



CNBM

China National Building Material Group Co.,Ltd.

SUSTAINABILITY REPORT 2023



Cold-end manipulator of Puyang Optoelectronic Materials

Report Norms

This Report is the fifteenth sustainability report issued by China National Building Material Group Co., Ltd. (CNBM), truly reflecting CNBM's pursuit of sustainable development and fulfillment of social responsibilities.

Entities Covered by the Report

CNBM and its wholly-owned and controlled (including absolutely controlled and relatively controlled) member enterprises. For brevity, the terms "CNBM", the "Group" and "we" are used in the Report to refer to China National Building Material Group Co., Ltd. (unless otherwise specified in the text).

Period Covered by the Report

January 1st to December 31st, 2023. Some of the content goes beyond the above period.

Reporting Cycle

This Report is an annual report.

Basis for Preparation

2030 Agenda for Sustainable Development Goals (SDGs) issued by the United Nations

Standards for Sustainable Development Reporting (GRI Standards) of the Global Reporting Initiative (GRI)

ISO 26000 Guidance on Social Responsibility (2010) issued by the International Standard Organization

Guidance on Social Responsibility Reporting issued by the Standardization Administration of China (GB/T36001-2015)

Guiding Opinions on the Implementation of Social Responsibility by Central Enterprises with High Standards in the New Era issued by the State-owned Assets Supervision and Administration Commission of the State Council

Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0) issued by the Research Center for Corporate Social Responsibility, Chinese Academy of Social Sciences

Data Sources

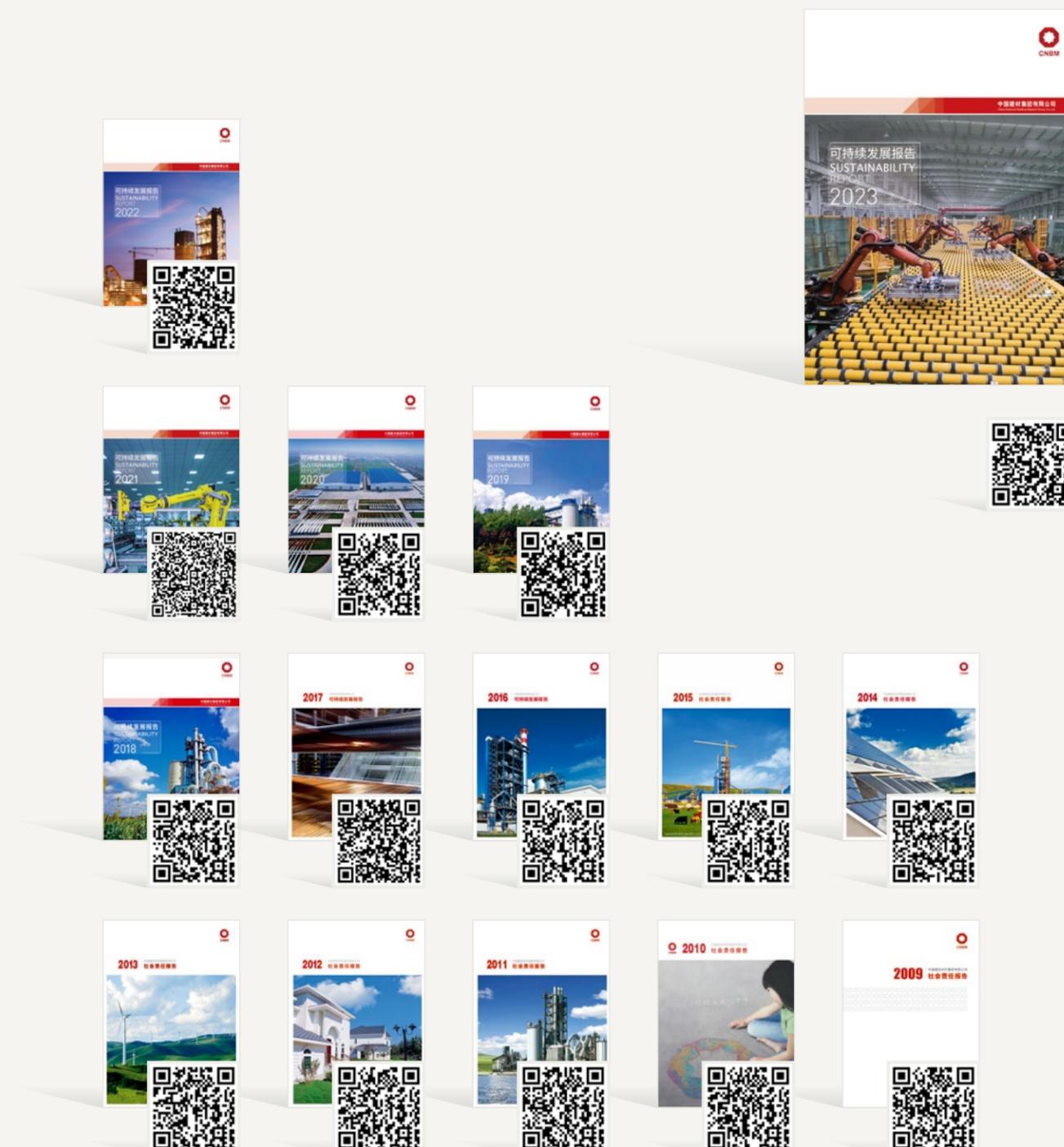
The information and data used herein come from the Headquarters and member enterprises of CNBM. Notes have been made in the Report to indicate information from external references. Unless otherwise stated, all monetary amounts are expressed in RMB.

Quality Assurance

We strive to ensure the authenticity, integrity and balance of the contents of the Report, and make breakthroughs in innovation and readability. There are no false records, misleading statements or major omissions in this Report.

Report Availability

This Report is available in printed and electronic versions, and is mainly released to stakeholders and the public in the form of a PDF electronic document. You can request the printed version via the contact information on the back cover or log onto www.cnbm.com.cn to download the electronic version.



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Chairman's Address



Building the "Pillar of the Country" and Answering the "Question of Development"

Development always unfolds a magnificent canvas in the face of problems.

High-quality development is the distinct theme of China's economic development in the new era. "We must uphold high-quality development as the top priority of the new era," the resolute words of General Secretary Xi Jinping are a profound summary of historical development laws and a clear indication of creating a new chapter of development on the new journey. By basing itself on the trends of the times, CNBM answers the question of development. We have firmly upheld the development mission of "creating a better world with materials" and unwaveringly implemented the major deployment of the CPC Central Committee and the State Council. We have accurately identified, scientifically responded to and actively sought changes. We have steadily advanced forward in the face of difficulties, accumulated momentum in climbing over hurdles, and taken more solid, powerful, vibrant and confident steps toward high-quality development.

By tempering unshakable determination, we answer the question of direction.

In the face of the changing times, we have accurately identified, scientifically responded to and actively sought changes. We have strengthened strategic leadership, consolidated the strategic loop, and maintained strategic initiative in the changing situation to secure high-quality development. We have improved the 14th Five-Year Plan in keeping with the times, completed the mid-term evaluation and adjustment of the 14th Five-Year Plan, and promoted the integration of digitalization, internationalization and green development. We have drawn up the "1254" digital development blueprint, and comprehensively promoted the construction of digital infrastructure and "quick-win projects"; we have launched the strategy of "Overseas Reconstruction in the Next Decade", and implemented the "12345" strategic framework at an accelerated pace; we have helped achieve the "dual carbon" goals through full-life-cycle green development, built the world's largest carbon capture project in the building materials industry, and conducted the largest-scale carbon trading among central enterprises. Our positioning as a manufacturer of non-metallic materials and a capital investor is being further strengthened, and we are continuously exploring new models for a state-owned capital investment company in the materials industry.

By forging steadfast perseverance, we answer the question of operations.

In the face of changes in the industry, we have focused on the "three major roles" of technological innovation, industrial control and safety support, committed to making efforts in both traditional industries and strategic emerging industries. We have accelerated the deployment of strategic emerging industries and future-oriented industries, and built advantageous industrial clusters with core competitiveness. In 2023, the Group's New Materials Fund

was selected as one of the top 30 investment institutions in the field of new energy/new materials in China in 2023; the revenue of the new materials sector broke the mark of RMB 100 billion again; infrastructure materials became high-end, intelligent and green, and their position as "ballast stone" was consolidated; the pace and quality of industrial transformation and upgrading accelerated. We have constantly consolidated the foundation of "stability" and accumulated the power of "progress" to comprehensively build a modern industrial system.

By honing the courage to embrace change, we answer the question of practice.

In the face of changes in competition, we have taken a multi-pronged approach to advance the new industrialization process and vigorously developed new quality productive forces. We have demonstrated our sense of responsibility and commitment by implementing national strategic initiatives and serving the new development pattern. We have adhered to the "Four Aspects" and made new breakthroughs in building the source of original technologies, with fruitful results achieved in the first phase of the "open competition mechanism" project. In 2023, the Group undertook a new batch of national key research tasks and R&D plans, made breakthroughs in several "bottleneck" technologies such as low-carbon cement, large aircraft carbon fiber composites, high-level radioactive waste liquid glass curing refractory materials, and 10,000-ton lithium battery negative electrode material rotary furnaces. Many new materials have successfully been applied to advanced equipment of the country such as Shenzhou and Kuaizhou. The Group has united its efforts to build the "Pillar of the Country", making new contributions to building a powerful country in materials.

By cultivating the ability to seek truth, we answer the questions of faith.

In the face of changes in the environment, we have solidified the ideological foundation of the "Top Priorities of the Country", and have stimulated our drive for progress in in-depth study, careful comprehension, and sincere practice. We have forged the mainstay of high-quality development with high-quality Party building. Holding the flag and forging ahead, we have implemented the reform deepening and upgrading action with high quality and a high starting point. We have been rated as "A" in the reform assessment conducted by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council for three consecutive years. We have made solid progress in the action of world-class "demonstration centers for business startups and innovation". The Group was selected as a model enterprise for creating world-class enterprises; China Jushi and Zhongfu Shenying were selected as model enterprises for creating world-class professional leading enterprises. We have accelerated the implementation of value creation actions, enriched the new connotation of precision management, implemented

comprehensive budget management, strengthened "big compliance" management, effectively consolidated the closed-loop system of the Group's steady development, and built a dynamic modern new state-owned enterprise.

By building strength to weather the storm, we answer the question of responsibility.

In the face of changing responsibilities, we always bear in mind the well-being of the world and remain enterprising. We continued to be exemplary leaders who dare to think, act, and succeed. At home, we have worked together to actively serve the Asian Games Hangzhou, supported rural revitalization, assist in flood control and disaster relief, and donated RMB 10 million to support the frontline of earthquake relief efforts in Gansu, shouldering our responsibilities as a central enterprise. Abroad, we have firmly adhered to the "three principles" of contributing to local development, cooperating with local enterprises, and serving local residents; we have accelerated our global industrial layout and resource allocation with high-quality building materials, advanced technologies, and mature experience. We have built and operated over 100 projects in dozens of countries, leaving our footprints all over the world, and actively building an ecosystem of harmonious development with the environment, society, and upstream and downstream sectors of the industry.

In the boundless expanse of the sea, we set sail with the wind as our guide. 2024 marks the 75th anniversary of the founding of the People's Republic of China, and it is a crucial year for achieving the goals and tasks of the 14th Five-Year Plan, as well as a year when CNBM will accelerate the cultivation of new quality productive forces and build new industrial pillars. Guided by the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we will continue to focus on the top priority and primary task of high-quality development, improve the "five values", fully leverage our role as the national team and the main force in the non-metallic materials industry, bear in mind the "Top Priorities of the Country", create the "Pillar of the Country", accelerate the construction of a modern industrial system, enhance core functions, improve core competitiveness, and move steadily on the path of high-quality development!

Party Committee Secretary and Chairman

Zhou Yuxian

About Us

Company Profile

China National Building Material Group Co., Ltd. ("CNBM") is a central enterprise directly managed by the State-owned Assets Supervision and Administration Commission of the State Council. It is the world's largest comprehensive building materials group, and a world-leading new materials developer and integrated service provider. It has been listed on the Fortune Global 500 for 14 consecutive years, and ranked 307th in 2024. As of 2023 As of the end of 2023, CNBM's total assets amounted

to RMB 705.09 billion, with annual revenue of RMB 347.51 billion, and a total number of employees of 208,000. CNBM holds 13 listed companies, two of which are abroad. The Group is the largest supplier of cement, ready-mixed concrete, plasterboards, fiberglass, wind turbine blades, cement & glass and engineering technical services. It is also one of the leading producers of many new materials, such as ultra-thin electronic glass, high-performance carbon fibers, lithium battery separators and ultra-high voltage electrical porcelain.

As a scientific and technological group, CNBM possesses the strongest strength in building materials and new inorganic nonmetallic new materials in China. CNBM takes possession of 38,000 scientific researchers and engineering technicians, 26 national-level scientific research and design institutes, 26,500 valid patents, 55 national and industrial quality inspection centers and the most authoritative inspection and certification bodies in the industry, 3 national key laboratories, 8 national engineering (technical) research centers, 18 national enterprise technology centers, 21 individual champions in manufacturing industry, 19 national standardization technical

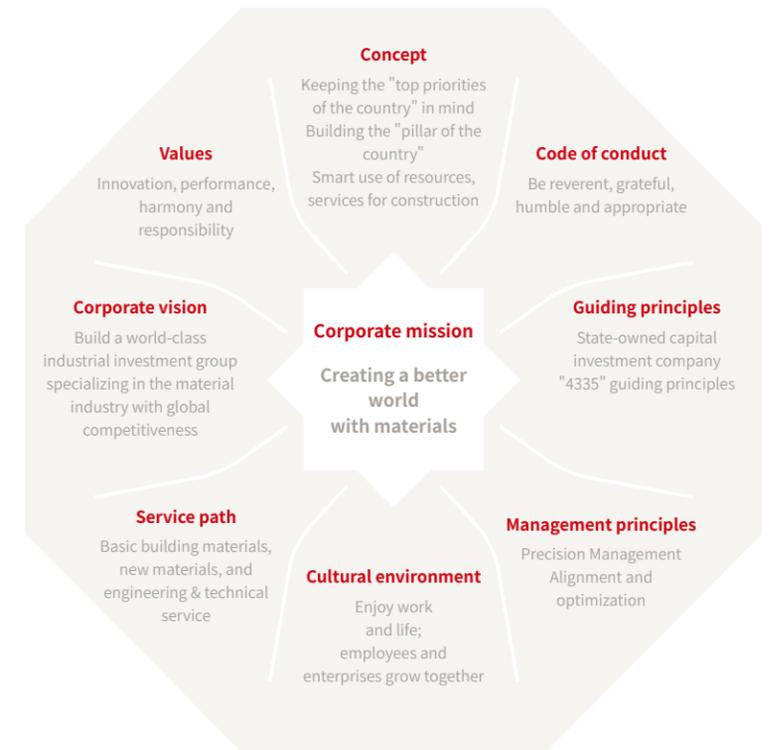
committees, 166 prizes of National Science and Technology Awards and 4 prizes of China Grand Awards for Industry.

As an international company, CNBM has been at the forefront of "going global" and the Belt and Road Initiative of the Chinese building material industry. It holds a 65% share in the international market of cement and glass engineering projects, and has invested in Germany, India, Mongolia and African countries, moving towards the center of the world's stage of building materials.

CNBM has been officially converted into a state-owned capital investment company. Currently, it is speeding up the "three major changes" from enterprise management to capital management, from building materials to comprehensive materials, and from the local market to the global stage according to the "4335" guiding principles. We work to continuously enhance our competitiveness, innovation capacity, power of control, influence and risk resistance and develop into a world-class industrial investment group specializing in the material industry with global competitiveness.

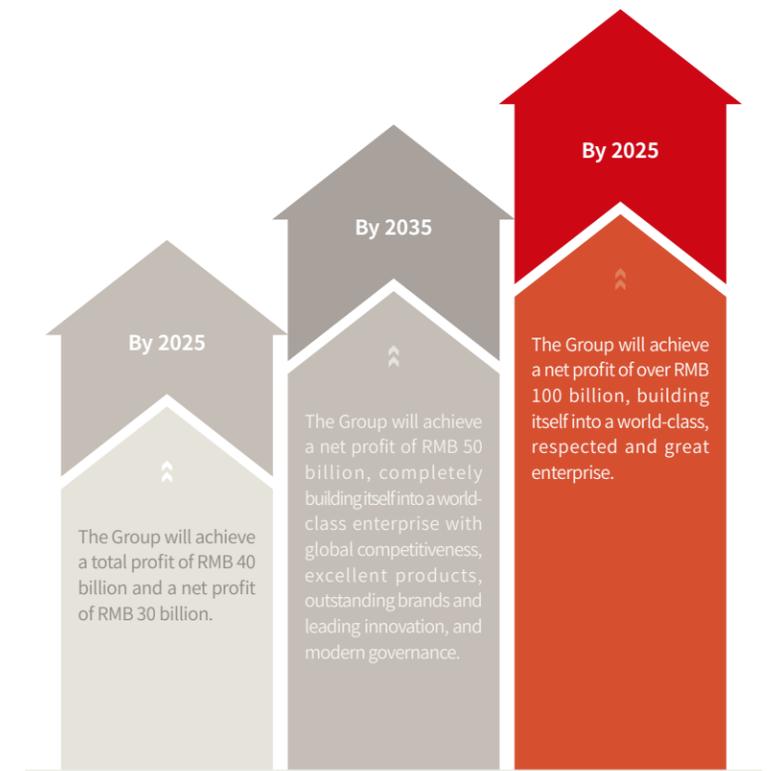
Corporate Culture

With its profound cultural deposits and high sense of responsibility as a state-owned enterprise, CNBM has created a unique cultural system, paving a road to strengthen enterprises by culture. In the process of development, adhering to the corporate mission of "creating a better world with materials", we have created the concept of "keeping the 'top priorities of the country' and building the 'pillar of the country'" and "smart use of resources, services for construction". We have formed the "4335" guiding principles, the core values of "innovation, performance, harmony and responsibility", the standard of conduct of "being reverent, grateful, humble and appropriate", and other value concept systems with CNBM characteristics.



Development Strategy

CNBM adheres to high-quality development driven by innovation, empowered by reform, facilitated by internationalization and guided by Party building, committed to building a world-class industrial investment group specializing in the material industry with global competitiveness.



As of the end of 2023,

Total assets



RMB **705.09** billion

Annual revenue



RMB **347.51** billion

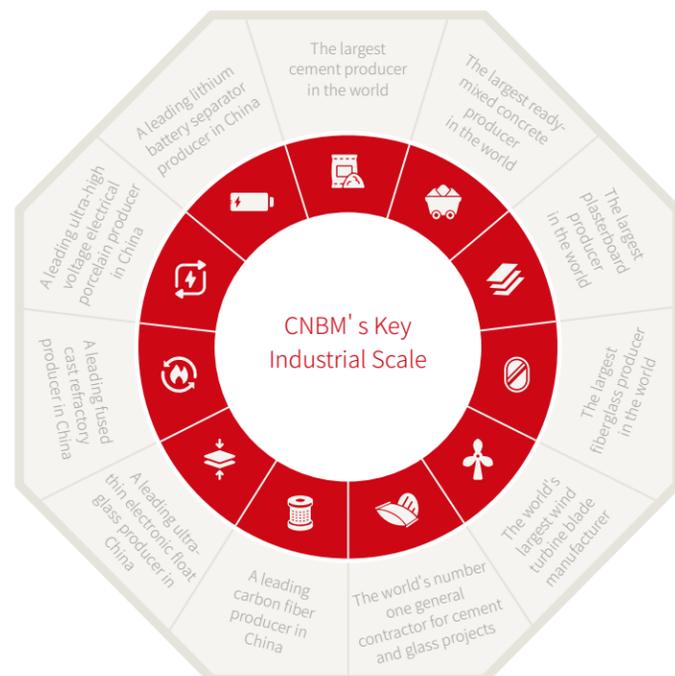
Total number of employees



208 thousand



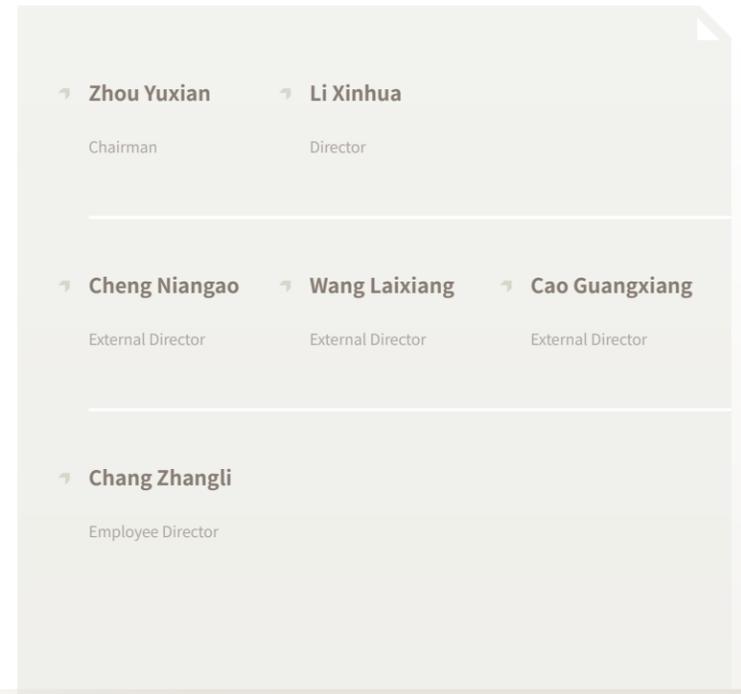
Scan the QR code to learn about CNBM



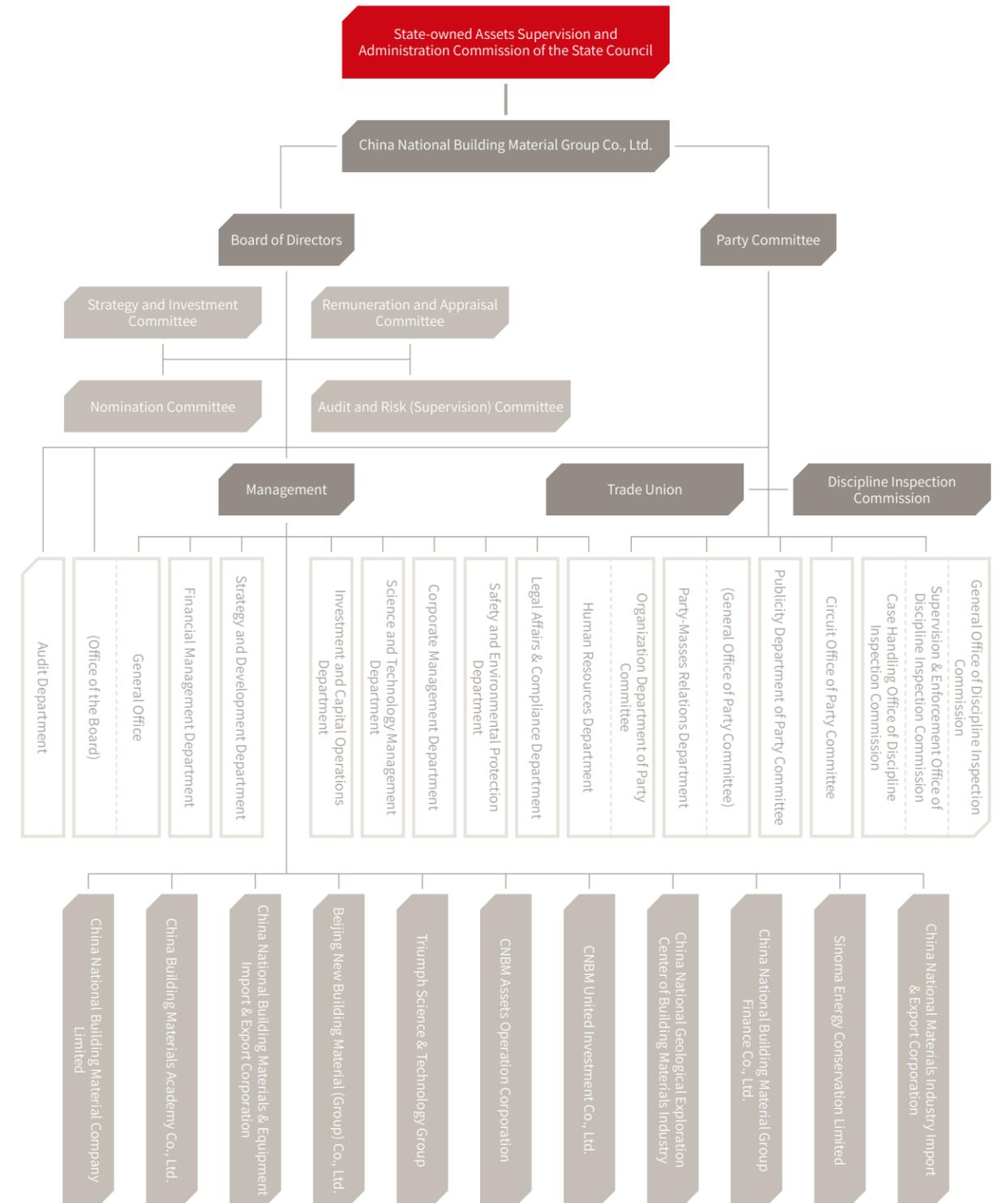
Management Team

According to the Company Law, the requirements for standard operation of the Board of Directors, the needs of the work and the expertise of external directors, the Board of Directors has 4 special committees, of which the Remuneration and Appraisal Committee and Audit and Risk (Supervision) Management Committee consist solely of external directors.

