



CNBM

China National Building Material Group Co.,Ltd.

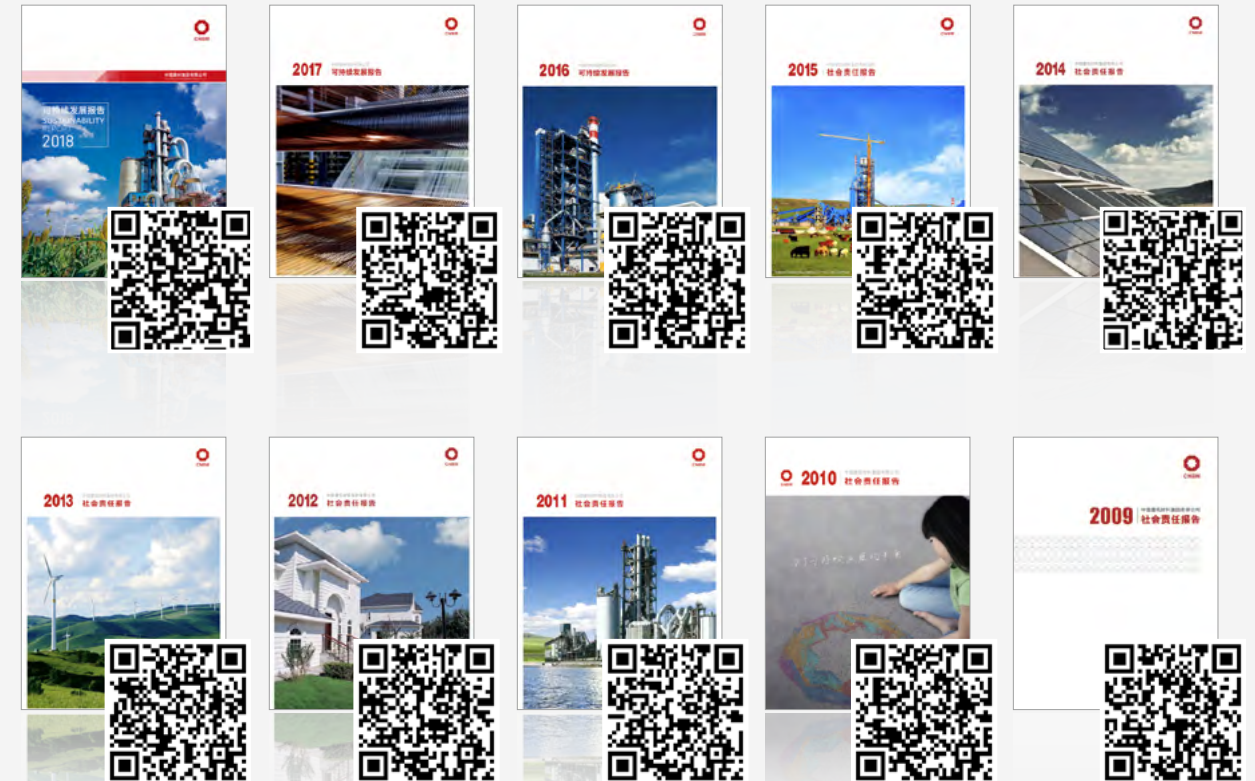
SUSTAINABILITY REPORT 2020



Sinoma (Funing) Wind Power Blade Co., Ltd.

Report Norms

This is the twelfth 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) member enterprises 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 text).

Period Covered by the Report

January 1 to December 31, 2019, some contents beyond.

Reporting Cycle

This Report is an annual report.

Basis for Preparation

Guiding Opinions on the Implementation of Social Responsibility by State-owned Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council

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

SAC's Guidance on Social Responsibility Reporting (GB/T 36001-2015)

Global Reporting Initiative G4 Guidelines on Sustainability Reporting (GRI Standards)

ISO 26000 Guidance on Social Responsibility

The United Nations 2030 Agenda for Sustainable Development Goals (UN SDGs)

Data Sources

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

QA

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 printed version via the contact information on the cover or log onto www.cnbm.com.cn to download the electronic version.

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**WE AIM TO CREATE A BETTER
WORLD WITH MATERIALS ON OUR
JOURNEY FORWARD**

Chairman's Address

Time is the scale for pioneers moving forward, and it is a testament to persons striving for their dreams. President Xi Jinping's New Year's message for the year 2021 aroused strong emotion, "We have strived, broken through brambles and thorns, and passed through the trials of a long journey. We will continue to strive, march ahead with courage, and create brighter glory!"

On the historical coordinates of development, 2020 is destined to be an extremely extraordinary year. For China, the year saw the conclusion of its 13th Five-Year Plan with resounding success, as well as its general planning for the 14th Five-Year Plan. In the year, great historical success was achieved in completing the building of a moderately prosperous society in all respects, and poverty alleviation efforts at crucial moments achieved decisive victory; we overcame the pandemic and made significant headway in both response to COVID-19 and socio-economic development; at a historical stage where the opportunity and challenge built up each other, China National Building Material Group Co., Ltd. (CNBM) forged ahead together with China on a new mission to "create a better world with materials".

We tackle new challenges of the pandemic by doing our part through main business

As China's only central government-led enterprise in building materials, CNBM has been keeping in mind the utmost interests of the nation. In the face of COVID-19 surge, we responded the moment it appeared, stepping up to the plate and doing our best to be in the forefront to support nearly 100 hospitals treating COVID-19 patients with our high-quality building materials. We urgently provided more than 10 high-tech materials for both the front line of the battle against pandemic and vaccine development, and made every effort to stabilize the industry and supply chains. We donated an accumulative total of more than RMB 50 million to build the Great Wall of steel as a line of defense against virus. We ensured stability on six fronts and maintained security in six areas with tangible measures and achievements. With love and compassion, we demonstrated our responsibility and accountability as a "pillar" and "ballast".

We take the lead on the new industry track with business efficiency

By taking hold of the historical opportunities of the 13th Five-

Year Plan, CNBM forged ahead in the new era and honed itself with pioneering spirit. It has evolved into the world's largest building material manufacturer, the world's leading new material developer and an integrated service provider, with increasingly enhanced overall strength and global presence. In 2021, its ranking on the Fortune Global 500 list has jumped to 177th, topping the building material sector over the world. In the fiscal year of 2020, CNBM reported a year-on-year increase of 35% in net profit and 32% in total profit, creating a new record, and exceeding the operation objectives of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC). The Group's open event, "Smart Use of Resources Day", has set a historical precedent in the industry. At the meantime the corporate global brand value ranking significantly increased by 84 places to 269th. We are well on track to build a world-class enterprise.

We energize the company with reformation

As a pioneer in the reform of central enterprises, CNBM, guided by the Group- and headquarters-wide "4335" principles, continues to deepen the pilot reform of

state-owned investment groups, and has established a problem, goal and result oriented industrial investment logic. The three-year action plan for the reform of state-owned enterprises (SOEs) has been deployed across the board. The integrations of cement business, engineering services and new materials business were launched. Eight incentive mechanism "toolkits" across five categories have been established, along with a governance-oriented control model of equity properly managed by directors and supervisors. "Demonstration Action for Scientific SOE Reform" and the "Double-Hundred Action" have seen substantial results. We help the materials industry deliver on new development concepts and build a new development pattern, taking the lead in the upsurge of deepening reform.

We create new advantages in development with an innovation-driven strategy

As a leader in the field of inorganic non-metallic materials in China, CNBM makes increased efforts in the innovation-driven strategy. By instrumenting the edge with 26 national-level scientific research and design institutes and 38,000

scientific researchers, we have won 6 first prizes for the National Awards for Scientific and Technological Progress and four prizes for the China Grand Awards for Industry, and had a total of 14,500 effective patents. We serve the attainment of major national strategic goals, providing new materials for Chang'e-5, Beidou Navigation Satellite System, Wudongde Dam and more. With a focus on independent product development, we have made breakthroughs in an array of "pressing stranglehold" technologies such as special cement for the Sichuan-Tibet Railway project, aero engine turbofan blades, import substitution applications with domestic carbon fiber and 0.03mm flexible foldable glass. Through innovative management mechanisms, continuously deepened "Precision Management", successful roll-out of new business models for large-scale application scenarios, and steady headway in the industrial digital economy, among others, we take on national responsibilities and create social value through innovation.

We consolidate the new business pattern with integration and optimization

With the country's vision of

implementing the strategy of restructuring China National Building Materials Group Corporation and China National Material Group Corporation firmly in mind, CNBM takes the initiative to build a new development pattern by pursuing progress in advanced industrial base and modern industry chain, and leading and creating new demand with high-quality supply. The "tripod" pattern of building materials, new materials, and engineering technical services has been further optimized with highlighted synergy. Specifically, for building materials, its transformation is picking up space, the "Cement +" strategy has been fully applied, and positive measures have been taken to help achieve the goals of "emission peak and carbon neutrality"; in fast-rising new materials business, it created nearly RMB 80 billion in revenue and 10 billion in profit, becoming an engine for the Group's rapid growth; as for engineering services and international operations, they have been improving at a stable pace, and efforts are made to connect domestic-international dual circulation. In the year, we accelerated the interaction of two resources and two markets, transformed our thinking mode of operations and investment at home and abroad, paid attention to both independent construction and

investment/M&A, allowing the cross-border appeal of markets, capital and talents to be increasingly prominent.

We steel new forces of the team who are baptized with politic ideology

In the year, CNBM thoroughly studied and implemented the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, further the "Four Consciousnesses", strengthened the "Four Confidences", the "Two Maintenances". We took the Party's political development as the highest beacon, accelerated the deep integration of Party building and business operation, deepened our efforts to correct corporate ethos, strictly enforced discipline and fought against corruption, effectively carried out rectification work, and strengthened ideological and cultural construction, so as to effectively strengthen Party leadership and Party building in major tests. We actively practiced social responsibilities. Under our fixed-point poverty alleviation action five districts and counties have been lifted out of poverty. We made further progress for green development strategy, and contributed to the goals of "emission peak and carbon

neutrality". Our team has become more firmly united after being baptized with politic ideology.

At the confluence of the two centenary goals, CNBM once again stands at a new starting point in history, and starts a new struggle and journey as a materials developer, manufacturer and service provider on a new mission of

"creating a better world with materials." The journey ahead is long. We will continue to deliver high-quality products and services, centering on high-end manufacturing, intelligence, environmental protection and safety. We will also do whatever it takes to drive economic and social development, satisfy people's needs for a better life, contribute more to China's

drive for building itself into a modern socialist country in all aspects, and work tirelessly to realize the Chinese Dream of national rejuvenation!

Chairman and Party Committee Secretary

Zhou Yuxian



About US

Company Profile

China National Building Material Group Co., Ltd. ("CNBM") was founded through the merger of China National Building Materials Group Corporation and China National Materials Group Corporation with the approval of the State Council, and is a central state-owned enterprise under the direct management of the State-owned Assets Supervision and Administration Commission of the State Council.

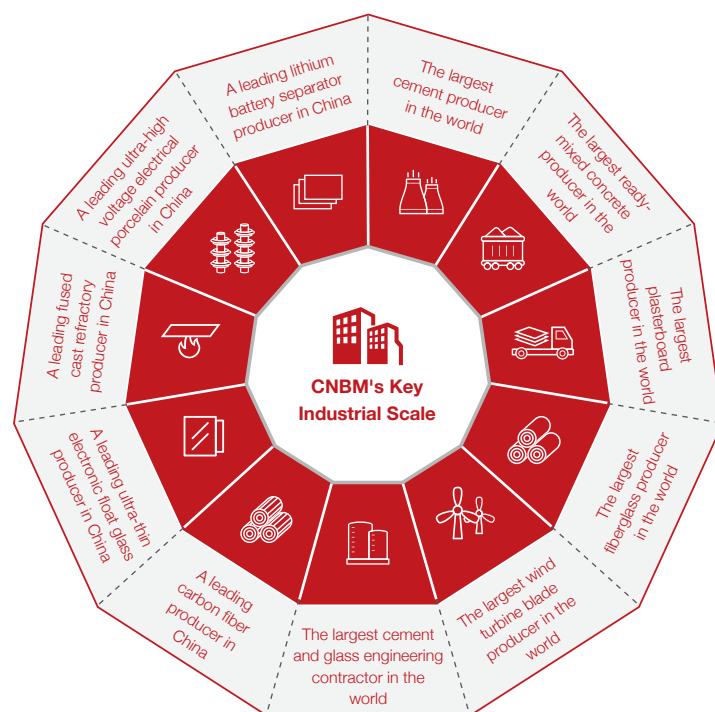
CNBM is the largest comprehensive building materials group, a leading new materials developer, and a leading integrated service provider throughout the world. It has been listed on the Fortune Global 500 for eleven consecutive years and ranked 177th in 2021. As at the end of 2020, CNBM's total assets amounted to RMB 600.13 billion and the total number of its employees was about 203,000. In 2020, CNBM achieved revenues of RMB 394.1 billion. CNBM holds 13 listed companies, of which 2 are at abroad. The Group is the largest supplier of cement, ready-mixed concrete, plasterboard, fiberglass, wind turbine blades, cement & glass, and engineering & technical services. It is also one of the leading producers of ultra-thin electronic glass, high-performance carbon fibers, lithium battery separators, ultra-high voltage electrical porcelain and so on.

As a scientific and technological group, CNBM possesses the top strength in building materials and new inorganic nonmetallic materials. CNBM takes possession of 26 national-level scientific research and design institutes, 38,000 scientific researchers and engineering technicians, 33 national industrial quality inspection centers, 11 national key laboratories and engineering (technical) research centers and 17 standardization technical committees with more than 14,463 patents, 6 first prizes from the National Awards for Scientific and Technological Progress and 4 prizes from China Grand Awards for Industry.

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

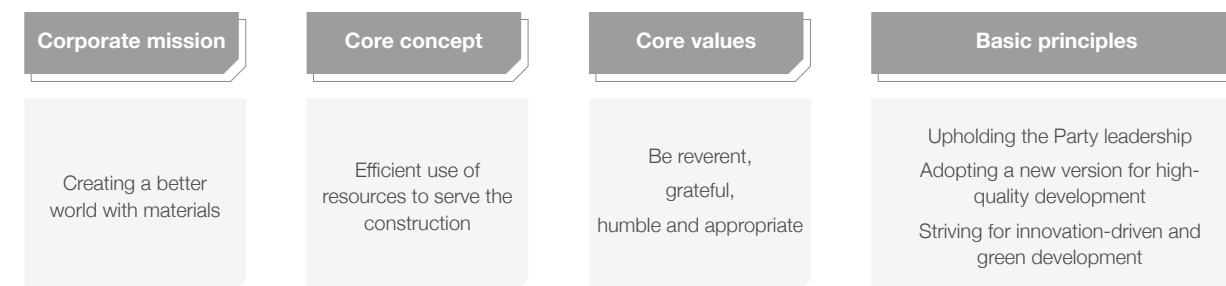
CNBM has been designated as a pilot state-owned capital investment company. Currently, it is speeding up the "three major changes" from asset management to capital management, from building materials to comprehensive materials, and from the local market to the global stage according to the "4335" guiding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

CNBM's Key Industrial Scale



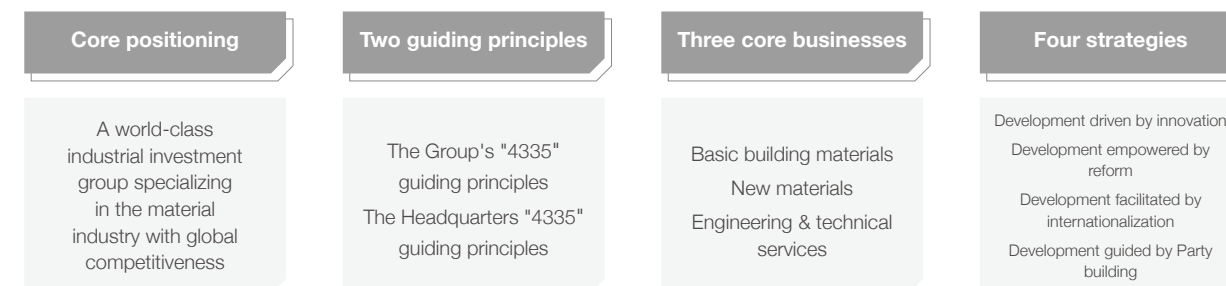
Corporate Culture

In the process of development, CNBM has created the core concept of "efficient use of resources to serve the construction" and set up the core values of "innovation, performance, harmony and responsibility" and the standard of conduct to "be reverent, grateful, humble and appropriate". We always shoulder the corporate mission of "creating a better world with materials", adhere to the basic principles of "upholding the Party leadership, adopting a new version for high-quality development and striving for innovation-driven and green development", undertake our economic, political, social and national responsibilities, effectively safeguard the interests of all parties, strive for green and sustainable development and contribute to the construction of a beautiful home for mankind.



Development Strategy

Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, CNBM actively puts the guiding principles from the 19th CPC National Congress and the Second, Third, Fourth and Fifth Plenary Sessions of the 19th CPC Central Committee into action, resolutely implements the principles delivered in Xi Jinping's important statement on the reform and development of state-owned enterprises and Party building, relies on the new development stage, acts on the new development philosophy, fosters a new development paradigm, adheres to the general principle of pursuing progress while ensuring stability, focuses on promoting high-quality development and supply-side structural reform, and enhances its competitiveness, capability of innovation, power of control, influence and risk resistance through development driven by innovation, empowered by reform, facilitated by internationalization and guided by Party building.



Development Objectives

The Group is expected to achieve an operating revenue of RMB 500 billion, with its primary businesses occupying a leading position in the market segments, to foster and develop a group of leading enterprises which are highly specialized, globalized and innovative, possess excellent value creation and basic management ability, hold a dominant market position and play a leading role, to make constant improvement in quality for performance, structural adjustment, innovation, in-depth reform, and power of control, and eventually develop into a world-class industrial investment group specializing in the material industry with global competitiveness by 2025.



Management Team

CNBM is a demonstration pilot corporation for the merger and reorganization of national enterprises, the development of mixed ownership economy, the development of state-owned capital investment companies and the deepening and implementation of the duties and powers of the board of directors conducted by the State-owned Assets Supervision and Administration Commission of the State Council. Its member enterprises are pilot enterprises for employee stock ownership in mixed ownership enterprises. 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, of which the Remuneration and Appraisal Committee and Audit and Risk Management Committee consist solely of external directors.

Board of Directors

Zhou Yuxian	Li Xinhua	Cao Jianglin
Chairman	Vice-Chairman	Director

Yang Ya	Liu Xinquan	Xu Wenrong	Xia Xiao'ou	Chen Niangao	Sun Lishi
External Director	External Director	External Director	External Director	External Director	Employee Director

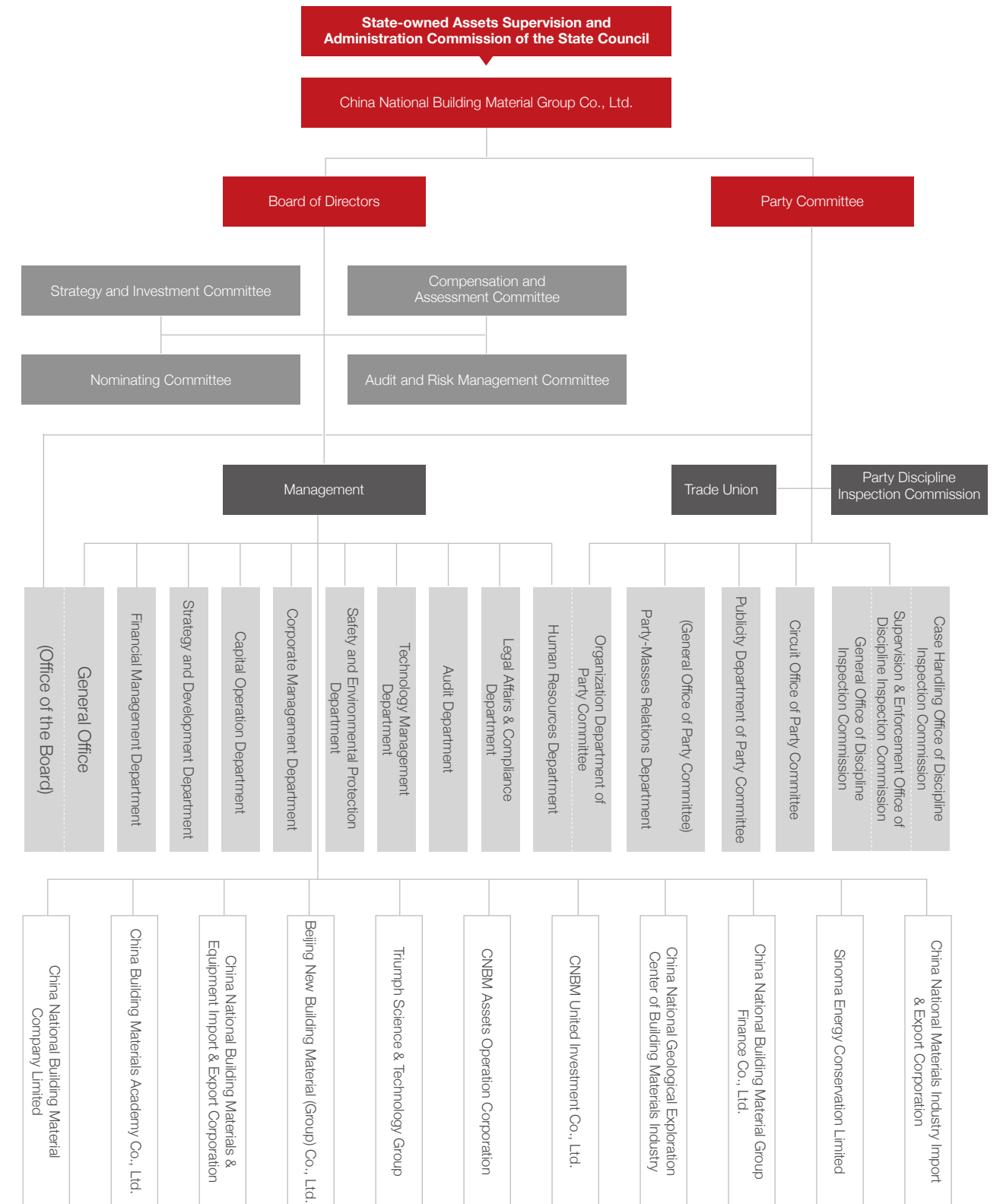
Management

Cao Jianglin	Li Xinhua
Party Committee Standing Member Director General Manager	Party Committee Standing Member Vice-Chairman

Sun Lishi	Zhan Yanjing	Yang Jie	Chang Zhangli	Wang Yumeng
Deputy Party Committee Secretary	Party Committee Standing Member Chief Accountant	Party Committee Standing Member Discipline Inspection Commission Secretary	Party Committee Standing Member Deputy General Manager	Party Committee Standing Member Deputy General Manager

Peng Shou	Guang Zhaoyu	Lu Xinhua	Wei Rushan	Gao Zehuai
Chief Engineer	Board Secretary General Manager Assistant	General Counsel	General Manager Assistant	Deputy Chief Economist

CNBM Governance Structure



Main Lines of Business

Basic building materials 1

Cement



Cement

The annual production capacity of 510 million tons of cement and 450 million m³ of ready-mixed concrete, both of which rank first in the world.

