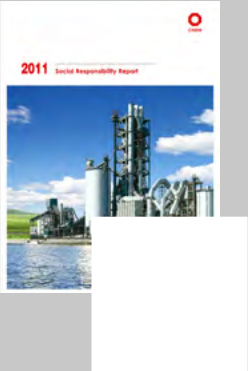




China National Buil

Report norms

This is the tenth sustainability report released by China National Building Material Group Co., LTD (hereinafter referred to as CNBM), truly reflecting CNBM s sustainability and social responsibility performance.



Entities covered by the Report

All wholly-owned or controlled (including absolutely and relatively controlled) members of CNBM. 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 Report).

Period covered by the Report

January 1st to December 31st, 2018, some contents beyond

Reporting cycle

This report is an annual report.

Basis for preparation

Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0) issued by the Chinese Academy of Social Sciences
Guidelines for the Preparation of Corporate Social Responsibility Reports (GB/T36001-2015) issued by Standardization Administration of China
Guidelines for Sustainable

Development Reports (GRI 4.0, GRI-standards) by Global Reporting Initiative (GRI)
Social Responsibility Guide (ISO26000) issued by the International Organization for Standardization (ISO)
UN Sustainable Development Goals (SDGs) 2030

Data sources

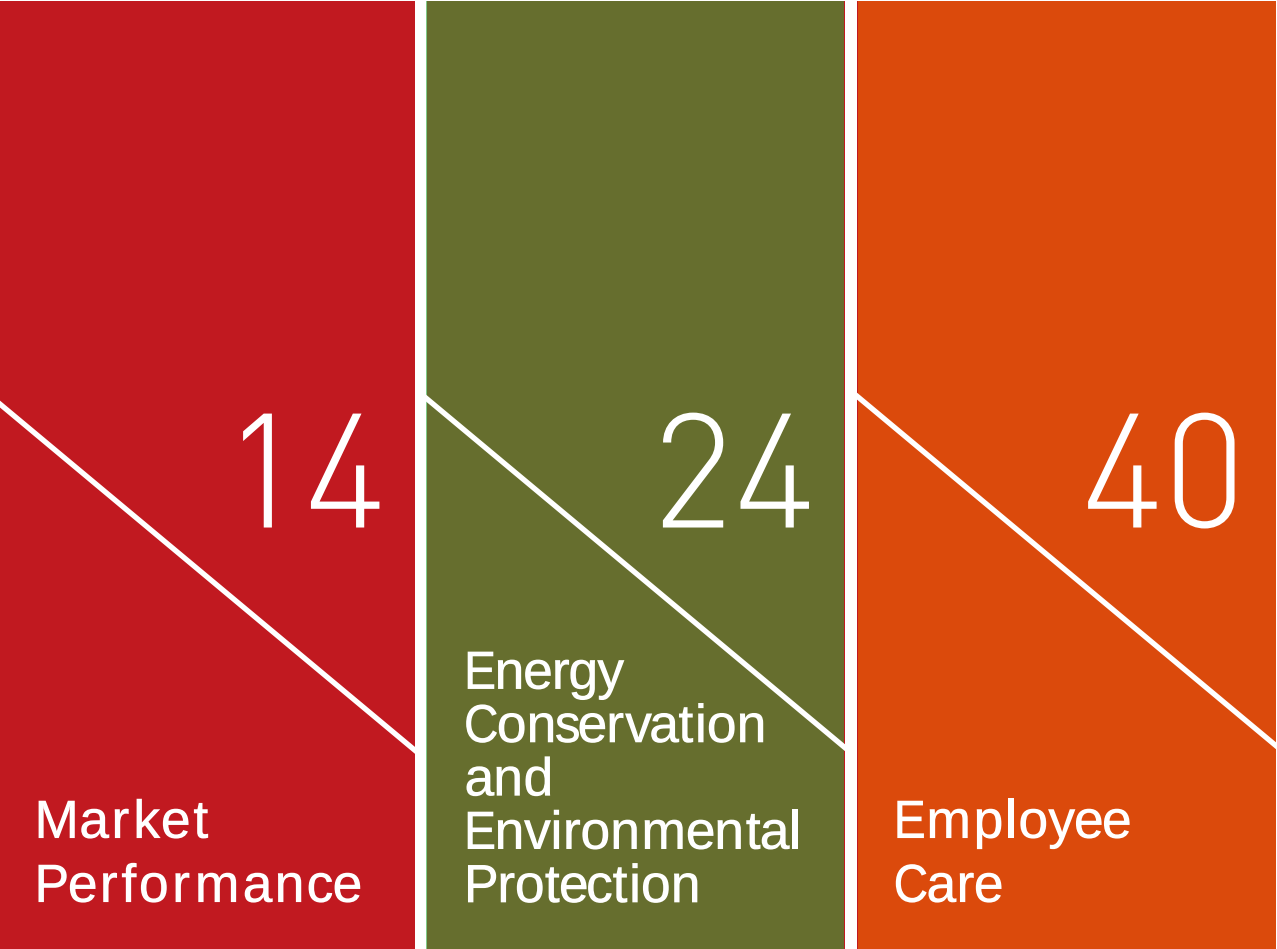
All the information and data used herein comes from the Headquarters and member companies of CNBM. Notes have been made in the Report to indicate information from external references. Unless otherwise stated, all monetary amounts are expressed in RMB.

Quality assurance

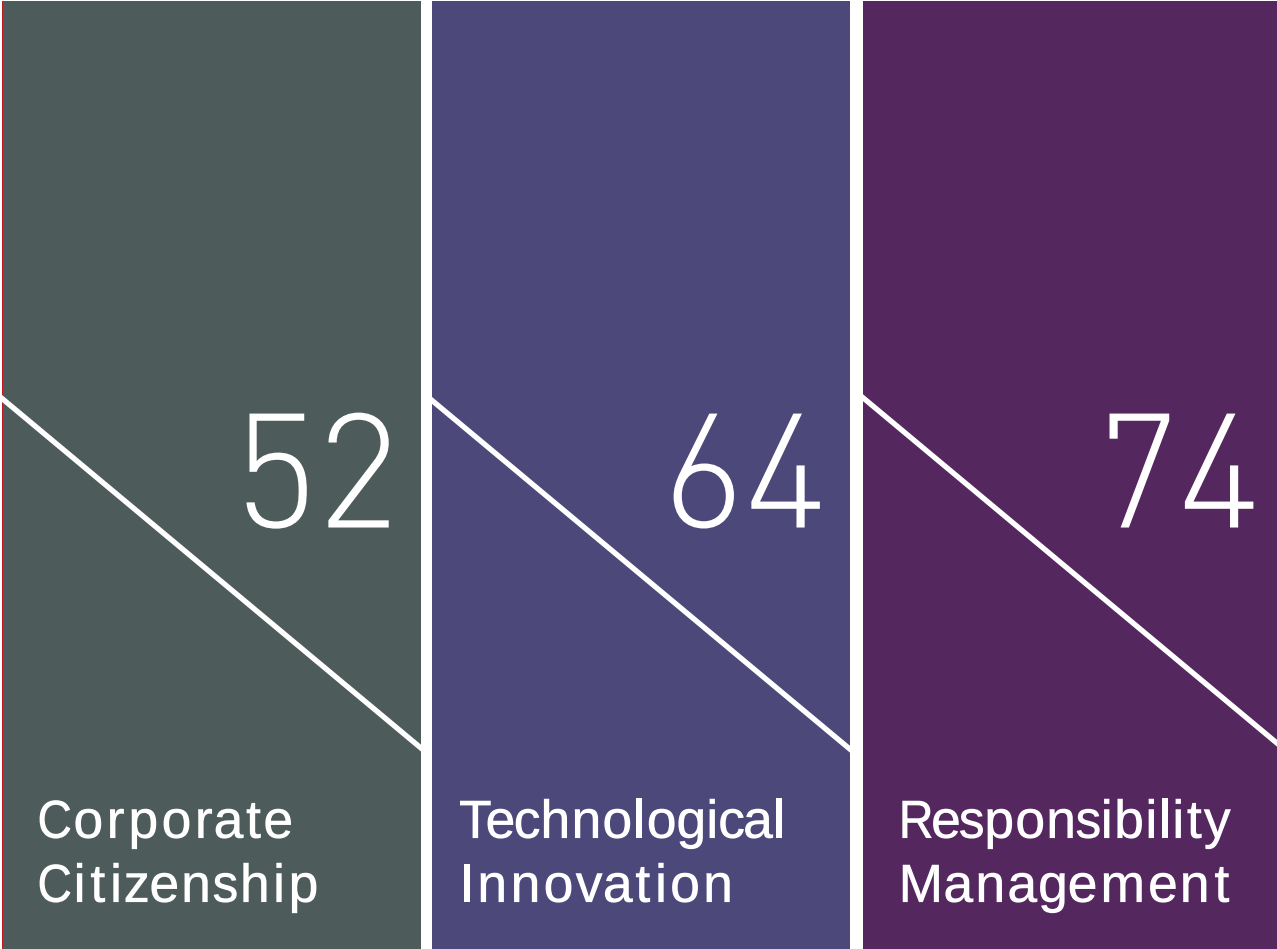
We strive to ensure the authenticity, integrity and balance of the contents in the Report, and make breakthroughs in innovation and readability. Moreover, there are no false records, misleading statements or major omissions in this Report.

Report availability

This Report has 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 print version via the contact information on the cover or log onto <http://www.cnbm.com.cn/EN/> to download the electronic version.



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Chairman’s statement

History always tells people the skills of drawing wisdom and moving forward in some special years. Looking back at our past road, comparing other people's roads and looking ahead, it can make us get a full picture where we come from and where we go.

In 1978, the spring thunder of reform and opening up awakened the Wonderful Land of China and stirred up a vibrant revival of a nation, which not only profoundly changed China, but also deeply affected the world. Also in this year, Deng Xiaoping, the chief designer of reform and opening-up, visited CNBM and gave an important instruction on constructing a factory for new-type building materials as soon as possible. CNBM was born from opening up and technology introduction, thriving in the spring of reform.

Forty years witnessed the magnificent historical voyage and the running tide of the times. We are always striving to build a world-class building materials enterprise with global competitiveness and an investment group in the new material industry. As we know that spring is bright and autumn is fruitful. We have been running one after another, across many ditches and ridges, and over many rapids and dangerous beaches. Along the way, we have not only endured great hardships, but also enjoyed dense willow trees and bright flowers; experiencing both the vigorous movement of drastic reform and the perplexity of walking on thin ice, we have written magnificent poems with our hands from introduction to going global, from enterprise reform and listing to industry restructuring, from following innovation to leading

innovation, from Fortune 500 to a world-class enterprise!

For forty years, we have watered a seedling with youth and now it has grown into a giant tree.

Adhering to the philosophy of opening roads on every hill and bridging on each river, we have been continuously traveling through mountains and rivers, and have created a modern management road with the CNBM characteristics. Enterprises affiliated to the Group were the earliest to be restructured and listed in the industry, and also the earliest to be listed overseas; set up high-tech enterprises to achieve curve overtaking; implemented restructuring of China National Building Materials Group Corporation and China National Materials Group Corporation

to change the development process of the whole building materials industry, affecting the pattern of the world building materials industry. At one time, when we were under great pressure to restructure South Cement, Comrade Xi Jinping, then Secretary of the Shanghai Municipal Party Committee, sent us special letter of congratulation and personally encouraged us. Today, we can proudly report to General Secretary that in 2018, under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, we accomplished our business tasks well by striving for organizational strength with rock-solid confidence, vigor and perseverance in accordance with the principle of steady growth, restructuring, reform and strengthening party building, accelerating the implementation of the cement + strategy, further deepening the “tripartite” business pattern of cement, new materials and engineering technology services. The Group achieved 348 billion yuan in operating income, 20.66 billion yuan in profits and 76.8 billion yuan in social contributions, creating the best operating performance in history. Profits are outstanding in cement, ready-mixed concrete, fiberglass, plasterboards and other business. The merger of the China National Building Materials Group Corporation and China National Materials Group Corporation has been successfully accomplished, with the voting approval rate of shareholders over 99%, which has become a typical case in the international capital market.

Over the past 40 years, we stimulated innovative momentum and climbed depopulated peaks bravely.

Looking back on our past way, it is rich in vastness but poor in green scenery. With the spirit of courage and aggressiveness arising from reform and opening up, we have created world-class 10,000-ton cement production lines, 1,000-ton glass production lines, 60-million-square-meter plasterboard production lines and 120,000-ton tank furnace wire-drawing production lines. In 2018, our high-performance carbon fibers, ultra-thin electronic glass, lithium battery diaphragms, silicon nitride and boron nitride industrial ceramics have achieved mass production, with the technological patents more than 10,000; one scientific research project has won Special Award of National Science and Technology Progress Award and two enterprises have won the China Industrial Award. Our scientific and technological achievements are supporting the development of the world building materials industry towards a greener, more intelligent and more beautiful direction.

Over the past 40 years, we have crossed mountains and rivers to integrate into the global market and build a common destiny.

Looking back at the changes of the world and China's vision, we are confident that we can go wider and wider in the world. We

About us

Company profile

China National Building Material Group Co., Ltd. (CNBM) was founded through the merger of the China National Building Materials Group Corporation and China National Materials Group Corporation .

Having integrated its scientific research, manufacturing and logistics, CNBM boasts of the largest manufacturer for building materials and an integrated service provider leading throughout the world. It has been listed in the Fortune Global 500 for eight consecutive years. As at the end of 2018, the total assets of the Group amounted to 600 billion yuan and its total number of employees was beyond 200,000. In 2018, CNBM achieved the revenue of more than 300 billion yuan. Headquartered in Beijing, CNBM controls 13 listed companies including 2 overseas listed companies. The Group can produce

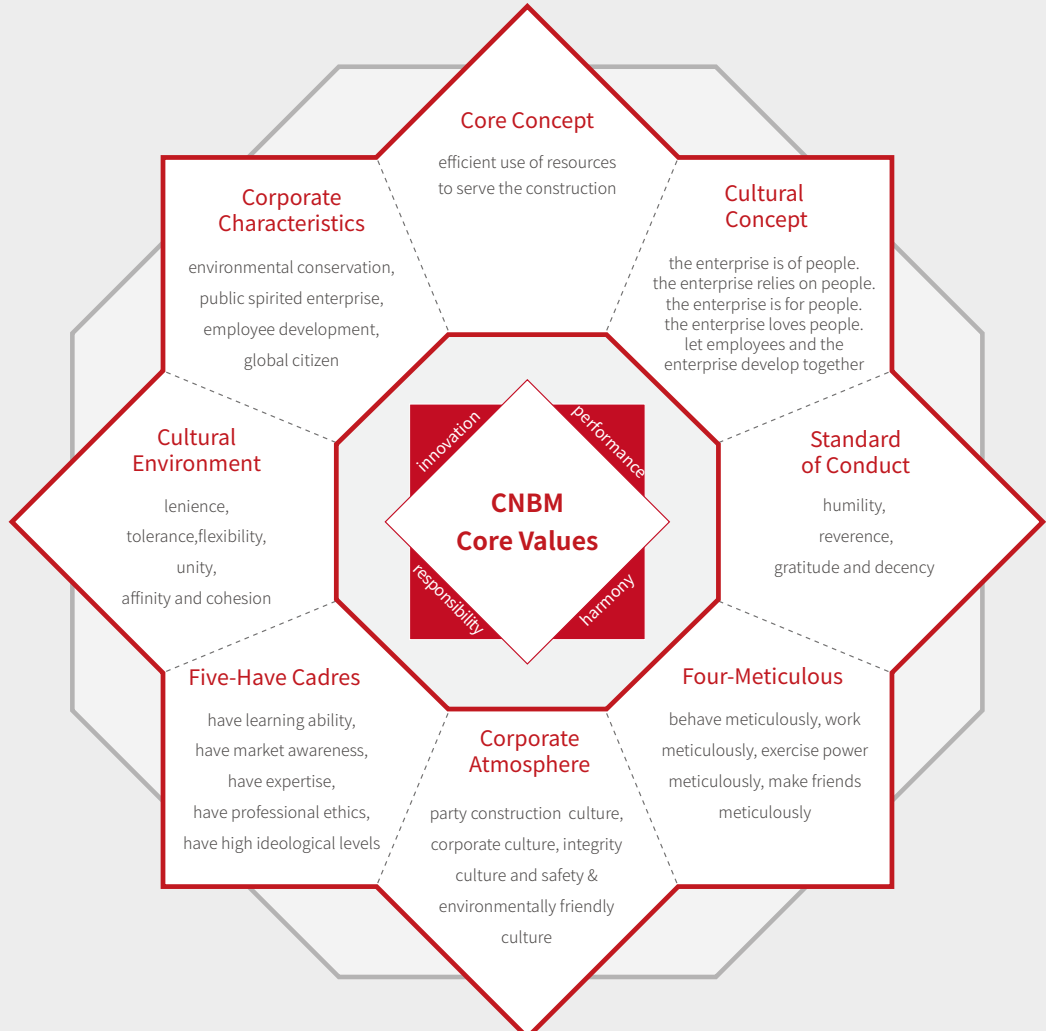
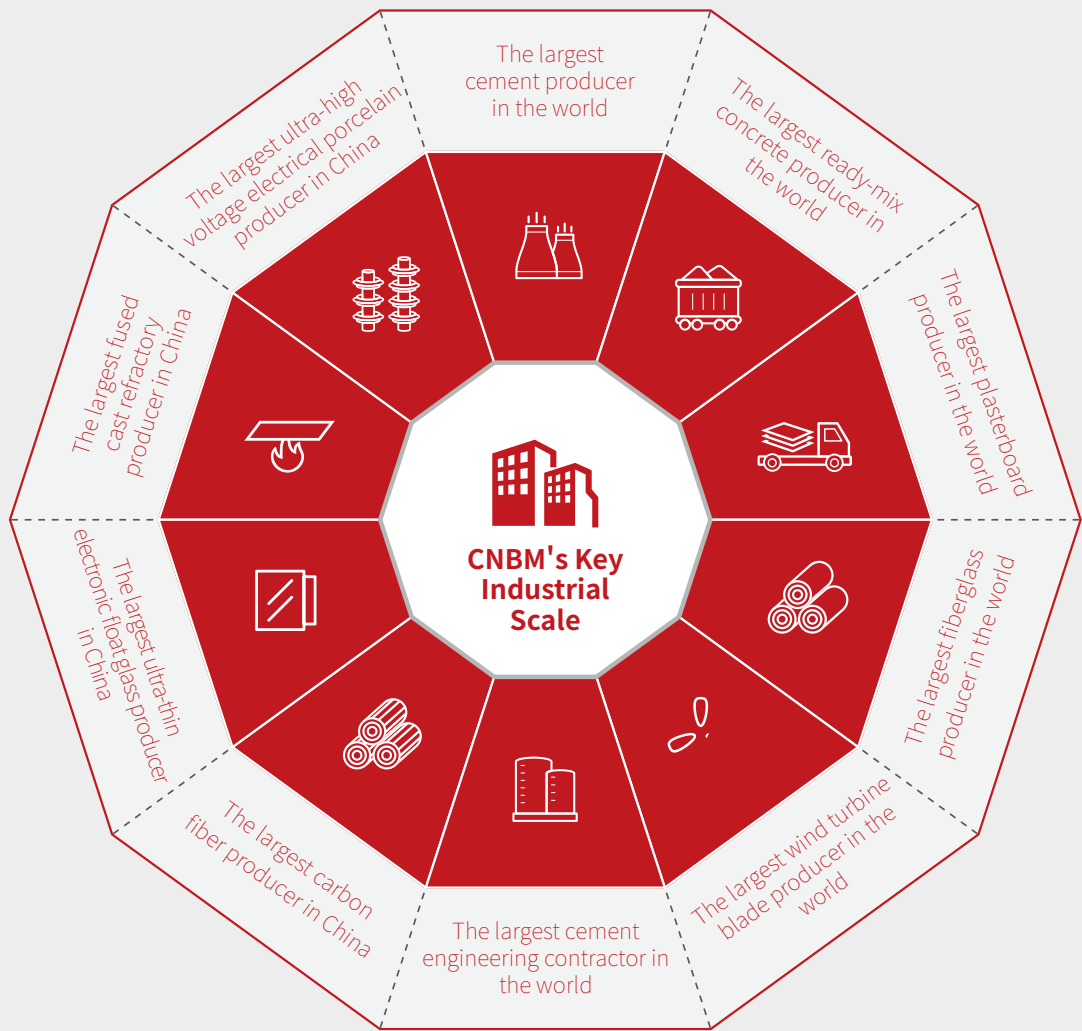
400 million tons of cement clinker, 460 million m³ of ready-mix concrete, 2.47 billion m² of plasterboard, 2.5 million tons of fiberglass and 31,500 pieces of GW-capacity wind turbine blades per year, all of which rank first in the world. It is also the No. 1 player in the international cement engineering market and international cogeneration market. CNBM also takes possession of 26 national scientific research and design institutes, 23,000 scientific R&D and technical engineering employees, 33 national industrial quality inspection centers, more than 10,000 patents, 3 national key laboratories, 8 national engineering (technology) research centers and 18 national standardization technical committees.