Board of Directors



Governance Structure



Management



Main Lines of Business

Basic Building Materials



Cement, Cement +

The production scale of cement and commercial concrete ranks first in the world, with 334 new dry process cement production lines, cement capacity of over 500 million tons and commercial concrete capacity of about 440 million cubic meters. As the standard configuration for the city, 53 cement kiln cooperative disposal production lines have been put into operation and under construction. The total annual disposal scale is 5.42 million tons, and the landfills are reduced by 1,355 mu. The installed capacity of waste heat power generation of cement sheeting is about 2000 MW.

Key enterprises

Tianshan Material Co., Ltd., North Cement Co., Ltd., and Ningxia Building Materials Group Co., Ltd.



Key enterprises

China Jushi Co., Ltd., and Taishan Fiberglass Inc.

New Materials

Lightweight building materials

The plasterboard production capacity is 3.5 billion square meters, ranking first in the world. There are 92 production bases globally. It has 4,852 valid patents. The business scale of waterproof materials ranks among the top three in the industry. It has 15 waterproof material production bases, 74 waterproof membrane production lines and 34 waterproof coating production lines. We develop the business of "plasterboard+" supporting systems, and serve national key projects such as the Great Hall of the People, the Olympic Games and the Winter Olympics. We promote the global original "Luban" universal board whole house assembly system, and actively develop waterproof materials and coatings that can be installed and brushed immediately and allow immediate occupancy, creating a low-carbon, environment-friendly and healthy indoor environment. Taking plasterboards as the leading product, we have gradually developed the global layout of the whole product lines.

Key enterprises

Beijing New Building Material Public Limited Company, Taishan Gypsum Co., Ltd., and BNBM Waterproofing Co., Ltd.



Fiberglass

The production capacity exceeds 3.7 million tons, ranking first in the world; the global market share exceeds 40%. Nine production bases have been built, covering China, Egypt, the United States and other places. We have the oxygen-combustion large pool kiln wiredrawing intelligent production technology and equipment with fully independent intellectual property rights. We have built the first zero-carbon intelligent manufacturing base, developed more than 3,000 specifications and varieties in over 20 categories such as high-modulus high-strength fiberglass, and low dielectric fiberglass, which are applied to high-end equipment, new energy, 5G communication and ocean engineering. The products are sold to more than 100 countries and regions around the world, and have won the "China Grand Awards for Industry" and "China Patent Gold Award".



Wind Turbine Blade

We are the world's largest wind turbine blade design, research and development, manufacturing and service provider, with a production capacity of about 30GW. Our products cover the mainstream unit platforms from 1MW to 16MW+. The "SinomaBlade" brand has been firmly established in the industry. The market share in China exceeds 30%. Globally cumulative installed capacity is 153GW. The products operate stably in 42 countries including China, Austria, Pakistan, Chile and Brazil. In 2023, we developed the longest 130 m 12 MW carbon fiber girder composite blade and the longest 101 m 6-8 MW all-fiberglass onshore blade in China.

Key enterprises

Sinoma Wind Power Blade Co., Ltd., and Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd.

High-quality Float Glass

Our production capacity ranks among the top five in China, and we have a second-generation float glass intelligent demonstration line with fully independent intellectual property rights. The products include body-colored glass, Low-E coated glass, insulated glass, vacuum glass, and smart light-control glass, which are applied in various fields such as architecture, automobiles, household appliances, photovoltaic, and mirror manufacturing, and are sold to nearly 100 countries and regions in Southeast Asia, Europe, and South America.

Key enterprises

Triumph Science & Technology Group



Carbon Fiber

Driven by domestic independent technological innovation, we build a carbon fiber business segment, with a production capacity of 58,500 tons (28,500 tons completed). The domestic market share of high-performance carbon fibers of T700 level and above has exceeded 50% for consecutive years. It is widely used in fields such as aerospace, new energy industries, and major infrastructure projects. It has won the "First Prize of National Science and Technology Progress" and "Top Ten Super Projects of Central Enterprises".

Key enterprises

Zhongfu Shenying Carbon Fiber Co., Ltd.



New Glass Materials

We have achieved a series of industrialization achievements that are "the first in China and the best in the world". We have independently built the world's largest single-unit oxygen-fuel combustion photovoltaic glass production line, and the first thin and high-transmittance photovoltaic glass intelligent production line in China. We have successfully rolled out the world's first large-area cadmium telluride power glass. The photoelectric conversion rate of copper indium gallium selenium power glass has set a new world record. The world's largest single-unit thin film BIPV application demonstration project has been built and applied in multiple scenarios. We have independently developed China's first neutral borosilicate pharmaceutical glass tubes for vaccines and achieved stable mass production. We have completed the layout of high-end platforms such as the only national new glass material innovation center in the industry, and achieved a stable market share of over 90% in the global high-end glass engineering.

Key enterprises

Triumph Science & Technology Group



Lithium Battery Separator

We are the high-tech enterprise in the industry that takes the lead in simultaneously having the wet synchronous and asynchronous stretching processes for high-performance lithium battery separators. The existing production capacity exceeds 4 billion square meters, and the under-construction production capacity exceeds 2 billion square meters. We have laid out seven production bases and one equipment manufacturing base across the country. The products cover 3-12 μm wet separator and various coated separator products, which are used in new energy vehicle power batteries, 3C consumer batteries, energy storage batteries and other fields. The development rate among the top ten global battery customers reaches 90%.

Key enterprises

Sinoma Lithium Battery Separator Co., Ltd.

Advanced Ceramics and Artificial Crystals

As one of the first units engaged in the research of advanced ceramic materials in China, we focus on the R&D of key generic technologies in the industry and the transformation of scientific and technological achievements. We have incubated such industries as silicon carbide ceramics, silicon nitride ceramics, alumina ceramics, ultra-high voltage electric porcelain, ceramic membrane, quartz ceramics, and foamed ceramics, making important contributions to China's strategic emerging industries such as high-end equipment, new materials, new energy, energy conservation and environmental protection. We have reached the international or domestic leading level in nonlinear optical crystals, infrared optical window materials, micro- and nanocrystalline materials, piezoelectric crystals, third-generation semiconductor crystals, and functional diamond crystals. Our products are widely used in high-tech fields such as lasers, optoelectronics, communication, and aerospace, playing a crucial "core" role in many national major projects and the development of strategic emerging industries.

Engineering and Technical Services



Engineering and Technical Services

With nearly 500 cement and glass engineering projects built at a high level in the world, we are the largest Chinese-funded photovoltaic EPC general contractor in Europe, one of the few enterprises with complete industrial chain in the international cement technology and equipment engineering market, and the largest cement technology and equipment engineering system integration service provider in the world.

Key enterprises

China Sinoma International Engineering Co., Ltd., China Triumph International Engineering Co., Ltd., Sinoma Energy Conservation Limited, Hefei Cement Research & Design Institute Co., Ltd., and Qinhuangdao Glass Industry Research and Design Institute Co., Ltd.



Key enterprises

Sinoma Advanced Materials Co., Ltd.

Responsibility Focus



Building the "Pillar of the Country" and New Quality Productive Forces



Developing new quality productive forces is the inherent requirement and important focus for promoting high-quality development.

— Stressed by General Secretary Xi Jinping at the 11th group study session of the Political Bureau of the 20th CPC Central Committee

Moving towards innovation, scientific and technological innovation ignites the engine of high-quality development

Accelerating the development of new quality productive forces is the strategic planning made by General Secretary Xi Jinping from a new historical starting point to promote high-quality economic development. As a leading enterprise in the building materials industry among the Fortune Global 500, CNBM focuses on accelerating the formation of new quality productive forces and actively leverages the innovation strength of 26 national-level research and design institutes, 3 national-level key laboratories, and 8 national-level engineering (technology) research centers.

We support the formation of a new material industrial system with a hierarchical layout of RMB 1 billion-RMB 5 billion-RMB 10 billion. We improve our core competitiveness through technological innovation, enhance our core functions through industrial innovation, and give better play to the role of technological innovation, industrial control and safety support. We help build a modern industrial system that is integrated, advanced and safe. We give full play to the role of state-owned capital investment companies, and continuously enhance our core competitiveness and core functions, providing vivid samples for exploring the future path of new quality productive forces.

Stronger scientific and technological innovation capacity



New breakthroughs were made in the construction of the source of original technologies; six national key R&D plans were undertaken; seven projects in the second phase of the "1025" project were carried out on schedule; the first phase of the Group's "open competition mechanism" project was evaluated and the second phase was launched. A 25,000-ton high-performance carbon fiber production base with the largest single capacity in the world was built; a number of original R&D results, such as T1,100 carbon fiber and 70MPa hydrogen storage cylinders, were transformed into demonstration projects.

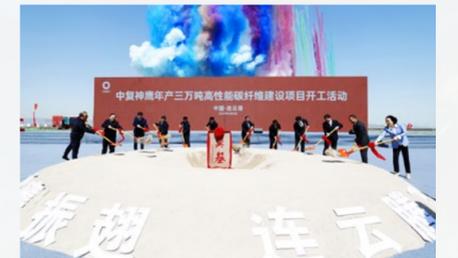


The thirty two 320L hydrogen cylinders independently developed by Sinoma Science & Technology (Suzhou) Co., Ltd. and certified by the classification society, were applied to the "Three Gorges Hydrogen Boat No. 1", the first 500 kW hydrogen fuel cell-powered workboat in China to be classified by the China Classification Society (CCS). And this workboat was successfully launched.

Stronger industrial control capacity



On April 8, 2023, the commencement ceremony of Zhongfu Shenyang's 30,000 tons/year high-performance carbon fiber project was held in Lianyungang, Jiangsu Province. This project is another significant move by CNBM to further deepen and implement the domestic economic circulation strategy after the "super project" of 10,000-ton carbon fiber in Xining was completed and put into operation. As the world's largest single carbon fiber production base, this project will make full use of nuclear steam and photovoltaic power to achieve the green and low-carbon transformation of energy in the carbon fiber production process. Meanwhile, it will adopt the most advanced carbon fiber industrialization technology of version 4.0 in China for the design of the new base. After the new base is completed and put into operation, it will further enhance the large-scale application of domestic high-performance carbon fiber products in fields such as aerospace and new energy. While promoting the integration of the innovation chain and the industry chain, it will also contribute to building China into a leading country in manufacturing, product quality and materials.



The annual revenue of special new materials exceeded RMB 2.4 billion; breakthroughs were made in numerous "bottleneck" technologies such as low-carbon cement, large aircraft carbon fiber composites, and high-level radioactive waste liquid glass curing materials. Nearly RMB 3 billion was invested in "the pain points of central enterprises", such as the integrated circuit and semiconductor industries.

Stronger safety support capacity



In order to further strengthen the coordinated layout of the industry chain in the investment project, actively build an innovation ecosystem for the new material industry, and promote the high-quality development of the new material industry, On April 22, 2023, the "CNBM New Materials Fund Industry Partner Conference and New Materials Industry Investment Salon" with the theme of "New Era · New Materials · New Opportunities" was successfully held at CNBM. Zhou Yuxian, Secretary of the Party Committee and President of the Group, delivered a speech.

We have completed the restructuring and integration of Qilianshan Cement, wind turbine blades, equipment manufacturing, coatings and other businesses; New Materials Fund was selected as one of the top 30 investment institutions in the field of new energy/new materials in China in 2023, and raised a total of RMB 6 to 8 billion of capital for the Group.

Making efforts in both traditional industries and strategic emerging industries, empowering the modern industrial system of new building materials with new quality productive forces

The report of the 20th CPC National Congress proposed for the first time to accelerate the construction of a modern industrial system and place the focus of economic development on the real economy. The materials industry is the foundation of the real economy and occupies a fundamental position in the modern industrial system, serving as the basis for the development of the national economy.

As the only central enterprise in the building materials industry, CNBM has adhered to driving industrial innovation through technological innovation and made efforts in both basic building materials and strategic emerging industries.

The Group has accelerated the transformation and upgrading of traditional industries while speeding up the deployment of strategic emerging industries. It has accelerated the deployment of new fields and new tracks for value creation, focused on the proactive deployment of future-oriented industries, actively acted as the "vanguard" of building the modern industrial system, consolidated the modern industrial system supported by the real economy, created advantageous industrial clusters with core competitiveness, fostered new drivers and advantages for development and strived to build world-class enterprises.

Transformation and Upgrading of Basic Building Materials

The basic building materials industry is an important part of China's real economy and the "anchor" business that occupies a major part of CNBM's business layout. Standing at the strategic height of high-quality development in the industry, the Group has actively promoted high-end, intelligent and green development, accelerated the transformation and upgrading of the basic building materials industry, consolidated its leading position in traditional robust industries, and firmly grasped the initiative of high-quality development, better serving the new development pattern.



Low-heat cement is used to build the seamless dam at Baihetan Hydropower Station



Responsibility Window

CNBM takes the lead in joining forces with 17 institutions to jointly invest in the establishment of CNBM New Materials Fund with a total fund size of RMB 20 billion and an initial fund size of RMB 15 billion. This is an important part of CNBM to lay out the material industry as a state-owned capital investment company. The fund is positioned to solve the "bottleneck" technology of new materials, to ensure the safety and independent substitution of the new material industry chain, to promote scientific and technological innovation and breakthroughs in key core technologies, to cooperate with investors to cultivate the industrial ecology, and to focus on investing in the field of new materials.

Develop strategic emerging industries and future-oriented industries

By actively leveraging its role as a state-owned capital investment company, CNBM has continuously enhanced its supportive and stabilizing capabilities in key areas such as new materials and new energy, and combined its "9+6" systematic layout to complete the mid-term assessment and adjustment of the "14th Five Year Plan" development strategy and draft a work plan for its new and future-oriented industries. It has allocated 16 tasks in four major areas of new materials, new energy, and industrial machine tools in its strategic emerging industries layout, and six key technologies in five major areas in its future-oriented industries layout.

Unprecedented strategic emerging industries and future industrial layout

- The Huai'an zero-carbon intelligent manufacturing base of China Jushi and the Taiyuan base of Taishan Fiberglass commenced construction.
- The production capacity at Zhongfu Shenying's Xining base phase II doubled.
- The Lianyungang commenced construction.
- The Nanjing, Pingxiang and Yibin bases of Sinoma Lithium Battery Separator achieved sales ahead of schedule.
- The Inner Mongolia Phase II and Tengzhou Phase II of Sinoma Lithium Battery Separator were put into operation.
- The Yiwu, Yulin and Yangjiang bases of Sinoma Wind Power Blade Co., Ltd. had a production capacity of 3.14GW.
- Triumph Science & Technology acquired three power glass production lines in Handan, Jiamusi and Zhuzhou through equity financing of RMB 950 million.
- The construction of Qinhuangdao and Luoyang photovoltaic glass base was accelerated.
- The Photonic Material Industrial Park of China Building Materials Academy was completed and put into operation.
- Sinoma Advanced Materials produced 180 tons of silicon nitride bearing balls and 700,000 high-thermal-conductivity substrates per year.

New materials emerged, forging advantages

In 2023, CNBM continued to accelerate the formation of new quality productive forces, with new materials emerging. Nine major materials were selected for CCTV's large industrial documentary "Pillars of Material", becoming samples of Chinese materials participating in global competition.



Scan the QR code to watch CCTV's blockbuster documentary "Pillars of Material"



- 1 Cement that changes the world
- 2 Ceramic springs that challenge the world record, and silicon nitride ceramic balls that meet extreme performance requirements
- 3 Larger, thinner, and higher-end glass
- 4 High-modulus, lightweight, and widely used fiberglass
- 5 The artificial crystal of potassium titanyl phosphate that breaks monopolies
- 6 High-performance carbon fiber
- 7 Lithium battery separator
- 8 Power glass
- 9 Hydrogen storage cylinders

Responsibility Focus

II

Building a "Belt and Road" Community with a Shared Future

Belt and Road construction is built on the principle of consultation, joint construction and shared benefits, transcending differences in civilizations, cultures, social systems, and development stages, opening up new paths for interactions among countries, setting up a new framework for international cooperation, and gathering the broadest possible consensus for common development of humanity.

— Stressed by General Secretary Xi Jinping Keynote speech at the opening ceremony of the Third Belt and Road Forum for International Cooperation

"Going global" and planning the overall layout of "freehand brushwork"

As a large state-owned enterprise, CNBM stands shoulder to shoulder with the times and walks with the country. As the vanguard of "going global" in China's building materials industry, CNBM has continuously deepened its presence overseas, actively participated in Belt and Road construction, competed with the world's leading enterprises in the industry, and built about 500 high-level and high-quality cement and glass engineering service projects in the world, with the market share ranking first in the world. It has created a series of international business cards with world influence.

Our Achievements

Setting up

196

overseas institutions in 76 countries (regions) around the world

Owning over

30,000

overseas employees (Chinese and foreign employees)

Investing

45

fixed asset and equity acquisition projects in 27 countries

About

500

cement and glass engineering service projects have been built at high level and with high quality around the world

It has invested in and built

36

overseas warehouses and building material supermarket chains in 14 countries

Deep Engagement in the Market for Joint Construction and Shared Benefits

CNBM has been "going global" since the 1990s. Relying on its increasingly robust technical and equipment capabilities, it has transformed from mainly exporting building materials to mainly exporting complete sets of building materials technology and equipment, and has undertaken the general contracting business of foreign engineering projects. It has innovatively created the EPC+ model, featuring Sinoma International Engineering Co., Ltd. and CTIEC as the main players. On the basis of integrating the entire system of technology R&D, engineering design, equipment manufacturing, construction installation, and technological transformation, it has actively expanded value-added services such as spare parts, operation & maintenance, and smart industrial services, achieving a shift from a single production line builder to a diversified engineering integration service provider. It has also established industrial parks overseas, exploring a new model of overseas development featuring "science & technology + industries + services", and has become an important participant in the global building materials industry.

Our Actions

- A fiberglass production base is built in Egypt. Internationalization models of "building the market first and then building the factory" and "supplying foreign markets from foreign resources" are explored. A joint laboratory is established in cooperation with Egypt. All raw materials and process supplies are transformed into local supplies in Egypt. 95% of the products are sold to some markets such as Europe and North America. Represented by BNBM and CNBM Investment, the integration of global supply chain services such as warehousing, logistics, channels, and marketing has been realized. A new business form and model that links the supply chain with overseas warehouses and the supply chain with logistics has been successfully explored.
- In Papua New Guinea, 18 building materials and home furnishing chain supermarkets and 2 large distribution centers have been established to meet the needs of local society for building houses, schools, churches, shopping malls and office buildings.
- Centering on the basic building materials industry chain, an industrial park is invested and constructed in Zambia. Relying on advanced technology, superior production capacity, industrial synergy and high-quality services, the construction of the local supply chain, industrial chain and value chain is promoted.

开放合作·共赢发展

As the only central enterprise in the building materials industry, CNBM is of great significance and duty-bound to accelerate "going global" in the wave of internationalization. We always practice the mission of "creating a better world with materials", constantly innovate the international development mode of global operation, accelerate the pace of internationalization,

and deepen cooperation with global partners. We strive to recreate a "CNBM" overseas in about 10 years, basically building a world-class enterprise with international competitiveness, and contributing to the construction of a community with a shared future for mankind with building materials.



Zhou Yuxian, Party Secretary and Chairman of CNBM was invited to attend the Belt and Road CEO Conference, at which two overseas projects were signed as key cooperation projects of the BRI.



"Going in" and meticulously drawing the "fine brushwork"

Ten years of hard work and perseverance have brought us fruitful harvests. 2023 marks the 10th anniversary of the Belt and Road Initiative. With a global vision, CNBM has firmly adhered to the "three principles" of contributing to local development, cooperating with local enterprises, and serving local residents" for win-win cooperation. CNBM has accelerated its global industrial layout and resource allocation with high-quality building materials, advanced technologies, and mature experiences, actively building an ecosystem that is in harmony with the environment, society, and upstream and downstream sectors of the industry.

Our Honor

- Tianshan Material's "CNBM Zambia Industrial Park Contributes to the Steady and Long-term Development of the Belt and Road Initiative", China Jushi's "Forging a New Benchmark for the Belt and Road Initiative", and Sinoma Energy Conservation's "Illuminating the China-Pakistan Economic Corridor" were included into the 100 best practice cases of Chinese listed companies jointly building the Belt and Road Initiative in the past ten years.
- The short video "A Beautiful Jasmine Flower" of Sinoma International won the "Silk Road Popularity Award" in the Belt and Road Initiative Short Video Competition.
- The short video "Forest Factory: Guarding the Green Homeland" of Sinoma Cement, and the short video "Same Original Aspiration for 30 Years" of CNBM PNG LTD won the Excellent Work Award in the Belt and Road Initiative Short Video Competition.
- The Argentine subsidiary of Sinoma Overseas won the "Safety Development and Joint Belt and Road Construction" award presented by the Chinese Embassy in Argentina and the China General Chamber of Commerce

Scan the QR code to learn about "CNBM's Vibrant Practices in the Belt and Road Initiative"



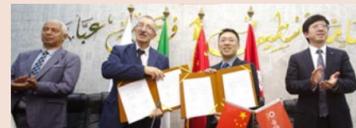
Scan the QR code to learn about "CNBM Participates in Belt and Road Initiative Short Video Competition"

Universal Benefits, Balance, Coordination and Inclusion

In the process of advancing the Belt and Road Initiative, standards are the basic norms for interconnectivity, playing a fundamental and supportive role in infrastructure interconnectivity as well as international capacity cooperation. CNBM has built a number of cement and glass engineering projects in regions participating in Belt and Road construction, fully leveraging its scientific and technological advantages in inorganic non-metallic materials, and providing a range of services, including joint R&D, testing and certification. While enabling equipment technology to "go global", the Group has actively promoted the internationalization of standards, strongly supported local economic and social development, helped promote the win-win cooperation among partners in the Belt and Road Initiative at a higher level, and supported the steady, long-term, deeper and concrete construction of the Belt and Road Initiative.

Our Actions

- In Africa, we have actively assisted Zambia, Equatorial Guinea and Algeria in building a sound standard system for testing and certification of building materials.
- In Egypt and Ethiopia, "national joint laboratories" were established to help them establish their own testing, inspection and certification standards, and utilize the joint laboratories to deepen local operations and cultivate local talent.
- In Germany, leveraging the advantages of the acquired company in the field of power glass, a laboratory has been jointly built to develop power glass technology and projects, and promote the implementation and transformation of the results in China.



→ CNBM signed a framework agreement with the Setif University 1 in Algeria to jointly build a Sino-Algerian Belt and Road Materials Joint Laboratory.

Mutual Learning and Appreciation among Civilizations

In the process of promoting the internationalization strategy, CNBM has deeply participated in the infrastructure construction, poverty reduction, community service and education development of the regions along the Belt and Road, actively maintained and protected the rights and interests of employees, respected local customs and religious beliefs, and promoted the harmonious coexistence of Chinese and foreign employees, demonstrating the task and responsibility of CNBM people to actively practice the mission of "creating a better world with materials" and help build a community with a shared future for mankind.



