in achieving the rural vitalization of Lianghe.

Relief for returning to poverty

- Adopting the "multiple channels, one terminal" model to establish a relief fund against falling back into poverty, with a total investment of 4.1 million yuan.
- Improving the assistance mechanism and reducing the risks of slipping back into poverty. In 2021, a total of 237 people from 56 rural households were assisted with 485,900 yuan.

Education

- Merging the Jiubao Achang Township and Dachang Township Middle Schools with an investment of 5.02 million yuan in building a new teaching complex, benefiting 31,554 students from 7,828 households out of poverty.
- Donating money to help college students for eight years in a row. In 2021, a total of 300,000 yuan was provided to 60 university freshmen from poverty-stricken families in Lianghe County, empowering the next generation to stay away from poverty.

Basic healthcare and COVID-19 response

- Investing 100,000 yuan to train 386 rural health professionals to improve their skills.
- Strengthening COVID-19 prevention and control with publicity, nucleic acid testing, and vaccination. Three times of nucleic acid testing were rolled out in Lianghe County.

"Assistance funds + village crowdfunding" to develop livable villages

Case

In 2021, seeing the long-term benefits of the photovoltaic industry, we helped Lianghe County, one of our paired assistance counties, build an 870 m² activity center by attracting an investment of 800,000 yuan and raising 85,000 yuan from villagers, benefiting 1,916 people in 421 households. The activity center includes a meeting room, basketball courts, and stoves, making it convenient for group discussion and cultural and sports activities. It also improves public infrastructure at the relocation site, helping people in Lianghe County live a better life.



Building the villager activity center in Pingyi Village, Lianghe County



The relocation site of Pingyi Village, Lianghe County, a village out of poverty, under our paired assistance



The CNMC-assigned resident cadre inspections

A trailblazer for innovation that lays a solid foundation

A pioneer that gathers momentum for development

A partner for shared benefits and common progress

A contributor committed to social harmony

> Integrating into local development

As one of the earliest central SOEs in China's non-ferrous metals industry to go global, CNMC regards the integration into local development as an important task. Throughout project construction and operation, we boost local prosperity, promote cultural integration, and engage in overseas non-profit activities to shape a responsible corporate image in the development pattern.

Boosting local prosperity

We implement localized management, abide by the local laws and regulations, respect and safeguard international conventions on human rights, and labor rights, etc. Local employees are hired and trained in an equal and diversified career platform, making them feel at home.

The NFCA vocational school is well received

Case

In early November 2021, Chipoka Mulenga, Minister of Commerce, Trade, and Industry of Zambia, visited the NFCA vocational school to have a firsthand experience of digital mines. As the most advanced mining training school in Africa, it can grant skill qualifications recognized by the Technical Education, Vocational, and Entrepreneurship Training Authority (TEVETA), playing an important role in training local mining professionals. The Minister spoke highly of companies like NFCA, "They boost Zambia's economic development, social stability, and living standards."



A Zambian employee is operating a trackless equipment simulator

Promoting cultural integration

As we embrace local communities and culture, we get to know local laws and regulations, languages, and customs and engage in local activities. Meanwhile, we teach local employees Chinese culture and vigorously promote it in communities so that we can better work with local staff and residents, creating a happy working and living environment for both Chinese and local employees.

"China Bookshelf" settles in the Zambia-China Economic & Trade Cooperation Zone to tell China's stories

Case

In 2021, CNMC launched the "China Bookshelf" project to introduce excellent Chinese books to the Chambishi Park of the Zambia-China Economic & Trade Cooperation Zone. The first group of displayed books included more than 400 volumes of Chinese politics, economy, literature, geography, history, art, and food culture to enable 11,000 employees in the park and surrounding areas, and even local residents to understand Chinese culture, facilitating cultural integration and exchanges.



