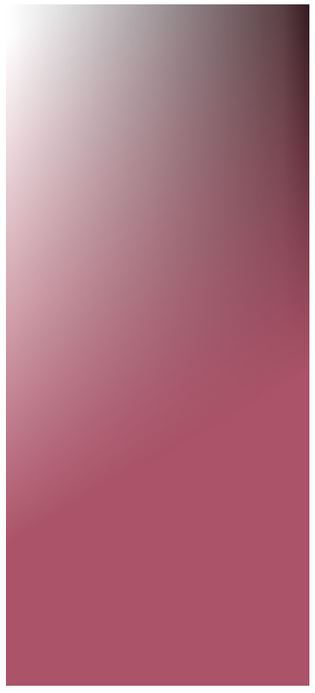
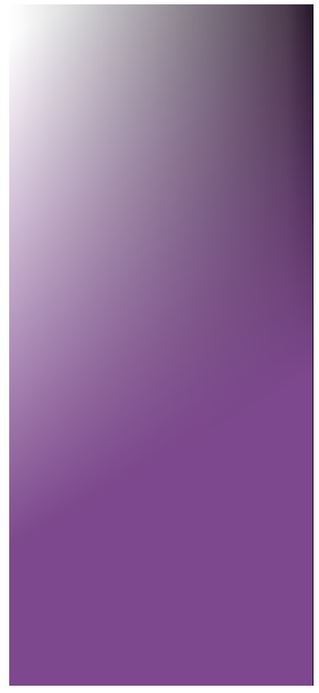
CNBM

China National Building Material Group Co.,Ltd.

SUSTAINABILITY REPORT 2020

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





Proud Results·····16

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".

As China's only central government-led enterprise in building materials, CNBM has been keeping in mind the utmost interests of the nation.

Chairman and Party
Committee Secretary

Zhou Yuxian

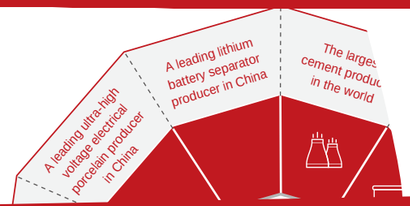
ut US

pany Profile

ational Building Material Group Co., Ltd
Corporation and China National Mat
vned enterprise under the direct
e Council.

s the largest comprehe
provider throughout
2021. As at the
ees was about
are at abro
comme
igh-

M's Key Industrial Scale



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

Guang Zhaoyu		Gao Zehuai
Board Secretory General Manager Assistant		Deputy Chief Economist

Basic building materials 1

Cement

Cement

The annual production capacity of 510 million tons of cement and 450 million m^3 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

2

Plasterboards and Waterproof Materials

Lightweight Building Materials and Waterproof Materials

The annual production capacity of plasterboard is 2.82 billion m^2, 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 m^2, 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 m^2 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

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 second-party 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 Perforamnce

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

9 INDUSTRY,INNOVATION, AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

16 PEACE AND JUSTICE STRONG INSTITUTIONS

17 PARTNERSHIPS FOR TH

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.

A Panorama of Huaikan South Cement Company Limited

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.

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 ≤94kg/tcl and clinker electric power consumption of ≤ 42kwht; 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.

Data Review 2020

The new materials sector achieved revenues of nearly RMB

80

billion

accounting for about

20

%

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.

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.

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 Shenying. 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%.

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.

"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.

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.

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

Data Review 2020

Legal review rate for rules and regulations

100 %

Legal review rate for business decision-making

100 %

Legal review rate for business contracts

100 %

Data Review 2020

Legal compliance training held/attended

5,446 times

Employees' participation in legal compliance training

154,000 man-times

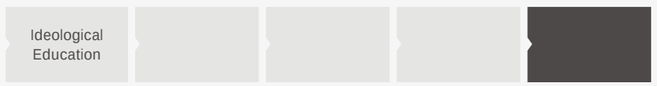
Anti-corruption (commercial bribe) training held/attended

2,835 times

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

70,000 man-times

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".



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.

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

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.

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.

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".

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.