Corporate culture

In order to fulfill its social and economic responsibilities satisfactorily, CNBM adheres to the core values of "Innovation, Performance, Harmony and Responsibility " and the standard of conduct "humility,reverence, gratitude and decency " . At CNBM, under the people-oriented principle, we actively build a cultural environment with lenience, tolerance, flexibility, loyalty, affinity and cohesion and create an atmosphere that integrates Party culture, corporate culture, integrity culture and safety & environment-friendliness culture. In addition, as realizing the happiness and value of

the state is taken as a major ultimate goal, we make great efforts to cultivate 'four-meticulous' and 'five-have' cadres, and strive to bring about enterprise-employee co-growth' .

Corporate Culture Model of CNBM

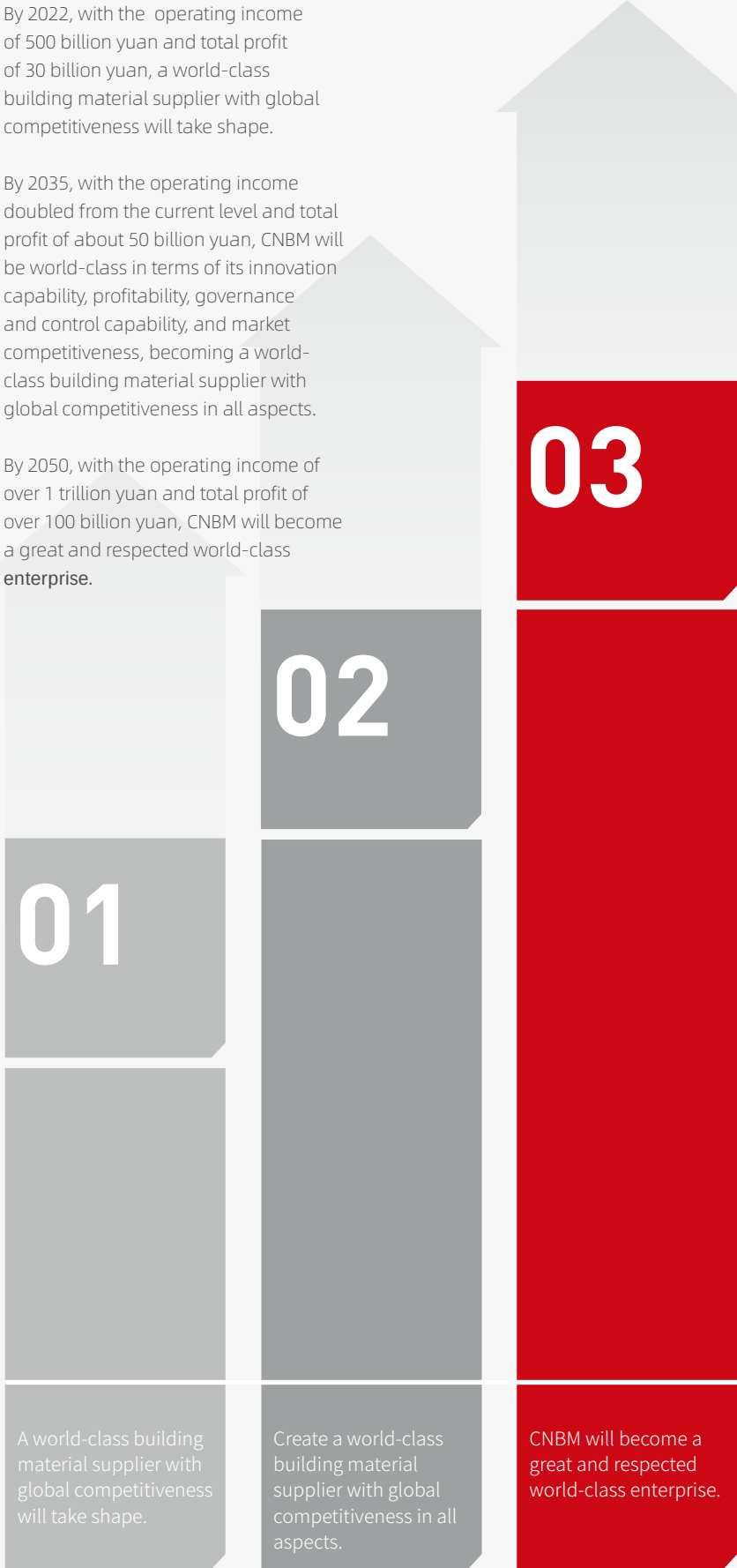


Development strategy

CNBM vigorously implements the new concept of development, forming a business pattern in which the cement, new material and engineering technical service segments constitute a tripod, and striving to become a world-class building material supplier with global competitiveness. We keep the following missions in mind: Take on heavy responsibilities and guarantee both quality and quantity in the undertakings of new-type urbanization and a new countryside with products and services; actively guide resource integration and structural adjustment in the building material industry, advocate industrial self-discipline, increase the value of the building material industry and establish win-win partnerships with other practitioners so as to enable the healthy development of the building material industry; make great efforts to technically average up the building material industry and increase its innovation capability, boost the transformation and upgrading of the building material industry, and lead the building material industry to become resource-conservative and environmentally friendly; continuously and steadily promote the reform of CNBM in accordance with the market laws, release systems and mechanisms that meet the requirements of the market economy, and contribute passion and full efforts to the great rejuvenation of China.



Goals and tasks



Management team

The Board of Directors has 4 special committees in accordance with the Company Law, the requirements for **standard operation of the board of directors** and the needs of the work and the expertise of the external directors. The committees for remuneration,

assessment, and audit and risk management are all composed of external directors.

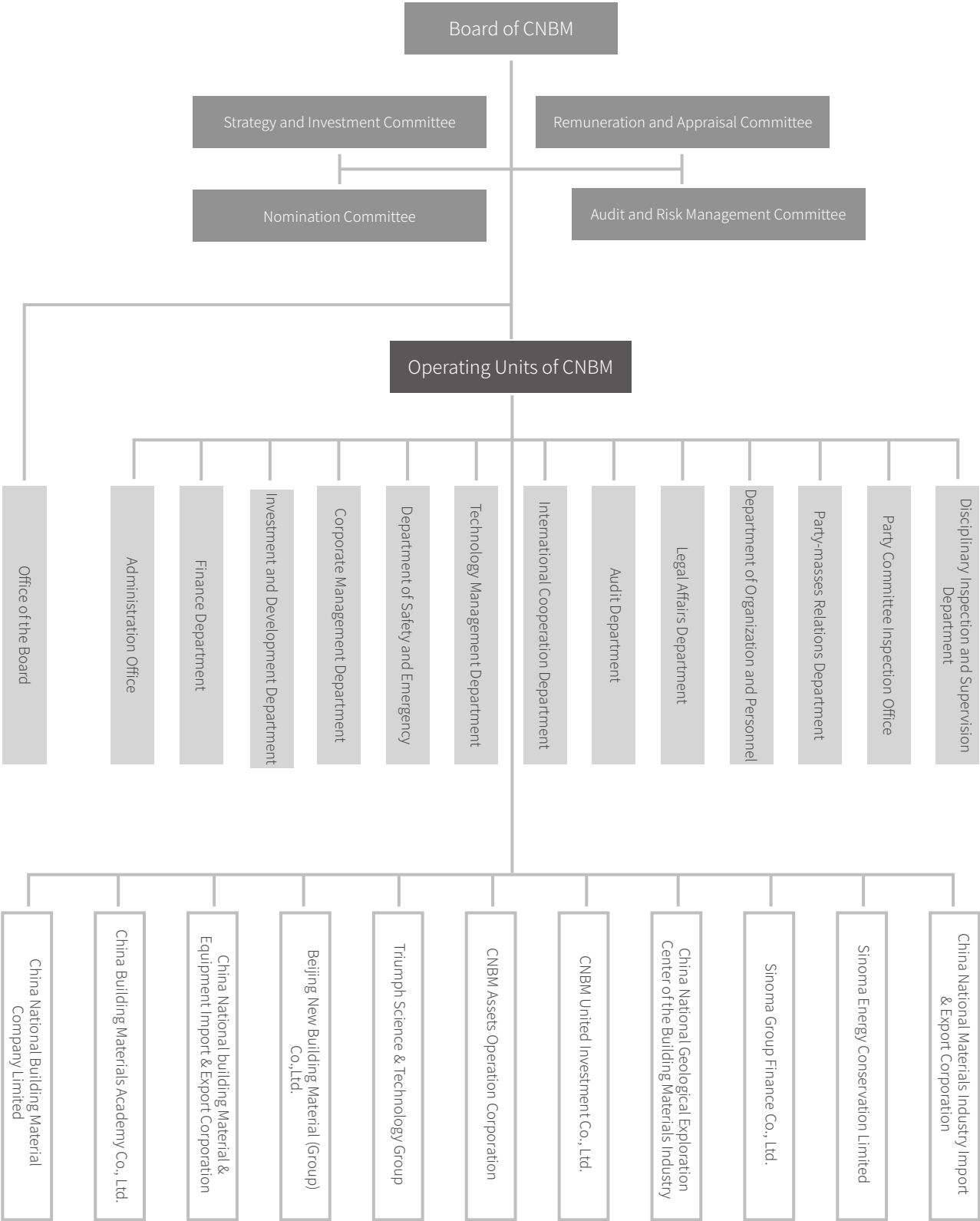
CNBM Management Team

Song Zhiping	Liu Zhijiang	Cao Jianglin	Li Xinhua
Chairman and Party Committee Secretary	Vice Chairman and Deputy Party Committee Secretary	Director, President and Party Committee Standing Member	Vice Chairman and Party Committee Standing Member

Zhao Xiaogang	Chen Jinen	Zhao Jibin	Sha Ming	Xu Lipeng	Zhang Yanling
External Director	External Director	External Director	External Director	External Director	External Director
				Liu Xinquan	Wang Yumeng
				External Director	Employee Director and Trade Union Chairman

Xu Weibing	Sun Lishi	Huang Anzhong	Yang Jie	Chang Zhangli
Party Committee Standing Member and Chief Accountant	Deputy Party Committee Secretary	Party Committee Standing Member and Vice President	Party Committee Standing Member and Discipline Inspection Commission Secretary	Party Committee Standing Member and Vice President

CNBM Governance Structure



Main businesses

1

Cement

CNBM has an annual production capacity of 520 million tons of cement and 460 million m³ of ready-mix concrete, both of which rank first in the world.

China United Cement Corporation, South Cement Company Limited, North Cement Company Limited, Southwest Cement Company Limited, CNBM Investment Company Limited, Sinoma Cement Company Limited, Xinjiang Tianshan Cement Co., Ltd., Ningxia Building Materials Group Co., Ltd., Gansu Qilianshan Cement Group Co., Ltd.

2

Engineering and Production Services

We have captured 65% shares of the global market in cement and glass engineering and cogeneration engineering; moreover, we are expanding our market shares in such fields as new glass, new energy, new materials, new housing and so on.

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

New Materials



The annual production capacity of plasterboard is about 2.47 billion m², ranking first in the world. We have high-end brands in the international market and proprietary intellectual property rights, as well as three business sectors: wall and suspended ceiling systems, housing parts and architectural energy conservation systems, and exterior building envelope systems. We provide an application solutions package for public buildings and family housing with our complete product system.

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

CNBM's annual production capacity of fiberglass is 2.5 million tons, ranking first in the world. We have the world's largest alkali-free tank furnace production line with an annual capacity of 120,000 tons and the proprietary intellectual property rights of such packaged technologies as alkali-free tank furnaces, medium alkali tank furnaces and the fiberglass waste silk recycling process.

China Jushi Co., Ltd., Taishan Fiberglass Inc., Sinoma Jinjing Fiberglass Co., Ltd.

CNBM has an annual production capacity of 24,380,000 weight cases of ordinary float glass and 211,700 tons of ultra-thin float glass ,ranking first in China.

Triumph Science & Technology Group

The annual production capacity is 450,000 tons. We have the world's largest professional fusion-cast refractory production base with an annual production capacity of nearly 40,000 tons, and an automatic unshaped refractory production line with an annual production capacity of 100,000 tons. Our products include refractories in the fusion-cast zirconia alumina and fusion-cast aluminum oxide series, as well as unshaped, basic, alumina-silica and silica refractories.

Ruitai Materials Technology Co., Ltd.

4



26 national scientific research and design institutes including China Building Materials Academy Co., Ltd., Tianjin Cement Industry Design & Research Institute Co., Ltd., etc.

5

New Energy



We have established a whole industrial chain of BIPV (Building Integrated PV) with a focus on thin-film solar products and technologies. We are committed to the integrated application of new energy materials and distributed energy, as well as carrying out the R&D and promotion of new-energy housing. We have set up a 100 MW CIGS thin-film solar cell production base and a 100 MW CdTe power generation glass production base. Moreover, we have also developed several PV power stations in China and other countries and regions.

Triumph Science & Technology Group, China Triumph International Engineering Co., Ltd.

New Housing

We have several product systems including steel, PC, etc. As one of the first national demonstration bases of housing industrialization and one of the first assembled building industrial bases, we have many demonstration bases of new housing production in Beijing, Sichuan, Jiangsu, Hainan, Heilongjiang, etc. We are an advocate and promoter of the new environment-friendly and energy-conservation housing industry of China.

Beijing New Building Material (Group) Co., Ltd., China Building Materials Academy Co., Ltd., China Triumph International Engineering Co., Ltd., and China New Building Group Corporation

6

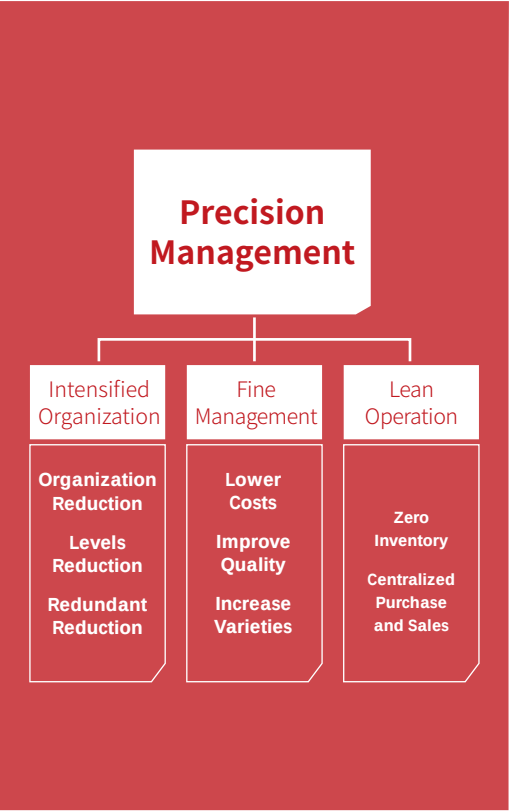
China National Geological Exploration Center of the Building Materials Industry, China Non-metallic Minerals Industry Co., Ltd., South Graphite Co., Ltd.