Mid-autumn festival activity of Sinoma Cargo's Nigerian subsidiary



"Chinese Bridge" activity of China Jushi



Family Open Day activity of China Jushi Egypt Company



Donation activity for PNG LIFE CARE held by CNBM PNG LTD



Sinoma Nigeria Fashion Show



Zambia Industrial Park Open Day



China Jushi: Typical cases were exhibited at the Thematic Forum on People-to-People Connectivity of the Third Belt and Road Forum for International Cooperation

On October 18, 2023, the Third Belt and Road Forum for International Cooperation opened in Beijing. The program "A Happy Life on the Belt and Road - Never Give Up" selected by China Jushi was presented at the Thematic Forum on People-to-People Connectivity of the Belt and Road Forum for International Cooperation. The program is based on the story between the employees from the Technical Quality Department of China Jushi Egypt Company and the masters from the Glass Research Center at the headquarter. The story took place in the China-Egypt Joint Laboratory, which is one of the fifty laboratories to be built in countries jointly building the Belt and Road as proposed by General Secretary Xi Jinping. Chinese masters guided Egyptian apprentices through heuristic methods to independently solve the problems encountered in the process of glass fiber research and development. The program tells how China Jushi builds its factories in Egypt. While solving the problem of employee localization according to local conditions, it also solves the problem of technology localization, provides Egypt with the most advanced glass fiber production technology, and promotes the development of the local industrial chain.



01



Building a Foundation for Development with Excellent Operations

High-quality development is the primary task of building a modern socialist country in an all-round way and the underlying value running through the development of China National Building Material Group Co., Ltd. (CNBM). CNBM gives full play to the role of the national team and main force in the non-metallic material industry, keeps the "top priorities of the country" in mind, builds the "pillar of the country", adheres to making efforts in both the basic building materials industry and strategic emerging industries, accelerates the construction of a modern industrial system, strives to apply the adherence to the guidance under the Party building, continuance in the deepening reform and improvement in the management and operation into the development of main responsibilities and main businesses of the Group, enhances the core function, improves core competitiveness, and steadfastly advances the high-quality development path.

Response to the United Nations Sustainable Development Goals (SDGs)



Operating Income

RMB **347.51** billion

CNBM achieved an operating income in new materials

RMB **102.66** billion

Operating income of engineering service

RMB **78.23** billion

Outstanding Performance

Honors · 2023



- CNBM received a Grade A in its business performance assessment by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council



CNBM firmly grasped the theme of high-quality development, left no stone unturned to improve quality and efficiency and stabilize growth, overcame difficulties with tenacity in the business of basic building materials and made every endeavor to expand the market for stable growth, realized operating income

of more than one hundred billion yuan in new materials, continued to consolidate and improve the business of engineering technical service, and developed the logistic trade business steadily, making positive contributions to serving major national strategies and building a new development paradigm.

Being A Stable "Ballast Stone" for Basic Building Materials

CNBM makes constant innovations in the cement business management model, comprehensively promotes the "cement +" strategy, develops in the high-end, intelligent and green direction, and conducts independent research and development on the second generation of intelligent technology and equipment for new dry process cement, reaching the world's advanced level in terms of energy consumption index, environmental protection index and intelligent management index. In 2023, CNBM coordinated and

promoted the optimization and upgrading of basic building materials, completed the upgrading and transformation of 19 clinker lines and 29 grinding lines, increased the limestone self-sufficiency rate by 3.2 percentage points year-on-year, decreased the clinker's standard coal consumption rate by 2.9% year-on-year, comprehensively deepened the "cement +" strategy, and continued to optimize and improve the ready-mixed concrete business, achieving a year-on-year increase of 30 million tons of aggregate production.

Digital Reading · 2023

The new materials sector achieves the operating income of

RMB **102.66** billion

Running out of "Acceleration" in New Materials

CNBM has been committed to the promotion of high end, mass production and globalization of new material business, formed a world-class new material product cluster including new glass materials, high-performance glass fiber and carbon fiber, wind turbine blades, lithium battery separators, advanced ceramics, artificial lenses, and high-end quartz materials, offered strong support for "The Pillars of

a Great Power" such as manned spaceflight and homemade large aircraft, and promoted the high-level independence and self-reliance in the material industry, providing key material support for seizing the strategic high grounds, improving China's comprehensive competitiveness, strengthening, solidifying and replenishing chains, and ensuring national security.

Zhongfu Shenying Carbon Fiber Co., Ltd.: Promoting high-end, large-scale and green development, and leading the quality improvement and upgrading of the carbon fiber industry.

Facing the new opportunity of the rapid development of the domestic carbon fiber and composite material industries, Zhongfu Shenying Carbon Fiber Co., Ltd. takes "high-end, large-scale and green" development as its strategic positioning. It concentrates technical forces to research and develop and break through a new generation of high-strength, high-modulus and high-performance carbon fibers, continuously promotes the update of product grades and improves the product structure to further meet market demands. At present, Zhongfu Shenying Carbon Fiber Co., Ltd. has its products widely used in many fields such as aerospace, pressure vessels, wind turbine blades, etc., and it has increased the expansion of application in emerging fields such as new energy vehicles and 3C electronics. It plays the role of a "chain leader" by starting from the source, using the advantages of the industrial chain and resource allocation to promote the development process of important industries such as aviation and new energy. In 2023, the 25,000-ton high-performance carbon fiber production base in Xining was fully put into production, and the construction of the 30,000-ton high-performance carbon fiber production base in Lianyungang started. The two 10,000-ton production bases of Zhongfu Shenying Carbon Fiber Co., Ltd. take off in both the east and the west.



Ningxia Building Materials Group Co., Ltd.: The second-generation new dry-process energy-efficient and environmentally friendly green and intelligent demonstration project of Ningxia Qingtongxia Cement Co. Ltd. was successfully put into production.

On March 10, 2023, the demonstration project of a 4,000-ton-per-day second-generation new dry-process energy-efficient and environmentally friendly green and intelligent clinker production line of Ningxia Qingtongxia Cement Co. Ltd. of Ningxia Building Materials Group Co., Ltd. was successfully put into production. This production line adopts advanced technologies such as the new sixth-generation high-efficiency and low-nitrogen preheating and precalcining sintering process, digital intelligent control technology, expert-optimized automatic control technology, fully automatic batching and inspection technology, and air-cooled pure low-temperature waste

heat power generation technology. It is equipped with a fourth-generation centrally installed roller crusher grate cooler, high-efficiency and energy-saving fans, and is supported by a 7-megawatt pure low-temperature waste heat power generation system. This project, which

is benchmarked against the world's first-class standards, realizes quality and efficiency improvement through high-end, green and intelligent development, promoting the transformation and upgrading of Ningxia Qingtongxia Cement Co. Ltd.



Creating "new business card" for engineering service

CNBM makes every effort to consolidate its traditional advantages in the engineering technical service business, promotes globalization, localization and diversified development, takes serving the entire industry as its responsibility, and explores the service-oriented manufacturing industry through large-scale R&D service, Internet + service, inspection and certification, carbon

trading services, EPC engineering services, smart industrial services, etc., so as to form the new growth pole with new economy, new model and new format. In 2023, the Group continued to consolidate and improve the engineering technical service sector, achieving an increase in the newly signed overseas contracts for engineering technical services by more than 40% year-on-year.

Constructing "new model" for logistics trade

CNBM has constantly consolidated the new model of foreign trade, explored the establishment of a business model of "building materials and home furnishing chain supermarket + overseas warehouse" with building materials' characteristics, innovatively implemented "standardization + localization" cross-border logistics solutions, invested in the construction

of 36 overseas warehouses and building materials supermarket chains in 14 countries including United Arab Emirates, Tanzania, South Africa, Papua New Guinea and Vietnam; created the comprehensive cross-border e-commerce service demonstration platform "okorder.com", built a link between upstream and downstream links of the product chain, and driven more than 30,000 kinds of products in China to go global, maintaining the stability of global industrial and supply chains; The wzcwlw.com digital logistics platform focuses on logistics services for manufacturing enterprises. It has

completed the linkage with 599 cargo owner enterprises through the system integration, and has been selected into the 2023 National Big Data Application Demonstration Project of the Ministry of Industry and Information Technology of the People's Republic of China.

In 2023, the Group's logistics and trade sector developed steadily. CNBM invested in overseas warehouses and building materials supermarket chains, achieving revenue of RMB 4.66 billion, a year-on-year increase of 28%.

Digital Reading · 2023

Value of newly signed contracts

RMB **94** billion



Operating income of engineering service

RMB **78.23** billion



Year-on-year Growth

1.3 %



Year-on-year Growth

11.2 %



▶ The 15MW air-cooled waste heat power generation project supporting the BASTAS Cement plant affiliated to the French VICAT Group contracted by Shanghai Triumph Energy Conservation Engineering Co., Ltd., (STEC) successfully passed the project acceptance



▶ The Fauji (DG Khan) clinker cement production line with daily output of 6,500 tons in Pakistan, which was contracted by Hefei Cement Research & Design Institute corporation Ltd. (HCRDI), a subsidiary of SINOMA International Engineering Co., Ltd. (SINOMA International), and constructed by Sinoma (Handan), was successfully put into operation at one time.

Saima IoT Technology (Ningxia) Co., Ltd. (Saima IoT): The "wzcwlw.com" digital logistics platform creating new drivers of digital and intelligent services

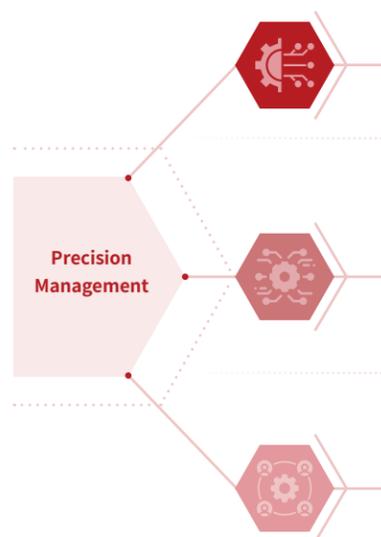
Saima IoT focuses on the development positioning of the "wzcwlw.com" digital logistics platform. Adhering to digital technology, it analyzes the business needs and management pain points of target users. With the goal of optimizing and enhancing supply chain efficiency and solidifying and optimizing the construction of chain leaders for collaborative development of the industrial chain, it develops overall solutions and products that meet customer needs. It continuously creates ecological products such as the post-vehicle mall, digital and intelligent cloud warehouse, unmanned monitoring system, and marketing order micro-apps. Within the year, it completed the construction of unmanned monitoring systems in more than 50 factories of enterprises such as Taishan Gypsum Co., Ltd. In 2023, Saima IoT optimized 172 functions for platform experience, integrated 44 systems, reviewed a total of 206,400 human customer services. It handled a total of 278,000 online consultation calls for replying to questions. It continuously optimized and transformed system interfaces to improve the digital and intelligent level of the platform and accelerate the response and transmission speed of a single record on the platform, with an efficiency improvement of nearly 70 times. It conducted in-depth research on enterprise business processes and transportation control models, optimized transportation processes, and achieved the application effect of seamless online launch of similar businesses in some cement enterprises. It actively promoted logistics control business, helped cargo owner enterprises achieve raw material traceability and product flow tracking, and assisted transporters in the optimization of transportation organization models, creating a new image of digital logistics services.



Precision Management

"Precision Management" is an excellent crystallization of China National Building Material Group Co., Ltd. (CNBM) in management innovation theory and practice. It is a characteristic methodology rooted in practice and rich in connotation. It is also the concentrated reflection of long-termism and value principle. Faced with various difficulties and challenges, especially the impact of factors that exceed expectation, CNBM has dealt with the difficulties with full confidence, continuously deepened the "precision management",

promoted organizational changes, process changes and data changes, and empowered and accelerated the construction of a world-class enterprise with excellent products,



outstanding brands, leading innovation and modern governance.

Lean Management

Focusing on the price, cost and interest, zero inventory, and centralized collection and sales. Paying attention to the business refocusing, innovation effectiveness, market segmentation, and pricing rationalization to create an invisible champion.

Refined Management

Focusing on reducing costs, improving quality and increasing varieties. Standardizing management, standardizing operations, standardizing quality, and minimizing the use of two funds to seek benefits from management.

Refined and Healthy Management of Organization

Focusing on reducing institutions, levels and redundant staff. Paying attention to the standardized governance, hierarchical functions, specialized platforms and streamlined institutions to ensure orderly exercise of power.

Lean Management

CNBM fully maintains the industry ecology, does a good job in "Cement +", speeds up international expansion, and empowers technology innovation through data integration. In 2023, CNBM vigorously promoted the "reduction" in both costs and expenses. The Group's average financing cost decreased by 29BP year-on-year, and financial expenses decreased by 8.2% year-on-year. Tianshan Material Co., Ltd. gained the income of RMB 500 million from the disposal of inefficient assets, and the unit costs of cement and ready-mixed concrete decreased by RMB 43 and RMB 56 respectively year-on-year. Beijing New Building Materials Public Limited Company (BNBM) achieved the cost reduction of RMB 1.42 billion on the production and procurement ends through its "One Cent" Cost Saving Plan. China Jushi Co., Ltd. achieved the cost reduction of RMB 1.3 billion via the working method of "increasing income, curtailing expenditures and reducing consumption". Sinoma Overseas Development Co., Ltd. (Sinoma Overseas) saved RMB 120 million in rectification costs for the Saudi ACC project.

Sinoma Advanced Materials Co., Ltd.: The cost model guides cost reduction and efficiency enhancement

Sinoma Advanced Materials Co., Ltd. has been taking "Precision Management" as an important means to improve quality and efficiency for many years. According to the different situations of leading industries, it refines and improves the cost models of main products. By strengthening basic workshop management and the application of the ERP system in production links, it has the cost model refined to each process and main product model. Through analysis and comparison, it finds the breakthrough for cost reduction. Through data accumulation, it sets cost targets for process and link. It holds monthly operation meetings to analyze cost expenditures, find existing problems, and propose control measures. Sinoma Jiangxi Insulator and Electricity Co., Ltd. and Shandong Zibo Electric Porcelain Factory Co., Ltd. carried out joint invitation to tender, having the average purchase price of key raw materials decreased by 10%. With the kiln renovation, Shandong Zibo Electric Porcelain Factory Co., Ltd. had the fuel consumption per ton of porcelain decreased by more than 16% year-on-year; the gas consumption per ton of the first alumina kiln decreased by 15% year-on-year, and the electricity consumption decreased by 15%. Through special actions for cost reduction and efficiency enhancement such as raw material substitution and process optimization, Shandong Industrial Ceramics Research and Design Institute had the unit cost of fiber membranes decreased by 23%. The large quartz industry achieved a pass rate of 96.7% through improving the slurry preparation method and mold renovation, an increase of 1.8 percentage points year-on-year. After carrying out financial management improvement activities, Sinoma Advanced Materials Co., Ltd. had the average loan interest rate dropped to 3.16% and financial expenses decreased by 11.59% year-on-year, and it enjoyed RMB 22.685 million for tax reductions and exemptions based on the policy. In 2023, Sinoma Advanced Materials Co., Ltd. reduced costs and expenses by more than RMB 50 million.



Refined Management

CNBM effectively promotes digital transformation, refined operation and management, and business integration, implementing the empowerment through system process reconstruction. In 2023, CNBM advanced the world-class "dual demonstration" action steadily. The Group was selected in the creation of world-class demonstration enterprises, and two enterprises were selected in the creation of world-class professional leading demonstration enterprises. Meanwhile, CNBM accelerated the implementation of value creation actions, enriched the new connotation of "precision management", implemented comprehensive budget management, strengthened "great compliance" management, carried out compliance evaluation of 18 enterprises and post-investment evaluation of 22 key projects, effectively consolidating the closed-loop system for steady development.



China Jushi Co., Ltd. and Zhongfu Shenyang Carbon Fiber Co., Ltd. were selected in the creation of world-class professional leading demonstration enterprises.

Refined and Healthy Management of Organization

CNBM has further made innovations in the organizational structure, improved the incentive mechanism, and strengthened corporate governance, stimulating development momentum with organizational potential and vitality. In 2023, CNBM reduced the number of legal entities, reduced and managed the losses, and disposed of risky assets. 151 legal entities and RMB 300 million of losses were reduced throughout the year. Meanwhile, the focus is placed on deep integration and optimization of main responsibilities and main businesses. Qilianshan Cement Group Co., Ltd. and China Communications Construction Company Limited conducted asset restructuring completion for the design institutes, establishing the first model of market-oriented restructuring



Qilianshan Cement's Business Restructuring Completion Ceremony

and listing of central enterprises; Ningxia Building Materials Group Co., Ltd. absorbed CNBM Technology Corporation Limited (CNBM Tech), entering the stage of examination and approval by the Review Committee of Merger, Acquisition and Reorganization in the Exchange; Sinoma Science & Technology Co., Ltd. integrated blade business to build a global industry

leader; Sinoma International and HCRDI completed the integration of equipment business; Beijing New Building Materials Public Limited Company (BNBM) reorganized Carpoly Chemical Group Co., Ltd. to expand the coatings business and help "one body and two wings" take off.

Deepening Reform

On the basis of consolidating the achievements of the three-year action of deepening reform, CNBM focuses on improving the core competitiveness of state-owned enterprises and enhancing core functions, and spares no effort to launch a new round of action of deepening and improving the reform of state-owned enterprises, striving to create a dynamic modern new state-owned enterprise.



Improvement in Modern Enterprise System

CNBM insisted on strengthening the leadership of the Party in improving corporate governance, revised the "three meetings" list of powers and responsibilities of the Group, carried out special inspections on the "three meetings" list of powers and responsibilities of subsidiaries, further clarified the boundaries of powers responsibilities, identified decisions, standardized decision-making procedures, established the collaboration and exchange mechanism for the construction of the board of directors of subsidiaries, deepened the evaluation of the board of directors of subsidiaries, promoted the extension and expansion of the construction of the board of directors to subsidiaries, and achieved new results in the integration of the leadership of the Party into corporate governance.

Reform of Market-oriented Operating Mechanism

CNBM deepened the reform of the operating mechanism, strengthened accurate assessment and rigid fulfillment, and enhanced the position competition, bottom-level adjustment and incompetency exit mechanism of managers. The coverage of second- and third-class enterprises reached 72.7%, and the proportion of bottom-level adjustment and incompetency

exit reached 6.5%. Meanwhile, CNBM actively promoted the coverage expansion and quality improvement of medium and long-term incentives. In 2023, it approved 10 enterprises to implement medium and long-term incentives, motivated more than 3,600 key employees, and achieved new breakthroughs in the reform of market-oriented operating mechanism.



➤ CNBM holds its 2023 annual collective achievement briefing meeting at the Shenzhen Stock Exchange

Reform Deepening and Improvement Actions

CNBM comprehensively arranged the Group's work ledger, sorted out and improved 163 supporting materials for specific measures, organized and carried out a special assessment of the three-year reform action of second-class enterprises, and achieved a successful conclusion of the three-year reform action of state-owned enterprises. Meanwhile, for the implementation of reform deepening and improvement actions

with high quality and high starting point, the Group and 15 key and backbone enterprises and 13 "science and technology reform" and "double hundred" enterprises formulated specific implementation plans, took advantage of the momentum to carry out a new round of state-owned enterprise reform, and strived to write a new chapter of reform in the new era and new journey.

Achievements · 2023

- CNBM has been rated as "Class A" for three consecutive years in the reform assessment of the State-owned Assets Supervision and Administration Commission of the State Council.
- CNBM's fifteen reform achievements have won the award for deepening reform achievements of state-owned enterprises.
- CNBM has been selected as one of the eighteen comprehensive typical cases of the three-year action for state-owned enterprise reform and compiled into the Demonstration and Guidance - Collection of Comprehensive Typical Cases of the Three-year Action for State-owned Enterprise Reform.



➤ CNBM holds a mobilization and deployment meeting for reform deepening and improvement actions and a work meeting for the first half of 2023

Guidance of Party building

CNBM has thoroughly studied, understood and unswervingly implemented Xi Jinping's important thoughts on Party building, continued to strengthen its roots and forge its soul, concentrated its efforts, unlocked the strength to forge ahead through in-depth study, concrete understanding and earnest practice, created the backbone of high-quality development with high-quality Party building, and built a powerful political foundation and strong guarantee for high-quality development.

Ideological and political construction

CNBM insists on taking Xi Jinping's important instructions and comments as "political documents" continues to deepen the "first topic" system; firmly grasps the general requirements of "learning ideas, strengthening party spirit, emphasizing practice, and making new achievements", promotes key measures such as theoretical study, investigation and research, development promotion, inspection and rectification in an integrated way, and actively strengthens the

connection and linkage of the two batches of thematic education.

Its development of thematic education has been fully affirmed by the Party Committee of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), and its experience and practices have been published on People's Daily Online and other media for 40 times.

Achievements · 2023

- Five theoretical articles have been published in Red Flag Manuscript, Study Times and other publications.
- Three political research topics have been commended by the Research Institute for Party Building, Ideological and Political Work of State-Owned Enterprises.



➤ Zhou Yuxian, Secretary of the Party Committee and Chairman of China National Building Material Group Co., Ltd. (CNBM), gives a special Party class on thematic education

Construction of Leading Officials

CNBM deepened the grass-roots construction, basic work and basic skills training, selected young brands and young role models, created 200 youth task groups; strengthened talent team support, strongly built the "five major functions" of the headquarters, offered powerful corporate leadership, intensified the systematic training for leading officials and talents, established the Group's party school (training center), constructed the online learning platform "Shan Jian E Xue", set up a talent pool of 189 young leading officials via hierarchical

classification, and selected and 12 officials born in the 1970s and three born in the 1980s to join the Group's second-level and important

backbone corporate leadership, so as to constantly consolidate the battle fortress.



➤ The 16th training course for young and middle-aged leading officials is held

An All-out Effort to Enforce Strict Party Discipline

CNBM continues to strengthen political supervision, tightens and consolidates the supervision of key minority, conducts practical and detailed daily supervision, seriously investigates and deals with violations of regulations and disciplines, and improves the closed-loop supervision system. In 2023, CNBM carried out penetrating supervision and inspection of the implementation of the guiding principles of the Eight-point Decision of the Political Bureau of the CPC Central Committee. The Group's Discipline Inspection Commission directly handled 21 clues to problems, involving 13 management staff of the Group's Party Committee. Meanwhile, CNBM solidly carried out the education and rectification of the staff of discipline inspection, strengthened the education of ideological purity, cleaned up, rectified and purified the

organization, carried out warning education on a regular basis, learnt lessons from cases, and strengthened the warning and deterrence, so as to

educate Party members and leading officials at all levels of the Group to hold discipline in awe and respect and keep the bottom line.

Digital Reading · 2023

Conduct penetrating supervision and inspection on

21

affiliated enterprises

Hold

27

leaders of the Party committees of

2

enterprises accountable



Building a Powerful Country in Materials with Robust Innovation

In the report to the 20th National Congress of the Communist Party of China, we must regard science and technology as our primary productive force, talent as our primary resource, and innovation as our primary driver of growth. We should fully implement the strategy for invigorating China through science and education, the workforce development strategy, and the innovation-driven development strategy. We should open up new areas and new arenas in development and steadily foster new growth drivers and new strengths. CNBM unleashes the power of innovation, strengthens technological research, deepens innovation collaboration, and promotes digital transformation. The Group's scientific and technological innovation system has become more complete, its scientific and technological innovation achievements have become more fruitful, achievement transformation capabilities have continued to increase, and the role as national team of the non-metallic materials has been further demonstrated. and the role as national team of the non-metallic materials has been further demonstrated.

Response to the United Nations Sustainable Development Goals (SDGs)



Income from scientific and technological innovation

RMB **6.03** billion

R&D investment intensity

3.7%

Taking the lead in undertaking

24

major research projects

26500

cumulative valid patents

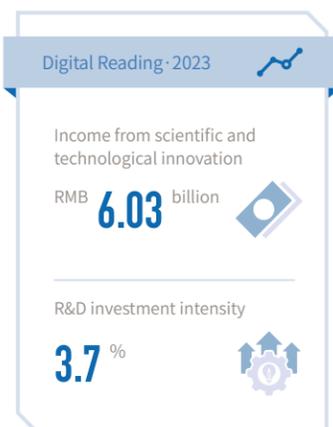
Participating in formulation and revision of

3

international standards

Innovation Ecosystem

CNBM always insists on innovation-driven creation of the "Pillar of the Country", actively promotes institutional mechanisms, management, and open innovation, cultivates leading enterprises with original core technological competitiveness, gives full play to synergy effects, and forms a good innovation ecosystem, providing a leading and supporting role for China's building materials industry to achieve leap-forward development.



Building an innovation platform

CNBM attaches great importance to the construction of scientific and technological platforms, optimizes the allocation of scientific and technological resources, unites the forces of all parties to jointly create a collaborative innovation highland, and continues to enhance the Group's scientific and technological innovation capabilities and core competitiveness.

Action · 2023

- CNBM formulated guidance on medium- and long-term incentives and constraints, encouraging enterprises to try first and boldly explore, and comprehensively use various incentives including equity incentives, employee stock ownership of mixed-ownership enterprises, dividend incentives, excess profit sharing, project follow-up investment, phantom equity, etc., so as to mobilize employees' innovative impetus.
- CNBM divided scientific and technological achievements into categories A, B and C, and implemented incentives and transformations by classification, so that scientific researchers could "gain both fame and wealth".

