



中国建材股份



2021

China National Building Material Company Limited

Environmental, Social and Governance (ESG) Report

(Stock Code: 03323)

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01 About the Report

The Report is the sixth ESG Report consecutively published by China National Building Material Company Limited (Stock Code: 03323) and all of its subsidiaries. The Report provides the latest information relating to the progress made by the Group towards achieving sustainable development in 2021. The Report mainly includes environmental and social topics related to the Group's sustainable development which are concerned by the Group's stakeholders, including information related to ESG as well as climate-related risks and opportunities, in order to facilitate all stakeholders to better understand the Group's sustainable development concepts, measures and related performance.

The Report mainly covers three business segments of the Group, including basic building materials, new materials and engineering technical services. The Company also discloses key performance indicators as far as possible with supplemental explanations in the Report to set benchmarks for evaluation and facilitating comparisons.

The Report should be read in conjunction with CNBM's 2021 Annual Report (in particular, the "Corporate Governance Report" contained therein) for a comprehensive understanding of the Group's relevant information.

Reporting Period

Unless otherwise specified, the Report covers the period from 1 January 2021 to 31 December 2021. The information presented in the Report includes the Group's specific policies and performance in ESG aspects. Due to the continuity and comparability of the information disclosed, the timeframe of selected contents is adjusted where necessary.

Reporting Scope

The reporting scope of the Report is determined on the principle of materiality. Unless otherwise specified, the material content of the Report is derived from CNBM and all of its subsidiaries.

Reporting Guideline

The Report was prepared in accordance with the Environmental, Social and Governance Reporting Guide under Appendix 27 to the Listing Rules issued by the Stock Exchange, the Guidelines on Fulfilling Corporate Social Responsibilities of Central Enterprises, the Guidelines to the State-owned Enterprises on Better Fulfilling Social Responsibilities issued by the State-owned Asset Supervision and Administration Commission of the State Council, and the recommended disclosures by the Task Force on Climate-Related Financial Disclosures ("TCFD"). Meanwhile, the Report also referred to the Sustainability Accounting Standards Board ("SASB") standards (Engineering & Construction Services sector) and the Corporate Sustainability Assessment ("CSA") issued by the Standard & Poor's Global ("S&P Global"). The Report followed the mandatory disclosure requirements and the "comply or explain" provisions in the ESG Reporting Guide issued by the Stock Exchange, and was prepared based on the reporting principles of materiality, quantitative, balance and consistency.



The threshold at which ESG issues determined by the board of directors of the Company ("Board") are sufficiently important to investors and other stakeholders that they should be reported.

The Company's Actions

During the preparation of the Report, the Company, with the assistance of a professional consulting agency, conducted a materiality assessment to identify topics that were critical to the Group and its main stakeholders, by referring to the standards and guidelines relating to corporate sustainability, including SASB standards (Engineering & Construction Services sector) and recommended disclosures by TCFD. Thereafter, relevant information on material topics was collected and specifically disclosed in the Report. In addition, the Board has been aware of the materiality assessment results and approved the Report.



Quantitative

Key performance indicators ("KPIs") in respect of historical data need to be measurable. The issuer should set targets (which may be actual numerical figures or directional, forward-looking statements) to reduce a particular impact. In this way, the effectiveness of ESG policies and management systems can be evaluated and validated. Quantitative information should be accompanied by a narrative, explaining its purpose, impacts, and giving comparative data where appropriate.

The Company's Actions

The Company has provided information regarding the standards, methodologies, assumptions and calculation tools used for the reporting of emissions/energy consumption in the "Highlights of 2021" of the chapter "Low-carbon and Environmental Protection".



Consistency

The issuer should use consistent methodologies to allow for meaningful comparisons of ESG data over time.

The Company's Actions

The methods adopted by the Company were consistent with those adopted in 2020's ESG Report, and necessary explanations have been made for any changes in these methods.

Assurance of the Report

The Report has been assured by the independent assurance institution CECEP (HK) Advisory Company Limited according to the AA1000 Assurance Standard v3 and an assurance statement has been issued. Please refer to the "Independent Assurance Statement" in the Report for more details.

Confirmation and Approval

The Report was confirmed by the staff members who are responsible for ESG of the Company in May 2022. The Board has reviewed, confirmed, and approved the Report, so as to ensure the Report's content covers the specific policies and performance in key ESG aspects of the Group.

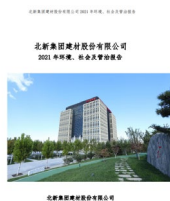
Publication Form of the Report

The Report is published in two languages, traditional Chinese and English. If there is any discrepancy in the content, the traditional Chinese version shall prevail. The traditional Chinese and English PDF files of the Report are available on the Company's official website (<http://www.cnbm.com/col/col1263/index.html?1>) and the website of the Stock Exchange (www.hkexnews.hk).

The Group seeks to improve the transparency of information disclosure and the ability to communicate with stakeholders. Some subsidiaries also prepared and published ESG reports or sustainability reports based on stakeholders' needs for information. There are also other subsidiaries that have prepared or planned for information disclosure in the future to introduce the status of fulfilling corporate social responsibility. Relevant reports are or will be available on the official websites of the subsidiaries.

Feedback on the Report

If you have any comments on the Company's work relating to the ESG report, please contact the Company by the following e-mail: cnbmtd@cnbm.com.cn.



2021 ESG Report of
BNBM



2021 ESG Report of
China Jushi



2021 ESG Report of
Sinoma International



2021 BNBM PNG
LTD Sustainability
Report

Definitions

In the Report, unless the context otherwise requires, the following terms shall have the meanings set out below:

“Beijing Composite”	Refers to	Beijing Composite Materials Co., Ltd
“BNBM”	Refers to	Beijing New Building Material Public Limited Company
“BNBM PNG”	Refers to	BNBM PNG Limited
“BNBMG”	Refers to	Beijing New Building Material (Group) Co., Ltd.
“Building Materials Academy”	Refers to	China Building Materials Academy Co., Ltd.
“China Composites”	Refers to	China Composites Group Corporation Limited
“China Jushi”	Refers to	China Jushi Co., Ltd. (previously known as China Fiberglass Company Limited)
“Jushi Egypt”	Refers to	Jushi Egypt for Fiberglass Industry S.A.E
“Cinda”	Refers to	China Cinda Asset Management Co., Ltd.
“CNBM”, “the Company”	Refers to	China National Building Material Company Limited
“CNBM Trading”	Refers to	China National Building Material Import and Export Co., Ltd.
“ESG”	Refers to	Environmental, Social and Governance
“CTG”	Refers to	Taishan Fiberglass Inc.
“Group”	Refers to	the Company and, except where the context otherwise requires, all its subsidiaries
“Listing Rules”	Refers to	the Rules Governing the Listing of Securities on the Stock Exchange as amended from time to time
“management of three delicacies”	Refers to	improve operating efficiency, enhance refined management and streamline the organizational structure
“Ningxia Building Materials”	Refers to	Ningxia Building Materials Group Co., Limited
“North Cement”	Refers to	North Cement Company Limited

"NRDI"	Refers to	Nanjing Fiberglass R&D Institute Co., Ltd.
"Parent", "CNBMG"	Refers to	China National Building Material Group Co., Ltd. (previously known as China National Building Materials Group Corporation)
"PRC"	Refers to	the People's Republic of China
"Qilianshan"	Refers to	Gansu Qilianshan Cement Group Company Limited
"Report"	Refers to	the Company's 2021 Environmental, Social and Governance Report
"Reporting Period"	Refers to	the period from 1 January 2021 to 31 December 2021
"RMB"	Refers to	Renminbi yuan, the lawful currency of the PRC
"Sinoma"	Refers to	China National Materials Company Limited, a joint stock company incorporated in the PRC
"Sinoma Advanced"	Refers to	Sinoma Advanced Materials Co., Ltd.
"Sinoma Blade"	Refers to	Sinoma Wind Power Blade Co., Ltd.
"Sinoma Cement"	Refers to	Sinoma Cement Co., Ltd.
"Sinoma International"	Refers to	Sinoma International Engineering Co., Ltd.
"Sinoma Lithium Membrane"	Refers to	Sinoma Lithium Membrane Co., Ltd.
"Sinoma Science & Technology"	Refers to	Sinoma Science & Technology Co., Ltd.
"South Cement"	Refers to	South Cement Company Limited
"Southwest Cement"	Refers to	Southwest Cement Company Limited
"Stock Exchange"	Refers to	The Stock Exchange of Hong Kong Limited
"Tianshan Cement" or "New Tianshan Cement"	Refers to	Xinjiang Tianshan Cement Co., Ltd. (New Tianshan Cement refers to Xinjiang Tianshan Cement Co., Ltd. after business integration)
Zhongfu Shenying	Refers to	Zhongfu Shenying Carbon Fiber Co., Ltd.

02 Management's Message

The year 2021 was the beginning of the 14th Five-Year Plan and the start of China's new journey toward building a modern socialist country in all respects. In this extraordinary year, facing the complex and grave external environment and arduous tasks for development, the Group proactively assumed its economic, political, social and national responsibilities in tackling risks and challenges. The Group insisted on the core philosophy of "Smart Use of Resources to Serve the Industrial Construction" and the core values of "Innovation, Performance, Harmony and Responsibility" to seek progress and improve quality unswervingly and steadily. As a result, the Group registered steady growth in business operation and made new achievements in construction and practice of its ESG system, which marked a good start of the 14th Five-Year Plan and satisfactory answers with excellent performance for shareholders and other stakeholders in terms of economic, environmental, social and governance development.

Deepening reform with value management: The Group has opened a new chapter of integration and optimization and has continuously perfected its three-pillar business pattern with basic building materials to consolidate the foundation, new materials to achieve accelerated development, and engineering technical services to create new international business features, so as to make more contributions to the establishment of a new development pattern. The Group has promoted development with reform to further improve its corporate governance mechanism, and has continued to implement the three-year action plan for the reform of state-owned enterprises, especially from three directions, including enhancing governance capability, improving the management system, and optimizing capital distribution, to accelerate the transformation from enterprise-oriented management to capital-oriented management. Consequently, the goal of building a world-class materials enterprise has delivered the initial outcome. Meanwhile, the Group has adopted the concept of sustainable development into corporate governance and identified environmental objectives and action plans based

on the characteristics of business to assist in achieving China's goals of carbon peak and carbon neutrality. During the Reporting Period, the Group further improved its ESG governance structure and developed a comprehensive coordination and management network of ESG work, which strengthened the Board's leadership and guidance on the Group's ESG strategic targets and management strategies, and further defined the responsibilities of the ESG working group. Furthermore, the Group conducted materiality assessments to confirm ESG material topics for the Group, as well as identified and assessed ESG and climate change-related risks and opportunities, so as to develop corresponding measures to improve ESG performance.

Driving green development with safety and environmental management: With continuous innovation as the driving force, the Group has been exploring approaches to the realization of "Carbon Peak and Carbon Neutrality", and has been accelerating its transformation to a green and low-carbon business model, so as to make every effort to protect the lucid waters and lush mountains and build a beautiful China. During the Reporting Period, the Group seized every opportunity for green development. In the segment of basic building materials, the Group realized green development of cement enterprises by giving full play to its world-leading cement manufacturing technology. In the segment of new materials, the Group promoted the internationalization of its new materials, and cultivated a number of candidates with extensive application prospects and huge growth potential. In the segment of engineering technical services, on one hand, the Group supported the stable development of basic building materials segment in terms of scientific innovation, technological transformation and upgrading, energy saving and consumption reduction, progress in "Carbon Peak and Carbon Neutrality", and co-disposal by strengthening top-level design; on the other hand, the Group gave full play to synergies to secure its international business operation by upholding globalization, localization and diversification. The Group also took approaches, including joint research on

low-carbon, zero-carbon and carbon offset practices, CCUS, substitution by hydrogen fuel, standards of key technologies, and also the construction of green mines and environment-friendly factories, implementation of green procurement, enhanced capacity of carbon sink, as well as continued attention and good use of green finance, to achieve excellent performance in carbon reduction, sequestration and management.

Guaranteeing quality with innovative technology: The Group bears in mind the country's most fundamental interests and commits to creating the best materials for the country. The Group has long been focusing on the development of the building materials industry and the improvement of product quality by incorporating the spirit of craftsmanship into modern industrial production and management as well as incorporating the concept of innovation into its core values. In doing so, the Group promotes innovation of strategy and philosophy simultaneously and seeks common development with peer enterprises and enterprises in the industrial chain. On one hand, the Group makes every effort to promote the integration and optimization of each business segment to ensure the quality of products and services, and upholds the principle of customer first to develop a mature service system featuring consultation before sales, reception during sales and service after sales. On the other hand, the Group actively promotes technological innovation of new materials, and it has focused on the breakthrough and investment of bottleneck of core technologies and cutting-edge technologies in the area of new materials, to enhance China's supply security of key materials and to serve China's major strategic needs while promoting digitization of the industry through modes such as intelligent laboratories and digital mines. Furthermore, the Group firmly believes that the interests of the industry take precedence over those of an enterprise. Therefore, the Group is committed to growing with its suppliers and business partners, and establishing a sound supply chain management mechanism. To this end, the Group has prioritized cooperation with partners that offer reliable products and services, have good operation and reputation, adopt environmentally friendly approaches for energy saving and environmental protection, and practice scientific management, so as to manage environmental and social risks in the supply chain and promote the optimization and upgrading of the industry.

Caring for employees and contributing to society: The Group adheres to the people-oriented principle and the philosophy of "talent is the most important resource" to introduce, cultivate and make good use of talents and seek common development with them. The Group respects the differences of each employee, takes care to maintain diversity in the team, and continuously improves human resources policies, employees' benefits, vocational training, leisure activities and assistance to serve and care for the employees. Meanwhile, as a responsible corporate citizen, the Group attaches great importance to fulfilling its social responsibility. The Group actively participates in public welfare activities such as pandemic prevention and control, rural revitalization, assistance to Xinjiang and Tibet, disaster mitigation and emergency relief, volunteer services and support to employees, which deliver tangible benefits to the public. The Group also pays long-term attention to the development of local communities and societies of domestic and overseas operating locations, and is committed to the Belt and Road Initiative, and adheres to the three principles of "contributing to local development, cooperating with local enterprises and serving local residents" for win-win results, so as to make important contributions to local infrastructure construction, social development and improvement of people's lives, and build a community with a shared future for mankind.

The year 2022 is a connecting link for implementing the 14th Five-Year Plan and a critical year for tackling difficulties in promoting high-quality development in all respects. Standing at the new starting point, the Group will continue to take Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as its guidance and implement the philosophy that "lucid waters and lush mountains are invaluable assets", so as to forge ahead with dreams, create a better world with materials, and create a better life with hard work!

03 About CNBM

Company Profile

With Parent, BNBMG, CNBM Trading, Cinda and Building Materials Academy as promoters, the Company was converted into a joint stock limited company on 28 March 2005. The Company's H Shares under the initial public offering were listed on the Stock Exchange on 23 March 2006 (Stock Code:03323) and approximately 150 million H Shares, 300 million H Shares and 240 million H Shares were placed on 9 August 2007, 5 February 2009 and 14 September 2010, respectively. The Company issued bonus shares on 13 June 2011 on the basis of ten bonus shares to be issued for every ten shares held by the Shareholders. On 2 May 2018, the Company and Sinoma completed the share exchange. As of 31 December 2021, the Company had a total issued share capital of 8,434,770,662 Shares.

As of the end of the Reporting Period, the Company owned seven A-share listed companies¹ with approximately 153,109 employees. From 2005 to the end of 2021, the Company's total assets, revenue and profit after tax increased from RMB9.7 billion, RMB4.7 billion and RMB490 million, respectively, to RMB462.5 billion, RMB273.7 billion and RMB25.6 billion, creating good economic and social benefits.



the Company has owned
7 A-share listed companies¹



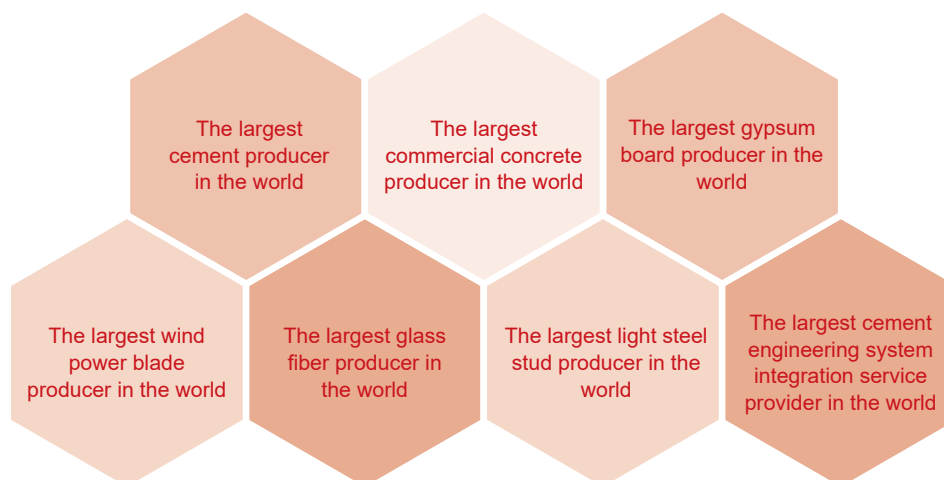
approximately
153,109 employees



at the end of 2021, the Company's total assets, revenue and profit after tax are
RMB **462.5** billion, RMB **273.7** billion and RMB **25.6** billion, respectively

¹ For more details about the Company, please visit: <http://www.cnbmld.com/col/col1263/index.html?1>.

The Group is mainly engaged in basic building materials, new materials and engineering technical services businesses. As regards the current market positions (in terms of the production capacity or contract amount in 2021), the Group is:



The Group continuously advances the three-pillar pattern of basic building materials, new materials and engineering technical services, promotes the management of three delicacies, commits to improving operating efficiency, enhancing refined management, and streamlining the organizational structure to improve the quality of its development. The Group stably accelerates the construction of a world class material enterprise and strives for value creation and shareholders' returns to demonstrate its responsibility and commitment as a central enterprise on the new journey to realize the Second Centenary Goal.

Business Overview

The business segments and the major operating entities of each business segment for the Group as of 31 December 2021 are summarized as follows:

Business Segments	Major Operating Entities	Direct and Indirect Equity Interests Attributable to the Company	Main Products and Services
 Basic building materials	New Tianshan Cement	87.70%	Cement, commercial concrete, aggregates
	North Cement	74.60%	Cement, commercial concrete, aggregates
	Ningxia Building Materials	47.56%	Cement, commercial concrete, aggregates
	Qilianshan	25.04%	Cement, commercial concrete, aggregates
 New materials	BNBM	37.83%	Gypsum board, waterproof
	China Jushi	26.97%	Glass fiber
	Sinoma Science & Technology	60.24%	Glass fiber, wind turbine blade, lithium battery separator
	China Composites	100%	Wind turbine blade, carbon fiber
	Sinoma Advanced	99.65%	Advanced ceramics
 Engineering technical services	Sinoma International	48.78%	Cement and mining technical equipment and engineering services

Company Honors

The Group moves forward constantly and unhesitatingly with dreams and strives to achieve more triumphs. The Group always adheres to implementing the strategy of sustainable development and has been recognized by various Chinese and foreign governments and institutions in many areas such as economy, technology, and environmental protection. In 2021, CNBM and its subsidiaries received a number of honorable awards and were included in various honorable lists, including but not limited to the following:

ESG Honorable Awards (Excerpt)

The First Class of the National Science and Technology Progress Award, the Second Class of the National Technology Invention Award

The Second Prize of the Sell-side Company with the Greatest Social Responsibility in the Elementary Raw Materials Section in the Asia-Pacific Region elected by institutional investors in 2021

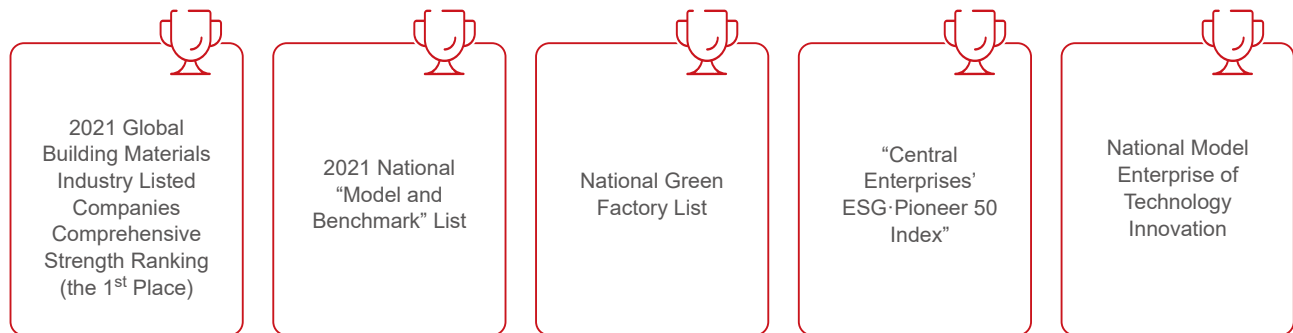
The 2021 Green Factory of Grinding Enterprise in the Cement Industry

The “Excellent Issuer of Corporate Bonds” and the “Special Award for Pandemic Prevention and Control” of Shanghai Stock Exchange in 2020

The 2020 Best Internal Control Award of Listed Companies in Zhejiang, etc.



ESG Honorable Lists (Excerpt)



In the future, the Group will unswervingly implement the new development philosophy to promote high-quality development and strive to build a world-class enterprise with global competitiveness.



Highlights of 2021

This section illustrates the performance of the Group on business development during the Reporting Period.