A representative of CNMC introduces traditional Chinese culture to Zambian employees



Local employees learn Chinese in Chinese Corner in Somidez

A trailblazer for innovation that lays a solid foundation

A pioneer that gathers momentum for development

A partner for shared benefits and common progress

A contributor committed to social harmony

> Supporting community prosperity

Harnessing our advantages and shouldering the responsibilities of a central SOE, we participate in charity activities, assist in COVID-19 prevention and control, and carry out voluntary activities, emergency rescue, and disaster relief to support the development of communities.

Assisting in COVID-19 prevention and control

We set up COVID-19 response task forces at all levels, implement COVID-19 prevention and control by organizing relevant meetings and issuing documents, and establish a COVID-19 control mechanism to guard against risks.

Systematizing pandemic prevention and COVID-19 control

- We compiled 8 documents and regulations, including the Edition Collection of Xi Jinping's Instructions and Observations on COVID-19 Pandemic Prevention and Control, Collection Edition of CNMC COVID-19 Pandemic Prevention and Control Documents, Regulations on Employee Health Examination and Assessment, etc..

Strengthening anti-pandemic material checks and full examination of employee health

- We paired 80+ overseas projects with 194 SOEs and central SOEs and organized 5 anti-pandemic material checks. All of them Our member companies carried out regular checks on the material reserves according to the SASAC list for anti-pandemic medicine reserves.
- We established a "one person, one health record for every employee" system and organized 3 examinations on the health condition of our overseas Chinese employees at all levels. Employees who are aged over 50 with serious underlying health conditions and who refuse to take health examination or vaccination will not be allowed to work abroad, and compulsory repatriation measures will be taken for overseas employees who refuse vaccination for no reason.



Improving epidemic prevention and control mechanisms

Forming special group task forces to respond to possible outbreaks

- We swiftly formed working group task forces to be responsible for patient treatment, overseas employee transfer, infection source detection, expert deployment, remote consultation, supplies distribution, public opinion guidance, etc., to properly handle unexpected outbreaks.
- We urged our overseas companies to formulate emergency plans for pandemic prevention and control COVID-19 response and to carry out regular emergency exercises totaling 89 times.

Tightening measures to implement the corporate examination, self-inspection, and in-process check mechanism

- We set anti-pandemic examination standards, assigned our top officials to take charge of pandemic prevention and control, and organized our subsidiaries member companies to provide special bonuses for anti-pandemic efforts, in a bid to enhance incentives and guidance.
- We tightened measures to implement the self-inspection and in-process check mechanism. Since September 2021, we have carried out 86 special checks via video link, with 700 problems found and rectified. And we urged our sponsoring companies subsidiaries to conduct regular self-inspections, totaling 324 times, with nearly 1,500 problems found and rectified.
- We designed a journal to regularly collect sponsoring subsidiaries companies' anti-pandemic dynamics, creating 140 issues of the journal so far.

Connecting COVID-19 response resources to support overseas projects

Case

CNMC urged overseas projects with more than 100 people to establish a medical room and required all overseas subsidiaries and projects to access the telemedicine platform of central SOEs to guarantee the health and safety of overseas staff. Meanwhile, the Sinozam Friendship Hospital was upgraded with the building of ICU wards and close ties were established with International SOS. More than 80 overseas projects paired with 194 central SOEs or SOEs to provide systematic, professional, and precise telemedicine services. This also helped local communities reduce the risk of transmission and enhance COVID-19 prevention and control.

Implementing the "Spring Sprout" program to support overseas COVID-19 response

Case

In 2021, overseas subsidiaries of CNMC cooperated with the Chinese Embassy in Zambia to implement the "Spring Sprout" vaccination program, which offered 13,458 doses of vaccines for 6,929 Chinese citizens in Zambia. At the same time, we helped increase the vaccination rate of Zambian people by publicizing vaccination knowledge. Efforts were made to coordinate vaccine resources. The first corporate "special vaccination point" was set in the factory area to provide on-site vaccination services for foreign employees.