Sinoma Group Finance Co., Ltd., CNBM United Investment Co., Ltd.

Market
Performance

“1+1>2”

From the beginning of reform and opening up to the reorganization of China National Building Materials Group Corporation and China National Materials Group Corporation, generations of CNBM staff members have dedicated themselves to pursuing their dreams with youth, striving unremittingly to build a world-class building material enterprise with global competitiveness. In 2018, the Group achieved the best operating performance in history .



📍 Logistics Wharf Project of Huzhou South Cement Company Limited

Data Review 2018

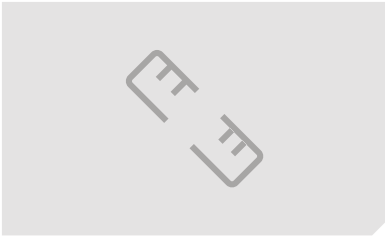
4,809 law-abiding and compliance training sessions held and organized

150,652 person-times of employees participated in legal publicity and education activities

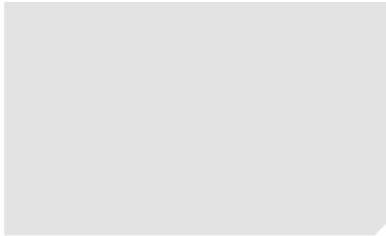
The legal review rates are 100% for rules and regulations, business decision-making and business contracts.

The performance rate of economic contracts is 98%

Stabilized growth



Insisting on the working rule of lawful, compliant and honest operation, we have established a standard corporate governance system. As the strategic, resource and cultural center, the CNBM headquarters exercises the rights and performs the duties of the capital contributors. Its business platforms focus on their core expertise and main businesses to build up profit centers. As operating entities, the enterprises at the primary level implement strict cost control while assuring quality.



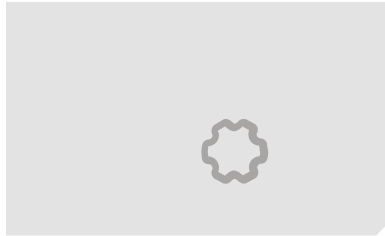
Adhere to lean organization. In the whole year, clean up all seven-level enterprises and realize six-level legal persons and four-level management levels; separate and handed over 153,100 three-supply and one-management entities (namely, water, power and heat supply and property management); deal with 34 entities in trouble.



In the case of 15% year-on-year increase in operating income in 2018, reduce the occupancy of two funds by 6.4 billion yuan at the end of the year and increase the turnover of accounts receivable and inventory by 0.8 times; let the capital expenditure focus mainly on transformation, upgrading and scientific innovation, and substantially increase investment in new materials.



Put prevention and mitigation of major risks in a prominent position, and bring 23 fellow enterprises into the report 2018 on comprehensive risk management, basically covering the major business sectors and important key enterprises; formulate 164 internal management systems and 3 risk control plans throughout the year; carry out various forms of activities for law popularization and thoroughly implement the concept of legal system.



We have created the profit model of price-cost-profit, the competition model of coexistence and multi-win, six-star enterprise rules, eight management measures and the working method of increasing efficiency and reducing expenditure and consumption. Moreover, we have put forward the precision management to effectively promote the high-quality development of the enterprise.

Structure adjustment

We constantly accelerate the transformation of the new and old kinetic energy around the tripod industrial structure. We thoroughly practice the price-cost-profit concept in the cement sector, taking the lead in eliminating low-grade cement and further accelerating transformation and upgrading; deepening and developing the strategic emerging industrial clusters, striving to build a number of high-end and sophisticated projects such as high-end carbon

fiber and intelligent glass fiber, and promoting plasterboard, glass fiber, **wind power blades and new housing**, etc. towards high-end development to form a pattern for stable and sustainable profits; actively developing large R&D services, cross-border e-commerce + overseas warehouses, smart industries and other manufacturing services to constantly expand scale benefits.

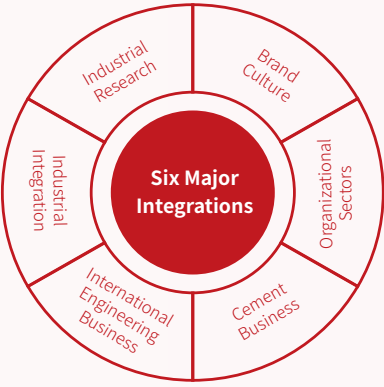
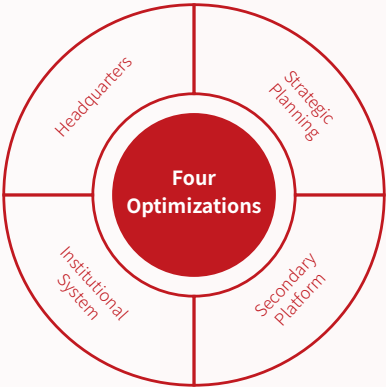


On October 17 - 19, 2018, China Wind Power 2018 (CWP2018) was held in Beijing. As the leading wind turbine blade enterprise, Sinoma Blade was invited to attend and was awarded with Sinoma 59.5D Blade IECRE Component Certificate issued by German TÜV NORD (world-famous certification authority); moreover, the certificate is the global first blade component certificate issued by the international authoritative certification system IECRE.

Focus on reform

In 2018, the stock exchange, as the core of the reorganization, was completed for the merger of China National Building Materials Group Corporation and China National Materials Group Corporation, the merger scheme was approved by more than 99% shareholders and 100% employees and the listing succeeded in Hong Kong, which has created an unprecedented case of reorganization in the capital market; in the Group level, the four-optimization scheme was

completed and the six-integration plan was implemented; the business sector was deeply integrated and optimized.



Tripod

Based on the target requirements of cultivating world-class enterprises with global competitiveness proposed by the 19th CPC National Congress, the Group has transformed the enterprise's extended growth into endogenous organic development and formed a "Tripod" business pattern of cement, new materials and engineering technology services.

Continuous optimization and upgrading of cement



Take you to see the full view of integrated development of China's cement industry and the rise of CNBM in 130s

In 2018, the Group continued to adhere to "six unwaveringly", firmly promoted the supply-side structural reform and promoted the improvement of product standards; deeply practice the "price-cost-profit" operation principle, and consolidate the core market by retaining big customers, large projects and key projects; promote fine management, lean production, deepen benchmarking management, decrease cost and increase benefit; accelerate the development of the "cement +" model, optimize the layout of cement and commercial concrete, and expand the construction of aggregate

project; continue to strengthen mine construction and management to achieve sustainable development; carry out the intelligent demonstration lines and co-processing in cement kiln steadily. A total of 6.23 million tons of backward production capacity of cement clinker was eliminated throughout the year; the cement grinding has a backward production capacity of 12.28 million tons, which promotes the cement industry to move toward green, intelligent and artistic high-quality development.


Green

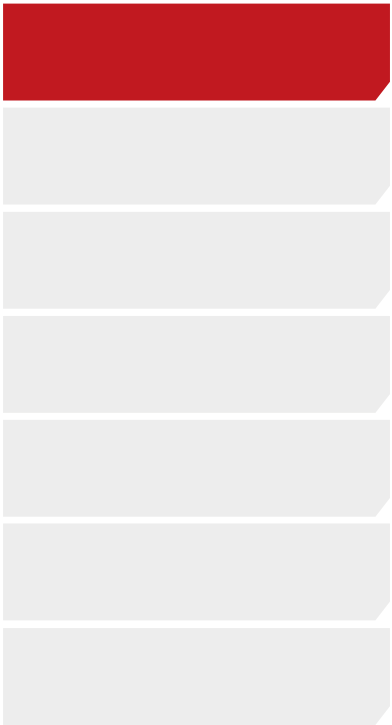
South Cement Company Limited adheres to the green development and creates an "ecological environmental protection building materials industry park", to achieve the integrated development of the whole industry chain


Intelligent

Explore the operation of the whole industry chain of "cement + Internet + big data" and promote the "cement + internet + big data" model steadily. The intelligent production line of China United Cement Tai an Co., Ltd. came to its unique viable birth, so it became the world's intelligent manufacturing pioneer in the cement industry


Art

Promote the construction of an art cement factory, make the facilities of every factory the works of art and change the traditional image of the cement factory



In 2018, China United Cement Nanjing region broke the "small cement" limitation and creatively launched the "cement + trade" model. Taking the commercial concrete demand as the lever, the cement base as the main body, and the self-produced cement as the adjustment, realizes the supply of cement comprehensively docking with the commercial concrete by the cement plant. The purchase price of the cement in the commercial concrete business is lower than the market price by 20 yuan/ton, thus effectively reducing the cost. During the control and shutdown of the kiln, the supply can be guaranteed, and chips are added to

winning the market of the commercial concrete, especially key projects and huge-scale projects. China United Cement Nanjing reduced the domestic sales of self-produced cement and was put on the market at a reasonable price. It controlled the cement market of 5 million tons with an annual output of 2 million tons, increased the profit and market discourse right, improved the market bargaining power and achieved double improvement in the efficiency of cement and commercial concrete.

📍 B75 blade of Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd.

📍 The largest surface photovoltaic power station in England constructed by China Triumph International Engineering Co., Ltd.

- High-performance carbon fiber T1,000 Class and T700 Class realized 100-ton and 1,000-ton mass production respectively
- The carbon fiber core cable was successfully applied to 1,000 kV UHV project
- The world's thinnest 0.12mm touch glass, cadmium telluride power generation glass, high permeability photovoltaic glass, lithium battery diaphragm, silicon nitride and boron nitride high-precision ceramics realized the industrial mass production
- LZ84-6.0 blade refreshed the world record of glass fiber blade length
- The composite overwrapped pressure vessel for deep sea assisted "Exploration 1" to complete the 10,000m sea trial
- SYT49-24K high-end carbon fiber products broken through the kiloton key preparation technology
- E7, E8 and E9 series of glass fiber achieved high-efficiency industrial production of 10,000-ton tank furnace
- The Group has become the third global and the sole domestic enterprise that can conduct the large-scale batch production of hot isostatic pressing high-end silicon nitride ceramics bearing balls

Rapid development of new materials

We firmly grasp "three curves", adhere to "transformations of four modernizations", have added new material business.

Significant results in engineering services

As the global largest building materials manufacturer and engineering service provider, the overseas market share of the Group in the international cement EPC business has ranked first in the world for nine consecutive years, and glass engineering keeps its leading role in the global market share. In 2018, the Group participated in the First China International Import Expo and signed a purchase agreement of 12 billion yuan; It co-built a database with overseas companies, and the professional

strength has obtained international recognition; The engineering service sector deepened internal collaboration and jointly studied the global layout and market. The comprehensive gross margin reached the historical highest level. Sinoma International has assisted in the implementation of more than 50 domestic and international projects; Sinoma Mining Construction Co., Ltd. and South Cement Company Limited conducted the collaborative management of 13 mines; China National Geological Exploration Center of Building Materials Industry and cement enterprises signed 124 cooperation projects; The bagged cement robot loading system developed by Triumph and the intelligent production information technology of Nanjing Kisen Cement are applied in cement enterprises; The integration of industry and finance has been rapidly promoted, and the finance company has served the group fellow enterprises, saving a total of financial expenses of 110 million yuan.



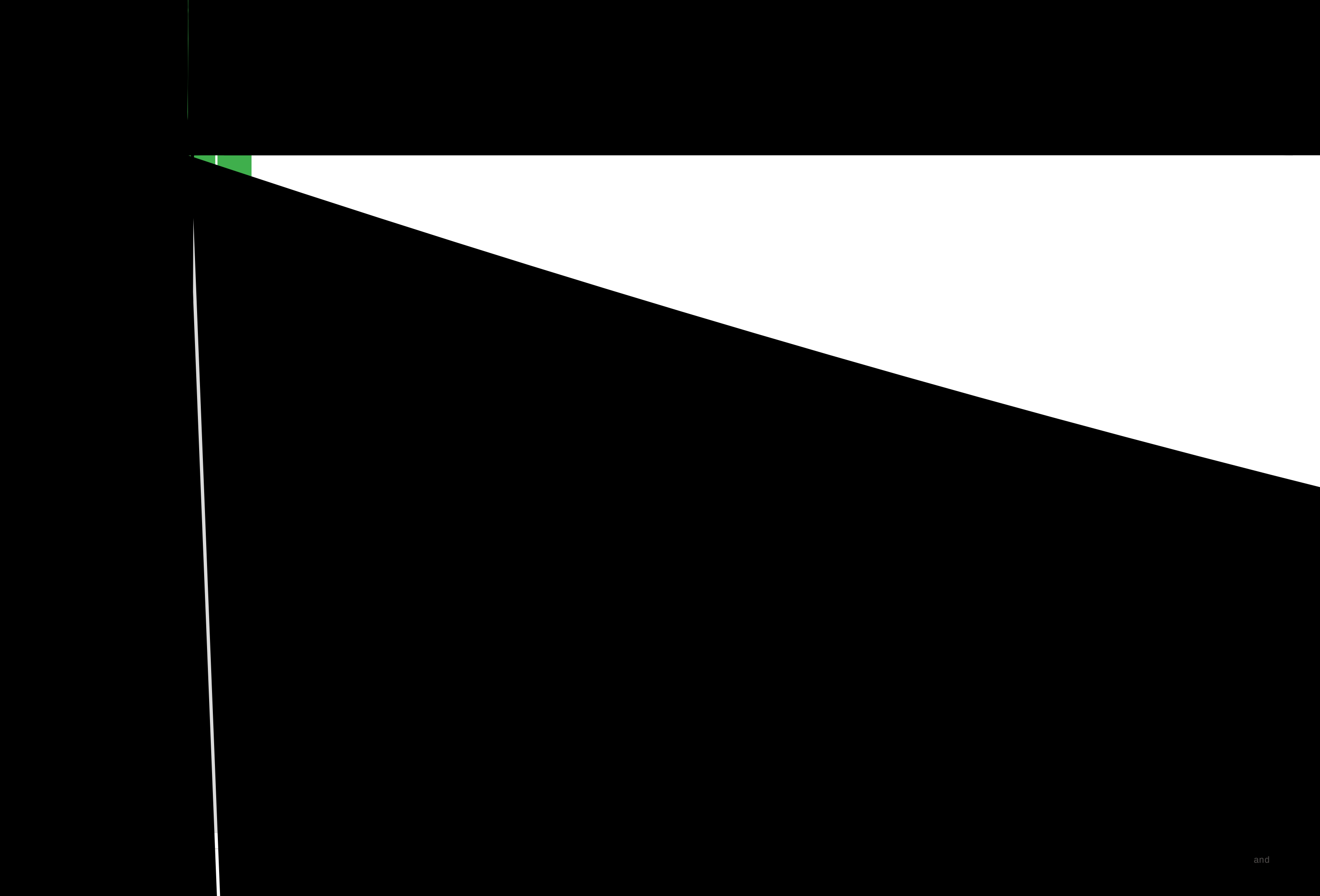
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Materials change the world. What will the future world become? It will have a close relationship with today's development of materials! On September 15, 2018, CCTV-2 broadcasted "Approaching the Frontier New Materials", telling the story about the R&D of new materials of CNBM!



On January 10, 2018, the "2nd Annual Lancang-Mekong Cooperation Achievement Exhibition" was held in Phnom Penh, Cambodia. CNBM, the "national business card" of the building materials industry, was invited to participate in the exhibition. On the occasion of the Second Lancang-Mekong Cooperation Leaders' Meeting, Premier Li Keqiang and the leaders from many countries visited the cooperation exhibition, and visited the booth of CNBM and learned about relevant situations during the meeting. Leaders from various countries showed profound interest in the high-tech new

materials of the Group, and stopped to watch them in front of the solar panel model and the ITO electropane booth. Premier Li Keqiang also watched the PTEF garment waterproof test, seriously asked about the fabric material characteristics, and highly affirmed and praised the rapid development of carbon fiber and new ceramic materials of the Group and the international influence of cement equipment and technology.



Green development

Yunnan Dali Villa Project of BNBM House Co., Ltd.

Green management

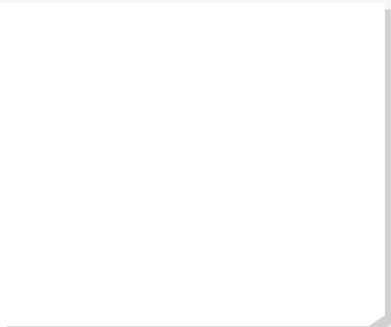
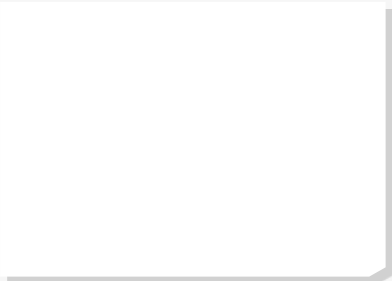
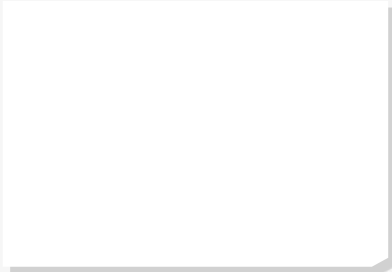
We regard green development as one of the three development strategies, adhere to the value ranking of "environment, safety, quality, technology and cost" and deeply implement the "Responsibility Blue Sky" action plan. In 2018, the Group invested about 4.4 billion yuan in energy conservation and environmental protection, and there were no major and more serious environmental accidents.