Business Performance



Sales volume of cement and clinker (in thousand tonnes)

372,532 388,795
2021 2020



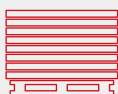
Sales volume of commercial concrete (in thousand m³)

111,832 111,527
2021 2020



Sales volume of aggregate concrete (in thousand tonnes)

103,818 78,907
2021 2020



Sales volume of gypsum board (in million m²)

2,378 2,015
2021 2020



Sales volume of glass fiber yarn² (in thousand tonnes)

3,092 2,828
2021 2020



Sales volume of wind power blade (MW)

15,887 17,322
2021 2020



Sales volume of lithium battery separator (in million m²)

685 389
2021 2020



Sales volume of waterproofing membrane (in million m²)

154 143
2021 2020



Sales volume of carbon fiber (in thousand tonnes)

6.1 3.8
2021 2020



Sales volume of advanced ceramics (in thousand tonnes)

108 81
2021 2020



Revenue from engineering services (RMB million)

46,906 39,915
2021 2020

² Data for 2020 was recalculated due to business reorganization. Data in the Report shall prevail.

Economic Performance



Revenues (RMB million)

273,683 254,843
2021 2020



Income tax paid³ (RMB million)

7,969 8,396
2021 2020



Earnings after taxation (RMB million)

25,619 21,664
2021 2020



Profits attributable to equity holders of the Company (RMB million)

16,218 12,563
2021 2020



Net cash generated from operations (RMB million)

50,090 64,249
2021 2020



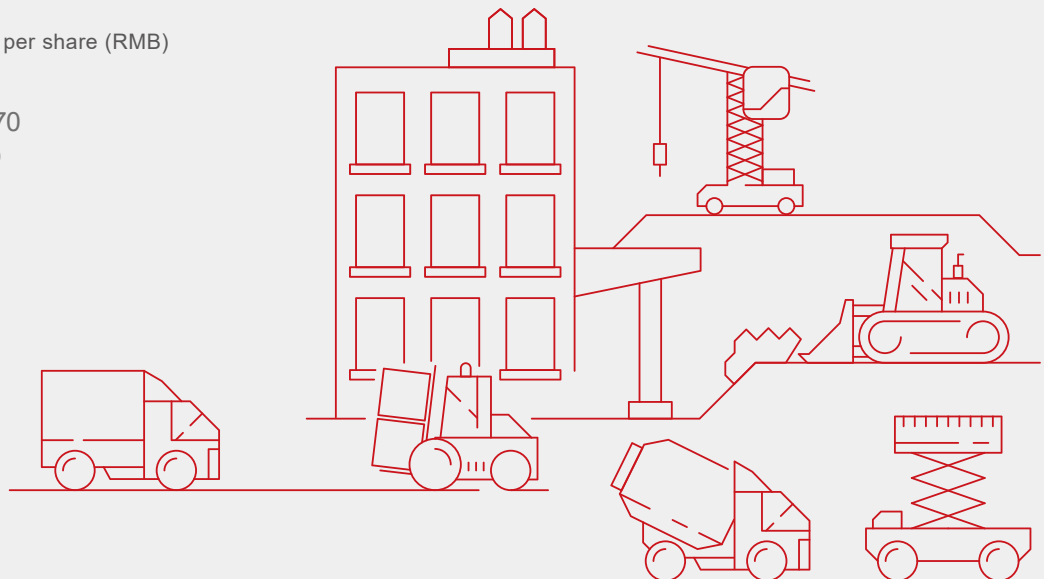
Earnings per share - basic (RMB)

1.923 1.489
2021 2020



Proposed final dividend per share (RMB)

0.693 0.470
2021 2020



³ Income tax expense

04 Responsible Governance

As a leading enterprise in the comprehensive building materials industry, the Group aims to consolidate and develop sustainable domestic and foreign building materials markets through corporate governance. With sound corporate governance under the management of the Group and concerted efforts of all employees, the Group delivered good results in governance of sustainable development, risk management and control, and integrity building during the Reporting Period.

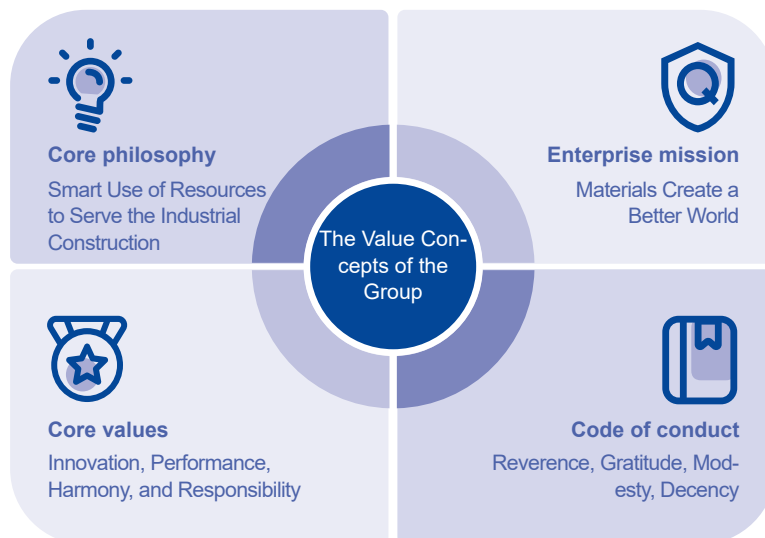
- Concepts of Sustainable Development
- Governance of Sustainable Development
- Risk Management and Internal Control
- Integrity Building and Code of Conduct
- Stakeholder Communication
- Materiality Assessment of Topics
- Highlights of 2021





Concepts of Sustainable Development

Corporate culture is the soul of an enterprise. The Group's unique culture system and philosophy of sustainable development are underpinned by its strong cultural background and great sense of responsibility as a state-owned enterprise. The Group adheres to its core philosophy of "Smart Use of Resources to Serve the Industrial Construction" and core values of "Innovation, Performance, Harmony, and Responsibility". The Group makes every effort to do its best in pandemic prevention and control, operation and management, technological innovation, and realization of "Carbon Peak and Carbon Neutrality" goals. In addition, the Group strengthens its management of sustainable development and fulfills its responsibilities as a corporate citizen.



Governance of Sustainable Development

To proactively fulfill its responsibilities as a corporate citizen, engage in building a harmonious society, and achieve balanced development of the enterprise and society, the Company has further improved its ESG governance structure following the opinions and guidelines on the disclosure of ESG-related information by listed companies under the Listing Rules, so as to further enhance the Group's ESG performance and promote sustainable development. Approved by the Board, the Company formulated and implemented the ESG Working Group Management System of CNBM, which defines the Company's ESG governance structure. In addition, to better respond to the nation's advocacy of "Carbon Peak and Carbon Neutrality" development and addressing climate change, the Company is actively discussing about further strengthening the management duties and works concerning climate change in its ESG governance structure.

The Board

As the highest decision-making body of the Company's ESG work, it is responsible for the Company's ESG strategy and reporting. Its main responsibilities include:

- Studying and formulating the overall goals, management strategies, and management policies of ESG management;
- Evaluating and determining risks and opportunities concerning ESG, to ensure the Company sets reasonable and effective system for risk management and internal control;
- Deliberating important ESG management issues, including but not limited to deliberation and approval of ESG reports, review of the annual progress of overall targets, etc.



ESG working group

As a working group under the Board, it is authorized by the Board to assist the Board in guiding and supervising the Company to implement the management of ESG issues and report to the Board regularly. Members of the working group consist of directors of the Board or senior management, functional departments related to ESG, and specialized personnel in charge of ESG works. Its main responsibilities include:

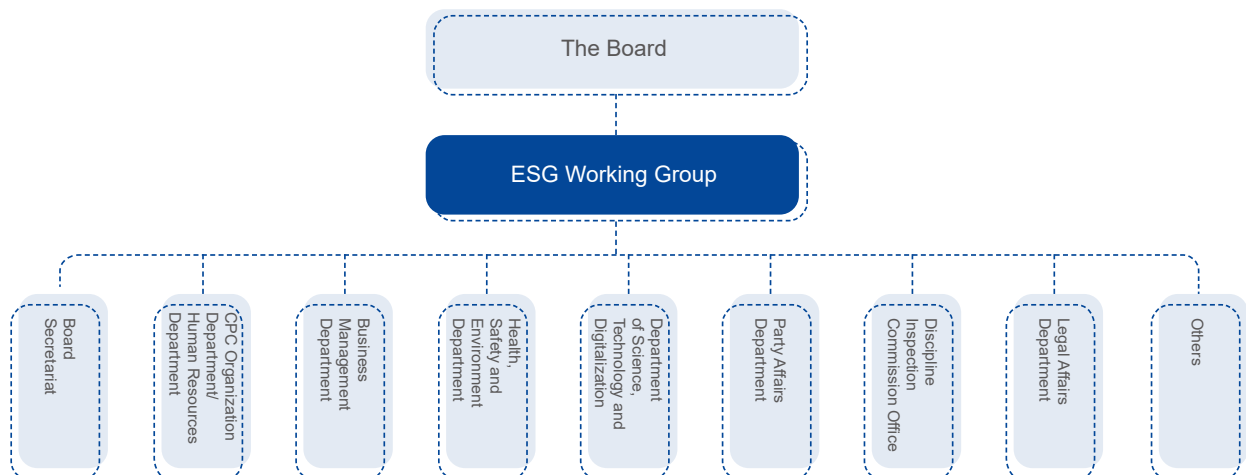
- Organizing and implementing ESG works, setting up related policies and procedures and report to the Board for approval;
- Coordinating and supervising the Group's implementation of ESG works;
- Reviewing the progress of achieving ESG targets and assisting the Board to review;
- Reporting the ESG management works (including but not limited to evaluation, prioritization, and management of material ESG issues) to the Board regularly;
- Urging and inspecting the implementation by functional departments related to ESG and specialized personnel in charge of ESG, etc.



Functional departments related to ESG and specialized personnel in charge of ESG work

Including but not limited to the Board Secretariat, Communist Party of China ("CPC" or "Party") Organization Department/ Human Resources Department, Business Management Department, Health, Safety and Environment Department, Department of Science, Technology and Digitalization, Party Affairs Department, Discipline Inspection Commission Office, Legal Affairs Department and other functional departments. Their responsibilities include:

- Establishing and improving the norms and procedures of ESG management;
- Taking charge of collecting, merging and reporting relevant information and materials;
- Taking the responsibility of implementing ESG projects and assisting with the organization of related practical activities;
- Contributing to the advocating training of ESG and the communication with stakeholders, etc.



! Risk Management and Internal Control

To comply with relevant domestic laws and regulations as well as provisions under the Listing Rules, strengthen the Company's risk management and internal control management, and inspect and safeguard the realization of the Company's business management objectives, the Company has formulated a series of internal control management systems in line with the Company's actual situation, which covers financial supervision, operational regulation, compliance supervision, risk management, and other aspects, and has conveyed the systems to its employees.

The construction of risk management and internal control system in CNBM consists of three parts:



Daily Risk Management⁴

Each department, as the first line of defense in daily risk management, has the function of management and internal control, and takes the responsibilities of establishing procedures at the forefront to identify, confirm, manage and report risks. The Company has established an effective process-oriented business management system covering both the management and the departments, and it has also continuously standardized the design of relevant processes and key control points to improve process efficiency and execution effectiveness.



Continuous Risk Monitoring and Control

Specialized departments (including the Legal Affairs Department, etc.), as the second line of defense in risk management, provide support for various departments within the organizational governance structure to ensure that existing risks are managed on a cost-effective basis and are controlled to an acceptable level. In addition, specialized departments sort out all information disclosure requirements for the Company and develop corresponding disclosure procedures according to different targets of information disclosure and importance level of information. They also constantly introspect and improve the reporting line and function of the management to the Board, and regularly carry out benchmark practice and gap analysis to further optimize reporting functions and organizational structures. By preparing the comprehensive risk management report, the Company has established a risk management mechanism that involves the identification and assessment of risks, prevention, and rectification as well as post evaluation.



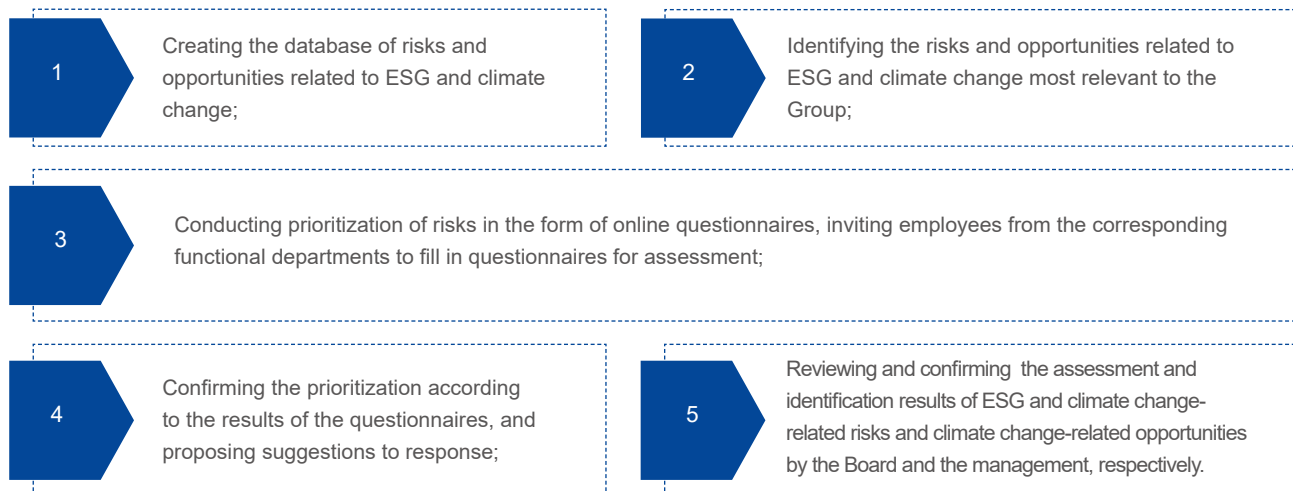
Independent Internal Audit

The Audit Committee regularly hears professional and internal audit opinions, independently evaluates and monitors the Company's operation and management, business development, and financial status, and reviews the enforcement of high-level corporate strategies, to further improve internal control, financial monitoring, and risk management.

⁴ Including business and strategic risk management.



Meanwhile, ESG and climate change-related risks are important elements in risk management. The Group conducted dedicated identification and assessment of ESG and climate change-related risks and opportunities. Assessment of climate change-related risks and opportunities is conducted by the Group following the TCFD recommended disclosure framework. The process of identifying and assessing ESG and climate change-related risks carried out by the Group during the Reporting Period is as follows:



Based on its own business characteristics, referring to documentation on risks related to corporate sustainable development which includes the Climate Risk Technical Bulletin of SASB and the Recommendations of the Task Force on Climate-related Financial Disclosures by TCFD, reviewing the development trend of ESG, and taking the actual business and operation of Chinese building materials industry into consideration, the Group identified the most relevant risks and opportunities concerning ESG and climate change. With online questionnaires, the Group collected opinions from the responsible personnel of relevant departments on the prioritization of ESG and climate change-related risks. According to the result of the questionnaires, the result of the assessment of ESG and climate change-related risks as well as climate change-related opportunities was confirmed. After the identification and assessment, the Group found no major ESG risks. However, the Group has still taken appropriate management methods in environmental and social aspects according to the actual situation to better manage and control the risks and to seize the opportunities. For more details of the results of the identification and assessment of climate change-related risks and opportunities, please refer to the “Addressing Climate Change” section in the Report.

Integrity Building and Code of Conduct

The Group believes that integrity building is a cornerstone of corporate governance and resolutely cracks down on any forms of corruption. The Group strictly abides by the laws and regulations of the PRC, such as the Criminal Law of the PRC and the Anti-Money Laundering Law of the PRC. In addition, the Group has formulated internal rules and regulations, such as the Responsibility System for Improving the Party Ethic and Upholding Integrity of CNBM, the Opinions of the Party Committee of CNBM on Implementing the Primary Responsibility of Improving the Party's Ethic and Upholding Integrity, the Opinions of the Discipline Inspection Commission of CNBM on Implementing the Supervisory Responsibility of Improving the Party's Ethic and Upholding Integrity. On top of that, the Company has established and continuously improved systems for punishment and prevention of corruption, including the Measures for the Management of Integrity History of Leaders and Cadre of CNBM, the Guidance and Opinion on Strengthening the Prevention and Control of Integrity Risks of Overseas Subsidiaries of CNBM, and the List of Supervisory Responsibilities of the Discipline Inspection Commission of CNBM for Comprehensively Implementing Strict Party Governance. The Group takes the improvement of executive ability of regulations as the leverage and has gradually established a sound system of combating corruption and upholding integrity. This has consolidated the Group's foundation of improving the Party's ethic, upholding the integrity and anti-corruption.

To enforce the Group's code of conduct in daily operation, the Group encourages, urges, and requires leaders, employees, and collaborators at all levels to comply with the code of conduct by asking them to sign a written agreement. In 2021, the CNBM Party Committee signed a Letter of Responsibility on Improving the Party's Ethic and Upholding Integrity with the party organizations of each business segment respectively. The Letter of Responsibility on Improving the Party's Ethic and Upholding Integrity clarifies the inspection, assessment, accountability, and supervision mechanisms for improving the Party's ethic of work and upholding integrity, and enterprises at all levels are required to sign the document. Furthermore, the CNBM Party Committee signed a Letter of Commitment for Leaders and Cadre to Practice Integrity and Self Discipline with the middle management of the Company and the management of the Company's subsidiaries in each segment to urge them to comply with relevant rules and regulations. The CNBM Party Committee also promoted the use of an Integrity Notification Letter within the Company's headquarters and established integrity restriction mechanism with collaborators. These efforts have further strengthened the integrity building within the Group with good results.



In addition, the Group thoroughly enforces the Rules on Handling Accusations by Disciplinary Inspection and Supervision Authorities, earnestly deals with all kinds of clues received, and ensures that all matters related to petition letters, visits and complaints are replied and handled. The Group also carries out integrity and warning education through various channels and means, such as "Monthly Talks on Improving the Party Ethics and Integrity Building" and watching warning education films, to create a positive atmosphere and a culture of integrity in the Group as well as to enhance the Group's governance efficiency.

The Group has established a dedicated petition system, and ensured the independence and confidentiality of the petition reporting process, to ensure the complaint and reporting channel for employees is safe and smooth. Employees can submit complaints or comments about the Group's internal affairs. Following the Rules on Handling Accusations by Disciplinary Inspection and Supervision Authorities, the Group encourages employees to report any irregularities to the Company's Discipline Inspection Commission in time, to create a positive atmosphere and a culture of integrity in the Group. Employees may submit their complaints or comments anonymously. The petition system will keep all submitted information confidential. Employees may also report to the Company's Audit Committee ("Audit Committee") by mail or email. The Audit Committee will maintain the confidentiality of these employees to the fullest extent permitted by law.



The Company held the 2021 Party Ethics and Integrity Building and Anti-Corruption Work Conference

On 4 February 2021, the Company held the 2021 Party Ethics and Integrity Building and Anti-Corruption Work Conference. At the conference, the Company summarized its work on Party ethics and integrity building and anti-corruption in 2020, and arranged the work for 2021. This conference was held in the form of video (telephone) with more than 6,000 participants.



The Company held the 2021 CNBM Video and Telephone Conference on Warning Education

On 24 August 2021, the Company organized the Video and Telephone Conference on Warning Education. Through analysis of typical cases, the conference strengthened participants' ability to resist corruption, prevent change, and defend risks, as well as the defensive line of ideology and strictly clarified the discipline and regulations. This conference was held in the form of video with 832 parallel sessions and 10,207 participants in total.



Stakeholder Communication

Maintaining effective communication with stakeholders is an important part for the Group's long-term development and management. The Company identifies the key stakeholders who are related to the Group's operation, and keeps communication with them through meetings, regular visits, and satisfaction surveys, etc., to understand their expectations for, interests in and requirements for the Group's development process and future. The Group will take measures and strive to respond and meet the needs of key stakeholders according to its production and operation situation.

The Company mainly identifies relevant individuals or groups as its key stakeholders through the following three criteria:

- whether they have invested or will invest in the Group;
- whether they influence the business operation of the Group;
- whether they have interests in or are affected by the business, products, services, and relationships of the Group.

The Company has identified eight key stakeholders, either individuals or groups:



During the development, design, construction, and operation process of various manufacturing projects in the PRC and overseas, the Group values opinions from key stakeholders. At the preliminary design stage of projects, the Group will collect opinions from residents in the surrounding areas on the development of the project through public consultation, to deeply understand their concerns. In addition, the Group will commission professional environmental assessment agencies to comprehensively assess the environmental impact of the project and develop mitigation plans accordingly, so as to minimize the potential impact of the project on its surrounding environment and communities.

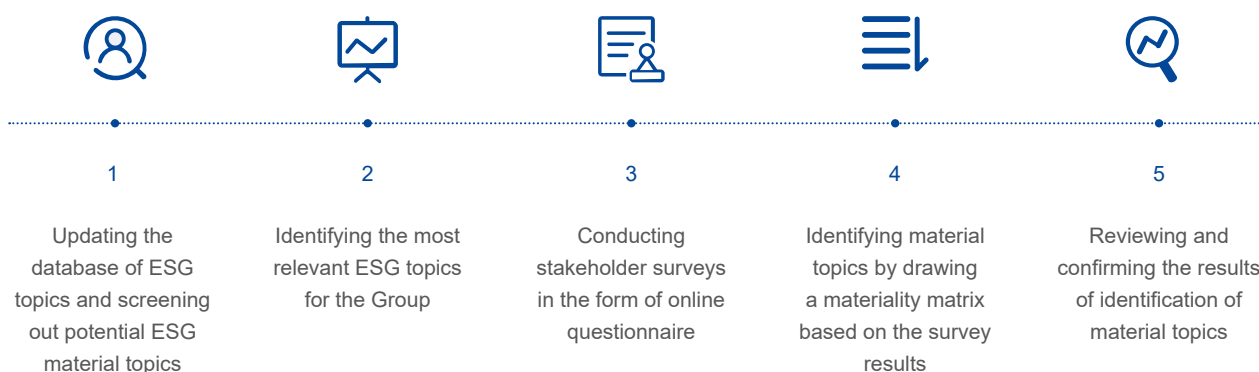
⁵ Such as tertiary education institutions, research institutions, professional groups or individuals.