CNMC Orient receives a pennant for helping the community's in dealing with COVID-19



On the eve of the Spring Festival in 2021, NFC donated 30,000 medical surgical masks to the Kazakhstan Embassy in China at its urgent request. The Counselor of the Kazakh Embassy sent a letter of thanks.

Rolling out charity activities abroad

Leveraging our numerous overseas branches and abundant resources, we serve the nine programs of China-Africa cooperation to promote the development of overseas communities. As the initiator of the Alliance of Chinese Business in Africa for Social Responsibilities and a member of the Action Promotion Committee, we have carried out "100 enterprises and 1000 villages" activities in Zambia and the Democratic Republic of the Congo. In particular, we improve the educational resources of Sino-Zam Vocational College of Science and Technology to help the country train technicians and boost the employability of young people.

◆ Medical facilities

In 2021, Chambishi Copper Smelter donated 58,600 US dollars to build two municipal clinics for the Kalulushi area, improving local medical facilities



A trailblazer for innovation that lays a solid foundation

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◆ Infrastructure

CNMC Nickel helps local villages and temples alleviate water and power shortages. Since 2012, eight water supply points have been set up around the factory area, so villagers no longer have to fetch water from the river. By the end of 2021, the cumulative cost of supplying water to local villagers had reached about 311 million Myanmar kyats (about 1.3912 million yuan), of which about 120 million Myanmar kyats (about 431,200 yuan) was spent in 2021. Since 2014, CNMC Nickel has supplied power for more than 1,600 households in nearby four villages, with a total investment of more than 296 million Myanmar kyats (about 1.5 million yuan) in the construction of power supply lines. Each household is offered 10 kWh of free power per month with electricity bills reduced or exempted for public facilities such as temples, schools, street lamps, etc. As of the end of 2021, exempted electricity bills had amounted to 238 million Myanmar kyats (about 1.1451 million yuan), of which 34.61 million Myanmar kyats (about 125,000 yuan) was exempted in 2021.



CNMC Nickel provides water and electricity for surrounding villages of the project site

◆ Educational facilities

CNMC Nickel has built a Sino-Myanmar Friendship Buddhist School in partnership with a local temple, with an investment of about 100 million Myanmar kyats (about 500,000 yuan) to build a new teaching building and pay school teachers. By the end of December 2021, the cumulative donations for teachers' salaries were 104.8 million Myanmar kyats (about 510,000 yuan). Among them, 16.2 million Myanmar kyats (about 66,800 yuan) was paid in 2021.

In 2021, Chambishi Copper Smelter donated 107,400 US dollars to build classrooms for two schools in the Kalulushi area. These classrooms cover an area of 417 square meters, improving educational facilities for the local area.



Classrooms built by Chambishi Copper Smelter for the Chambishi Twaiteka Elementary School

CNMC Luanshya Copper contributes to local agricultural production

Case

By the end of November 2021, CNMC Luanshya Copper had been donating agricultural production materials to farmers in Luanshya for more than ten consecutive years. Over the past 12 years, donations are worth over 75 million Zambian Kwacha. In particular, funds for seeds and fertilizers for poor farmers have exceeded 1.5 million Zambian Kwacha, effectively improving the agricultural conditions of poor households.



"COVID-19 dealt a blow to Zambia's economy. In particular, small farmers were hit hard. CNMC Luanshya Copper, however, continued to support local agricultural development and donate to small farmers amid such great difficulties, which greatly helped their life."

—Mr. Charles Mulenga, Mayor of Luanshya, delivered a speech at the donation ceremony

Chambishi Copper Smelter engages in overseas charity activities for many years

Case

For a long time, Chambishi Copper Smelter has launched charity activities in host countries. It formulates donation plans every year and carries out various activities to shape a good image of a Chinese enterprise abroad. In 2021, the company donated a total of 169,600 US dollars (equivalent to 1,083,500 yuan) to COVID-19 prevention and control, academic assistance, medical care, culture and sports, public facilities, and Zambian government departments.