Leading Enterprises

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

Float Glass



Float Glass

CNBM's annual production capacity of high-quality float glass reaches 37.05 million weight cases.

Leading Enterprise

Triumph Science & Technology Group

New materials

Plasterboards and Waterproof Materials



Lightweight Building Materials and Waterproof Materials

The annual production capacity of plasterboard is 2.82 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: 'whole-house' indoor systems integrating plasterboards, frames, universal boards and mineral wool boards, external energy saving and thermal insulation systems with fiber cement siding, and waterproof systems combining powder, coating and mortar. We provide an application solutions package for public buildings and family housing with our complete product system.

Leading Enterprises

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

Wind Turbine Blades



Wind Turbine Blades

We can produce 15.2 GW of blades for MW-level wind turbines every year, ranking first in the world, including over 100 types of products with the categories ranging from 1 MW to 8.5 MW, and the blade length varying from 34 meters to 90 meters. We possess blade production bases in Funing, Pingxiang, Handan, Xilinhot, Hinggan League, Baicheng, Lianyungang, Shenyang, Jiuquan, Baotou, Hami, Yuxi and Anyang, a research and development center in Germany and a national blade testing center.

Leading Enterprise

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

Fiberglass



Fiberglass

The annual production capacity of fiberglass is 3.013 million tons, ranking first in the world. We have the world's largest alkali-free tank furnace production line with an annual capacity of 150,000 tons, and packaged technologies for intelligent and green manufacturing of alkali-free fiberglass and HSHM fiberglass with proprietary intellectual property rights.

Leading Enterprises

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

Lithium Battery Separator



Lithium Battery Separator

The annual production capacity of lithium battery separator is 960 million m², with a market share of over 20% ranking second in China. Sinoma Lithium Battery Separator Co., Ltd. is the only enterprise in China that adopts wet two-way synchronous stretching process, and it currently has four production bases: Tengzhou (Shandong), Changde (Hunan), Changsha (Hunan) and Hohhot (Inner Mongolia).

Leading Enterprise

Sinoma Lithium Battery Separator Co., Ltd.

Carbon Fiber



Carbon Fiber

With a total production capacity of 3,430 tons, Zhongfu Shenying Carbon Fiber Co., Ltd. has taken the lead in the key breakthrough of dry-jet wet-spinning technology and core equipment autonomy in China, and built the largest and most technologically mature 1,000t industrial production line of carbon fiber by dry-jet wet spinning technology in China.

Leading Enterprise

Zhongfu Shenying Carbon Fiber Co., Ltd.

Advanced Ceramics and Artificial Crystals



Advanced Ceramics and Artificial Crystals

The annual production capacity of UHV electrical porcelain is 35,000 tons. Currently, we have new functional materials, such as silicon nitride ceramics, high-voltage electrical porcelains, silicon carbide ceramics and quartz ceramics, which have excellent temperature resistance, corrosion resistance, wear resistance and erosion resistance. They can replace metal materials and organic polymer materials for harsh working environments and are widely used in energy, aerospace, machinery, automobile, electronics, chemical industry and other fields. Meanwhile, we have artificial crystals, including nonlinear optical crystals, scintillation crystals and infrared window crystals, widely used in the fields of electronics, laser, communication, energy and biology.

Leading Enterprise

Sinoma Advanced Materials Co., Ltd.

New Glass Materials



Display Materials

We can produce 30 million m² of ultra-thin electronic glass, 31.36 million pieces of ITO conductive film glass and 41.5 million pieces of display modules every year, ranking top in China. The whole industrial chain of 30µm-70µm ultra-thin flexible foldable glass (UTG) independently developed has been the only totally-domestic UTG industrial chain in China; 8.5-generation TFT glass substrate has been introduced into the large-size display industrial chain.

Leading Enterprise

Triumph Science & Technology Group



PV Business

The annual production capacity of solar glass is 110 million m². With a focus on thin-film solar products and technologies, we also have a production capacity of 3GW thin film solar cell modules, ranking first in China. 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 and establishing a whole industrial chain of BIPV (Building Integrated PV). We have set up a 300 MW CIGS thin-film solar cell production base and a 200 MW CdTe power generation glass production base. Moreover, we have also developed several solar PV power stations in China and other countries and regions. The PV conversion efficiency of our CIGS thin-film solar cells is up to 19.6%, setting a new world record.

Leading Enterprises

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

Engineering & technical services 3



Engineering & Technical Services

We have captured dominant global market shares in cement and glass engineering and cogeneration engineering, with our business covering 75 countries. We are now expanding our market shares in such fields as new glass, new energy, new materials and new housing. Besides, we have a leading integrated secondary inspection and certification body in China.

Leading Enterprises

Sinoma International Engineering Co., Ltd., China National Building Materials International Engineering Co., Ltd., Sinoma Energy Conservation Limited, Hefei Cement Research & Design Institute Co., Ltd. and China Building Material Test & Certification Group Co., Ltd.



Market Performance

With sheer endeavors, we pulled off the 13th Five-Year Plan in 2020. In the face of extremely complex and severe economic situation and arduous reform and development tasks, we have made every effort to overcome the impact of the epidemic, economic downturn and demand fluctuation, overfulfilled the annual tasks under self-pressure, active adjustment and great efforts, and achieved economic benefit growth, operation quality improvement, layout optimization, reform deepening and enhancement of Party building advantages, making rapid and steady progress in developing into a world-class industrial investment group specializing in the material industry.

Total assets RMB

600.13

billion



Revenues RMB

394.1

billion



Total profits RMB

30.61

billion



Taxes paid RMB

29.06

billion



Response to SDGs

9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



16 PEACE AND JUSTICE STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



© South New Material Technology Co., Ltd.

Proud Results

Relying on steady production and operation, the Group created new records of business performance in 2020. Under the great impact of the epidemic and the pressure of operation, we advanced the integration of cement, new materials and engineering services in an orderly manner and further optimized and consolidated the "tripod" business pattern by taking advantage of the full integration into the double-cycle pattern according to the "three step" plan for restructuring of China National Building Materials Group Corporation and China National Materials Group Corporation, which brought out remarkable synergy effect. In 2020, the Group achieved RMB 394.1 billion of revenues, down 1% year on year; RMB 30.61 billion of total profits, up 32% year on year; and RMB 20.14 billion of net profits, up 35% year on year, delivering a good report to the Party, the State and shareholders.



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Transformation and Breakthrough of Cement Business

Cement business is a "ballast" of CNBM. In 2020, CNBM further deepened the supply-side structural reform, put into full practice the concept of "price-cost-profit", and made every effort to stabilize the price and expand the quantity in the cement sector. China United Cement, South Cement and Southwest Cement organized off-peak production with a duration varying from 40 to 160 days. Meanwhile, CNBM speeded up the transformation and actively promoted "Cement+", bringing about RMB 114 billion of revenues and RMB 12.3 billion of profits since the beginning of 2019; shut down outdated production facilities and promoted the production of high-end and green cement. In 2020, CNBM's output of special cement reached 5.74 million tons. Moreover, CNBM's low-heat cement was put into use in the whole Wudongde Dam which is the fourth largest hydropower station in China and the seventh largest hydropower station in the world, implying a miracle in the world history of dam construction. In 2020, CNBM won the "Significant Contribution Award for Industry Development" from China Cement Association.

Develop a typical whole-process demonstration line of intelligent cement production

As a demonstration site of intelligent manufacturing, Huaikan South took the lead in the transformation to be "digital, intelligent and service-based" in cement industry through the intelligent production and operation model.

In terms of digital technology: realize whole-process digitalized management of plant construction on the basis of digital platform, drive the transformation from business-based data to data-driven business and from process-driven to data-driven, achieve data-driven digitalized management of engineering projects, and further promote "Precision Management". In terms of intelligent technology: realize whole-process and all-factor digitalized management of project implementation, intelligent production control and unattended processes in the digital twin plant; develop new intelligent cement technologies through the data acquisition standardization platform, production management platform, supply chain management and edge computing platform. In terms of green technology: low-energy green firing technology and equipment, with world-leading technical indicators; low-carbon grinding technology and equipment, which is currently the most advanced cement preparation technology in the world; ultra-low emission technology and equipment, which is superior to that of developed countries in the Europe and America. In terms of high-end technology: develop high-end and low-energy functions of cement production line, with a standard coal consumption of $\leq 94\text{kg/tcl}$ and clinker electric power consumption of $\leq 42\text{kwh/t}$; control the collection of dust, sulfur dioxide and nitrogen oxide at 5 mg/nm^3 , 50 mg/nm^3 and 100 mg/nm^3 respectively; achieve a substitution rate of 30% for alternative fuels; set the number of staff members engaged in cloud service + intelligence to be 65; reduce the carbon dioxide emission per ton of cement to 0.60t; integrate the plant with the environment to achieve harmony among plant, gardens and residents. In terms of socialized R&D and design of BIM platform: launch demand-oriented industry applications, thus playing a leading and demonstration role in the transformation and development of the cement industry.

Rapid Rise of New Materials

The new materials sector is an engine of CNBM's rapid growth. We speed up high-end development, mass production and globalization of our new materials business, focus on making key technological breakthroughs and drive the transformation and upgrading of the industry. In 2020, CNBM's new materials sector achieved revenues of nearly RMB 80 billion, accounting for about 20% of total revenue, and profits of nearly RMB 10 billion with growth rate of 80%, accounting for 36% of corporate total profits. Triumph Science & Technology, Beijing New Building Material, China Jushi, Sinoma Tech and China Composites Group saw a sharp increase in profits, and constantly overcome the bottlenecks in development of new materials, providing a strong guarantee for serving the national strategy and realizing self-reliance, and widely benefiting people's livelihood.

Data Review 2020

The new materials sector achieved revenues of nearly RMB

80
billion

accounting for about

20
%

Make technological breakthrough to create a "new world of glass"

With a focus on technological breakthroughs, CNBM has made a large number of significant research achievements by putting into full practice the "3+1" strategic layout of new glass materials and carrying out scientific researches. The great breakthroughs in "bottleneck" technologies have increased the autonomy of CNBM and helped CNBM make continuous progress in creating a "new world of glass".

China Building Materials Academy has developed the use of chalcogenide glass as the lens of infrared camera for multi-point temperature detection. It can carry out accurate and efficient screening at an interval of 3-4 meters without close contact, thus helping accurate body temperature detection in public places.

Triumph Science & Technology has overcome the bottlenecks of key technologies in cooperation with Bengbu Design and Research Institute for Glass Industry, and independently developed the whole industrial chain of 30μm-70μm ultra-thin flexible foldable glass (UTG), which is the only totally Chinese UTG industrial chain.

Triumph Science & Technology's 8.5-generation glass substrate products have been recognized by the market, proven in the whole-process gradient applications by mainstream panel manufacturers in China and successfully introduced into the large-size display industrial chain, thus consolidating, supplementing and strengthening China's information display industrial chain with a value of hundreds of billion yuan, and playing an important role in meeting the huge demand for substrate glass in China's LCD industry.

The highly stable composite microporous collimating glass for spaceborne hydrogen maser developed by the Institute of Glass Science and Special Glass Fiber of China Building Materials Academy has been applied in the hydrogen maser of Beidou Satellite, greatly improving the stability, reliability and service life.

As the core optical material of satellite attitude control system, the radiation-resistant silica glass independently developed by the Institute of Quartz and Special Glasses can help satellites to accurately measure the position of celestial bodies and help satellites to travel in space with the advantages of resistance to cosmic radiation, UV radiation filtering and resistance to thermal shock.



© 30μm UTG of Triumph Science & Technology

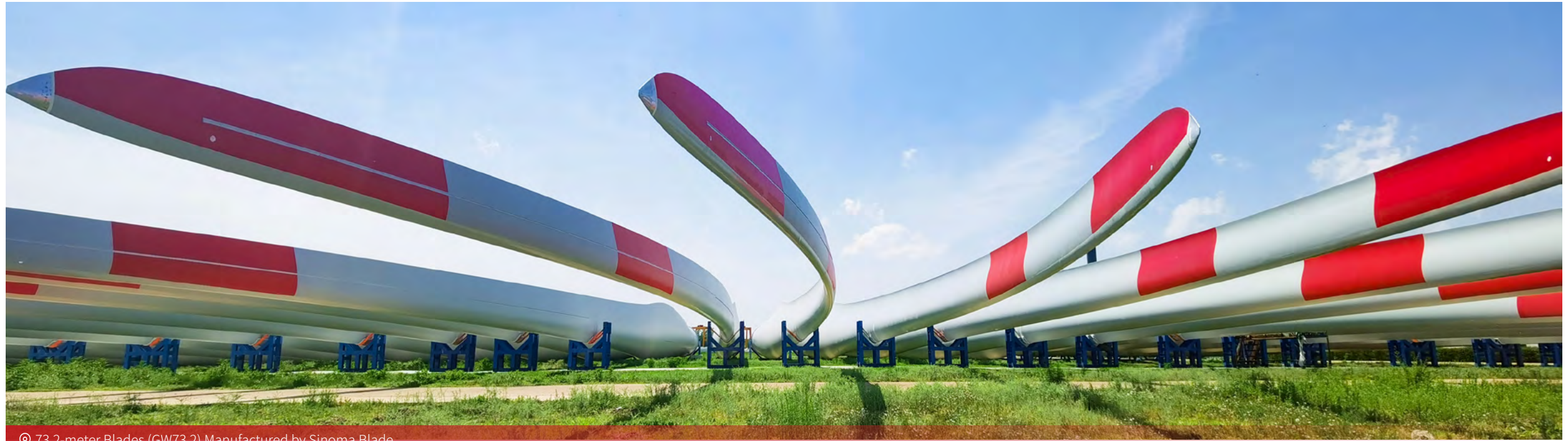
- The Group saw an increase of nearly 400 million m² in the production capacity of plasterboard, and accelerated the restructuring and integration of waterproof coating business.
- The 250,000t intelligent fiberglass manufacturing base in Chengdu was put into operation, and the second stage of the intelligent manufacturing project in Tongxiang commenced.
- The first production line of the carbon fiber base in Xining was successfully put into trial production, and a 100t T1000 carbon fiber project was carried out.
- Low-Dk fiberglass, power generation glass and display modules were applied in new infrastructure.
- 8.5-generation TFT glass substrate was introduced into the large-size display industrial chain.
- The PV conversion efficiency of CIGS thin-film solar cells reached 19.6%, setting a new world record.
- China Jushi launched E9 UHM fiberglass with a modulus of over 100 GPa.
- The 86m-long all-fiberglass wind turbine blade was successfully installed.

Steady Improvement of Engineering Services

Create domestic and international double cycles with the help of engineering services. We have been striving to accelerate the interaction between international and domestic resources and markets, stabilize the global industrial chain, and promote the globalized, localized and diversified development of engineering services. In 2020, the value of newly signed contracts on engineering services reached RMB 56.9 billion, the number of overseas home furnishing materials chain supermarkets invested by CNBM increased to 18, and 10 new production lines of "intelligent industry" were created. Meanwhile, the localized operation of many overseas markets achieved remarkable results, and several overseas manufacturing projects of fiberglass, cement and plasterboard were launched. At the Third China International Import Expo, the Group signed 17 agreements with 14 overseas enterprises, winning SASAC's praise for the organization work at the Expo.

Empowered by Reform

Trigger vigor through reform and empower development through management. In 2020, CNBM resolutely put into practice the decisions and arrangements of the Party Central Committee on deepening reform, comprehensively implemented the Three-Year Reform Plan, and carried out pilot projects of reform, thereby triggering vigor and kinetic energy; constantly strengthened "Precision Management", and improved lean operation, fine management and intensified organization, thereby laying a solid foundation for high-quality development.



73.2-meter Blades (GW73.2) Manufactured by Sinoma Blade

Deepening of Reform

CNBM actively implemented pilot reforms of state-owned companies, established the "4335" guiding principles of the Group and the Headquarters, and defined the five functions of the Headquarters: strategic guidance, resource allocation, capital operation, risk prevention and control, and Party building strengthening; promoted the Group-wide understanding of its strategies and main businesses; made the transition from assets management to capital management, set up an excellent team of equity directors, and truly managed capital liquidity and income collection through the directors; established medium and long-term incentive mechanisms, developed eight incentive "tools" in five categories, and constantly improved the "Three Cans" mechanism; put into full practice the Three-Year Reform Plan, and defined 58 key reform tasks in eight aspects. By the end of 2020, the Group had possessed three demonstration enterprises of scientific and technological reform and four enterprises included the "Dual-Hundred-Enterprise Action Plan", worked out plans and records for deepening reform, and fully completed the special pilot reforms.

Deepen the pilot reform of investment companies

Reform top-level design

Define the five functions of the Headquarters, clarify the main businesses and strategies of 5 secondary subsidiaries and increase the ratio of capital gains collected; prepared detailed plan and records for the implementation of the Group's Three-Year Reform Plan.

Improve corporate governance

Clarify the decisions of the Shareholders' Meeting, Board of Directors and Board of Supervisors, and formulate the guidelines for standardized operation of the Board of Directors; establish a system of full-time directors and supervisors, include the first 70 candidates in the pool of directors and supervisors, and appoint 6 full-time directors and supervisors. In 2020, a total of 13 board meetings were held, resulting in 92 board resolutions.

Three closed-loop systems

Carry out closed-loop management of incentives & restraints, investment management and integrated supervision, and promote the full coverage of internal audit, inspection and supervision.

Adjust and optimize capital layout

Integration of homogeneous businesses

Promote the integration of cement, engineering services and new materials in an orderly manner according to the principle of refocusing.

Orderly transfer of shares

Set up a CNBM fund according to the principle of marketization, and invest in SICC Co., Ltd. and Ruitai Technology; carry out the restructuring of major assets and restructuring of Zhongfu Shenyang. The IPO on the science and technology innovation board was approved and CTC Group was reorganized and entered the field of environment inspection.

Accelerated withdrawal

Carry out a special action for divestiture of non-main and non-dominant businesses, and withdraw from 9 non-main businesses in an orderly manner, lowering the trade volume by about RMB 10 billion.

Historical problems

Complete the separation and handover of water/power/heat supply and property management, the reform of 6 medical institutions and the collective restructuring of 14 factories; maintain the completion rate of socialized management of retirees at 98.9%.

Consolidate the market-oriented operation mechanism

Tenure system and contract-based management of the Group's management

Sign contracts with the Group's management, and implement the tenure system and perform contract-based management in pilot enterprises.

Market-oriented employment

The Group recruited two management cadres of the Party Committee openly, and the Headquarters appointed three middle-level cadres through internal competition. The number of management staff was reduced by 157 or 1.2%.

Medium and long-term incentive reform

Formulate the guidelines for medium and long-term incentives and restraints and define 8 incentive tools in 5 categories.

Precision Management

We have worked hard in management, paid close attention to "Precision Management", promoted intensified organization, fine management and lean operation, constantly improved the overall quality and profitability, advanced management innovation as a common practice, and continuously raised the ability to cope with the uncertainties of the external environment, laying a solid foundation for the Group to develop into a world-class enterprise.



Lean Operation

We have further optimized the industry ecosystem, deepened the supply-side structural reform, and persisted in off-peak production, production reduction and upgrading, elimination of outdated production facilities and internal coordinated development. In 2020, Sinoma International signed a RMB 2.5 billion intra-Group "cement+" contract; the annual intra-Group cooperation projects of China National Geological Exploration Center increased by 34%, with a new resource reserve of 3.8 billion tons; the "1+N" shared fund system of CNBM Finance was launched, with a coverage rate of over 60%. The average daily deposits and loans increased by 45% and 102% respectively, reaching a record high.

We have strengthened brand building in line with the strategy of promoting development through quality. In 2020, the Group won the National Quality Award, Outstanding Project Award, Gold Award for High-Quality Project and CIIF Award, and was selected as one of the TOP 500 most valuable brands in the world and the TOP 50 most valuable engineering and construction brands in the world.

Perform quality control at the source

"Quality control at the source" performed by Sinoma Pingxiang Cement Co., Ltd. is an innovative and characteristic method of quality management suitable for the industry developed during the operation of ISO 9001 quality management system. The most striking feature of this method is that each process must serve the subsequent process, so as to achieve the transition from inspection-based ex-post quality management to whole-process control and preventive quality management, that is, quality control at the source. Through "quality control at the source", Sinoma Pingxiang Cement Co., Ltd. has effectively improved its product quality, customer satisfaction and brand reputation. In 2020, this method was selected as one of the TOP 100 "Advanced Quality Management Methods" in Jiangsu, Zhejiang, Anhui, Jiangxi and Shanghai.



Fine Management

We have effectively consolidated basic management, accelerated digital transformation, strengthened quality and brand building and enhanced product competitiveness; put focus on 5 product indicators and 10 composite indicators, and paid close attention to cost reduction and efficiency increase. Specifically, China National Building Material Company Limited have lowered its cost by RMB 2.1 billion through centralized procurement; Tianshan Cement and China Jushi have achieved a centralized procurement rate of 100%; the intelligent production line of Huaikan South has been completed and put into operation, leading the industry in terms of process index and management level; the number of registered cars on "Vehicle calling" platform of Ningxia Building Materials Group has increased from 35,000 to 370,000.



Intensified Organization

We have put focus on special actions, structure streamlining and risk prevention and control, kept legal compliance and good faith in operation, improved the governance system and enhanced the corporate competitiveness. In 2020, we reduced 8 of the 10 target indicators by executing the "2422" reduction program, e.g., reducing the accounts receivable by 0.3%, inventory by 7% and interest-bearing liabilities by 3% year on year; fulfilled the disposal task of SASAC for reducing the number of legal persons and zombie enterprises, and helped unprofitable enterprises reduce losses; carried out the correction of "government-like headquarters" and institutional reform of the Headquarters, and set the personnel quota of 17 departments to be 100 to streamline the structure; enhanced legal compliance and carried out legal publicity and education; improved the risk, internal control and compliance systems, promoted the "formulation, abolition and revision" of rules and regulations at all levels, and developed 204 internal management systems and 2 contingency plans; carried out in-depth special rectification, focused on specific audits in key areas, achieved full coverage of the accountability system for violations, and effectively improved the ability to prevent and resolve major risks.