Data Review 2020

9
academician workstations

17
postdoctoral workstation

38,000
scientific and technical R&D and engineering technicians

197
employees enjoying special government allowance of the State Council

Laboratory staff of Hunan Shaofeng South Cement Company Limited

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

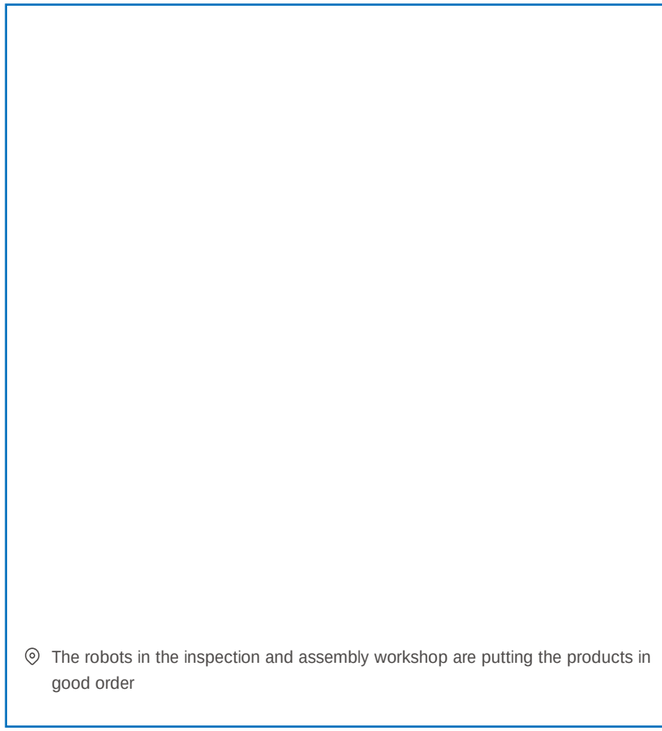
In the innovation practice, CNBM has been adhering to the "Internet+" thinking, fully integrating the "intelligence" gene into the traditional manufacturing industry, and seeking the digital and intelligent transformation of basic building materials and new materials industries with the attitude of "prior 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.

Digital Workshop of Hefei Smarter Industrial Park

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



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

"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

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.

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.

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 an 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.

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

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.

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

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

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.

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.

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,

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 resue 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
%

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/m^2 (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.

Cleaning Line of Qilianshan Cement Co., Ltd.

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.

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

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

2,953
units

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.

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.

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

%

Response to SDGs

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

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

>	Lenience, tolerance, flexibility Loyalty, affinity and cohesion
>	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
>	Be reverent, grateful, humble and appropriate
>	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.

Data Review 2020

163,000
employees jointed labor union

865
member enterprises that have implemented the system of congress of workers and staff

Data Review 2020

Rate of labor contract signing
100
%

Coverage of social insurance
90
%

Employees of Hunnan Shaofeng South Cement Company Limited

Employees' hapiness

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

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.

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!

Employee care

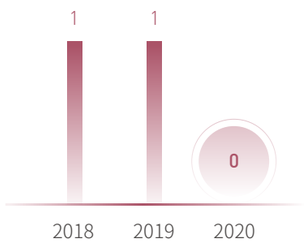
Data Review 2020

2,162,000
person-times of employees participated in occupational health and safety-related training

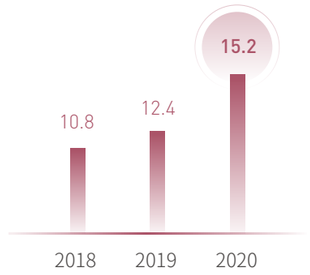
313
member companies having established employee mental health systems or measures

We 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.

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.



New cases of occupational diseases (case)



Occupational health and safety input(RMB 100 million)

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

BNBM Water Proof

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

CTC Group

Nantong Wanda

Sinoma Synthetic Crystals

Xinjiang Tianshan Cement

Yongdeng Qilianshan Cement Group

China National Materials Industry Import & Export Corporation

Sinoma Pingxiang Cement

China Building Materials Academy

Zhonglian Glass

18

overse

The

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 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.

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

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.

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

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.