Donating supplies to local children



On May 1, 2022, Chambishi Copper Smelter received the certificate of commendation issued by Kalulushi city, Zambia, for its support to local communities over the years.

Engaging in voluntary services

Key Performance

In 2021

In addition to donations, we encourage employees to participate in voluntary activities as well as rescue and disaster relief to contribute to social progress and people's well-being.

12,332

Cumulative volunteer service hours

2,455

Volunteers

Fully supporting flood control and disaster relief in Henan Province

Case

On July 22, 2021, CNMC donated 5 million yuan to the flood-affected areas through the Henan Charity Federation for emergency rescue and post-disaster reconstruction, helping the disaster-stricken people in Henan Province to tide over the difficulties. At the same time, the affiliated National Mine Emergency Rescue Daye Team assisted in the disaster relief mission in Xinxiang City. They helped withdraw a total of 428,000 cubic meters of water in 12 days, protecting people's lives and property.

China 15th Metallurgical Construction Group Co., Ltd. engages in flood control and rescue in Huangshi

Case

On May 27, 2021, water leaked at the Shanggang Gate on the main embankment of the Yangtze River in Huangshi. The Huangshi Urban Development Project Department of China 15th Metallurgical Construction Group Co., Ltd. responded to the call of the Huangshi Flood Control and Drought Relief Headquarters by organizing more than 10 rescue members to set up temporary bagged soil transportation channels on May 28 to facilitate the transportation of bagged soil and help the headquarters block leaks with bagged soil. They demonstrated the pioneering role of a central SOE in the face of urgent, difficult, and dangerous tasks.



China 15th Metallurgical Construction Group Co., Ltd. assists in the flood control and rescue in Huangshi



Outlook in 2022

The year 2022 is a crucial year for China to embark on a journey toward a modern socialist country in all respects and the second centenary goal. Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, CNMC is more determined and motivated to take targeted and practical actions for a leap in already-high business indicators. Upholding CNMC's spirit of the new era, we are inspired to march towards a world-class mining enterprise.

We will optimize corporate governance to secure victory in the three-year action plan for SOE reform. Led by political endeavors, we will focus on inspection and rectification. Three institutional reforms will be deepened. Overall management will be strengthened with financial efforts at the core. Technological innovation will be leveraged to foster growth drivers. Better work conduct will stimulate efficiency and lay a solid foundation for high-quality and sustainable development.

We will implement the innovation-driven development strategy to provide strong support for high-quality development. Seeing innovation as the primary driving force, we will play a leading role in this regard as a central SOE and be a national team in technological innovation. In the face of changes, we will take precise and science-based measures. Focusing on strategic technologies, we will build ourselves into a cradle of original technologies and the leader of modern industrial chains to achieve a high degree of self-reliance on technology.

We will accelerate the low-carbon transformation to advocate ecological civilization. Under Xi Jinping Thought on Ecological Conservation, we will concentrate on outstanding environmental problems such as hazardous and solid waste, tailings ponds, and mines' ecological restoration. Pollution control, energy saving, and carbon reduction will be sped up to achieve green mines and clean production. A green and circular industrial system featuring "green exploration, mining, smelting, and processing" will be put in place.

We will fulfill CSR and join hands with stakeholders to share high-quality development benefits. As a central SOE, we will champion CSR, offer more local jobs through local resource development and socio-economic programs, and train more professionals. Friendly cooperation with local governments, partners, industry organizations, and communities will continue. In addition, our efforts in community charity activities will improve people's life and pursue harmony and a better future.