Strengthening innovation management

CNBM attaches great importance to innovation management, strengthens the top-level design of scientific and technological innovation, improves the system and mechanism of scientific and technological innovation, strengthens incentives for scientific and technological innovation, adheres to the principle of "availability and feasibility", continues to promote the implementation of a package of incentive guarantee mechanisms, effectively transforms policy dividends

into scientific and technological productive forces, enhances the sense of gain of enterprises from scientific and technological innovation, and provides a strong guarantee for scientific and technological innovation. In 2023, a mid-term assessment was conducted for the Group's Phase I project of "open competition mechanism to select the best candidates", and bonuses were given to 6 outstanding projects during the evaluation.

Achievements · 2023

- Through the creation of an innovation system of "1+17" enterprise technology centers, the Group and its affiliated Sinoma Science & Technology Co., Ltd. and China Triumph International Engineering Co., Ltd. gained excellent evaluation results of the national enterprise technology centers in 2023.
- It promoted cross-border integration of innovation resources such as well-known universities and leading technology enterprises, and completed the reorganization plans of three national key laboratories.
- It secured the approval for the national defense technology innovation center of glass-based functional material, completed the construction of the Composites Industry Center, a part of National New Materials Testing and Evaluation Platform, and the national dual-carbon public service platform, obtained the license from the Ministry of Industry and Information Technology for the advanced inorganic non-metallic material industry center, and established the CNBM Technical Equipment (Hefei) Research Institute.
- With the creation of a "technology + industry + service" "Belt and Road" materials innovation model, it built overseas innovation platforms such as the China-Egypt joint laboratory for high-performance fibers and composites, which received praise from on-site inspections by the Ministry of Science and Technology.
- With the innovative implementation of the "113N" overseas new materials cooperation model, it confirmed the strategic cooperation framework agreement with Saudi Arabian Oil Company (Saudi Aramco) and offered new layouts of overseas innovation platforms such as the China-Middle East Joint Laboratory for New Materials, the China-France Carbon Neutrality Joint Research Center, and the China-Algeria Joint Laboratory for "Belt and Road" Materials.

Cultivating innovative talents

CNBM thoroughly implements the workforce development strategy, insists on identifying talents in innovative practices, cultivates talents in innovative activities, gathers talents in innovative undertakings, continues to deepen the incentive mechanism for scientific and technological talents,

accelerates the training of leading talents in scientific and technological innovation, focuses on key areas such as cement-based materials, composite materials for large aircrafts and new glass materials, vigorously cultivates and uses strategic scientists, leading talents and innovative teams, introduces scarce high-end scientific and technological talents; cultivates a culture of innovation, promotes the spirit of scientists, respects the

pioneering spirit of employees, allows young scientific and technological backbones who are truly innovative and practical to take the lead and play the leading role, guides the majority of scientific and technological talents to display their abilities and talents, and continuously activates the surging momentum of the high-quality development of CNBM.

Digital Reading · 2023

38,000

Scientific and technological research and development personnel



1

Academician



9

Academician workstations



4

people were awarded the title of "Outstanding Chief Engineer in the Cement Industry in 2023"

In the early stage of the development of the T800 aviation prepreg project, there was a lack of performance testing equipment, insufficient knowledge of resin, and weak foundation of sample preparation and testing level. Through comprehensive study, professional and technical exchanges, research and inspection, the team members overcame one technical problem after another, promoted the smooth development of T800 aviation prepreg and toughened epoxy resin, and made huge breakthrough in T800 aerospace prepreg and 3rd-generation toughened epoxy resin project. CNBM's self-developed aviation toughened resin has a good match with SYT55G, and the key composite properties of the prepared prepreg reach the indicators of large aircraft.



T800 Carbon Fiber Prepreg Research and Development Team

Achievements of Technological Innovation

As a central enterprise in China's building materials industry, CNBM gives full play to its role as a national team and main force in the field of inorganic non-metallic materials. Based on the attributes of a state-owned capital investment company, it focuses on its main responsibilities and main businesses, vigorously implements the innovation-driven development strategy, provides strong support for improving core competitiveness and enhancing core functions, and continuously promotes high-level scientific and technological self-reliance and independence.

Scientific and technological self-reliance and independence

CNBM focuses on the "Four Aspects", actively integrates into the national research system, fully undertakes major national scientific and technological research projects, strengthens the dominant position of enterprises in scientific and technological innovation, accelerates the construction of original technology sources for inorganic non-metallic materials; focuses on strategic emerging industries and future industries, continues to increase research and industrialization efforts on the basis of achieving key technological

breakthroughs and industrial mass production in the fields of new glass materials, high-performance carbon fiber and glass fiber, megawatt wind turbine blades, lithium battery separators, advanced ceramics, artificial lenses, and new graphite materials, deploys key and core technology research throughout the entire chain of technological innovation decision-making, R&D investment, scientific research organization, and achievement transformation, strengthens the supply of original technology, breaks through a number of new "bottleneck" technologies as soon as possible, accelerates the formation of new quality productivity in key material fields, and helps build a modern materials industry system.

In 2023, the group built 8 test lines or pilot lines, including T1100 carbon fiber, silicon nitride bearing balls for wind power, and low dielectric glass fiber; demonstrated and transformed a number of original achievements, such as oxygen-combustion coupled carbon capture, low-carbon grinding equipment, large offshore wind turbine blades, 70MPa hydrogen storage cylinders, aramid-coated lithium films, localization of overseas glass fiber raw materials, large-size ZnS/ZnSe infrared optical materials and high-efficiency cadmium telluride power generation glass, played a good role as the national team for key materials research, and forged national strategic scientific and technological strength.

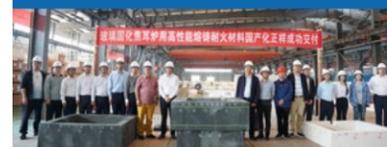


Action · 2023

- CNBM implements the list-based management of the rights and responsibilities of the leaders of the Group's "open competition mechanism" projects.
- CNBM organizes and establishes 28 Phase II projects of the Group's "open competition mechanism" initiative, and gathers superior innovative resources to carry out joint research.
- <T02-CNBM innovatively adopts the combined method of the Group's "seed" fund and special funds from enterprises with technical needs.
- CNBM sets up three types of projects comprised of application demonstration research, world-class research, standard leadership, and policy research.

The Pillar of the Country Scaling New Heights

Key refractory materials for glass solidification projects in China have realized the localization for the first time



The high-performance fused cast refractory materials for glass solidification Joule furnaces developed through innovation by Ruitai Materials Technology Co., Ltd. (Ruitai Technology) were successfully delivered, showing that China successfully conquered the "bottleneck" in key technologies and processes of lining materials of glass solidification Joule furnaces for nuclear waste high-level radioactive liquid waste for the first time. The independently developed fused cast zirconia-chrome-corundum products have broken the long-term technical monopoly of refractory materials for Joule furnaces in Europe and America. It is the first time that key refractory materials for glass solidification projects in China have realized localization, strongly promoting the safety and sustainable development of China's nuclear energy industry.

The first domestic set of continuous rotary kiln with an annual output of 10,000 tons of anode materials for lithium-ion batteries has been successfully delivered.



The first domestic set of continuous rotary kiln with an annual output of 10,000 tons of anode materials for lithium-ion batteries independently developed by Xianyang Keyuan New Material Equipment Co., Ltd., a wholly-owned subsidiary of Xianyang Ceramics Research and Design Institute Co., Ltd., was successfully delivered, marking a major breakthrough in the production of lithium-ion battery materials in China. By overcoming difficulties in key technologies and processes such as sealing form, heating method, and prevention against adherence to the wall, it has achieved high efficiency and continuity in the production of anode materials for lithium-ion batteries. Compared with the original mature equipment, the diameter of the kiln for 10,000-ton anode materials for lithium-ion batteries has been enlarged by 30% and the length has increased by 40%. The successful operation of this rotary kiln has improved the production efficiency of anode materials for lithium-ion batteries and reduced energy consumption by 15% in the production process, saving more than 20% of costs for customers.

The world's first UHPC150 wind power hybrid tower enters engineering application.



Suzhou Concrete and Cement Products Research Institute Co., Ltd. accurately targets the huge application potential of UHPC in engineering infrastructure construction, deeply cultivates and strengthens independent innovation capabilities, and forms a "special UHPC research and development team". After seven years of innovative research and development, it explores the theory and practice of UHPC engineering application. In 2023, the ultra-high performance concrete (UHPC) tower tube segments with concrete strength grade C150 developed by Suzhou Concrete and Cement Products Research Institute Co., Ltd. were successfully applied in a 180-meter wind power hybrid tower, and the height of the concrete tower tube reached 157.4 meters. This marks the entry of the world's first UHPC150 wind power hybrid tower into engineering application and is also a huge leap for the domestic wind power industry.

The world's longest wind turbine blade has been successfully hoisted.



The 123-meter ultra-long wind turbine blade produced by Lianyungang Zhongfu Lianzhong Composite Group Co., Ltd. began to be installed offshore. The installation site is in the Pingtan Wind Farm in Fujian Province. This is the longest wind turbine blade in China that has entered the installation stage and will be used for the world's first ultra-large-capacity 16-megawatt offshore wind turbine.

The world's largest rotor sail sets sail smoothly



The rotor sail manufactured by Lianyungang Zhongfu Lianzhong Composite Group Co., Ltd. was successfully installed at the shipyard, marking the birth of the world's first bulk carrier equipped with a rotor sail with a diameter of 5 meters and a height of 35 meters. The application of wind-assisted rotor sails in actual ships has taken a leap forward.

New materials help the aerospace industry.



Soaring in the blue sky: Lianyungang Zhongfu Lianzhong Composite Group Co., Ltd. undertakes the localization-oriented development task of the main landing gear door of domestic large aircraft. It has completed the key technology research and typical structural sample manufacturing of the inner door and middle door of main landing gear.

Chasing Dreams in Space: The 362C time controller developed and produced by the Horological Research Institute of Light Industry (HRILI) affiliated to China Building Materials Academy Co., Ltd. (CBMA) is applied to the return capsule of the Shenzhou-17 manned spacecraft and has independent intellectual property rights. Beijing Composite Materials Co., Ltd. developed medium-density premix for integrated heat prevention/insulation used in key parts of the Shenzhou-17 manned spacecraft, the heat shield panel at the bottom of the engine of the Long March-2F Y17 carrier rocket, and the high-performance ablation-resistant resin for the escape tower of the Long March-2F Y17 carrier rocket, escorting the Shenzhou-17 manned spacecraft to chase dreams in space. The high-strength yarn developed by CSG Holding Co., Ltd. is respectively applied to the heat-proof structural parts of the Long March-2F Y17 carrier rocket and the thermal insulation layer of the return capsule of the Shenzhou-17 manned spacecraft, providing reliable guarantee for rocket launch, docking of the spacecraft and the Tianhe core module, and the safe return of astronauts. Tianjin Beacon Coating Industrial Development Co., Ltd. of Beijing New Building Materials Public Limited Company specially forms an aerospace coating research team to provide special coatings for the Shenzhou-17 manned spacecraft.

Collaboration on Innovation

Optimizing innovative service

CNBM increases support for innovative services, adds 8 new "specialized, high-end and innovation-driven SMEs" around new energy, new materials and other fields, declares 4 single-item champion enterprises in the manufacturing industry around the fields of new materials such as high-performance carbon fiber, special glass fiber, and special photoelectric functional glass; actively "finds solid food" for enterprises, acquires the approval of a total of 24 projects including major technical equipment research of National Development and Reform Commission, high-quality development, national key research and development plans, and items supporting national defense, obtains special financial funds of RMB 700 million; secures the sources of innovative R&D expenditure, assists the Group's Finance Department to apply for state-owned capital of RMB 1.5 billion; and organizes the Group's finance company to successfully issue the finance company's first carbon capture syndicated loan to Qingzhou Zhonglian Cement Co., Ltd. at an interest rate of 2.3% with a term of 3 years, completing the first case practice of financial support for the transformation of building materials industry in China.

Deepening internal collaboration

CNBM focuses on the greening of basic building materials and the high-end, mass-production and internationalization of new materials, highlights the condensation of major common technical needs from actual production, makes full use of the advantages of the Group's ultra-large-scale application scenarios, establishes an industry-research docking mechanism and communication platform, and encourages manufacturing enterprises to open application scenarios, release innovative needs, and promote the large-scale application and iterative upgrading of new technologies, new materials, and high-end equipment.

CNBM adheres to open sharing and collaborative integrated innovation, lays out the innovation chain around the industrial chain, deepens long-term cooperation with universities and scientific research institutions, gives full play to the role of "question setter" and "question answerer" of technology-based enterprises, and

accelerates the establishment of an industry-research cooperation mechanism based on the premise of revenue and risk sharing, intellectual property sharing and protection period lock-in, continuously providing new momentum and new opportunities for the development of new quality productivity.

Carry out joint innovation

We aim at the needs of major national strategies and major projects. Leveraging the advantages of 26 national-level scientific research institutes, more than 38,000 scientific researchers, and 26,500 valid patents of the group, we deeply promote innovation integration with central

enterprises, central and local governments, universities, etc. by integrating innovative elements such as talents and platforms. We carry out joint research, create a collaborative innovation consortium, achieve a win-win situation for multiple parties.

China National Building Material Company Limited: Successfully issued the first science and technology innovation renewable corporate bond

In June 2023, China National Building Material Company Limited accurately grasped the issuance window of the bond market and successfully issued the first science and technology innovation renewable corporate bond. The total issuance scale is RMB 2 billion. The maturities are 2+N years and 3+N years respectively. The nominal interest rates are 2.87% and 3.03% respectively. The full subscription multiples are more than 4 times and 6 times respectively. The nominal interest rate hits a new low for that of perpetual bonds with the same maturity in the whole market this year. The successful issuance of this science and technology innovation renewable corporate bond is a powerful measure for China National Building Material Company Limited to further use the bond market to serve the national innovation-driven development strategy and unblock diversified financing channels.

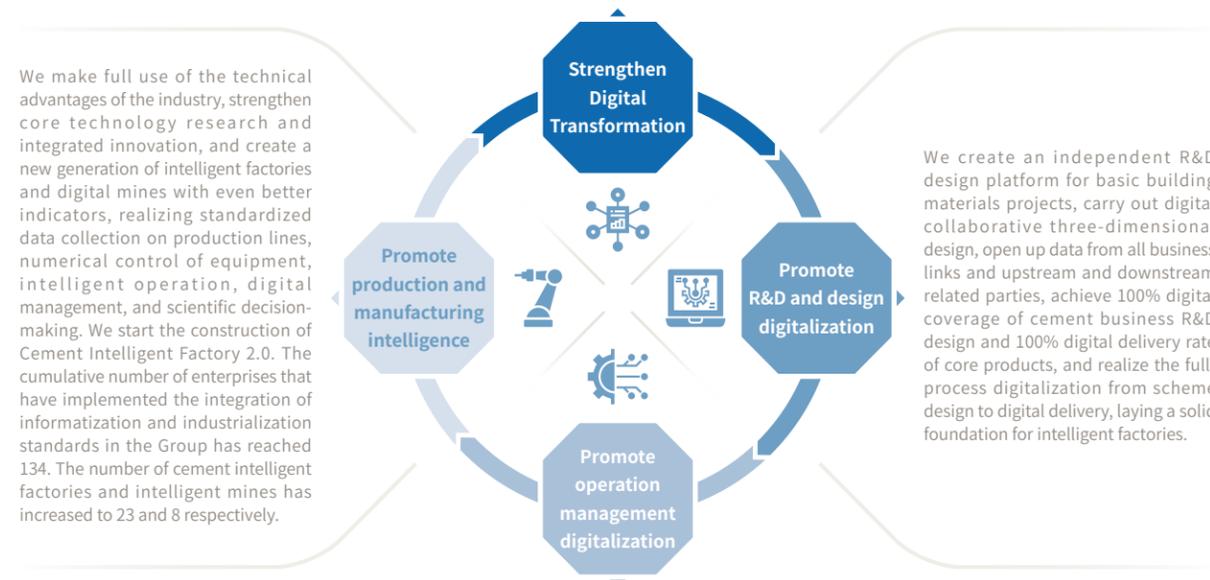


Digital Transformation

CNBM complies with the general trend of the digital economy, grasps the industrial opportunities brought by digital upgrades, regards digital transformation as a must-answer question related to the survival and development of enterprises, firmly establishes the corporate mission of "creating a better world with materials" and the digital vision of "digitalization leading material

creation", regards 2023 as the first year of digital upgrading and insists on completion of drawing a blueprint for digital transformation work. Focusing on digitalization of R&D and design, intelligent production and operations, and agile user services, it accelerated the release of new digital momentum and drive digital value enhancement with digital transformation.

We put forward the group's vision of "Digital Leading Material Creation", draw up the "1254" digital development blueprint, clarify the three-stage digital promotion path of "laying a foundation, consolidating, and upgrading", establish the Group's digital management center, and start building the "three systems" of process governance, data governance, and digital governance as well as the digital foundation of "one network" and "one cloud", designate digitization as the "No. 1 project" of the cement business segment.



We make full use of the technical advantages of the industry, strengthen core technology research and integrated innovation, and create a new generation of intelligent factories and digital mines with even better indicators, realizing standardized data collection on production lines, numerical control of equipment, intelligent operation, digital management, and scientific decision-making. We start the construction of Cement Intelligent Factory 2.0. The cumulative number of enterprises that have implemented the integration of informatization and industrialization standards in the Group has reached 134. The number of cement intelligent factories and intelligent mines has increased to 23 and 8 respectively.

We create an independent R&D design platform for basic building materials projects, carry out digital collaborative three-dimensional design, open up data from all business links and upstream and downstream related parties, achieve 100% digital coverage of cement business R&D design and 100% digital delivery rate of core products, and realize the full-process digitalization from scheme design to digital delivery, laying a solid foundation for intelligent factories.

We carry out management processes and data governance, improve data analysis tools and models, and promote online and visualized operation activities such as planning, organization, control, and coordination. We gradually realize business analysis's digitization, real-time, and systematization. The group's treasury system is launched, and the visualization rate of domestic accounts is 100%, fully realizing intensive management and dynamic monitoring of funds. The construction of the data center in the industrial Internet industrial park has started. The "Vehicle Calling" intelligent logistics platform and big data platform for cement waste heat power generation are selected as pilot demonstration projects of the big data industry by the Ministry of Industry and Information Technology.



Digitalization of R&D and design



Intelligent production and manufacturing

03



Optimal ecology Create a sustainable future

The report to the 20th CPC National Congress points out that Chinese-style modernization is modernization characterized by harmony between humanity and nature. We must firmly establish and act on the concept that lucid waters and lush mountains are invaluable assets. We should plan for development from the perspective of promoting harmonious coexistence between humanity and nature. CNBM actively practices the concept that lucid waters and lush mountains are invaluable assets, promotes full-cycle green management and strengthens green innovation, green manufacturing, green production, and green services, earnestly transforms the building materials industry into an environment-friendly industry, helping the industry and the country achieve the "dual carbon" goals as soon as possible, makes the sky bluer, the waters clearer, and the land greener, and contributes the strength of building materials to building a green and beautiful homeland.

Response to the United Nations Sustainable Development Goals (SDGs)



Environmental Protection Investment

RMB **4.12** billion

National-level green factory

111

National-level green mine

43

📍 The appearance of Sinoma Luoding

Green Management

CNBM unswervingly takes the road of sustainable development with ecological priority, closely follows the main line of green development, continuously strengthens environmental protection management, accelerates green, low-carbon and circular development, achieves powerful carbon reduction, effective energy conservation, quantified emission reduction, orderly rectification and risk prevention, and continuously improves the level of green and low-carbon development. In 2023, the Group's ecological and environmental protection supervision platform was initially completed, realizing visible, knowable and controllable risks in energy and environmental protection management, and effectively promoting the improvement of energy and environmental protection management level. No major ecological and environmental incidents occurred throughout the year.

Promote special rectification

- We checked and dispatched the rectification situation of environmental protection inspections every month and compacted the responsibilities for inspection and rectification. All 46 rectification tasks and 180 rectification measures of the central ecological and environmental protection inspection had been completed.
- We carried out special environmental protection rectification actions for enterprises related to the Yangtze River and Yellow River basins. A total of 258 problems were identified and rectified under ledger-based closed-loop management and control.
- We organized 564 enterprises related to the Yangtze River and Yellow River basins to conduct a comprehensive inspection of ecological and environmental issues. A total of 211 issues were identified and all had been implemented for rectification.

Strengthen problem governance

- We deployed and carried out special ecological and environmental protection work such as rain and sewage diversion and investigation and rectification of hazardous waste. Preliminary results were achieved in rain and sewage diversion construction and compliant management of hazardous waste.
- We promoted pollution reduction and carbon reduction, energy-saving technological transformation, and discharged pollutants in accordance with laws and permits. The total emission dropped significantly, the energy consumption per unit of the product continued to decline, and the fuel substitution rate of biomass, high calorific value solid waste and other fuels steadily increased.
- We organized 767 production enterprises to carry out special investigation and rectification work related to hazardous waste. All the identified problems were implemented for rectification.

Prevent environmental risks

- We quickly responded to the sudden environmental public opinion event of LCR, handled it actively, stably and effectively, avoided the risk of negative public opinion, and received a letter of thanks from the Atmospheric Environment Department of the Ministry of Ecology and Environment.



The scenery of Kharchin Grassland Cement Plant

Green Production

CNBM runs the concept of green development through every link of raw and fuel material selection, production process and product application, pursues energy conservation and pollution control and carbon reduction in the whole process, promotes the

continuous transformation and upgrading of the building materials industry to "ecological green", and transforms it into an environment-friendly industry, making the blue sky bluer, the clear water clearer and the earth greener.



Digital Reading · 2023

The Wuzhong Saima photovoltaic power generation project can save about

176

tons of standard coal.

Reduce carbon dioxide emissions by approximately

438,680 kilograms

Equivalent to planting

4,400 trees every year

Digital Reading · 2023

Consume industrial wastes such as slag and smelting waste are more than

105 million tons



The installed capacity of photovoltaic power generation has increased year-on-year

45.6 %



The annual reuse volume of water resources reaches

1.67 billion tons



The number of "photovoltaic plus" factories has increased to

58



Green energy power supply volume Year-on-year Growth

80.2 %



The rate of reused water remains

92 % above



Green Material Selection

By the end of 2023

- the Group's cement waste heat power generation from cement kilns, with a cumulative installed capacity of about

2,000

MW

We always adhere to the concept of "Making Good Use of Resources and Serving Construction". We actively carry out technological innovation. Under the premise of ensuring product quality, we use industrial by-products such as slag, steel slag and fly ash as raw materials as much as possible. We also continuously promote the recycling of solid waste and waste water, and strive to reduce the consumption of natural resources. In 2023, the Group's solid waste consumption exceeded 105 million tons. At the same time, in terms

of energy selection, we vigorously develop cement waste heat power generation from cement kilns, actively explore the use of non-fossil energy sources such as solar energy and biomass, and strive to increase the proportion of clean energy use. By the end of 2023, the Group's cement waste heat power generation from cement kilns, with a cumulative installed capacity of about 2,000 megawatts. The annual power generation is 7.24 billion kilowatt-hours, which is equivalent to reducing carbon dioxide emissions by about 4.03 million tons.



Sinoma Wind Power Blade Co., Ltd. released the world's longest 118-meter wind turbine blade for "deserts, Gobi, and wastelands". This blade is made of recyclable high-performance environmentally friendly materials, which is of great significance for improving the service life of wind turbine blades and reducing environmental load. Scan the code to learn more.



Sanming South Cement Co., Ltd.: Carry out hazardous waste disposal and alternative fuel utilization to help save energy and reduce emissions

In recent years, Sanming South Cement Co., Ltd. has deeply integrated new-quality productive forces in production practices. Adhering to the development concept of green, low-carbon and energy-saving, it has actively carried out hazardous waste disposal and the use of alternative fuels. In 2023, Sanming South Cement Co., Ltd. co-processed as many as 26,400 tons of various hazardous wastes including high-calorific value hazardous wastes such as essential oil residues and coal tar residues. It has saved 1,000 tons of standard coal annually and reduced carbon emissions by 2,700 tons. At the same time, it also uses general solid wastes such as garment and shoe leftovers and waste cloth strips that are abundant in coastal areas of Fujian Province as alternative fuels. After technological transformation and optimization, the use of general solid wastes has reached 17,900 tons, replacing 12,700 tons of coal, further reducing carbon emissions by 34,300 tons. At the same time, it has created an annual benefit of more than RMB 5 million for the enterprise.