- A total of RMB 65.211 million has been invested to implement the construction of infrastructure such as the improvement of living environment as well as water and electricity network, residential transformation and tourism supporting facilities
- A total of RMB 140.931 million has been invested in the construction of mining economic transformation engineering projects worth RMB 10 billion in Chizhou City, the construction of workshops poverty alleviation in designated districts and counties, the development of planting and farming industries and the increase of collective economic income
- A total of RMB 16.10 million has been invested to carry out frame structure medical technology complex buildings and health center business-purpose premises construction projects, Chinese medical volunteer actions, charity clinics, medical lectures and others in designated districts and counties for poverty alleviation to help people in poverty-stricken areas realize "sickness to have a medicine"
- A total of RMB 25.753 million has been invested to build "China Building Materials" smart cloud classrooms in Jingyuan County and Yongshan County, and help the school in the resettlement site of Hongguang New Neighborhood, Yongshan County to purchase facilities and equipment
- A total of RMB 18.605 million was invested to strengthen the building of grassroots Party organizations by organizing Party and non-Party members to carry out "six-one" activities in poverty-stricken villages in the designated counties for poverty alleviation, focusing on Party building + poverty alleviation
- An assistance of RMB 1.727 million has been introduced, and special training courses and cadre training courses for poverty alleviation purposes were held in Yongshan County, Shitai County and Jingyuan County, training a total of 1,718 grassroots cadres and 2,293 technical personnel
- We purchased and helped sell agricultural products from poverty-stricken areas totaling RMB 53.116 million

Data Review 2020

266.6

million yuan

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 actitin0 0 DC BT0 continu0 0 DC BT0 continu020.Ttntinu0 amtinu0 , cBT0u0 eaDC BTntinu0 so246 3DC BT0.021 Tc 0.091 Tw 8 0 0 8 51.0276 350.3888 Tm5 0romoting the spirit of p37213ela tinu0 powerful souBT02 (ce tinu0 Spatinu0 aEMCa/MClatinu0 foratinu0 Lan)5 0246 3DC BT0

369

quantitative indicators for social responsibility management

6th

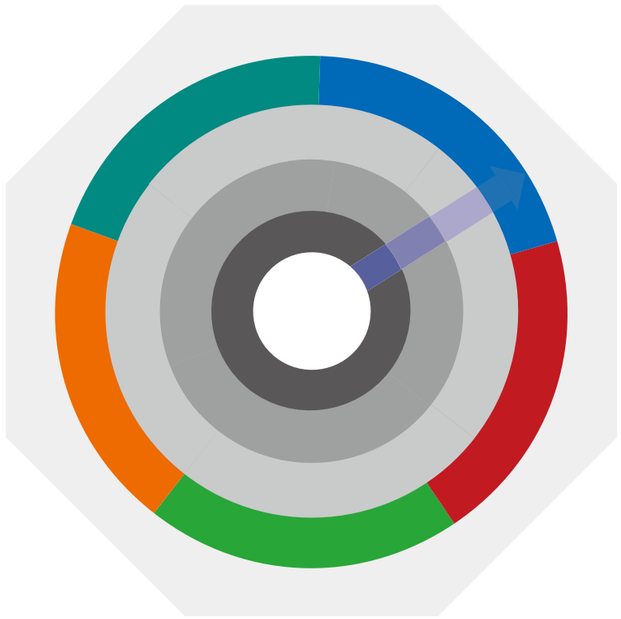
among Top 300 of China's Corporate Social Responsibility Development Index (2020)

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 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

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

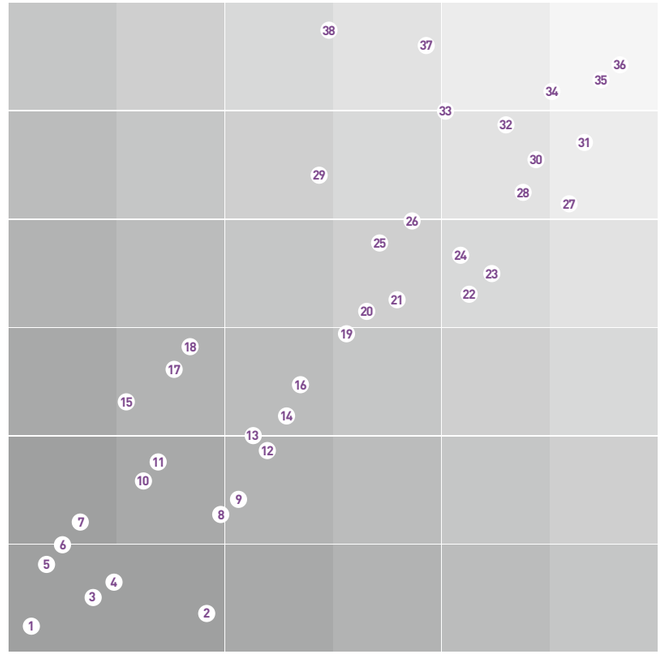
Enriching the social responsibility management platform

Developing social responsibility benchmarking

Strengthening research on responsibilities

Strengthening external publicity

Promoting the CSR report preparation of member enterprises



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

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.