Set up a leading group for energy conservation and emission reduction. The headquarter sets up a social responsibility and energy conservation and environmental protection office, and all fellow enterprises establish energy conservation and environmental protection function organizations by category and hierarchy to achieve the comprehensive coverage of the energy conservation and emission reduction management system.

Issue and implement 5 management systems related to energy conservation and emission reduction, standardize production and management behaviors of enterprises, formulate the classified assessment targets and assessment plans, tighten emergency report and emergency disposal barriers, and form the closed-loop management of energy conservation and environmental protection.

Incorporate the annual energy conservation and emission reduction capital investment into the comprehensive budget management system, and formulate the plan for the use of fund to ensure the implementation of technical transformation and management improvement.



Risk investigation

We carry out the environmental protection fixed-point and timing inspections in key enterprises and key fields and realize working mechanisms for talking about the environmental protection at meetings and investigate and check the environmental protection on a business trip; actively implement investigations on environmental pollution sources and risk points, supervise the effective rectification **of hidden dangers, and strengthen** employees' environmental awareness and emergency capacity. In 2018, a total of 2,419 pollution sources and 199 risk points were investigated, and 1,752 environmental accident emergency drills were carried out. All pollution sources and environmental risk points were in a stable and controllable state.

Technical cultivation

We accelerate the R&D of green high-quality products and technical transformation. Three new industries represented by new materials and new houses develop by leaps and bounds. We put priority on the development **of waste heat power generation,** desulfurization and denitrification, comprehensive utilization of industrial waste residue in the field of technology, actively build a green industry complex integrating smart houses, PV power generation and intelligent agriculture and sign a cooperation agreement for 5,000 smart houses in Spain. BNBM has independently developed the gypsum board and high-efficiency SCR **denitration and tail gas desulfurization** systems have achieved near-zero emission standards; The raw material vertical mill external circulation technology of Sinoma International has realized the industrial application for the first time in China. When the production is increased by 44t/hour and NOx emission is reduced by 50%.



The 2nd Solar Decathlon was held on August 3, 2018. China Triumph International Engineering, Wuhan University of Technology and New Jersey Institute of Technology formed the joint team of CNBM and took the "New Energy Smart House" to the contest. "New Energy Smart House" makes full use of the Group's industrial advantages and technological advantages, is committed to achieving green, energy-saving, ecological and environmentally friendly architectural design concepts, and comprehensively promotes the industrialization and large-scale development of new solar energy technologies and new products. The house adopts the cadmium telluride power glass independently developed by Triumph Science & Technology as the building facade, which fully integrates the production capacity with the architecture, decoration and efficacy, and truly realizes the building integrated photovoltaics. In terms of building materials, the wall adopts new environmental protection materials produced by BNBM, which effectively reduces energy consumption and environmental pollution.

The employee of Taishan Fiberglass Inc. conducts the site routing inspection

Green manufac- turing

Data Review 2018

Total energy consumption

37,910,400
tons of standard coal equivalent

Clean energy consumption

4,426,400
tons of standard coal equivalent

Comprehensive energy consumption per
10000 yuan of industrial value added

4.39
tons of standard coal equivalent

Fresh water consumption

151m
t

Sales volume of energy-saving / environmental
protection equipment

11,783
units/set

Energy-saving and green adding

We adhere to sustainable long-term development, avoid or mitigate the impact on the landforms and landscape to the utmost extent, maximize the restoration of ecological environment, and strive to make the mining in harmony with natural environment. At the same time, we actively provide three means (energy conservation by technical modifications, energy conservation by management, and energy conservation by intelligent control), and continuously increase the comprehensive utilization of solid waste resources, and implement the upgrade

of waste heat power generation system with an annual energy output of 13.77 billion kWh. Tianshan Cement has developed the first bypass release pure low temperature waste heat power generation system in China, and the power generation capacity of tons of clinker has reached the highest level in the industry.

South Cement Company Limited adheres to the concept of "lucid waters and lush mountains are invaluable assets", and promotes the reforestation of mines in the light of local conditions. The company adheres to both mining and treatment and takes a series of engineering measures such as slope cutting, degrading, leveling

slope of the mine. After the design requirements of the development and utilization program are met, the anchoring, hanging nets and sloping greening projects are carried out on the slope steps and slope surface in accordance with the Geological Environment Treatment and Land Reclamation Plan. After the mixed materials are mixed well in proportion, the dry materials are sent to the nozzle by a jet pump and an air compressor, and are mixed with a proper quantity of water at the

nozzle and then they are sprayed on the slope surface and the iron net. The spraying thickness is 15cm on average; The slope surface after spray seeding should be covered with plastic sunshade net in time to protect the grass seed from scouring and loss, and to achieve heat preservation and moisturization to promote the germination and growth of the seeds and prevent the birds and beasts from swallowing the seeds. When the grass seeds generally emerge and most of them reach the trefoil stage, the plastic sunshade net is removed to ensure the reforestation of mines.

Qinghai Qilianshan Cement Co., Ltd.



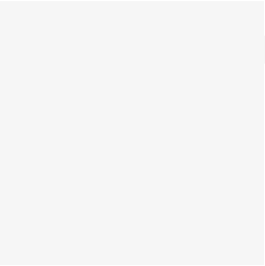
The cement and glass plates construct the power plants through laying photovoltaic energy ,gradually promote "cement + photovoltaic power station" and "glass + photovoltaic power station" and other new models. South Cement Company Limited can save 140 million kWh and 37,000t standard coal annually through technical innovation.



Actively promote the energy management system certification, and continue to optimize it through fine management, energy efficiency diagnosis, and benchmarking management. The Commercial Concrete Section of CNBM Investment Co., Ltd. implements the "lean production and fine management", saving 800,000 kWh annually.



Promote the intelligent control system of the kiln grinding system to achieve good quality, high yield and low consumption and increase the labor productivity. The "Integrated Standardization and New Model Application of Intelligent Manufacturing of the Ministry of Industry and Information Technology" of Zhongfu Shenying Carbon Fiber Co.,Ltd. has improved the quality stability and production efficiency of high-performance carbon fiber products.



We are committed to protecting the ecosystem on the project site and around the project, resolutely win the pollution prevention battle, actively respond to climate change, strengthen the pollutant discharge control, and promote the co-processing of municipal **waste, sludge, sewage and hazardous waste** in cement kiln and strive to build a harmonious relationship between human and nature.

Carbon dioxide emissions

206m
t

Nitric oxide emissions

159,900
t

Sulfur dioxide emissions

20,700
t

COD emissions

650.99
t

Soot emissions

819,100
t

Amount of urban garbage disposal

1.91m
t

Sludge disposal capacity

1.72m
t

Discharge of industrial waste water

6.58m
t

Carry out comprehensive treatment of dust in cement kiln, increase the proportion of high-efficiency bag filter coverage, and implement the closed management of storage, packaging and transportation to reduce the dust emission. After the "ESP Transformed into Bag Filter" of Ningxia Building Materials Group Co., Ltd., the dust emission is controlled below 10mg to achieve the ultra-clean emissions.



Comprehensively promote the construction of staged combustion **and desulfurization and denitration** systems for cement, glass and **other enterprises to ensure the** standardized discharge of sulfur dioxide and other pollutants. All the clinker production lines of China United Cement Corporation have been equipped with denitrification systems to meet ultra-low emission **standards.**

📍 The world's first intelligent production line of light and thin and high-permeability PV glass has been completed and put into production



According to their own process characteristics, all fellow enterprises clearly regulate the test frequency of exhaust gas, sewage, noise and content of indexes, and strictly adopt a monitoring system meeting the national standards. Qilianshan Cement has treated the noise produced within the factory **boundary, waste heat power station** and domestic sewage.

Comprehensively check the historical carbon emissions of cement enterprises with controlled emissions, and gradually build a three-level management and control mode of the headquarters - secondary enterprise - basic unit with controlled emissions and form the positioning of carbon asset strategic management center-carbon asset preservation and appreciation center-carbon implementation cost control center.

In November 2018, the ultra-low emission transformation project of China United Cement Jiaxian Tianguang CO., LTD passed the environmental protection acceptance. After the completion of the transformation, in the case that the baseline oxygen content accounts for 10% of the exhaust gas in cement kiln, the emission concentration of particulate matter, sulfur dioxide and nitrogen oxide isn't higher than 10mg/m³, 35mg/m³ and 100mg/m³. In the case that the environmental protection standard in Henan is stricter than the national environmental protection standard, the emission concentration of particulate matter, sulfur dioxide and nitrogen oxide are lower than the optimal emission limits of Henan Province and Pingdingshan City, and the comprehensive indexes rank highest in the cement enterprises in the province.



Green services

In 2018, the Group actively promoted the manufacturing service and R&D industrialization, and used the Internet, big data, **intelligentization and other technologies** to explore the green service system with the characteristics of the building materials industry and formed energy-saving service organizations containing more than 20 fellow **enterprises**.

Professional technical service

The Group has the world-leading advanced technologies for cement, glass and manufacturing capacity of complete equipment, including energy-efficient firing system, energy-saving grinding, pollutant emission reduction technology, waste heat power generation, automation control, which can provide professional detection and diagnosis, technological transformation, intelligent control and other energy-saving and environmental protection technical services for industrial **enterprises**.

Integrated consulting service

Relying on China Building Material Test & Certification Group Co., Ltd., the **Group builds the largest third-party test and certification service organization** in the domestic building materials industry and the national SME public service demonstration platform to provide energy assessment, energy management system certification, CDM project, green building materials evaluation, green product certification, green manufacturing system certification, carbon verification and other services for industrial enterprises and is designated as one of China's

green product certification bodies; **Leading enterprises in the industry** carried out the first batch of green building materials product certification business in China and carried out three-star evaluation and identification of green building materials for more than 80 enterprises in 2018.

📍 South Sudan Villa Project

- The domestic market share of environmental protection technologies for engineering glass has remained at above 80%
- Flue-gas desulfurization accounts for more than 90% of the glass market, ranking first in the industry and maintaining the first brand of smoke-gas treatment in **the industry**
- Sign a memorandum of cooperation on Japan's biomass generated power station project with a total scale of 120MW

Ecological value-added services

Relying on the recycling of building materials industry resources, solid **waste and refuse disposal and other** technologies, the Group actively uses the building materials kiln to dispose of industrial by-products and municipal waste, thus achieving effective and harmless disposal of industrial and municipal waste. In 2018, South Cement Company Limited promoted the co-processing in the rotary kiln and

disposed of 390,000t sludge, fly ash and hazardous waste; 2 hazardous waste and sludge disposal projects of China United Cement Corporation were completed and put into production.

Geological and mine comprehensive service

Rely on China National Geological Exploration Center of Building Materials Industry, the geology and mine comprehensive service carries out annual reporting of reserves, verification of reports, measurement of mine stripping and exploitation quantity, comprehensive treatment of geological disaster, engineering investigation, green mine construction plan and other technical services. Hunan Geological Survey Agency has basically realized

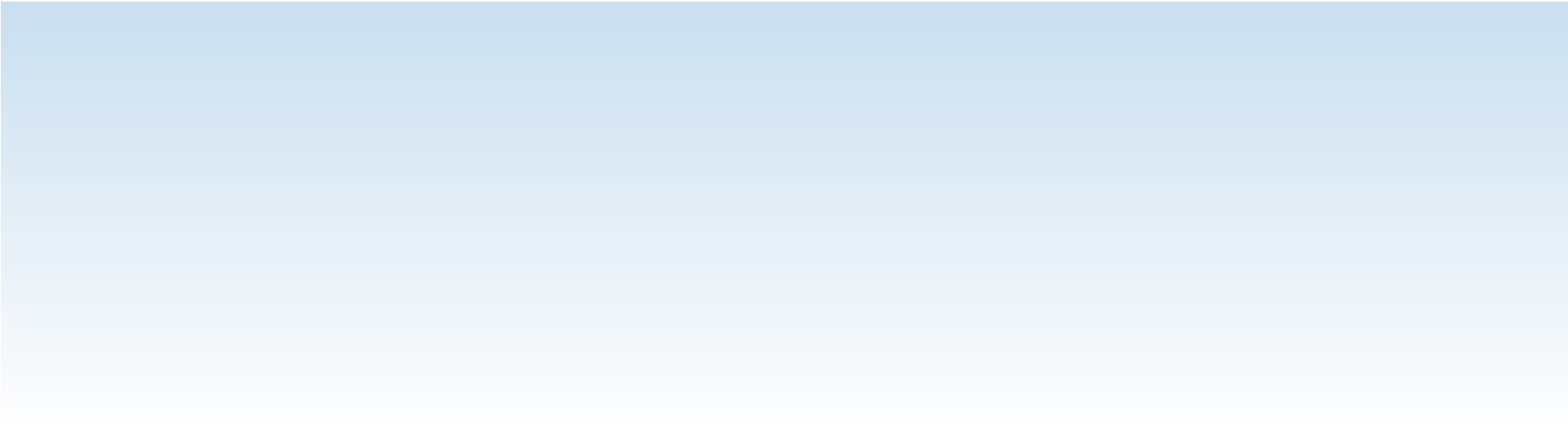
the full coverage of daily production technical services of 13 mine enterprises. Based on Sinoma Mining Construction Co., Ltd., it actively promotes the cooperation with geological survey units, focuses on cultivating mine restoration and control and landscape engineering service industries, casts "green mine and safe mine" brand, and becomes the leader in construction and operation of building materials mines.



With the acceleration of the pace of urbanization, the refuse disposal has become an inevitable difficult problem of environmental governance in various regions. The output of domestic waste in Chaohu City near Chaohu Lake, one of the greatest freshwater lakes in China, is increasing year by year, greatly restricting the ecological development of Chaohu Lake. In July 2016, Sinoma International Resources Environmental Engineering Co., Ltd. designed and constructed the supporting project of co-processing of the domestic waste in Chaohu by Sinoma International Environmental Engineering Co., Ltd. which dealt with the dilemma of "garbage siege" to the greatest extent, so that the land of refuse landfill of three football fields size was saved, 20,000-30,000 tons of coal was saved, 12,000 tons of raw materials were replaced each year, and 60,000 tons of CO₂ emission was reduced

each year; 100% of "three wastes" in industrial production are absorbed by the cement kiln, thus really realizing the quantization, reduction, resources and harmlessness of the refuse disposal. By the end of 2018, Sinoma International Environmental Engineering Co., Ltd. built similar projects in many places. The design and construction of 7 production lines of co-processing of domestic waste in cement kiln (Liyang Jiangsu, Laohekou Hubei, Chaohu Anhui, Handan Hebei, Songzi Hubei, Yicheng Hubei and Sancha Guizhou) were completed. The daily processing capacity was between 200 and 500t and the single-line capacity of the supporting cement clinker production line was 5,000t. Two projects in Liyang, Jiangsu and Sancha, Guizhou were listed in the first batch of 6 demonstration projects by the Ministry of Industry and Information Technology of the People's Republic of China.

☉ Harmless co-processing of 500t domestic waste in cement kiln by Sinoma Anhui Cement Co., Ltd. in Chaohu City



☉ China United Cement Corporation (Nanyang)

Green operation

Data Review 2018

19

fellow enterprises won the honorary title of "National Building Material Emerging Industry Demonstration Enterprise"

11

fellow enterprises were included in the third batch of green factory directory of the Ministry of Industry and Information Technology of the People's Republic of China

3

fellow enterprises successfully won the "Finding China's Green Creativity Samples" honor

9

mines were rated as "National Green Mine Demonstration Enterprise"

283

enterprises passed the clean production certification

Ecological factory

Taking building the "Garden Factory" and "Green Mine" as the main line, we have realized the advancement, environmental protection and sustainability of all supporting materials mines in the full life circle in the whole process . In 2018, the green area of the enterprise production area was 33.02 million m². **China National Geological Exploration Center of Building Materials Industry**, compiled the group standard Green Mine Construction Plan of Cement Limestone Industry.



Gangu Company, a Qilianshan cement fellow enterprise, planted trees and covered soil for greening on the ore shipping roads, fixed slopes, industrial sites, earth-disposing sites and cleaning platforms, planted 11,710 strains of pinus tabulaeformis, 1,200 kg of seeds of clover, alfalfa and weeds and 10,000 strains of parthenocissus tricuspidata; Xiahe Company has planted 4,500 strains of robinia pseudoacacia, 1,000 strains of salix mongolica layer and 450 strains of populus alba and dragon spruce; with the seeding area of 11,500

m², Yongdeng Company planted more than 500 pine trees, and greened and beautified 7km uphill road. After the retaining wall on the side of the road edge is covered the mellow soil, the grass seeds of about 121,000 m² and more than 1,500 pine trees were planted.

Idea spreading

We adhere to spreading the idea of green environmental protection. We have implemented the "Responsibility Blue Sky Action" plan, and have practiced the environmental protection responsibility together with suppliers, customers and employees since 2015. At the same time, we also advocate green office, promote the construction of electronic office and video conference system, incorporate green office into daily performance appraisal, and add luster to a beautiful China through organizing energy-saving technology exhibitions, training and other activities, as well as low-carbon transportation, afforestation, enhancement and releasing and other public service behaviors on environmental protection.