Green Manufacturing

We actively implement the new development concept, take the lead in practicing the "dual carbon" goal, continuously establish and improve the green manufacturing system, strengthen the ecological environment management of member enterprises, strictly implement emission standards and requirements, develop clean and environmentally friendly energy sources such as photovoltaic, wind power, and hydrogen energy, continuously reduce pollutant emissions in the building materials production process, and promote the greening of the entire manufacturing process. At the same time, we actively innovate collaborative disposal and operation models, build a green supply chain and circulation system, and strive to achieve green and sustainable development of the entire industrial chain.

In 2023, we made great efforts to implement the Notice on Further Strengthening the Renewal and Transformation of Product Equipment in Key Fields. Centering on optimizing the energy consumption structure, improving energy consumption efficiency, and strengthening energy consumption management, we organized and promoted the implementation of energy-saving technological transformation and industrial energy-saving diagnosis, and the energy efficiency level continued to be optimized.

Achievements · 2023

- Twelve enterprises of China National Building Material Company Limited were selected for the 2023 Green Manufacturing List of the Ministry of Industry and Information Technology.
- The "industrialization and application project of large-area and high-efficiency cadmium telluride power generation glass technology" cooperated by China Triumph International Engineering Co., Ltd. and German CTF Solar GmbH was selected as a typical case of China-Europe cooperation on green and low-carbon development.

Digital Reading · 2023

The total comprehensive energy consumption decreased year-on-year

7.6 %



Carbon dioxide emissions per 10,000 yuan of output value decreased year-on-year

12.9 %

Emissions of nitrogen oxides, sulfur dioxide, and dust decreased year-on-year respectively

11.4 %

5.7 %

24.4 %



- We have solidly promoted energy-saving technological transformation of over-limit production lines. Eighty-three clinker production lines with excessive energy consumption and 158 cement grinding production lines with excessive energy consumption have been completely cleared. The energy consumption per unit product of cement clinker of the group has been continuously optimized, dropping to 103.93 kilograms of standard coal per ton, a year-on-year decrease of 3.90%.
- We actively promote the ultra-low emission transformation work and carry out inspections for ultra-low emission transformation. After review by China National Building Material Co., Ltd. and Tianshan Material Co., Ltd., 321 production lines (including grinding stations) that need ultra-low emission transformation and 26 production lines to be phased out were identified.

Vigorously implement energy conservation and emission reduction

Promote the implementation of "dual carbon" goals

- We take the lead in organizing the first meeting of the working group on "dual carbon" policy research in the cement industry to promote the implementation of the national "dual carbon" strategy in the entire industry.
- We signed a "Framework Agreement on Voluntary Emission Reduction Trading" with China Forestry Group Corporation to promote the implementation of the largest forestry carbon sink transaction among central enterprises.
- We consolidate the group's carbon emission data foundation and organize the summary, collation and analysis of carbon emission verification data of 67 cement enterprises.
- Four major projects including the Hefei Southern Intelligent Engineering Project and the cement carbon capture and full oxygen combustion project were successfully completed, and the remaining seven projects are advancing in an orderly manner.
- The 200,000-ton annual carbon capture project of China United Cement Qinzhou Co., Ltd. is in the final stage.

Green Products



Basic Building Materials Sector

- We develop and use industrial waste resources as raw materials and high-calorie waste as alternative fuels to produce high-quality green and low-carbon cement products.



New Materials Sector

- We start from the source of formulations to do a good job in green design, vigorously develop new energy materials such as wind turbine blades and power generation glass, and promote the green upgrade of new material products.

We pay attention to the full life cycle performance of products in terms of green. Relying on technological innovation, we actively promote green manufacturing. With the lowest possible energy consumption and carbon emissions, we strive to create green and low-carbon "pillar of the country". We provide building materials products that are reliable in quality, safe, green, environmentally friendly and low-carbon for customers. Under the premise of ensuring product quality and transportation safety, we actively promote simplified packaging, use recyclable packaging materials as much as possible, and reduce packaging waste to help improve the effectiveness of sustainable development of the whole society.

In 2023, more than 10 projects involving green and low-carbon industries, such

as the complete set of technology and engineering applications of thin-film solar cells and the development of large-sized offshore wind turbine blades, were carried out. We strengthened the R&D and application of low-carbon building material products such as new cementitious materials and low-carbon concrete, and accelerated the certification and application promotion of green building material products, leading the building materials industry to accelerate green transformation. The "refractory decorative board" and "medical clean board products" of Sinoma Qianjiang, as well as the asbestos-free calcium silicate board/fiber cement flat plate of Sinoma Yichang have obtained the three-star certification of China Green Building Materials products, reaching the highest national standard for green building materials products.

China Jushi: Market-oriented, making the industrial ecology "beautify".

Building a new green industrial system for glass fiber is the key to the green and low-carbon transformation of the glass fiber industry. As the main body of the glass fiber industry, China Jushi uses green technology to create green products and continuously leads the trend of green consumption. It has built a full-chain ecological industrial system for glass fiber through both internal and external efforts. In the upstream, it actively drives the glass fiber industry chain to carry out low-carbon and environmental protection work, conducts a "dual carbon" survey and research on the main suppliers involved, and at the same time carries out forest carbon sink cooperation to jointly shape a sustainable future with suppliers. In the downstream, glass fiber is redefining materials and shaping a new business format for downstream industries. In 2023, the company's green product output accounted for 100% and green product sales accounted for 100%, which is at the leading level in the industry.



Green Services

As the world's largest comprehensive building materials industry group and a world-leading developer of new materials and comprehensive service provider, CNBM has always adhered to the corporate mission of "Materials create a better world" and strived to provide customers with multiple types of green products and services, helping to continuously optimize and upgrade the green industrial structure and service level.

Professional Technical Services

We use high-efficiency and energy-saving firing system, pollutant emission reduction technology, waste heat power generation, cooperative disposal and other technologies to continuously provide some energy-saving and environmental protection technical services, such as professional environmental monitoring and diagnosis, technical transformation and intelligent control. In 2023, the "Integrated technology and application of low-carbon and energy-saving for cement clinker firing system" independently developed by TCDRI was successfully selected into the "Top 20 advanced and applicable low-carbon technologies in the raw material industry in 2023".



The cement waste heat power generation technology independently developed by Sinoma Energy Conservation Co., Ltd. has been successfully applied in Huaikan South Cement.

Integrated Consulting Services

Relying on China Certification and Inspection Group, the largest comprehensive third-party inspection and certification service organization in the field of construction materials inspection in China, we provide consulting, evaluation and certification services in energy assessment, energy management system certification, CDM project, green building materials evaluation, carbon verification and other

services. In April 2023, the R&D and Application of Refined Management Solution for River Outfalls completed jointly by China Building Material Test & Certification Group Co., Ltd. and its affiliated Beijing Aodaqing Co., Ltd. won the second prize of the Science and Technology Award of the All-China Environment Federation in 2022.



Mohe Extreme Cold Testing Industrial Park of China Certification and Inspection Group

Ecological value-added services

We actively promote waste heat power generation and effectively utilize building material kilns to dispose of industrial by-products and urban wastes, realizing effective and harmless disposal of industrial and urban wastes. This enables traditional industries to exert new value and helps solve the "persistent,

big and difficult" problems of urban ecological governance. The Group has put into production and is building 53 cement kiln cooperative disposal production lines, with a total annual disposal capacity of 5.42 million tons.



China United Cement Luoyang Co., Ltd. utilizes cement kilns for co-processing of industrial solid and hazardous wastes

Comprehensive Service of Ecological Restoration

We actively explore environmental protection service projects, undertake environmental impact assessment, completion environmental protection acceptance, and pollutant discharge permit work for construction projects. We expand slope optimization and geological environment restoration and treatment projects, and provide green mining and mine governance services for domestic and foreign cement plants, turning quarries that were once

regarded as desolate and silent into new ecological gardens full of lush greenery. In 2023, the Yunnan General Team of the Geological Exploration Center obtained Class A qualifications for geological disaster assessment and engineering investigation and design of treatment projects, and Class B qualifications for supervision of geological disaster treatment projects.



The green mine of Mashan Mine of Dushan South Cement, which is operated and maintained by Tianjin Mine of Sinoma Mining.

Green Operation



Jushi (Chengdu) Co., Ltd. has utilized the plant roof to build the distributed photovoltaic power station with the largest single installed capacity in Chengdu at present.

CNBM actively practices the ecological civilization concept of "respecting nature, conforming to nature and protecting nature", vigorously advocates the green office, and organizes environmental protection publicity and education and environmental protection public welfare activities to stimulate environmental protection enthusiasm and improve environmental protection

literacy. At the same time, efforts are made to strengthen biodiversity protection, carry out mine reclamation and factory area greening, and strive to build various green mines and ecological factories to effectively protect the beautiful homeland of harmonious coexistence between humans and nature.

Green Office

We adhere to the concept of the green office, adhere to energy-saving and environmental protection work methods such as electronic office work, double-sided printing, and video conferences. We advocate green, energy-saving, and low-carbon environmental protection production methods, consumption patterns, and living habits among all employees. We also actively mobilize employees to participate in community prevention and control to put an end to "man-made destruction of systems, incompatibility between systems and enterprises, problems in work handover procedures, and imperfect management systems". This makes the concept of green development deeply rooted in people's hearts and makes due

Digital Reading · 2023

The number of on-site meetings replaced by video conferences is

38,897

contributions to promoting the group's quality and efficiency improvement and realizing green and sustainable development.

Environmental Protection Publicity and Education

We combine events such as the World Earth Day, National Energy Conservation Publicity Week, and National Ecology Day to widely mobilize enterprises at all levels to organize various forms of ecological civilization publicity and education activities. We study, publicize, and implement Xi Jinping Thought on Eco-Civilization, promote green, circular, and low-carbon development, and use the spirit of perseverance to continuously achieve new results in ecological civilization construction. In 2023, we initiated the knowledge competition on energy conservation and ecological environmental protection. A total of 1.02 million people logged into the system to answer questions. Competitions were used to promote training, further examining and enhancing the knowledge level and vocational technical ability of the group's energy conservation and environmental protection personnel.



CNBM jointly initiated and established the "Six Zero Green Building Materials Day".

Ecological Protection

We continuously implement Xi Jinping Thought on Eco-Civilization, actively carry out the construction of green mines and ecological factory areas, conduct ecological restoration and treatment of mines, adopt the combination mode of trees, shrubs and grasses to restore vegetation, restore as much as possible and plant as much as possible, continuously increase the green area within the factory area, and build garden

factories and beautiful factories. At the same time, we will increase efforts to protect biodiversity and actively explore and promote the modernization of harmonious coexistence between humanity and nature, contributing wisdom and strength to promoting global biodiversity protection and building a beautiful homeland of harmony among all creatures.



Sinoma Anhui: Transform and upgrade towards "ecological green".

Sinoma Anhui closely follows the goal of green and low-carbon development and promotes the full implementation of green manufacturing by taking measures such as energy conservation, low carbon, and green transformation to achieve a harmonious situation where enterprise green development and environmental protection coexist and prosper. Sinoma Anhui has successively invested a large amount of funds in energy-saving technological transformation and achieved good energy-saving effects. At the same time, in order to strengthen in-depth treatment of safety and environmental protection, it took the lead in introducing composite desulfurization technology, carried out a series of ecological protection facility transformations such as graded combustion denitrification technological transformation, expanded the bag filter at kiln tail, and implemented ultra-clean emission technological transformation to reach the ultra-low emission standard of Anhui Province. The company has been awarded the title of "Honest Unit in Environmental Protection Credit Evaluation of Anhui Province" for five consecutive years. On the basis of being a provincial-level green factory, it was awarded the honorary title of a national-level green factory in 2023.



04



Helping Employees' Growth Helping employees' growth

The report of the 20th National Party Congress of the Communist Party of China pointed out that cultivating a large number of high-quality talents with both ability and political integrity is a major plan for the long-term development of the country and the nation. Employees are an inexhaustible driving force for the high-quality development of enterprises. Employees are an inexhaustible driving force for the high-quality development of enterprises. CNBM adheres to the people-oriented development concept, coordinates development and safety, safeguards employees' rights and interests, strengthens care for employees, and is committed to creating a happy and healthy workplace to achieve the common growth of employees and enterprises.

Response to the United Nations Sustainable Development Goals (SDGs)



Total number of employees

207,784

Investment in occupational health and safety

RMB 2.2 billion

Expenditure on visiting and helping special and needy employees is

RMB 10.978 million

Safety and Prudence

We resolutely implement President Xi Jinping's important instructions on work safety, adhere to the safety development concept of "putting people first and life first", continuously increase investment in work safety, strengthen the red line awareness and bottom line thinking of work safety, and build a strong line of defense for work safety. In 2023, no major work safety accidents occurred, and the work safety situation remained stable continuously.

Safety Management

Safety responsibility is the most important thing. We attach great importance to work safety. We continuously improve the work safety management system. We have established a regular meeting system for the safety committee and an interview mechanism for work safety accidents of the group. We implement checklist-based management of safety for member enterprises, effectively

compact the main responsibility for work safety of each enterprise.

We conduct in-depth investigations of major risk hazards in work safety, carry out special rectifications for work safety, strengthen emergency management of work safety, effectively prevent and suppress the occurrence of work safety accidents, and contribute to building intrinsically safe enterprises.



Investigation of potential hazards in work safety

- Organize and carry out special rectification actions for major potential hazards in work safety of the group and supervision actions for the investigation and rectification of major potential hazards in work safety in 2023. Conduct cross-inspections on safety and environmental protection for key enterprises. Promote the rectification of potential hazards in accordance with "list management, listing important matters and conducting continuous tracking and supervision, checking off against the list, and closed-loop control."



Prevention and control of work safety risks

- Hold work safety teleconferences at all levels. Carry out special tasks such as safety prevention and control in key industries and accident prevention during key periods. Conduct warning education and accident analysis meetings to analyze accident causes, review work gaps, and prevent work safety risks.



Emergency management of work safety

- Construct a safety emergency support system for Chinese employees overseas. Strengthen the construction of the emergency response capabilities of key personnel in production and operation links. Actively carry out safety emergency plan drills. Improve the emergency management level of key personnel and their ability to respond to emergencies to prevent safety accidents from occurring.



Work safety management of mines

- Strictly implement the Opinions on Further Strengthening Work Safety in Mines. Conduct investigations on the current situation of safety and environmental protection in mines. Use digital means to achieve comprehensive and systematic management of 312 operating, suspended, and under-construction mines of the group.



Yang Zhihui, director of the Bureau of Safety Law Enforcement and Industrial and Trade Safety Supervision of the Ministry of Emergency Management, investigated CNBM.

Safety enhancement with science and technology

"Safety enhancement with science and technology" is a fundamental solution to improve the work safety management level of the enterprise. We adhere to enhancing safety through science and technology and make every effort to promote the construction of a safety intelligent management system. We establish intelligent video surveillance covering risk areas. Through big data analysis and intelligent recognition, we accelerate

the process of applying scientific and technological informatization to work safety and systematically improve the safety management level of the enterprise. In 2023, the intelligent safety management system for cement enterprises was put into operation, playing an exemplary and leading role and providing reference significance for work safety management work in various regions and fields.



On July 14, 2023, the kick-off meeting of the first officially put into operation project since the comprehensive construction of the intelligent work safety management system of CNBM was held in Lunan Zhonglian.

Ruoqiang Tianshan Cement Co., Ltd.: Empowered by digital intelligence to help improve the intrinsic safety management level of enterprises.

Ruoqiang Tianshan Cement Co., Ltd. adheres to the safety policy of "safety first, prevention first, and comprehensive management", and steadily promotes digital transformation. In 2023, with the help of CNBM Xinyun Zhilian Technology Co., Ltd., it completed the construction and deployment of the intelligent safety production management system and put it into operation. After intelligent and digital construction, the company has implemented many digital application scenarios in aspects such as safety business management, intelligent video AI, all-in-one access control, and personnel positioning, providing efficient supervision means and a digital platform for enterprise safety management.



Safety Culture

We continuously strengthen the construction of safety culture. Actively hold a series of activities such as special training on work safety, safety knowledge competitions, and

Work Safety Month. Solidly carry out the creation of outstanding individuals and organizations with "zero violations". Organize cadres and employees at all levels to learn work

safety knowledge and strengthen work safety awareness, so that safety culture is solidified in the mind and implemented in actions.

Digital Reading · 2023

Select outstanding organizations with "Zero Violation".

1,957



Outstanding individuals

6,894



Intermediate Certified Safety Engineer Pre-exam training and continuing education coverage employee

195



Action · 2023

- Ningxia Building Materials Group Co., Ltd. organizes and carries out the management observation activity of "Work Safety Month". Through mutual exchanges between enterprises, a strong safety culture atmosphere is created, and the implementation and transformation of various observation results are promoted to continuously improve the safety management level of the enterprise.
- China Jushi organizes summer and winter 100-day safety competition activities. It ranks and assesses its affiliated companies from multiple dimensions such as safety data indicators, safety publicity and education, hidden danger investigation and treatment capabilities, and emergency management levels, creating a good safety atmosphere of emulation, learning, catching up, and surpassing, and realizing safety culture activities throughout the year.
- Sinoma International Engineering Co., Ltd. organizes multiple special trainings such as a publicity and training session on the special achievements of the responsibility system for work safety for all employees, a training session on overseas occupational health and overseas employee safety emergencies, and many interesting activities such as the fifth short video shooting and selection on safety themes, safety riddles with prizes, safety dressing competitions, and essay collections on "Everyone Talks about Safety." It also sets up special columns on safety on multiple platforms to create a strong safety atmosphere.

Employee Rights and Interests

We always respect and safeguard all human rights recognized internationally. We strictly follow laws and regulations such as the Labor Law and the Labor Contract Law. We adhere to equal employment and sign labor contracts with employees in

accordance with the law. Effectively safeguard employees' rights and interests, respect employees' individual differences, and be committed to creating an equal, diverse and inclusive workplace culture.

- Adhere to the principle of equal employment. Do not use gender, age, nationality, ethnicity, religious belief, skin color, etc. as recruitment requirements. Strictly prohibit and resist employing child labor in any form. Pay attention to vulnerable groups. Eliminate employment and occupational discrimination. Respect and safeguard human rights.
- Strengthen the management of employees' personal information. Always protect employees' personal information in the process of cadre selection and appointment, assessment and evaluation, employee recruitment, physical examination, use and maintenance of human resources systems, intermediary consulting, and daily information statistics. Prevent the occurrence of incidents of leaking employees' personal privacy.



- Establish a salary growth mechanism that matches economic benefits, implement a paid vacation system, and provide employees with salaries that are competitive in the market. Pay social insurances such as basic pension insurance, basic medical insurance, unemployment insurance, work-related injury insurance and maternity insurance for employees in accordance with the law. Continue to improve supplementary medical insurance, enterprise annuity and regular physical examinations. Encourage member enterprises to handle other supplementary insurances such as comprehensive accident insurance for employees in combination with the actual situation of their own enterprises.
- Adhere to the work orientation centered on employees, improve systems such as the work specifications of the workers' congress and factory affairs publicity. Give full play to the role of trade unions as a communication bridge and build important channels for democratic participation, democratic management, and democratic supervision to safeguard employees' rights to know, participate, express, and supervise.

Digital Reading · 2023

Total number of employees

207,784



Employees whose ethnicity is ethnic minority

6,800



The number of female managers

3,498



Supplementary pension coverage

619



enterprises

Accumulated number of employees hired

114,385



The signing rate of labor contracts

100 %



The rate of social insurance coverage

100 %



The proportion of employees participating in the trade union

89 %



➤ Sinoma (SUZHOU) Construction Co., Ltd., affiliated to Sinoma International Engineering Co., Ltd., holds a safety knowledge competition.

Employee Development

We vigorously implement the strategy of building a talent-strong enterprise, attach importance to employee training, strive to build a high-quality employee team, smooth the career development path for employees, and do our best to create a development stage for employees to achieve the common development of the enterprise and employees. In 2023, we continuously improved the construction of the talent training institution system and established a craftsman college to provide strong talent and organizational guarantees for the high-quality development of the group and the construction of a world-class enterprise.

Improve the training system

- Formulate an annual training plan and carry out various special trainings relying on internal and external training institutions according to the training objects and training topics. Regularly hold medium-term and long-term trainings such as EMT and middle-aged and young cadres classes, and actively organize and carry out special trainings such as the rotation training class on the spirit of the 20th National Party Congress of the Communist Party of China, the sub-classrooms of the training courses for senior executives of central enterprises, and the deepening and upgrading of reforms, so as to continuously improve the political ability, management ability and professional level of cadres and employees.

Smooth the development path

- Continuously broaden the career development channels for employees, establish a multi-channel job grade system including headquarters management sequence, professional sequence, and full-time sequence, ensure that the career development channels are unobstructed and orderly, and guide employees of different types and specialties to choose career development paths suitable for themselves. In 2023, the title evaluation work for engineer, accountant, and economist sequences was carried out. 776 employees passed the evaluation, among which 421 employees were rated as senior or higher professional titles.



Hold the sixth EMT training class

Digital Reading - 2023

Investment in annual employee training

RMB **0.11** billion

various trainings were held and organized annually

A total of **69,398**

Cumulative online training has covered more than

150,000 employees

There are **776** employees who have passed the title evaluation of engineer, accountant and economist sequences.

Among them, those who are rated as senior or higher professional titles

421 employees

4 units were named as "Craftsman Colleges in the National Machinery, Metallurgy and Building Materials Industries"

Employee care

We adhere to the people-oriented development concept, integrate our own development with enhancing employee well-being, strengthen the construction of office facilities, create a safe, healthy and comfortable working environment for employees, care about employees' health and life, organize a variety of colorful cultural and sports activities, and continuously enhance employees' sense of happiness, identity and acquisition.

Digital Reading - 2023

Expenditure on visiting and helping special and needy employees is

RMB **10.978** million

Special and needy employees were offered visits and assistance

9,647

Occupational health

- Establish and improve the occupational disease prevention and work-related injury prevention system. Through measures such as conducting occupational health checkups, first aid skill training, expert health consultation activities, and labor protection and popularization of health knowledge, make every effort to protect employees' occupational health.

Women care

- Safeguard the legitimate rights and interests and special interests of female employees, and ensure that they enjoy pregnancy checkups, maternity leave, suckling leave, reimbursement of maternity insurance and maternity allowance. Nursing rooms are set up for employees on suckling period to use. The staff restaurant provides nutritional supplements for pregnant employees.

Life care

- Provide three meals a day for employees. Issue housing subsidies to eligible young unmarried employees. Establish cultural and sports facilities such as gyms and organize various leisure and entertainment activities to promote employees to achieve a balance between work and life.

Assistance for needy employees

- Implement the Staff Assistance of the "Shanjian Charity Fund" of China National Building Materials Group Co., Ltd., review the scope and conditions of assistance objects level by level, help needy employees solve practical difficulties, and effectively play the role of helping those in distress.



Winter sports meeting for employees of Ningxia Building Materials Group Co., Ltd.



China United Cement Jiyuan holds the "Charming Kite, Flying Dreams" activity for Women's Day

Scan code to view Mass Cultural and Sports Activities for Employees of CNBM Are Full of Highlights

05



with a Beautiful Society Increasing People's Well-being

The report of the 20th National Party Congress of the Communist Party of China pointed out that "we must ensure and improve people's livelihood in the course of development, encourage people to work hard together to create a better life, and continuously fulfill people's aspiration for a better life." We always keep in mind the "the top priorities of the country". We work hand in hand with our partners to discuss and build together. We comprehensively help rural revitalization. We carry out public welfare and charitable actions with heart and affection. We take the initiative to participate in emergency rescue and disaster relief activities. We show the responsibility of central enterprises with practical actions and continuously improve people's well-being. We share the development achievements of enterprises with society.

Response to the United Nations Sustainable Development Goals (SDGs)



investing in Helping Funds
RMB **88.102** million

Implementation of assistance projects
33

Total donation amount
RMB **0.11** billion

Open Cooperation

CNBM firmly believes in the development path of inclusiveness, mutual benefit and win-win results, continuously strengthens strategic cooperation, opens up new opportunities for overseas business, and establishes cooperative relationships with global partners for consultation, co-construction and sharing.