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.

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

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.

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 wining honors over municipal level
1,450

Sales volume of bulk cement
290
million tons

Shipments of CBMI Construction Co., Ltd.

Honor of Responsibility

th

among Fortune Global 500

th

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

th

among the Top 500 Chinese Enterprises

th

among China's Top 500 Manufacturing Enterprises

nd

among Top 100 Chinese Companies in terms of Sustainability Index

th

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

th

among the Top 500 Most Valuable Brands in China

th

among Top 100 Leading Enterprises in Strategic Emerging Industry in China

th

among Top 500 Chinese Enterprise of Credit

nd

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 Shenying 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 Innovation Achievements 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

Pay Tribute to the 100th Anniversary

Return to Original Inspirations

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 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.

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.

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.

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.

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"

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.

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

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.

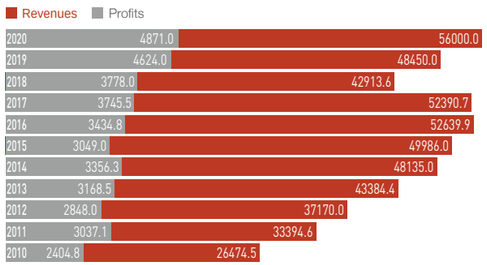
Fortune Top 500 Building Material Enterprises in 2021

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

Unit: RMB 100 million



Data Source: China Buildi/MCMaterial Quantity Economic Supervision Society

Production of Cement from 2010 to 2020

Unit: 100 million tons

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

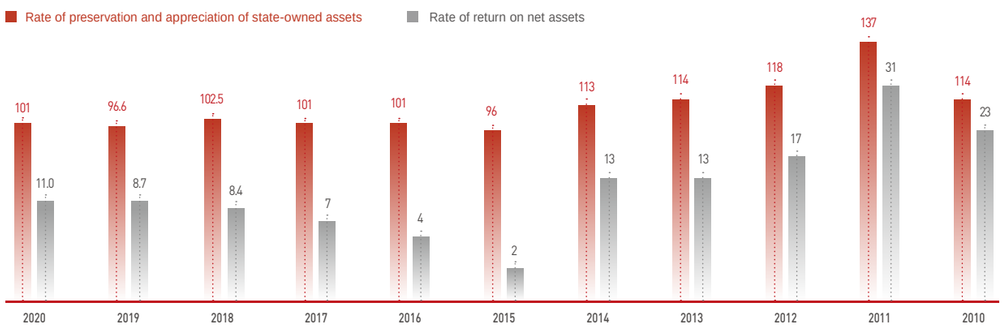
Total Revenues and Profits from 2010 to 2020