Data Review 2018

Organized or participated in

1,426

environmental protection activities

81,823

person-times of employees had attended trainings related to energy conservation and environmental protection

Office power consumption

279m

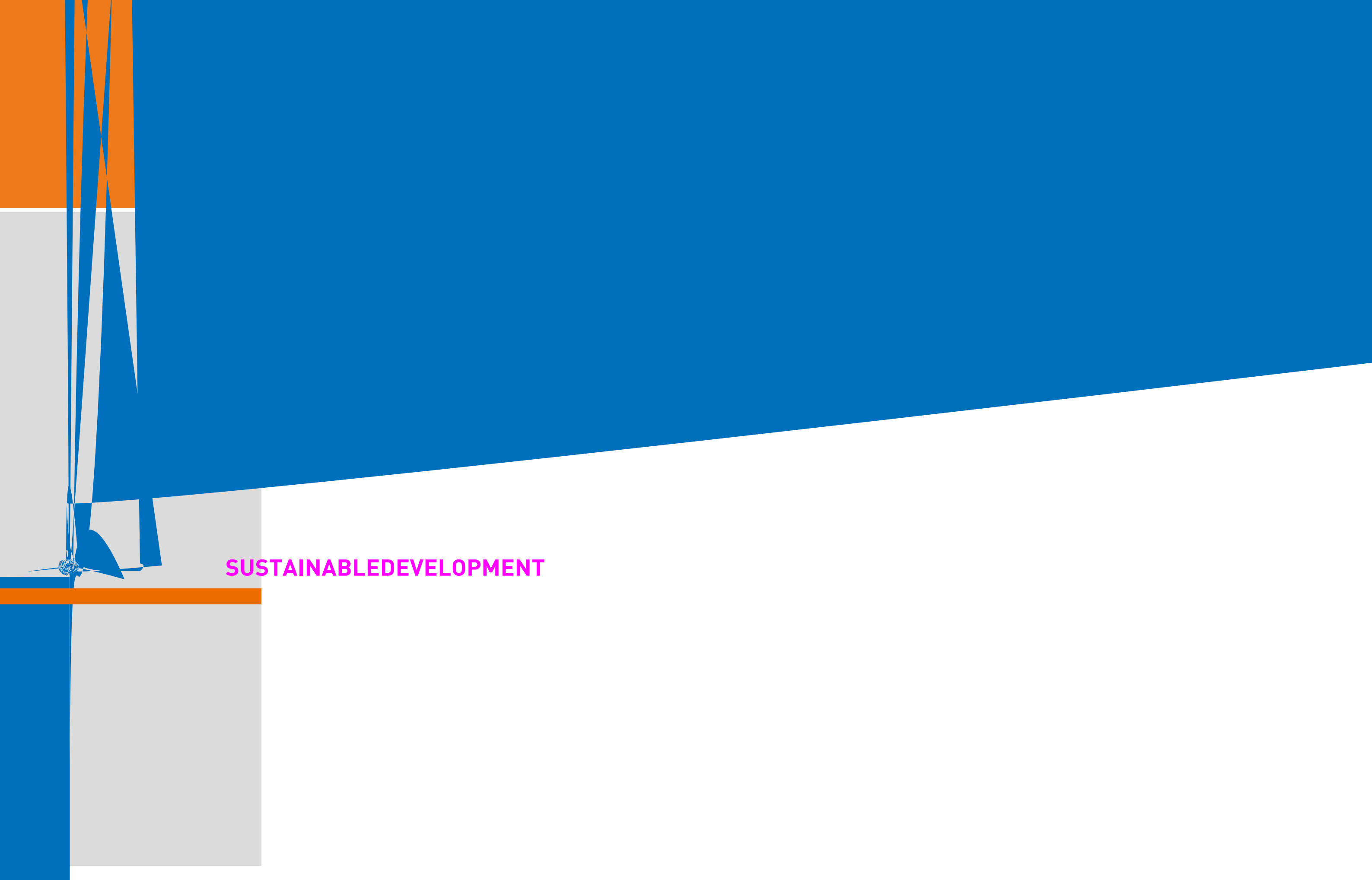
KWH

Convened video conferences and replaced

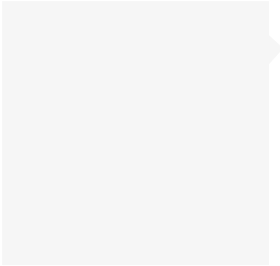
41

on-site conferences

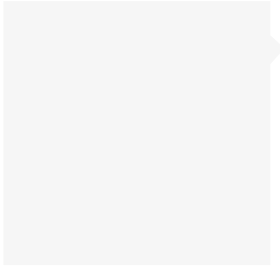
 Publicity of eco-friendly knowledge



SUSTAINABLE DEVELOPMENT



We carefully implement safety production subject responsibilities, newly set safety emergency department, make an overall plan for managing safety production and emergency related work, reinforce emergency management, formulate Emergency Management Systems for Production Safety Accident, revise Emergency Plan for Production Safety Accident, largely promote the creation of safety production standardization and "double-system" construction, work hard in improving the safety management level of the enterprise, and perform social responsibilities of the enterprise.



We have gradually converted the accident-preventive safety production management into the management system that promotes the integration of safety production and occupational health, established and perfected occupational safety and health management system for employee, optimized occupational employee archive management, formulated the Supervision and Management Methods for Occupational Health in the Workplace, periodically carried out occupational health check-up,

psychological health assistance and training for employee, perfected occupational health control and management, and effectively prevented, controlled and eliminated occupational hazards.

📍 Factory of Ningxia Qingtongxia Cement Co., Ltd.

📍 Decompression and counseling lecture

3
deaths incurred due to safety responsibility accidents

101
industrial accidents recorded

Completion rate for the check-up of employee

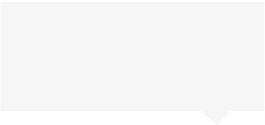
94.15%

Completion rate for establishing health archive for employee

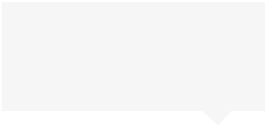
96.88%

Newly increased occupational disease

1

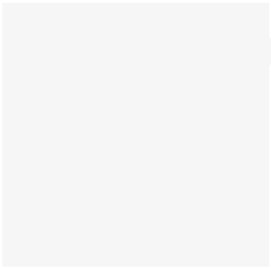
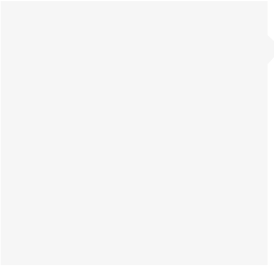
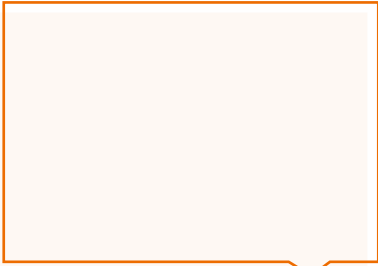


In 2018, we continued to comprehensively promote the construction of double prevention mechanism, carefully organize fellow enterprises to carry out post-holiday rework, flood season, autumn and winter safety production inspection, the special evaluation and inspection for major hazard source of dangerous chemicals as well as various forms of emergency drill by focusing on the actual conditions of the enterprise and key safety links, and promote emergency disposal capacity.



Safety is based on the principle of people-oriented and education-first. We constantly improved the form of safety education in 2018, and organized three sessions of further education training classes for certified safety engineers with 328 participants. Meanwhile, we also carried out online training for above 10,000h accumulatively. The group and all member units participated in the "safety production knowledge competition" held by the Ministry of Emergency Management,

with
with
272,004



On October 21, 2018, CNBM 7th Young & Middle-aged Class was successfully opened as scheduled. This is the seventh time for the group to successively select young and middle-aged cadres with strong business capacity and good

Career promotion

We promote the establishment of the scientific evaluation system, form evaluation result and salary system as well as the comprehensive motivation and occupational development mechanism that organically combines employment (dismissal) and post adjustment;set dual-channel occupational development for the promotion of employee post, and meet different talent growth demands by management post and occupational post; promote internal communication of employee, their exercise at temporary

post, grass-root exercise mechanism, effectively configure international human resources of the group, cultivate compound talents, and closely combine employee,development and enterprise growth.

Cultural environment

Three-principle: Leniency, tolerance and ease

Three-capacity: Unity, affinity and cohesion

Vocational demands

Three-strict: Be strict in cultivating one's moral character, preventing the abuse of power and disciplining oneself

Three-practical: Be steady in planning matters, starting undertakings and conducting oneself

Five-feature: Possess learning ability, market awareness, professional attitude, professional level and ideological level

Eight-focus: Adhere to policies, the overall situation, undertakings, dedication, solid work, actual effects, integrity and self-discipline

Code of conduct

Humility, reverence, gratitude and decency

Cadres' norms

Behave meticulously, work meticulously, exercise power meticulously, make friends meticulously

Fusion Camp for New Employee Team of Sinoma Overseas Engineering Co., Ltd.

Data Review 2018



Happy 'Little Material'

Enthusiastic poverty alleviation

We pay high attention to the life of employee with difficulties and the disabled employee, establish consolation, care, difficulty support mechanism for them, publish Difficulty Support and Consolation Management Method for Employee in the Headquarters of the Group, and implement normalized difficulty support for the employee, and make elderly employee, employee with work injuries and retired groups with difficulties feel the warmth of the enterprise.

Improve the environment

We pay high attention to balancing the work and life of our employee, try our best to create a comfortable and safe working environment for the employee, and provide protection facilities, protection measures and special treatment for pregnant women, nursing women and other special groups; maintain legal rights, interests and special interests of female employee, ensure them to enjoy prenatal check, maternity leave, breastfeeding leave, birth insurance reimbursement, and childbirth allowance. Hold 5,027 employee activities throughout the year, to effectively adjust the work pressure of the employee, and reinforce the cohesion of the enterprise.

In November 2018, "Triumph Science & Technology Cup" 3rd Badminton Friendly Match for Beijing Enterprises sponsored by CNBM Work Union and Youth League committee was successfully held in Beijing, and 15 Beijing enterprises of the group participated in the competition. This competition is a team competition, and includes five projects, including the mixed doubles, men's singles, men's doubles, women's singles, and women's doubles. Players are enthusiastic about the competition, with climax and cheers after another. By fierce competition, China United Cement Corporation, Group Headquarters, China Building Materials Academy, Beijing Sinoma Synthetic Crystals Co., Ltd. respectively won the top four, while Triumph Science & Technology Group Co., Ltd., Geological Exploration Center, CNBM Company Limited respectively won Excellent Organization Award, Fair Competition Award and Spiritual Civilization Award.

Consolation to employee



Swimming contest

Developing activity for the youth



Belt and Road

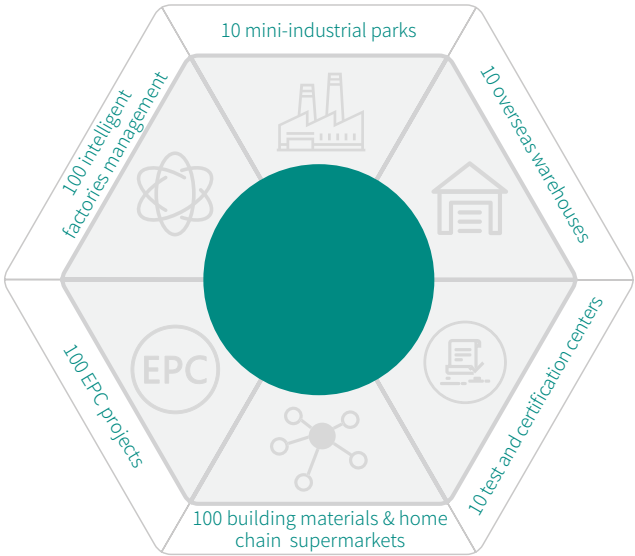
Construction upgrading

In the past 10 years, we have built a total of 312 large-scaled cement lines along the Belt and Road, which can occupy 65% of the global market; There are above 30 10,000TPD production lines in the world, and 20 lines are built by us. Up till year-end 2018, the group's overseas business can involve 170 countries and regions, and 71 newly signed contracts (exceeding USD 5 million) of overseas engineering project.



While being engaged in making cement by the upstream and downstream industries, make comprehensive use of limestone mine resources, and build aggregate, commercial concrete, shale brick and other projects.

Accumulate rich market resources by years of sales operation, move the manufacturing base forward and build factories in local



- Invest in and construct building materials industrial park in Zambia and Algeria
- Invest and acquire cement factories in Mongolia and Macao
- production base in South Africa, Egypt and America
- Invest in building materials overseas logistic parks in Dubai, Tanzania and other countries
- Invest in and set up building materials & home chain supermarkets in Papua New Guinea, Vanuatu, Tanzania, Zambia and other countries

📍 Production workshop of Jushi Egypt Glass Fiber Co., Ltd.



CNBM Zambia Industrial Park is an important investment project of Chinese enterprises in Zambia. After the products are introduced, it will provide qualified and cheap construction material products to Zambian market, and create above 2,000 employment posts and big taxes to the local directly or indirectly, and exert an obvious effect in driving relevant motor transport, material packing and service industry. The completion and production of CNBM Zambia Industrial Park can not only reflect Sino-Zambia friendship, but also marks that the cooperation of the two countries in productivity has reached to a **new height**.

Ambassador of China in Zambia, Li Jie

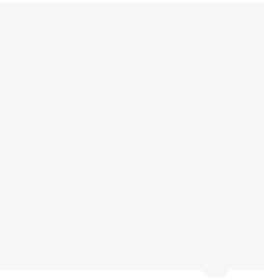
📍 Indonesia Baya 10,000TPD cement production line undertaken by Sinoma International Engineering Co., Ltd.

On July 26, 2018, the Completion and Production Ceremony of CNBM Zambia Industrial Park was successfully held in the capital of Zambia, Lusaka. Edgar Lungu, President of the Republic of Zambia attended the ceremony and announced that the project has been officially completed and put into production.

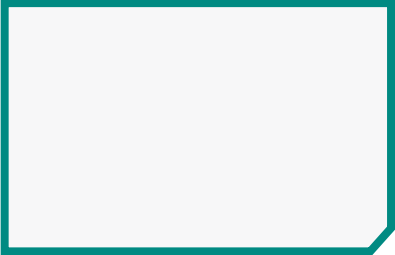
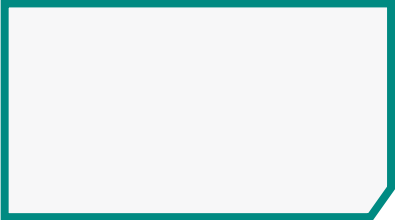
CNBM Zambia Industrial Park regards the economic and social development and industrialization of Zambia as the objective, and integrates the wisdom and perspiration of workers in two countries. In the construction process of the industrial park, it has taken active measures in performing social responsibilities, donated to build hospitals and schools in the local community, and also donated to Zambia

Aids Prevention and Control Foundation, drilled and repaired roads for villagers around the park.

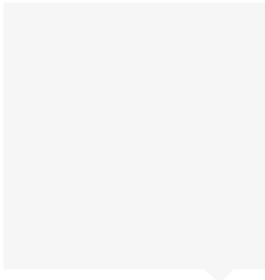
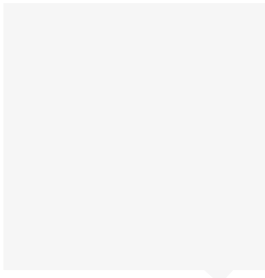
The industrial park will continue to be guided by the "innovation, performance, harmony, and responsibility" value core of the group, adhere to cooperation and mutual benefits, integrate Zambia, and promote the economic development of Zambia by qualified construction material products and service, and make bigger contributions to the friendship development of the two countries.

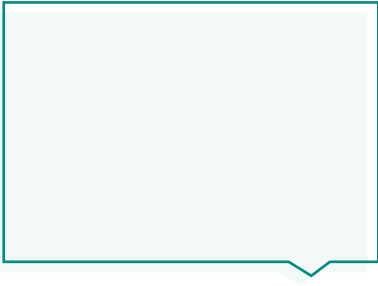


implement multiple cooperation projects with CITIC, CSCEC



improve the green and sustainable industrial development with enterprises of all countries, build up a positive





Since 2002, China National Building **Material Group has established** targeted poverty alleviation projects in Shitai County, Anhui (county of severe poverty), Jingyuan County, Ningxia (Liupanshan District), Zhaoyang District of Yunnan, Yongshan County, Suijiang County (Wumeng Mountain District) the so-called "four counties and one district". Centered on the "six major strategies" including supporting people's livelihood, industries, employments, medical care, education and e-commerce, we have contributed to the targeted poverty alleviation projects in those areas. In 2018, with our efforts, Jingyuan County, Ningxia and Suijiang County, Yunnan were getting rid of poverty, according to the preliminary evaluation. Shitai County, Anhui, Zhaoyang District, Yunnan and Yongshan County also successfully finished all annual plans for targeted poverty alleviation, laying a solid foundation for the completely anti-poverty.

32.47m
yuan totally invested as special funds for targeted poverty alleviation projects

17,672
people alleviated from poverty



From October 22 to 24, 2018, Song Zhiping, Secretary of Party Committee and Chairman of China **National Building Material Group and** delegates paid a visit to the site of targeted poverty alleviation projec

a

M

1

In Shitai County, Anhui, since 2015, the group has invested 200 million yuan in establishing two ITO conducting film production lines, with annual output value of 60 million yuan and profit and tax of 12 million yuan. In Jingyuan County, Ningxia, the group has also invested 10 million yuan in developing "beautiful village" poverty alleviation projects in Yangling Village, creating a series of pilot projects and excellent projects for the poverty alleviation including the health care facility, village history museum, happy farmhouse, beef cattle breeding center and tourist trail. In Wei County, Hebei, Triumph Science & Technology invested 150 million yuan in 5.0 neutral borosilicate medicinal glass packing material, with annual output of 20,000 tons, profit and tax of 600 million yuan, and 1,700 new employments. In Tibet, Qilianshan Cement Group invested .138 billion yuan in establishing two cement production lines. Once it's established and reaches the designated capacity, it's estimated to reach annual output of 2.4 million tons of cement clinker contributing to the infrastructure development of Tibet.