Work together for win-win cooperation

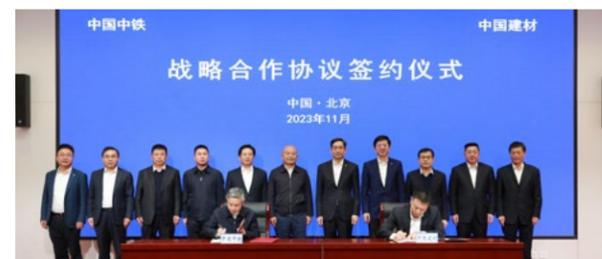
We give full play to the role of the national team and main force in the non-metallic materials industry. Keeping in mind "the top priorities of the country" and creating "the top talents of the country", we adhere to exerting efforts on both basic building materials industry and strategic emerging industries. We accelerate the construction of a modern

industrial system, gather multiple forces, and actively carry out strategic cooperation with partners such as governments, enterprises, scientific research institutions and colleges. We innovate cooperation models to achieve a strong alliance and promote complementary advantages, and jointly seek high-quality development.

CNBM signed a cooperation framework agreement with the Heilongjiang provincial government



CNBM signed a strategic cooperation agreement with Tsinghua University



CNBM signed a strategic cooperation framework agreement with China Railway Group Limited



CNBM signed a strategic cooperation agreement with Huawei Technologies Co., Ltd

Digital Reading · 2023

Since 2020, various types of strategic cooperation agreements have been signed externally

35



10

strategic cooperation agreements have been signed with provincial-level and prefecture-level city governments



Strategic cooperation agreements have been signed with various central enterprises

13



12

strategic cooperation agreements have been signed with local state-owned enterprises, large private enterprises, bank and fund institutions, and scientific research institutions and colleges



Help promote the development of the industry

We adhere to open and inclusive development. Actively organize and participate in industry exchanges and research, promote the formulation of industry standards, create an industry ecosystem of value co-creation and win-win cooperation, and boost the high-quality and sustainable development of the building materials industry.

Action · 2023



- Four industry research reports on wind turbine blades, high-purity quartz, aerogel and denitration catalysts were written and formed. The research results of aerogel were successfully applied in Shandong Industrial Ceramics Research and Design Institute.
- The Suggestion of Establishing a Mandatory Commercial Insurance Mechanism for the Waterproofing Industry was adopted by the State-owned Assets Supervision and Administration Commission of the State Council and reported to the General Office of the CPC Central Committee.

The Group: CNBM New Materials Fund Holds an Industry Partner Conference and New Materials Industry Investment Salon

On April 22, 2023, the "CNBM New Materials Fund Industry Partner Conference and New Materials Industry Investment Salon" with the theme of "New Era · New Materials · New Opportunities" was successfully held at CNBM. The CNBM New Materials Fund, deeply combining its resource endowment characteristics, adheres to the "three-step" development strategy of focusing on layout, expanding clusters, and prospering ecology. It strengthens the coordinated layout of the industrial chain of investment projects, actively builds an innovative ecosystem for the new materials industry, and strives to create a new situation of "win-win cooperation between central enterprises, local governments, industry and finance" between China National Building Material Group and Anhui Province, a new situation of two-way empowerment of financial capital and real enterprises, and a new situation of prosperous ecology of the new materials industry, promoting high-quality development of the new materials industry.



On June 15, 2023, Zhou Yuxian, Party secretary and chairman of CNBM, attended and presided over the High-Quality Development Summit of Leaders of Large Enterprises in the Cement Industry.



Rural Revitalization

The report of the 20th CPC National Congress proposed to "co-ordinate the layout of rural infrastructure and public services, and build a beautiful and harmonious countryside that is desirable to live and work in". China National Building Material Group Co., Ltd. (CNBM) deeply implements General Secretary Xi Jinping's important thesis on the

country's work related to agriculture, countryside and farmers. Establish a perfect fixed-point assistance working mechanism, promote the effective implementation of various assistance measures, organically connect with rural revitalization, and effectively enhance the economic vitality and development stamina of the assisted areas.

Strengthening Top-level Design

A country must first strengthen agriculture to make itself strong, and only when agriculture is strong can the country be strong. We deepened the fixed-point assistance work, set up a leading group for fixed-point assistance work, held regular special meetings on fixed-point assistance work, innovatively established a guarantee assistance mechanism, refined the assistance tasks, and combined the strengths of the member enterprises and the assistance districts. Effectively

combine the characteristics of the county to form a three-dimensional assistance model of "unified leadership of the group, active planning and promotion by the guaranteeing units, close attention to the implementation on the front line by the cadres on secondment, and active response and support from all member enterprises", and promote the effective connection between consolidating and expanding the achievements of poverty alleviation and rural revitalization.

On April 12, 2023, CNBM held a working conference on assisting rural revitalization in 2023.



Zhou Yuxian, Party Secretary and Chairman of CNBM, went to Suijiang County, Zhaotong City, Yunnan Province to investigate rural revitalization work.

Consolidating the Achievements of the Battle against Poverty

We continued to fulfill our political and social responsibilities as a stated-ownership enterprise, focusing on the "Five Revitalization", and increased our assistance efforts. We have gradually formed a unique assistance model of "guided by Party building, guarantee units implementation, industrial collaboration, Good Learning assistance, and e-commerce to increase income", to promote the revitalization of the countryside and help achieve common prosperity. Achievements of the CNBM's assistance For four consecutive years, the CNBM has received a "good" rating in the appraisal among the stated-owned units.

In 2023, the CNBM's rural revitalization assistance work "Good Learning Plan" was praised at the SASAC's rural revitalization work conference. "Hebaodan" was selected as a classic case of global poverty reduction. The "Public Welfare Cattle" assistance project implemented by the CNBM was successfully selected as an excellent case in the Blue Book of Central Enterprises Helping Rural Revitalization (2022) of SASAC.

In 2023, CNBM launched the "Science and Technology for Rural Revitalization" program, organizing science and technology and skills experts to conduct on-site research at the first line of assistance, achieving rural revitalization with science and technology



Academia Sinica invested RMB 30,000 to supplement the fitness equipment for remote villagers in Liyang Village, Xiaohe Town, Shitai County, Anhui Province, to build a national fitness square and to add 170 square meters of new wall paintings to publicize the Party's policies



The group: Incubating "Hebaodan" that holds the hope of rural industries.

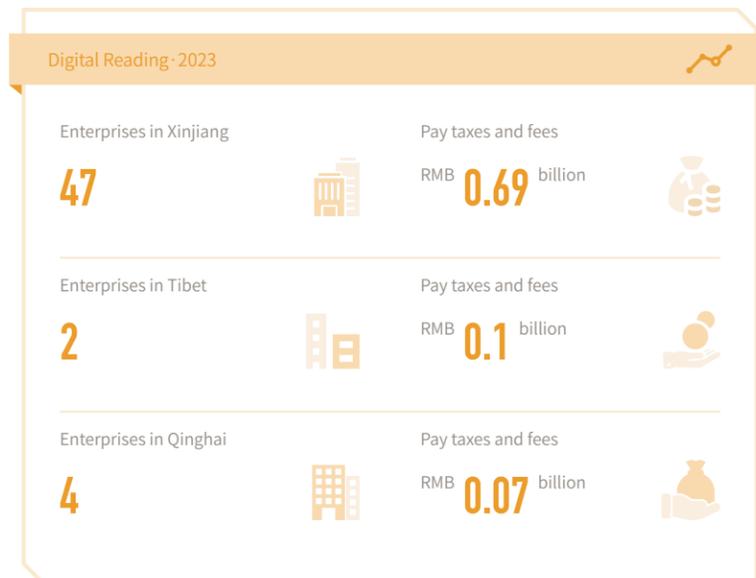
"Hebaodan", the e-commerce assistance platform of China National Building Material Group, is a public welfare e-commerce platform specially developed and operated for the group's designated assistance work. The "Hebaodan" platform has constructed a multi-collaborative model of "government supervision - cooperative organization - farmers supplying goods - platform operation" and has achieved outstanding results. Since its launch, the platform has continuously innovated in operations, marketing and other aspects, and has supported 41 enterprises and cooperatives in areas such as Shitai County, Anhui Province, Jingyuan County, Ningxia Hui Autonomous Region, Yongshan County, Yunnan Province, Suijiang County, Yunnan Province, Zhaoyang District, Yunnan Province, as well as Tibet Autonomous Region and Xinjiang Uygur Autonomous Region. By the end of December 31, 2023, the "Hebaodan" platform has achieved a cumulative sales amount of RMB 108.4 million, directly driving more than 20,000 farmers in assisted areas to increase their incomes.



Scan Follow "Hebaodan", the e-commerce assistance platform

Assistance in Xinjiang, Tibet and Qinghai

The prosperity of industry is the cornerstone of the prosperity of all industries. All along, we have given full play to the guiding and coordinating role of policy, and have made it a major political task to support the development of Xinjiang, Tibet and Qinghai. We have taken industrial assistance as our mainstay, accelerated the construction of a number of key projects, further amplified the effectiveness of local development, and effectively promoted local employment, improved people's livelihoods, and strengthened national unity through assistance in Xinjiang, Tibet and Qinghai.



Tianshan Material Co., Ltd.: Focus on "four key points" to help rural revitalization.

Tianshan Material Co., Ltd. actively fulfills the political and social responsibilities of state-owned enterprises, focuses on the general goal of social stability and long-term stability in Xinjiang, and works hand in hand with the assisted villages to build a beautiful and happy homeland. The company has innovatively constructed the "1234" rural revitalization work model of "one center, two responsibilities, three well-placed, and four key points". In 2023, the Party organizations at all levels of Xinjiang Cement carried out 30 national unity education and practice activities, donated money and materials for building beautiful villages, and the value of donated cement exceeded one million yuan. One "Visit, Benefit the People, and Gather Hearts" working team and one first secretary with a total of six people were dispatched. In 2023, the per capita net income of the assisted villages increased by 20.9% compared with 2022.

Xinjiang Cement helps villagers grow peppers.



Good Deeds

CNBM is enthusiastic about public welfare and charity, takes the initiative to participate in rescue and disaster relief, endeavors to create more social value for the people, and jointly builds a better and happier home.

Committing to public welfare and charity

We continue to practice the concept of "Making Good Use of Resources and Serving Construction", set up a "Good Building" public welfare fund, implement the "Good Learning Program", and carried out "Colorful Classroom" activity. We set up a volunteer team to carry out a wide range of social welfare activities such as volunteering, helping the weak and the needy, and supporting teaching and education, so as to warm up the society with the strength of the enterprise, give back to the people with the heart of public welfare, and transmit social warmth.

- China Jushi has established the Jushi Love Bank and organizes all employees to donate money regularly every New Year. Through the Love Bank, public welfare activities such as consumption-based poverty alleviation and love relief are widely organized.
- Tianshan Material actively organizes volunteer teams to carry out volunteer activities such as unpaid blood donation, caring for impoverished children, consoling lonely elderly people, and providing convenient services to convey social warmth.
- BNBM launched the "Shanjian" colorful classroom public welfare teaching support action. Six volunteers were organized to form a teaching support team and went to Yongshan Ethnic Primary School in Yunnan Province to conduct teaching support and convey love and care to children in mountainous areas.



China Jushi's "Jointly Building and Sharing, Walking Together" Employment Assistance Base for the Disabled officially established, which widened the chance to employment and happiness for the disabled.

国务院国有资产监督管理委员会

感谢信

中国建材集团有限公司：
中央和国家机关老旧小区综合整治旨在消除安全隐患，改善居住环境，切实提高广大干部职工安全感、幸福感和获得感，是民生工程、民心工程。2023年，国务院国资委老旧小区综合整治项目全面开工，贵委高度重视，机关服务精心组织，目前已基本完成全部改造内容。在项目实施过程中，贵集团公司所属北新建材集团央企担当，不遗余力，不讲困难，保质保量按期完成北新建材集团老旧小区改造任务，全程提供技术指导，有力保障了项目顺利实施。此外，在办公区日常维修改造过程中也给予了大力支持，奉节将至，特此向贵集团公司及所属北新建材集团表示衷心感谢。



Beijing New Building Materials Public Limited Company (BNBM) won the Letter of Thanks from the State-owned Assets Supervision and Administration Commission of the State Council for assisting in the comprehensive improvement of old neighborhoods in central and state organizations

The educator Tao Xingzhi said, 'Hold a heart without asking anything in return.' We treat those children with the sincerest attitude and give all that we have to fill the children's hearts with warmth. We sincerely hope that the children will grow up to be like fireflies, bringing light and hope to those around them while shining themselves.

—Shi Xuejun, from Tianshan Material

I have gained a lot of knowledge and broadened my horizons by attending the Colorful Classroom. Teachers come from all over the world to tell us about the outside world. I am a curious little girl, I also want to see the outside world, I also want to know how big the outside world is, I also want to go to the Yellow Crane Tower in Cui Hao's poem!

—Yuan Zihan, from Kazi Village School, Shouwang Township, Zhaoyang District

The Group: Bringing light and illuminating each other. China National Building Material Group holds the "Shanjian" colorful classroom activity.

From August 7 to 11, 2023, in order to further promote the "youth's contribution to rural revitalization action", China National Building Material Group focused on rural left-behind children as the key group and addressed the problem of "difficulty in care" during summer vacation by holding the "Shanjian" colorful classroom activities in five designated assisted districts and counties. This "Shanjian" colorful classroom has set up 15 teaching points in five designated assisted districts and counties, covering nearly 800 children. Children in the mountains are eager for knowledge and the outside world. The "Shanjian" colorful classroom carefully arranges courses such as culture, handicrafts, dance, art, thinking, science, and physical education, as well as various enterprise courses reflecting the characteristics of building materials, leading children to explore the mysteries of power-generating glass and making exquisite plaster models together... Through five days of teaching and companionship, children have gained knowledge, broadened their horizons, and become more confident, independent, firm and brave. Nearly 100 volunteers from 15 member enterprises walked into the countryside. Combining their specialties and students' characteristics, they integrated education with entertainment. They ignited children's dreams with love and perseverance, illuminated children's futures with love and dedication, and wrote the youthful chapter of "Pillar of the Country" with responsibility and commitment.



Scan code to view Activities of "Shanjian" Colorful Classroom of China National Building Material Group

Rush to help in emergency rescue and disaster relief

We have proactively fulfilled the social responsibility of the central enterprise, moved at the command and took up the heavy burden to fully support the local earthquake relief and safeguard the lives and health of the people.

Action · 2023

- February 2023 When an earthquake occurred in Turkey, Sinoma Overseas Representative Office in Turkey quickly activated the emergency plan, implemented on-site disposal measures, fully participated in the local anti-earthquake and disaster relief actions, helped to coordinate the anti-earthquake and disaster relief matters, and donated various kinds of living materials through the Disaster and Emergency Management Authority (AFAD) in batches for many times.
- August 2023 When the flooding in Zhuozhou, Hebei Province was serious, Beijing New Building Material (Group) Co., Ltd., urgently carried out flood self-rescue and resuming work and production, gave full play to the advantages of the building materials industry and actively participated in the post-disaster reconstruction of Zhuozhou, opening a channel for product and service delivery, which guaranteed that the best products and service could be delivered to people in need as soon as possible with the lowest price to help the reconstruction of their homes. Wangqing County, Yanbian Chaoxianzu (Korean) Autonomous Prefecture was affected by a typhoon and resulted in flood, and Wangqing Northern Rescue Team responded to the "flood" and quickly deployed manpower and material resources to participate in road and river embankment reinforcement and rescue work, and cooperated with the government to dispatch vehicles to transport 31 cars of stones to successfully seal the breach.
- December 2023 When a 6.2 magnitude earthquake struck Jishishan County, Linxia Prefecture, Gansu Province in the middle of the night, CNBM responded positively to the call for assistance to the disaster area, and donated RMB 10 million to Jishishan County at the first time to support the anti-earthquake and disaster relief work.

BNBM: Innovate the service model and help households severely affected by disasters in Zhuozhou City to live a normal life within a week.

In September 2023, BNBM carried out the "Building Materials Fair" activity in Zhuozhou, Hebei Province. It formed the "Rural Residence Renewal" team and visited the disaster-stricken homes. For the families in difficulty there, they repaired houses and set up reassuring stores. A series of innovative service activities were carried out to send high-quality building materials and considerate services to villagers. This charity activity for the people of the company has brought gratifying changes to the lives of local villagers with green technology and high-quality building materials products. It has greatly enhanced the beauty and comfort of rural residences. It has enabled many families to live in newly renovated homes before the Mid-Autumn Festival, helping the disaster area to rebuild and ensuring that the villagers can spend the winter warmly.



Scan code to view The Assistance of BNBM to Severely Affected Households in Zhuozhou City Promotes the 'Four Transformations' Service

The home before post-disaster construction



The home after one-week construction

06



Shaping a Responsible Brand with Perfect Management

As a responsible state-owned enterprise of a large country and one of the first state-owned capital investment companies, CNBM carries out the spirit of General Secretary Xi Jinping's series of important speeches on social responsibility, and implements the policy guidelines of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) on the fulfillment of social responsibility by central enterprises. CNBM has always been committed to playing an exemplary leading role in fulfilling social responsibility and promoting harmonious social development. It will strengthen the top-level design of social responsibility, enhance its own social responsibility capacity building, strengthen communication among stakeholders, promote the deepening of social responsibility practice, build an influential social responsibility brand, and promote the sustainable development of itself and society.

Response to the United Nations Sustainable Development Goals (SDGs)



CNBM ranked

8th

in the "Top 10 of the 2023 Top 100 State-owned Enterprises Social Responsibility Development Index"

Organizing or participating in social responsibility activities

4,669

Carrying out social responsibility assessment or evaluation

267

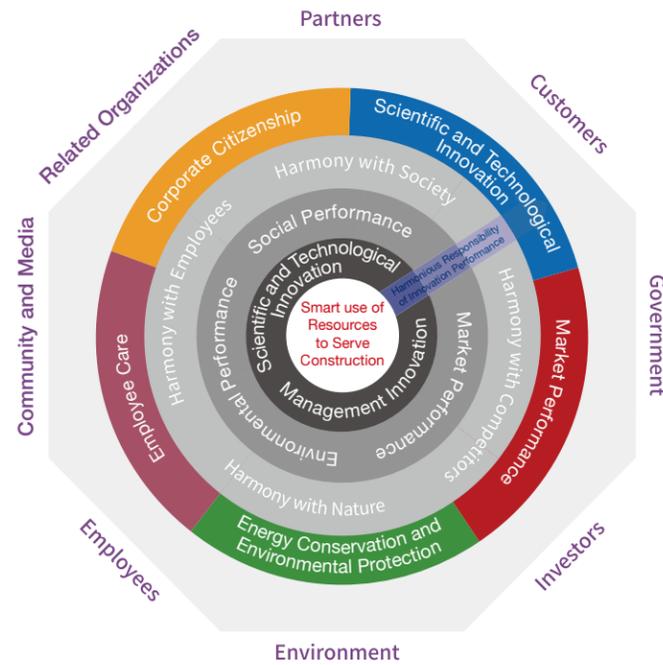
Communication between internal and external stakeholders participated by senior leaders of enterprises

15,118

Concept of Responsibility

CNBM pays great attention to the demands of investors, governments, employees, customers, partners, related organizations, communities and media, the environment and other stakeholders. We adhere to the core concept of "Making Good Use of Resources and Serving Construction", and insist on harmony with competitors, nature, employees and society. And we finally implement the concept of social responsibility in market performance, scientific and technological innovation, energy conservation and environmental protection, employees care and corporate citizenship, and is committed to the pursuit of a win-win situation for the market, the environment and the society.

Social Responsibility Model of China National Building Material Group Co., Ltd.



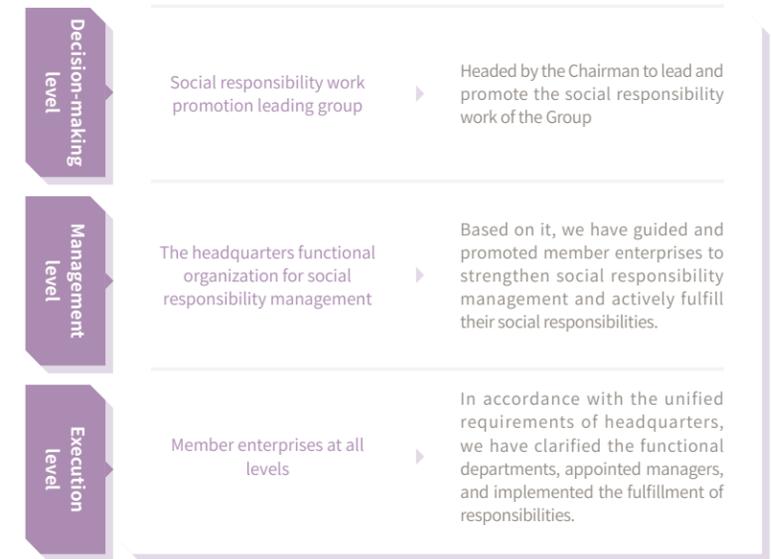
Responsibility Planning

CNBM adheres to the combination of fulfilling social responsibility and promoting enterprise development, bases its actual situation, and regards the fulfillment of social responsibility as an important content of establishing a modern enterprise system and improving comprehensive competitiveness. We will also change our development mode, accelerate transformation and upgrading, and pursue the organic unity of strategic development and taking responsibility. We will integrate the concept of social responsibility into our corporate strategy, cover all aspects and processes of corporate management, focus on key points, advance step by step, strive for effectiveness, and promote the high-quality development of the enterprise.



Responsible Organization

CNBM consolidates and improves the leading organization and working mechanism for social responsibility, and promotes the Group's social responsibility work from top to bottom. By the end of 2023, 217 member enterprises had set up leading organizations for social responsibility work, 617 member enterprises had set up social responsibility management organizations, 627 member enterprises had set up social responsibility management positions, and a total of 1,434 full-time and part-time employees were equipped for social responsibility management.



Digital Reading · 2023

Organizing or participating in social responsibility activities

4,669

Employees attend annual social responsibility training

49,735

Carrying out social responsibility assessment or evaluation

267

Responsibility Capacity

China National Building Material Group Co., Ltd. (CNBM) has continued strengthening responsibility capacity building, the Social Responsibility Management Information System has operated stably and achieved online management of personnel and information. We have continued participating in internal and external social responsibility training and exchanges, and enhanced our capacity for social responsibility management and practice.

On September 25, 2023, Party Committee Secretary and Chairman Zhou Yuxian was invited to attend the release of the Belt and Road ESG Action Report activity and delivered a keynote speech and forum dialogue.

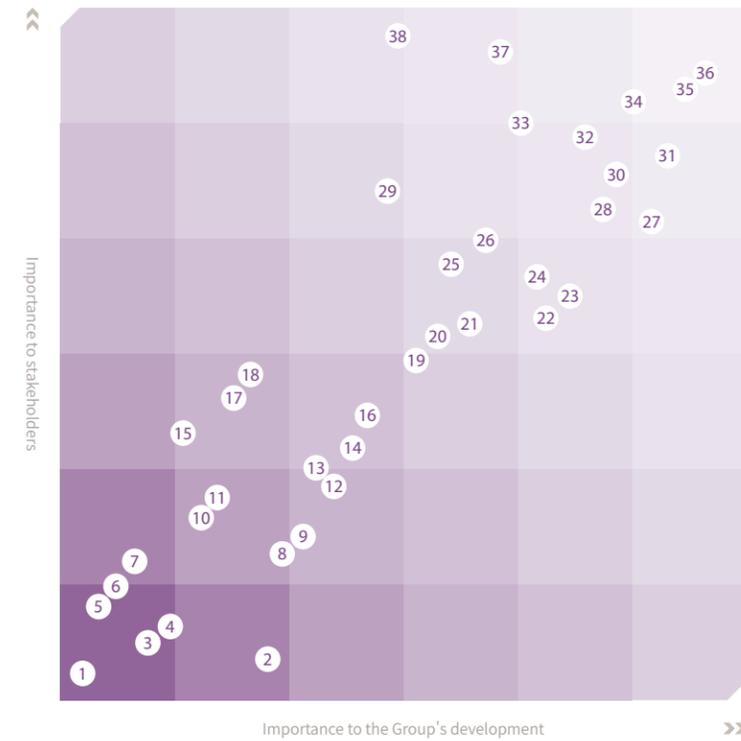


On October 21, 2023, Zhou Yuxian, Party Committee Secretary and Chairman made a guest appearance on CCTV's 'Dialogue' to talk about China National Building Material's participation in the 'Belt and Road' vivid practice of ESG

Responsibility Issues

Based on authoritative social responsibility standards at home and abroad, government policy requirements, benchmarking with advanced enterprises, combined with the company's development plan, China National Building Material Group conducts external environment scanning and internal operation analysis, sorts out domestic and international standard requirements and corporate social responsibility practices, and determines annual core issues based on the actual communication situation between stakeholders; issues are ranked in order of importance to stakeholders and importance to the company's sustainable development; the annual core issues are comprehensively concluded and the issue matrix is drawn.