"Five Promotions, Five Contributors, One Award and Three Stars" System

Longnan Qilianshan Cement is a wholly-owned subsidiary of Gansu Qilianshan Cement which is a subsidiary of CNBM. In recent years, Longnan Qilianshan Cement has pursued technology-led innovative development; carried out the practice activity of "Five Promotions, Five Contributors and One Award and Three Stars" for weak links in production and operation, safety management, technological innovation and Party building, aiming at further promoting "Precision Management" (intensified organization, fine management, and lean operation) of CNBM; established a management innovation system with its own characteristics, which effectively promoted its transformation, upgrading and high-quality management and made it lead the regional cement industry. Longnan Qilianshan Cement has successively won such honorary titles as National Credible Unit, Grade I Enterprise of Work Safety Standardization, Demonstration Unit of Collective Wage Negotiation in Gansu Province, Model Home of Staff in Gansu Province, Grade A Industrial Enterprise of Environmental Protection Standardization in Gansu Province.

Legal compliance training held/attended

5,446
times

Employees' participation in legal compliance training

154,000
man-times

Anti-corruption (commercial bribe) training held/attended

2,835
times

Employees' participation in anti-corruption (commercial bribe) training

70,000
man-times

Legal review rate for rules and regulations

100
%

Legal review rate for business decision-making

100
%

Legal review rate for business contracts

100
%



Auxiliary Materials Yard of the Second-line Project of Yongdeng Qilianshan Cement

Guided by Party Building

In 2020, the Group's Party Committee thoroughly studied and implemented Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the guiding principles from of the Fifth Plenary Session of the 19th CPC Central Committee; continued to put into practice the achievements of the National Conference on Party Building of State-owned Enterprises; took the opportunity of the SASAC Party Committee's political inspection and the special action on "Consolidating and Deepening Party Building of Central Enterprises" to achieve all-level penetration, coverage and rectification of Party building, which provided a strong guarantee for the reform and development of the Group.

Reinforce the original intention to join the Party and create a strong fortress

Adhering to the Group's concept of "integrating Party building and operation" and guided by the mission of "strengthening team building and Party building and promoting operation", the Party Branch of Aksu Tianshan Cement has improved its management through Party building. It took the opportunity of the "Three Meetings and One Lecture", "Theme Party Day" and monthly exchange meetings to publicize and interpret the Party constitution and rules, the guiding principles of the 19th National Congress and relevant important speeches in the form of secretary-led study, self-study of Party members, and on-site exchange; built characteristic cultural exhibition halls to show its development and changes; innovatively adopted the "Three Promotions"+ "One Platform" discipline inspection and supervision model, paid close attention to the risks of corruption and strengthened discipline inspection and supervision; consolidated the construction of Party members' demonstration teams, released the objectives, tasks and performance appraisal results, and consciously accepted the supervision of employees; set up a characteristic Party group to strengthen the mutual integration and promotion of Party building and operation by improving the working mechanism and standardizing fund management, and taking "service improvement, quality assurance, cost reduction and efficiency increase" as breakthrough points; encouraged Party members to engage in front-line work and to take the lead in on-site treatment, plant greening and other activities, and in addressing key problems such as energy saving, quality improvement and efficiency increase, thus achieving remarkable results in the mutual integration and promotion of Party building and operation. In 2020, the Party Branch of Aksu Tianshan Cement was listed by SASAC in "the second batch of grass-roots demonstration Party branches of central enterprises".



Qilianshan Cement's Party day activity on the theme of "looking back a century of progress and looking into a new future"

Strengthen the consciousness of "Two Maintenances"

Study and implement Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era; study 18 first issues of the Group's Party Committee and carry out 14 central group studies.

Increase anti-corruption efforts

Continue to implement the Eight-Point Regulation of the CPC Central Committee, and hold two all-level warning and education meetings; steadily put forward the reform of the discipline inspection and supervision system of secondary enterprises, and promote the full coverage of "three transformations".

Continuously improve the quality of Party building

Establish the "1345" Party Building System, assess the responsibility system for Party building of member enterprises, and win an "Excellent" result in SASAC's assessment of the responsibility system for Party building in 2020.

Strengthen team construction and culture construction

Strengthen team construction and cadre exchanges, and hold human resource, finance and publicity meetings, studies forums, youth cadre training classes, etc.; give full play to the role of new media, set up the "Smart Use of Resources" Day, carry out relevant public activities, establish "care for resources" cultural centers and cultural

corridors, and hold an exhibition of painting and carving works on the theme of "fighting against the epidemic and building a moderately prosperous society". Eight groups and individuals were honored as "National Civilized Unit" and "Model Worker".

Enhance the leading force of Party building by the "four steps and four types" cycle operation method

The Party Committee of China National Building Materials International Engineering Co., Ltd. has established a "four steps and four types" cycle operation method for the management of Party building based on the core concept of "four steps to strengthen the foundation and four types to empower development"; introduced the PDCA method of engineering quality management into Party building; promoted Party building and its whole-process coverage in the cycle of "target setting—benchmarking construction—assessment—review"; carried out classified construction of Party organization for functional services, design and research, equipment manufacturing and engineering projects according to different central tasks; established a "service-oriented" Party organization for functional services, an "innovative" Party organization for research and development, an "intelligent modeling" Party organization for equipment production and a "co-construction" Party organization for engineering projects, achieving all-round coverage.

Besides, the company has further strengthened the mutual integration and promotion of Party building and production, advanced the combination of independent innovation and integrated innovation, and won 3 second prizes of the National Prize for Progress in Science and Technology, more than 30 provincial and ministerial awards in science and technology, and more than 1,000 national patents; become the largest glass engineering service provider in the world and the largest EPC contractor of PV power stations in Europe by taking advantage of the "Belt and Road" Initiative and the "Going Global" Strategy, with a global installed capacity of power stations exceeding 1 GW. In the recent 20 years, the company saw an increase of 3,294 times in revenues, an increase of 1,622 times in profits, and an increase of 814 times in net assets, making great contributions to the leap-forward development of the Group and the prosperity of the industry and local economy.





Technological Innovation

Innovation is the outstanding characteristic and important advantage of CNBM. We have always regarded the implementation of the innovation-driven strategy as a channel of integration between the innovation and industrial chains, a strong driving force to build new advantages for participating in international competition and cooperation, and a new pattern of high-quality development. We have made great efforts to address key technological problems, apply achievements and share information. In recent years, the industrial transformation and upgrading of CNBM has accelerated, and breakthroughs in technological innovation have been made continuously. Technological innovation has become a new energy pump for high-quality development of the Group.

Expenditure on research and experimental development RMB

11.91

billion



Revenue from technological innovation RMB

3.52

billion



Sales revenues of new products RMB

75.47

billion



Holding a total of

14,463

patents

Including

3,816

patents for invention



Response to SDGs

4 QUALITY EDUCATION



9 INDUSTRY INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



17 PARTNERSHIPS FOR THE GOALS



© Exhibition Hall of China Jushi Intelligent Manufacturing Base

Innovation Management

Innovation system

As the only central enterprise in the field of building materials, we focus on the frontier of science and technology in the world and the major needs of the country, and give full play to the driving role of scientific and technological innovation and the synergy of the combination of industry, education and research. Relying on China Building Materials Academy and the Technology Center of CNBM as the platform, we have established a professional R&D institution for cement, glass fiber and composite materials, and a technology cluster integrating advanced production technology, core technology and equipment, inspection and certification and standards, creating an effective closed loop and a virtuous cycle of new materials from R&D to industrialization and marketization.

R&D Service Platform of CNBM	
National Key Laboratory	3
National Engineering Laboratory	2
National (Engineering) Technology Research Center	8
National Enterprise Technology Center	17
National Quality Inspection Center	10
National Scientific Research Institute	26
Industry Key Laboratory	7
Industry Quality Product Testing Agency	33
Overseas R&D Organization	4
Provincial and Municipal Industry Research/R&D Center	409
Number of Core Journals	24
Product Evaluation Laboratory	10
International Center for Technology Development and Promotion of UNIDO	6
National and International Scientific and Technological Cooperation Demonstration Base	3

Improve incentives for scientific research

Formulate and issue Medium and Long-term Incentive and Restraint Guidance for CNBM (trial) and Guidance on the Group's External Transformation of Scientific and Technological Achievements to further break down institutional and institutional barriers that hinder the enhancement of core competitiveness in science and technology, improve the incentive mechanism for technology, management and other elements to participate in value distribution, and stimulate the vitality of the three parties, namely the team that completes the achievements, the team that transforms and the enterprise to which it belongs.

Create international innovation platform and overseas service platform

CNBM intelligent industry and Ethiopia jointly set up the China-Ethiopia Joint Laboratory of Building Materials, with Ethiopia as the core, radiating to AU countries and related regions, and has trained thousands of engineers and technicians for Ethiopia; China Jushi and the Egyptian National Research Center established the "China-Egypt Joint National Laboratory of High Performance Glass Fiber and Composite Materials", centering on Ethiopia and radiating to Arab countries and Europe, forming a synergy for the "going global" of new materials and basic building materials industry. Both laboratories have received special funding support from the Ministry of Science and Technology of the People's Republic of China.

Build a national platform for testing and evaluation of new materials

Accelerate the construction of advanced inorganic non-metallic materials industry center, build a collaborative innovation system around special cement, special glass, advanced ceramics, artificial crystals, mineral functional materials and "Internet + services", integrate and acquire national testing institutions in advanced inorganic non-metallic materials industry; promote the construction of composite materials industry center, establish a complete organizational structure and expert consultation system, set up sub-centers and co-construction laboratories, and initially explore the formation of an innovative model of resource integration and co-construction with "resource sharing, result sharing, complementary advantages and risk sharing".

Technological Innovation Helps Traditional Industries to Rejuvenate

In December 2020, the Ministry of Industry and Information Technology of the People's Republic of China (MIIT) released the list of 2020 National Enterprise for Demonstration of Technological Innovation, and Hefei Cement Research & Design Institute Corporation Ltd., a subsidiary of CNBM Group, was successfully listed.

According to the construction goal of "world-class R&D base, innovation center and incubation platform", Hefei Cement Research & Design Institute Corporation Ltd. focuses on "four-in-one" of scientific research, design, industrial manufacturing and engineering services, and "dual-driving force" of innovation and operation. It strives to develop new technologies, new equipment, new materials and new processes, vigorously promotes innovation in technology, management, systems and business models, actively expands new fields and new business models, and explores and cultivates new economic growth points. At present, it already has a national enterprise technology center, a postdoctoral workstation and eight high-tech enterprises, and is having faster and steadier steps in the journey of building a world-class, internationally competitive, inorganic materials field with cement as a characteristic, science and technology service enterprise.

Human Resource Development

Talents are the foundation of all industries. We adhere to the training of high-end talent as a strong driving force for traction development, and are committed to building a high-level scientific and technological innovation talent team with building materials characteristics of patriotic dedication, unity and collaboration, innovation and self-confidence, and the courage to overcome difficulties.

We continue to improve the implementation of the classification of scientific and technological achievements and distribution incentive mechanism in 2020, stimulate the enthusiasm of scientific researchers, further improve the mechanism of talent introduction, training and use, incentive protection and flow configuration, create a cultural atmosphere of "respecting, understanding and caring for talents", effectively solve the difficulty of attracting and retaining talents, and provide strong talent guarantee for the high-quality development of the Group.



© Laboratory staff of Hunan Shaofeng South Cement Company Limited

Intelligent Transformation

Data Review 2020

65.6%

coverage of self-established operation management system

67

enterprises in implementing the integration management system for integration of informatization and industrialization

3

national intelligent manufacturing pilot demonstration projects

80

global production lines managed by intelligent industries

In the innovation practice, CNBM has been adhering to the "Internet+" thinking, fully integrating the "intelligence" gene into the traditional manufacturing industry, and seeking the digital and intelligent transformation of basic building materials and new materials industries with the attitude of "prior action and trial, leading through demonstration". We seek digital and intelligent transformation of basic building materials and new materials industries, and contribute to the construction of "manufacturing powerhouse and digital China". We have developed BIM technology, artificial intelligence at the edge of cement, and industrial vision algorithms, and established intelligent systems based on them, with a 65.6% coverage rate of independently established operation management systems, 67 enterprises that have met the standard of integration of informatization and industrialization, 3 national pilot demonstration projects of intelligent manufacturing, and 80 production lines of intelligent industrial management worldwide. In 2020, CNBM accelerated digital transformation and ranked third among central enterprises in the integration of informatization and industrialization.



④ Digital Workshop of Hefei Smarter Industrial Park

Future Factory of Intelligent Manufacturing

The production lines constantly produce the finished glass fiber, robots complete the steps of packaging and labeling like a flowing stream, and robotic arms carry back and forth in an orderly manner...When you walk into the intelligent manufacturing base of China Jushi, you will be greeted with an intelligent atmosphere. In recent years, China Jushi has fully applied digital twin technology, combined with glass fiber intelligent manufacturing system architecture, 3D simulation modeling of the whole process and key equipment to achieve digital and intelligent production operations. The No. 6 Branch of the intelligent manufacturing base in Tongxiang, Jiaying has become one of the 12 "future factories" released in Zhejiang Province.

In the production lines, industrial robots such as automatic distribution vehicles and intelligent robotic arms have become the "main force"; the production process is highly intelligent, and the production efficiency has increased significantly, with an annual per capita



④ The robots in the inspection and assembly workshop are putting the products in good order

Data Review 2020

"Vehicle calling" platform achieved more than

500

million tons of transport volume

The total value of the transaction exceeded RMB

1

billion

Logistics revenue reached RMB

480

million

Shared vehicles and shared drivers | "Vehicle calling" helps digital intelligent upgrade

The "Vehicle calling" logistics APP aims to build a domestic bulk truck logistics Internet service platform with "Internet+" mode, create a sunny, open, symbiotic, harmonious and win-win "industrial Internet + network freight" logistics ecosystem, solve the problems of low efficiency of logistics transportation scheduling, high transportation costs, transportation management difficulties, etc. It is the epitome of the Group's vigorous promotion of business synergy, "cement + Internet", and also reflects the development concept of "high-end, intelligent, and green". In 2020, the platform will achieve a transport volume of more than 500 million tons, a total transaction volume of more than RMB 1 billion, and an annual logistics income of RMB 480 million.

"CNBM's 'Vehicle calling' logistics platform explores a better prototype of digital business model, which is highly complementary to the existing logistics system of central enterprises, realizes the system linkage between the logistics industry and the manufacturing industry, and achieves the combination of three chains of industrial chain, logistics chain and capital chain."

—Weng Jieming, member of the Party Committee and Deputy Director of SASAC, State Council

output of 480 tons, which is 20% more efficient than the previous best production line; the recycling of resources has become "standard configuration", and the waste heat of the kiln and industrial wastewater are reused; the digital technology has realized the precise control of product quality throughout the whole process, and the yarn mass is automatically tested, and the results are automatically fed back to the drawing production process, and the drawing equipment automatically corrects the parameters. In the packaging process, each roll of raw yarn is automatically labeled by industrial robots, making it easy to trace the source of problems; work uniforms are embedded with chips containing employee information, and are uniformly washed and placed in intelligent closets. China Jushi's "future factory" has realized the transformation from scale efficiency to technical efficiency, management efficiency, quality efficiency and brand efficiency, and achieved smoother "two flows" (human flow and logistics), more progressive "two types" (resource-saving and environment-friendly), and more effective "two reductions" (staff reduction, load reduction), more well-established improvement of labor conditions (domestic intelligence, domestic equipment employed).



④ Data Analysis Center of Line 601/602 in No. 6 Branch Factory of China Jushi Intelligent Manufacturing Base

"We have built a package of subsystem projects such as situation perception and embedded computing. At the same time, we have introduced innovative applications and technologies such as full-process logistics systems and low-latency 5G networks to enable the interconnection of intelligent equipment, intelligent systems and people. Our current network availability rate has come to 98.6%."

—Yu Yadong, General Manager of Information Technology Department of China Jushi

Collaboration on Innovation

We insist on open integration and collaboration on innovation, create an innovation development pattern that combines industry, academia, research and application, connects upstream, midstream and downstream, and synergizes small, medium and large enterprises, form a science and technology attack system and joint innovation body around central-local cooperation, national common progress, and Sino-foreign integration, and connect R&D, production application, inspection and testing, and build up an collaboration on innovation pattern with reasonable division of labor in the innovation chain, complementary advantages in the industrial chain, and common construction and sharing in the value chain.



© CNBM and COMAC Signed a Cooperation Agreement

Internal production and research collaboration

We have built 9 cement kiln collaborative-disposal projects for hazardous waste, solid waste and domestic waste in 2020, with a total co-disposal capacity of 902,000 tons/year.

External joint innovation

We aim at the needs of major national strategies and projects, integrate talents, platforms and other innovation elements, and promote the integration of innovation among central enterprises, central-regional units and university-enterprises to create collaborative innovation consortium.

University-enterprise cooperation

We strengthen cooperation with Wuhan University of Technology, Sichuan University and other universities in technological innovation platforms, scientific research projects, talent exchange and training, closely dovetail with the innovation chain and industry chain, vigorously promote the cross-fertilization of disciplines, promote the transformation of scientific and technological achievements, and achieve common development.

Working with other industries

We attach great importance to promoting the optimal allocation of scientific and technological resources to serve the needs of the industry. China United Cement Corporation has taken the lead in establishing a special group for the building materials industry of the Industrial Internet Industry Alliance and is the co-chairman of the special group; Hefei Cement Research & Design Institute Corporation Ltd. is promoting the construction of "one center for one park" to build a world-class R&D base, innovation center and incubation platform to lead the exchange and win-win cooperation in the field of cement research and development in the world.

Enterprise collaboration

We have made efforts to promote the collaboration of central enterprises and strengthen joint innovation, cooperating with COMAC to promote the localization of materials, the development of primary and secondary load-bearing structural parts and aerospace transparent parts, etc.; cooperating with AECC and others to break through the technology of vortex fan blade prefabricated body and develop the first fully automated cassette prefabricated body weaving equipment in China; cooperating with CRRC to break through the technology of lower side beams of composite material equipment cabin, bogies and equipment cabin components for high-speed trains. crossbeams, equipment cabin components and many other technologies

Great Achievements

With the goal of strengthening the capacity of tackling key problems and being self-independence, and in the principle of high unity of strategic rationality and economic rationality, we focus on promoting the layout of technological innovation forces, element allocation and talent team systematization and synergy, scientifically planning the direction of research and development and the focus of technological research, and guaranteeing the industrial transformation of scientific research results and the high unity of strategic rationality and economic rationality. In 2020, the Group's expenditure on research and experimental development reached RMB 11.91 billion, completed the annual target of 9 scientific and technological research tasks of SASAC, conquered a number of key core technologies such as special cement for Sichuan-Tibet project, vortex fan blades for aero engines and import substitution of domestic carbon fiber, formulated and released 3 international standards, and won 109 scientific and technological awards at provincial and ministerial level or above, such as National Science and Technology Progress Award and China Grand Award for Industry.



© China Building Materials Academy helps build the world's thinnest dam in Wudongde Hydropower Station with low heat cement

Concerning "the most important things for China and the people" and using materials to create a better world

As a pillar industry of new materials, carbon fiber is a key strategic material for national security and weapon equipment, an important support for the development of new strategic industries, and a sensitive material for long-term technology blockade and product monopoly by foreign countries. After more than ten years of development, Zhongfu Shenying, as a leading enterprise in the domestic carbon fiber industry, has systematically mastered T300, T700 and T800 thousand-ton technology and T1000, M30, M35 and M40 hundred-ton technology, and has completely independent intellectual property rights in key technology and core equipment. In December 2020, Zhongfu Shenying's project of "Key Technology and Application of Industrialization of 1,000-ton Dry Jet Wet Spinning High Strength/Medium Mode Carbon Fiber" won the "Commendation Award of China Grand Award for Industry", which is another national award after winning the First Prize of National Science and Technology Progress Award in 2017. At present, CNBM Group has invested in Xining to build a project with an annual production capacity of 10,000 tons of high-performance carbon fiber and supporting raw silk, which will greatly promote the prosperous development of the domestic composite materials industry, enhance the independent control of the domestic carbon fiber supply chain and the international competitiveness and influence of domestic carbon fiber.



© Production Line of T1000 Carbon Fiber of Zhongfu Shenying

Data Review 2020

4,436
new patent applications

Including
1,821
patents for invention

2,576
newly authorized patents

Including
532
patents for invention



Energy Conservation and Environmental Protection

Ecological progress is vital for sustaining the development of the Chinese nation. We persist in the drive for ecological priority and green development, as well as turbocharging the transformation of development pattern and doubling down on the replacement of old growth drivers with new ones. We live up to our responsibility and further foster unselfish humanity. By driving the coordination and mutual promotion of production management and environmental protection, we endeavor to increase the "green ratio" in economic growth, to regard the green and low-carbon development strategy as the bedrock of CNBM's high-quality development, and to firmly push forward green development and the construction of a beautiful China across every corner of the motherland.