2

By creating a "Hebaodan" e-commerce platform, the Group has realized all-round online and offline promotion of high quality original agricultural products covering all area of targeted poverty alleviation villages by means of "government supervision-organization by cooperatives-supply by peasants-operation by platform" multiple cooperation mode, regular sales, pre-sales and crowd-funding. Meanwhile, the platform has also provided special poverty alleviation supports for local cooperatives and peasants including e-commerce training and marketing activities. Since the launch, the platform has helped the agricultural products of "the four counties and one district" to sell to 29 provinces, 168 counties and 16,000 families in China, associated 12 leading enterprises and cooperatives. A total of 1,745 families of peasants realized increase in income.

📍 "Purchasing instead of donating" highland eco-organic rice

3

The group has given play to its resources and organized grass-roots cadre training themed on "2019 Analysis on Political and Economic Trend" in Shitai County, Anhui. A total of 108 members were trained and two local cadres were invited to attend young and middle-aged cadre training class of the group and mid and long-term operation and management training class for leaders as talents developed for the poverty alleviation projects. In Yongshan County, Yunnan, trainings for technicians and leaders for wellness were also hosted and 90 members were trained after the three training periods. Triumph Science & Technology, Southwest Cement and Sinoma respectively held a special job fair for poverty alleviation projects in Yongshan County, Yunnan and Shitai County, Anhui. A total of 147 members were recruited including 83 registered low income residents.

4

Southwest Cement has positively been dedicated to the targeted poverty alleviation projects in Guizhou Province, insisting on providing preferred supplies and favorable price for the targeted poverty alleviation projects. By the end of 2018, 5.04 million tons of cement were provided in a favorable price lower than the market price for various levels of local projects including "beautiful village projects", road developing people-benefit project, "one case one meeting", "three restoration and two reinforcement", with 287 million yuan discounted. Besides, the company **has also opened up a green supply** channel for the targeted poverty alleviation projects of governments at the peak time, becoming backbone force for the poverty alleviation in Guizhou Province.

5

"Shanjian Public Welfare" fund was established by the group in June, 2018, committed to the targeted poverty alleviation projects, supporting Tibet and Sinkiang, disaster and emergency relief, voluntary services, assistance to employees and assistance to overseas construction. Since the establishment of the fund, donations of 16 million yuan have been collected, including 6 million yuan donated voluntarily by cadres and employees of the group.

📍 Donations by employees

In 2018, the group selected 20 excellent cadres from the headquarters and subordinates and appointed them to temporary posts in areas in poverty to contribute to the poverty alleviation projects. Cadres established 11 cooperatives in Shitai County, Anhui, realized organic connection between families living in poverty and modern agriculture, sold and assisted in the sales of agricultural products with revenues of 1.44 million yuan. Zhao Jian, First Secretary of Yanglin Village, Dawan Town, Jingyuan County was awarded "Excellent Individual" by Jingyuan County government in 2018 for poverty alleviation projects.

📍 Kushan Harvest Festival



Scan to check the report

Yumai Village is hard to reach: You have to depart from Lhasa, travel 400km southeastwards and arrive in Longzi County, Shannan City, take another 197km journey across Yudou Village, climb over Mount Rila 4,627m tall and finally reach Yumai Village. During a long time in the 20th century, two sisters named Drogha and Yang-Zom from Yumai Village insisted on **safeguarding the territory of China with their father by grazing and** patrolling at the border. As the 19th National Congress of the Communist Party of China is coming, Drogha and Yang-Zom are writing to President

Xi Jinping to report their experience **of safeguarding the borderland and** changes of their hometown. President Xi Jinping replies to encourage their protection of the borderland of the past several decades. Since May, 2018, BNBM House has strived so hard on the icy land of Tibet giving full play to its new housing technologies and opening up the accelerating construction of Yumai Village into a fairly well-off village.....

Public welfare

China National Building Material Group, as one of the leading enterprises for building materials in the world, has spared no effort in the area of education supporting, voluntary services and the other public welfare areas. It can be said that fulfillment of social responsibilities and dedication into the public welfare has become a corporate character of China National Building Material Group. The group also inspires employees to take part in social public welfare activities to devote their love and care. In 2018, the group invested 1.26 million yuan in the voluntary activities. The number of volunteers reached 6,858 and foreign donations reached 62.91 million yuan.

Data Review 2018

44,445
hours of voluntary activities

1,821
activities supported or participated for women and children protection or rights for the disabled

19
corporate non-profit funds/foundations established

Visit the elderly

Little Material settled in Beijing Happy Valley

Voluntary blood donation

Little Material, awarded "Rookie Cartoon Character" for centrally-administrated enterprises at the age of 1, settled in Beijing Happy Valley at the age of 2 and had much fun with children on Children's Day of 2018!

On the afternoon of June 1, 2018, a group of adorable cartoon characters showed up in Beijing Happy Valley. Little Material performed "C Li C Li" dance and "Paihuiwu" with "Guozi Xiaoxin" and the other cartoon characters of centrally-administrated enterprises. Tens of thousands of tourists were attracted on the site. From Children's Day of this year, Little Material will settle down in Happy Valley in a brand new physical image and children may take a picture with him at any time. In the future, Little Material will work harder and make

closer relationship with people and delivery positive energy with his enthusiasm! Let's shake our body for love!



Scan to listen to the songs of Little Material
See how Little Material show special "YOUNG" with dance

On June 20, 2018, "Shanjian Public Welfare" fund, co-sponsored by China Volunteer Service Foundation and China National Building Material Group was launched in Beijing.

In order to fully strengthen the voluntary services and improve the harmonious development, China Volunteer Service Foundation and China National Building Material Group joined hands in launching "Shanjian Public Welfare" to organize series of public welfare activities including targeted poverty alleviation projects, supporting Tibet and Sinkiang, disaster and emergency relief, assistance to employees and assistance to overseas construction by collecting more resources through public fundraising. The initial funding of "Shanjian Public Welfare" fund is 10 million yuan and it will raise more funds in the future to support more public welfare projects and advocate positive energy.

The company continues to focus on technological innovation, and has achieved significant results in the field of technological innovation. The company has established a complete system of technological innovation management, and has achieved significant results in the field of technological innovation. The company has established a complete system of technological innovation management, and has achieved significant results in the field of technological innovation.

Expenditure for scientific and technological activities was

9.53bn
yuan

The sales revenue of new products was

55.59bn
yuan

Hold a total of

10,967
patents

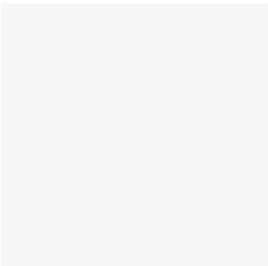
Guarantee
of strength

Innovation is the primary driving force. CNBM has formed the domestic **largest and strongest integrated** technology development center in the fields of building materials and inorganic nonmetal represented by Scientific Research Institute, National Key Laboratory, National Enterprise

Technology Center and other innovative platforms. The number of national enterprise technology sub-centers ranked first among central enterprises. In 2018, the expenditure for Research and Experimental Development of the Group was 8.19 billion yuan.

We implement a strategy of **strengthening the enterprises with** talents, establish the academician workstation and center for post-doctoral studies, and implement the "Thousand Talents Program" to ☐ a ☐ M ☐ ! Grepme ☐ epm ☐ M and Exr plehnology ia enhnonte dorpr%st ld fd Ex ☐ vativ yu ☐ do%se ☐ - ☐ M en s w M M Mw ! M M Grdo%se" ! doN

Leading
and
transcending



We always adhere to taking ensuring information safety as the bottom line, promote "integration of informatization and industrialization", promote the establishment of the unified network system and business application system, and gradually form a promotion route of management integration, operation network, and production intelligence.

Through the introduction of the "Internet +" development concept, **CNBM has realized the industrial** transformation driven by technological transformation and helps the innovation

Scientific and technological achievements

We attach great importance to the transformation and application of innovation results. By the end of 2018, the Group accumulated 10,967 valid patents, including 2,765 patents for invention, and cultivated a number of high-value patents such as high-performance carbon fiber, E-series glass fiber and lithium battery diaphragm; 48 key technologies were included in the national key R&D plan, intelligent manufacturing and other catalogues,

"Key Technology and Application of Dry-jet Wet Spinning Kiloton High Strength/ Hundred-ton Medium Modulus Carbon Fiber Industrialization" of Zhongfu Shenying and "Key Technologies and Equipment for Building Glass Service Risk Detection and Reliability Evaluation and Applications" of China Building Materials Academy won the first and second prize of national scientific and technological progress.

Ⓢ Zhongfu Shenying Carbon Fiber Co., Ltd. won the first prize of national scientific and technological progress

Data Review 2018

Newly obtain
1,571
authorized patents

Newly obtain
385
patents for invention

Transformation rate of scientific and technological achievements
68.5%

Ⓢ Zhongfu Carbon Fiber Core Cable Technology Co., Ltd.-Carbon Fiber Core Cable Production Line

The Geological Exploration in the **Chinese Building Materials Center** Team in Gansu Province actively builds the e-government version and public version of the Geographic Information Public Service Platform, breaks the data barriers among all government departments, improves the efficiency of collaborative operations and level of scientific decision-making, provides "one-stop" information services for eating, lodging and traveling of the public and improves the quality of people's lives. The intelligent Tianshui spatial temporal big data exhibition center is an important item The

center selects the data of 8 topics (macro economy, smart tourism, urban management, community management, space and time resources, ecological environmental protection, geological disaster and public resource transaction) in Tianshui to be displayed in a graphic chart; at the bottom, the three-dimensional model, oblique photography and point cloud data of the refined city are displayed via video, thus forming the three-dimensional holographic visualization center in Tianshui City and making the city life better.



Innovation and sharing

We continue to strengthen the production-research collaborative innovation, promote the transformation of scientific and technological achievements into technical standards, create an "Internet +" information service innovation platform, and establish the CSTM/FC03 and the Group Standards Committee; build a collaborative innovation consortium of enterprises, and determine 7 material cooperation directions through docking with COMAC; open up the "technology R&D + industrialization" collaborative

innovation full chain and establish a collaborative innovation model with capital as the link.

The melting rate of self-developed glass tank furnace is 3.5t/m² per day, reaching the international leading level

The conductor with carbon fiber composite core was successfully applied to the 1,000kV transmission supporting ultra-high voltage project for the first time in the world.

The world's thinnest 0.12mm ultra-thin electronic glass, 0.1mm TFT liquid crystal glass substrate, 540 ° high strain point glass, ultra-thin high-aluminum cover glass and 2.5D, 3D mobile phone cover glass realized the successful mass production

The first domestic 8.5-generation TFT production line with independent intellectual property rights is under construction

The carbon fiber composite motor body product with thrust termination structure has passed the assessment and verification of relevant tests

3
national SME public service demonstration platforms

757
academic exchanges activities held and organized

28,638
participants

Panel Production Workshop of Institute of Glass Science and Special Glass Fiber, China Building Materials Academy

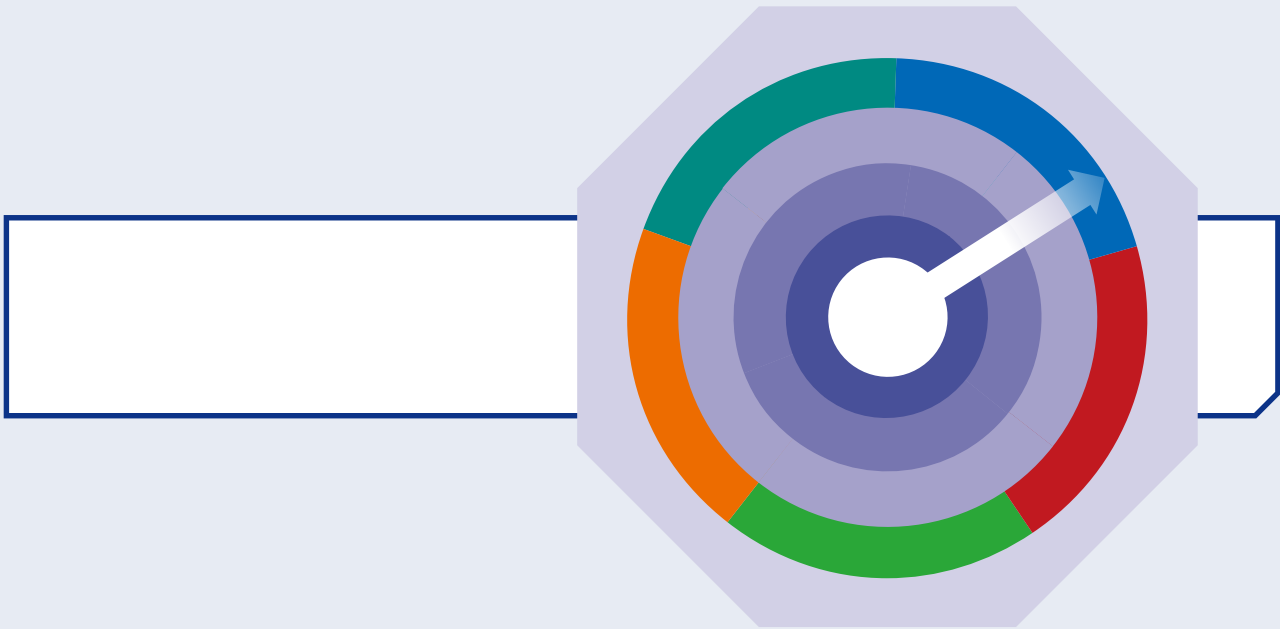


369
quantitative indicators for social
responsibility management

Ranked
9th
among Top 300 in China's Corporate

Responsibility value

Starting from the demands of investors, government, employees, customers, partners, relevant groups, communities and media, environment and other stakeholders, we always adhere to the core values of innovation, performance, harmony and responsibility, ultimately implement the concept of social responsibility in such five aspects as market performance, scientific and technological innovation, energy conservation and environmental protection, employee care and corporate citizenship, insist on harmony with competitors, nature, employees and society, and pursuing win-win coordination among market, environment and society.



Referring to the Triple Bottom Line theory and combining the current situation of social responsibility development and the characteristics of the group operation, we have defined the five responsibility frameworks of market performance, scientific and technological innovation, energy conservation and environmental protection, employee care, corporate citizenship. Finally, we have determined the annual core issues of corporate social responsibility by sending questionnaires to stakeholders.

- 1 Overseas community co-construction

2 Information disclosure

3 Community integration

4 Communication with stakeholders

5 Public charity

6 Targeted poverty alleviation

7 Green office and environmental public welfare activities

8 Advocating sustainable consumption

9 Promoting industry development

10 Democratic management

11 Responsible procurement

12 Overseas development and international cooperation

13 Supply-side structural reform

14 Enterprise reform

15 Intelligent manufacturing

16 Development of new materials industry

17 Transformation of scientific and technological achievements

18 Mechanism for customer complaint resolution

19 Responsibility management
- 20 Employee rights and interests

21 Green services

22 Responsible supply

23 Concept of responsibility

24 Green products

25 Cultivation of Innovative talents

26 Environmental management

27 Employee development

28 Supply chain management

29 Corporate governance system

30 Risk management and control

31 Green production

32 Strengthening party building and anti-corruption

33 Innovation management

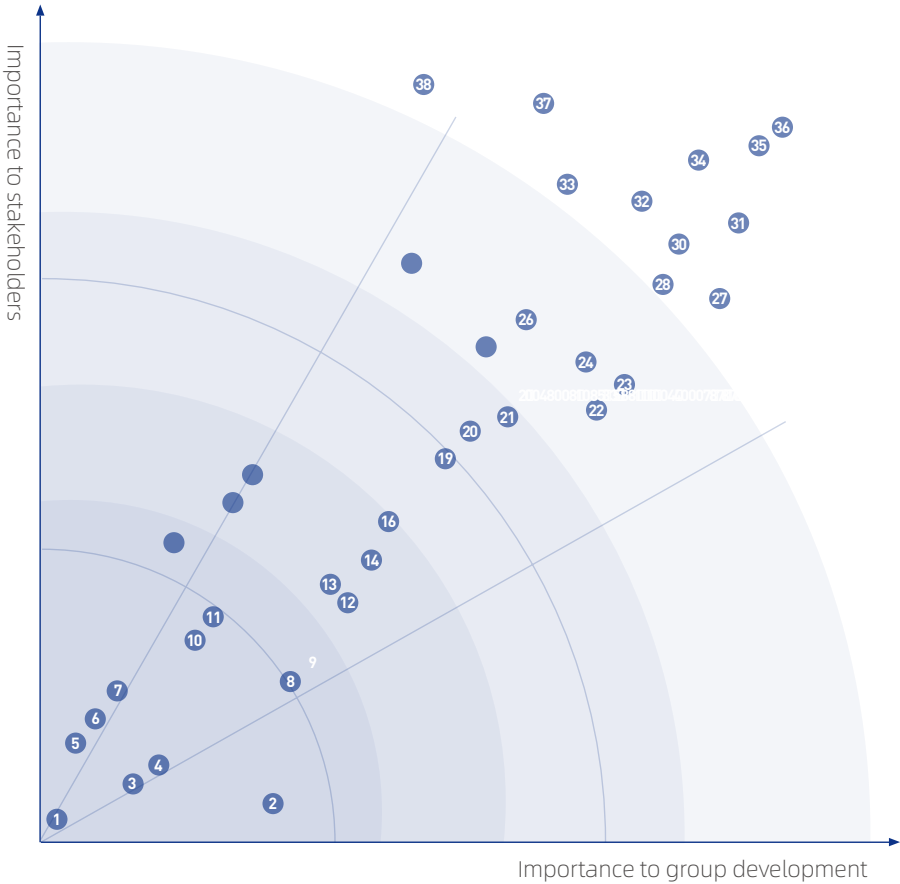
34 Safe operation

35 Governing enterprises by law

36 High-quality development

37 Quality management

38 Integrity management



Social responsibility planning 2018-2020

Value of responsibility
Deepening the concept of responsibility
Deepening the integration of responsibility and business management
Deepening the mechanism for employee responsibility fulfillment

Responsibility management
Strengthening the top-level design of social responsibility
Improving the organizational system of social responsibility management
Strengthening the training of social responsibility talents
Improving the performance evaluation of social responsibility

Responsibility communication
Strengthening communication with stakeholders
Creating an important and sustainable responsible brand
Developing rich responsibility theme activities
Creating a normalized responsibility communication platform with stakeholders

Responsibility sharing
Enriching the social responsibility management platform
Developing social responsibility benchmarking
Strengthening research on responsibilities
Strengthening external publicity
Promoting the CSR report preparation of fellow enterprises

Responsibility management

We will incorporate social responsibility management into Group strategy, overall planning and daily operation, determine the organizational structure, target measures and enhancement priorities, and continuously improve the performance and level of social responsibility management.