Social Responsibility Planning of CNBM



- | | |
|--|---|
| 1 Overseas Community Co-construction | 19 Responsibility Management |
| 2 Information Disclosure | 20 Employee Rights and Interests |
| 3 Community Integration | 21 Green Services |
| 4 Communication with Stakeholders | 22 Responsible Supply |
| 5 Public Charity | 23 Concept of Responsibility |
| 6 Rural Revitalization | 24 Green Products |
| 7 Green Office and Environmental Public Welfare Activities | 25 Cultivation of Innovative Talents |
| 8 Advocating Sustainable Consumption | 26 Environmental Management |
| 9 Promoting Industry Development | 27 Employee Training |
| 10 Democratic Management | 28 Supply Chain Management |
| 11 Responsible Procurement | 29 Corporate Governance System |
| 12 Overseas Development and International Cooperation | 30 Risk Management and Control |
| 13 Supply-side Structural Reform | 31 Green Production |
| 14 State-owned Enterprise Reform | 32 Strengthening Party Building and Anti-corruption |
| 15 Intelligent Manufacturing | 33 Innovation Management |
| 16 Development of New Materials Industry | 34 Safe Operation |
| 17 Transformation of Scientific and Technological Achievements | 35 Law-based Corporate Governance |
| 18 Mechanism for Customer Complaint Resolution | 36 High-quality Development |
| | 37 Quality Management |
| | 38 Credit Management |

Responsibility Communication

China National Building Material Group Co., Ltd. pays close attention to the expectations and demands of investors, government, employees, customers, partners, relevant groups, communities, media, environment and other stakeholders, and conveys corporate responsibility information through various forms such as the annual social responsibility report, the official WeChat account, the "Social Responsibility" section of the official website and the "Smart Use of Resources Days" open activities, strengthen information disclosure. We strive to maintain good communication and contact with various stakeholders, respond to public concerns in a timely manner, pass on the concept of responsibility culture, listen to the opinions and suggestions of stakeholders, and continuously improve the ability of responsibility communication in the virtuous circle of disclosure-communication-promotion, so as to improve the public's awareness and recognition of CNBM.



CNBM New Material Seal Engraving Stamp participated in the Seal Series Public Engraving Exhibition for 4 consecutive years.

Digital Reading · 2023

<p>The person-time of annual Internal and external communication with stakeholders</p> <p>142,177</p>	<p>The number of articles being reported by 38 mainstream presses including CCTV and the Xinhua News Agency</p> <p>403</p>
<p>The Participation of Senior Group Leaders Internal and External Communication with Stakeholders</p> <p>15,118</p>	<p>Join home and aboard Social organizations or conventions</p> <p>2</p>

Group: The fourth "Smart Use of Resources Day" open event became extremely popular

On August 25, 2023, CNBM successfully held the launching ceremony of the fourth "Smart Use of Resources Day" open event. The theme of the open event is "Walking together for win-win cooperation". Organized by Sinoma International under the group, through various activities such as exhibitions, unveiling of assistance funds, releasing international promotional videos and new books, commending the most beautiful overseas employees, and artistic performances, it has comprehensively demonstrated the excellent international image of CNBM in participating in the construction of the Belt and Road, fulfilling the mission of "Materials create a better world" and fulfilling the responsibilities of global citizens.

- Ninety-six enterprises in seven countries opened simultaneously.
- More than 1.3 million people watched the global live broadcast.



Stakeholders	Communication mode	Focus	Response
Investors	<ul style="list-style-type: none"> Periodic reports Corporate report Promotion activities Shareholder dialogue and feedback New media and network platform interaction 	<ul style="list-style-type: none"> Enterprise performance Interests of shareholders and creditors Authenticity, accuracy, timeliness and completeness of information disclosure Sustainability of development 	<ul style="list-style-type: none"> Sustainable high-quality management Perfect information disclosure mechanism Improve the value of enterprise Standardize corporate governance Protect the interests of investors
Government	<ul style="list-style-type: none"> Publication of laws and regulations Special reports and visits Information submission Assessment of work objectives Industry Association 	<ul style="list-style-type: none"> Corporate Governance Safety, Environmental and Compliance Requirements Secure supply Provide employment opportunities Drive development of local economy Response to climate change 	<ul style="list-style-type: none"> Operate in accordance with the law and implement national policies Sustainable high-quality management Tax Payment Provide jobs Adhere to green manufacturing
Customers	<ul style="list-style-type: none"> Customer meetings and consultation Market research Daily contact Customer feedback mechanism Telephone service New media and network platform interaction Product packaging information 	<ul style="list-style-type: none"> Enterprise credit Customer relationship Quality of products and services Product innovation Health and Safety 	<ul style="list-style-type: none"> Provide high-quality products and services Advocate green consumption Improve quality management Protect customers' privacy Launch scientific and technological innovation Advocating Sustainable Consumption Standardized safety and environmental protection management
Partnership	<ul style="list-style-type: none"> Contract negotiation Bidding conference High-level meeting Document, correspondence and telegrams Daily business communication New media and network platform interaction 	<ul style="list-style-type: none"> Price and prompt payment Long-term partnership Profit distribution Information resource sharing Credit and reciprocity Risk prevention 	<ul style="list-style-type: none"> Credit Management Promote suppliers' responsibility performance Establish an effective partnership Establish an effective communication mechanism
Employees	<ul style="list-style-type: none"> Employee Congress Publicity of factory affairs Labor contract Rationalization proposals Normal communication Letters and visits New media and network platform interaction 	<ul style="list-style-type: none"> Enterprise performance Corporate Governance Employee Rights and Interests Career development planning Complaint handling Occupational health Democratic management Publicity of factory affairs 	<ul style="list-style-type: none"> High-quality Management Protect employees' rights and interests Provide competitive salary Improve employee welfare Strengthen employee training Provide safe working environment and health protection Establish effective communication Democratic management
Communities and Media	<ul style="list-style-type: none"> Sign public welfare agreements Participate in volunteer activities Daily contact Open day Activities Media interview New media and network platform interaction 	<ul style="list-style-type: none"> Planning affairs Environmental protection and response to climate change Joint construction of a harmonious community Occupational safety and health 	<ul style="list-style-type: none"> Establish and improve safety and occupational health management system Increase investment Timely information disclosure Improve public welfare investment Participate in community activities Promote green production and protect ecological environment
Social groups	<ul style="list-style-type: none"> Regular participation in meetings or activities Daily contact New media and network platform interaction 	<ul style="list-style-type: none"> Environmental conservation Promote sustainable development jointly 	<ul style="list-style-type: none"> Play membership role Provide economic and technical support Establish a cooperative relationship

Responsibility Sharing

Guided by Responsibility

We actively respond to the policy guidance of the State-owned Assets Supervision and Administration Commission of the State Council on fulfillment of social responsibility by enterprises, and consciously take responsibility for stakeholders, society and the environment throughout the operation, so as to maximize the integrated value of the economy,

society and environment and promote sustainable development; At the same time, the Group actively participates in global environmental protection exchanges and cooperation initiatives, provides wisdom and solutions for building a better home for mankind, and demonstrates the responsibility of a state-owned enterprise in the process of globalization.

Action · 2023

- We recognize and abide by the "Ten Principles of the Global Compact" and actively contribute to the achievement of sustainability.
- We take the initiative to share our experience in theories and practice in terms of social responsibility inside and outside the industry and promote the development of social responsibility in China.
- We actively participate in social responsibility sharing and initiative activities in different fields, and participate in launching China Social Responsibility 100 Forum.
- We rely on the China Federation of Industrial Economics, China Building Material Federation, China Building Materials News and other platforms to disseminate ideas, share experiences and launch initiatives, and work with stakeholders to seek better ways of sustainable development.

Driving Development of Supply Chain

We insist on win-win development and are committed to joining hands with stakeholders to make progress together, deepen mutual benefits in areas such as green economy, intelligent manufacturing, new infrastructure, new materials and globalization, strengthen central-local co-operation, national co-development and integration between China and foreign countries, and actively seek to maximize the coefficient of interests for development, so as to create a new situation of mutually beneficial and win-win co-operation.

Digital Reading · 2023

Operating agreement fulfillment rate

99.4 %

Number of companies with supply chain responsibility evaluation and investigation in place

1,066

Number of annual suppliers completing responsibility evaluation and review

58,621

Number of suppliers removed from our list due to noncompliance with corporate social responsibility

463

Number of potential suppliers removed from our list due to noncompliance with corporate social responsibility

376

The person-time of training offered to subcontractors and suppliers on safety, energy and laws

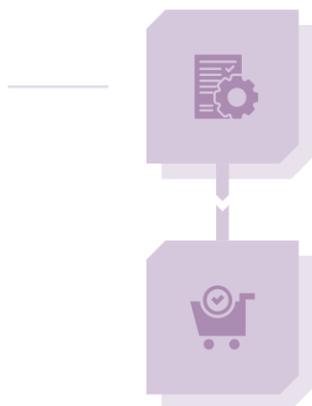
198,466

Responsible procurement

RMB 206.7 billion

Supplier Management

- CNBM procurement platform is a comprehensive service platform integrating bidding, purchasing and sales, providing supply chain enterprises with procurement sourcing and full-process electronic procurement services, with 100,000+ high-quality suppliers in the building materials industry and 4,000+ registered bid evaluation experts.
- Strengthen the supplier management, strictly select suppliers and cultivate high-quality suppliers, incorporate social responsibility into the supplier evaluation system, and urge suppliers to take social and environmental responsibilities.
- The Platform strictly prevents "black-box operation" in bidding, eliminates commercial bribery and enables honest operations, fair trading and transparent procurement by promoting the integration of e-bidding and e-purchasing, standardization of the bidding process, transparency of the bidding performance and informatization of the bidding management.



Green procurement

- Adhere to green procurement and give preference to environmentally friendly products when purchasing raw materials and clean products when purchasing energy.
- When purchasing daily offices, we give preference to recyclable products and reject excessive packaging.

High-quality Service

We are committed to supplying reliable, green and environmentally friendly building materials, focusing on providing products and service support for the development of the new energy industry, adhering to the concept that the interests of the industry are higher than those of enterprises, deepening the supply-side structural reform, so as to promote the structural adjustment, transformation and upgrading of the building materials industry, and cooperate with industrial chain enterprises in building CNBM into a platform for stakeholders to jointly create values.

Digital Reading · 2023

due to the betrayal of customer information substantive complaints received

0



Rate of proper response and handling of customer complaints

100 %



Number of manufacturing companies passing quality standard system certification

733



Number of customers participating in product knowledge popularization and training

111,728



Percentage of main products with national casual inspection FPY Reaches 100%

99.0 %



Products, services or brands winning over municipal level honors

1,754



Sales volume of bulk cement

220 million tons



International logistics products: Connect end to end in the whole supply chain and achieve interconnection.

As an organizer, manager and service provider in the material distribution supply chain, International Products actively fulfills the responsibilities of central enterprises. It has tailor-made a full-link digital platform in the material distribution field - the "YangCaiTong" supply chain service platform that integrates project management, contract management, supply chain management, risk management and financial management for enterprises upstream and downstream in the material distribution supply chain. As a core role, "YangCaiTong" simplifies the traditional supply chain service process by relying on open and leading technologies. With the platform architecture of "one portal (collaborative portal), two middle platforms (logistics middle platform and data middle platform), and three centers (decision-making center, risk control center, and capital center)", it comprehensively empowers upstream and downstream partners. In the process of platform construction, four supporting products of "YangCaiTong Collaboration, YangCaiTong Transportation, YangCaiTong Control and YangCaiTong Finance" are gradually created to achieve the goal of "gathering resources, strengthening control, reducing risks, creating models and increasing value" of the YangCaiTong platform.



Create trusted products and services

- Comprehensively promote the construction and certification of quality management standard system.
- Establish a sound pre-sale, in-sale and after-sales service system, so that customers' inquiries, feedback or complaints can be responded to and properly handled in the first time to improve customer satisfaction.
- Establish a professional customer service team and regularly provide professional technical training for dealers.
- Organize customer training conferences and product promotion briefing to convey basic knowledge of green building materials, precautions for purchasing and using building materials products, and product anti-counterfeiting identification to customers.
- Attach importance to information security, pay attention to protecting customer privacy, and strictly manage customer information.
- Establish a modern logistics park, rationally plan supply and marketing and logistics solutions, reduce resource occupation, and improve sales efficiency.
- Build an online sales platform to provide online trading services for building materials products worldwide and reduce carbon emissions from business travel of customers and sales personnel.

Honor of Responsibility



Affiliated unit

- China National Building Material Company Limited, Tianshan Material Co., Ltd., BNBM, China Jushi, Sinoma Science & Technology, and Sinoma International were selected into the "2023 Comprehensive Strength Ranking of Global Listed Building Materials Companies".
- China National Building Material Company Limited was awarded the title of "Pacesetter Enterprise in China's Industrial Carbon Peaking in 2023".
- China National Building Material Company Limited was awarded the title of "Outstanding Issuer of Corporate Bonds" by the Shanghai Stock Exchange.
- China National Building Material Company Limited, BNBM, China Jushi and Sinoma International were selected into the "Central Enterprise ESG+Pioneer 100 Index" list.
- Enhancing the Ability of Sustainable and High-Quality Development and Striving to Build a World-Class Materials Enterprise* of China National Building Material Company Limited was selected as an ESG outstanding case.
- China National Building Material Company Limited was selected into the first *Sustainable Development Yearbook (China Edition)* of SPGI and was commended as the "Best Progressive Enterprise in the Industry".
- China National Building Material Company Limited and BNBM were selected into the "China ESG Listed Company Pioneer 100" list.
- China National Building Material Company Limited won seven awards including the best environment, society and governance in the basic raw materials sector of "2023 Asia's Best Management Teams" by *Institutional Investors*.

- Ten reform achievements of China National Building Material Company Limited and its affiliated companies won the 2023 Outstanding Achievements in China's Enterprise Reform and Development.
- China National Building Material Company Limited won the awards of the "Best Capital Market Communication" and the "Best Cutting-edge Company of the Year" in the 7th China Excellence IR Awards.
- The project of *Building a Closed-Loop Management System of Large Compliance Supervision Focusing on Risk Prevention and Control for Building Materials Enterprises* of China National Building Material Company Limited won the second prize of the "29th National Enterprise Management Modernization Innovation Achievement".
- China Jushi, Sinoma Science & Technology, BNBM and Sinoma International were selected into the "2023 Top 500 Creditworthy Listed Companies in China".
- China Jushi was selected into "Top 50 Chinese Enterprises in Transnational Operations" list of Forbes China.
- Sinoma International was awarded the title of "2023 Five-Star Creditworthy Enterprise".
- BNBM was selected into the "Top 100 Value of Listed Companies on the Main Board" in the 17th China Listed Company Value Selection by China Securities Journal.
- BNBM was selected into the "Top 100 Health Index of Listed Companies in China" list.

- BNBM, China Jushi, and Sinoma Science & Technology won the "Most Investment-Worthy Award of Golden Bull Award" for the 25th listed companies.
- BNBM and China Jushi were selected as the benchmark enterprises for the state-owned key enterprises of the State-owned Assets Supervision and Administration Commission of the State Council to benchmark against world-class management improvement actions.
- BNBM won the highest award in the sustainable development series of the 2023 Changqing Award of *Caijing Magazine*, the "Sustainable Development Contribution Award".
- BNBM and China Jushi were selected into the "2023 Top 100 ESG Listed Companies in China" list.
- BNBM and Sinoma Science & Technology were selected into the first "Guoxin Cup + ESG Golden Bull Award Top 50 Central Enterprises" list.
- BNBM, China Jushi and Sinoma International were selected into the "CSI Guoxin State-owned Enterprises ESG Growth 100 Index" list.
- Deeply Implementing the ESG Concept and Leading the High-Quality Development of the New-type Building Materials Industry of BNBM and Green Fiber First for Harmonious Development and Building a Demonstration Enterprise for Green Glass Fiber Production of China Jushi were selected into the "2023 Outstanding ESG Cases of Chinese Enterprises".
- Tianshan Material Co., Ltd. was selected into the "2022 Top 50 Sustainable Industrial Enterprises" list of Forbes China.

- Strengthening ESG Information Disclosure and Promoting the Management Improvement of Low-Carbon Transformation of Traditional Enterprises* of Tianshan Material Co., Ltd. and *Promoting Upgrading and Increasing Efficiency and Fully Implementing Green and Low-Carbon Development* of Ningxia Building Materials Group Co., Ltd. were selected into the "2023 Outstanding ESG Practice Cases of Listed Companies" of the China Association for Public Companies.
- CNBM Zambia Industrial Park Helps the "Belt and Road" to Move Steadily and Far of Tianshan Material Co., Ltd., Forging a New Benchmark for the "Belt and Road" of China Jushi, and "Illuminating" the China-Pakistan Economic Corridor* of Sinoma Energy Conservation Ltd. were selected into the "Hundred Best Practice Cases of Chinese Listed Companies in Co-building the 'Belt and Road' in Ten Years".
- Tianshan Material Co., Ltd. and Ningxia Building Materials Group Co., Ltd. were selected into the list of companies of "2023 Outstanding Practice Cases of Rural Revitalization of Listed Companies".
- Sinoma International won the "2023 Responsibility Benniu Award - ESG Carbon Peaking and Carbon Neutrality Pioneer Award".
- Sinoma International was selected into the 2023 Yidong ESG+8 "Value 100" list.
- Zhongfu Shenying Carbon Fiber Co., Ltd. won the "2023 Responsibility Benniu Award - ESG Public Welfare Pioneer Award".
- Triumph Science & Technology Group Co., Ltd. won the "2023 Responsibility Benniu Award - Responsibility Rookie Award".
- The international authoritative ranking of China National Building Materials Engineering reached another record high, and it was selected into the "Top 150 Global Engineering Design Companies" for the first time.

Future



📍 Jushi Huaian wind power generation facility completed the assembly

We will not stop struggling even in hardships and will set off again with heavy responsibilities. Looking back, the year 2023 when we have always been fighting for is more and more promising during the hardships. Looking forward, we will continue to adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, fully implement the spirit of the 20th National Congress of the CPC, adhere to the general tone of seeking progress while maintaining stability, fully and accurately implement the new development concept, unwaveringly push forward the new type of industrialization, make great efforts to develop the new quality productive forces, enhance our core functions and core competitiveness, consolidate three main businesses and four major sectors, and speed up the construction of a world-class materials industry investment group. We will make greater contributions to the comprehensive construction of a modern socialist country and the great rejuvenation of the Chinese nation!

We will adhere to the principle of giving priority to quality and efficiency, and endeavor to achieve steady growth with high quality. We will make active progress in transforming methods, adjusting structures, improving quality and increasing efficiency, so as to achieve effective qualitative improvement and reasonable quantitative growth.

We will adhere to a high level of scientific and technological self-reliance and promote industrial innovation with scientific and technological innovation. We will accelerate the promotion of productivity leaps stemming from scientific and technological innovation breakthroughs and industrial upgrading.

We will adhere to strive from two ends, integrate in advancing and retreating, and promote the optimization of the layout and restructuring. We will make every effort to develop strategic emerging industries, unwaveringly promote the transformation of traditional industries, give full play to the advantages of state-owned capital investment companies, and accelerate the pace of integration in advancing and retreating.

We will insist on deepening reform, creating first-class companies, and building a more dynamic modern new state-owned enterprise. We will continue to intensify reforms, deepen value creation, and further stimulate enthusiasm and creativity in improving quality and efficiency.

We will adhere to the overall leadership of the Party and lead and guarantee high-quality development with high-quality party building. further

We will strengthen the team fighting force and cohesion, and transform the advantages of party building into a powerful impetus to promote high-quality development.



Ranking of Fortune Global 500 Building Materials Enterprises in 2024

Ranking in 2024	Enterprise Name	Operating Income in 2023 (One million US dollars)	Country
307	CNBM	49088.8	China
284	Saint-Gobain Group	51830.3	France
443	CRH Corporation	34949	Ireland

Data source: Fortune Chinese website

Output of Cement from 2013 to 2023

Unit: 100 million tons

Year	Output of Cement
2023	2.9
2022	3.0
2021	3.5
2020	3.5
2019	3.7
2018	3.4
2017	3.4
2016	3.2
2015	2.4
2014	2.5
2013	2.4

Total Operating Income and Profit from 2013 to 2023

Unit: RMB 100 million

Year	Operating Income	Total Profit
2023	3475.1	168.6
2022	3801.6	265.8
2021	4155.1	386.9
2020	3941.0	306.1
2019	3981.0	235.2
2018	3480.0	206.6
2017	3021.2	151.1
2016	2612.3	75.8
2015	1992.5	38.4
2014	2504.3	130.1
2013	2522.6	115.1

Rate of Preservation and Appreciation of State-owned Assets and Rate of Return on Net Assets from 2013 to 2023

Unit: %

■ Rate of Preservation and Appreciation of State-owned Assets ■ Return on Net Assets



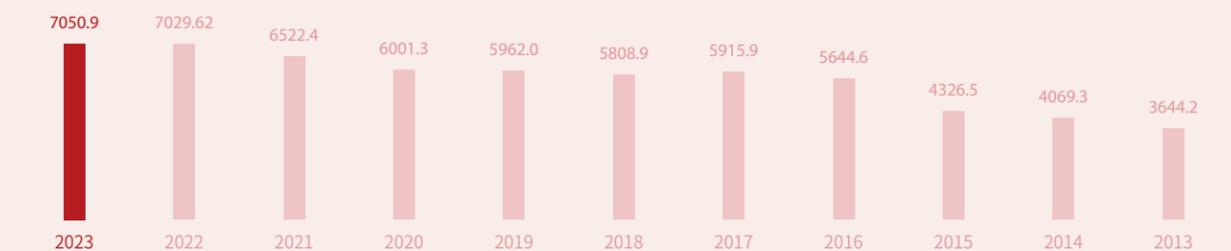
Performance of Listed Companies in 2023

Unit: Yuan

Stock Name	Stock Exchange	Stock Code	Dividend per Share	Earnings per Share
China National Building Material Company Limited	Hong Kong Stock Exchange	03323.HK	0.2290	0.4580
Tianshan Material Co., Ltd.	Shenzhen Stock Exchange	000877.SZ	0.1140	0.2268
Ningxia Building Materials Group Co., Ltd.	Shanghai Stock Exchange	600449.SH	0.2500	0.6200
China Jushi Co., Ltd.	Shanghai Stock Exchange	600176.SH	0.2800	0.7600
Beijing New Building Material (Group) Co., Ltd.	Shenzhen Stock Exchange	000786.SZ	0.8350	2.0860
Sinoma Science & Technology Co., Ltd.	Shenzhen Stock Exchange	002080.SZ	0.5600	1.3300
Sinoma International Engineering Co., Ltd.	Shanghai Stock Exchange	600970.SH	0.4000	1.1200
Zhongfu Shenyang Carbon Fiber Co., Ltd.	Shanghai Stock Exchange	688295.SH	0.1060	0.3500
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	0.1000	0.3152
China Certification and Inspection Group	Shanghai Stock Exchange	603060.SH	0.1120	0.3204
Triumph Science & Technology Group Co., Ltd.	Shanghai Stock Exchange	600552.SH	0.0500	0.1135
Triumph New Energy Company Limited	Shanghai Stock Exchange	600876.SH	0.0000	0.6100
Triumph New Energy Company Limited	Hong Kong Stock Exchange	01108.HK	0.0000	0.6100
Sinoma Energy Conservation Ltd.	Shanghai Stock Exchange	603126.SH	0.0830	0.2349

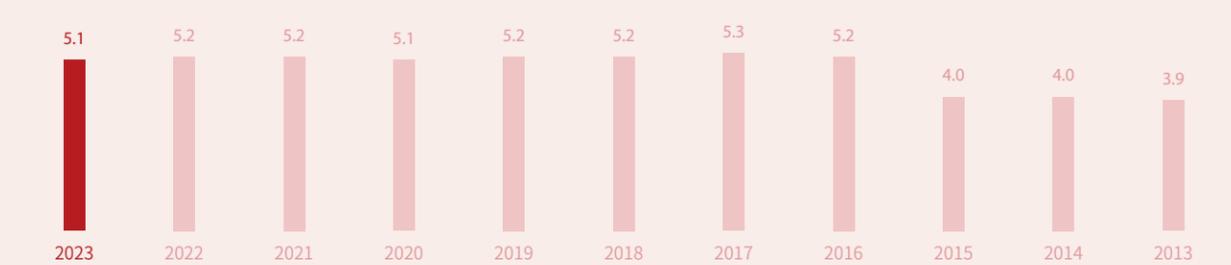
Total Assets from 2013 to 2023

Unit: RMB 100 million



Production Capacity of Cement from 2013 to 2023

Unit: 100 million tons



Scientific and technological innovation



It won science and technology awards at or above the provincial or ministerial level from 2013 to 2023 Unit: (in number)