Investment in energy conservation and environmental protection: RMB

6.3
billion



27
production lines for solid waste disposal in synergy with the cement kiln built

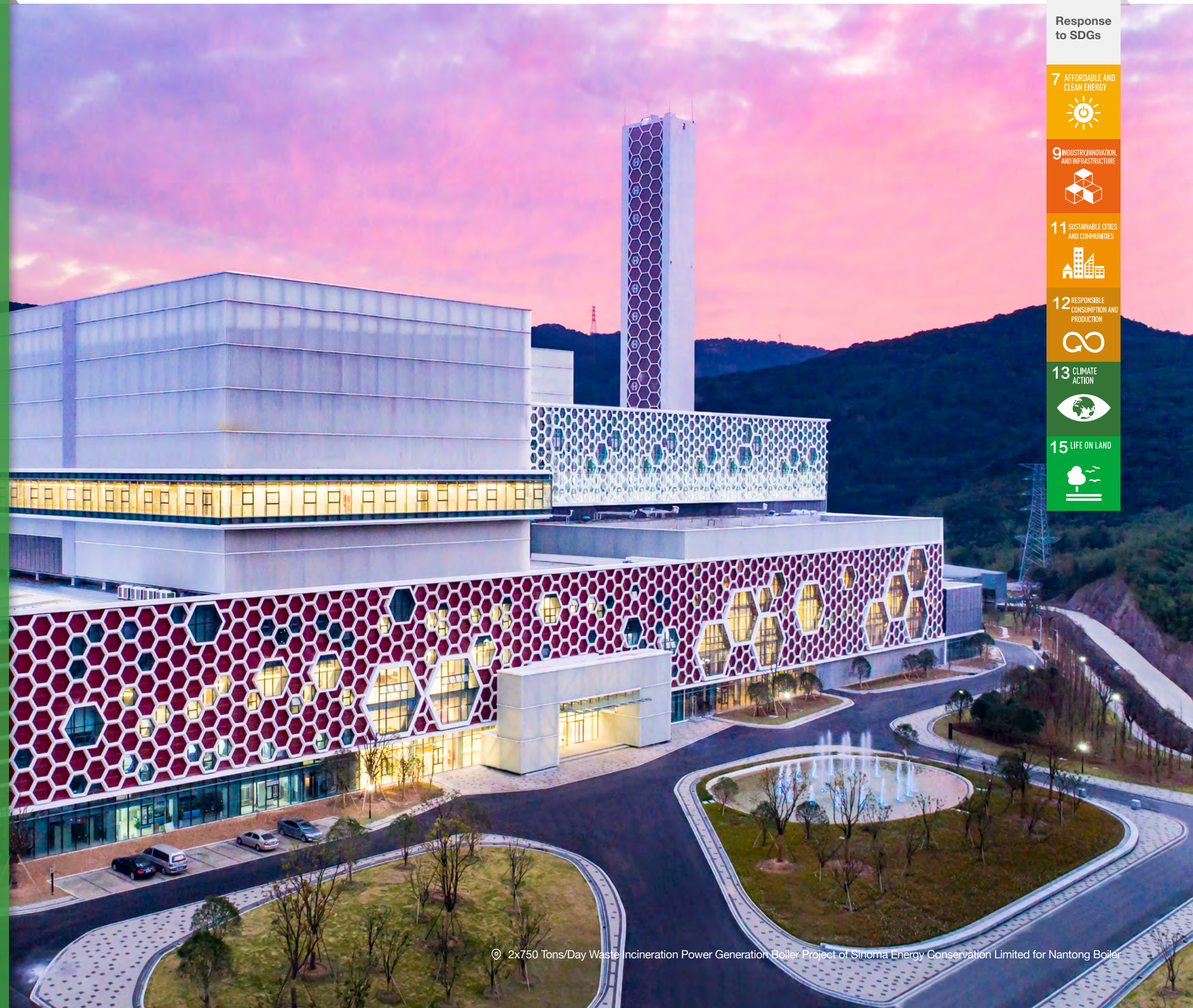


1,666
environmental emergency drills conducted



Installed capacity of waste heat power generation systems:

2,117.3
MW



Response to SDGs

7 AFFORDABLE AND CLEAN ENERGY



9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



15 LIFE ON LAND



© 2x750 Tons/Day Waste Incineration Power Generation Boiler Project of Shoma Energy Conservation Limited for Nantong Boiler

Green Management

We comprehensively strengthen the study and implementation of Xi Jinping's Thought of Ecological Civilization, actively promote the value ordering of management elements of "Environment, Safety, Quality, Technology and Cost", and look to pursue the coordinated development of the enterprise and environment. In 2020, CNBM was among the second list of companies accepting the second round of central inspection of ecological and environmental protection, during which the inspectors gave feedback on four major categories of typical problems. After profound reflection, we effectively raised our awareness. By taking the opportunity of the central inspection tour of ecological and environmental protection for rectification, we continued to strengthen the construction of the system and mechanism of energy conservation and ecological and environmental protection, to build a long-term mechanism for corporate green development, to enhance coordinated links in pollution control and carbon reduction, and to implement the primary responsibility for ecological and environmental protection in earnest.

As of the end of 2020, of CNBM's manufacturing companies, 688 have passed environmental management system certification, 345 have implemented energy management system certification, 419 have passed cleaner production audits, and more than 90% have established ecological and environmental protection management functional departments. In 2020, the Group's member companies were subject to environmental protection administrative penalties of RMB 3.924 million, with no environmental protection incidents throughout the year.

Vibrant "green factory" where there are dreams

Ningxia Saima practices the concept that "lucid waters and lush mountains are invaluable assets" in real earnest by implementing the renovation of the kiln head bag-filter dust collector, the modernization of the denitration system of clinker production line and the coordinated disposal of domestic waste, and strictly controlling pollutant emissions. All finished and semi-finished products and raw materials are put into storage and closed management. Circulating water and domestic wastewater are collected and treated as water for greening irrigation and spraying for dust settling. At the same time, Ningxia Saima continues to improve the plant environment, build ecological parks and vegetable patches for employees, build itself into a garden-style mill, and explore and carry out experimental activity about the disturbance of production management to the surrounding environment and animals. The synergy has taken root among harmonious coexistence between humans and wild animals. All these efforts led to its awarding of Green Factory granted by the MIIT in 2020.

Immediate action to resolve its issues with controlling pollution

On September 20, 2020, in response to some environmental violations of its subsidiaries, CNBM's Party Committee Secretary and Chairman Zhou Yuxian requested the organizations to carry out the enterprise-wide identification and management of environmental hazards at the earliest possible time. On the morning of September 21, the Group held a special meeting to study and analyze the main problems reported during the central inspection of ecological and environmental protection, and effectively supervise and rectify those reported by the inspection task force. In addition, it also sent a special investigation team to the front line to conduct comprehensive investigation and verification work. With this effort to step up pollution prevention, tangible and substantial results were achieved.

Green Production

Rich heritage is reflected in green management, and original aspiration in lucid waters and lush mountains. CNBM follows the "three principles of green manufacturing" – focusing on continuous pollution prevention, while continuously improving ecological environment; emphasizing environmental protection in selection of raw materials, production and product applications; and pursuing energy conservation and pollution control and carbon reduction throughout the whole process. It continues to make our skies blue, water clear and land clean, all with the aim to make lucid waters and lush mountains environmentally serve as a foundation for building a moderately prosperous society.



© Green Plant of Sinoma Pingxiang Cement Co., Ltd.

Second-generation demonstration production line of float glass to set a model for the structural transformation of the glass industry

Zhonglian Glass' demonstration intelligent production line with 600 tons of high-quality float glass per day was designed in strict accordance with the technical standards for the second-generation float glass, and demonstrates the four major features of "innovation, energy conservation, green and intelligence" driven by key technologies. The equipment configuration, technological level, intelligent manufacturing, and energy conservation and emission reduction of the entire line have all reached the national advanced level. It is a good example of the integration of "innovation and R&D of the second generation of float glass technology and equipment in China", providing a good model for the structural transformation and upgrading of the glass industry in China. After a month of commissioning analysis, the percentage of pass exceeded 90%, the quality product rate reached 66%, and particularly the energy conservation efficiency hit 15%.

The energy conservation results achieved by the demonstration production line of the second-generation float technology would not have been possible without the "three energy-conserving offerings" of Bengbu Glass Industry Design and Research Institute, namely, the thermal energy-saving equipment series for hanging walls, infrared high-radiation energy-saving coatings and gradient composite insulation technology. The "three energy-conserving offerings" bring customers an effective energy saving of ≥7%, that is, based on the average melting capacity of 600 tons per day for a glass melting furnace (calorific value of natural gas 8.050 Kcal/m³ and unit price RMB 3/m³), they allow each glass melting furnace to save 3,175 tons of standard coal and RMB 8.28 million in fuel cost, with the effect that has reached the international advanced level. The "three energy-conserving offerings" have played an exemplary and leading role in the fields of new energy-saving equipment and energy-saving materials, and have made positive contributions to the early realization of the goal of "carbon peak and neutrality".

"The kiln is well insulated, with energy conservation and emission reduction compliant with the standards for the 'second generation'."

—President of the China Building Materials Federation
Qiao Longde



Green Selection

Data Review 2020

Total energy consumption of
40.765
million tons of standard coal

Power generation capacity of waste heat:
9.14
billion kWh

We uphold the core concept of "smart use of resources, services for construction". With the development of green technology and the progress of environmental protection technology, we are an advocator of the circular economy, make continued efforts to increase the comprehensive utilization of solid waste, and raise the proportion of mine slag, steel slag, fly ash and other industrial wastes that replace partial mineral raw materials from the nature. In 2020, the solid waste consumption stood at 180 million tons. Meanwhile, vigorous approaches were taken to develop the waste heat power generation of cement kiln, with a cumulative installed capacity of 2,117.3 MW and an annual power generation of 9.14 billion kWh, which is equivalent to saving 1.12 million tons of standard coal and reducing carbon emissions by 5.55 million tons.

Enough effort put into the circular economy and a path of green development followed

China United Cement Linyi expands and extends the industrial chain through the extension of the upstream and downstream industries and industry development centering on cement manufacturing. The company's 6.5 MWP photovoltaic power generation project generates 10 million kWh of electricity and saves 10,000 cubic meters of water annually. Limestone tailings are used to build a limestone aggregate production line with an annual output of 2 million tons, which was named "China Energy-saving and Eco-friendly Demonstration Production Line for Aggregates" by the China Recycled Aggregate Association. In addition, China United Cement actively expands the downstream industry chain as well as ready-mixed concrete and ground-granulated blast-furnace slag (GGBFS) businesses. On top of cement clinker, there is also the extension of industrial chain. On the one hand, the company integrates the development of ready-mixed concrete, and on the other hand, it carries out technological transformation of the old cement grinding station that allows to grind the waste slag from the iron and steel plant into GGBFS, providing mineral powder raw materials for cement and ready-mixed concrete stations. Not only does this ensure the stability of industrial raw materials, but also it offers the efficient use of resources.

Eco Manufacturing

As a material developer, manufacturer and service provider, we actively respond to climate change, promoting eco-friendly processes and technologies. We look to push forward pollutant compliance and emission reduction in all stages of mining, transportation and production. Since the inception of China's "13th Five-Year Plan", our comprehensive energy consumption per RMB 10,000 output value, nitrogen oxide emissions and sulfur dioxide emissions have been reduced by 25%, 35% and 58% respectively, far beyond the country's emission reduction target for the "13th Five-Year Plan".

In 2020, we improved energy efficiency through measures such as kiln system optimization, motor efficiency improvement, grinding system optimization and intelligent manufacturing, with the energy efficiency of CNBM's cement, glass and fiberglass products per unit reaching domestic advanced level. Our five companies of Sinoma Zhuzhou, Aksu Tianshan Surf Cement, China United Cement Tai'an, China United Cement Luoyang and China United Cement Nanjing were shortlisted for national cement "leaders" in energy efficiency in 2020. Sinoma Cement carried out the technological transformations of the Roots blower, the third generation of grate cooler to the fourth generation, and high-temperature tail exhaust fan, with the standard coal consumption of clinker reduced by 2kg. Ningxia Building Materials' second generation production line with an output of 5,000 tons/day in Hongsibu District has six combined features of "intelligent warehousing, smart laboratory, smart loading, kiln grinding expert system, distributed energy, and digital mine," and after it was put into production, the comprehensive power consumption of clinker and the raw coal consumption have been lowered by 23% and 20% respectively compared with the first generation production line. Qilianshan Cement worked hard to overcome the influence of altitude by investing RMB 260 million in energy conservation and consumption reduction and technological transformation of optimizing indicators, with various consumption indicators that have declined year by year.

Data Review 2020

Water reuse rate of
83.0
%

290
million tons of carbon dioxide emissions

12,000
tons of sulfur dioxide emissions

Comprehensive utilization rate of self-produced solid waste of

91.7
%

Application of new nano insulation materials in the cement production line with an output of 4,500 tons/day

The cement production line with a daily output of 4,500 tons of Qilianshan Cement Tianshui is a high-standard, high-starting-point and low-energy cement production line built in accordance with the second-generation demonstration production line standard.

In terms of insulation thickness design, a combination of 65mm calcium silicate board and 50mm nano insulation board is used, without changing the originally designed insulation layer thickness of 115mm and system volume. Inside the C4, C5, C6, calciner, smoke chamber, tertiary air duct, kiln hood, 65-90mm calcium silicate board is used for the hot surface and 50mm1000 type nano insulation board for the cold surface, with staggered construction joints adopted for the two layers of insulation boards to reduce the through seams of insulation materials.

After the implementation of the project, equipment enclosure temperature was effectively lowered. Based on the area of nano materials used, the theoretical calculation of heat dissipation loss averaged 485W/m² (weighted average). Calculated on the ambient temperature of 25°C and 300 production days, 2,910 tons of standard coal can be saved annually, showing extremely significant economic effect of coal saving. The new nano insulation material successfully applied in the newly-built production line of Qilianshan Cement Tianshui has reached expected cooling effect, reducing heat loss and making important contributions to the production of low-energy cement.

Products and Applications

In line with the principle of people-centric green development, we focus on the high-end, intelligent and green transformation of basic building materials, and incorporate the concept of low-carbon life and environmental protection into the full life cycle of R&D, design, production, packaging, sales and recycling. We work to offer reliable, green and low-carbon building materials to our customers, and conduct extensive activities for the consumption of high-performance, high-grade cement and concrete, contributing to the development of cleaner energy in China. For the first time, CNBM's low-heat cement has been used in major national projects such as Wudongde Dam and Baihetan Dam, and its nuclear power cement has been widely used in many nuclear power projects such as Ling Ao, Daya Bay and Yangjiang.

As a material developer, manufacturer and service provider, we uphold the mission of "creating a better world with materials", deeply implement new development concepts, and take solid steps to achieve breakthroughs in green technological innovation with a focus on being high-end, intelligent, green and safe, so as to provide customers with high-quality, green and low-carbon cement products. We guide the shift of the glass business towards "electronic, photovoltaic, intelligent energy-saving" transformation and upgrading, and facilitate the application of high-end series of fan blades, thin-film solar battery modules and other products in driving the new energy industry. While the product quality and safety in transportation is ensured, we actively promote simplified packaging and renewable packaging materials wherever possible to reduce packaging waste.

Data Review 2020

1,639
products that are clearly marked with instructions on safe use and environmental protection reminders on external packaging

89,000
tons of packaging materials used for finished products

BNBM

BNBM's plasterboard, waterborne coating, mineral wool board, exterior wall board, gypsum plaster for building purposes and other several products have been certified as environmental labeling products.

Sinoma Tech

Sinoma Tech's membrane filter material offers excellent features such as high collection efficiency and low emission concentration, which has won the "China Patent Gold Award".

Southwest Cement

A breakthrough was made in low-heat Portland cement suitable for plateau environments.

TriumphScience & Technology

Triumph Science & Technology's Low-E glass boasts excellent heat reflection performance and marked energy saving feature.

Sinoma Energy Conservation

The new material of calcium silicate board uses quartz sand tailings to turn waste into treasure.

China Composites Group

Top-rated reverse osmosis (RO) membrane has seen a successful trial production, with the desalination rate, water flux and other indicators compliant with the design requirements.



© Cleaning Line of Qilianshan Cement Co., Ltd.



© China Building Materials Academy' Low-heat Cement Powers Baihetan Dam in Building a "Seamless Dam"

Green Services

Green is the most beautiful background color for high-quality development. For a long period of time, CNBM has always been hard at work providing the market with multiple categories of green products and services, delivering high-efficiency and energy-saving green products and system service solutions, and urging efforts to enhance results-oriented cooperation in the green industry.

Data Review 2020

Sales of energy-saving and eco-friendly devices and equipment:

2,953
units

Promotion of "double targets for carbon reduction" with energy-saving boilers

Nantong Boiler stay committed to the product positioning and technology roadmap of "energy conservation, environmental protection, feature and speciality", with a major focus on energy-saving and environment-friendly products. Its garbage boiler market share continues to maintain the leading position in the industry in China. The project of six sets of waste incinerator's power generating boilers processing 870 tons per day in Linjiang, Hangzhou represents Nantong Boiler's largest-ever single order contract. The waste incineration power plant project with the largest garbage disposal capacity (1,000 tons/day) for a single boiler and the highest pressure rating (13.5 MPa) in China was successfully put into operation in Sanhe, a milestone in the development of the industry.



Professional technical services

We provide constant energy-saving and environmental protection technical services, such as professional environmental monitoring and diagnosis, technical renovation and intelligent control, in high-efficiency and energy-saving combustion systems, pollutant emission reduction technology, waste heat power generation, technical renovation, automatic control and more. Sinoma Energy Conservation operates its industrial waste heat power generation across more than 20 countries and regions worldwide.



Integrated consulting services

As CTC Group is China's largest third-party test and certification service organization in the building material test field, we provide consulting, evaluation and certification services in energy assessment, energy management system certification, CDM projects, green building materials evaluation, carbon verification and so on.



Ecological value-added services

With the advancement of technologies for solid waste consumption and resource recycling, we address the challenges of industrial and urban waste recycling and digestion, and carry out extensive activities of collaborative disposal of waste with the cement kiln. We have built 27 production lines for such a collaborative disposal, with an annual disposal capacity of 2.71 million tons.



Comprehensive ecological restoration services

We develop environmental protection service projects, undertake the environmental assessment of construction projects, environmental protection acceptance upon completion and pollutants discharge licensing work, and expand slope optimization and geological environment restoration and treatment projects.



◎ Panorama of Green Mine of the Jiuhuashan-Wangjiayao Mining Area Undertaken by China United Cement Anyang Co., Ltd.

Low-Carbon Development

With the innovation-driven strategy, CNBM takes all-round steps to boost green and low-carbon development. We accelerate the construction of a green tech innovation system in areas such as carbon reduction, collaborative disposal, comprehensive utilization of resources, clean energy and digital intelligence. At the same time, we increase science and technology input into ecological and environmental protection and pollution control, and tackle key generic technologies such as carbon capture, utilization and storage. Our pre-firing kiln technology, key technical equipment for high-energy-efficiency clinker calcination, fast-hardening sulfuric cement and other achievements have been included in the national low-carbon technologies promotion catalogue and as national-level key new products.

In addition, we are persistent in systematic thinking and addressing both symptoms and root causes, combining climate change response with ecological protection and restoration as well as carbon reduction methods based on supply allocation with those based on technological progress. We strengthen business cooperation and international exchanges, and partake in exploring ways such as establishing funds and equity cooperation to jointly reduce carbon, striving to be the vanguard and leader in terms of "carbon peak and carbon neutrality".

Building Integrated PV (BIPV) to power "double targets for carbon reduction"

March 1, 2021 marked the first anniversary of Triumph Science & Technology's stand-alone 10MW thin-film BIPV application demonstration project since its operation, as of which the cumulative power generation has exceeded 11 million kWh. As Triumph Science & Technology's national key science and technology project deployed on the roof and walls of the plant housing the 8.5th generation TFT-LCD ultra-thin glass substrate production line, the project makes full use of the self-developed copper-indium-gallium-selenium and cadmium telluride power generation glass, with a single-factory building area of 120,000 sqm and a total installed capacity of 10 MW, making it the world's largest stand-alone thin-film BIPV application demonstration project. Calculated on the service time of 25 years, the cumulative revenue will be about RMB 220 million, about 117,000 tons of coal be saved, and about 265,000 tons of carbon dioxide emissions be reduced. In this case, Triumph Science & Technology is doing its part in advancing comprehensive resource conservation and recycling and in achieving the goal of "carbon peak by 2030 and carbon neutrality by 2060".



◎ Triumph Science & Technology's Stand-alone 10MW Thin-film BIPV Application Demonstration Project

Data Review 2020

Rate of mine/ecosystem restoration

74.8
%

48
enterprises awarded as "Green Factory" by the MIIT

45
mines that have passed the "National Green Mine" assessment



Employee Care

Glory belongs to the workers, and so does the happiness. We adhere to the people-oriented principle, adopt safety-oriented enterprise construction, effectively realize, maintain and develop the legitimate rights and interests of the majority of employees, expand the channels of talent cultivation, unblock staff development channels, and constantly improve the sense of access, happiness and security of employees, so as to create a harmonious atmosphere of "happy work and happy life", enabling employees and enterprises grow together.

Total number of employees:

203,000



Occupational health and safety input RMB

1.52

billion



New Employment:

22,000

persons



Employee turnover rate

11.0

%



© Family Open Day and Mid-Autumn Festival & National Day Celebrations of Wuhai Saima Cement Co., Ltd.

Response to SDGs

3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



8 DECENT WORK AND ECONOMIC GROWTH



10 REDUCED INEQUALITIES



Safety and Prudence

Safety system

Data Review 2020

Occupational health & safety fund input: RMB

1.52
billion

CNBM adheres to the development concept of "life and safety should come first", carries out in-depth three-year action for special rectification of workplace safety, establishes a workplace safety responsibility system covering all employees of the Group's headquarters, further improves the safety management system and emergency response plans, and strictly manages accident reporting. The Group has developed a workplace safety management list and improved the institutionalized and normalized hidden danger inspection mechanism; further strengthened the safety supervision and inspection work up to the grassroots level, with 47 enterprises being randomly inspected and 266 suggestions for rectification; at the same time, the Group has solidly promoted the creation of standardized workplace safety in manufacturing enterprises. By the end of 2020, 787 of the 813 manufacturing enterprises of the Group had met the standard, with a rate of 96.8%.



© CMBI Construction Nigeria EDO Project Department is Having Joint inspection of Safety and Process Production

Safe science and technology

We implement a strategy enhancing safety with science and technology, strengthen the role of science and technology in supporting workplace safety, encourage member enterprises to invest in scientific research teams and funds to overcome major technical problems in workplace safety, deeply integrate Internet and information technology with workplace safety, promote quality and efficiency of workplace safety with the help of scientific and technological progress, and enhance the level of construction of intrinsically safe enterprises.

Technology-enabled safety

CUCC continues to carry out technological transformation on the production line to enhance the intelligent level of workplace safety. It promotes the use of high-definition digital monitoring technology in flammable and explosive areas such as coal powder preparation and denitrification tank areas to realize unmanned monitoring during operation; promotes the use of air suspension fans instead of traditional Roots fans to reduce the damage to hearing caused by industrial noise; installs infrared sensors and automatic alarm devices in various stacking sheds to prevent injuries caused by uninvolved persons during operation. Infrared sensing and automatic alarm devices are installed in the loading machine operation areas inside various stacking sheds to prevent injuries caused by accidental entry of unrelated personnel during operation; its denitrification system realizes automatic sampling and analysis of ammonia composition to avoid the risk of manual sampling. Technology empowerment has helped CUCC to take a new step in workplace safety.

Emergency management

Data Review 2020

17,984

organized emergency drills

513,000

participants of emergency drills

4,896

safety managers

1,089

certified safety engineer

We attach great importance to strengthening emergency management capacity building, and urge member enterprises to strengthen the production and operation of key equipment, key personnel, key links of emergency capacity building, and improve the actual emergency plans, strengthen emergency drills, and vigorously create a good atmosphere of "learning, knowing, and understanding emergency", and promote the modernization of emergency management system and capacity.



© Hunan Shaofeng South Cement Company Limited employees are checking the equipment in the electrical room

Eliminating accident hazards and solidifying a safety line of defense

June 2020 is the 19th national "Workplace Safety Month". To seriously grasp the work of workplace safety, Anren South Cement Company Limited carried out the emergency drill activity of "eliminating accident hazards and solidifying a safety line of defense". With the order of the person in charge of the drill, the teams acted in an orderly manner and cooperated to carry out emergency rescue, evacuated the injured people in the explosion to the safe area for medical rescue, and provided simulated treatment such as anti-inflammatory medicine, wound dressing and cardiopulmonary resuscitation according to the different conditions of the injured people. The safety emergency drill further improved the employees' awareness of workplace safety and the ability to escape and save themselves and put out the initial fire, and also tested the rapid response ability and practical ability of the fire emergency response team members of the plant to deal with emergencies, laying a solid foundation for the workplace safety of the enterprise.