Unit: RMB 100 million

		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

Source: National Bureau of Statistics, United States Geological Survey

Unit: %



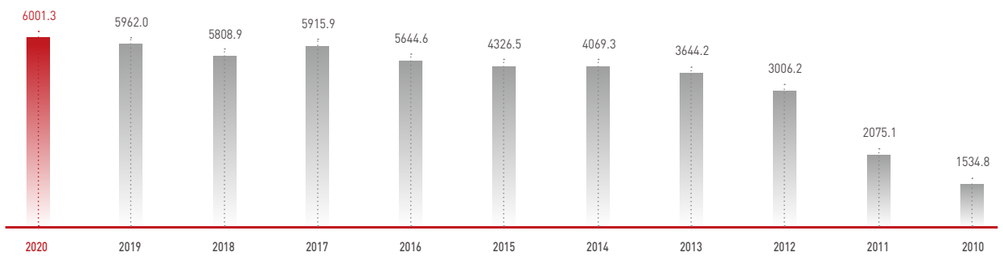
Performance of Listed Companies in 2020

Unit: RMB

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

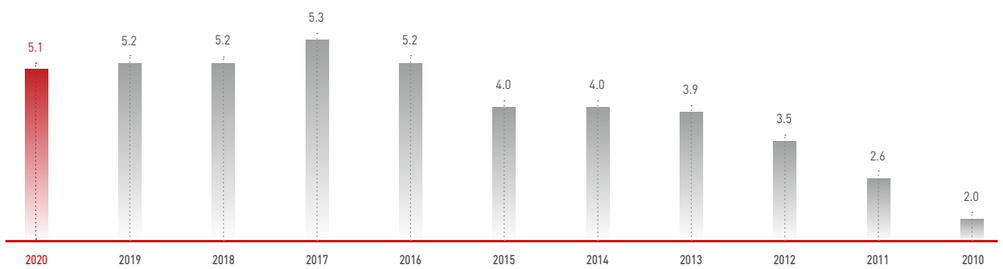
Total Assets from 2010 to 2020

Unit: RMB 100 million



Cement Capacity from 2010 to 2020

Unit: 100 million tons



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

Unit: Item

Year		
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				
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				
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		
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

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

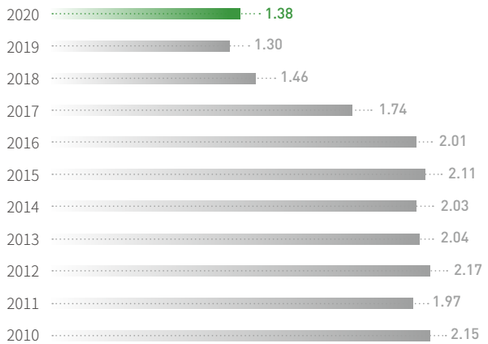
Revenues from Technological Innovation from 2010 to 2020

Unit: RMB 100 million

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



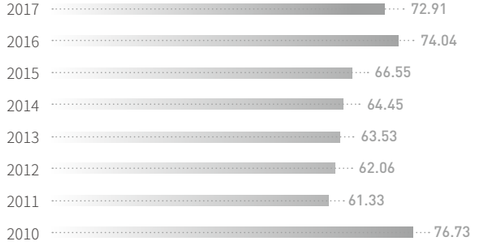
SO_2 and COD Emissions per RMB 10,000 Output Value from 2010 to 2020

Unit: kg/RMB 10,000

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

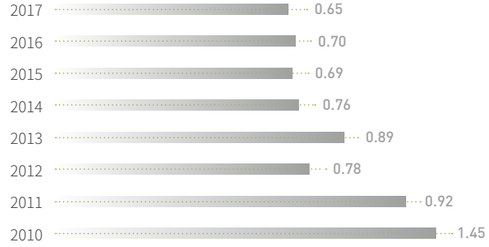
Comprehensive Energy Consumption per Ton of Cement from 2010 to 2020

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

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

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

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%

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

Unit: %

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	——

Progress of Enterprise Annuity from 2010 to 2020

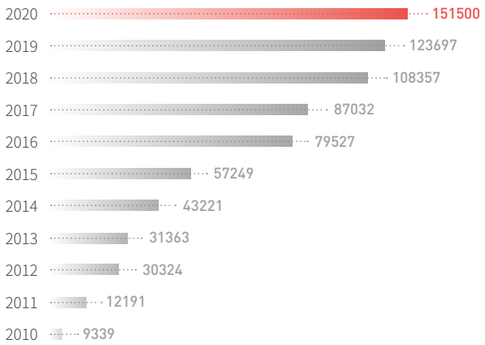
2020	531	95554
2019	207	56174
2018	100	35644
2017	74	24093
2016	71	22871
2015	68	22165
2014	67	21750
2013	67	21131
2012	66	20392
2011	53	13368
2010	38	12811