CSR Performance

Indicators	2019	2020	2021
Operating income (billion yuan)	131.52	136.164	144.467
Total profit (billion yuan)	1.727	3.173	6.954
Total assets (billion yuan)	121.228	109.412	110.845
Total taxes paid (billion yuan)	4.666	4.11	2.038
Asset-liability ratio (%)	67.87	64.46	64.74
Proportion of international business in total assets of the Company (%)	—	—	62.30%
Proportion of international business in the Company's total operating income (%)	—	—	49.51%
Accumulated tax payment of international business (billion yuan)	—	—	3.7
Output of non-ferrous metal products (10,000 tons)	170.36	185.66	184
Value of newly signed engineering project contracts (billion yuan)	13.251	16.441	17.8
Total investment in environmental protection (million yuan)	—	—	541
Number of organizations that have passed ISO 14001/ISO 24001 environmental management system certification	15	25	28
Total energy consumption (10,000 tons of standard coal equivalent)	78.28	74.64	52.53
Comprehensive energy consumption (10,000 tons of standard coal equivalent)	64.65	61.89	50.00
Comprehensive energy consumption per 10,000 yuan of output value (comparable price) (ton of standard coal equivalent / 10,000 yuan)	0.0984	0.0728	0.0362
Greenhouse gas emissions (10,000 tons)	216	270	250
Greenhouse gas emission intensity (tCO ₂ e per 10,000 yuan of output value (comparable price))	0.33	0.32	0.18
Amount of hazardous waste generated (10,000 tons)	33.12	53.72	56.85
Disposal rate of hazardous waste (%)	85.93	99.52	98.33
Amount of non-hazardous waste generated (10,000 tons)	—	2,299.18	2,209.85
Disposal rate of non-hazardous waste (%)	—	86.91	90.36
Sulfur dioxide emissions (tons)	2,952.55	2,257.53	793.61
Nitrogen oxide emissions (tons)	961.55	658.87	521.91
COD emissions (tons)	412.71	423.81	255.20
Ammonia nitrogen emissions (tons)	31.94	37.23	35.86
Investment in work safety (million yuan)	292	405	487
Participants in work safety training	195,000	158,000	112,800
Emergency drills	460	700	527

Indicators	2019	2020	2021
Proportion of clean energy use (%)	—	—	8.98
Clean energy consumption (10,000 tons of standard coal equivalent)	—	—	4.72
R&D expenditure (billion yuan)	1.902	1.965	2.276
New authorized patents	187	221	197
Ratio of qualified products (%)	96.81	96.34	96.63
Yield of finished products (%)	96.3	—	84.39
Customer satisfaction rate (%)	—	—	99
Complaint resolution rate (%)	—	—	100
Total number of suppliers	9,232	13,348	26,000
Total number of employees	52,715	49,873	46,774
Staff turnover rate (%)	4	2.4	14.58
Ratio of labor contracts signed (%)	100	100	100
Social insurance coverage rate (%)	100	100	100
Paid annual leave per employee (days)	10	8.73	10.5
Per capita income (yuan/year)	68,819	72,474	83,560
Proportion of foreign employees in the total employees of overseas subsidiaries (%)	—	75.44	89
Proportion of female managers (%)	—	—	25.37
Number and proportion of ethnic minority or other ethnic employees (%)	—	—	2,743 person 10.45%
Number and proportion of employees with disabilities (%)	—	—	216 person 0.82%
Staff training sessions	4,459	181	1,070
Total staff training hours	35,678	4,560	409,616
Employee training coverage rate (%)	90	100	100
Total donations (10,000 yuan)	2,111.41	3,276.39	4,380.78
Paired assistance and rural vitalization investment (10,000 yuan)	802	936.22	830
Volunteers	—	—	2,455
Cumulative volunteer service hours	—	—	12,332

Expert Opinion

China Nonferrous Metal Mining (Group) Co., Ltd. 2021 Sustainability Report (or the report) is the 11th sustainability report consecutively issued by CNMC. On the theme of Taking New Steps, Breaking New Ground, the report fully presents CNMC's sustained efforts to cement CNMC's foundation of high-quality development, practice its commitment to contributing to the country with resources, gather strength to serve national strategies, and kick off a good start for the 14th Five-Year Plan period in 2021.