Safety culture

We implement the concept of workplace safety into every place and time, use columns, banners, display boards, wall charts and other forms to strengthen safety publicity, carry out safety education activities to raise safety awareness and spread safety concepts, and increase the participation and influence of activities through various means such as employee safety signatures and thematic commitments. During the Workplace Safety Month in 2020, the Group organized member enterprises with a total of 17,000 people to participate in the national safety knowledge online competition, scoring 387,000 points in total and ranking 24th among central enterprises. Chuzhou CUCC, Qingzhou CUCC and Pingliang Qilianshan Cement were awarded the title of "2020 Demonstration Enterprises of National Safety Culture Construction", and Sinoma Energy Conservation has been the national winning unit of the "Ankang Cup" for many years in a row.

Employee development

Career development

Quality development

We uphold the development concept of talent first, advocate that employees "spend time on learning and put their minds on work", improve the staff development mechanism and smooth the career promotion channel; increase investment in talent cultivation, carry out a variety of thematic training programs to meet the needs of different employees' career development; organize various forms of labor and skill competitions to provide a "fast track" for employees' growth and success. Southwest Cement Company Limited has established a reserve pool of talents for the "Youth Talent Plan", and Sinoma High-Tech has set up a 32-member youth backbone team around key tasks such as "Double-hundred action", "14th Five-Year Plan" formulation and entrepreneurship and innovation platform construction.

We actively respond to the call of the 19th National Congress of the Party and the government on the construction of socialist spiritual civilization, adhere to the concept of "youth-oriented" work, widely carry out youth skills competitions and various job creation activities, promote professional civilization, cultivate the spirit of craftsmanship, training and discovering a large number of young technical experts and young job experts. China Jushi held 1-2 job skill competitions every month; China Composites Group Corporation Ltd. carried out the theme of "work with heart, brain and strength" and "mastering one skill, knowing two skills and understanding three skills" job training activities, and Sinoma Mining Construction provided two training courses for young backbones on key processes links; BNBM organized the second youth designer competition to discover and recommend outstanding architectural design talents, and its short video "The Roof on the Snowy Mountains" won the excellent award of "The First Central Enterprises Practicing Socialist Core Values Micro Video". China National Geological Exploration Center organized young people to participate in the Third National Geological Survey Industry Professional Skills Competition, and won the "Third Prize of the Group", "Outstanding Contribution to the Cultivation of Skilled Talents in Geological Survey Industry" and "National Geological Survey Industry Outstanding Talents" for individuals.

Employee Quality Model of CNBM Group

Cultural Environment	>	Lenience, tolerance, flexibility Loyalty, affinity and cohesion
Requirements for Employment	>	Follow strict rules in self-cultivation, the use of right, and self-discipline Work, start up business, and live practically Learning capacity, market awareness, professional ethic, expertise, and high ideological level Focus on policies, overall situation, accountability, contribution, practical work, effectiveness, integrity and self-discipline
Standard of Conduct	>	Be reverent, grateful, humble and appropriate
Rule for Cadres	>	Behave meticulously, work meticulously, exercise power meticulously, make friends meticulously

Employee rights and benefits

Basic rights and benefits

Democratic management

We respect and protect the legitimate rights and interests of every employee, consciously abide by the Labor Law, the Labor Contract Law and other laws and regulations, insist on equal employment, openness and fairness, oppose employment discrimination based on age, gender, race and other aspects, and treat all employees equally; strictly fulfill the international conventions prohibiting the use of child labor, strengthen the inspection of illegal use of child labor by subcontractors; organize employees to sign labor contracts according to the law, provide employees with competitive salaries and benefits and full payment of five-year insurance and one fund, so that employees can live with dignity and keep their mind on work.

We consistently treat employees as the main force of enterprise development, adhere to the implementation of the staff representative assembly, factory affairs open work norms and other systems, in-depth promotion of factory affairs open and other democratic management work, strengthen the work of employee directors and employee supervisors, and effectively protect employees' rights to information, participation, expression and supervision. We fully play the role of a bridge of labor unions, collect rationalized suggestions on hot and difficult issues of concern to employees, and communicate and solve them in a timely manner to mobilize employees' enthusiasm. In 2020, the Group system held a total of 1,349 meetings of staff representatives and formed 4,204 proposals, which were replied and resolved in a timely manner.



© Employees of Hunnan Shaofeng South Cement Company Limited

Employees' happiness

Employee support

Data Review 2020

9,101

person-times of visit and support the employees in special and difficult situations

RMB

11,459,000

spent on the employees in special and difficult situations

Employee care

Data Review 2020

2,162,000

person-times of employees participated in occupational health and safety-related training

313

member companies having established employee mental health systems or measures

We attach great importance to the caring and helping of the employees in difficulties, disabled employees and retired old employees. The leaders of the Group and its subsidiaries insist on regular sympathy, improve the regular and standardized support mechanism, strictly implement the Measures for Management of Employee Consolation, Care and Assistance, carefully verify the difficulties of employees and provide precise support. In 2020, we will continue to carry out various public welfare activities such as "Love Fund of and Mutual Assistance for Serious Diseases", the "Golden Autumn Student Assistance" program and the "Sunshine Employment Program" to solve the actual difficulties of employees, so that the majority of employees can effectively feel the warmth and happiness from the "big family" of the company.

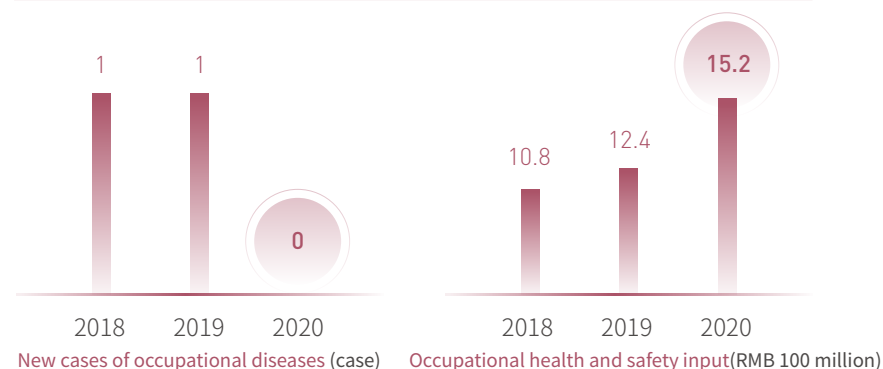
Leaders of CNBM Visited the Workers in Need

On the eve of the 2020 Spring Festival, Zhou Yuxian, Secretary of the Party Committee and Chairman of the Board of Directors of CNBM, Cao Jianglin, General Manager, Li Xinhua, Vice Chairman of the Board of Directors, Sun Lixi, Deputy Secretary of the Party Committee, Staff Director and Chairman of the Labor Union, visited some of the Group's workers in need and provided them with care and warmth. At every home of the workers in need, the leaders of the Group understood in detail their illnesses, medical expenses and practical difficulties at home, and sent good wishes to them, encouraging them to face their illnesses bravely, maintain a good mental state and live a positive life, and strive for early recovery. The supported workers expressed their gratitude to the Group for their constant concern and also said they would face the difficulties with optimism and live positively. The money used for the support came from the donations of CNBM and all member companies, which reflected the love of the cadres and employees of the Group and the warmth of the Group's family!

We adhere to the "people-oriented" concept, attach great importance to the occupational health of employees, continue to improve the Group's occupational health protection and management, and improve the prevention of occupational diseases and work-related injury prevention system. We regularly carry out occupational health checkups and mental health assistance and training to protect the health of our employees; adhere to humane management, encourage employees to achieve work-life balance, organize colorful cultural and sports activities such as book clubs and sports games to enrich the lives of employees; protect the special rights and interests of female employees such as maternity leave and maternity allowance; guarantee psychological guidance during the epidemic, respond to concerns in a timely manner, and equip employees with the necessary protective equipment to effectively strengthen the cohesion and centripetal force of the Group.

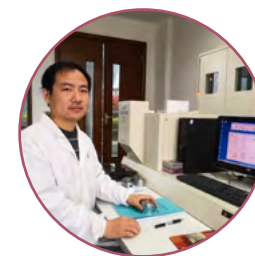
CNBM'S Publicity Week of Law on Prevention and Control of Occupational Diseases

The last week of April 2020 is the 18th National Publicity Week of the Law on Prevention and Control of Occupational Diseases. CNBM made full use of publicity boards, WeChat groups and thematic blackboards to publicize the Law on Prevention and Control of Occupational Diseases, explained the prevention methods of occupational diseases, analyzed typical cases of occupational diseases, improved employees' awareness of occupational health and self-protection skills, and laid a solid foundation for all employees to further improve their occupational health protection.



The Best CNBM people

In the journey of building a world-class materials industry investment group, the CNBM people have left many beautiful and touching footprints, writing a colorful life in their youth, making extraordinary performance in ordinary positions with a sunny and positive attitude, and contributing their strength to the development of building materials. Among them, a large number of "screws" emerged who are brave enough to take up the role and build up their work based on their posts: Li Chengjun, who braved the cold and suffered from plateau reactions during the May Day holiday to help the border defense; Wang Siwen, who is a workaholic in the African continent - Geological Exploration Center Jiangsu Headquarters; Chen Shuyong of Bengbu Glass Industry Design who is down-to-earth and endeavor in the front line of scientific research ...They are the best CNBM people in the eyes of customers, partners, families and colleagues, and also the most beautiful scenery of the team, workshop and factory.



Bengbu Glass Industry Design

Chen Shuyong



BNBM Water Proof

Jia Hongliang



China National Geological Exploration Center of Building Materials Industry Contingent in Jiangsu

Wang Siwang



CTC Group

Wu Ping



Nantong Wanda

Zeng Guocang



Sinoma Synthetic Crystals

Zhang Fuchang



Xinjiang Tianshan Cement

Li Jiangtao



Yongdeng Qilianshan Cement Group

Zhu Xuehai



China National Materials Industry Import & Export Corporation

Chen Shuyong



Sinoma Pingxiang Cement

Li Jiexun



China Building Materials Academy

Zheng Jingming



Zhonglian Glass

Li Guoning



Corporate Citizenship

We remain steadfast in being a qualified "corporate citizen" and continually reaffirm our commitments to social responsibility. In the practice of localized operations, we have a strong commitment towards working with global partners to drive the "Belt and Road" for new chapter with shared growth. With industry and employment support, aid in infrastructure and other initiatives as our important tasks, we are on the ground in targeted poverty alleviation. We give back to society by means of characteristic public welfare and voluntary activities for social harmony.

185

overseas entities



The total donations: RMB

170

million



Accumulative number of people out of poverty:

652,000



Number of staff volunteers:

10,121



项目向KADRI MEBAREK小学捐赠教学器材
à l'aide de l'école primaire KADRI MEBAREK



Response to SDGs

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



6 CLEAN WATER AND SANITATION



9 INDUSTRY, INNOVATION, AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



© The BECHAR Project in Algeria Donates Teaching Aids to KADRI MEBAREK Primary School

Openness and Cooperation

Centering around the strategic vision of "creating a world-class investment group with global competitiveness in the material industry", CNBM continues to deepen and enhance group and local construction as well as three-dimensional marketing system business model innovation, take stronger steps to implement the three principles of cooperation in finding win-win solutions—contributing to local economy, cooperating with local enterprises and serving local people, pay attention to equal employment, and make headway in local employment and purchasing.

Data Review 2020

185
overseas entities

USD
76.194
million of total overseas tax

Overseas public welfare amount: USD
136,000

Overseas projects (enterprises) delivered training to
24,393
local people

Subject to administrative penalties by foreign governments:
0

Overseas Investment

With an eye on the "Belt and Road" initiative, CNBM provides innovative ways for overseas investment, drives international cooperation on production capacity, and expedites the cultivation of international economic cooperation and new competitive advantages. By the end of 2020, it has invested in more than 40 projects across 27 countries, including 11 overseas fixed asset projects with a completed investment of RMB 1.03 billion, accounting for 85.7%; and overseas equity investment with a completed investment of RMB 170 million, representing 14.3%.



© Employees of Russia Great Wall Project Department at CBMI Construction

Overseas Project Contracting

With its advantages in technology, equipment, production capacity and management, CNBM proactively pushes forward international engineering contracting and technical services at a steady pace, and expands local operations in the markets it serves. As of the end of 2020, CNBM has a total of 185 overseas entities, with overseas operations in 75 countries around the world.



© The JSW Project Undertaken by Tianjin Cement Industry Design & Research Institute in the UAE

Overseas Laboratory Construction

Based on the development ideas of "going global, holding up and doing well", CNBM actively engages itself in the development and deployment strategy of building overseas laboratories in countries along the "Belt and Road". It has established three overseas laboratories in Uzbekistan and Algeria to help improve the technology and R&D levels locally. At the same time, CNBM is progressively setting up some local product standards to better serve the construction of countries along the "Belt and Road".

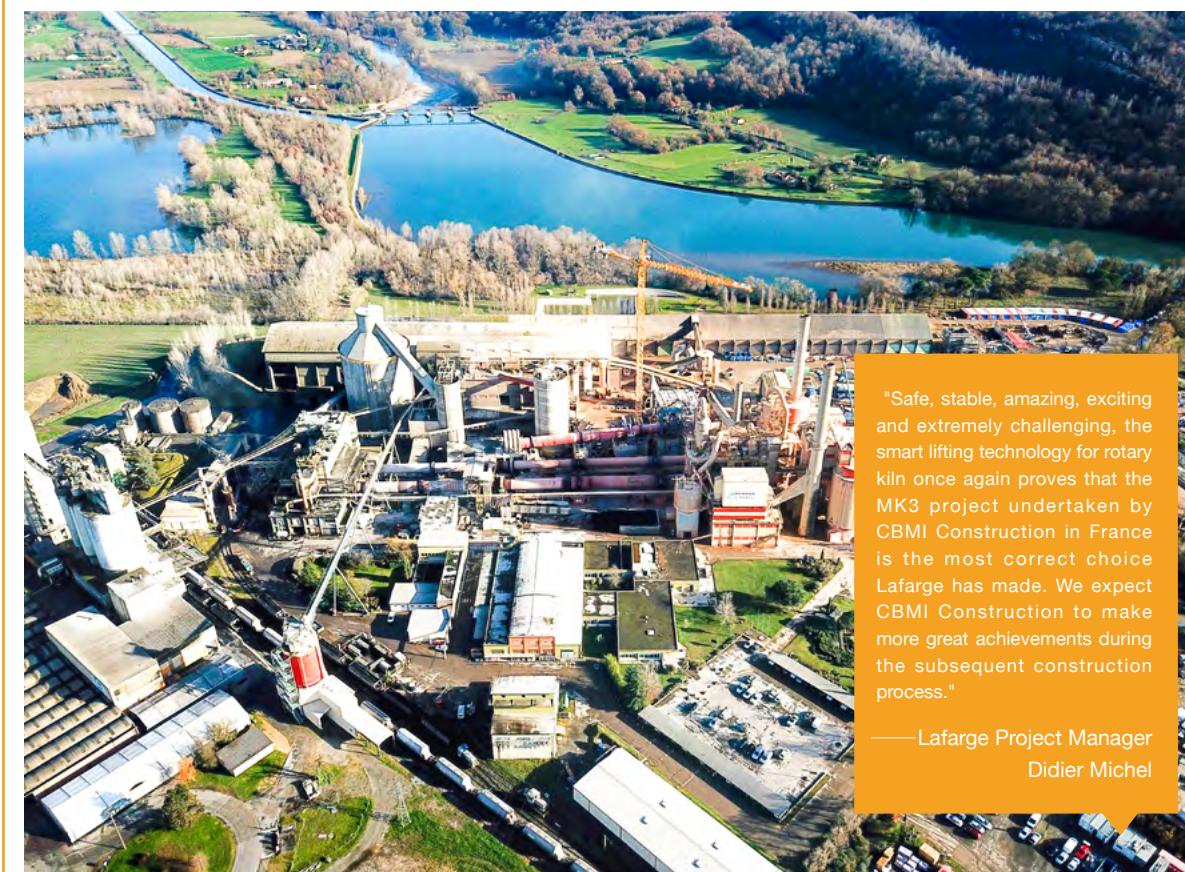
Deepened International Trade

Under the policy guidance of China's "Belt and Road" initiative, CNBM actively adapts to the new situation of foreign trade against the COVID-19 pandemic, commands the opportunities of domestic-international dual circulation, and leverages videoconferencing, participation in exhibitions hosted by international marketing platforms and other methods for publicity and promotion to make steady headway in international trade.

The MK3 Project in France Powers the "Belt and Road" Initiative

The MK3 project in France sits on Martres, some 65 kilometers southeast of Toulouse. With demanding construction requirements and difficulties, the factory characterized by many interfaces, complex pipelines and narrow construction space required to be modernized without affecting the production of the pre-existing production line. The project used UAV laser scanning to acquire the structure data of the old factory, generate a point cloud model for 3D design, and enable remote technical guidance and safety inspection. In addition, it utilized 5G network to integrate the dynamic data of site operation, and provided a detailed design of key and hard-to-operate locations in advance through computer simulation in combination with a 3D design model, making the remarkable achievements of "Intelligent Manufacturing from China".

Taking France as the gateway to more European markets, CBMI Construction maximizes the resource advantages of the MK3 project to develop strategic procurement and supply cooperation business with major European equipment suppliers. Also, it actively establishes manufacturing and processing plants for non-standard equipment and steel structures in Central and Eastern Europe, and drives forward CNBM's overseas business to expand new practices and break new grounds from a new starting point for high-quality development.



"Safe, stable, amazing, exciting and extremely challenging, the smart lifting technology for rotary kiln once again proves that the MK3 project undertaken by CBMI Construction in France is the most correct choice Lafarge has made. We expect CBMI Construction to make more great achievements during the subsequent construction process."

—Lafarge Project Manager
Didier Michel

Fighting the Battle of Poverty Alleviation

In 2020, under the work pattern of "interaction between all levels of management, group-wide activation and joint participation", CNBM focused poverty alleviation efforts on the "two no worries and three guarantees" by mobilizing all levels of the Group's management and all sectors of society to participate in targeted poverty alleviation, taking the initiative to strengthen financial assistance and leadership support, actively helping the local area to overcome the impact of the pandemic, improving the self-development ability of the five designated districts and counties for poverty alleviation, cementing the foundation for poverty alleviation, and consolidating and improving the quality of poverty alleviation.

The five counties under CNBM's targeted poverty alleviation efforts have all been removed from the list of poverty-stricken counties. In 2019 and 2020, the Group was rated as "Good" – the highest rating – in the performance evaluation of designated poverty alleviation work by central units for two consecutive years.



④ The Case of CNBM's Paired Assistance to Jingyuan County, Ningxia, Called "Spring Wind of Itself Turns Mount Liupan Green", Selected into the "Top 50 Comprehensive Cases of Targeted Poverty Alleviation by Enterprises" by the State Council Leading Group Office of Poverty Alleviation and Development (now National Administration for Rural Revitalization)

All Efforts to Win the Battle against Poverty, Distinctions to Witness the Story of Original Aspirations

On July 18, 2016, General Secretary Xi Jinping visited Yangling Village, Dawan Township, Jingyuan County to investigate the situation of targeted poverty alleviation, and gave important instructions for poverty alleviation work. In order to get rid of poverty as soon as possible for the people in need and keep General Secretary Xi Jinping's anticipation in mind, CNBM has continuously stepped up assistance and actively explored new models for targeted poverty alleviation. Since the designated assistance to Jingyuan County in 2013, it has invested a total of RMB 49.994 million in funds and in-kind contributions, and implemented 29 assistance programs. At the end of 2018, all 84 poverty-stricken villages in Jingyuan County have been lifted out of poverty, covering 7,864 households with 33,988 people. The poverty headcount ratio has dropped from 26.7% in 2014 to zero now.

With a long journey ahead, CNBM will effectively connect the consolidation and expansion of poverty alleviation achievements with rural revitalization, so as to make the foundation for poverty alleviation more stable and more sustainable.



④ Tang Yifeng, a Poverty Alleviation Cadre Sent by China Jushi to Shitai, Picks Honey with Local Farmers

Data Review 2020

Accumulative number of people out of poverty:

652,000



Scan the QR code to read the Commendation Conference for CNBM's Poverty Alleviation Efforts & Assistance Construction Work in Xinjiang and Tibet

Looking Back in a Nod to Our Original Aspiration

—CNBM's Five-year Poverty Alleviation Journey

From 2016 to 2020, CNBM invested a total of RMB 266.6 million in assistance funds in five designated districts and counties for poverty alleviation, and implemented 182 assistance programs covering people's livelihood, industrial development, housing safety, drinking water safety, education, medical care and more.



Data Review 2020

266.6
million yuan

Sunshine Public Welfare

With the core concept of "smart use of resources, services for construction" firmly in mind, CNBM, through the "Shanjian Public Welfare Fund", has successfully established the Group's public charity practice platform, and encourages employees to participate in public welfare and community development activities, in a bid to send support to huge numbers of families.



© China Jushi Donates Sporting Goods and Scholarships to Jitan Primary School in Shitai County, Anhui Province

Public Welfare Activities in Action

CNBM has long been vigorously promoting the spirit of public welfare. It continues to bolster the construction of public welfare action team, creates a powerful source of aspiration for the pursuit of excellence and moral integrity with actions, and internalizes and externalizes the concept of serving the people and supporting the community. In doing so, CNBM endeavors to shape an image of "commitment to public welfare" that is inspiring and perceptible.

Responding to Pandemic for "Family", Taking the Love Back Home

Since the onset of the Covid-19 pandemic, "celebration in place during the Spring Festival" has been a new buzzword and key word. On February 1 and 2, 2021, BNBM Waterproofing inherited the traditional virtues of helping people in need through practical actions, and practiced the social responsibility as a central enterprise by launching a public welfare campaign, the 2021 "Responding to Pandemic for 'Family', Taking the Love Back Home". During the event, BNBM Waterproofing provided 300 representative families, whose members did not celebrate the Spring Festival in their own home, and 50 extremely impoverished families of the BNBM Waterproofing staff in Xiangcheng with festival cash gifts and others, and offered rice, flour, edible oil, school bags, stationery and other special purchases for the Spring Festival to those employees staying put during the Spring Festival, allowing everyone to celebrate a heart-warming and happy Lunar New Year. In the future, BNBM Waterproofing will continue to be enthusiastic about public welfare undertakings and bring more social value to the industry and society.



© Volunteers of China United Cement Colorful Classrooms

Voluntary Services with Concentrated Attention

Continuing on from the core concept of "smart use of resources, services for construction" and upholding the code of conduct to "be reverent, grateful, humble and appropriate", CNBM actively carries out youth volunteerism activities and strengthens the branding of youth volunteerism. For three consecutive years, CNBM "Shanjian" Colorful Classrooms were successfully held. In 2020, CNBM set up nine teaching locations in five designated districts and counties for poverty alleviation. 51 volunteers accompanied 360 students through the four-day colorful holiday by creating and orchestrating the speech program Turning into the Stars to Light up Dreams; participating in the "Impression on CNBM Living up to Responsibility" sharing event, and telling the story of the "Colorful Classrooms" to demonstrate volunteerism. BNBM continued to build the "Youthful BNBM • Colorful Homeland" voluntary activity brand; Bengbu Glass Industry Design and Research Institute organized 500-plus volunteers to serve the first China Optoelectronic Materials Summit Forum, Bengbu City Civilization Creation, "Warm Winter Action" for Spring Festival Travel, Bengbu Glass Industry Design and Research Institute's "Four Seasons Brand", "Our Festival" and other activities.