Employee Training Performance from 2011 to 2020

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

Occupational Health and Safety Investment from 2010 to 2020

Unit: RMB 10,000

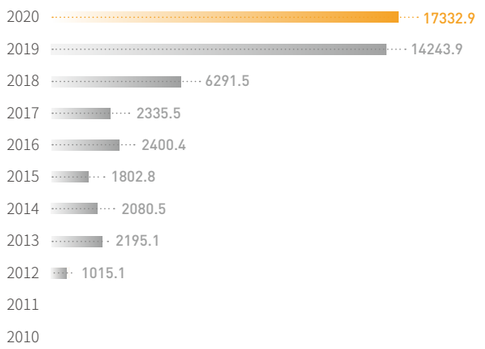


Workplace Safety Performance from 2010 to 2020

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

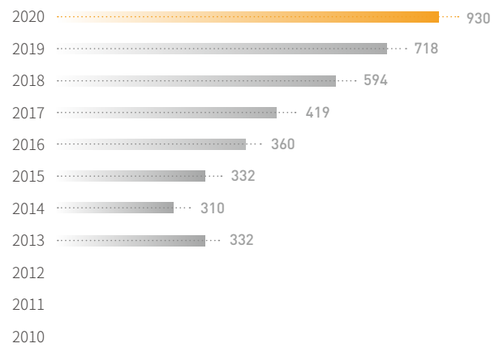
Social Public Welfare Expenditure from 2010 to 2020

Unit: RMB 10,000



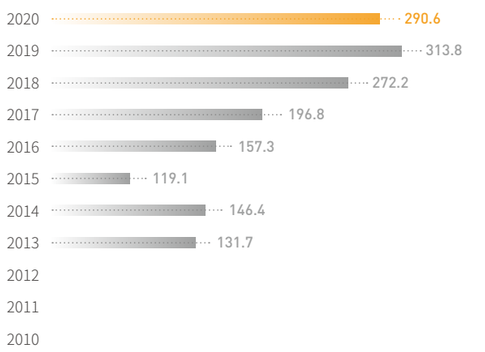
Number of Supported Social Welfare Projects from 2010 to 2020

Unit: Item



Payment of Taxes from 2010 to 2020

Unit: RMB 100 million



Performance in Employment Assurance from 2011 to 2020

Unit: Person

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

Assistance of Students from 2011 to 2020

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	——	——

Volunteer Activity Organization from 2011 to 2020

				of staff
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

Report Norms			102-46、102-50-102-53	P1.1-1.3
Chairman's Address			102-14、102-15	P2.1-2.2、P3.1-3.2、M1.6-1.7、M2.4、S1.4、S4.12
About Us			102-1、102-2、102-4-102-8、102-10、102-18、102-22、102-24、102-16	

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").

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.

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

☐ Market Performance ☐ Technological Innovation ☐ Energy Conservation and Environmental Protection
☐ Employee Care ☐ Corporate Citizenship ☐ 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