The Group's communication channels and frequency with different key stakeholders are as follows:

Key Stakeholders	Main Communication Channels	Frequency
 Employees	- Employee meeting/forum - Employee performance appraisal interview - Employee satisfaction survey - On-site investigation and research - Recreational activity and voluntary activity for employees	Regularly/From time to time
 Governments/ regulatory authorities	- Telephone/email - Meeting and interview	Regularly/From time to time
 Clients	- Telephone/email - Interview	Regularly/From time to time
 Suppliers/ contractors	- Issuance of invitation for bids on procurement of products/services - Inspection and supervision of work - Supplier conference - Telephone/email - Interview	Regularly/From time to time
 Shareholders/investors	- General meeting - Investor conference - Press release/announcement - Annual/interim result presentation - Analyst seminar - Roadshow - Visit - Corporate Day	Annually/Regularly/From time to time
 Members of communities/ organizations	- Telephone/email - Interview	Regularly/From time to time
 Media	- Press release/announcement - Media interview	Regularly/From time to time
 Business partners	- Inspection and supervision of work - Telephone/email - Interview	Regularly/From time to time

Materiality Assessment of Topics

To identify the most concerned ESG topics of the Group's key stakeholders, so as to confirm the priority of information to be disclosed in the Report, the Company conducted a survey on material topics during the preparation of the Report and identified the material topics to be focused on in the ESG Report for the Reporting Period.



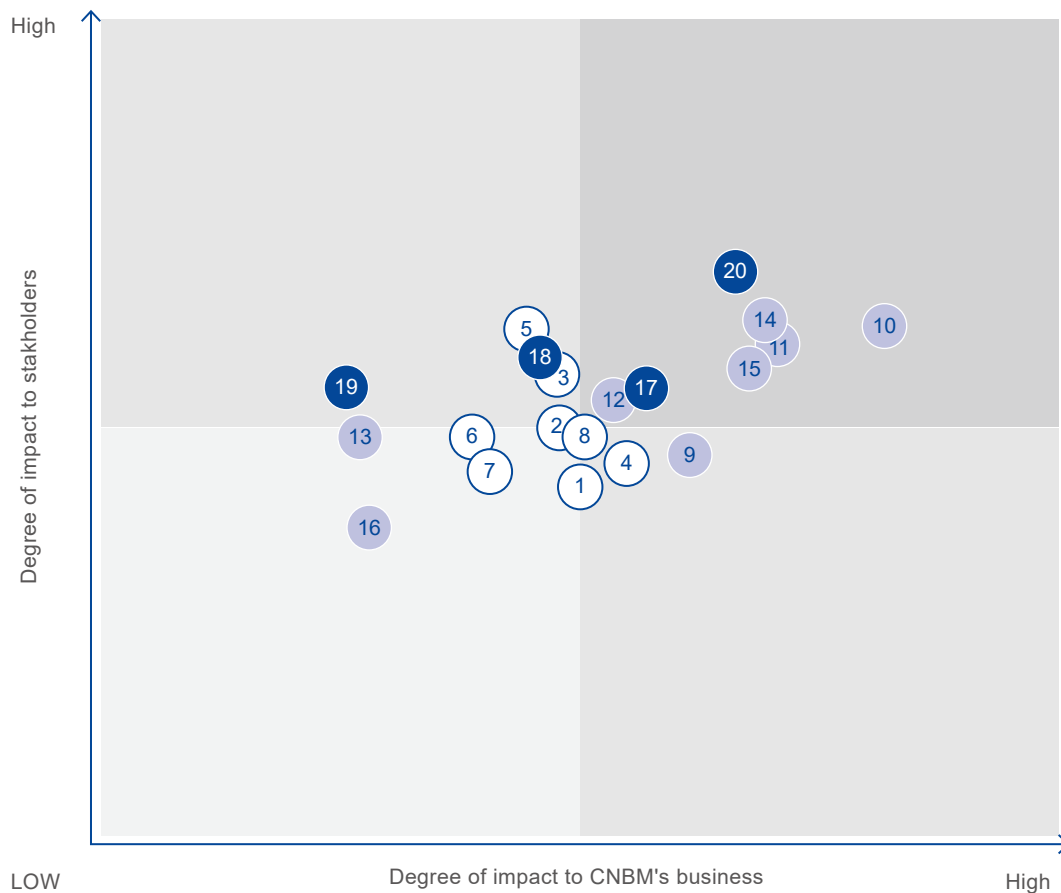
Through a comprehensive analysis of the data collected from the survey, the Company came with the material topics as listed in the matrix above and identified eight topics⁶ that were of most concern to the aforementioned key stakeholders. The Report will focus on these material topics and disclose relevant information to respond to the concerns of the aforementioned key stakeholders.

Areas	Material Topics	Responding Chapters
Environmental area	Project-related ecology and natural resources conservation	Low-Carbon and Environmental Protection – Green Operation, Green Manufacturing, Green Ecology
Social area	Employee occupational health and safety	Caring for Employees – Safety and Health
	Employee career development and training	Caring for Employees – Co-Development
	Labor standards	Caring for Employees – Standardized Employment, People-Oriented, Equality and Diversity
	Ensuring the quality of products and services	Quality Assurance – Product Quality
	R&D investment and innovation	Quality Assurance – Scientific Research and Innovation
Governance area	Anti-corruption and advocating integrity	Responsible Governance – Integrity Building and Code of Conduct
	Compliance with laws and regulations	Responsible Governance – Risk Management and Internal Control

⁶Material topics are in bold blue.

Based on the characteristics of the Company's development strategies and business operation and referring to relevant standards and guidelines on corporate sustainability such as the SASB standards (Engineering & Construction Services sector) and the TCFD recommended disclosure framework, the Company comprehensively considered the current development background and trend of the industry and collected extensive opinions from major stakeholders through online questionnaires. A total of 3,654 valid responses were received from directors, the management of the Company, employees, government and regulatory authorities, clients, suppliers/contractors, shareholders/investors, community members/organizations, media, and business partners. Based on stakeholders' feedback, the Company has identified the material topics for the Report after analysis.

CNBM 2021 Materiality Matrix



Environmental Topics

- ① Exhaust gas emission and management
- ② Wastewater discharge and management
- ③ Solid waste discharge and management
- ④ Greenhouse gas emissions and management
- ⑤ Energy use and efficiency
- ⑥ Water use and efficiency
- ⑦ Responding to climate change
- ⑧ Project-related ecology and natural resources conservation

Social Topics

- ⑨ Human resource management
- ⑩ Employee occupational health and safety
- ⑪ Employee career development and training
- ⑫ Labor standards
- ⑬ Supply chain management
- ⑭ Ensuring the quality of products and services
- ⑮ Research & development (R&D) investment and innovation
- ⑯ Community investment and participation

Governance Topics

- ⑰ Anti-corruption and advocating integrity
- ⑱ Anti-unfair competition
- ⑲ Corporate information disclosure
- ⑳ Compliance with laws and regulations

Q Highlights of 2021

This section illustrates the performance of the Group on integrity building during the Reporting Period.

Integrity Building



Held and organized training on anti-corruption (commercial bribery) (Sessions)

3,253

2021

3,169

2020



Employees attended training on anti-corruption (commercial bribery) (Person-Times)

82,830

2021

79,620

2020



Among which: anti-corruption (commercial bribery) training attended by directors (Person-Times)

2,058

2021

2,026

2020





Among which: anti-corruption (commercial bribery) training attended by employees except for directors (Person-Times)

80,772 77,594

2021

2020



Number of cases involving bribery, extortion, fraud, and money laundering

0

2021

0

2020



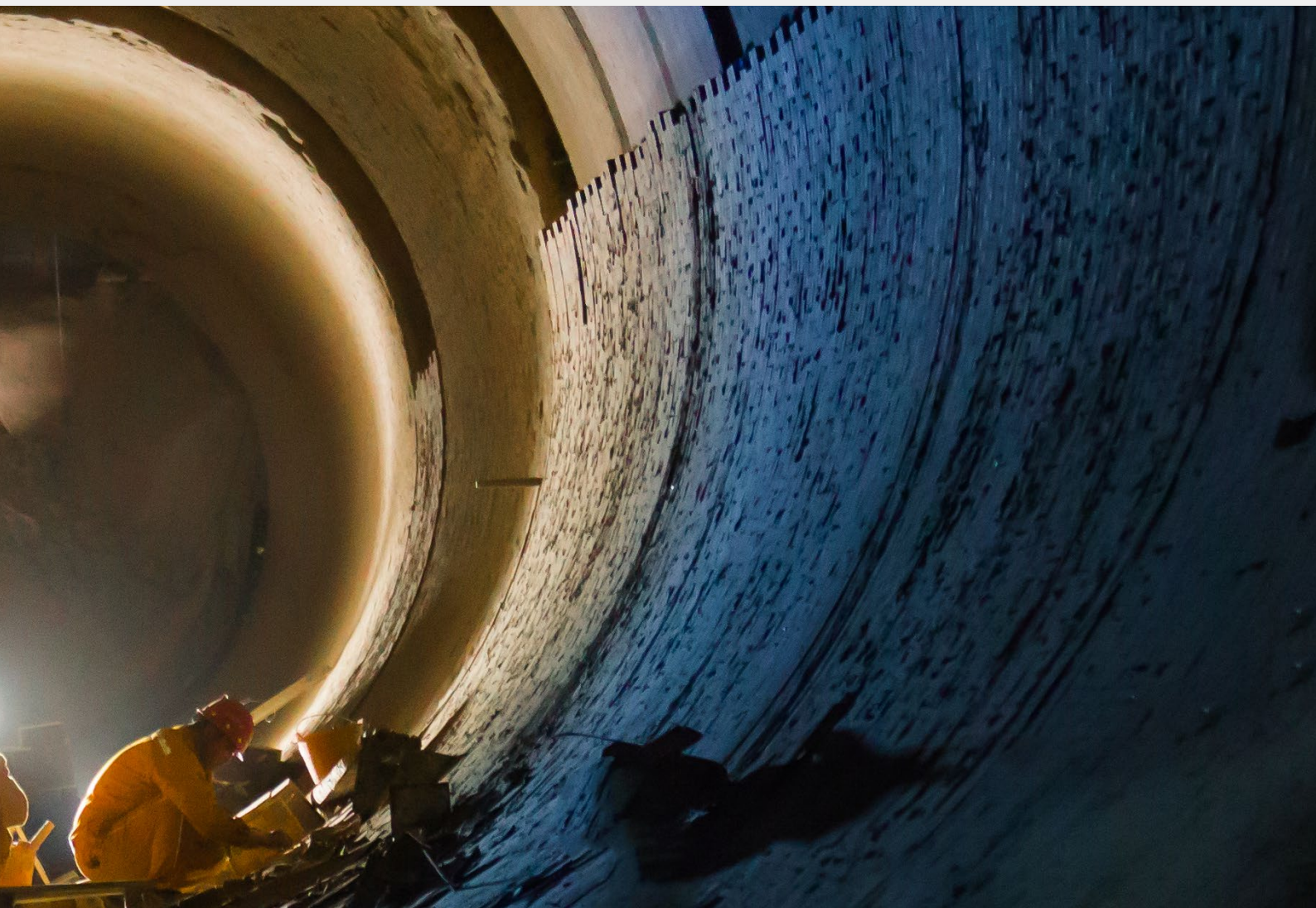
Number of cases involving violation of code of conduct

0

2021

0

2020



05 Low-carbon and Environmental

Implementing the philosophy that lucid waters and lush mountains are invaluable assets, the Group has been conserving lucid waters and lush mountains with green technology, protecting the ecology with green manufacturing and facilitating energy substitution by advancing green industries. In response to the Action Plan for Reaching Carbon Dioxide Peak Before 2030, China's Policies and Actions for Addressing Climate Change, and the National "14th Five-Year Plan" for Promoting Clean Production, the Group has strictly implemented a staggered production mode and conducted clean production, and curtailed the production for environmental protection. Specifically, the Group has been improving policies on the elimination of backward capacity and capacity substitutions at reduced levels, and paying equal attention to cutting capacity and output. The aim is to maintain a healthy operating environment for the industry and to transform into a high-end, intelligent, and green enterprise.

- Green Operation
- Addressing Climate Change
- Green Manufacturing
- Green Products
- Green Ecology
- Highlights of 2021



al Protection



Green Operation

Committed to maintaining a green operating environment, the Group resolutely implements the laws, regulations, and systems promulgated by the national and local government, and by the Group itself regarding environmental protection. The Group continuously improves its management systems and methods in environmental protection, and actively advocates the optimized use of resources and green office to save energy, reduce emissions and improve resource usage efficiency.

Compliance with Laws and Regulations

In order to prevent and control pollution and reduce pollutant discharges, the Group strictly abides by and implements the Environmental Protection Law of the PRC, the Environmental Protection Tax Law of the PRC, the Atmospheric Pollution Prevention and Control Law of the PRC, the Water Pollution Prevention and Control Law of the PRC, the Soil Pollution Prevention and Control Law of the PRC, the Water and Soil Conservation Law of the PRC, the Law of the PRC on the Prevention and Control of Environment Pollution Caused by Solid Wastes, the Law of the PRC on Prevention and Control of Pollution from Environmental Noise, the Cleaner Production Promotion Law of the PRC, the Energy Conservation Law of the PRC, the Emission Standard of Air Pollutants for Boilers, the Emission Standard of Air Pollutants for Industrial Kiln and Furnace, the Measures for the Environmental Emergency Response Management, the Emission Standard of Air Pollutants for Cement Industry, Measures for the Administration of Permit for Operation of Dangerous Wastes, and other laws and regulations concerning air and greenhouse gas emissions, discharges into water and land and waste generation that have a significant impact on the Group. Concerning the aforementioned laws and regulations and the established internal systems of the Parent, the Group has developed the Management System for Environmental Protection of CNBM, the Management Measures for Environmental Emergency Response of CNBM, the Management Measures for Environmental Emergency Report of CNBM, and the Management Measures for Energy Conservation and Emission Reduction of CNBM. Meanwhile, each subsidiary has developed its energy conservation and emission reduction systems according to its characteristics, taking into account relevant national and local laws and regulations and the Group's internal management measures. By developing and implementing relevant internal emission management policies, the Group has achieved good results in preventing and controlling emissions to the atmosphere, discharges into water bodies and land, and generation of solid wastes.

Refined Management

To better manage environmental protection in production enterprises, CNBM continuously improves its management systems on energy conservation, emission reduction, and environmental protection in line with the requirements of relevant national laws and regulations and takes into account its actual situation. The Group constantly upgrades established environmental, safety, and health management systems, improves information disclosure aiming to improve management, and optimizes management workflows, including pre-identification and assessment, interim review and audit, and post-performance evaluation. The Group's sustainability has been secured due to increased day-to-day management efficiency and risk prevention at the source. In addition, the Group's monthly data on energy conservation and emission reduction is collected by an integrated information management system which enables information management at all levels. In this way, the Group can stay on top of each subsidiary's production performance promptly, analyze and identify possible problems, and provide timely feedback for rectification. Each subsidiary of CNBM has also developed its strategies, policies, and plans for energy conservation and emission reduction as appropriate.

The Group implements a standardized management system to enable energy conservation and clean production through refined management. Each subsidiary of the Group in the manufacturing segment has established a standardized system for quality, environment, and energy management. In terms of team building of energy conservation and emissions reduction, the Group continuously enriches the knowledge of its talent teams and improves their capability for energy conservation and emission reduction.

In addition, in response to the environmental protection issues identified by the Fifth Ecological and Environmental Protection Inspectorate of the Central Government during the ecological and environmental protection inspection of CNBMG in 2020, the Parent developed the Rectification Plan of CNBMG for Thoroughly Implementing the Feedback from the Ecological and Environmental Protection Inspectorate of the Central Government. The Rectification Plan has specified the rectification targets, measures, implementing units, accountable units, units for acceptance and removal of registered issues, and completion dates and rectification has been proactively implemented. As the next step, the Group will follow the Parent to further implement Xi Jinping's Thought on Ecological Civilization and accomplish its rectification. In the meantime, it will combine the rectification inspection and the development of a long-term mechanism to solve systemic problems comprehensively. The aim is to promote the Group's high-quality development with lasting ecological and environmental protection, eliminate risks promptly, and avoid the recurrence of similar problems.

Safety and Environmental Management

The Group has continuously improved and strengthened the management of safe production and ecological and environmental production in production enterprises. In accordance with relevant policies of the countries and the regions of operation, combined with the actual situation, CNBM has formulated the Liability System for Safe Production, Management Measures for Safe Production of Engineering Projects, Management Measures for Safe Production of Overseas Institutions, Liability System for Ecological and Environmental Protection, Detailed Rules for the Management of Ecological and Environmental Protection, and other internal management systems. The aforementioned internal management systems clarify the basic principles, organization structure, division of responsibilities, management requirements, investigation and handling, emergency dealing, incident punishment and accountability etc. for safe production and environmental production management, and also establish detailed regulations on management of safe production for enterprises, engineering projects, and overseas institutions as well as management of ecological and environmental production. Subsidiaries of CNBM have also formulated management systems and measures for safe production and environmental protection based on their own conditions.

The Group insists on building a “Four-Oriented” enterprise with “innovative performance-oriented, resource saving-oriented, environmentally friendly-oriented, and social responsibility-oriented”, and constantly promotes the management of ecological and environmental protection as well as resource and energy saving through adjusting industrial structure, accelerating technological research and development, and strengthening the works in ecological and environmental protection.

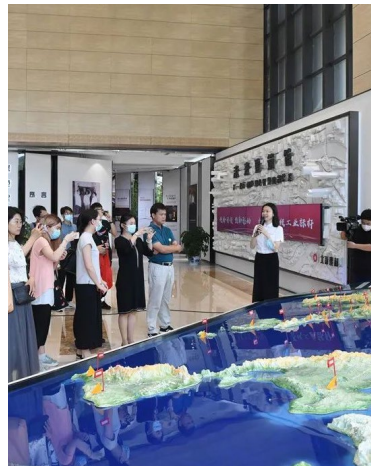
Advocating Environmental Protection

The Group upholds the philosophy of “Smart Use of Resources to Serve the Industrial Construction” and implements new development concepts. The Group has set 26 August each year as the “Smart Use of Resources Day”. On the day, the Group will organize in a unified manner a series of activities such as opening enterprises to the public, to effectively transform philosophies and concepts into culture and actions. The second “Smart Use of Resources Day” in 2021, with the theme of “Green Environmental Protection”, showcased green factories, environmental materials, new and high-tech materials, intelligent manufacturing, workers in the new era, etc. Compared with the previous year, some innovative activities were added, such as a cultural and creative bazaar and a video show of overseas subsidiaries open to the public. For example, CNBM Industrial Park in Zambia, China Jushi Glass Fiber Manufacturing Base in Egypt, supermarket chain in Papua New Guinea, and national engineering project in Nigeria were simultaneously open to residents.



Case Sharing

On the second “Smart Use of Resources Day” on 26 August 2021, the headquarter and 12 bases of BNBM simultaneously held a “Walk into the Green Factory” event, offering visitors a firsthand experience of the green modern factory. Led by a guide, visitors on-site and online toured around BNBM’s Corporate Culture Park and Buildings of the Future Pavilion among others. The visit allowed them to have a comprehensive understanding of the history and culture of the building materials industry and a closer look at a green and intelligent building system that is characterized by intelligent manufacturing of green new materials, personalized design, scale production, and assembly building solutions with high performance in a new era.



The poster of the second “Smart Use of Resources Day”

In addition, the Group advocates for green office. The Group has developed detailed green office plans for electricity and water conservation and reduced consumption of office supplies, and the Group incorporated green office performance into its day-to-day assessment system. The Group also promotes electronic office and video conference systems to reduce on-site meetings. Business trips are arranged scientifically, and the use of low-carbon transportation means is prioritized. In the meantime, the Group contributes to the building of a beautiful China by organizing activities, such as exhibitions on energy-saving technologies and relevant trainings, and ecofriendly charities, such as low-carbon travel, afforestation, and proliferation and release of aquatic lives.

Addressing Climate Change

The Group is deeply aware of the impact of climate change on the environment and human beings and is thus committed to minimizing the impact of its businesses on the environment and climate change. To this end, the Group practices sustainable development with more systematic governance, more comprehensive strategies, better risk management, and clearer targets. In line with the disclosure framework of TCFD recommendation, the Group is endeavoring to carry out relevant work and disclose climate-related information from four perspectives: “Governance”, “Strategy”, “Risk Management”, and “Metrics and Targets”.



Governance (the Group's Governance in Relation to Climate-Related Risks and Opportunities)

Climate change-related issues are one of the contents in ESG work. Therefore, the ESG Working Group is responsible for the Group's climate change-related issues and topics, which are also guided, reviewed, and monitored by the Board. The specific management process for such issues is implemented following the ESG Working Group Management System of CNBM. For details of the management structure, please refer to the “Governance of Sustainable Development” Section. The Board could know climate-related issues through the reporting of ESG working group and reviews and participates in the identification and assessment of climate change-related risks and opportunities based on actual business requirements. The Board also discusses and reviews the progress of targets related to ESG issues (including climate change) on an annual basis. As members of the ESG working group, the directors or senior management of the Company acquire climate-related information during the work of the ESG working group, who is mainly responsible for coordinating and overseeing ESG -related (including climate change) management in the Group and reporting to the Board.