Data Review 2018

33,593

person-times of employees' social responsibility-related training

1,855

sessions of social responsibility events organized or participated

315

sessions of social responsibility assessments or evaluations

📍 Panorama of Bulgaria Devnya Project

Establish a social responsibility work promotion leading group as the top leading body headed by the chairman of the board of directors to lead and promote the social responsibility work of the Group.

Based on the headquarters functional organization for social responsibility management, guide and promote fellow enterprises to strengthen social responsibility management and actively implement the practice of fulfilling their responsibilities. 306 fellow enterprises have set up their social responsibility management organizations; according to the division of work, the functional departments of headquarters of the Group undertake coordination to promote special work.

With fellow enterprises at all levels as nodes, and in accordance with the unified requirements of headquarters, clarify the functional departments and managers, implement the social responsibility work plans and schemes, fulfill the work requirements, and actively implement the practice of fulfilling responsibilities. By the end of 2018, fellow enterprises had 1963 full-time and part-time employees for social responsibility management.

Prepare and issue Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0) jointly with the Chinese Academy of Social Sciences.

Take the CNBM Shanjian Public Welfare Fund as an important platform to create a brand of social responsibility.

Publish and implement the Guiding Opinions on Promoting CNBM Social Responsibility and relevant other systems to systemize, standardize and institutionalize the management.

Use the CNBM Social Responsibility Management Information System to realize the online management of responsibility performance information and social responsibility managers; the system covers more than 1000 members.

Establish an index system of the Group social responsibility with 369 indicators in all to ensure the integrity of social responsibility reporting.

Strengthen pilot demonstrations, promote corporate accountability practices and participate in various training courses, such as China Social Responsibility 100 Forum.

Prepare and publish annual social responsibility reports and continuously improve the performance and management level through the process of preparation, benchmarking and evaluation; regularly publish reports and website columns, and periodically publish performance trends to establish an information disclosure system and build an effective communication platform.

Choose to participate in external performance evaluation, implement comprehensive evaluation and benchmarking in reporting quality, accountability performance and responsibility management, pay attention to the progress and effectiveness of social responsibility of the industry, supply chain enterprises and other related enterprises, learn from each other's strengths and make up for each other's weaknesses for continuous improvement.

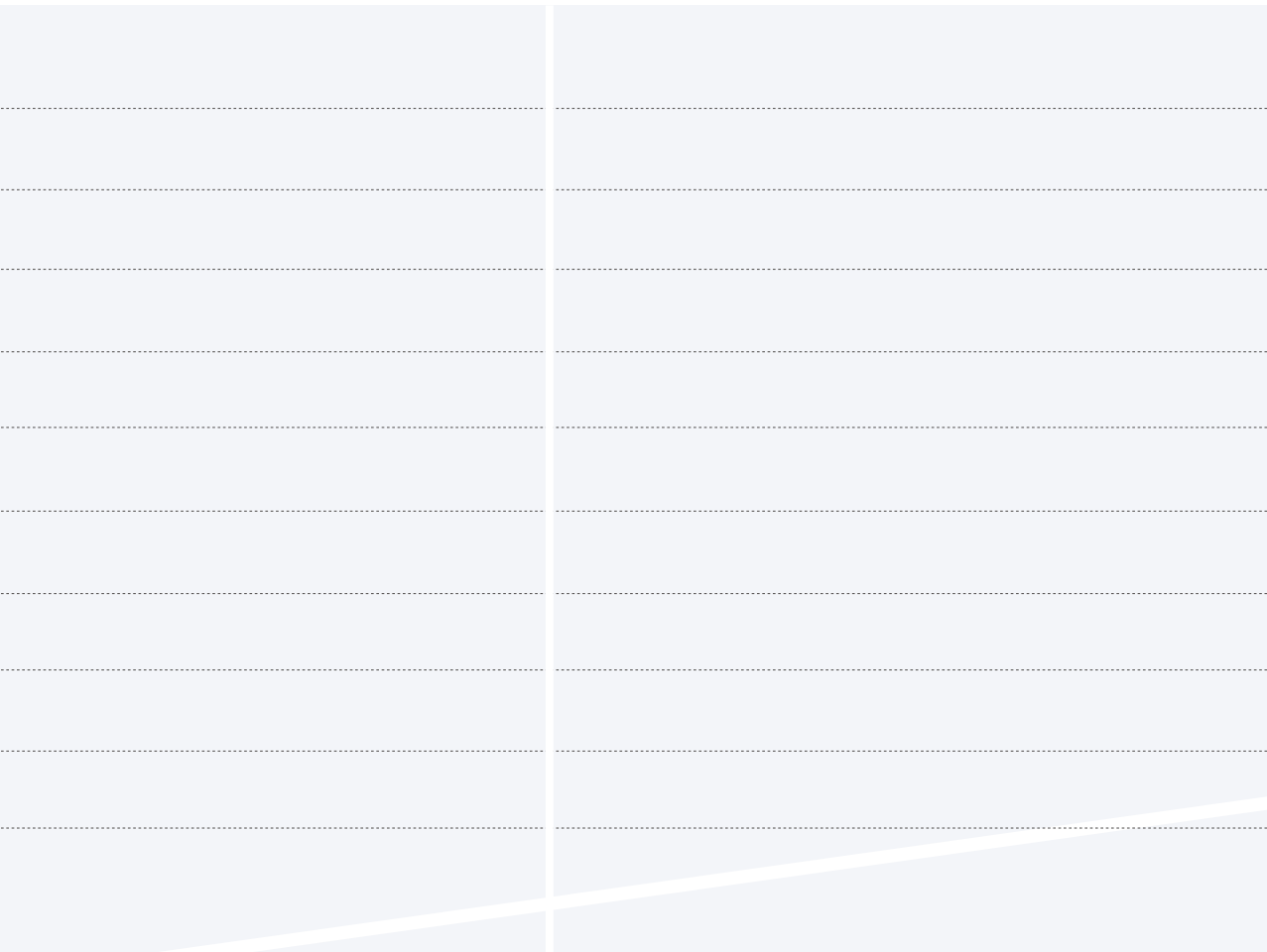
In the process of promoting the integration of social responsibility and Group operation management, form a six-star enterprise evaluation system to continuously improve its own performance level. In 2018, 22 fellow enterprises were awarded with Six-Star Enterprise.

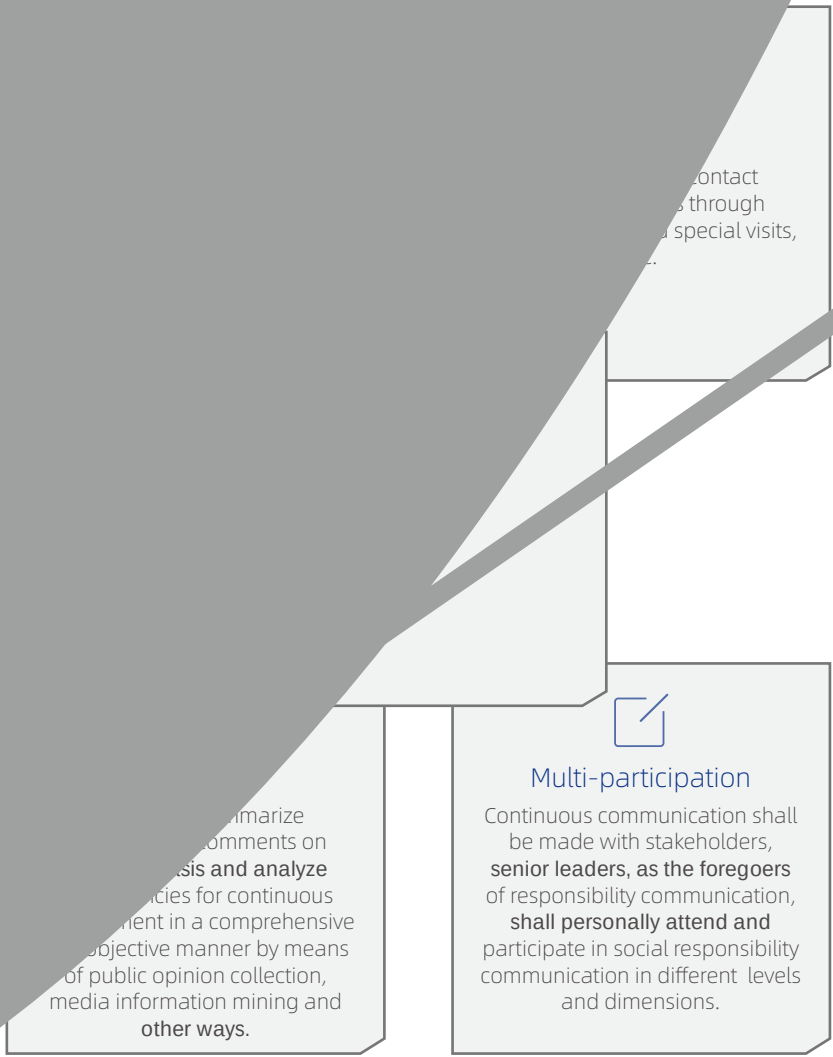
Give full play to the resources of the think tank of internal management experts to guarantee the applicability and operability of the substantiality and mechanism of social responsibility management.

Establish cooperative relations with professional organizations, grasp the development trends of social responsibility at home and abroad, and ensure the professionalism and compliance of the Group's social responsibility management system.

Have the endogenous responsibility management extended gradually to extroverted responsibility management, such as brand responsibility activities, deep responsibility communication and theme responsibility publicity, so that the influence of responsibility could be exerted from inside to outside.

Continuously improve the publishing rate and quality of fellow enterprises' reports, and promote the systematization and normalization of corporate accountability performance.





 Investor	Periodic report Corporate report Promotion activities Shareholder dialogue and feedback New media and network platform interaction	Enterprise performance Interests of shareholders and creditors Authenticity, accuracy, timeliness and completeness of information disclosure Sustainability of development	Sustainable high-quality management Perfect information disclosure mechanism Improve the value of enterprises Regulate corporate governance Protect investors' interests
 Government	Publication of laws and regulations Special reports and visits Information submission Assessment of work objectives Industry associations	Corporate governance Safety environment and compliance requirements Secure supply Employment opportunities Development of local economy Response to climate changes	Operate in accordance with the law and implement national policies Sustainable high-quality management Tax payment Provide jobs Adhere to green manufacturing
Customer	Customer meetings and consultation Market research Daily contact Customer feedback mechanism Telephone service New media and network platform interaction Product packaging information	Enterprise credit Customer relationship Products and service quality Product innovation Health and safety	Provide high-quality products and services Advocate green consumption Improve quality management Protect customers' privacy Launch scientific and technological innovation Advocate sustainable consumption Standardize safety and environmental protection management
 Partners	Contract negotiation Bidding conference High-level meetings Document and correspondence contacts Daily business communication New media and network platform interaction	Price and prompt payment Long-term partnership Profit distribution Information resources sharing Credit and reciprocity Risk prevention	Honesty and credit management Promote suppliers' responsibility performance Establish effective partnership Establish an effective communication mechanism
Employee	Employee congress Openness of factory affairs Labor contract Rationalization proposals Normal communication Letters and visits New media and network platform interaction	Enterprise performance Corporate governance Employee rights and interests Career development planning Complaint handling Occupational health Democratic management Openness of factory affairs	High-quality management Protect employees' rights and interests Provide competitive pay Improve employee welfare Strengthen Employee training Provide safe working environment and health protection Establish effective communication Improving democratic management
Community and Media	Sign public welfare agreements Participate in volunteer activities Daily contact Open day activities Media interview New media and network platform interaction	Planning affairs Environmental protection and response to climate changes Joint construction of a harmonious community Occupational safety and health	Establish and improve safety and occupational health management system Increase input Timely information disclosure Improve public welfare input Participate in community activities Promote green production and protect ecological environment
Social Organizations	Regular participation in meetings or activities Daily contact New media and network platform interaction	Environmental protection Promote sustainable development jointly	Play membership role Provide economic and technical support Establish a cooperative relationship

Sharing of responsibility

Guided by responsibility

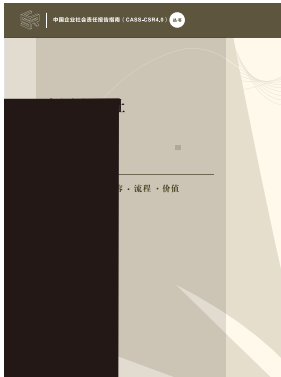
As a permanent member of the UN Global Compact and the Cement Sustainable Initiative (CSI), we have promoted the dissemination of the concept of global responsibility and its implementation through more diversified and internationalized platforms. In 2018, Chairman Song Zhiping won the first CEO Lifetime Achievement Award of Fortune, and worked with colleagues around the world to discuss the sustainable development of the industry.

We recognize and abide by the Ten Principles of the Global Compact and strive to contribute to the achievement of the sustainable development goals of the United Nations; actively participate in social responsibility sharing and

initiative activities in different fields, participate in launching China Social Responsibility 100 Forum and rely on China Federation of Industrial Economics, China Building Material Federation, China Building Materials Daily and other platforms to disseminate ideas, share experiences and launch initiatives, and work with stakeholders to seek better ways of sustainable development.

In cooperation with the Corporate Social Responsibility Research Center of the Chinese Academy of Social Sciences (CASS-CSR), we have compiled Guide for Preparing Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0), participating in the research

on the independent contribution of Chinese enterprises to coping with climate changes and leading the new development of social responsibility in building materials industry.



Data Review 2018

38,863 suppliers were evaluated and reviewed

The pass rate of environmental management system certification is

41.98% for suppliers with long-term cooperation with our enterprise

The cooperation with 59 suppliers was terminated due to incompliance to corporate social responsibility

105 potential suppliers were rejected due to irregularities in corporate social responsibility

182,800 person-times of training was offered for suppliers in terms of safety, energy and laws, etc

Implemented liability procurement of

234.27bn yuan

Supply chain driving

We issued the Management Measures for Group Material Procurement to implement the access system for supplier management for fully guaranteeing the equal rights and interests of small and medium-sized suppliers; incorporating social responsibility into the supplier evaluation system to urge suppliers to continuously improve their product quality; supervising and promoting suppliers to pay attention to employees physical and mental health; deeply integrating the concept of responsibility into supplier evaluation, product design, strategic cooperation mechanism and other processes to guide stakeholders to implement responsibility management and promote sustainable development; focusing on resources gathering , models innovation and services supply to have built a professional material distribution supply chain service platform in the field of building YANGCAITONG and thus realized the transformation and innovation from offline to online, Internet + project distribution and supply chain finance. Moreover, we have integrated the concept of social responsibility into procurement management, adhering to transparent procurement and making every effort to eliminate commercial bribery by promoting the integration of regional procurement and bidding, standardization of the bidding process, transparency of the bidding performance and informatization of the bidding management; implementing localized procurement of bulk raw materials to reduce transportation costs; implementing green procurement and giving priority to the products low in carbon contents, excellent in environmental protection and low in environmental damages during production in the process of raw materials procurement; selectively purchasing clean energy and vigorously promoting the utilization of such non-fossil energy as low-grade energy, municipal waste and biomass energy; for such consumer goods as daily office supplies, trying to select the products that are simply packaged and can be easily recycled.

Responsible supply

We insist on fair dealing, fully promote the construction and certification of the quality management standard system in fellow enterprises and carry out QC group activities to integrate quality management into the whole process from raw materials entry to products delivery. Simultaneously, we have established a mechanism for evaluation feedback from customers, inviting customers to participate in product quality control and compensating customers for the loss really caused by product quality. We have set up a pre-sales consultation, in-sales reception and after-sales service system to respond to and deal with customers complaints and inquiries at the first time, so as to improve customer satisfaction; we have a professional customer service team, able to provide professional technical training for dealers on a regular basis and organize customer training meetings to carry out product promotion and offer customers the basic knowledge of green building materials, the considerations in building materials selection and use, and the knowledge of product anti-counterfeiting; moreover, we have been always paying attention to protecting the privacy of customers and implementing a strict confidentiality system customers personal data.

We practice the strategy of packaging simplification, continuing to implement bulk cement and naked glass products, simplify the packaging of plasterboard, glass fiber and other bulk products, and try to use renewable packaging materials, so as to reduce packaging waste on the premise of ensuring product quality and transportation safety. Moreover, we have established modern logistics parks for rational planning of supply and marketing as well as logistics projects, reducing resource occupation and ultimately improving sales efficiency. In addition, we have built a network sales platform, providing worldwide online trading services for building materials products to reduce carbon emissions from customers and sales employee during business travel.