The Love that Cannot be Blocked by the Pandemic: CNBM "Shanjian" Colorful Classrooms Open again

Having been held for two straight years, the CNBM "Shanjian" Colorful Classrooms has developed a youth volunteerism brand with the characteristics of CNBM. In August 2020, the elaborately prepared "Shanjian" colorful classrooms opened.

The event featured a total of nine teaching locations benefiting more than 360 students. Nine CNBM member companies around the five designated districts and counties for poverty alleviation supported by CNBM undertook the teaching tasks of the "Shanjian" colorful classrooms, with the participation from 50 volunteers in all. Based on the students' age, knowledge structure, interests and hobbies, and combining their own expertise, the volunteers carefully prepared basic cultural courses such as reading and writing, interesting mathematics, astronomy and geography to improve the overall quality of the students; the fun-filled cultural and physical education courses such as Rubik's cube, handicraft, music and sports; ingenious courses that promote traditional Chinese culture such as tie-dyeing, embroidering purses, painting oiled paper umbrellas and weaving Chinese knots; corporate characteristic courses that introduce CNBM products, and team building courses that enhance cohesion and team awareness. During the four days of activities, the playgrounds and classrooms were full of sound of reading and children's laughter. The interesting and content-rich courses enabled them to spend an unforgettable time.

Data Review 2020

930

donation programs

Total donations of RMB

170

million



Responsibility Management

Along the way, CNBM has forged a cultural philosophy system with the core concept of "efficient use of resources to serve the construction", pursued the core values of "innovation, performance, harmony and responsibility", assumed economic, social and environmental responsibilities, continuously improved the social responsibility, and been committed to building a world class materials industry investment group with global competitiveness by working hand in hand with our stakeholders to advance together.

369

quantitative indicators for social responsibility management



6th

among Top 300 of China's Corporate Social Responsibility Development Index (2020)



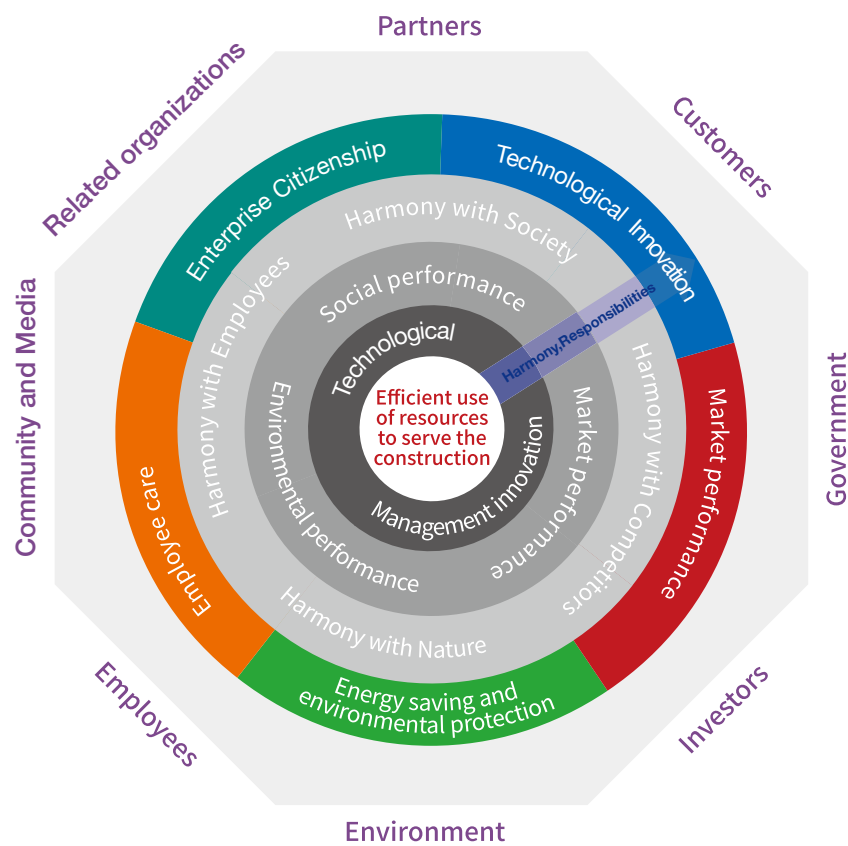
© China United Cement Corporation

Value of responsibility

Concept of Responsibility

We adhere to the core concept of "efficient use of resources to serve the construction" and shoulder social responsibility with the core values of "innovation, performance, harmony and responsibility". In the five areas of market performance, technological innovation, energy saving and environmental protection, employee care and corporate citizenship, we listen and respond to the expectations of stakeholders, integrate the concept of social responsibility into all rules and regulations and work practices, respect the market, the environment, society and employees, and pursue our own development while taking into account the symbiosis and co-prosperity with society.

Social Responsibility Model of CNBM



Selection of topics

According to the Group's development strategy and the expectations of stakeholders, we planned five social responsibility frameworks: "market performance, technological innovation, energy conservation and environmental protection, employee care, and corporate citizenship", and ranked and selected the topics from two dimensions: "importance to stakeholders" and "importance to the Group development", thus finalizing the core topics of social responsibility report this year.

- 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 State-owned 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 Cultivation
- 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 Credit Business

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 member enterprises



Responsibility Management

We continue to improve the social responsibility management system, build a long-term mechanism for the Group's social responsibility management, and improve the responsibility organization to achieve upward and downward linkage and coordinated management; further strengthen social responsibility capacity building, and enhance the social responsibility awareness of all staff by conducting responsibility training and responsibility research; improve the social responsibility index system to effectively enhance the performance of fulfilling social responsibility; promote the integration of social responsibility management and enterprise operation to help enterprises achieve sustainable development.



China Jushi's Twisting Workshop of Electronic Fabric Production Line with an Annual Output of 300 Million Meters

Data Review 2020

2366

sessions of social responsibility events organized or participated

23,755

person-times of social responsibility-related training for employees

423

sessions of social responsibility assessments or evaluations

Organizational Structure

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 member enterprises to strengthen social responsibility management and actively implement the practice of fulfilling their social responsibilities

With member enterprises at all levels as nodes, and in accordance with the unified requirements of headquarters, clarify the functional departments, provide managers, and implement the practice of fulfilling responsibilities. By the end of 2020, 211 member enterprises have set up their leading social responsibility management organizations, 387 have set up their social responsibility management organizations, and 405 have set up their social responsibility management posts, involving a total of 1,671 full-time and part-time employees for social responsibility management.

Ability Improvement

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

Keep stable operation of the "CNBM Social Responsibility Management Information System" and achieve online management of personnel and information

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

Performance Evaluation

Prepare and publish annual social responsibility reports, publish performance trends on website columns from time to time, establish an information disclosure system and build an effective communication platform

Participate in external performance evaluation, implement comprehensive evaluation and benchmarking in reporting quality, accountability performance and responsibility management, learn from each other's strengths and make up for each other's weaknesses for continuous improvement

Promote the integration of social responsibility and Group operation management, and form a "six-star enterprise" evaluation system

Continuous Improvement

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

Enable the extroverted responsibility management, such as brand responsibility activities, deep responsibility communication and theme responsibility publicity, so that the influence of responsibility is increased gradually

Continuously improve the member enterprises' CSR report publishing rate and quality, and promote the systematization and normalization of CSR performance

Responsibility Communication

We always pay attention to the demands of stakeholders, and keep exploring in information disclosure and public communication; deliver information on corporate responsibility through annual social responsibility reports, official account and the "social responsibility" section of our official website, respond to public concerns in a timely manner, and expand communication channels with stakeholders; in the virtuous cycle of disclosure, communication and improvement, continue to improve our responsibility communication ability and enhance public awareness and recognition of CNBM.

The First Open Event of "Smart Use of Resources Day" of CNBM

To effectively translate the concept of "efficient use of resources to serve the construction" and the core values of "innovation, performance, harmony and responsibility" into culture and action, and further enhance the awareness and recognition of the corporate culture and material manufacturing industry among the community and the cadres and employees, CNBM launched the first open day of "Smart Use of Resources Day" of CNBM on August 26, 2020.

With the guiding principles of branding activities, systematizing concepts, expanding audiences, unifying standards, differentiating itineraries and diversifying communication, the open day was held in 37 enterprises in 28 cities at the same time. This is the first large-scale opening of China's building materials industry to the public, which not only shows the achievements of the building materials industry over the past 40 years of reform and innovation, but also reflects the concept of green high-quality development, road confidence and cultural confidence, featuring is a breakthrough attempt and innovation.



Scan the above QR code to view the Splendid Open Activities of "Smart Use of Resources Day" of CNBM Member Enterprises.



Data Review 2020

148,449

person-times of communication between internal/external stakeholders

16,180

sessions of communication between enterprise senior leaders and internal/external stakeholders

Joined

2

social organizations or conventions at home and abroad

Multi-field

Integrate the concept of social responsibility into daily work and communication, with the existing business communication combined with responsibility communication.

Multi-form

Keep continuous contact with stakeholders through questionnaires and special visits, etc.

Multi-participation

Continuous communication shall be made with stakeholders, and senior leaders, as the foregoers of responsibility communication, shall personally attend and participate in social responsibility communication in different levels and dimensions.

Multi-angle

Collect and summarize stakeholders' comments on a regular basis and analyze insufficiencies for continuous improvement in a comprehensive and objective manner by means of public opinion collection, media information mining and other ways.

Multi-object

The Group internal management experts and grass-roots employees, as important internal stakeholders, can give timely feedback through democratic and convenient information channels.

Stakeholders	Communication Mode	Focus	Response Measures
 Investors	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
 Customers	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 Quality of products and services Product innovation Health and safety	Provide high-quality products and services Advocate green consumption Improve quality management Protect customers' privacy Launch technological innovation Advocating 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	Credit business Promote suppliers' responsibility performance Establish effective partnership Establish an effective communication mechanism
 Employees	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 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 investment Timely information disclosure Improve public welfare investment 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 Conservation Promote sustainable development jointly	Play membership role Provide economic and technical support Establish a cooperative relationship

Responsibility Sharing



Ⓞ Loading of B06 large pieces from a production line of 10,000 ton/day in Indonesia BAYAH2 Project of Sinoma International (Nanjing)

Guided by Responsibility

As a state-owned enterprise, we actively respond to the policy guidance of the State-owned Assets Supervision and Administration Commission of the State Council on fulfillment of social responsibility by enterprises and consciously set the example of fulfilling social responsibility. In the meanwhile, we take the initiative to share our experience in theories and practices in terms of social responsibility inside and outside the industry and promote the development of social responsibility in China. As a member of the UN Global Compact and the World Cement Sustainable Development Initiative (CSI), we have promoted the dissemination of the concept of global responsibility and its implementation through more diversified and internationalized platforms.

We recognize and abide by the "Ten Principles of the Global Compact" and actively 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 News and other platforms to disseminate ideas, share experiences and launch initiatives, and work with stakeholders to seek better ways of sustainable development.

Driving Development of Supply Chain

We attach high importance to the management of suppliers, incorporate social responsibility into the supplier evaluation system to urge suppliers to take social and environmental responsibilities; build "YANGCAITONG", a professional distribution supply chain service platform for building materials to vigorously promote online procurement, strictly select suppliers and cultivate premium suppliers; strictly prevent "black-box operation" in bidding, eliminate commercial bribery and enable honest operations, fair trading and transparent procurement 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; insist in green procurement and prefer environment-friendly products when sourcing raw materials; prefer clean products when procuring energy; refer recyclable products and reject excessive packaging when purchasing daily office necessities.

CNBM wishes to join hands with all for mutual progress, enhance win-win cooperation in such fields as green economy, intelligent manufacturing, new infrastructure construction, new materials and internationalization, intensify cooperation between central and local authorities, mutual progress of the State and the people as well as domestic and foreign integration, actively seek the greatest common interest in development, strive to break new ground in win-win cooperation and contribute more to the final battle of building moderately prosperous society and poverty alleviation.

Data Review 2020

Operating agreement fulfillment rate

98.6
%

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

1,087

Number of suppliers completing responsibility evaluation and review

46,804

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

366

Number of potential suppliers rejected due to noncompliance with corporate social responsibility

673

Trainings offered to subcontractors and suppliers on safety, energy and laws

159,000
person-sessions

Responsible procurement RMB

201.45
billion

Data Review 2020

Yearly substantive complaints received due to betrayal of customer information

0

Rate of proper response and handling of customer complaints

99.7
%

Number of manufacturing companies passing quality standard system certification

801

Number of customers participating in product knowledge popularization and trainings

112,000
person-sessions

Percentage of main products with national casual inspection FPY of

100
%

Products, services or brands winning honors over municipal level

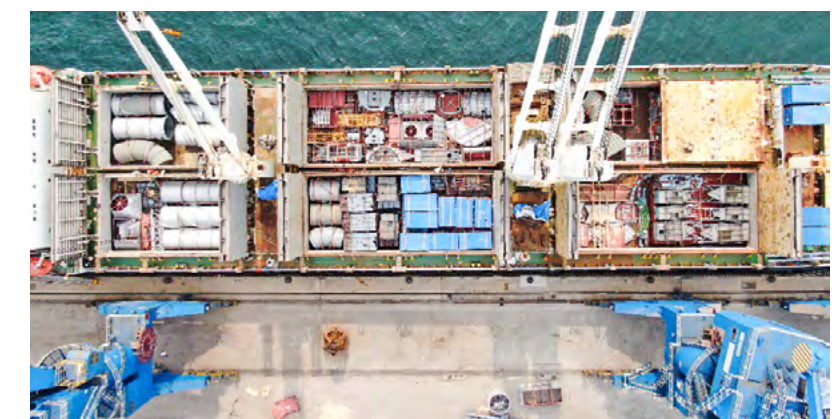
1,450

Sales volume of bulk cement

290
million tons

Responsible Supply

With the mission of "Creating a Better World with Materials", we insist in producing and supplying premium products and services. Guided by the spirit of great craftsmanship, we keep product quality under strict control, blend the concept of quality management into every small aspect from incoming of raw materials to delivery of final products and fully promote the construction and certification of the quality management standard systems. 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 built a professional customer service team, able to provide professional technical training for dealers on a regular basis and improve the ability to communicate with dealers and customers in order to better serve the customers; we have organized 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 by keeping customer data under strict management and attaching importance to information security. In 2020, we receive no substantive complaints received due to betrayal of customer information. At the same time, we have established modern logistics parks for rational planning of supply and marketing as well as logistics schemes, reducing resource occupation and ultimately improving sales efficiency. In addition, we have built an Internet sales platform, providing worldwide online trading services for building materials products to reduce carbon emissions related to customers and sales representatives during business travel.



Ⓞ Shipments of CBMI Construction Co., Ltd.

Honor of Responsibility

177th

among Fortune Global 500

269th

in Global 500 List of the World's Most Valuable Brands

16th

among Global 50 List of the World's Most Valuable Engineering and Construction Brands

45th

among the Top 500 Most Valuable Brands in China

47th

among the Top 500 Chinese Enterprises

14th

among China's Top 500 Manufacturing Enterprises

2nd

among Top 100 Chinese Companies in terms of Sustainability Index

26th

among Top 100 Leading Enterprises in Strategic Emerging Industry in China

4th

among Top 500 Chinese Enterprise of Credit

2nd

among Top 100 Chinese Manufacturing Enterprises of Credit

CNBM won the "Award of Significant Contribution to Industrial Development" and South Cement won the "Innovation Award of Effective Use of Resources"



Sinoma International, the parent company of CNBM won the "China Grand Awards for Industry"

The project of "1,000-ton dry-jet wet spinning high-strength/middle-modulus carbon fiber industrialization key technology and application" of Zhongfu Shenyong won the "Commendation Award of the China Grand Awards for Industry"

The project of "HFCG large roller press" of Tianjin Cement Industry Design & Research Institute and CNBM (Heifei) Powder Technology Equipment Co., Ltd. won the "Nomination Award of the China Grand Awards for Industry"

Nanjing Fiberglass Research & Design Institute under Sinoma Tech won the "China Patent Gold Award"



Beijing New Building Material won the title of "Top 500 Asian Brands" and the "Longpai" plasterboard it produces won the title of "No. 1 Plasterboard of the Chinese Brand Annual Awards"



Triumph Science & Technology Group won the "China International Industry Fair Award"

China Building Materials Academy, China National Building Material Engineering and Nanjing Fiberglass Research & Design Institute won the title of the 6th "National Civilized Units"

South Cement won the "First Prize of Modern Innovations for Enterprise Management"

Sanhe Digital under China National Geological Exploration Center won the title of "Top 100 Chinese Enterprises in Geographic Information Industry"

China Jushi Fiberglass Intelligent Manufacturing Base has been listed among the first "Future Factories" in Zhejiang Province

Featured Story

Return to Original Inspirations Pay Tribute to the 100th Anniversary

Remain True to Original

On the vast waters, the boat from the revolutionary past remains; times may change, but the spirits of our party last forever. From Shikumen to Tiananmen Square, from Xingye Road to Fuxing Road, the Chinese Communist Party was born for the people and thrived for the people. At this great moment of celebrating the 100th anniversary of the birth of the CPC, CNBM organized a series of celebration activities rich in contents and diversified in forms with the focus of giving better play to the political leading role of party building, carrying forward the revolutionary spirits and promoting operational reforms and development. The Group saw an upsurge in activities of learning the history of the CPC, giving party lectures and handling concrete affairs in a down-to-earth manner.

Learn the history of CPC to find our roots

By thoroughly learning the Spirit of the Important Speech of General Secretary Xi Jinping at the Mobilization Meeting of CPC History Learning and Education and focusing on "learning the CPC history, gaining ideological understanding, handling concrete affairs in a down-to-earth manner and breaking new ground", CNBM Party Committee organically combined the CPC history learning & education with the creation of a world-leading material industry investment group with global competitive edge and organized a series of activities with distinct features and diversified forms to help party members to learn history in order to see reason, boost confidence, advocate morality and try hard to practice.

The Party Committee of Triumph Science & Technology Group printed and issued the Collection of Materials for Party History Learning & Education and set up a special column of "Learning CPC History by Reading Poems of Chairman Mao".

The Party Committee of China National Building Materials & Equipment Import & Export Corporation organized the cloud sessions of "Learning Party History at Red Friday" to focus on creating an online ground for learning the Party history.

The Party Committee of CNBM Finance held a themed story-telling session of "Looking Back upon the Ups and Downs of the CPC and China in the Past Century, Building Dreams for the New Era and Taking Big Strides in the New Path".

The Party Branch of the Audit Department of CNBM Headquarters and the Party Committee of AVIC Composite Materials respectively organized all its party members to the themed exhibition of "The Great Journey—Celebrating the 100th Anniversary of the Founding of the CPC" at the "Capital Museum".

The Party Committee of China National Building Material Engineering successively created five models of "leading in learning" by the leadership, "lectures giving" by experts and professors, "research-based learning" by Party cadres, "promotion of learning" via approach innovation and "assisting in learning" via atmosphere creation.

The Party Committee of Tianjin Cement Industry Design & Research Institute launched the special column of "Learning Party History Every Day" to utilize 189 online groups of Party history learning for Party members to learn CPC history and organize story-telling sessions about female Party members themed "Sharing Party History and Pulling out All the Stops".

The Party Committee of Sinoma International Trading added to its official website a special column of Party history education titled "Highlights in a Century" to give a panoramic view of the brilliant journey and valuable lessons of the CPC.

Give Party Lectures to Train Party-minded Employees

The flag of the Party flies and the voices from the Party lecture clang. At the point of celebrating the 100th anniversary of the CPC, CNBM organized party lectures where Party leaders and members at all levels went up the podium and down to the workshops, and visited districts and counties of targeted poverty alleviation and revolutionary education bases in a well-organized and featured manner to offer "feasts for the minds" in order to thoroughly learn and implement Xi Jinping's Thought of a New Era of Socialism with Chinese Characteristics, further guide Party members to consolidate their ideals and conviction, enhance Party spirits, improve reform awareness and increase working ability.

"Following the Party Forever: A New Path of Struggle", a special lecture on CPC history learning & education by Zhou Yuxian

To celebrate the 100th anniversary of the founding of the CPC, thoroughly learn and implement Xi Jinping's Thought of a New Era of Socialism with Chinese Characteristics and solidly promote the campaign of "the Great Study of the Youth", CNBM Party Committee organized the activity of youth learning session titled "Following the Party Forever: A New Path of Struggle" on April 27, 2021 in combination of the party history learning & education. Zhou Yuxian, CNBM Party Secretary and Chairman visited Beijing New Building Material, a point of grassroots contact, gave a special lecture for young party members and Party leaders and cadres there based on the reform development and situations of the young in CNBM and encouraged young Party members to fully learn the history and strive to become useful persons and take responsibility.



Make Contributions and Handle Concrete Affairs

CNBM has thoroughly learned and implemented the Spirit of the Important Speech of General Secretary Xi Jinping at the Mobilization Meeting of CPC History Learning and Education, communicated and put into practice the working requirements from the SASAC practice promotion meeting of "Handling Concrete Affairs for the People", organized such practices in plants, workshops, streets and fields to get closer to the people, fulfill original inspirations and missions with practices and constantly improve employees' senses of gaining and wellbeing.

"Following the Party Forever: A New Path of Struggle", a special lecture on CPC history learning & education by Zhou Yuxian

At the 100th anniversary of the founding of the CPC, China National Building Materials & Equipment Import & Export Corporation sent books of "love" to Kazi Primary School in Zhaotong City, Yunnan Province on June 22, 2021 in order to solidly promote the Party history learning & education and further implement the campaign of "Handling Concrete Affairs for the People". Children in the school were greatly attracted by the books, maybe because they sensed the love in them or they smelt the "sweet scent of the books". Every student's face was filled with happy smiles. In this activity, not only books were offered, an atmosphere of "loving to read and reading great books" was created, resulting in positive social benefit. Since Zhaoyang District became its fixed target of assistance in 2014, CNBM completed six projects and grew with Kazi Primary School, establishing family-like friendship.



Recall the Revolutionary History and Carry Forward the Political Spirits

The Youth League Committee of CNBM organized and held a series of theme activities titled "Following the Party Forever: a New Path of Struggle" in order to unite and lead all Party members in the Group to further establish the "Four Consciousnesses", strengthen the "Four Confidences", resolutely achieve the "Two Maintenances", firmly follow the CPC and welcome the 100th anniversary of the founding of the CPC with great performance.