Strategy (Actual and Potential Impact of Climate-Related Risks and Opportunities on the Group's Businesses, Strategies, and Financial Performance)

The Group is fully aware that as the impact of climate change has become more obvious, and the impact involves various areas such as the updates of policies and laws, the emerging technology and the transition of market demand, enterprises should map out targeted responding plans and measures towards the short-term, medium-term, and long-term impacts of climate change.

To address climate change, avoid its adverse effects brought by climate change, and seize climate change-related opportunities, the Group follows China's "14th Five-Year Plan" and the goals of "carbon emission peak" and "carbon neutrality", and has been gradually establishing relevant low-carbon development strategies, meanwhile combining the national goals with the Group's own business characteristics. The Group also requires its subsidiaries to carry out corresponding strategic planning. For example, Sinoma Science & Technology established the "14th Five-Year Plan" for Ecological Environment Protection, Energy Conservation and Emission Reduction, and China Jushi published the Green and Low-Carbon Development Report of China Jushi, etc. The Group also assessed the possible impact brought by climate change using the following methods to provide reference for carrying out plans and strategies for business:

- Identifying and assessing climate change-related risks and opportunities by creating a database of climate change-related risks and opportunities and conducting surveys via questionnaires;
- Combining the results of identification and assessment to formulate targeted mitigation measures;
- Deeply understanding the stakeholders' opinions towards topics about climate change via questionnaires, etc.

The Group conducted an identification and assessment analysis of climate change-related risks and opportunities during the Reporting Period to gain a more comprehensive understanding of the potential risks and opportunities the Group is faced with. The Group identified four material transition risks⁷, and the following table summarizes the detailed results of the Group's identification and assessment of climate change-related risks:

Climate Change-Related Risks

Transition Risks		
Category of Risks	Climate Change-Related Risks	Potential Impacts of the Risks on the Group
 Policies and laws	• Stricter policies and supervision on existing products and services	• Requiring investment in technological innovation; • A more environmentally friendly and low carbon business operation is needed to respond to regulatory requirements.
	• Stricter emission and disclosure requirements	• Increase in operating costs due to increased investment in technology.
	• Pricing of greenhouse gas emissions	• Higher operating costs due to increased carbon-related taxes required by governments resulting from climate change.
 Reputational risk	• Stigma due to business practices	• Potential increased reputational risks if a corporate is classified as a heavy polluter or violations of environmental laws and regulations are found.

The Group also identified 15 opportunities from 5 categories, such as resource efficiency and energy sources:

Climate Change-Related Opportunities

Category of Opportunities	Climate Change-Related Opportunities	Potential Impacts of the Opportunities on the Group
 Resource efficiency	• Increased production and distribution process with higher efficiency	• Optimization of production processes and technologies to increase production capacity and efficiency; • Higher revenues when following market trends.
	• More efficient transportation	• Lowering operating costs due to application of transportation with higher efficiency.
	• Use of recycling technology	• Reducing impact of operation and production on the environment; • Increasing resource efficiency.
	• Reduced water usage and consumption	• Reducing impact of operation and production on the environment; • Lowering operating costs.

⁷During the Reporting Period, after assessment, the Group identified no material physical risk related to climate change.

Category of Opportunities	Climate Change-Related Opportunities	Potential Impacts of the Opportunities on the Group
	• Use of low-emission or renewable energy sources	• Lowering operating costs to a certain extent; • Popularity of low-emission or green products in the market.
	• Participation in carbon trading market	• New corporate profitability point.
	• Use of new technologies	• Increasing energy efficiency and saving costs; • First-mover advantage in the industry and boosting reputation and social image of the Group.
	• Development and extension of low-emission products and services	• Enhancing corporate competitiveness and increasing revenues due to offerings of low-carbon products or services that respond to market demand.
	• Development of solutions to climate change adaptation risks	• Increasing business revenues due to new adaptation solutions to climate change, which provide better adaptability and understanding of market needs.
	• Availability of new products or services through R&D and innovation	• Enhancing competitiveness due to response to market needs.
	• Enhancing ability to conduct diversified business activities	• Potential new business and revenue growth points due to investment in renewable energy and carbon offset projects, as well as participation in green finance and issuance of green bonds.
	• Adoption of supportive incentive policies	• Seizing and utilizing national policies about incentives on low-carbon and energy-saving technology transition to obtain subsidies from government.
	• Market demand and initiatives	• Enhancing corporate reputation and social image and increasing business demand.
	• Participation in renewable energy projects and adoption of energy efficiency improvement measures	• Improving adaptability of the Group to policy changes.
	• Energy substitution/diversification	• Improving resilience to changing and complex environment and exposure to fewer risks due to improved adaptability of the Group to policy changes.

The Group is deeply aware of the importance of adopting a scientific approach in risk assessment management to quantify the impact of climate-related risks and opportunities on the Group's financial performance. In the meantime, analysis that takes different climate scenarios into account can provide a more detailed picture of climate-related risks and opportunities in a given situation. In the future, the Group will further refine the process of assessing climate-related risks and opportunities and consider methods such as scenario analysis to analyze potential risks and opportunities under different climate contexts, so as to improve the adaptability to climate change.

Risk Management (Identification, Assessment, and Management of Climate-Related Risks)

During the Reporting Period, the Group comprehensively identified and assessed climate change-related risks and opportunities, and prioritized climate change-related risks based on four dimensions: impact, likelihood, vulnerability, and speed of onset. The detailed identification and assessment process can be found in the “Risk Management and Internal Control” section of the Report. Based on the assessment results, the Group reviewed its internal management and formulated effective management measures. In the future, the Group will consider the integration of the climate-related risks into the risk list and risk management mechanism of the Group.

The Group's Methods to Address Climate Change-Related Risks

Transition Risks		
Category of Risk	Climate Change-Related Risks	The Group's Responses
	• Stricter policies on existing products and services • Stricter emission and disclosure requirements	• Keeping an eye on the latest relevant laws, regulations, regulatory requirements, and national targets of the country and the place where the Group's operation is located, and developing corresponding plans and measures for newly introduced or updated requirements and targets; • Promoting the construction of green factories, green mines, and eco-industrial parks, and increasing investment in the R&D, promotion, and application of environmental technologies.
		• Increasing the use of renewable energy such as hydropower, wind power, and photovoltaic solar energy; • Focusing on and making good use of green finance continuously, and issuing green bonds and bonds related to carbon-neutral concept; • Paying close attention to carbon trading such as its mechanism and carbon price, selling excess carbon allowances in carbon exchanges, and enhancing carbon sequestration capacity to generate income from carbon trading; • China Jushi has developed the Carbon Emission Management (Trial) system, clarifying the scope of statistical indicators of carbon emissions and the responsibilities of each unit. It also carried out a diagnostic survey of its carbon emission levels and established a carbon emission database.
	• Stigma due to business practices	• Establishing the ESG working group to maintain good communication with stakeholders regularly; • Establishing specific communication channels with stakeholders; • Developing and implementing rectification plans to address identified issues promptly, clarifying rectification targets and measures and disclosing the rectification plans to the public.



In the above climate-related risk matrix, blocks with different colors represent climate-related risks in different levels, and the different sizes of the bubbles represent the velocity of happening of these risks, where the larger size indicates that the corresponding risk will happen in a shorter term of time.

The Results of the Climate Change-Related Risks Assessment for CNBM

	Impact of the Risks on the Company's Operations/ Reputation/Finance	Possibility of Risks	Vulnerability of Risks	Onset Speed of Risks
Stricter policy on existing product and service	Medium-high	Medium-high	Medium-low	Medium-low
Stricter emission and disclosure requirement	Medium-high	Medium-high	Low	Medium-low
Pricing of greenhouse gas emissions	High	Medium	Medium-low	Medium-low
Stigma due to our business practice	High	Medium-low	Medium-low	Medium-low
Increasing concern from stakeholders about corporate negative news	Medium-high	Medium	Medium	Medium

Metrics and Targets (the Metrics and Targets Used in Assessing and Managing Climate-Related Risks and Opportunities)

Following the TCFD guidelines, the Group set out a set of climate change-related and environmental targets during the Reporting Period, considering the material topics, stakeholders' opinions, and the Group's businesses, so that climate-related risks and opportunities can be managed more comprehensively. These targets are divided into three categories: air pollutant emissions, greenhouse gas emissions, and energy use. Based on its business characteristics, the Group has selected indicators for each category and defined the applicable time frame for each indicator and target and the completion of the action plans. The selected indicators and time frame are used to evaluate the progress of each target. The following table shows the Group's environmental targets and the corresponding action plans.

Category of Targets	Environmental Targets	Indicators	Action Plans	Time Frame
Air pollutant emissions	Reduction in nitrogen oxides emissions	Reduction in the emission intensity of nitrogen oxides in cement clinkers	- Deployment of relevant subsidiaries to divide targets into smaller ones and promote a year-on-year reduction in the emission intensity of nitrogen oxides in cement clinkers across the Group; - Completion of denitrification and nitrogen reduction among other transformations in cement production lines for environmental improvements; - Adoption of this indicator into the annual assessment.	Long-term (5-10 years)
		Ratio of compliance with the emission required by emission licenses	- Strengthening management of emission licenses, requiring subsidiaries to obtain emission licenses before emitting any pollutant; - Following the Group's relevant regulations to evaluate subsidiaries that exceed emission standards or receive administrative penalties.	Short-term (1-2 years)



Category of Targets	Environmental Targets	Indicators	Action Plans	Time Frame
Greenhouse gas emissions	Reduction in greenhouse gas emissions	Reduction in the emission intensity of carbon dioxide	• Completion of transforming projects featuring “high energy consumption” and “high emissions” by November 2022; • Development of new business opportunities on new materials with low-carbon emissions to improve the profitability of new material products; • Promotion of the use of alternative raw materials and fuels; • Enhancing research, development and promotion of low-carbon cement products; • Maximizing the potential use of renewable energy, building photovoltaic solar energy or wind power stations, and applying biomass and geothermal resources as appropriate.	Long-term (5-10 years)

Category of Targets	Environmental Targets	Indicators	Action Plans	Time Frame
Energy use	Increasing energy efficiency	Reduction in the overall energy consumption intensity of cement clinkers	• Skills transformation to achieve at least 40% of clinker capacity exceeding the energy efficiency benchmark in the cement industry by 2025.	Medium-term (3-5 years)



Green Manufacturing

In 2021, the Group continued to focus on key areas such as energy conservation, emission reduction, low carbon, reduction in pollution and emissions, ecological protection, and circular economy to promote energy conservation and emission reduction, and transformation and upgrading.

Low Carbon

The Group is committed to pursuing a path of development that prioritizes ecological protection and low carbon. To this end, the Group accelerates green and low-carbon transformation to drive development from three aspects: “carbon reduction”, “carbon sequestration”, and “carbon management”:

Carbon reduction

The Group combines capacity and production reduction at the source with carbon reduction across the whole process; eliminates backward production capacity, applies capacity substitutions at reduced level, and adopts a staggered production policy to restrict production. In terms of energy conservation and carbon reduction, the Group insists on scientific and technological innovation. For example, the Group carries out joint research on low-carbon, zero-carbon, and negative carbon, CCUS, taking hydrogen as an alternative fuel, and key technical standards to transform technologies of energy conservation and carbon reduction in an orderly manner. In addition, the Group promotes and applies advanced and applicable technologies and equipment of energy conservation and carbon reduction. As of reducing carbon by green energy and low-carbon transformation, the Group increases the use of solar power, wind power, and other forms of renewable energy. For example, Ningxia Building Materials came up with the idea of building a factory that is “powered by photovoltaic solar energy, wind energy, stored energy, and energy generated from waste heat” and thus proposed the concept of “factory with zero purchased electricity”. As a result, Ningxia Building Materials built a power generation system using cadmium telluride solar cells in southwestern Lijiang.

Carbon sequestration

The Group actively promotes the construction of green mines and environment-friendly factories, and continuously enhances its carbon sink capacity to protect the lucid waters and lush mountains.

Carbon management

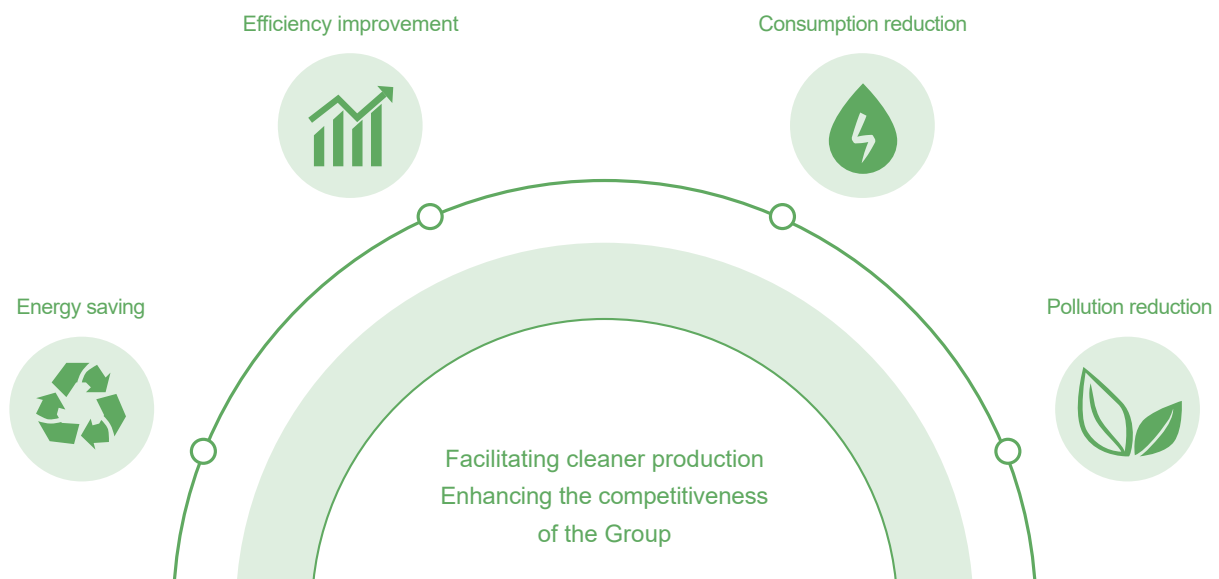
The Group continues to pay attention to and make good use of green finance and made multi-variety bonds the best among similar enterprises on the day of issuance. A total of RMB3.689 billion of green and carbon neutrality concept bonds have been issued by subsidiaries of the Group. In a word, the Group is truly empowering green building materials with green finance.



Cleaner Production

The Group adheres to the concept of “Smart Use of Resources to Serve the Industrial Construction” and strives to promote green and sustainable development.

The Group is committed to reducing wastewater discharge and exhaust gas emissions. By carrying out peer benchmarking and comprehensive benchmarking among enterprises within the Group, the Group optimizes the key indicators of each production process, and actively leads the industry in energy conservation, production optimization and self-disciplined emission reduction. The subsidiaries of CNBM have also formulated relevant environmental targets based on their own production conditions and development plans, with reference to the relevant national and local laws and regulations and the Group’s internal management rules (for details, please refer to the section “Addressing Climate Change”). Targets on waste reduction and water efficiency are not included in the scope of the current target setting, as the business types of the Group’s various segments differ greatly, making it difficult to standardize the scope of statistical indicators. The Group will take these factors into account and make relevant disclosures when improving target setting in the future. Taking the path of sustainable development is always the development direction of the Group. Based on the established environmental, safety and health management system, such as the Guidelines for the Co-disposal of Solid Waste in Cement Kilns and the Measures for Occupational Health Supervision and Management in Workplaces of CNBM, etc., the Group strengthens daily management efficiency and takes every precaution at the beginning to guarantee its long-term development. In addition, the Group sets relevant environmental targets according to its actual operation and improves its environmental performance through continuous practice and review.





Case Sharing

In 2021, South Cement practiced the green development concept and continued to reduce pollutant emissions and discharges. The main measures are as follows:

Particulate matter treatment

"Replacing Electrostatic Precipitators with Baghouses" was used to improve dust collection efficiency at kiln heads and tails of the clinker production lines, ensuring that the ultra-low emission requirements could be met after the renovation. The management of particulate matter's fugitive emissions has been strengthened. Through sealing, spraying, dust suppression, dust reduction, and other measures, the fugitive emissions of dust from the production processes, such as mining, clinker production, cement grinding, and shipping, were effectively reduced.

NO_x treatment

Low-NO_x combustion, graded combustion, and automated precise selective non-catalytic reduction (SNCR) technologies were used to ensure stable NO_x emissions.

SO₂ treatment

According to specific raw materials used, the application of sulfur emission reduction technology based on wet desulfurization was accelerated to ensure stable SO₂ emissions.

Noise management

Protected zones were set in the factory areas and plant buildings. Low-noise equipment was selected. Physical sound insulation measures, such as sound absorption, muffling, insulation, damping, and vibration isolation, were used to reduce noise emissions and ensure that noise emissions from factories met the standards.

Sewage treatment

All production lines were required to strengthen water recycling and comprehensive wastewater treatment; rainwater and sewage must be separated; treatment of domestic sewage must be centralized. Where conditions allow, factories shall proactively cooperate with the local government to manage sewage discharges.



Comprehensive Utilization of Waste

The Group abides by the Law of the PRC on the Prevention and Control of Environment Pollution Caused by Solid Wastes, the Measures for the Administration of Permit for Operation of Dangerous Wastes and other relevant regional laws and regulations. The Group standardizes the management of various types of waste generated in the production and living processes to achieve "Recycling, Reduction and Harmlessness". The Group is also committed to reducing waste disposals and mitigating environmental impacts. With regard to hazardous waste disposal, relevant subsidiaries have signed the Hazardous Waste Disposal Contract with companies that have relevant hazardous waste disposal qualifications to conduct centralized disposals of hazardous waste generated from the Group's production processes. In order to effectively enhance the comprehensive utilization of waste, CNBM actively responds to the call of the national and local governments: the basic building materials business segment vigorously promotes the comprehensive utilization of resources by using a large amount of industrial waste for cement production; the light building materials business segment comprehensively utilizes industrial waste by extensively recycling and utilizing desulphurized gypsum and phosphogypsum.

The Group actively responds to the call of the national and local governments, develops co-disposal projects of cement kiln for disposing of domestic waste, sludge, sewage, and hazardous wastes, and contributes to the construction of harmonious relationship between human and nature. The Group advocates the concept of circular economy and actively utilizes industrial solid waste and urban construction waste as raw materials in the production processes. Each basic building materials segment vigorously promotes the comprehensive utilization of resources and uses a large amount of industrial waste residues for cement production, such as fly ash, slag, desulfurized gypsum, calcium carbide slag, etc., to achieve comprehensive utilization of industrial waste. In 2021, the Group utilized and treated more than 131 million tonnes of solid waste and recycled 21,000 tonnes of waste.



Case Sharing

In 2021, Sinoma Science & Technology achieved fruitful results in waste management and recycling.

CTG co-disposed (comprehensive utilization) of **19,256** tonnes of sludge and **1,428.2** tonnes of municipal waste and disposed of **482.1** tonnes of hazardous waste in accordance with the norms;

Sinoma Blade signed a cooperation agreement with suppliers on circular economy and recycling, reuse and treatment of packaging materials at the beginning of the year to practice the recycling and reuse of packaging materials by the original packaging manufacturers. At present, about **88,000** packaging drums have been recycled and reused. Through packaging materials recycling and reusing, Sinoma Blade will carry out extensive green and circular economy projects to continuously reduce waste generation;

Beijing Composite used wastewater to produce water-soluble resin such as W617C and sold it as a product to phenolic resin foam producers for mine plugging and manufacturing of phenolic foam insulation boards. A total of more than **20** tonnes of wastewater was treated throughout the year;

Sinoma Lithium Membrane carried out the paraffin oil purification and recycling project to finely filter the recovered paraffin oil, which reduced **381.5** tonnes of paraffin oil consumption throughout the year.

Water Conservation

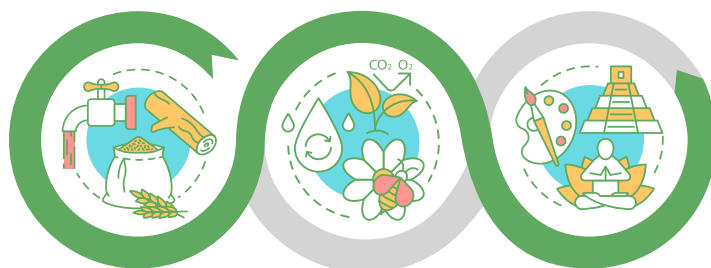
Taking water resources conservation and protection as the focus, through empowering leadership, improving systems, implementing responsibility and strengthening supervision, the Group has achieved remarkable results in water measurement management, water-saving system construction, wastewater treatment, water reuse and other areas.

The companies of basic building materials segment have taken active water-saving measures. The companies have recycled water by reusing industrial cooling water in the production system, and no wastewater from production is discharged out of the system. At the same time, in order to reduce water consumption in production, each company of basic building materials segment regularly inspects the circulating water pipe network and regularly cleans the sedimentation tanks, so as to better conserve water resources.