Static Load Testing Site in CTC Xiamen Hongye Co., Ltd.

Data Review 2018

There were 741 manufacturing fellow enterprises certified by quality standard system

A total of 1,474 kinds of products were clearly marked with safe use and environmental protection reminders on external packaging

Organized 63,893 person-times customers to participate in product knowledge popularization and customer training activities

The qualified rate is 100% for main business products in national sampling inspection

99.74% customer complaints were solved

Bulk cement sales reached 31,900 tons

Honor
of
responsibility

📍 Mongolian Mengxin Cement Company

Won New Record Major Innovation Project Award for Chinese Enterprises and " **National Gold Award** for Excellent Engineering Design " .

Ranked 16th in Central Enterprise Brand Communication Rank 2007, 4th in China's Manufacturing Enterprises Credit Top 100 in 2018 and 8th in China's Enterprises Credit Top 500 .

Enterprise Technology Center was awarded as National Excellent Enterprise Technology Center.

Song Zhiping, Chairman of the Group and Secretary of the Party Committee, won the prize of 40 People in 40 Years of Reform and Opening-up: Ten Most Influential Innovative Persons in China , won the prize of the " Annual Major Figure of Chinese Management 2018 ", and was elected as the China Annual Economic Figure 2018 and among the business leaders top50 in China for eight consecutive times.

Beijing New Building Material Public Limited Company became the only building material enterprise selected among Innovation Top100 of Chinese Enterprises 2018.

South New Materials Technology Co., Ltd. won the Second Prize for Outstanding Achievements in Reform and Development of Chinese Enterprises in the project Restructuring and Integration, Professional Management and Control, value return and Remodeling New Pattern of Regional Ready-mixed Concrete Industry .

Bengbu Design & Research Institute for Glass Industry won the First Shi Changxu New Materials Technology Award and the project Development and Industrialization of Key Technologies and Complete Equipment for Ultra-Thin Touch Control Glass won the Project Award of China Industrial Award " .

Nanjing Fiberglass Research & Design Institute Co., Ltd. was awarded the title of " Best Practice Enterprise for National Corporate Culture Construction " .

Cao Jianglin, President of the Group and Chairman of China National Building Material Co., Ltd., was awarded Best CEO for seven consecutive years, as the top candidate of the Best CEO in the Asia-Pacific basic materials industry.

China National Building Material Co., Ltd. was awarded Respected Company in the sixth year in the Asia-Pacific Region and the title Excellent Issuer of Corporate Bonds " by Shanghai Stock Exchange for the second time.

China Jushi Co., Ltd. was awarded the " China Industrial Award and the Most Respected Listed Company 2017 by Investors " .

South Cement was awarded the title of Excellent Contributing Enterprises to China's 40 Years Reform, Opening-up and Development ; the project Continuous Promotion of Lean Management for Comprehensive Enhancement, Restructuring and Integration of Corporate Overall Competitiveness was awarded the First Prize for Outstanding Achievements in Reform and Development of Chinese Enterprises .

BNBM House Co., Ltd. won the title of Demonstration Enterprise for Emerging Industry in National Building Materials Industry .

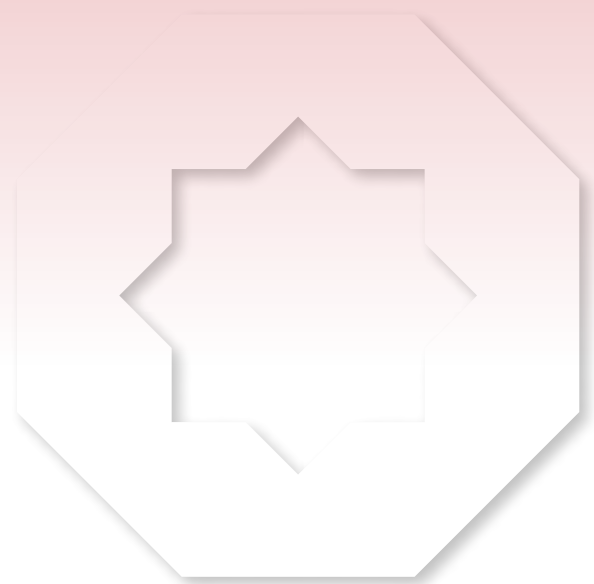
Sinoma Energy Conservation Limited won the " Award for Green Governance of Board of Directors in the 13th " Golden Round Table " Forum for Boards of Directors in China's Listed Companies.

Academician expert workstation of CBMA Quzhou Kinglass Quartz Co., Ltd. was awarded Model Academician Expert Workstation 2018 .

101 fellow enterprises released their annual social responsibility reports.

Won Excellent Responsibility Corporate Award by China Social Responsibility 100 Forum.

57 achievements won the National Building Materials Enterprise Management Modernization Innovation Achievement Award in 2017.



CNBM

Future prospects

2019 is the 70th anniversary of the founding of the People's Republic of China and the key

society in an all-round way and

hundred years. China National Building Material Group Co., Ltd. will gather strength, work hard and make persistent

in reform and innovation, in integration and optimization, in "precision" management, in the Belt and Road Initiative and in the work of Party building, and create glory again in the journey to build a world-class building material enterprise with global competitiveness!

We will continue to provide support and services for the structural adjustment and technological innovation of the building materials industry, strive to create an orderly and healthy market environment for the industry, and commit ourselves to building a new era of coexistence, sharing, collective richness and common prosperity for the whole industry.

We will face the new year with an open, integrated and shared mentality, promote the international community to adapt to the reality of China's peaceful development and

create an inclusive and open international environment.

We will vigorously carry out the corporate internal mechanism construction and advocate the distribution mechanism shared by owners, operators and workers, so as to make enterprises full of vitality and let everyone create and share wealth through honest labor.

We are willing to work hard with builders from all walks of life and under the strong leadership of the Party to further promote the structural reform of the supply side, write a new chapter for the healthy and sustainable development of China's economy, dedicate to the 70th anniversary of the founding of the People's Republic of China, and make new and greater contributions to the realization of the great rejuvenation of the Chinese nation!

Responsibility performance

Market performance

Fortune Top 500 Building Material Enterprises in 2018

Ranking in 2018	Company Name	Operating income in 2018 (Million USD)	Country
231	Saint-Gobain	46,001.7	France
243	CNBM	44,701.2	China
382	CRH	31,069.4	Ireland
444	LafargeHolcim	26,545.3	Switzerland

Data Source: www.fortunechina.com

Cement Production in 2010-2018

(100 million tons)

Year	CNBM	China	Global
2018	3.4	22.1	39.5
2017	3.4	23.2	41.0
2016	3.2	24.0	42.0
2015	2.4	23.5	41.0
2014	2.5	24.8	41.8
2013	2.4	24.2	40.0
2012	2.7	21.8	38.0
2011	1.9	20.1	36.0
2010	1.7	18.8	33.1

Data sources: National Bureau of Statistics, U.S. Geological Survey

(billion CNY)

Year	Operating income	Gross Profit
2018	348	20.66
2017	302.12	15.11
2016	261.23	7.58
2015	199.25	3.84
2014	250.43	13.01
2013	252.26	11.51
2012	217.43	11.16
2011	194.09	15.85
2010	135.36	7.56

(billion CNY)

Operating income Gross Profit

2018	377.80	4,291.36
2017	374.55	5,239.07
2016	343.48	5,263.99
2015	304.90	4,998.60
2014	335.63	4,813.50
2013	316.85	4,338.44
2012	284.80	3,717.00
2011	303.71	3,339.46
2010	240.48	2,647.45

Data Source: China Building Material Quantity Economic Supervision Society

Performance of Holding Listed Companies in 2018

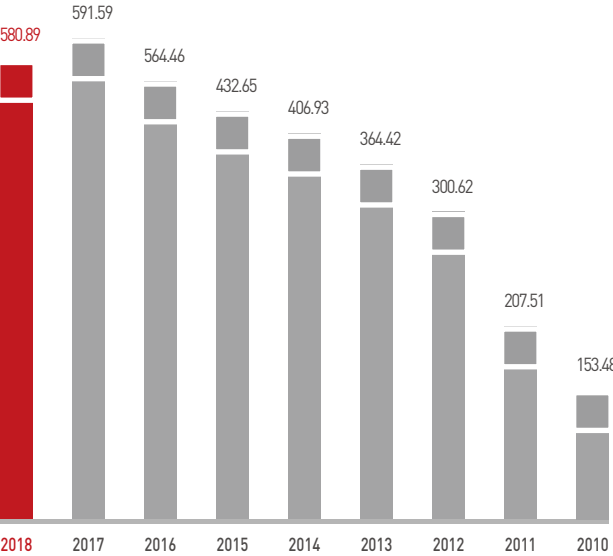
(CNY)

Stock Name	Stock Exchange	Stock Code	Dividends per Share	Earnings per Share
CNBM	Hong Kong Exchanges and Clearing	3323.HK	0.18	0.96
BNBM	Shenzhen Stock Exchange	000786.SZ	0.46	1.46
China Jushi	Shanghai Stock Exchange	600176.SH	0.225	0.6778
Sinoma International	Shanghai Stock Exchange	600970.SH	0.265	0.78
Tianshan Cement	Shenzhen Stock Exchange	000877.SZ	0.38	1.1835
Ningxia Building Materials	Shanghai Stock Exchange	600449.SH	0.30	0.8956
Qilianshan Cement	Shanghai Stock Exchange	600720.SH	0.296	0.8435
Sinoma Tech	Shenzhen Stock Exchange	002080.SZ	0.243	0.7237
Triumph Science & Technology	Shanghai Stock Exchange	600552.SH	—	0.06
Sinoma Energy Conservation	Shanghai Stock Exchange	603126.SH	0.07	0.2136
Luoyang Glass	Shanghai Stock Exchange	600876.SH	—	0.028
Luoyang Glass Company Limited	Hong Kong Exchanges and Clearing	1108.HK	—	0.028
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	—	0.0748
CTC	Shanghai Stock Exchange	603060.SH	0.265	0.8689

Data source: National Bureau of Statistics, United States Geological Survey

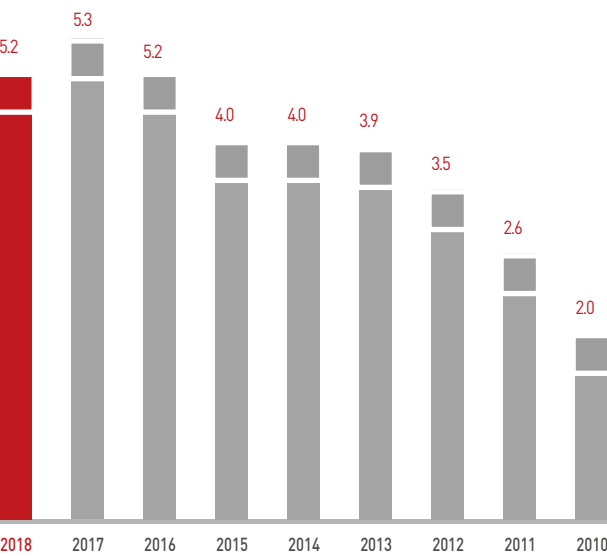
Total assets in 2010-2018

(billion CNY)



Cement productivity in 2010-2018

(100 million tons)



Energy conservation and environmental protection

Comprehensive Energy Consumption per 10,000 Yuan Output Value in 2010-2018

(tons of standard coal equivalent/10,000 yuan)

SO2 and COD emissions per 10,000 yuan output value in 2010-2018

(kg/10,000 yuan)

Year	SO ₂ Emission per 10,000 Yuan Output Value	COD Emission per 10,000 Yuan Output Value
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
2012	1.45	0.07
2011	1.60	0.12
2010	2.33	0.12

Performance of solid waste disposal and utilization in 2010-2018

Nitrogen oxide emissions per ton of cement clinker in 2010-2018

(kg/ton)

Comprehensive energy consumption per ton of cement in 2010-2018

(kilogram standard coal/ton)

Performance in Utilization of Water Resources and Waste Heat Resources in 2011-2018

Year	Fresh water consumption per 10,000 yuan output value (tons/10,000 yuan)	Fresh water consumption per ton of cement clinker (tons/ tons of cement clinker)	Utilization rate of circulating water (%)
2018	7.9	0.45	90.77
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
2012	5.0	0.33	94.7
2011	5.5	0.37	—

Corporate citizenship

Social Public Welfare Expenditure in 2010-2018

(million CNY)

2018	62.91
2017	23.35
2016	24.00
2015	18.02
2014	20.80
2013	21.95
2012	10.15
2011	17.37
2010	10.36

Assistance of Students in 2011-2018

Year	Special scholarship established (Items)	Total scholarship provided (10,000 yuan)	Number of students awarded or subsidized (persons)	Internship bases established (Items)	Undergraduate posts provided (man-days)
2018	18	73	188	118	45,464
2017	14	72	155	163	31,519
2016	8	37	266	134	34,030
2015	8	36	159	47	26,586
2014	31	53	227	97	28,619
2013	18	112	506	119	36,530
2012	20	136	466	98	17,815
2011	27	—	727	—	—

Payment of taxes in 2010-2018

(billion CNY)

2018	27.22
2017	19.68
2016	15.73
2015	11.91
2014	14.64
2013	13.17
2012	16.03
2011	15.07
2010	10.32

Performance in Employment Assurance in 2011-2018

[Person]

Year	Number of New Employees	In which: Current Year s Graduates	Military Personnel Transferred to Civil Work
2018	26,553	3,626	141
2017	29,612	4,727	139
2016	22,342	3,129	23
2015	16,929	2,473	10
2014	23,617	3,848	46
2013	16,081	4,383	158
2012	15,901	3,743	521
2011	21,182	4,276	241

Number of supported social welfare projects in 2010-2018

(Items)

2018	594
2017	419
2016	360
2015	332
2014	310
2013	332
2012	255
2011	209
2010	46

Volunteer activity organization in 2011-2018

Year	Volunteer groups established (Groups)	Input in volunteer support (10,000 yuan)	Number of employee volunteers (Persons)	Volunteer service provided (Hours)
2018	189	126	6,853	44,445
2017	335	363	5,334	25,164
2016	112	344	5,646	28,157
2015	56	191	2,187	14,840
2014	65	145	3,400	9,418
2013	109	145	4,864	10,681
2012	67	91	3,337	39,778
2011	—	—	—	10,618

Technological innovation

Science and technology awards at or above the provincial and ministerial levels in 2010-2018

Year	Science and Technology Awards at or above the Provincial and Ministerial Levels	National Science and Technology Progress Awards	Technology Innovation Awards

Annual patent application and authorization in 2010-2018

Expenditure on scientific research activities in 2010-2018

(billion CNY)

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Standards - Presiding over and participating in compilation or revision in 2010-2018

(Items)

Accumulative Patents in 2010-2018

Income from Scientific and Technological Innovation in 2010-2018

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Report Catalogue		United Nations Sustainable Development Goals	Guidelines for GRI Sustainable Development Reporting (G4)	Corporate Social Responsibility Reports in China for Nonmetal Mineral Products
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Reporting process

01	Project start-up	Determine the annual work plan and hold meetings or issue documents
02	Key topics identification and reporting boundary recognition	Analyze stakeholders’ concerns, identify annual key topics of the company and study the CSR standards, guidelines and new trends
03	Issue list of documents	Acknowledge the index system of the information system and prepare the list for annual major cases
04	Collect report materials	Collect and analyze fellow enterprise materials, functional department materials and media reports, etc
05	Report writing	Formulate the reporting framework, identify the report topic and formulate a preliminary draft report
06	Solicit opinions	Solicit opinions from the CSR leading group, headquarters functional departments, fellow enterprises, stakeholders and CSR experts
07	Report improvement	Revise texts, verify data and complete standard self-check
08	Report design	Readability, innovation and continuity
09	Report rating	Standards for CSR Reporting in China (2019)
10	Report release	Distribute to stakeholders through various carriers and channels
11	Summary and upgrade	Analyze shortcomings for rectification and improvement

Rating report

Feedback

Thank you very much for your attention and support to the social responsibility work of China National Building Material Group Co., LTD. Please fill in the following questionnaires! We ll continue to improve in the future according to your comments and suggestions.

Your comments on China National Building Material Group Co., LTD Sustainability Report as follows:

Comprehensive evaluation: Very good Good General Not good Rather poor
Richness in contents: Very good Good General Poor Rather poor
Page suitability: Very good Good General Poor Rather poor
Beauty of design: Very good Good General Poor Rather poor
Language friendliness: Very good Good General Poor Rather poor

In your opinion, what are the cores for China National Building Material Group Co., LTD to perform its social responsibility:

Operating Performance Scientific and Technological Innovation Energy Conservation and Environmental Protection
Employee Care Corporate Citizenship Responsibility for Governance

What do you think we should do to further strengthen our social responsibility management

Information collection Organizational structure construction Talent training Performance evaluation
External publicity Stakeholder management Public welfare planning Level of annual report preparation
Research on social responsibility Others _____

How would you like to know about our responsibility performance

Printing report Social Responsibility Column on Official Website WeChat Public Account
Professional media on social responsibility Others _____

What would you like to see in China National Building Material Group Co., LTD Sustainability Report?

Which performance of China National Building Material Group Co., LTD do you pay more attention to in the future?

Other comments and suggestions?

In what position did you participate in our activities for collecting opinions?

Government department Institutional investors Small and medium shareholders Financial institution Industry association Supplier Customer Competitive enterprise Partner CSR professional institution Public welfare organization News media Group middle and senior manager Group employee Others _____

In order to contact you conveniently and respond to your comments and suggestions in time, please offer your contact and related information. We ll keep it reliably confidential.

Name: _____ Occupation: _____ Institution: _____
Contact Address : _____ Zip Code: _____ E-mail _____
Telephone: _____ Fax: _____