Year	Science and technology awards at or above the provincial or ministerial level	Including: National Science and Technology Progress Award
2023	247	4
2022	166	0
2021	116	1
2020	109	0
2019	166	3
2018	231	1
2017	197	2
2016	173	2
2015	123	0
2014	117	1
2013	145	1

Application and Authorization of Patents from 2013 to 2023 Unit: (in number)

Year	Newly Applied Patents	Including: Invention Patents	Newly Authorized Patents	Including: Invention Patents
2023	5550	2531	4137	1358
2022	5978	2601	4911	1319
2021	4004	1820	3745	747
2020	4436	1821	2576	532
2019	3308	1638	1804	478
2018	2287	1056	1571	385
2017	2144	1039	1524	428
2016	2156	880	1793	455
2015	1568	566	1492	193
2014	1571	531	1381	106
2013	1262	373	848	128

Expenditure on Scientific Research Activities from 2013 to 2023 Unit: hundred million

Year	Expenditure on Research and Experimental Development
2023	136.3
2022	149.0
2021	147.2
2020	119.1
2019	95.9
2018	81.9
2017	59.3
2016	51.2
2015	40.9
2014	41.6
2013	36.2

It hosted and participated in the formulation or revision of standards from 2013 to 2023 Unit: (in number)

Year	Total Number of Standards	Including: International	Including: Country	Including: Industry
2023	44	3	20	21
2022	169	10	82	77
2021	130	4	84	42
2020	74	3	39	32
2019	88	0	52	36
2018	167	4	90	73
2017	122	4	90	28
2016	91	2	57	32
2015	62	2	36	24
2014	104	3	35	66
2013	59	1	8	50

Accumulated Patents from 2013 to 2023 Unit: (in number)

Year	Number of Accumulated Patents	Including: Invention Patents
2023	26490	6906
2022	22425	5926
2021	17642	4577
2020	14463	3816
2019	12124	3164
2018	10967	2765
2017	10024	2403
2016	8408	1913
2015	5663	900
2014	4255	687
2013	3231	589

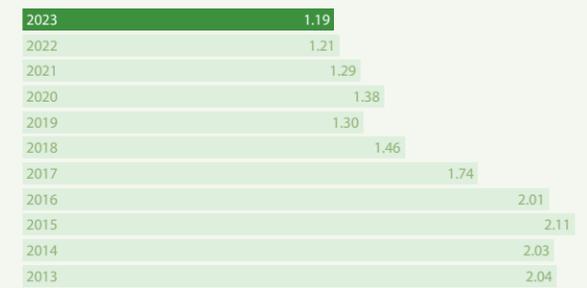
2013-2023 Income from scientific and technological innovation Unit: hundred million

Year	Income from scientific and technological innovation	Sales Revenue of New Products
2023	60.3	918.9
2022	39.0	850.6
2021	34.7	810.6
2020	35.2	754.7
2019	28.4	577.6
2018	30.1	555.9
2017	16.6	468.5
2016	15.7	339.0
2015	11.5	256.5
2014	8.8	289.9
2013	10.3	259.4

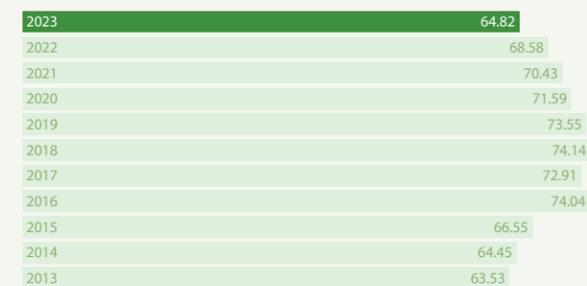
Energy conservation and environmental protection



Comprehensive Energy Consumption of Output Value per Ten Thousand Yuan from 2013 to 2023 Unit: Tons of standard coal/ten thousand yuan



Comprehensive Energy Consumption per Ton of Cement from 2013 to 2023 Unit: Kilograms of standard coal/ton



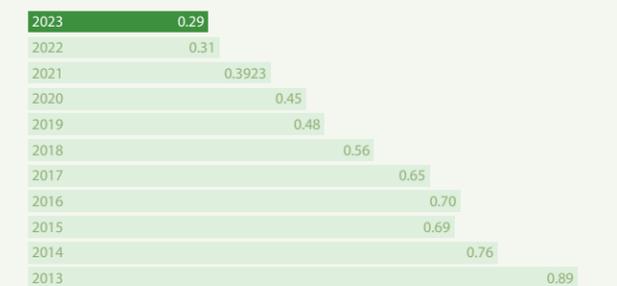
Disposal and Utilization Performance of Solid Waste from 2013 to 2023

Year	Consumption of Solid Waste (ten thousand tons)	Disposal Rate of Self-produced Solid Waste (%)
2023	10497	96.4
2022	10360	96.8
2021	13121	96.3
2020	17880	91.7
2019	14967	99.9
2018	9900	92.8
2017	15615	99.0
2016	14909	88.6
2015	7545	98.5
2014	7882	98.0
2013	6191	99.2

Emissions of SO₂ and COD with Output Value of Ten Thousand Yuan from 2013 to 2023 Unit: kg/ten thousand yuan

Year	SO ₂ Emission with Output Value of Ten Thousand Yuan	COD Emission with Output Value of Ten Thousand Yuan
2023	0.26	0.03
2022	0.27	0.05
2021	0.33	0.04
2020	0.42	0.04
2019	0.62	0.03
2018	1.09	0.03
2017	1.07	0.03
2016	1.60	0.05
2015	1.46	0.06
2014	1.36	0.06
2013	1.39	0.07

Emission of Nitrogen Oxides per Ton of Cement Clinker from 2012 to 2022 Unit: Kilogram/ton



Utilization Performance of Water Resources from 2013 to 2023

Year	Consumption of Fresh Water with Output Value of Ten Thousand Yuan (ton/ten thousand yuan)	Consumption of Fresh Water per Ton of Cement Clinker (ton/tons of cement clinker)	Utilization Rate of Circulating Water (%)
2023	5.5	0.38	96.79
2022	5.4	0.37	95.6
2021	5.4	0.53	97.8
2020	5.3	0.49	95.1
2019	3.6	0.34	90.0
2018	7.9	0.45	90.8
2017	7.1	0.51	96.2
2016	6.2	0.38	93.7
2015	7.2	0.46	93.5
2014	6.2	0.41	90.3
2013	8.0	0.41	96.4

Employee Care



Employee Profile from 2013 to 2023

Unit: people

Year	Total number of employees	Foreign and Hong Kong, Macao and Taiwan employees	Employees whose ethnicity is ethnic minority	Employees with disabilities	Proportion of Female Employees in Management (%)
2023	207784	1638	6800	992	19.1
2022	208857	965	7511	1340	17.6
2021	206910	881	6199	1478	17.9
2020	202844	1036	5725	1731	16.9
2019	204763	483	5808	1729	16.2
2018	208680	1059	5167	1697	18.7
2017	221421	750	5985	1732	18.4
2016	234511	1126	5964	1875	18.3
2015	176610	841	3521	1449	17.2
2014	176854	892	3120	2263	18.4
2013	179421	1234	3031	1685	18.1

Progress of Enterprise Annuity Work from 2013 to 2023

Year	Number of Member Enterprises Participating in Enterprise Annuity Numbers	Number of Employees Participating in Enterprise Annuity
2023	619	114385
2022	588	109323
2021	580	104210
2020	531	95554
2019	207	56174
2018	100	35644
2017	74	24093
2016	71	22871
2015	68	22165
2014	67	21750
2013	67	21131

Investment in occupational health and safety from 2013 to 2023

Unit: ten thousand yuan

2023	220000
2022	160000
2021	162000
2020	151500
2019	123697
2018	108357
2017	87032
2016	79527
2015	57249
2014	43221
2013	31363

Coverage of Labor Contracts and Social Insurance and Membership of Trade Union from 2013 to 2023

Unit: %

Year	Labor contract coverage	The rate of social insurance coverage	The proportion of employees participating in the trade union
2023	100	100	89
2022	100	100	84
2021	100	100	84
2020	100	90	78
2019	100	92	78
2018	100	90	78
2017	100	98	92
2016	100	98	91
2015	100	98	91
2014	93	88	70
2013	96	92	75

Training Performance of Employees from 2013 to 2023

Year	Number of Training Programs Organized or Organized to Attend	Employee Participation in Training (ten thousand hours)	Number of Academic Degrees Obtained by On-the-job Employees with Support
2023	69398	196	2279
2022	87920	185	1944
2021	77120	250	2431
2020	84771	215	2628
2019	107787	137	1679
2018	75187	485	1424
2017	52676	112	2251
2016	47554	331	3028
2015	32672	133	2882
2014	43352	91	3520
2013	37491	164	2387

Performance in Safety Production from 2013 to 2023

Year	Accident Rate of Work-related Injuries of Thousands of People That Can Be Recorded (%)	Number of New Cases of Occupational Diseases
2023	0.2	0
2022	0.2	0
2021	0.2	0
2020	0.2	0
2019	0.4	1
2018	0.5	1
2017	0.5	2
2016	0.5	0
2015	0.9	3
2014	1.3	2
2013	1.6	1

Corporate citizenship



Social Welfare Expenditure from 2013 to 2023

Unit: ten thousand yuan

2023	10996
2022	14157.7
2021	14073.8
2020	17332.9
2019	14243.9
2018	6291.5
2017	2335.5
2016	2400.4
2015	1802.8
2014	2080.5
2013	2195.1

Taxes Paid from 2013 to 2023

Unit: RMB 100 million

2023	210.4
2022	271.7
2021	301.6
2020	290.6
2019	313.8
2018	272.2
2017	196.8
2016	157.3
2015	119.1
2014	146.4
2013	131.7

Student Loans from 2013 to 2023

Year	Number of Special Scholarships Established	Total Amount of Scholarships Provided (ten thousand yuan)	Number of Students Awarded or Subsidized Established	Number of Training Bases Created	Study Positions Provided for Students in School (person-day)
2023	17	277	240	57	35540
2022	37	79	174	70	73582
2021	16	109	200	85	37005
2020	20	99	298	128	53145
2019	22	113	284	132	52689
2018	18	73	188	118	45464
2017	14	72	155	163	31519
2016	8	37	266	134	34030
2015	8	36	159	47	26586
2014	31	53	227	97	28619
2013	18	112	506	119	36530

Number of Social Welfare Projects Supported from 2013 to 2023

Unit: Item

2023	836
2022	842
2021	829
2020	930
2019	718
2018	594
2017	419
2016	360
2015	332
2014	310
2013	332

Guarantee Employment Performance from 2013 to 2023

Unit: people

Year	Number of Employed People	Including: Number of Fresh Graduates Recruited	Number of Demobilized Soldiers Recruited
2023	50455	3421	26
2022	50243	3067	21
2021	35170	3375	2
2020	22032	3667	24
2019	27763	3890	22
2018	26553	3626	141
2017	29612	4727	139
2016	22342	3129	23
2015	16929	2473	10
2014	23617	3848	46
2013	16081	4383	158

Organization of Volunteer Activities from 2013 to 2023

Year	Number of Volunteer Groups Established	Investment to Support Voluntary Activities (ten thousand yuan)	Number of Employee Volunteers	Time of Volunteer Services Provided (hours)
2023	157	129	12668	37908
2022	216	184	10935	63257
2021	221	180	11517	74568
2020	192	190	10121	49220
2019	213	2219	10343	40192
2018	189	126	6853	44445
2017	335	363	5334	25164
2016	112	344	5646	28157
2015	56	191	2187	14840
2014	65	145	3400	9418
2013	109	145	4864	10681

Indicator Index

Catalogue of Report	Sustainable Development Goals (SDGs) of United Nations	GRI Standards of Sustainable Development Reports (GRI Standards)	Guidance on Compilation of Social Responsibility Reports in Chinese Enterprises: Non-metallic Mineral Products Industry (CASS-CSR4.0)
Report Norms	-	102-46, 102-50, 102-52-53	P1.1-1.2
Chairman's Address	-	102-14-1	P2.1-2.2
About Us	-	102-1-2, 102-4-8, 102-16, 102-18, 102-22, 102-24	P4.1-4.3
Responsibility Focus One: Building the "Pillar of the Country" and New Quality Productive Forces	SDG9, SDG12	203-1-2	P3.1-3.2
Responsibility Focus Two: Building a "Belt and Road" Community with a Shared Future	SDG1, SDG4, SDG8, SDG17	203-1-2	P3.1-3.2
Building a Foundation for Development with Excellent Operations			
Outstanding Performance	SDG7, SDG9, SDG11, SDG12, SDG17	102-2, 201-1, 203-1-2	P4.2, M1.4
Precision Management	SDG12, SDG16	103-2-3, 201-1	M1.6
Deepening Reform	SDG12, SDG16	103-2-3	M1.1
Guidance of Party building	SDG4	103-2-3, 205-2	M1.2
Building a Powerful Country in Materials with Robust Innovation			
Innovation Ecosystem	SDG9	103-2-3, 201-1	M2.2, M4.4
Achievements of Technological Innovation	SDG9	103-2-3, 203-1-2	M2.2
Collaboration on Innovation	SDG7, SDG9, SDG11, SDG12	203-1-2	M2.2, M2.5
Digital Transformation	SDG9, SDG17	103-2-3, 203-1-2	M2.2, M4.4
Creating a Sustainable Future with Optimal Ecosystems			
Green Management	SDG16	103-2-3	E1.1-1.2
Green Production	SDG7, SDG9, SDG11, SDG12, SDG13, SDG17	103-2-3, 203-1-2, 302-5, 303-3	E1.3-1.5, E1.9, E2.1, E2.2-2.3, E2.6, E2.8-2.9, E2.11, E2.14, E2.16, E2.18, E2.20-2.22, E3.1, E3.4-3.5
Green Services	SDG7, SDG9, SDG11, SDG12, SDG13	103-2-3	E1.5, E1.9
Green Operation	SDG4, SDG11, SDG12	103-2-3	E1.7-1.8, E3.8

Catalogue of Report	Sustainable Development Goals (SDGs) of United Nations	GRI Standards of Sustainable Development Reports (GRI Standards)	Guidance on Compilation of Social Responsibility Reports in Chinese Enterprises: Non-metallic Mineral Products Industry (CASS-CSR4.0)
Helping Employees' Growth with Sincere Development			
Safety and Prudence	SDG4, SDG9	103-2-3, 203-1-2	S3.1-3.6
Employee Rights and Interests	SDG5, SDG8, SDG10	103-2-3, 102-8, 401-1, 405-1	S2.1-2.2, S2.4-2.8
Employee Development	SDG8	103-2-3, 404-2	S2.12-2.14
Employee care	SDG8	103-2-3	S2.9-2.10, S2.15-2.16
Improving People's Well-being with a Beautiful Society			
Open Cooperation	SDG17	103-2-3, 203-1-2	M4.4, M4.6
Rural Revitalization	SDG1, SDG2, SDG3, SDG4, SDG6, SDG9, SDG10	103-2-3	S4.1, S4.5, S4.10-4.11
Good Deeds	SDG4, SDG8, SDG9, SDG10	103-2-3	S4.1, S4.7-4.9
Shaping a Responsible Brand with Perfect Management			
Concept of Responsibility	-	-	G1.2
Responsibility Planning	-	-	G2.2
Responsible Organization	SDG17	-	G3.1, G3.3
Responsibility Capacity	SDG4	-	G5.1-5.2
Responsibility Issues	SDG16	-	G2.1
Responsibility Communication	SDG16	102-40	G4.3, G6.1
Responsibility Sharing	SDG16	102-13	M2.7-2.11, M3.1, M3.4, M3.6, M4.2
Honor of Responsibility	-	-	A3
Future	-	-	A1
Appendix			
Responsibility performance	-	-	A2
Indicator Index	-	102-55	A5
Reporting Process	-	-	P1.1
Rating Report	-	-	A4
Feedback	-	102-53	A6

Reporting Process

Initiate the project

Determine the annual work plan, hold meetings or issue documents

List of information issued

Confirm the index system of the information system and draw up the annual list of star cases

Writing a report

Develop the framework of the report, determine the theme of the report and form the first draft of the report

Improving a report

Revise text, verify data and self-examine standards

Report rating

Rating Standard of Social Responsibility Report in Chinese Enterprises (2020)

Summarize and upgrade

There is insufficient analysis to be rectified and improved



Identify core issues and confirm reporting boundaries

Analyze stakeholders' concerns, identify the company's annual major core issues, and study CSR standards and guidelines and new trends

Collect report materials

Collect and analyze the materials of member enterprises, materials of functional departments, media reports, etc.

Solicitation of opinions

Seek the opinions of CSR leading group, functional departments and offices of headquarters, member enterprises, stakeholders and CSR experts

Report design

Readability, innovation and continuity

Report release

It can be transmitted to stakeholders in many carriers and many channels

Report Rating

Rating Report of 2023 Sustainable Development Report in China National Building Material Group Co., Ltd.

Entrusted by China National Building Material Group Co., Ltd., experts were selected from "Rating Expert Committee for Social Responsibility Report in Chinese Enterprises" to form a rating team to rate the 2023 Sustainable Development Report of China National Building Material Group Co., Ltd. (hereinafter referred to as the "Report").

I. Rating Basis

Guidelines on Social Responsibility Reports in Chinese Enterprises (CASS-CSR 4.0) of Chinese Academy of Social Sciences and Rating Standard for Social Responsibility Reports in Chinese Enterprises (2020) by "Rating Expert Committee for Social Responsibility Report in Chinese Enterprises".

II. Rating Process

1. The rating team reviews and confirms the Confirmation of Procedural Data of Corporate Social Responsibility Report and relevant certification materials submitted by the Writing Team of the Report;
2. The rating team evaluates the preparation process and content of the Report and formulates the rating report;
3. The vice chairman of the rating expert committee, the leader of the rating team and the experts of the rating team jointly sign and review the rating report.

III. Rating Conclusion

Procedure (★★★★★)

Set up a leading group for promoting social responsibility work with the chairman as the team leader to coordinate and dispatch social responsibility work. The company's management department takes the lead in setting up a report preparation working group, key departments submit basic information and review relevant contents, and the chairman and general manager are responsible for final review and issuance; position the report as an important tool to prevent business risks, disclose responsibility information in accordance with provisions, strengthen stakeholders' communication, improve the management level of social responsibility, and enhance brand value, with clear positioning in functional values; identify substantive issues according to group development strategies and stakeholder expectations; promote 13 subordinate listed companies to issue social responsibility reports to enhance the depth and breadth of responsibility information disclosure; it is planned to publish the report through the official website, and participate in the "Centralized Press Conference for Social Responsibility Reports in Central Enterprises" and the activity on "Smart Use of Resources Day" for the second release. The report will be presented in the forms of electronic version, printed matter and long layout with excellent process performance.

Substantive (★★★★★)

The Report systematically discloses key issues in the industry, such as product quality management, product innovation, occupational health management, safety production, research and development and application of environmental protection technologies and equipment, saving energy and water resources, reducing the emission of "three wastes", environmental treatment around the factory area, supply chain responsibility, Internet + non-metallic mineral products, etc., with sufficient details and outstanding substantive performance

Integrity (★★★★★)

The main content of the Report discloses 93.66% of the core indicators of the industry from the perspectives of "Building a Foundation for Development with Excellent Operations", "Building a Powerful Country in Materials with Robust Innovation", "Creating a Sustainable Future with Optimal Ecosystems", "Helping Employees' Growth with Sincere Development", "Improving People's Well-being with a Beautiful Society" and "Shaping a Responsible Brand with Perfect Management" with outstanding integrity performance.

Balance (★★★★★)

The Report discloses negative data such as "new cases of occupational diseases", "recorded rate of work-related injuries for over 1,000 people", "substantive complaints due to disclosure of customer information in the year", "number of suppliers whose cooperation has been terminated due to non-compliance with social responsibilities", "major ecological and environmental incidents" and "major work safety accidents", and briefly describes the measures and effects of promoting special environmental protection rectification, with excellent balance performance.

Comparability (★★★★★)

It is disclosed in the Report that the comparative data of 63 key indicators such as "cement output", "cement production capacity", "operating income",

"cumulative patents", "comprehensive energy consumption per ten thousand Yuan of output value", "consumption of fresh water per 10,000 yuan of output value", "total employees", "occupational health and safety investment" and "social welfare expenditure" for eleven consecutive years, and a horizontal comparison is made on indicators such as "Ranking of Fortune Global 500 in 2024" with excellent performance in comparability.

Readability (★★★★★)

From the six chapters including "excellent operations", "robust innovation", "optimal ecosystems", "sincere development", "beautiful society" and "perfect management", the report systematically shows the performance of enterprises in operation and management, scientific and technological innovation, environmental protection, employee care, win-win partners, public welfare and charity, responsibility management, etc.; the high-definition and infectious real-life pictures are adopted across chapters in the cover and chapters to show the characteristic performance scenes and enhance the recognition of enterprises; small sections such as "Digital Reading · 2023", "Action · 2023", "Honors · 2023", and "Achievements · 2023" are set up to facilitate readers to quickly understand and master; multiple QR codes are embedded to extend and interpret the report content, showing excellent readability.

Innovative (★★★★★)

At the beginning of the Report, responsibility focuses such as "Building the 'Pillar of the Country' and New Quality Productive Forces" and "Building a 'Belt and Road' Community with a Shared Future" are set up. It presents the key points and highlights of the enterprises' fulfillment of responsibilities in aspects such as technological innovation and participation in the construction of the "Belt and Road", highlighting the responsibility of central enterprises. Subordinate enterprises are actively promoted to compile and release ESG reports, and a multi-form and multi-level report system is built. The effectiveness of corporate responsibility fulfillment is presented in the form of testimonials from stakeholders, strengthening the dissemination and credibility of the report, and showing excellent innovation.

Comprehensive Rating (★★★★★+)

According to the evaluation of the rating team, the process, completeness, substantiality, balance, comparability, readability and innovation of 2023 Sustainable Development Report in China National Building Material Group Co., Ltd. have reached five stars and the comprehensive rating is "five-star good". The report is a model in corporate social responsibility report.



The Sustainable Development Report of China National Building Material Group has won five-star rating for seven consecutive years and five-star good rating for the fifth consecutive year.

IV. Suggestions for Improvement

Increase the disclosure of key issues in the industry and further enhance the materiality of the report.

Signature of Vice Chairman of Committee of Rating Experts

Vice Chairman of Committee of Rating Experts

Signature of Leader of Rating Team

Leader of Rating Team

Signature of Expert of Rating Team

Expert of Rating Team



Scan code to view Enterprise rating file

Time to Issue: August 22, 2024

Feedback

Dear Readers,

Hello!

Thank you very much for your concern and support for the social responsibility work of China National Building Material Group. Please fill in the questionnaire below, and we will continue to improve and upgrade in the future work according to your opinions and suggestions.

Your evaluation for the annual sustainable development report of China National Building Material Group is:

Overall evaluation of the report: Very good Good Average Poor Very Poor

Richness of Content: Very good Good Average Poor Very Poor

Suitability of Page Number: Very good Good Average Poor Very Poor

Aesthetic Degree of Design: Very good Good Average Poor Very Poor

Friendliness of Language: Very good Good Average Poor Very Poor

In your opinion, the core of China National Building Material Group's responsibilities is:

Market performance Scientific and technological innovation Energy conservation and environmental protection Employee Care Corporate Citizenship Responsibility Management

What aspects of social responsibility management do you think we should further strengthen:

Information Collection Organization Construction Personnel Training Performance Evaluation External Publicity

Stakeholder Management Public Welfare Planning Preparation Level of Annual Report Research on Social Responsibility

Others

In what way do you prefer to know our information about responsibility performance:

Paper Report Social Responsibility Column of Official Website WeChat Official Account Professional Social Responsibility Media

Others

What do you want to see in the annual sustainable development report of China National Building Material Group?

What aspects of China National Building Material Group's performance do you pay more attention to in the future?

Other comments and suggestions?

From what position did you participate in our solicitation of opinions?

Government departments Institutional investors Medium and small shareholders Financial institutions Industry associations

Suppliers Customers Enterprises in the same industry Partners CSR professional organization Non-profit organization

News media Middle and senior management personnel of the group Employees of the group

Others

In order to get contact with you conveniently and respond to your opinions and suggestions in a timely manner, please provide your contact information and relevant information. We will keep it properly and not disclose it to the outside world.

Name: _____ Occupation: _____ Institution: _____

Contact Address: _____ Post Code: _____ E-mail: _____

Telephone: _____ Fax: _____



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Chinese Expert Committee on CSR Report Rating