During the Reporting Period, the Company recycled

1,007,811,187

m³ of water



In addition, the Group fully considers water sourcing during the project design period, conducts the investigation and study of the availability of water resources at the project site and selects suitable construction areas. Therefore, there are no issues in water sourcing that fit for purpose in the Group's business. Meanwhile, the Group continues to implement water resources management measures such as diversion of clean water and wastewater, diversion of rainwater and wastewater, segregated collection and pre-treatment of production wastewater and domestic sewage. All wastewater is reused after advanced treatment by sewage treatment stations at site areas, and the treated wastewater is mainly used for vehicle washing, water spraying for dust reduction in the storage yard, as well as ground washing, road sprinkling, and gardening, etc., to achieve zero discharge of wastewater.



Case Sharing

China Jushi has always attached great importance to water conservation and was honorably adopted in the Zhejiang Province "2021 Water Conservation Benchmark Unit List". In 2008, China Jushi invested more than RMB30 million to install facilities for reclaimed water reuse equipment, especially all post-treatment workshops of the yarn production lines in the intelligent manufacturing base, and also equipped with advanced UF and RO units for treating and reusing post-treatment production wastewater (wastewater generated during fiber opening).

China Jushi currently recycles water from four main sources: direct circulating cooling water, indirect cooling circulating water, steam condensate reuse, and reclaimed water reuse. China Jushi has installed separate condensate tanks. Collected water from these tanks will be used for heat exchange in boilers and circulation in cooling towers so that heat energy and water resources generated in condensation can be effectively utilized. Meanwhile, China Jushi takes digitalized and Informationalized methods to save water and has installed intelligent monitoring facilities.



Environmental Technology Upgrade

The Group continuously upgrades its environmental protection technologies, implements technological improvements based on the current statues with reference to the latest standards and experiences in China and abroad. The Group also encourages its subsidiaries to conserve energy, reduce emissions and increase resource efficiency through independent innovation.



Case Sharing

In 2021, Zhongfu Shenying upgraded and replaced the solvent recovery section vacuum system with a completely sealed vacuum system (an environmentally friendly model) to reduce the generation of foul-smelling gases. As a result, the escape of odorous gases into the ambient air was reduced. Currently, Zhongfu Shenying has now completed the replacement of all four vacuum pumps, all of which have been converted into fully sealed vacuum pumps, to reduce the exhaust gas volume from 15,000 m³/hour to 1,000 m³/hour.

reduce the exhaust gas volume from

15,000 m³/hour

to

1,000 m³/hour



Case Sharing

In 2021, Sinoma Blade arranged for its subsidiaries to upgrade technologies for energy conservation and environmental protection. The specific measures are as follows:

1

NRDI replaced its two steam boilers with new thermal oil boilers. Compared with the former, the latter can save about 50% of energy due to the optimized heat conduction effect. As a result, they can reduce natural gas consumption by 8~15%, or save 196 tonnes of standard coal per year based on standard coal.

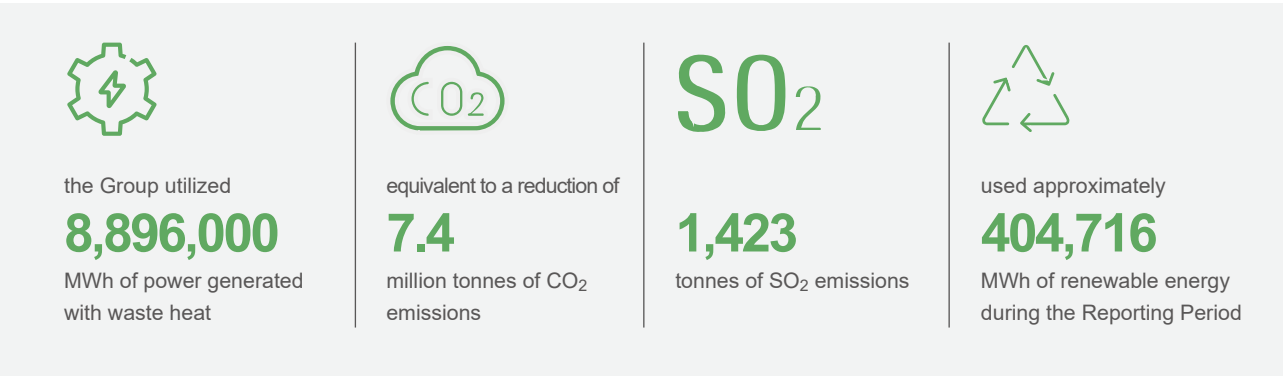
2

Sinoma Lithium Membrane used the waste heat of steam condensate for extraction preheating, reducing the heat required for extraction heating, saving 38 tonnes of steam consumption per day and 11,400 tonnes of steam throughout the year. It also used the waste heat of the desorbers to preheat the extract, reducing the heat required for the extraction to heat up, saving 35 tonnes of steam per day and 10,500 tonnes of steam throughout the year.



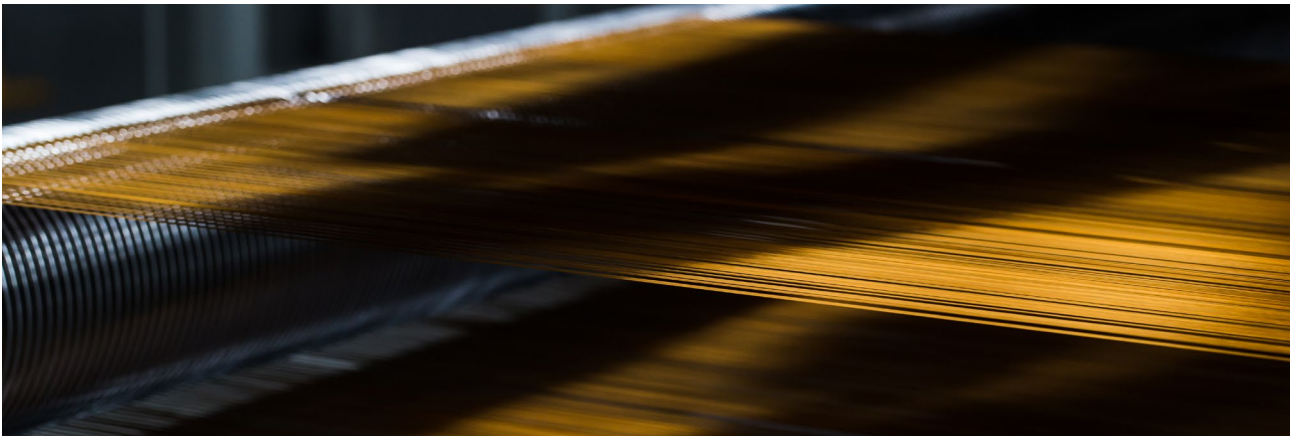
Circular Economy

The Group actively responds to issues such as climate change and overcapacity to help the industry achieve green and low-carbon circular development. The Group continuously promotes power generation by pure low-temperature waste heat from cement rotary kilns. During the Reporting Period, the Group utilized 8,896,000 MWh of power generated with waste heat, which was equivalent to a reduction of 7.4 million tonnes of CO₂ emissions and 1,423 tonnes of SO₂ emissions. The Group also advocates the use of renewable energy and used approximately 404,716 MWh of renewable energy during the Reporting Period.



Case Sharing

BNBM's main industrial solid wastes (waste gypsum boards and waste slags) are suitable for reuse repeatedly. BNBM gradually builds all gypsum board production lines into an internal circular economy production and operation system of the enterprise and builds a paper-faced gypsum board using waste desulfurization gypsum from power plants as raw material. Waste residues and paper generated during the production are used to make pulp to fill the cores of gypsum boards for improved strength. Wastes and pulp blocks generated on the production lines are crushed and reused as raw materials. Unqualified products (waste gypsum board) are added as excipients by making packaging slats, guard plates, and crushing to make coagulants. The utilization rate of solid wastes at BNBM is 100%, which directly reduces solid wastes going into the environment. This has effectively protected the environment and delivered both economic and social benefits. In 2021, BNBM consumed more than 18 million tonnes of industrial by-product gypsum.



Green Products



In terms of products, the Group always pays attention to the performance of the whole life cycle of the products, and is committed to providing high-quality, safe and healthy, green and environmentally friendly building materials.

The Group has adjusted the structure of basic building material products and actively advanced the cement business in the direction of "High Performance, Specialized, Commercial Concrete-oriented, and Product-oriented", providing clients with high-quality, green and low-carbon cement products; the Group has developed and used industrial waste resources as raw materials to produce building materials, thus reducing the consumption of natural minerals; products that have reached the end of their life cycle are recycled as much as possible or effectively disposed.



Case Sharing

For many years, BNBM has taken "Green Builds the Future" as its industrial concept, promoted the greenery of buildings, cities, and living environments as its mission, and advocated "Green Building Materials and Green Buildings Across the Whole Industrial Chain and Life Cycle". BNBM's headquarters' R&D base has been awarded the double green three-star top certification issued by the Beijing Municipal Commission of Housing and Urban-Rural Development. The R&D base becomes a top green building designed and constructed with selected materials according to the green three-star standard and operated and managed according to the green three-star standard. BNBM's gypsum boards, BNBM Waterproof, and Dragon Paint are among the first batch of products that have been awarded a three-star certificate of China Green Building Materials. BNBM's gypsum boards factories and water proof factories were adopted in the national "2021 Green Factory List", and part of its products were adopted in the "2021 Green Design Product List".



In addition, the Group has provided advanced and serialized wind power blades, solar thin film battery modules and special cement products to provide guarantees for the healthy development of new energy industries such as wind power, photovoltaic power and hydroelectricity, etc.



Case Sharing

During the 2022 Beijing Winter Olympics, all 26 venues in three major competition areas were powered by green electricity (i.e., electricity generated by photovoltaic solar power and wind power), which means that for the first time in the history of the Olympics Games, 100% green power supply would be achieved in all venues. As a global professional wind power blade provider and service provider with overall solution, Sinoma Blade actively promotes China's "Carbon Peak and Carbon Neutrality" goals. During the Reporting Period, Sinoma Blade provided products and services for the Beijing Winter Olympics so that green electricity could be generated by wind power and supplied to the venues, escorting the full green power coverage of the Beijing Winter Olympics.



Green Ecology

The Group adheres to sustainable development and strives to explore the pattern of harmonious coexistence of nature, society and industry. The Group's significant impacts during operation on the environment and natural resources mainly include the removal of vegetation at the mine sites during the mining of part of the raw materials used in the cement business segment, and the fuel consumption and exhaust emissions during the operation of the cement business segment. Guided by the relevant policy guidelines on ecological protection redlines, the Group establishes the concept of ecological protection redlines, respects the Convention on Biological Diversity and carries out strict verification on the site selection and layout design of factories; during the construction of projects, steps are taken to protect natural habitats, wetlands, forests, wildlife corridors, and agricultural lands. The Group mitigates the adverse impacts on the surrounding environment and communities as much as possible, and pays attention to the conservation of biodiversity such as ecosystems and biological species within the ecological protected areas. The subsidiaries of the Group engaging in the manufacturing industry pay attention to the greening and beautification of the site area and its surrounding environment; the Group has combined industrial production with gardening and landscaping and flora and fauna, and is committed to creating a green factory to achieve the natural integration of the industry and its surrounding ecological environment. The subsidiaries have also developed their relevant management systems based on their situations. For example, Sinoma International has developed the Plan for Geological Environmental Protection and Ecological Governance and Restoration of Mines and the Plan for Mine Land Reclamation.

In addition, the Group's mining activity is carried out according to the Convention on Green Mine. The mining process is required to be scientific and orderly, in order to strictly control the impacts on mining areas and the surrounding environment and to protect ecological environment. The Group carries out ecological restoration swiftly after the mining is completed. The Group has strengthened the scientific planning and the management of mine construction, and fully promoted green mine construction. By the end of 2021, the Group has constructed 44 national level green mines and 75 green mines at other levels.



the Group has constructed **44**
national level green mines



75
green mines at other levels



Case Sharing

Sinoma International practices the environmental protection concept of “Lucid Waters and Lush Mountains are Invaluable Assets”, and has established a management system for the development and comprehensive utilization of mine resources, including the Plan for Mine Resources Development and Utilization, the Plan for Geological Environmental Protection and Ecological Governance and Restoration of Mines and the Plan for Mine Land Reclamation. In the cement and ore business, Sinoma International maximizes the utilization of stripped topsoil and waste rock, carries out ecological restoration and management of the mines, uses engineering and land remediation measures to restore vegetation such as the composite mode of trees, bushes, and grasses, to effectively increase the carbon sink of forestry.

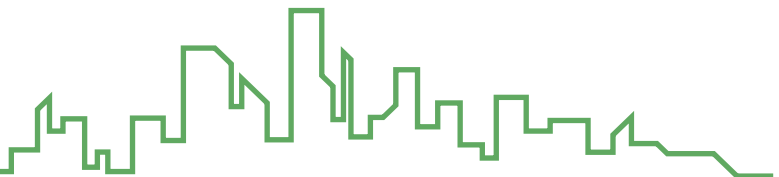


Case Sharing

Ningxia Building Materials actively promotes the construction of green factories and green mines. In 2021, Ningxia Building Materials and its subsidiaries constructed two new green factories. Now the companies have seven green factories (three at the national level and four at the provincial level), two green mines at the national level, and four mines that have passed the on-site green mine assessment at the provincial level. Kharchin Grassland Cement Limited Company of Ningxia Building Materials was awarded the honor of “Green Manufacturing Demonstration Enterprise” at the provincial level.



A CNBM garden-like cement factory in Nanyang



Q Highlights of 2021

This section illustrates the environmental performance of the Group on emissions and use of resources during the Reporting Period⁸.

Atmospheric Emissions⁹



Nitrogen oxides (NO_x) (in tonnes)

111,452 135,424
2021 2020



Sulfur dioxide (SO₂) (in tonnes)

9,596 11,424
2021 2020



Industrial particulate matter (in tonnes)

14,328 19,768
2021 2020



Volatile Organic Compounds (VOCs)¹⁰ (in tonnes)

87.34 81.32
2021 2020

Greenhouse Gases¹¹



Total greenhouse gas emissions (in tonnes of CO₂)

265,956,600
2021
272,818,851
2020



Direct greenhouse gas emissions (Scope 1) (in tonnes of CO₂)

250,657,954
2021
257,096,124
2020



Indirect greenhouse gas emissions (Scope 2) (in tonnes of CO₂)

15,298,646
2021
15,722,727
2020



Intensity of greenhouse gas emissions (in tonnes of CO₂/RMB million)

972
2021
1,071
2020

⁸ The denominator used for the calculation of intensity data is the Revenue (i.e., RMB million) of the Group in the corresponding year. Due to the restatement of the Group's revenue data in 2020, the environmental performance data concerning intensity of 2020 was re-calculated based on the restated revenue data.

⁹ Sourced from the monitoring data and calculated data. The data for nitrogen oxides (NO_x) and sulfur dioxide (SO₂) in 2020 were re-calculated according to the statistical scope and method of the data in 2021 and disclosed and shall prevail.

¹⁰ Due to increased production capacity and output of Sinoma Science & Technology's glass fiber and lithium battery separators in 2021, the volatile organic compounds (VOCs) increased.

¹¹ The calculation of greenhouse gas emission data is based on relevant conversion factors provided by the Guidelines for Accounting Methods and Reporting Greenhouse Gas Emissions for Chinese Cement Production Enterprises and the Notice on Doing a Good Job in the Focus of 2022 Greenhouse Gas Emission Report Management for Enterprises, and the data is measured in tonnes of carbon dioxide. Additionally, the data for direct greenhouse gas emission (Scope 1) and the total greenhouse gas emissions in 2020 was re-calculated with the aforementioned method and shall prevail.

Self-Generated Solid Wastes¹²



Self-produced hazardous solid wastes¹³ (in tonnes)

5,818
2021 5,290
2020

Intensity of self-produced hazardous solid wastes (in tonnes/RMB million)

0.021
2021 0.021
2020

Percentage of self-produced hazardous solid wastes in total self-produced solid wastes¹³(%)

0.20
2021 0.19
2020



Self-produced non-hazardous solid wastes¹⁴(in tonnes)

2,949,240
2021 2,780,053
2020

Intensity of self-produced non-hazardous solid wastes (in tonnes/RMB million)

10.78
2021 10.91
2020

Amount of self-generated solid wastes¹⁵ disposed (in tonnes)

2,806,709
2021 2,646,448
2020

Disposal ratio of self-produced solid wastes (%)

95
2021 95
2020

Comprehensive Utilization of Solid Wastes



Amount of solid waste utilization, elimination and disposed (in tonnes)

131,297,839
2021 123,434,041
2020¹⁶

¹² The data for self-generated solid wastes in 2020 were re-calculated according to the statistical scope and method of the data in 2021 and disclosed and shall prevail.

¹³ The statistics refers to the Directory of National Hazardous Wastes. Due to the increased outputs of Sinoma Science & Technology and China Jushi in 2021, the self-produced hazardous solid wastes as well as the percentage of it in total self-produced solid wastes increased.

¹⁴ Due to the merge of Henan Tongli Cement Limited Company into the basic building materials business segment in 2021 and also the increased output of aggregates, the self-produced non-hazardous solid wastes increased.

¹⁵ Including self-produced hazardous and non-hazardous solid wastes.

¹⁶ The data for self-generated solid wastes in 2020 were re-calculated according to the statistical scope and method of the data in 2021 and disclosed and shall prevail.

Q Highlights of 2021

This section illustrates the environmental performance of the Group on emissions and use of resources during the Reporting Period⁸.

Discharge to Water



Amount of chemical oxygen demand (COD)¹⁷(in tonnes)

1,020

2021

925

2020

Noise



Proportion of companies meeting noise level standards (%)

100

2021

100

2020



¹⁷ Due to the increased outputs in 2021, the amount of chemical oxygen demand (COD) increased.

Energy Use¹⁸



Direct energy consumption
(MWh)

359,401,963

2021

361,718,407

2020



Coal (MWh)

352,584,400

2021

356,278,134

2020



Natural gas¹⁹(MWh)

6,817,563

2021

5,440,273

2020



Indirect energy
consumption¹⁹ (MWh)

36,941,816

2021

35,943,598

2020



Electricity¹⁹(MWh)

35,094,401

2021

34,158,107

2020



Among which: purchased
electricity¹⁹(MWh)

25,072,409

2021

24,611,822

2020



Purchased heat¹⁹(MWh)

1,847,415

2021

1,785,491

2020



Total energy consumption (direct and
indirect) (MWh)

396,343,780

2021

397,662,005

2020



Intensity of total energy consumption (MWh/
RMB million)

1,448

2021

1,560

2020

¹⁸ Calculations were set out based on the electricity and fuel consumption, the conversion factors provided by the International Energy Agency and the Stock Exchange's Appendix 2: Reporting Guidance on Environmental KPIs.

¹⁹ Due to the new materials business segment's new production lines put into operation in 2021, production capacity and output increased, and the Group's natural gas and indirect energy consumption (including electricity and purchased heat) increased.

Q Highlights of 2021

This section illustrates the environmental performance of the Group on emissions and use of resources during the Reporting Period⁸.

Rational Utilization of Waste Heat



Number of cement clinker production lines

368 379
2021 2020



Among which: the number of cement clinker production lines in line with waste heat power generation system that have been or are being equipped with waste heat power generation

332 330
2021 2020



Installed capacity of waste heat generating systems (MW)

2,214 2,150
2021 2020²⁰



Among which: the installed capacity of waste heat power generation under construction (MW)

57 60
2021 2020²⁰



Waste heat power generation²¹ (MWh)

8,896,000 9,041,000
2021 2020

Emission Reductions Resulting from Waste Heat Power Generation²²

CO₂

CO₂ (in tonnes)

7,401,057 7,576,217
2021 2020

NO_x

NO_x (in tonnes)

1,592 1,763
2021 2020

SO₂

SO₂ (in tonnes)

1,423 1,691
2021 2020

Dust

Dust (in tonnes)

285 344
2021 2020

²⁰ The data for installed capacity of waste heat generating systems as well as the data for the installed capacity of waste heat power generation under construction in 2020 were re-calculated according to the statistical scopes of the data in 2021 and re-disclosed, which shall prevail.

²¹ Due to the improvement of the Group's production and management level and the improvement of the heat utilization rate of the clinker rotary kiln, the Group's waste heat power generation decreased in 2021.

²² Calculations were set out based on the data of carbon dioxide, nitrogen oxide, sulfur dioxide and dust emissions per unit of thermal power generation in the China Power Industry Annual Development Report 2021. Due to the Group's decreased waste heat power generation in 2021, the emission reductions resulting from waste heat power generation also decreased.

Water and Packaging Material Use



Water consumption²³ (in tonnes)

141,919,672 132,885,761

2021 2020



Intensity of water consumption²³(in tonnes/RMB million)

519 521

2021 2020



Use ratio of recycled water (%)

88 54

2021 2020



Number of issues in sourcing water that is fit for purpose

0 0

2021 2020



Cement packing bags²⁴(Pieces)

1,387,762,217 1,898,540,935

2021 2020

Impact on Biodiversity



Land area affected by operations (in m²)

24,611,000 23,552,300

2021 2020



Restored land area (in m²)

8,971,800 8,459,100

2021 2020

²³ During the Reporting Period, due to the increase in product output of major operating entities of the Group's basic building materials business segment, the further improvement of the green mine operation and maintenance and plant greening of the main operating entities of the Group's basic building materials business segment, and the increase in product output and business of some major operating entities of the Group's new materials business segment, the total water consumption of the Group increased in 2021. The data for water consumption in 2020 was re-calculated according to the statistical scope and method of the data in 2021 and disclosed, and the data for intensity of water consumption was also adjusted because of it. The data in the Report shall prevail.

²⁴ Because of the Group's business nature, the consumption of cement packaging bags is counted in "pieces".

06 Caring for Employees

The Group adheres to the concept of “People-oriented” and regards employees as its most valuable asset. The Group respects the differences among employees and provides each of them with a safe and harmonious working environment. Moreover, through various human resources policies, employee benefits, and vocational training and relevant activities, the Group unites employees and gives them the sense of belonging to pursue core values of the Group and put them into effect.