Structured in a new way marked by "three features + four main chapters," the report throws spotlights on current events and CNMC's major businesses, and responds to the expectations and needs of the government, customers, the environment, partners, peers, communities, and other stakeholders, disclosing CNMC's CSR and ESG performance and achievements from diverse perspectives. Notably, the feature "Reducing carbon emissions to protect the environment" is set to not only respond to the Company's efforts to rectify the environmental issues, but also demonstrate that CNMC acts on Xi Jinping Thought on Ecological Conservation and fulfills its responsibilities of deepening green development, promoting green mines, and furthering efforts in the combat against pollution. In the four chapters of "A trailblazer for innovation that lays a solid foundation," "A pioneer that gathers momentum for development," "A partner for shared benefits and common progress," and "A contributor committed to social harmony" as the main body, the report specially incorporates CNMC's spirit in the new era and therefore shows the distinctive features of the Company. The chapters contain detailed explanations of how CNMC upholds the basic positioning of "being the main contributor to the security of national strategic resources and new non-ferrous metal materials, how it implements the "1+4" development strategy, improves CNMC's management system and governance capacity, takes the initiative to serve the country's Belt and Road Initiative, joins hands with stakeholders for a high-quality and sustainable development pattern, and to build a world-class mining company, thus demonstrating CNMC's commitment to its historic missions and social responsibilities.

The report, being well-structured, informative, and readable, is a strong indicator of CNMC's efforts to implement the concept of sustainability. The pictures, statistics, and typical cases cited in the report are evidences of CNMC's CSR performance in the economic, social, and environmental fields, and they provide a sample for the SOEs in terms of CSR/ESG work and related information disclosure.

2022 marks a key period for China to build itself into a great modern socialist country in all respects and march towards the Second Centenary Goal. Hopefully, CNMC could perform its social responsibilities with a long-term mindset, work continuously for more comprehensive, standardized, and comparable information disclosure, better help its stakeholders to understand the Company's CSR fulfillment, and more effectively improve the CSR benefits and the quality of information disclosure, so as to demonstrate the excellent quality of the SOE sustainability report.

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Deputy Secretary-General of ISO 26000 Stakeholder Global Network CSR and chief expert of GoldenBee Thinktank

Report Rating

Rating Report of CNMC Sustainability Report 2021

Upon the request of China Nonferrous Metal Mining (Group) Co., Ltd. (CNMC), the Chinese Expert Committee on CSR Report Rating invited experts to form a rating panel to rate the CNMC Sustainability Report 2021 (hereinafter referred to as "the Report").

I. Rating Criteria
Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0) by Chinese Academy of Social Sciences, and *Rating Criteria of CSR Reporting in China (2020)* issued by China Expert Committee on CSR Report Rating.

II. Rating Process

1. The Rating Panel reviews and confirms *Confirmation Letter of Procedural Materials of the CSR Report* and supporting documents submitted by the report preparation group;
2. The Rating Panel assesses the preparation process and contents of the Report, and drafts the Rating Report;
3. The Vice Chairman of China Expert Committee on CSR Report Rating, the Leader and experts of the Rating Panel jointly review and sign the Rating Report.

III. Rating Results

Process (★★★★)
 The Corporate Culture Department of CNMC takes the lead in setting up a working group to coordinate the report preparation work. Key departments and subsidiaries provide basic materials and review relevant contents. The Chairman, is responsible for the overall control over the direction and key contents as well as the final review of the report. The Report, with a definite functional value proposition, is taken as an important tool for disclosure of CSR practices and better communications with stakeholders; material topics are identified based on domestic macro policies, domestic and international social responsibility standards, industry benchmarking analysis, corporate development strategies, and survey of stakeholders, etc.; it also promotes its subsidiary, NFC, to independently prepare and release social responsibility reports, and thus strengthens the vertical social responsibility management; the report is planned to be published on the CNMC's official website, in the form of electronic, printed and H5 versions in Chinese, English and French. Thus, the Report shows excellent performance in process.