In the event, Party history learning & education, promotion of Group production & operations and strengthening of grassroots youth league building were combined to organize and hold four major activities including learning by the youth, sharing of youthful stories, contributions from the youth and volunteering youth. Party members at all levels paid tributes to the revolutionary martyrs in the cemeteries; visited revolutionary exhibitions in memory of martyrs; held meetings to share stories of youthful times by telling the stories of how they blended personal strivings into the common strivings of the CPC and the people and made commitments to reform and development of the Group under the leadership of the Party, in combination of lessons from Party history, development of China, company production and personal development; carried forward the volunteering spirit by organizing diversified volunteering activities, demonstrating the sense of responsibility of young employees of a state-owned enterprise with actual practices and motivating young league members nationwide to set free their young dreams and take responsibilities in order to become fighters, loners and strivers of innovative development of the Group under the "14th Five-Year Plan" and contribute the youthful power of CNBM employees to opening of the new chapter of the comprehensive construction of a socialist and modernized country!



© Youthful Stories Sharing Session of "Following the Party Forever: A New Path of Struggle"

A Praise to the Endeavors in the Past Century

CNBM organized a series of activities including "Running for a Century-Long Journey and Opening a New Chapter of Struggle", "Micro-Records of Souvenirs in the 100-Year History of CPC" and "Party Flag Keeps Flying for a Century in CNBM" to stimulate and motivate all employees of the Group to feel the political original inspirations, carry forward the great spirits, keep firmly in mind the brilliant journey in the past and draw strength for fighting, in order to further consolidate the ideals and conviction of the Party members of the Group to press on with enthusiasm and forge ahead and embrace the 100th anniversary of the CPC with great spirit and excellent performance.

Running for a Century-Old Journey

The activity of "Running for a Century-Long Journey and Opening a New Chapter of Struggle" started from Shanghai, the cradle of Chinese revolutions. 100 revolutionary education bases were selected for local companies to organize a running event every day. In the event, local revolutionary education resources were fully utilized; Party history learning and education themed with "reliving the oaths at joining, paying tribute to martyrs and practicing the mass line" was organized to guide all Group leaders and employees to go through the century-long brilliant history of the CPC, encourage themselves and set clear directions via the great journey and remarkable achievements of the CPC, consolidate belief and improve cohesion with the honorable tradition and fine style of work of the CPC, enlighten and tamper themselves with the practices and historical lessons of the CPC in order to see reason, boost confidence, advocate morality and try hard to practice by learning the history and embrace the 100th anniversary of the CPC with great spirit and excellent performance.

"Running for a Century-Long Journey and Opening a New Chapter of Struggle" Kicked off in Shanghai

To celebration the 100th anniversary of the founding of the CPC, "Running for a Century-Long Journey and Opening a New Chapter of Struggle" of CNBM was officially launched on March 20, 2021 in Shanghai, where the First National Congress of the CPC was held. Sun Lishi, Deputy Secretary of the Party Committee and Labor Union Chairman of CNBM attended the Kick-off Ceremony and gave a speech.

In this event, two routes were set, including a 7.1 km shuttle run route and a 2.1 km mini shuttle run route. "7.1" stands for the birthday of the CPC and "2.1" stands for the 100th anniversary from 1921 to 2021. A shuttle run that ended where it started implied to "have a prudent end where it all started and restart again". 179 runners rushed with big strides on a red track along the Huangpu River. Accompanied by the modern civilization constructed upon building materials on one side and greeted with an exhibition of the rich history of Shanghai before them, runners were full of spirit and happiness. Running at the front line of the reform and opening-up, we have witnessed dramatic urban transformations and exceptional achievements of the reform and opening-up, had a strong feeling about the dramatic changes and the spirit and revolutionary gene of the CPC and gained a deeper understanding of the importance of the bravery of committed innovation, the pioneering spirit, the vigorous vitality in order to stay true to original inspirations, bear firmly in mind our missions and contribute to the new journey the "14th Five-Year Plan" and the goal of "Two 100 Years".



☉ "Running for a Century-Long Journey and Opening a New Chapter of Struggle" Officially Kicked off in Shanghai

"Running for a Century-Long Journey and Opening a New Chapter of Struggle" (Beijing) Successfully Completed

On June 27, 2021, the 100th session of "Running for a Century-Long Journey and Opening a New Chapter of Struggle" of CNBM was closed in Beijing. Zhou Yuxian, CNBM Party Secretary, Sun Lishi, Deputy Secretary of the Party Committee of CNBM and other leaders from the Group attended the event. At the scene of the event, a ceremony of join forces by flag bearers was held and a short documentary video with same title with the event was played. China Building Materials Academy performed a chorus of "Under the Bright Sun" and all the people present sang the song of "Without the Communist Party, There Would Be No New China" together. The loud voice sang out the Group's wholehearted support of the CPC and the firm belief to following the CPC forever and demonstrated CNBM employees' high morale. This running session kicked off in the sound of songs. The route of this event extended for 5 km and was designed in the shape of the map of China, showing CNBM's deep love for the Party and the Country. Along the track, signboards of milestones in the history of the CPC were set up to record and highlight the brilliant endeavors of the CPC in the past century. Leaders and employees ran while being moved by the historical sentiments, thoughts, spirits of fighting and selfless character of the CPC predecessors and completed a grand journey of the industry with their own actions.



☉ The 100th session of "Running for a Century-Long Journey and Opening a New Chapter of Struggle" in Beijing Started in Pleasant Atmosphere

Souvenirs Witnessing 100-Year History

We can see big picture from small details and a small item can reveal the grand history to us. The first automotive bulletproof glass, the first fiberglass, the first transparent quartz glass in China... These are marks left by leaders and employees of CNBM generations after generations and contain their original inspirations to forge ahead under the leadership of the CPC. They are embodiments of CNBM's firm belief, conviction and confidence to do as the CPC says and follow the CPC. They imply care from the Party and State leaders, demands of Chinese economic and social development and the stories of conquering great difficulties and becoming independent of generations of employees in CNBM. From small items, we see people and their spirits and their commitment to carry forward the revolutionary spirit and genes.



Scan the QR code to read the news: Souvenirs Witnessing 100-Year History: From Bulletproof Glass to Float Glass and Then to Vaccine Vial, All Chinese Miracles Are Self-Made!

☉ The first automotive bulletproof glass developed by China Building Materials Academy with a weight over 169 kg and a thickness up to 7.5 cm, an equivalent to ten times of a common automotive glass today. It opened up a new chapter in using home-made bulletproof limousines to guarantee safety of guests in diplomatic events.



☉ In 1958, China Building Materials Academy developed the first transparent quartz glass in China and later offered a massive amount of quartz products for the atomic energy, weaponry and semiconductor industries in China. Thus, foreign blockade was broken and a solid foundation was laid for professional development of the quartz glass in China.



☉ In December 1963, the Research Institute of Non-Metallic Mineral (the predecessor of Sinoma Synthetic Crystals) made a millimeter-scale synthetic mica sample during trial production, which not only filled the gap in China, but also laid a solid foundation for quick development of the synthetic mica industry in China.

From the First Fiberglass to a World-Leading Position in Composite Materials

In October 1955, Mr. Lai Jifa, the Deputy Minister of Heavy Industries at that time brought back a sample fiberglass from his visit to the Soviet Union and then China started the R&D in fiberglass. After many trials and failures, researchers developed a non-alkali fiberglass in the autumn in 1957, creating conditions for the development of the fiberglass. In January 1958, the Glass-Ceramic Research Institute under the Ministry of Building Materials Industry made up the first fiberglass research team in China, which was later expanded to be the Fiberglass Laboratory. Without equipment, technology and data, China successfully pressed its first piece of fiberglass only with the help of the sample from the Soviet Union, broke the new ground of fiberglass/composite material and filled the blank of inorganic non-metallic advanced material for national defense. From 1958 to 1960, researchers started with indigenous methods to build test plants, labs and self-developed equipment and preliminarily worked out process techniques such as manual winding. They researched on continuous high-pressure FRP pipe and bulletproof fiberglass, established a R&D system from raw materials, forming process, product trial production to performance test and laid a foundation for the development of the fiberglass/composite material industry in China.

In the new century, in order to guarantee supplies to major projects in China, CNBM developed large tank furnace wiredrawing production technology in the field of fiberglass and the world-leading E8 and E9 fiberglass formulas, and produced such products as electronic-grade fine yarn for fiberglass, alkali-proof fiberglass, low-dielectric fiberglass and high-strength and high-modulus fiberglass. In the field of carbon fiber, CNBM filled the gap of high-end carbon fiber technology via technical R&D and industrial mass production of high-performance T700, T800 and T1000 carbon fibers, making great contributions to the economic and social development in China.

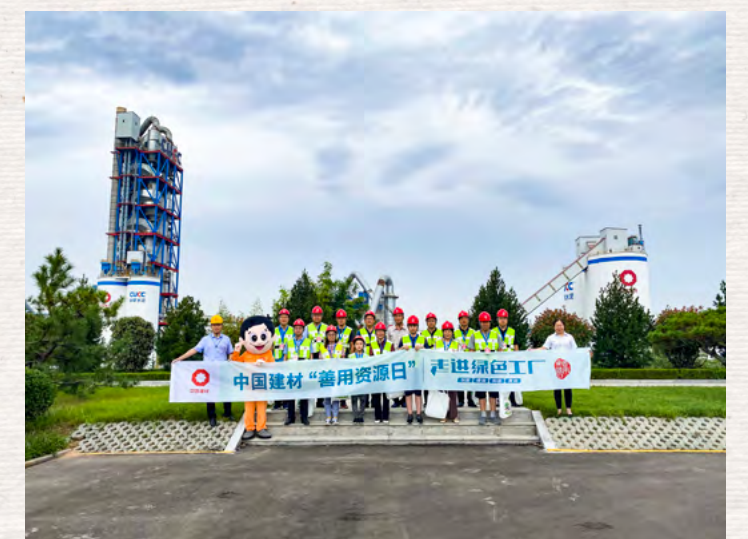
Party Flag Keeps Flying for a Century

In June 2021, CNBM invited more than 10 journalists from CCTV, People's Daily, Economic Daily News, China Enterprise News, Enterprise Observer, Talents Magazine, China Building Materials News and China Building Materials Magazine to take part in the event of "Party Flag Keeps Flying for a Century in CNBM".

Starting from the running in Xibaipo, journalists joined hands with CNBM employees to cherish the memory of our revolutionary martyrs, relive the oaths at joining the CPC, visit Shandong Industrial Ceramic Research & Design Institute, an innovation & entrepreneurship base of Beijing Sinoma Synthetic Crystals Co., Ltd. in Zhangqiu, Jinan as well as China United Cement Tai'an, the first world-class low-energy consumption demonstration production line in China and finally come to CNBM Bengbu Glass Industry Design & Research Institute Co., Ltd., which is known for its bright glasses. This event offered an opportunity for the journalists to get a deep understanding of CNBM's achievements in innovations in transformation mechanism and model of scientific research achievements, digital and intelligent-based transformation, overcoming of technical barriers with innovations, mass industrial production of new materials, contribution to carbon peak and neutrality with low-carbon green development, garden-like factory, Party building and culture-building.

Experience "Top of the World" in Tai'an

In Tai'an, the journalists visited three businesses of CNBM with No.1 output worldwide: cement, fiberglass and plasterboard. At the China United Cement Tai'an, the first world-class low-energy consumption demonstration production line in China, they experienced in person the intelligent and green nature of the garden-like factory; at Taishan Gypsum, they got to know the Group's practice in low-carbon development and the story of nomination in the list of "Double-Hundred Program" via its industrial byproduct of gypsum and witnessed the process of converting desulfurized gypsum, a waste from the power plant into plasterboard made in environmental-friendly way; at Taishan Fiberglass, they were present at the production site of low-dielectric fiberglass used in 5G new infrastructure construction. CNBM's practice of new development concept and the resolution and efficiency in pursuing a world leading position were widely acclaimed by all the journalists.



☉ "Effective Use of Resources" Open Day in China United Cement Tai'an



材料产业大会
NEW MATERIALS INDUSTRY CONFERENCE

中建材（安徽）新材料 产业投资基金（有限合伙）合作协议

产业投资基金



新 动 能
New Energy

© CNBM initiated and founded the New Materials Industry Investment Fund and signed a cooperation agreement.

Future Prospects

The year 2021 is the first year in the "14th Five-Year" Plan and in the new journey of the comprehensive construction of a socialist and modernized country as well as the 100th anniversary of the founding of the CPC. This critical point in time is the coordinate of our endeavor. To drive development with innovations, empower development with reforms, promote development with internationalization and lead development with Party building, CNBM will spare no effort in building a world-class material industry investment group with global competitive edge, with high-quality development as the theme and structural reform at supply side at the main task and under the guidance of Xi Jinping's Thought of a New Era of Socialism with Chinese Characteristics.

When rowing boats in the midstream, only those paddling with the greatest strength can go forward. We should double our efforts and forge ahead to focus on operations and promote healthy industrial ecosystem; improve management with the focus on "three lean managements", use first-class enterprises as benchmarks, enhance quality and efficiency and enable simpler and more efficient systems with better benefits; insist in high-quality development, adopt green and intelligent development as standards, adhere to the "+" strategy and consolidate an industrial pattern of tripartite confrontation; stimulate innovation, increase investment, solidity and improve the leading technical advantages of main products; make commitment to reform, intensify the reforms of state-owned enterprises, release their energy and celebrate the 100th anniversary of the founding of the CPC with excellent performance.

Appendix Responsibility Performance

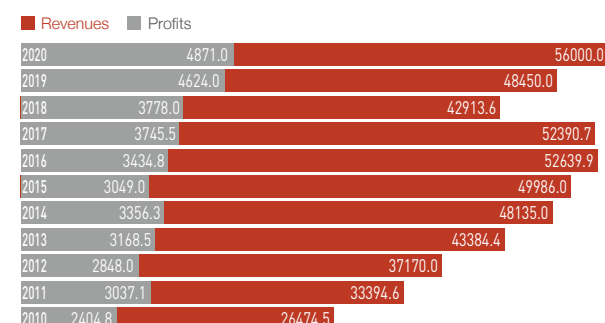
Market Performance

Fortune Top 500 Building Material Enterprises in 2021

Ranking in 2021	Company Name	Revenues in 2020 (USD million)	Country
177	CNBM	57115.3	China
266	Saint-Gobain	43444.9	France
315	Anhui Conch Group	37929.8	China
441	CRH	27587.0	Ireland
492	Holcim	24653.8	Switzerland

Data Source: www.fortunechina.com

Total Revenues and Profits of Enterprises above Scale in China Building Materials Industry from 2010 to 2020



Data Source: China Building Material Quantity Economic Supervision Society

Production of Cement from 2010 to 2020

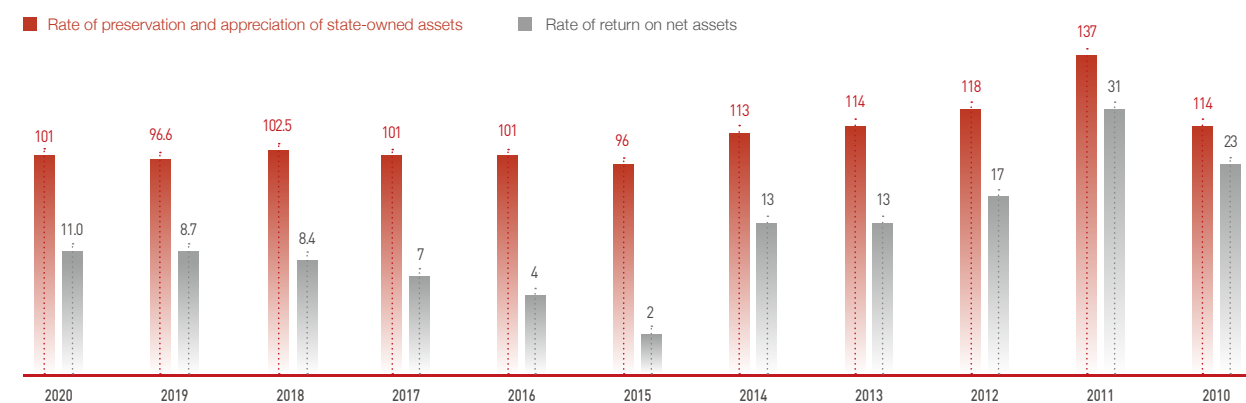
Year	CNBM	China	Global
2020	3.5	23.8	37.0
2019	3.7	23.3	42.0
2018	3.4	22.1	39.5
2017	3.4	23.2	41.0
2016	3.2	24.0	42.0
2015	2.4	23.5	41.0
2014	2.5	24.8	41.8
2013	2.4	24.2	40.0
2012	2.7	21.8	38.0
2011	1.9	20.1	36.0
2010	1.7	18.8	33.1

Source: National Bureau of Statistics, United States Geological Survey

Total Revenues and Profits from 2010 to 2020

Year	Revenues	Profits
2020	3941.0	306.1
2019	3981.0	235.2
2018	3480.0	206.6
2017	3021.2	151.1
2016	2612.3	75.8
2015	1992.5	38.4
2014	2504.3	130.1
2013	2522.6	115.1
2012	2174.3	111.6
2011	1940.9	158.5
2010	1353.6	75.6

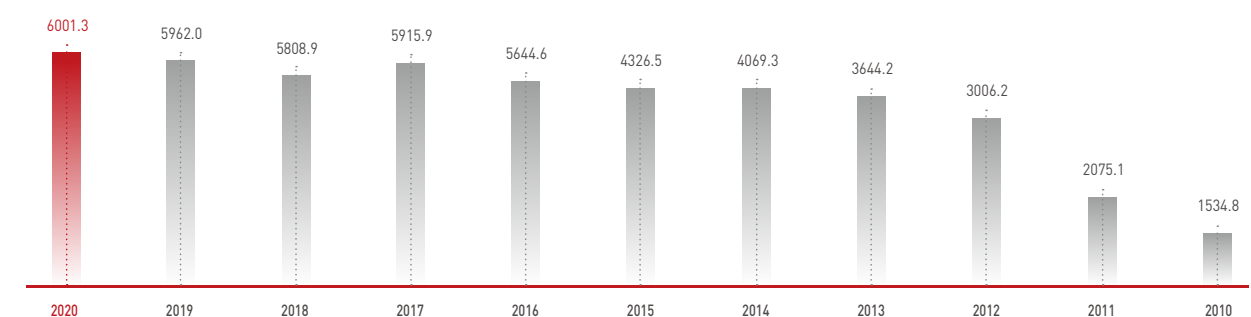
Rate of Preservation and Appreciation of State-owned Assets and Rate of Return on Net Assets from 2010 to 2020



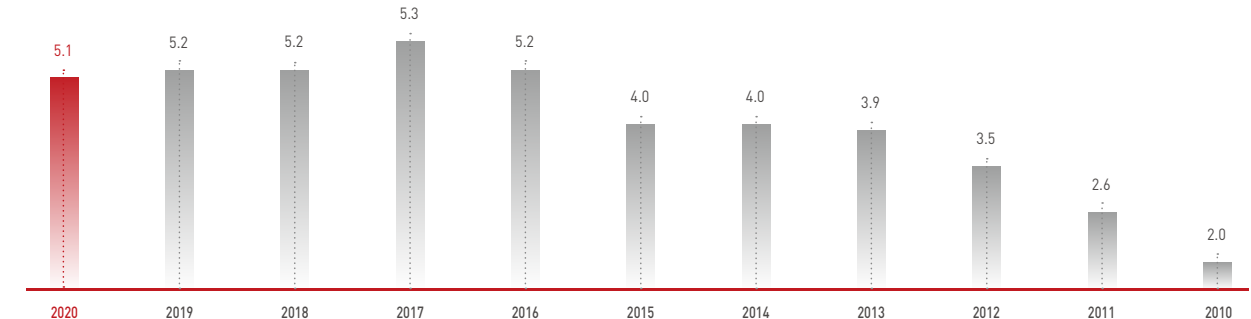
Performance of Listed Companies in 2020

Stock Name	Stock Exchange	Stock Code	Dividends per share	Earnings per share
CNBM	Hong Kong Exchanges and Clearing	3323.HK	0.4700	1.4880
BNBM	Shenzhen Stock Exchange	000786.SZ	0.5500	1.6930
China Jushi	Shanghai Stock Exchange	600176.SH	0.2240	0.6899
Sinoma International	Shanghai Stock Exchange	600970.SH	0.2300	0.6500
Tianshan Cement	Shenzhen Stock Exchange	000877.SZ	0.4800	1.4458
Ningxia Building Materials	Shanghai Stock Exchange	600449.SH	0.6700	2.0200
Qilianshan Cement	Shanghai Stock Exchange	600720.SH	0.6800	1.8500
Sinoma Tech	Shenzhen Stock Exchange	002080.SZ	0.4000	1.2228
Triumph Science & Technology	Shanghai Stock Exchange	600552.SH	0.0500	0.1581
Sinoma Energy Conservation	Shanghai Stock Exchange	603126.SH	0.8000	0.8000
Luoyang Glass	Shanghai Stock Exchange	600876.SH	0.0000	0.5930
Luoyang Glass Company Limited	Hong Kong Exchanges and Clearing	1108.HK	0.0000	0.5930
Ruitai Technology	Shenzhen Stock Exchange	002066.SZ	0.0000	0.1201
CTC	Shanghai Stock Exchange	603060.SH	0.2030	0.5364

Total Assets from 2010 to 2020



Cement Capacity from 2010 to 2020



Science and Technology Awards at or above the Provincial and Ministerial Level from 2010 to 2020 Unit: Item

Year	Science and Technology Awards at or above the Provincial and Ministerial Level	National Science and Technology Progress Awards
2020	109	0
2019	166	3
2018	231	1
2017	197	2
2016	173	2
2015	123	0
2014	117	1
2013	145	1
2012	152	0
2011	132	2
2010	63	0

Standards – CNBM Presiding over and Participating in Compilation or Revision from 2010 to 2020 Unit: Item

Year	Total Standards	International	National	Industrial
2020	74	3	39	32
2019	88	0	52	36
2018	167	4	90	73
2017	122	4	90	28
2016	91	2	57	32
2015	62	2	36	24
2014	104	3	35	66
2013	59	1	8	50
2012	22	1	5	16
2011	28	1	15	12
2010	79	0	30	49

Annual Patent Application and Authorization from 2010 to 2020 Unit: Item

Year	New patent application	Invention patents	Patents newly authorized	Invention patents
2020	4436	1821	2576	532
2019	3308	1638	1804	478
2018	2287	1056	1571	385
2017	2144	1039	1524	428
2016	2156	880	1793	455
2015	1568	566	1492	193
2014	1571	531	1381	106
2013	1262	373	848	128
2012	766	228	729	143
2011	630	170	487	80
2010	514	173	420	54

Accumulative Patents from 2010 to 2020 Unit: Item

Year	Accumulative patents	Invention patents
2020	14463	3816
2019	12124	3164
2018	10967	2765
2017	10024	2403
2016	8408	1913
2015	5663	900
2014	4255	687
2013	3231	589
2012	2549	448
2011	1606	288
2010	1232	227