- Standardized Employment
- People-Oriented
- Equality and Diversity
- Safety and Health
- Co-Development
- Highlights of 2021







Standardized Employment

CNBM strictly complies with laws and regulations related to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunities, diversity, anti-discrimination, other benefits and welfare, which have a significant impact on the Group, including but not limited to the Labor Law of the PRC, the Labor Contract Law of the PRC, the Employment Promotion Law of the PRC, the Law of the PRC on the Prevention and Control of Occupational Diseases and other laws and regulations in China and the countries and regions where it operates. The Group upholds the principles of fair competition and merit-based recruitment in the process of recruitment and employment, and has formulated and implemented a standardized personnel management system. Meanwhile, the Group has standardized its dismissal procedures according to relevant measures in a rational manner. The Group also requires new employees to provide

accurate and actual personal information when onboarding. Applicants whose information provided is later verified as false will not be hired, and for employees who have provided falsified material or information, the Group will terminate the probation period or labor contracts. Additionally, during the recruitment process, the Group strictly examines the identity information of candidates to prevent recruiting child labor, and if any case of child labor is found, it will be dealt with in accordance with the requirements of laws and regulations timely. Meanwhile, the Group firmly abides by laws and regulations related to preventing forced or child labor, including but not limited to the Law of the PRC on the Protection of Minors, the Criminal Law of the PRC, etc. During the Reporting Period, there was no violation of the above laws and regulations.



People-Oriented

The Group's compensation and benefits for employees include salaries, allowances, and other related benefits. Under laws and regulations concerning labor and social welfare, the Group is required to pay social insurance premiums, including endowment insurance, work-injury insurance, medical insurance, unemployment insurance, and housing funds for its employees every month. The compensation policy for employees of the Group is implemented in accordance with responsibilities of each position, and the performance bonus is pegged to the overall economic performance of the Group. The Group values employees' physical and mental health and has revised and improved the Leave and Attendance Regulation, which guarantees employees' rights of sick leave, personal leave, marriage leave, maternity leave, paid annual leave and statutory holidays. At the same time, working hours are reasonably regulated and employees are duly paid for their overtime work. The Group attaches importance to employees'

balance between work and life and has introduced a series of welfare measures to encourage the realization of the win-win mode of work-life balance. Additionally, a wide range of cultural and sporting events are organized from time to time to enrich employees' life, enhance their bonding and strengthen the team's cohesiveness.

During the Reporting Period, to better hear employees' voices, the Group conducted an employee satisfaction survey with online questionnaires. Employees were invited to freely express their views on remuneration system, welfare policies, promotion route, and training system. A total of 3,381 CNBM employees participated in the survey, including directors, management of the company, and employees. In this employee satisfaction survey, the overall satisfaction rate of all the employees participating in the survey with the Company (including "general, satisfied, and very satisfied") was 88.61%.

Equality and Diversity

As of 31 December 2021, the Group had a total of 153,109 employees. The Group values diversity of employees and is committed to providing each employee with a safe, healthy, and harmonious working environment. Neither applicant nor employee would be discriminated against because of their gender, age, race, ethnicity, religion, culture, and sexual orientation. Discrimination of any form would not be tolerated within the Group.





At the same time, in order to lay a solid foundation in human resources for the sustainable development of the Group, the Group enhances team cohesion and employees' sense of collective belonging through continuous improvement of human resources policy, employee welfare, vocational training, and leisure activities. Adhering to the principle of paying employees according to their performance and working efforts, the Group sets up and implements a reasonable salary management system based on employee's work capability, job responsibilities, market salary level, and other factors.

The Group respects and upholds international covenants on human rights, the Labor Law of the PRC and other laws and regulations, firmly prohibits the employment of child labor and forced labor, and opposes any forms of discrimination during recruitment processes and employment. The Group adheres to the model of localized management, with practical actions to contribute to people's livelihood in project sites. The Group advocates the management model of "Localized Employment and Localized Resources", facilitates community development in areas where projects are located by providing job opportunities and promoting economic development. The Group fulfills its responsibility to create a harmonious development condition for the construction, development, operation, and management of its overseas projects.

Safety and Health

Regarding the safety and health of each employee as its top priority, the Group strives to provide each one of them with a safe, healthy, and harmonious working environment. To achieve this goal, the Group constantly improves the Measures for Occupational Health Supervision and Management in Workplaces of CNBM through in-depth research and analysis of the characteristics of building materials industry, to continuously strengthen employees' occupational health protection and management and prevent, control and eliminate occupational diseases.

The Group strictly abides by the laws and regulations on occupational health and safety that have a significant impact on the Group, including but not limited to the Production Safety Law of the PRC, the Law of the PRC on the Prevention and Control of Occupational Diseases, the Measures for the Supervision and Administration of "Three Simultaneities" of Facilities for the Prevention and Control of Occupational Diseases of Construction Projects, and other national laws and regulations as well as industrial standardized guidelines for work safety. A comprehensive safe production organizational system has been established. Following related laws and regulations and combining its business characteristics, the Group has formulated the Measures for Occupational Health Supervision and Management in Workplaces of CNBM to strengthen the supervision and management of occupational health, and to effectively prevent, control, and eliminate occupational diseases. In addition, supporting facilities for dust prevention, toxin prevention, noise reduction and emergency alerts as well as first-aid equipment have been constantly upgraded in production areas by following in-depth studies and analysis of the building materials industry's production characteristics. In strict accordance with the requirements of labor protection, employees are equipped with quality and reliable personal protective equipment including work clothes, safety helmets, protective shoes, gloves, anti-noise earmuffs, dust masks, etc. Additionally, health examinations for employees are organized regularly.



The Group intensifies inspections for potential risks and actively promotes closed-loop control, which is composed of “basic capacity building - assessment and control of potential accidents - work performance and incentive assessment - enhance the ability for safe operation” (PDCA²⁵), to achieve the PDCA improvement cycles. The Group has explored and established an inspection and management system for hidden risks, with the practice of job responsibility as the core, the list-checking standard as the tool, the closed-loop self-investigation and reporting as the method, and the means of information management as the support. Moreover, the Group promotes the use of information technology in the daily management of safe production and has self-developed a safety management information system that has enabled the online management of safety qualifications, safety basic archives, potential risk investigations, hazardous sources management, safety inspections, safety training and other important procedures and processes of safe production management.



As a national pilot enterprise of standardized safe production, the Group actively promotes the establishment of standardized safe production for cement and other enterprises, improves the safety management system, increases the safety management level, and boosts safety management performance. The heads of the enterprises are the primary persons who are responsible for safety of workplaces and are directly responsible for safe production. All key production enterprises are equipped with full-time safety management personnel. The Group has also established an unimpeded channel for feedback and encourages all employees to participate in safety management. The Group also attaches great importance to building up its safety management team and strictly follows the Safety Training Management Measures of CNBM. The Group guarantees the popularization of safety knowledge and implementation of safety procedures, deepens employees' awareness of safety responsibilities, and improves employees' awareness of occupational hazards and self-protection capabilities through various types of training and exams.

Furthermore, the Group also attaches great importance to the safety and occupational health management of employees of its suppliers and partners. Relevant provisions are incorporated into service contracts. Daily safety inspections, training, and emergency drills are carried out jointly with suppliers and partners.



Case Sharing

Sinoma International, guided by the Regulations on Classified Control of Safety Risks and Management of Hazardous Sources of Sinoma International, has organized the cross-auditing special program and has advanced the three-year action plan for safe production with key points of rectification highlighted and tackled specially. With the formulation of Environmental Protection Checklist for Construction Sites of Sinoma International, environmental inspections become normalized and standardized. Sinoma International has also promoted the development of “smart safety” through the application of monitoring devices, smart helmets, turnstiles, 5G smart drone alerts, and artificial intelligence (AI) hazard identification system in the working sites to improve the efficiency of safety supervision. In 2021, Sinoma International organized 8,670 inspections on safety and environmental protection as well as COVID-19 prevention and control, and identified 23,185 cases of various potential hazards with 100% rectification.



Sinoma International organized

8,670

inspections on safety



identified

23,185

cases of various potential hazards



with

100%

rectification

²⁵ PCDA refers to Plan, Do, Check, Act.



Case Sharing

To ensure occupational health and safety, Sinoma Science & Technology has taken the following measures:

1

Promoting the construction of standardized safe production as well as the dual prevention mechanism consisting of classified safety risk management and control and potential hazard investigation and control within production-oriented enterprises;

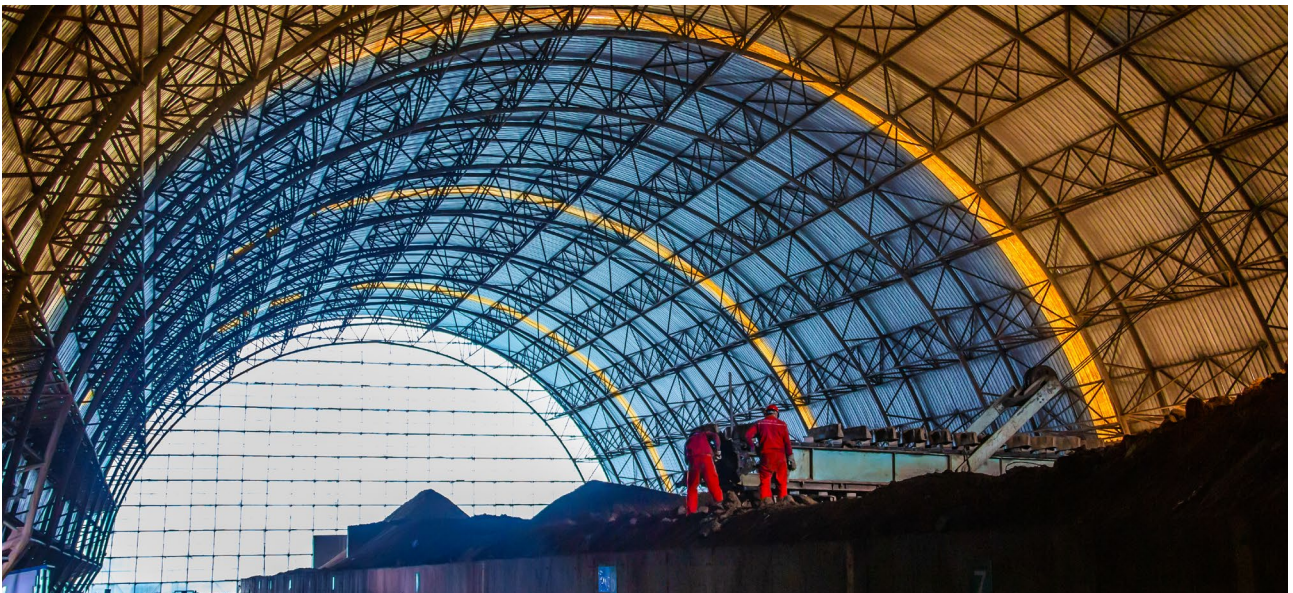
2

Sinoma Science & Technology and its subsidiaries regularly conduct safe production training and performance assessment of occupational health and safety, organize activities such as "Safety Production Month" and "Safety and Health Cup" knowledge contest, promote the special three-year rectification action plan for safe production, and organize training and emergency drills regularly;

3

Individuals in charge at all levels of subsidiaries of Sinoma Science & Technology are the first responsible persons for safe production of the responding subsidiary and are responsible for all the works related to safe production. They follow instructions from the superior levels and implement work based on the circumstance of the subsidiaries. The headquarter of Sinoma Science & Technology conducts random inspections on the work of its secondary and tertiary subsidiaries from time to time; the secondary subsidiaries conduct regular inspections of their affiliated enterprises, all of which are covered for each half year; direct production and operation units carry out self-inspection once a month; factories, workshops, and special projects are inspected once a week; work teams and posts are inspected once a day. Written records are produced for inspections at all levels, and hidden dangers are required to be rectified within limited time, which are incorporated into the performance assessment.

In addition, to reduce the risk of employees being exposed to crystalline silicon and suffering from silicosis, the Group has actively taken a series of methods, including wet processing and providing dust removal facilities to decrease emissions of dust, equipping employees with protective equipment and asking them to wear dust masks, as well as organizing tests of occupational hazards related factors and medical check-ups for all the employees every year.

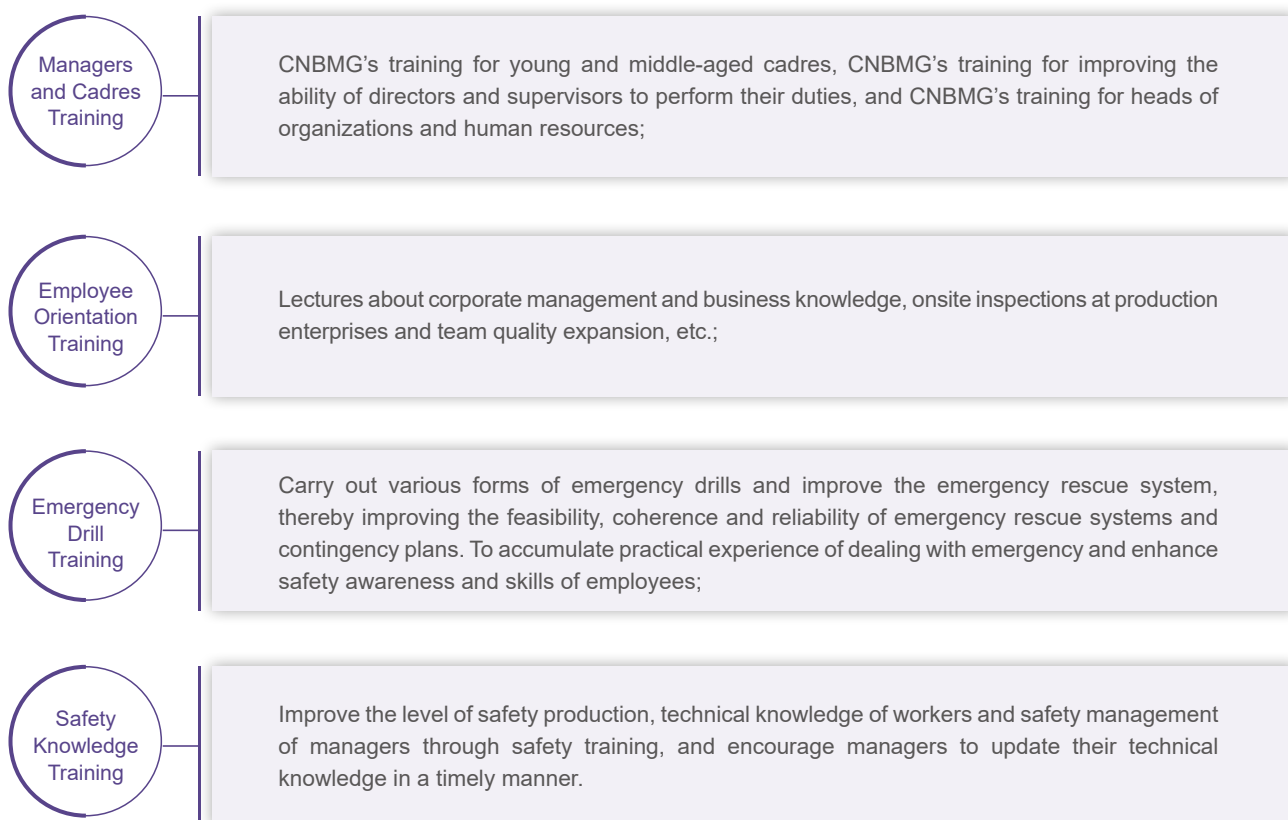


Co-Development

Through studying advanced personnel training experience and combining this with its development characteristics, the Group has established an employee development and training platform with multiple channels, multiple forms, different levels, and various focuses. The Group adopts the training methods of “Internal Training as the Principal, External Training as the Supplementary”, sharing educational resources, and building the Group’s multilevel training system. The Group also encourages employees to receive independent training and study proactively by providing support and back-up, in terms of working hours, training investment input and incentive mechanisms, etc., to encourage further education, training, and learning. At the same time, the Group regularly evaluates and grades the work performance of all formal employees each year to reasonably determine the promotion and salary adjustment of employees.

The Group has a sound training management measure and system. Occupational training is planned according to the requirements of the Group’s development strategy and business objectives and the principle of combination of training and needs of work, emphasizing pragmatism to promote the co-development with its employees. The training content mainly features team building, capacity improvement, operation skills, new employee training, and safety and emergency management, etc.

Part of the Group’s internal training activities are listed below





Qilianshan organized a training course for senior and middle-level management

From 15 to 24 December 2021, Qilianshan held two training courses for senior and middle-level management at the Party's School of Provincial Party Committee of Gansu. The training content included the national economic situation and cutting-edge policies, the situation faced by the cement industry, management philosophy of Qilianshan, aiming to improve the theoretical knowledge and management competence of the senior and middle-level management. A total of 100 senior and middle-level managers from the headquarter of Qilianshan and its subsidiaries attended the two training courses.

This training was held from 15 to 16 September 2021, with the theme of "Compliance Management, Green Development". The training focused on laws, regulations and risk management and control concerning mines, publicized and implemented green mines construction, so as to power the green development as well as high-quality development of mines. Over 40 leaders responsible for mine management and relevant managers from Qilianshan's 15 subsidiaries attended the meeting.



A professional training for the management of green mines launched by Qilianshan



The fourth "Safety and Health Cup" which is a safety knowledge contest held by NRD!

This event was held on 3 December 2021 with the goal of strengthening safe production and improving all employees' safety awareness. Three types of employees participated in this event, including committee members of the party branch, technology and equipment managers, and on-site managers to increase engagement of the safety knowledge activities at all levels.

Q Highlights of 2021

This section illustrates the social performance of the Group on employment, occupational health and safety and employee training during the Reporting Period.

Expense on Employee Benefits²⁶



Salaries, bonus, and other allowances
(RMB'000)

20,685,966 18,326,640
2021 2020



Retirement plan contributions
(RMB'000)

2,296,893 1,047,726
2021 2020

Employee Composition



Total number of employees (Person)

153,109 154,096
2021 2020

By gender

Male (Person)

117,255 118,084
2021 2020

Female (Person)

35,854 36,012
2021 2020

By employment type

Permanent (Person)

150,577 151,140
2021 2020

Temporary (Person)

2,532 2,956
2021 2020

²⁶ Including directors' remunerations.

By age group

Below 30 (Person)

34,091

2021

33,900
2020

30 to 50 (Person)

94,945

2021

96,347
2020

Over 50 (Person)

24,073

2021

23,849
2020

By region

Mainland China (Person)

151,228

2021

152,114
2020Region of Hong Kong,
Macau, and Taiwan (Person)**6**

2021

6
2020

Overseas (Person)

1,875

2021

1,976
2020

Employee Turnover Rate

By gender

Male (%)

4.0

2021

4.0
2020

Female (%)

4.3

2021

4.3
2020

By age group

Below 30 (%)

6.8

2021

6.9
2020

30 to 50 (%)

3.5

2021

3.4
2020

Over 50 (%)

2.1

2021

2.2
2020

By region

Mainland China (%)

4.0

2021

4.0
2020Region of Hong Kong,
Macau, and Taiwan (%)**0.0**

2021

0.0
2020

Overseas (%)

6.4

2021

6.5
2020

Highlights of 2021

This section illustrates the social performance of the Group on employment, occupational health and safety and employee training during the Reporting Period.

Work-Life Balance of Employees



Activities held and organized for employees (Sessions)

4,838
2021 3,781
2020



Participating in activities organized by industrial associations (above provincial level) (Sessions)

611
2021 379
2020



Different activities employees participated in (Person-Times)

351,639
2021 201,390
2020

Employees' Freedom of Association



Percentage of unionized employees (%)

99.05
2021 98.30
2020



Supports and Rewards for Employees



Comforting special employees and helping employees with difficulties (Person-Times)

5,831

2021

6,256

2020



Offering grants to the children of employees with difficulties to go to school or rewarding the children of employees to go to school (Person-Times)

1,144

2021

829

2020



Helping employees with critical diseases (Person-Times)

398

2021

251

2020



Total expense on comforting special employees and helping employees with difficulties (RMB million)

6.75

2021

6.87

2020



Total expense on offering grants to the children of employees with difficulties to go to school or rewarding the children of employees to go to school (RMB million)

1.93

2021

1.37

2020



Total expense on helping employees with critical diseases (RMB million)

1.76

2021

1.04

2020

Percentage of Employees Who Received Vocational Training

By gender

Male (%)

80.4

2021²⁷

79.0

2020

Female (%)

19.6

2021²⁷

21.0

2020

²⁷ The data was calculated based on relevant calculation method of How to Prepare Environmental, Social and Governance Report issued by the Stock Exchange.

Highlights of 2021

This section illustrates the social performance of the Group on employment, occupational health and safety and employee training during the Reporting Period.

By employee category

Senior (%)		Middle-level (%)		General (%)	
6.0	6.0	25.0	24.0	69.0	70.0
2021 ²⁷	2020	2021 ²⁷	2020	2021 ²⁷	2020

Average Hours of Training Per Employee Who Received Vocational Training

By gender

Male (Hours)		Female (Hours)	
40.0	42.0	36.0	36.0
2021	2020	2021	2020

By employee category

Senior (Hours)		Middle-level (Hours)		General (Hours)	
45.0	50.0	40.0	40.0	38.0	38.0
2021	2020	2021	2020	2021	2020

Occupational Health and Safety of Employees



Total numbers of recordable accidents

17	45
2021	2020



Number of work-related fatalities

4	5
2021	2020



Fatality rate per 1,000 persons²⁸

0.020	0.032
2021	2020



Number of lost days due to work injury

24,856	31,970
2021	2020

²⁸ In 2019, the number of work related fatalities was 1, and the fatality rate per 1,000 persons was 0.006.