Materiality (★★★★)
 The Report systematically discloses the key topics of the mining industry such as implementing macro policies, building digital mines, occupational health management, R & D and application of environmental protection technologies and equipment, work safety, environmental management system, resource/reserve, ecological protection of mining area, etc., with detailed and full description, thus showing leading performance in materiality.

Completeness (★★★★)
 The main chapters of the Report discloses 75.32% of the core indicators of the industry from the perspectives of "a trailblazer for innovation that lays a solid foundation", "a champion that gathers momentum for development", "a partner for shared benefits and common progress", "a contributor committed to social harmony". As a result, the Report is excellent in terms of completeness.

Balance (★★★★)
 The Report reveals negative data such as "major and above work safety accidents", and "staff turnover rate", and briefly the measures to deal with the problem of delayed product delivery fed back by customers, with excellent performance in balance.

Comparability (★★★★)
 The Report discloses the comparative data of 35 key indicators such as "total profits", "total taxes paid", "total staff training hours", "total donations", "total energy consumption" and "greenhouse gas emissions" for three consecutive years, and horizontally compares the indicator of "ranking the 74th among Top 500 Chinese Manufacturers", with leading performance in comparability.

Readability (★★★★)
 With the theme of "Taking New Steps, Break New Ground", the Report adopts a topic-based framework to systematically display the annual CSR actions and achievements of CNMC from four chapters. The clear framework structure responds to the expectations and demands of relevant parties. The cover design chooses the style of cartoon illustration, in which the enterprise logo is extended with the main business elements such as "mine" and "smelter", highlighting the industry characteristics and enhancing the identification of the Report; the double-spread page at the opening part of each chapter uses the full picture that matches the theme of the chapter, and embeds a narrative introduction. All in all, the Report shows leading performance in readability.

Innovativeness (★★★★)
 At the beginning of the Report, the feature section is set, including "reducing carbon emissions to protect the environment" and "strengthening the driving force and deepening reform", focusing on the CSR practices of CNMC in low-carbon development and deepening reform. It highlights the responsibility of central SOEs; the section "figures in 2021" displays the CSR performance in the fields of business operation, society and environment. In sum, the Report shows excellent performance in innovation.

Overall Rating (★★★★)
 The 2021 Sustainability Report of China Nonferrous Metal Mining (Group) Co., Ltd. was rated as four and a half stars by the rating panel. It is a leading corporate social responsibility (CSR) report.

IV. Improvement Suggestions

1. Increase the disclosure of the industry's core indicators, and further improve the report's completeness;
2. Increase detailed disclosure of deficiencies in CSR fulfillment, and improve the balance of the report.

Vice President of Chinese Expert Committee on CSR Report Rating
 Report Rating

Rating Panel Leader Panel Expert

Date of Issue: August 4, 2022 Scan QR Code to View Corporate Rating Files

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Feedback Form

Dear readers,

Thank you very much for reading the *China Nonferrous Metal Mining (Group) Co., Ltd. 2021 Sustainability Report*. In order to continuously improve the report preparation, we are eager to listen to your opinions and suggestions. Please help answer the questions in the feedback form and send it back to us.

Please tick "√" in the corresponding position

Your identity:

- Government and regulatory authority Shareholder/investor Customer Employee Partner
 Scientific research institution or university Community resident Media Peer company Social team
 Financial institution

Multiple-choice questions:

1. Are you satisfied with this report on the whole?

- Yes No Fair

2. Is the information you are interested in shown in the report?

- Yes No Fair

3. Do you think the report truthfully reflects CNMC's work on social responsibility and its impact on stakeholders?

- Yes No Fair

4. Can you easily find the information of interest to you in the report?

- Yes No Fair

5. Are you satisfied with the layout design of the report?

- Yes No Fair

Open questions:

6. What do you think are the weaknesses of this report?

7. What information do you want to be published in this report on a regular basis?

8. Do you have any comments and suggestions for our work on social responsibility and its report?

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