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

_____

_____

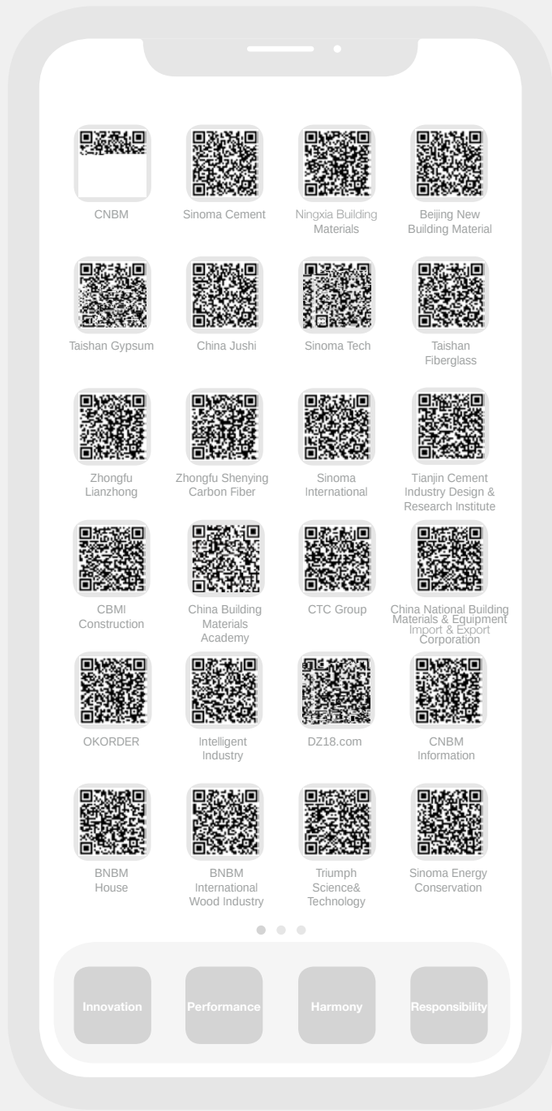
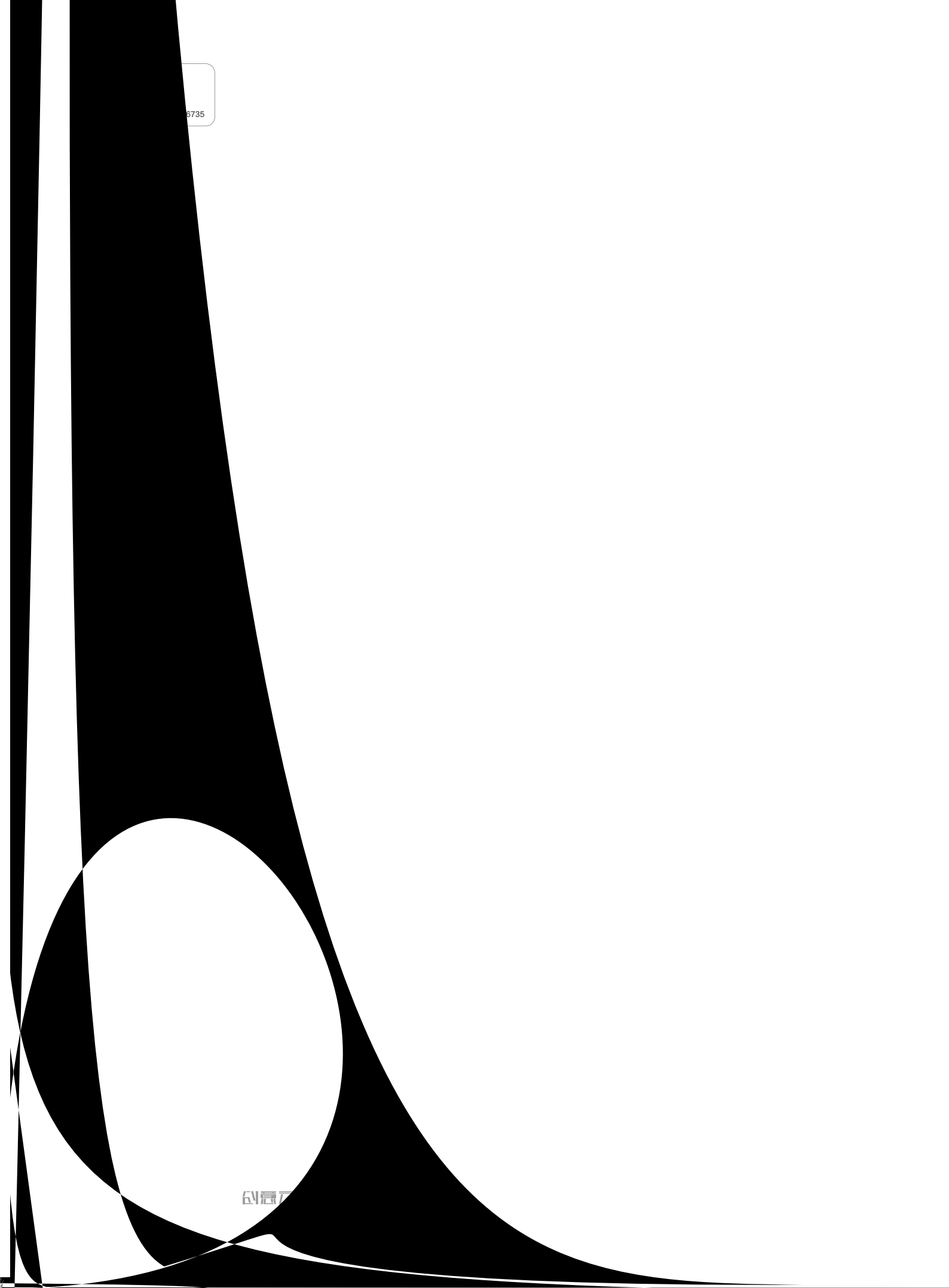
_____

☐ 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

contact and related information. We will keep it reliably confidential.

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

CNBM



Scan with your WeChat to follow our official account