Number of reported silicosis cases

0

2021

0

2020



Number of employees who participated in occupational health and safety training (Person-Times)

1,858,995

2021

1,647,425

2020

Employment Related Litigations, Complaints, and Safety Accidents



Cases involving employing child and forced labor

0

2021

0

2020



Received complaints on violations of employees' legitimate rights and interests

0

2021

0

2020



Received complaints on discrimination against applicants and employees

0

2021

0

2020



Violations relating to occupational health and safety that have a significant impact on the Group

0

2021

0

2020



Large production safety accidents occurred²⁹

0

2021

0

2020

²⁹ Refer to the Regulations on the Reporting, Investigation and Disposition of Work Safety Accidents of the PRC.

Q Highlights of 2021

This section illustrates the social performance of the Group on employment, occupational health and safety and employee training during the Reporting Period.

Background of Internal Employees Participating in Employee Satisfaction Survey

Percentage of survey participants to total employees (%)

By gender

Male (%)

76.2

2021

Female (%)

23.8

2021

By age group

Below 30 (%)

16.4

2021

30 to 50 (%)

68.0

2021

Over 50 (%)

15.6

2021

By employee category

Senior (%)

1.3

2021

Middle-level (%)

14.0

2021

General (%)

84.7

2021

By ordinary country or region of work

Mainland China (%)

98.6

2021

Region of Hong Kong,
Macau, and Taiwan (%)

0.1

2021

Overseas (%)

1.3

2021

The result of employee satisfaction survey



The overall satisfaction rate with the Company of all the employees participating in the survey³⁰(%)

89

2021



The overall satisfaction rate with the Company of the management³⁰(%)

93

2021



The overall satisfaction rate with the Company of the general³⁰(%)

89

2021



³⁰ The overall satisfaction covers the situation of "general, satisfied, and very satisfied".

07 Quality Assurance

The Group has long been dedicated to promoting the development of the building materials industry and to improving product quality. The spirit of craftsmanship is integrated into modern industrial production and management practices, and innovation is highlighted in the core values of the Group. With new strategies and concepts brought forth, the Group prospers with the industry and industrial chain enterprises. By adopting the refocusing strategy, the Group advances the orderly integration and optimization of all the business segments to realize resource sharing, complement each business segment's advantages, and give full play to synergies, thus ensuring the quality of products and services. Committed to growing together with suppliers and business partners, the Group hopes to create better value through mutually beneficial cooperation.

- Product Quality
- Scientific Research and Innovation
- Protection of Intellectual Property Right
- Supply Chain Management
- Protection of Privacy
- Network Security
- Highlights of 2021

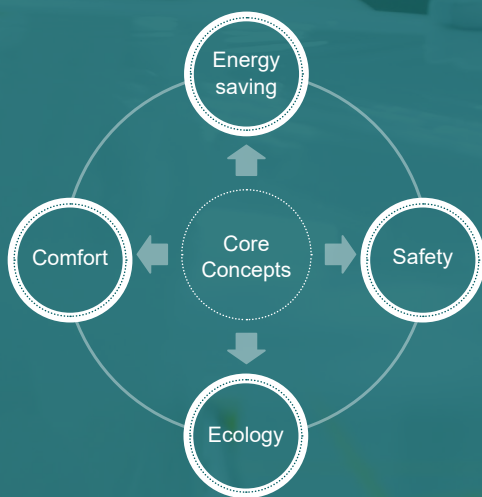




Product Quality

The Group has been constantly optimizing the traditional industrial structure, extending the industrial chain, and promoting industry trends towards greenness, intelligence and being high-end oriented. Product quality control is carried out by all subsidiaries of the Group. The Group adheres to the concept that the interests of the industry are higher than the interests of the enterprise, and strives to promote structural optimization, transformation and upgrade of the industry, so as to achieve joint growth of the industry and enterprises in the industrial chain in a harmonious and win-win manner.

The Group is committed to providing green building material products. The Group researches and develops new building materials based upon the four core concepts, namely energy saving, safety, comfort, and ecology. In the production process of the Group's green building materials products, the production mode of waste utilization is adopted to turn the produced waste into energy again for recycling. In the selection of materials, the Group thoroughly considers the issues of material scrapping, recycling and reusing. The Group also spares no efforts to avoid using methods that may produce harmful substances in the process design, implements clean production and clean processing, and accelerates the development of green building materials.





The Group strictly abides by the Product Quality Law of the PRC, the Advertising Law of the PRC, the Trademark Law of the PRC and other relevant laws and regulations regarding health and safety, advertising, labeling and remedial measures of the products and services provided by the Group. In accordance with its actual situation, the Group has formulated the Measure for Quality Management of China National Building Material Company Limited to ensure that the products meet the requirements of production. Based on strictly abiding by Group-level policies, BNBM has formulated multiple regulations including the Regulations on Product Quality Control, the Measures for the Administration of Supervisory Spot Checks on Product Quality and the Measures for Administration of Supervisory Spot Checks on Main Raw and Fuel Materials, which match its business characteristics and ensure quality products for clients. BNBM exerts control over the quality of raw materials, fuel materials and semi-finished products required for production, sets quality requirements and acceptance rules for related products and materials, and strictly executes the inspection procedures for raw and fuel materials entering the factory and products leaving the factory. In case of quality accidents, BNBM would identify the reasons for the accidents and hold relevant departments and individuals accountable. Through strict quality control and continuously improving after-sales service, BNBM views the best quality products and services for its clients as the top priority, such as establishing an after-sales return visit system, collecting clients' opinions on product quality, performance, and packaging, and establishing client files, to improve the quality.

In addition to quality management measures, the Group has formulated clear product return and recall procedures. For example, Sinoma Science & Technology fully considers the scrapping, recycling, and secondary utilization of product materials in product research and development, process design, and production process, aiming for promoting green and environmentally friendly building materials. Through strict enforcement of quality requirements, clients are guaranteed to receive quality products and services. Specifically, Sinoma Science & Technology and its subsidiaries have formulated policies such as the Product Inspection and Testing Procedures and the Non-conforming Product Control Procedures to avoid selling unqualified products while standardizing the handling and recycling of substandard products.

In terms of product services and complaints, all subsidiaries of the Group have established a comprehensive pre-sale to after-sales service system to standardize after-sales service, based on their business characteristics. In addition, the Group standardizes the client complaint processing process to allow further improvement in client complaint processing efficiency and adheres to the client-oriented principle. To standardize after-sale services system, Sinoma Science & Technology has developed multiple regulations, such as the After-sales Service Management System, the Customer Feedback and Satisfaction Measurement Control Procedures, the Measures for Customer Satisfaction Management, and the Regulations on Customer Complaints and Feedback.



Scientific Research and Innovation

During the Reporting Period, the Group valued innovation as a key factor, focused on the “Four Aspects” and invested much capital and manpower to achieve technological self-reliance, build green manufacturing initiatives, promote realization of “Carbon Peak and Carbon Neutrality”, digital transformation programs, and allow the Group to embark on a path of sustainable and quality development. In 2021, the Group applied for 3,077 patents, including 1,322 invention patents, 2,874 authorized patents, of which 499 were invention patents, 11,000 valid patents were accumulated, of which 2,275 were invention patents, and 438 software copyrights were successfully registered. Besides, in the evaluation by the National Enterprise Technology Centers in 2021, Sinoma Science & Technology was granted excellence, and China Jushi, CTG, BNBM, etc. were granted merit.



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3,077 patents, including **1,322** invention patents



2,874 authorized patents

of which **499** were invention patents



11,000 valid patents were accumulated

of which **2,275** were invention patents



438 software copyrights were successfully

registered

The subsidiaries of the Group continue to optimize management on innovation initiatives and improve the incentive mechanism for innovation. For example, during the Reporting Period, Sinoma International has formulated the Measures for the Administration of Sinoma International Scientific and Technological Achievement Awards (Interim), setting up awards for technological breakthroughs, fully covering the whole process of scientific research innovation. In addition, relying on relevant platforms provided by the Group and its own international influence, Sinoma International plans and holds sci-tech lectures to strengthen technical exchanges in the company and beyond, between industries in China and beyond. Enthusiasm among employees for innovation and entrepreneurship has been boosted. During the Reporting Period, all subsidiaries have improved significantly in independent innovation research and development.

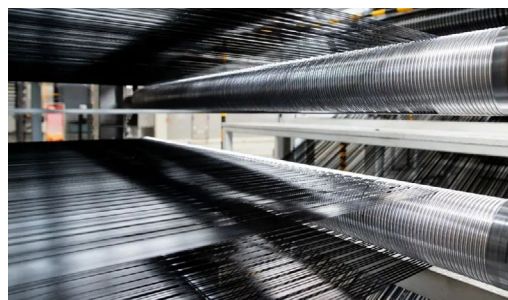




Case Sharing

On 8 September 2021, China's first 10,000-ton carbon fiber production base, invested and constructed by CNBM, was put into operation in Xining City, Qinghai Province. The total investment in the project is RMB5 billion. For the first time, the design of a high-performance carbon fiber production line with a single-line annual output of 3,000 tonnes and the high-end complete set of technologies has been independently controlled. After more than ten years of explorations, CNBM has broken the monopoly of foreign technology and taken the lead in realizing T700 grade dry spray wet spinning, T800 grade carbon fiber thousand-ton engineering, and T1000 grade carbon fiber hundred-ton engineering in China, achieving major results in scientific and technological research. The commissioning of this project has accelerated the domestic substitution of carbon fiber in China's high-end application market and realized the safety and self-control of the domestic carbon fiber supply chain, thus enhancing the international competitiveness of domestic carbon fiber.

After years of tackling "strangle" technical problems, the Zhongfu Shenying team broke through the technology of the industrialization of dry spray wet spinning thousand-ton SYT49 (T700 grade) carbon fiber and took the lead in building a thousand-ton SYT49 (T700 grade) production line in China, which has successfully produced SYT55 (T800 grade) carbon fiber, and now aims at further upgrading to high-performance T1100 grade carbon fiber. From research and development to mass production of the "strangle" carbon fiber, the long-term technology and equipment blockade imposed by foreign companies has been broken, and the imports of carbon fiber in traditional and emerging fields have been gradually replaced by domestic products. It can be said that self-reliance on domestic carbon as key materials of large aircraft has been preliminarily achieved.



Protection of Intellectual Property Right

The Group strictly abides by the Patent Law of the PRC and the Anti-Unfair Competition Law of the PRC. An intellectual property rights (IPR) management system with the characteristics of the building materials industry has been established to provide a guarantee for scientific research to be conducted in an orderly manner. The system has been established to control IPR protection, the management of scientific research funds, and the confidentiality of information and to fulfil the requirements of the internal control system establishment and risk management. The Group has listed intellectual property risks as one of the overall risks of the corporate through sorting and identification and formulated and implemented corresponding risk management strategies and countermeasures to ensure that the intellectual property risks are always controllable, being controlled and affordable. Moreover, with the development of the Management System of CNBM Science and Technology Work, the Measures for CNBM Trademark Management and the Measures for CNBM Patent Management, the Group has strengthened the protection of the IPR of the Group by laws and improved the Group's ability to manage IPR in research activities, production and business operations. Based on compliance with the Group-level policies and systems, each subsidiary has formulated and improved the corresponding management system according to its own situation. For example, during the Reporting Period, BNBK and Qilianshan have implemented corresponding risk management strategies and countermeasures for intellectual property risks to ensure that IP-related risks are always controllable, controllable and bearable. BNBK and Qilianshan respectively issued the Measures for BNBK Patent Management and the Measures for Qilianshan Trademark Management to standardize and protect matters related to intellectual property rights and improve the company's ability of IPR management in the operational activities.

Supply Chain Management

In terms of supply chain management, the Group forms strategic partnership with suppliers of bulk materials, communicates with each other on environmental and safety issues, etc., and timely supervises suppliers' obligations related to social responsibility in accordance with relevant national policies, so as to effectively manage environmental and social risks of supply chain. When selecting new suppliers and business partners, the Group will give priority to the partners with reliable quality, good business operational condition and good reputation, environmentally friendly and with scientific management. After the supplier to be partnered with has been determined, the Group will sign a formal contract with the supplier to avoid risks. In addition, the Group regularly communicates with suppliers to drive improvements with respect to the problems found in the cooperation in a timely manner. In addition, the Group also pays attention to the implementation of local procurement policies. In accordance with the Group's supplier cooperation conditions, the Group will give priority to business cooperation with local suppliers to promote the coordinated development of local society and economy.

The Group has established standardized operating procedures to ensure the objectivity, impartiality and scientificity of the selection and evaluation of suppliers, to strengthen the daily management and quality assessment of the Group's suppliers and to establish a stable and win-win cooperative relationship. The Group also regularly reviews and evaluates such procedures to regulate supplier management. Each subsidiary has also developed a supplier management system that meets its actual situations in accordance with the relevant management policies of the Group, such as the Procurement Management System of South Cement, the Measures for the Supplier Management of South Cement, the Measures for the Supplier Management of BNBK, the Procurement Management System of BNBK, the Measures for the Supplier Management of Jushi Group Company Limited, the Procedures of Jushi Group Procurement Control, the Measures for the Logistics and Supply Management of Qilianshan, the Measures for Risk Prevention and Internal Control of Material Procurement of Qilianshan, the Measures for the Supplier Management of North Cement, the Measures for Procurement Management of Ningxia Building Materials Group Company Limited, and the Measures for Material Procurement Management of China Composites, etc.

At the same time, the Group also attaches importance to the performance of suppliers and business partners in ensuring occupational health and safety of their employees. Provisions of occupational health and safety are included in the business cooperation agreement. The Group actively collaborates with its suppliers and business partners to carry out daily safety inspections, safety training, emergency drills and other work together.

In the process of purchasing raw materials, the Group strongly implements green procurement and gives priority to the products that are environmentally friendly and with low carbon emission during their production processes. For the selection of energy sources, clean energy is given primary consideration. The Group vigorously promotes the use of non-fossil energy such as low-grade energy, municipal waste, biomass energy and others. As for daily office supplies, products with minimal packaging and which are conducive to recycling are selected where possible.





Case Sharing

Sinoma Cement has established a transaction procurement system based on its own “Sinoma Cement E-procurement System”, an electronic procurement trading platform, exerting full-life cycle management of the company's suppliers based on the actual business conditions of the company. Sinoma Cement uses the management module in the trading platform to pre-evaluate potential suppliers and screen qualified suppliers for bidding. The bidding process is jointly supervised by all departments of the company to ensure fairness and transparency. Specifically, the functional departments supervise the whole process, the audit department supervises on-site, and the legal compliance department supervises online.

Sinoma Cement attaches great importance to examining the various qualifications of potential suppliers in the bidding process and devises a complete supply chain management mechanism through the procurement platform and a series of management measures and policies. Suppliers are required to register on the platform, and will be evaluated from multiple aspects such as firm size, equipment production conditions, supply capacity, reputation, quality, technical assurance capabilities, and business performance for graded management. For suppliers who have passed the system certifications such as quality, occupational health and safety, environmental or energy management, Sinoma Cement prefers them as potential bidding suppliers. Moreover, in the bidding process, Sinoma Cement will give priority to suppliers who have been rated as the top two levels of environment-friendly products and services in terms of supplier classification management. Under-performing suppliers will be blacklisted and would not be allowed to participate in the bidding activities of the company.

Regarding the logistics and trade, the Group applies modern internet-of-things technology and its experience in e-commerce operation to effectively integrate services such as supply of bulk building materials, logistics, insurance and credit and inspection and quarantine. The Group is committed to providing comprehensive solutions to the whole process of international trade in order to completely achieve one-stop online management, and thereby enabling the Group to become a global-oriented service supplier in the building materials supply chain.



Protection of Privacy

The Group attaches importance to protecting the privacy of itself and its clients. The Group has implemented a strict confidentiality policy on the personal data of clients, and it requires employees that possess confidential information to sign confidentiality agreements with the Group. For example, in order to further standardize the protection of confidential information in sales, BNBK has formulated the Implementation Measures for the Confidentiality of Sales Information, which regulates the work of relevant personnel involved in sales information and implements the confidential management of client data and sales information. In addition, in order to further standardize the implementation of management measures, Southwest Cement has formulated the Agreement on Commercial Confidentiality to regulate the protection of confidential information concerning client information, marketing plans, pricing policies, non-public financial information, and daily production and operation data for relevant personnel in sales positions. In addition, the Information Disclosure Management System established by China Composites, the Client File Management System and the Implementation Measures for the Confidentiality of Sales Information issued by China Jushi and other policies are designed to further standardize the confidentiality management system, ensuring a comprehensive client privacy protection.



Network Security

The Group attaches great importance to network security, strives to protect the information confidentiality of the Group and its clients, and ensures the normal operation of the Group to avoid problems arising from network accidents. During the Reporting Period, CNBM consolidated the digital foundation, improved its digital governance level, formulated the Management System for Network Security and Information Work of CNBM, the Management System for Network Security and Information Work Project of CNBM and other management systems. A network information security leading group and a working group have been organized to strengthen network information security, carry out network security inspections, and improve the network security technical protection systems, security network protection level grading and filing efforts. Network security management is significantly strengthened, from both infrastructure and system construction. Firewalls, anti-intrusion, all-in-one disaster recovery machines, fortress machines, database auditing and other equipment have been deployed, with the support for IPv6 protocol, so that network security continues to be strengthened. The subsidiaries of the Group also actively formulate responding management measures according to their business characteristics, organize corresponding training and take practical action to guarantee network security.

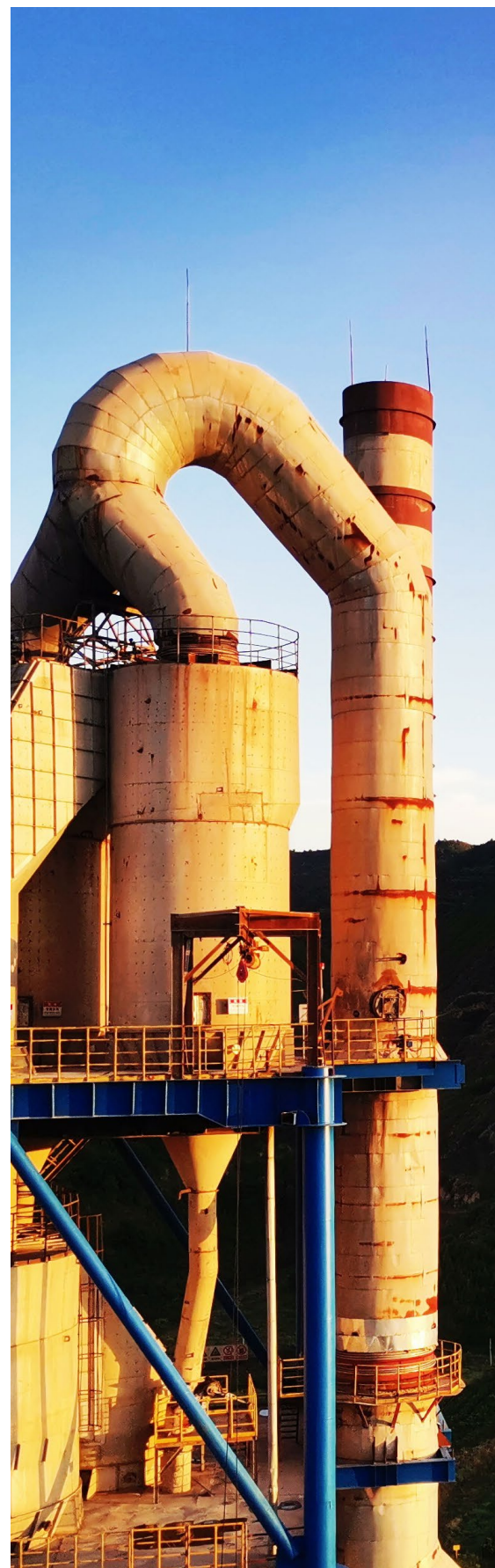


Case Sharing

With the formulation of the Measures for Network Security Management and the setup of the network security leading group and working group, Qilianshan has managed to clarify the responsibilities of functional departments and personnel in the comprehensive management of network security. The company has also implemented a series of network security principles that require outsiders to go through an application and approval process before gaining the consent of the relevant management personnel before they can connect to the network within a specified time span when attempting to access it.

In addition, Qilianshan has established an IT operation and maintenance management platform and a network security situational awareness platform, organized a network security drill once a year and a network security penetration test every quarter. Regular inspections and a 7*24-hour duty system are implemented to ensure regular network vulnerability scanning and security analysis.

Qilianshan regards two network security trainings per year as necessary, including network security awareness training and technology training. Meanwhile, Qilianshan also organizes two information inspections per year to rectify the problems found in a timely manner and incorporates the information inspection results into the production and operation evaluations.



Q Highlights of 2021

This section illustrates the social performance of the Group related to supply chain, product and service during the Reporting Period.