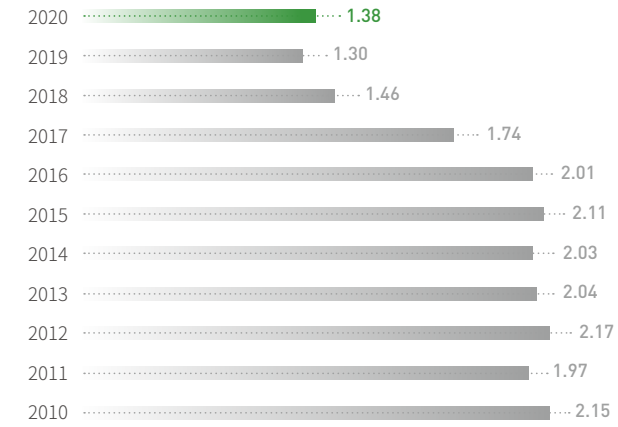
Expenditure on Scientific Research Activities from 2010 to 2020 Unit: RMB 100 million

Year	Expenditure on research and test development
2020	119.1
2019	95.9
2018	81.9
2017	59.3
2016	51.2
2015	40.9
2014	41.6
2013	36.2
2012	33.4
2011	31.6
2010	20.7

Revenues from Technological Innovation from 2010 to 2020 Unit: RMB 100 million

Year	Revenues from technological innovation	New product sales revenues
2020	35.2	754.7
2019	28.4	577.6
2018	30.1	555.9
2017	16.6	468.5
2016	15.7	339.0
2015	11.5	256.5
2014	8.8	289.9
2013	10.3	259.4
2012	9.4	248.4
2011	11.0	240.3
2010	14.1	158.4

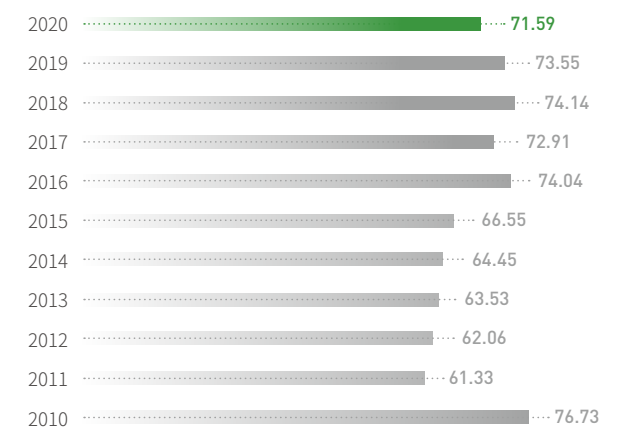
Comprehensive Energy Consumption per RMB 10,000 Output Value from 2010 to 2020 Unit: ton of standard coal/RMB 10,000



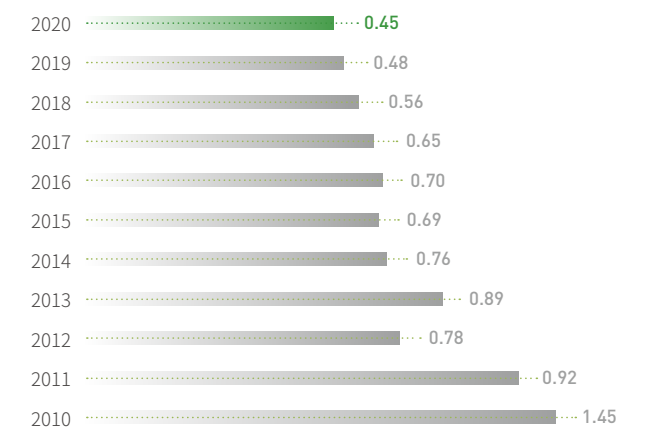
SO₂ and COD Emissions per RMB 10,000 Output Value from 2010 to 2020 Unit: kg/RMB 10,000

Year	SO ₂ emissions per RMB 10,000 output value	COD emissions per RMB 10,000 output value
2020	0.42	0.04
2019	0.62	0.03
2018	1.09	0.03
2017	1.07	0.03
2016	1.60	0.05
2015	1.46	0.06
2014	1.36	0.06
2013	1.39	0.07
2012	1.45	0.07
2011	1.60	0.12
2010	2.33	0.12

Comprehensive Consumption per Ton of Cement from 2010 to 2020 Unit: kg of standard coal/ton



Nitrogen Oxide Emissions per Ton of Cement Clinker from 2010 to 2020 Unit: kg/ton



Performance of Solid Waste Disposal and Utilization from 2010 to 2020

Year	Solid waste consumption (10,000 tons)	Disposal rate of self-produced solid waste (%)
2020	17880	91.7
2019	14967	99.9
2018	9900	92.8
2017	15615	99.0
2016	14909	88.6
2015	7545	98.5
2014	7882	98.0
2013	6191	99.2
2012	9700	100
2011	6500	100
2010	2500	—

Performance in Utilization of Water Resources from 2011 to 2020

Year	Fresh water consumption per RMB 10,000 output value (ton/RMB 10,000)	Fresh water consumption per ton of cement clinker (ton/ton of cement clinker)	Utilization rate of circulating water (%)
2020	5.3	0.49	95.1
2019	3.6	0.34	90.0
2018	7.9	0.45	90.8
2017	7.1	0.51	96.2
2016	6.2	0.38	93.7
2015	7.2	0.46	93.5
2014	6.2	0.41	90.3
2013	8.0	0.41	96.4
2012	5.0	0.33	94.7
2011	5.5	0.37	—

Employee Profile from 2010 to 2020

Unit: Person

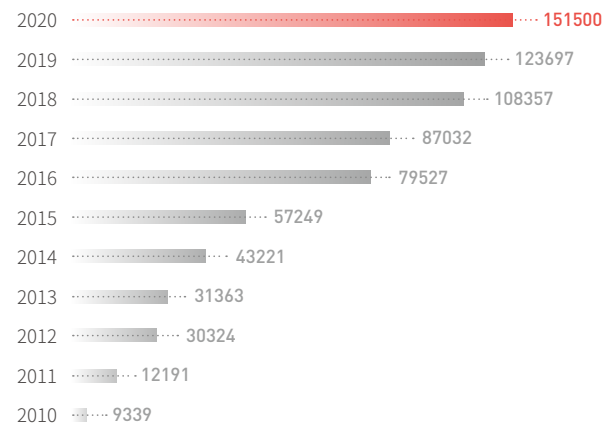
Year	Total number	Foreign, Hong Kong, Macao and Taiwan employees	Ethnic minority employees	Disabled employees	Proportion of female employees in management
2020	202844	1036	5725	1731	16.9%
2019	204763	483	5808	1729	16.2%
2018	208680	1059	5167	1697	18.7%
2017	221421	750	5985	1732	18.4%
2016	234511	1126	5964	1875	18.3%
2015	176610	841	3521	1449	17.2%
2014	176854	892	3120	2263	18.4%
2013	179421	1234	3031	1685	18.1%
2012	165652	1190	2706	1620	13.5%
2011	126385	594	3516	1023	11.6%
2010	112676	397	1566	599	24.0%

Progress of Enterprise Annuity from 2010 to 2020

Year	Number of member enterprises participating in enterprise annuity (entity)	Number of employees participating in enterprise annuity (person)
2020	531	95554
2019	207	56174
2018	100	35644
2017	74	24093
2016	71	22871
2015	68	22165
2014	67	21750
2013	67	21131
2012	66	20392
2011	53	13368
2010	38	12811

Occupational Health and Safety Investment from 2010 to 2020

Unit: RMB 10,000



Employment Contract and Social Security Coverage and Labor Union Membership from 2010 to 2020

Unit: %

Year	Coverage of employment contracts	Coverage of social security	Proportion of employees with labor union membership
2020	100	90	78
2019	100	92	78
2018	100	90	78
2017	100	98	92
2016	100	98	91
2015	100	98	91
2014	93	88	70
2013	96	92	75
2012	96	92	80
2011	94	91	73
2010	88	87	—

Employee Training Performance from 2011 to 2020

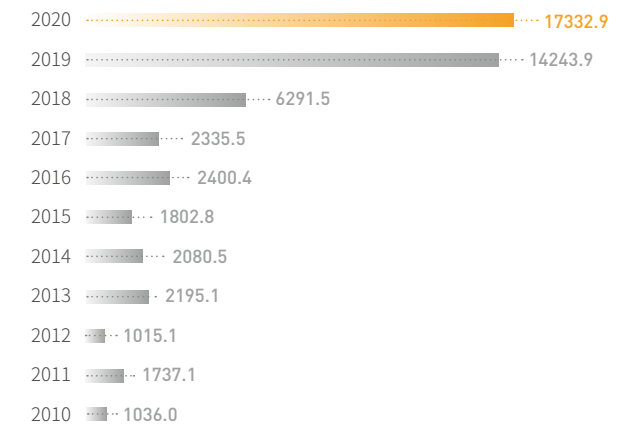
Year	Training programs organized and participated (session)	Employees' training participation (10,000 hours)	Employees' on-the-job academic degrees obtained (case)
2020	84771	215	2628
2019	107787	137	1679
2018	75187	485	1424
2017	52676	112	2251
2016	47554	331	3028
2015	32672	133	2882
2014	43352	91	3520
2013	37491	164	2387
2012	21028	126	1138
2011	11975	108	1580

Workplace Safety Performance from 2010 to 2020

Year	DIFR recorded per 1,000 employees (%)	New case of occupational diseases (case)
2020	0.2	0
2019	0.4	1
2018	0.5	1
2017	0.5	2
2016	0.5	0
2015	0.9	3
2014	1.3	2
2013	1.6	1
2012	2.3	3
2011	1.4	19
2010	1.5	24

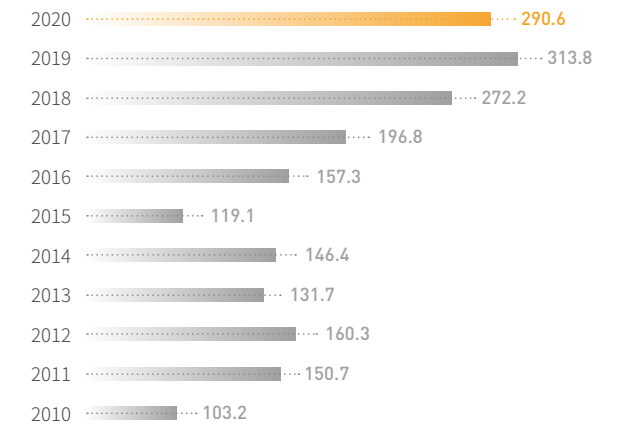
Social Public Welfare Expenditure from 2010 to 2020

Unit: RMB 10,000



Payment of Taxes from 2010 to 2020

Unit: RMB 100 million

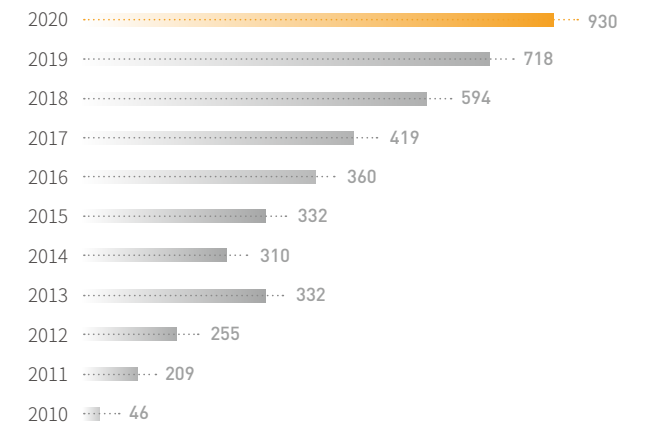


Assistance of Students from 2011 to 2020

Year	Special scholarships established (item)	Total scholarship provided (RMB 10,000)	Number of students awarded or subsidized (person)	Internship bases established (base)	Undergraduate posts provided (person day)
2020	20	99	298	128	53145
2019	22	113	284	132	52689
2018	18	73	188	118	45464
2017	14	72	155	163	31519
2016	8	37	266	134	34030
2015	8	36	159	47	26586
2014	31	53	227	97	28619
2013	18	112	506	119	36530
2012	20	136	466	98	17815
2011	27	—	727	—	—

Number of Supported Social Welfare Projects from 2010 to 2020

Unit: Item



Performance in Employment Assurance from 2011 to 2020











Unit: Person








Year	Number of new employees	Current year's graduates	Military personnel transferred to civil work
2020	22032	3667	24
2019	27763	3890	22
2018	26553	3626	141
2017	29612	4727	139
2016	22342	3129	23
2015	16929	2473	10
2014	23617	3848	46
2013	16081	4383	158
2012	15901	3743	521
2011	21182	4276	241

Volunteer Activity Organization from 2011 to 2020

Year	Volunteer groups established (group)	Input in volunteer support (RMB 10,000)	Number of staff volunteers (person)	Volunteer service provided (hour)
2020	192	190	10121	49220
2019	213	2219	10343	40192
2018	189	126	6853	44445
2017	335	363	5334	25164
2016	112	344	5646	28157
2015	56	191	2187	14840
2014	65	145	3400	9418
2013	109	145	4864	10681
2012	67	91	3337	39778
2011	—	—	—	10618

Index of Indicators

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	Collaboration on Innovation	 		
	Great Achievements			M2.6-2.7
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Contents		United Nations Sustainable Development Goals (SDGs)	Guidelines for GRI Sustainable Development Reporting (G4)	Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0)
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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 member 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, member 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 Report Rating in China (2020)
10	Report release	Distribute to stakeholders through various carriers and channels
11	Summary and improvement	Analyze shortcomings for rectification and improvement

Rating Report

Rating Report of Sustainability Report 2020 of China National Building Material Group Co., Ltd.

Commissioned by CNBM, a rating panel is set up consisting of experts selected and assigned by the "Chinese Expert Committee on CSR Report Rating" to rate the Sustainability Report 2020 of China National Building Material Group Co., Ltd. (hereinafter referred to as the "Report").

I. Basis

Corporate Social Responsibility Reports in China for Nonmetal Mineral Products (CASS-CSR 4.0) by Chinese Academy of Social Sciences and Standards for CSR Report Rating in China (2020) by Chinese Expert Committee on CSR Report Rating.

II. Process

1. The Rating Panel reviews and confirms the Letter of Confirmation about CSR Report Process Data and relevant supporting materials submitted by the preparation team of the Report;
2. The Rating Panel evaluates the preparation process and contents of the Report and produces a rating report;
3. Deputy Chairman of the Chinese Expert Committee on CSR Report Rating, Chief of the Rating Panel and experts in the Rating Panel jointly review and sign the rating report.

III. Conclusions

Process (★★★★★)

The Administration Department of the Group leads in setting up the report preparation team, coordinates the detailed work of preparation and keeps key nodes under control; key departments propose and report data and review relevant contents; the Chairman serves as chief of the CSR work leading group and is responsible for final review and sign-off of the Report. The Report has been defined as an important tool to disclose responsibility performance information, improve social responsibility management and intensify communication with stakeholders and thus it has a clear functional and value positioning; material issues have been identified according to national macro policies, international & domestic social responsibility standards, industrial benchmarking, company development strategy and survey of stakeholders; preparation and release of CSR reports by affiliated enterprises have been promoted, such as China National Building Material Company Limited, Jushi Group and Sinoma International; the Group plans to release the Report on its official website and present the Report in electronic, hardcopy, Chinese-English bilingual and long-picture versions. In short, the Report has excellent process performance.

Substantiality (★★★★★)

The Report discloses such key issues in the industry of nonmetal mineral products as product quality management, product innovation, occupational health management, safe production, R&D and application of environmental protection technology & equipment, energy & resources saving, management of hazardous chemicals, reduction in emission of "three types of wastes", governance of environment around the plant and supply chain responsibility in a systematic manner and with detailed and adequate description. Thus, its performance in terms of substantiality is superb.

Integrity (★★★★★)

The main body of the Report discloses 93.05% of core indicators in the industry of nonmetal mineral products, including market performance, technological innovation, energy conservation & environmental protection, employee care and corporate citizenship, in a systematic manner. Therefore, it has an outstanding performance in terms of integrity.

Balance (★★★★★)

The Report discloses such negative data as employee turnover rate, DIFR recorded per 1,000 employees, new cases of occupational diseases, yearly substantive complaints received due to betrayal of customer information and yearly administrative penalties received from overseas governments and give a brief introduction of problems detected and relevant rectifications of violations of environmental laws and regulations by the affiliated enterprise. Its balance performance is excellent.

Comparability (★★★★★)

The Report offers the comparison data for three consecutive years of 63 key indicators such as profits, total assets, coverage of employment contracts, payment of taxes, comprehensive energy consumption per RMB 10,000 output value and utilization rate of circulating water and performs horizontal comparison in terms of the 14th position among China's Top 500 Manufacturing Enterprises in 2020. Its performance in comparability is outstanding.

Readability (★★★★★)

In the Report, an issue-based framework is adopted to elaborate in details the Company's annual responsibility performance progress in terms of such major issues as organizational governance, technological innovation, energy

conservation & environmental protection, employee care and corporate citizenship, with clear structure to respond to the expectations and appeals of stakeholders. On its cover and chapter title pages, big real pictures are used to show specific scenes of responsibility performance to echo with themes of the chapters. In this way, the distinctiveness of the Report is enhanced; transition pages between the chapters are provided with descriptive introductions and key performance indicators to get to the point directly and facilitate readers' quick grasp of key information; comments from stakeholders are added to prove responsibility performance effects and QR codes are inserted for image-based extended reading. In a word, the Report has great performance in readability.

Innovativeness (★★★★★)

The Report gives active response to SDGs and highlights the Company's international vision and value pursuit; a featured story of "Return to Original Inspirations and Pay Tributes to the 100th Anniversary" is set for the hot topic of the 100th anniversary of the founding of the CPC and to show the commitments of a state-owned enterprise; the social responsibility indicator system is modified, standards of contents disclosed in the Report are set and the social responsibility management system is improved; the first "Open Day of Effective Use of Resources" — the first large-scale public opening event in the building materials industry — to extend the scope of responsibility communication and enhance responsibility communication effect. Hence, its performance in innovativeness is excellent.

Comprehensive rating (★★★★★+)

The evaluation by the rating panel shows that the Sustainability Report 2020 of China National Building Material Group Co., Ltd. reaches five-star level in terms of process, substantiality, integrity, balance, comparability, readability and innovativeness. Therefore, its comprehensive rating is "Five Star+" and the Report itself is a paradigm of CSR report.



CNBM's sustainability reports have obtained Five-Star rating for seven consecutive years and Five-Star+ rating for two consecutive years.

IV. Improvement Suggestions

It is suggested to disclose more core industrial indicators and further improve the integrity of the Report.

Huang Qunhui	Zhong Hongwu	Dong Zhongyun
Deputy Chairman of Chinese Expert Committee on CSR Report Rating	Chief of Rating Panel	Expert form Rating Panel

Produced on: September 9, 2021



Scan the QR code to check company rating files

Feedback

Dear Readers,

Thank you very much for your attention and support to the social responsibility work of China National Building Material Group Co., Ltd. Please kindly fill in the following questionnaire. We will 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:

- Overall 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
- Design: Very good Good General Poor Rather poor
- Language friendliness: Very good Good General Poor Rather poor

In your opinion, what are the most essential elements for China National Building Material Group Co., Ltd. to perform its social responsibility:

- Market Performance Technological Innovation Energy Conservation and Environmental Protection
- Employee Care Corporate Citizenship Responsibility Management

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 managers Group staff
- Others

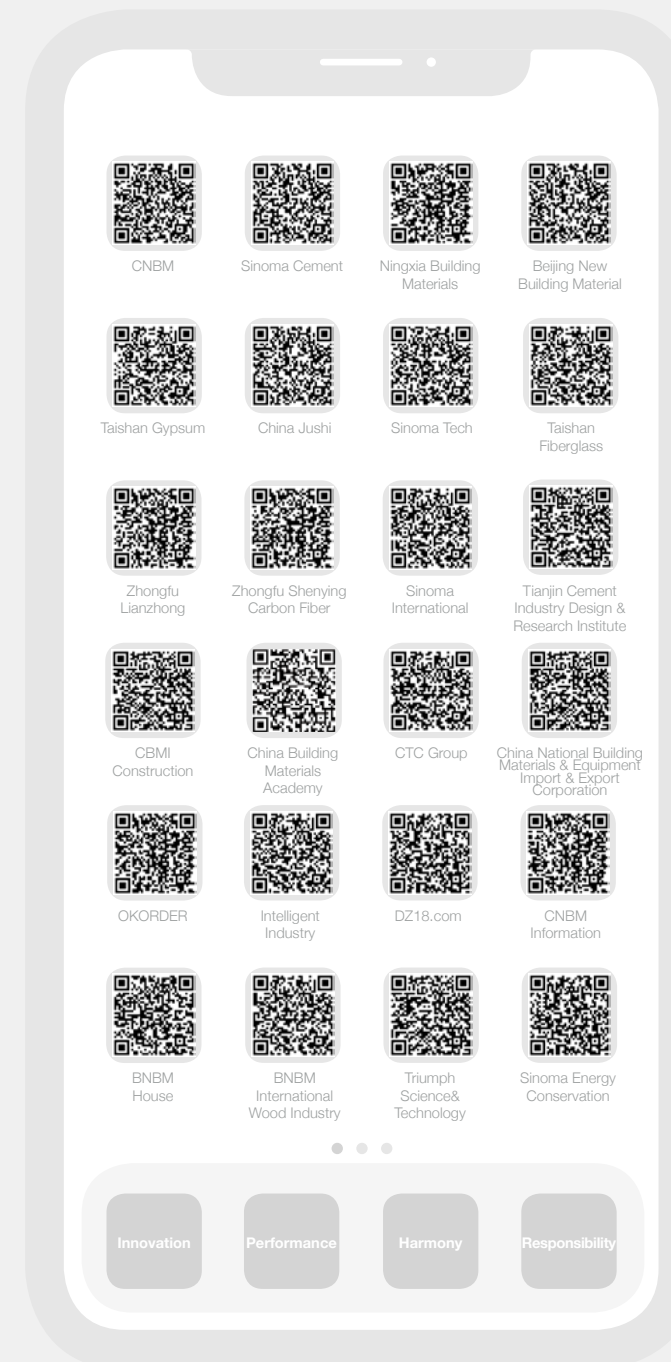
In order to contact you conveniently and respond to your comments and suggestions in time, please offer your contact and related information. We will keep it reliably confidential.

Name: _____ Occupation: _____

Institution: _____ Contact Address: _____

Zip Code: _____ E-mail: _____

Telephone: _____ Fax: _____



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Environmental considerations for report release

Paper: environmental-friendly papers are used for printing

Ink: environmental-friendly ink is used to reduce air pollution

Designed and produced by: 创意云 CREATIVITY
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