Supply Chain Management



Number of suppliers with long-term partnerships

21,686
2021 23,957
2020

By region

Mainland China

21,121
2021 23,162
2020

Region of Hong Kong,
Macau, and Taiwan

37
2021 385
2020

Overseas

528
2021 410
2020



Number of suppliers screened and controlled by environmental and social risks

18,282
2021 15,602
2020

By region

Mainland China

17,848
2021 15,143
2020

Region of Hong Kong,
Macau, and Taiwan

35
2021 68
2020

Overseas

399
2021 391
2020



Number of suppliers with quality, occupational health and safety, environmental or energy management system certification

10,373
2021 8,510
2020

Intellectual Property Rights



Number of valid patents of the Group

11,000
2021 8,874
2020



the patents of inventions

2,275
2021 1,936
2020



Cases involving infringement of IPR of others

0
2021 0
2020

Issues Related to Products and Services



Violations of regulations and the voluntary codes relating to the provision and use of the Group's products and services³¹ that have a significant impact on the Group

0
2021 0
2020



Proportion of products to be recalled for safety and health reasons (%)

0
2021 0
2020



Litigations concerning the health and safety of products and services that have a significant impact on the Group

0
2021 0
2020



Number of complaints received about products and services

327
2021 295
2020



Proportion of complaints properly replied and handled (%)

100
2021 100
2020



Comprehensive rate of qualified products (%)

100
2021 100
2020



Complaints received arising from the leak of clients' privacy information

0
2021 0
2020

³¹ Including but not limited to product and service information and labeling, marketing and property rights.

08 Contribution to the Society

As a responsible corporate citizen, the Group has been committed to staying true to the original aspiration and keeping the enterprise mission in mind to focus on the development of local communities and neighboring communities of domestic and overseas operating locations in the long run. The Group has actively responded to and implemented the Opinions of the General Office of the CPC Central Committee and the General Office of the State Council on Comprehensively Promoting Rural Revitalization and Accelerating the Modernization of Agriculture and Rural Areas and other national and local policies related to social assistance and community interests, and according to the aforementioned policies, the Group has formulated corresponding work plans and measures of rural revitalization, charity, etc. The Group has contributed to the country's rural revitalization from multiple dimensions, established a number of volunteer activity organizations, and held various charity activities on a regular as well as irregular basis to ensure that the Group takes community interests into consideration in the operation process and shoulders its responsibility as a central state-owned enterprise with practical actions. Meanwhile, the Group extensively engaged in the pandemic prevention and control and volunteered to fight the pandemic. The Group has also proactively facilitated the construction of the "Belt and Road" countries and made great contribution to local infrastructure construction, social development, and improvement in people's living conditions, so as to build a community with a shared future for mankind.

- Rural Revitalization
- Sunshine Charity
- Fighting the Pandemic
- "Belt and Road"
- Highlights of 2021





In 2021, the Group donated a total of approximately RMB105 million for rural revitalization and disaster relief (such as the flood disaster in Zhengzhou) and so on.



Rural Revitalization

The Group attaches importance to assisting rural revitalization and disaster relief and seeks for collective development and growth of enterprise and the area they are located. The Group has established a complete emergency mechanism to support disaster relief, civil defense security and other public matters in time. The Group promotes coordinated arrangement for the “Six Assistances” including assistance in people’s wellbeing, industry development, employment, medical health, education, and e-commerce to make contribution to rural revitalization from various ways and to practically resolve the basic needs of people in hardship, so that the achievement of rural revitalization and assistance could tangibly benefit people’s livelihood. During the Reporting Period, the Group actively initiated and participated in many specific projects about rural revitalization.



Qilianshan initiated “Warm Winter” Program at the paired village

On 29 December 2021, the secretary of the Party Committee of Qilianshan went to the paired village to carry out research of rural revitalization related work and initiate the “Warm Winter” program to send blessing and offerings to the old party members and people in hardship.





Tianshan Cement promoted the “revolution of toilet” to improve living environment and boost rural revitalization

During the Reporting Period, the Bulinjin branch of Tianshan Cement helped villagers from the Yingjisha county to retrofit their dry toilets and promote the use of clean and hygienic water-flushing toilets. With the aim of “bringing tangible benefits to the people”, the company is committed to improving living environment for villagers and enhancing their living qualities.



The Company participated in the “good construction” colorful classroom activity for paired assistance sites launched by the CNBMG



During the Reporting Period, CNBMG together with the county (districts) committee of five paired sites organized the “good construction” colorful classroom activity. The Party branch and the Youth League branch of the Company claimed the wishes of 50 children from Huanghua Village, Jingyuan County, Ningxia and Huixi Town, Yongshan County, Yunnan and helped them realize their wishes.



♡ Sunshine Charity

To encourage employees to actively participate in various voluntary activities, the Group provided guarantees and supports in various aspects such as human resource organizational structure, working mechanism, time management, financial support, and communication and liaison, etc. Under the voluntary service system with the Communist Youth League as its core, subsidiaries at all levels of the Group have established several voluntary groups that organized a variety of voluntary activities. Through participation in the activities, the employees have not only demonstrated their enthusiasm but also spread their happiness. During the Reporting Period, the Group carried out and participated in various specific works focusing on public welfare and charity.



BNBM organized the activity of "facilitating students to take the exam"



Facing the heavy rain in Henan, BNBM actively donated to support post-disaster reconstruction



China Jushi has launched the Chinese New Year donation activity named "Jushi Love Bank" for nine consecutive years

♡+ Fighting the Pandemic

In 2021, in the face of the repeated and severe pandemic, the Group paid great attention and responded quickly to bravely take up the responsibility and make coordinative arrangement for the implementation of works related to pandemic prevention and control. The Group did well in its own works on pandemic prevention and control, and at the same time, fulfilled its responsibility as a central enterprise to participate in pandemic prevention voluntarily.



Ningxia Building Materials organized voluntary service teams to contribute to pandemic prevention and control

In October 2021, facing the unexpected and complicated pandemic, Ningxia Building Materials and its subsidiaries proactively participated in pandemic prevention and normalized online working simultaneously, so as to gain great achievement of both pandemic prevention and business performance.





Qilianshan vigorously engaged in pandemic prevention and control and fought against the pandemic in the frontline

In late October 2021, in face of pandemic in Lanzhou, Qilianshan established voluntary teams who devoted themselves to the frontline of pandemic prevention and control, and donated protective supplies and living necessities including protective suits, masks and disinfectants to local medical agencies, traffic agencies and local communities for many times.



“Belt and Road”

CNBM takes part in the construction of “Road and Belt” and insists on the three win-win cooperation principles of “making contribution to local development, cooperating with local enterprises, and serving the local residents” to create a new global resources mode with high-quality building materials, advanced technologies, and mature experience and to boost the construction of the “Belt and Road” countries. The Group also contributes to promoting economic and social development of the areas where its projects are located at as well as improving local people's livelihood.

In 2012, China Jushi entered the Suez Economic and Trade Cooperation Zone in Egypt and established Jushi Egypt. After 8 years of development, Jushi Egypt has built up the production base which produces 200,000 tonnes fiberglass annually and has filled the blank of Egypt and even Africa in the field of fiberglass industry.

Jushi Egypt vigorously advocates for collective development of employees and the enterprise, and promotes the localization of job positions to provide working opportunities for the locals. As of August 2021, 76% of the middle level managers and 98% of the frontline employees in Jushi Egypt are the locals. Meanwhile, Jushi Egypt respects multiculturalism and has constructed prayer rooms and halal canteens for Muslim employees in Egypt.



76%

of the middle level managers are the locals



98%

of the frontline employees are the locals



Jushi Egypt's glass fiber production base with 200,000 tonnes annul output



The local employees of Jushi Egypt



Jushi Egypt organized charitable donation activities to provide assistance for the local poor and donated to the African Hope School to improve teaching environment.

Highlights of 2021

This section illustrates the social performance of the Group on contribution to the society and public charity during the Reporting Period.

Contribution to the Society



Amount of public charity investment³² (RMB million)

117.07	138.00
2021	2020



Total investment of rural revitalization³³ (RMB million)

27.89	-
2021	2020 ³⁴



Number of supportive projects

72	70
2021	2020

Supporting science and education



Number of special scholarship projects

10	8
2021	2020



Number of schools involved in the scholarship

42	29
2021	2020



Total amount of scholarship (RMB million)

0.30	0.14
2021	2020



Number of students who received scholarships

83	28
2021	2020



Number of entrepreneurial internship bases

95	59
2021	2020



Provide internship for undergraduates (Person-Days)

24,588	22,167
2021	2020

³² Including amortization of rural vitalization and materials.

³³ Including amortization of materials.

³⁴ 2021 is the first year of rural revitalization.

Carrying out volunteer activities



Number of established volunteer organizations or groups

119 111
2021 2020



Number of volunteers among employees

6,819 4,481
2021 2020



Annual number of working hours for volunteer activities

24,149 25,360
2021 2020



Total investment of all subsidiaries' annual support in volunteer activities (RMB million)

1.06 1.02
2021 2020



Participate in or support activities relating to the protection of the rights and interests of women, children, or persons with disabilities (Times)

153 144
2021 2020



09 Independent Assurance Statement

To the Board of Directors of China National Building Material Company Limited:

CECEP (HK) Advisory Company Limited (“**CECEPAC (HK)**” or “**We**”) has been entrusted by China National Building Material Company Limited (“**CNBM**”) to conduct an independent limited assurance engagement (“**Assurance Engagement**”) on the information and data related to sustainability in CNBM’s 2021 Environmental, Social and Governance Report (“**ESG Report**”).

CECEPAC (HK) assessed CNBM’s adherence to the four AA1000 Accountability Principles (Inclusivity, Materiality, Responsiveness and Impact) set out in the AA1000 Assurance Standard v3 (“**AA1000AS v3**”). Besides, CECEPAC (HK) provided limited assurance on the reliability and quality of specified performance information disclosed in the ESG Report that has been selected in accordance with the 2016 edition of the Environmental, Social and Governance Reporting Guide (“**ESG Reporting Guide**”) published by the Stock Exchange of Hong Kong Limited (“**SEHK**”).

This independent assurance statement has been prepared in Traditional Chinese and English versions. Should there be any discrepancies between these versions, the Traditional Chinese version shall prevail.

Independence and Competence

CECEPAC (HK) was not involved in collecting and calculating the data in the ESG Report or preparing the ESG Report. CECEPAC (HK)’s assurance activities are independent from CNBM. There is no relationship between CNBM and CECEPAC (HK) beyond the contractual agreement for providing proper assurance service.

The assurance team of CECEPAC (HK) is composed of experienced consultants in the industry who have had professional training on sustainability-related standards such as GRI Standards issued by the Global Sustainability Standards Board (GSSB), AA1000AS v3, the ESG Reporting Guide of the SEHK, etc.

The assurance team of CECEPAC (HK) has extensive experience in conducting assurance work and has sufficient understanding and capabilities of the implementation of AA1000AS v3. Meanwhile, the Assurance Engagement related to sustainability issues is carried out in line with CECEPAC (HK)’s internal assurance protocol.

CNBM’s Responsibilities

CNBM is responsible for the preparation and presentation of the ESG Report in accordance with the ESG Reporting Guide published by SEHK. CNBM is also responsible for implementing relevant internal control procedures to ensure that the contents of the ESG Report are precise and free from material misstatement, whether due to fraud or error.

Assurance Provider’s Responsibilities

CECEPAC (HK) is responsible for issuing an independent assurance statement according to AA1000AS v3 and the ESG Reporting Guide published by SEHK to the Board of Directors of CNBM. This independent assurance statement applies solely to the ESG Report in the specified scope, expresses a conclusion on the assurance work, and does not serve any other intents or purposes.

CECEPAC (HK) ensures that all personnel involved in the Assurance Engagement meet the professional qualification, training and experience requirements, and are proficient in conducting assurance engagements. All results of assurance are internally reviewed by senior staff to ensure that methodologies used in the process are sufficiently stringent and transparent.

Assurance Scope

The scope of the Assurance Engagement is limited to the information and data in the ESG Report that relates to CNBM and its subsidiaries and does not include data or information provided by CNBM's suppliers, contractors, and other third parties;

Type 2 Moderate Level of Assurance was adopted to evaluate the nature and extent of CNBM's adherence to the four AA1000 Accountability Principles set out in the AA1000AP (2018);

CNBM and CECEPAC (HK) reached an agreement to select specified performance information in the ESG Report as part of the content for Assurance Engagement. The selected specified performance information is as follows:

- Waste heat power generation in 2021
- Water consumption in 2021
- Number of work-related fatalities in 2021

The time scope of the Assurance Engagement was with respect to information disclosed from 1 January 2021 to 31 December 2021 and included in the ESG Report only. Any information that falls outside this period and disclosed in the ESG Report is not included within the scope of the Assurance Engagement. Therefore, we do not express any conclusions on such information; and

The scope of the assurance is confined to the information and data provided by CNBM. Any queries regarding the content or related matters within this independent assurance statement should be addressed to CNBM only.

Methodology of the Assurance Engagement

CECEPAC (HK)'s Assurance Engagement was conducted with respect to CNBM and its subsidiaries only, and the assurance work included:

- Evaluating the channels, process and conclusions of CNBM 's stakeholder engagement process, the methodology for selecting issues of stakeholder concern and the rationality of the process for determining material issues;
- Conducting interviews³⁵ with CNBM's sustainability management and other personnel involved in the preparation and provision of the content and information in the ESG Report, to understand the strategies, policies and implementation of key sustainable development issues;
- Assessing whether the reporting and management approach disclosed in the ESG Report responded to the principles of Inclusivity, Materiality, Responsiveness, and Impact as defined in the AA1000AP (2018);
- Examining the systems used to generate, record and report selected performance information and data, and conduct sampling and checking of selected performance information for supporting evidence of data reliability and quality; and
- Performing other procedures, we deemed necessary.

The conclusions within the Assurance Engagement were based upon the assumption that the information provided by CNBM to CECEPAC (HK) was complete and accurate.

³⁵ Due to the COVID-19 situation and other factors, the Assurance Engagement was conducted through online means and interviews were conducted over the online meeting.

Limitations

The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities.

Conclusions

In accordance with the principles of Inclusivity, Materiality, Responsiveness and Impact in the AA1000AP (2018), and the specified performance information, our findings and conclusions are detailed as follows:

Inclusivity

CNBM has identified key stakeholders. Regular communication with the key stakeholders has been carried out in various ways to understand their expectations and key concerns. On this basis, CNBM has formulated policies in consideration of key stakeholders' expectations and its impacts to key stakeholders. In our professional opinion, CNBM adheres to the Principle of Inclusivity.

Materiality

CNBM has understood key stakeholders' concerns and expectations through regular stakeholder communication mechanisms as the foundation for identifying the material sustainability issues. Meanwhile, CNBM has established materiality assessment procedures to collect opinions from key stakeholders and then identify the material issues of the ESG Report. The procedures and results of materiality assessment have been disclosed in the ESG Report. In our professional opinion, CNBM adheres to the Principle of Materiality.

Responsiveness

CNBM has established regular stakeholder communication mechanisms to understand the concerns and expectations of key stakeholders, and has followed relevant procedures when responding to concerns raised by key stakeholders. Meanwhile, CNBM has disclosed in the ESG Report its green development philosophy, sustainable development management systems and key stakeholder engagement activities and has responded to material issues identified during the materiality assessment. In our professional opinion, CNBM adheres to the Principle of Responsiveness.

Impact

CNBM has allocated resources on understanding, measuring, evaluating and managing its impacts that lead to more effective decision-making and result-based management within the corporate and has disclosed these impacts as appropriate in the ESG Report. In our professional opinion, CNBM adheres to the Principle of Impact.

Specified Performance Information

Based on the procedures CECEPAC (HK) has performed and the evidence we have obtained, nothing has come to our attention that causes us to suspect the reliability and quality or the conformity with the preparation basis set out in the ESG Report of the three selected specified performance information of the ESG Report.

Recommendations

We recommend that CNBM consider the below items in the future:

- Better integrate the results of stakeholder engagement into CNBM 's sustainability management, strategy development and decision-making process;
- Enhance the regular tracking and management of ESG performance information and data in the process of generating, recording and reporting, to continuously improve CNBM 's ESG performance;
- Establish qualitative and/or quantitative sustainability targets, action plans and progress tracking mechanisms to facilitate long-term planning of corporate sustainability efforts.



23 May, 2022
Hong Kong, China

10 Content Index of the Stock Exchange's ESG Reporting Guide

Mandatory Disclosure Requirements		Disclosure Section
Governance Structure	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritize and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's business	Responsible Governance – Governance of Sustainable Development
Reporting Principles	A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report: materiality, quantitative, consistency.	About the Report – Reporting Guideline
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About the Report – Reporting Scope

"Comply or explain" Provisions		
Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
A. Environmental		
Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste	Low-Carbon and Environmental Protection – Green Operation
KPI A1.1	The types of emissions and respective emissions data	Low-Carbon and Environmental Protection – Highlights of 2021
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Low-Carbon and Environmental Protection – Highlights of 2021
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Low-Carbon and Environmental Protection – Highlights of 2021
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Low-Carbon and Environmental Protection – Highlights of 2021
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them	Low-Carbon and Environmental Protection – Addressing Climate Change, Green Manufacturing
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them	Low-Carbon and Environmental Protection – Green Manufacturing ; Due to the large differences among business segments of the Group and the difficulty in unifying the statistic caliber, the Group has not established relevant reduction target(s) and will establish and disclose in the future.

Aspect A2: Use of Resources

General Disclosure	Policies on efficient use of resources, including energy, water and other raw materials	Low-carbon and Environmental Protection – Green Manufacturing
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Low-carbon and Environmental Protection – Highlights of 2021
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Low-carbon and Environmental Protection – Highlights of 2021
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them	Low-carbon and Environmental Protection – Addressing Climate Change, Green Manufacturing
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Low-carbon and Environmental Protection – Green Manufacturing, Highlights of 2021; Due to the large differences among business segments of the Group and the difficulty in unifying the statistic caliber, the Group has not established relevant water efficiency target(s) and will establish and disclose in the future.
KPI A2.5	Total packaging material used for finished products (in tonnes), and if applicable, with reference to per unit produced	Low-carbon and Environmental Protection – Highlights of 2021

Aspect A3: The Environment and Natural Resources

General Disclosure	Policies on minimizing the issuer's significant impacts on the environment and natural resources	Low-carbon and Environmental Protection – Green Ecology
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Low-carbon and Environmental Protection – Green Products, Green Ecology, and Highlights of 2021

Aspect A4: Climate Change

General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Responsible Governance – Risk Management and Internal Control Low-carbon and Environmental Protection – Addressing Climate Change
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them	Low-carbon and Environmental Protection – Addressing Climate Change

B. Social

Employment and Labor Practices

Aspect B1: Employment

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare	Caring for Employees – Standardized Employment, People-Oriented, and Equality and Diversity
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region	Caring for Employees – Highlights of 2021
KPI B1.2	Employee turnover rate by gender, age group and geographical region	Caring for Employees – Highlights of 2021

Subject Areas, Aspects, General Disclosures and KPIs		Locations of Disclosure or Remarks
Aspect B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards	Caring for Employees – Safety and Health
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Caring for Employees – Highlights of 2021
KPI B2.2	Lost days due to work injury	Caring for Employees – Highlights of 2021
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	Caring for Employees – Safety and Health
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities	Caring for Employees – Co-development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	Caring for Employees – Highlights of 2021
KPI B3.2	The average training hours completed per employee by gender and employee category	Caring for Employees – Highlights of 2021
Aspect B4: Labor Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor	Caring for Employees – Standardized Employment, and Equality and Diversity
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor	Caring for Employees – Standardized Employment
KPI B4.2	Description of steps taken to eliminate such practices when discovered	Caring for Employees – Standardized Employment
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain	Quality Assurance – Supply Chain Management
KPI B5.1	Number of suppliers by geographical region	Quality Assurance – Highlights of 2021
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Quality Assurance – Supply Chain Management, and Highlights of 2021
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Quality Assurance – Supply Chain Management
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	Quality Assurance – Supply Chain Management

Aspect B6: Product Responsibility

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress	Quality Assurance – Product Quality
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Quality Assurance – Highlights of 2021
KPI B6.2	Number of products and service related complaints received and how they are dealt with	Quality Assurance – Product Quality, and Highlights of 2021
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights	Quality Assurance – Protection of Intellectual Property Right
KPI B6.4	Description of quality assurance process and recall procedures	Quality Assurance – Product Quality
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	Quality Assurance – Protection of Privacy

Aspect B7: Anti-corruption

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering	Responsible Governance – Integrity Building and Code of Conduct
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases	Responsible Governance – Highlights of 2021
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored	Responsible Governance – Integrity Building and Code of Conduct
KPI B7.3	Description of anti-corruption training provided to directors and staff	Responsible Governance – Integrity Building and Code of Conduct, Highlights of 2021

Community

Aspect B8: Community Investment

General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration communities' interests	Contribution to the Society
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	Contribution to the Society – Rural Revitalization, Sunshine Charity, Fighting the Pandemic, "Belt and Road"
KPI B8.2	Resources contributed (e.g. money or time) to the focus areas	Contribution to the Society – Highlights of 2021

11 Feedback

Thank you for reading the 2021 ESG Report of CNBM. To better meet your needs and provide you with more valuable information, we hope you will fill the feedback form with valuable opinions and suggestions and send it to cnbmtd@cnbm.com.cn

1. Which of the following stakeholders do you belong to:

- ☐ Government and regulatory institutions ☐ Shareholders/Investors ☐ Employees ☐ Clients
☐ Suppliers/Contractors ☐ Business Partners ☐ Members of communities/organizations ☐ Media ☐ Others

2. Your comments on the Report:

- ☐ Poor ☐ Average ☐ Good ☐ Very Good

3. Your comments on CNBM's fulfillment of social responsibility for stakeholders:

- ☐ Poor ☐ Average ☐ Good ☐ Very Good

4. Do you think the Report reflects the influence of CNBM's fulfillment of social responsibilities on environment and society:

- ☐ No ☐ Average ☐ Yes

5. Do you think the information disclosed in the Report is complete:

☐ No ☐ Average ☐ Yes

6. Do you think the content and format of the Report is clear and understandable:

☐ No ☐ Average ☐ Yes

7. Other opinions and suggestions on improving and enhancing CNBM's fulfilment of social responsibilities and the Report:

Thanks for your concern of and support to CNBM!



CNBM

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