

China National Building Material Company Limited

Stock Code: 03323





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About the Report

The Report is the 7th 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 2022. The Report mainly includes environmental, social and governance topics related to the Group's sustainable development and climate-related risks and opportunities which are addressed by the Group's stakeholders, in order to facilitate better understanding of 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 2022 Annual Report. All the governance documents of CNBM disclosed on the website of the Stock Exchange (www.hkexnews.hk) are also available on the Group's official website (www.cnbmltd.com) under the "Governance Documents" of "Investor Relations" section for a comprehensive understanding of the Group's relevant information.

Reporting Period

Unless otherwise specified, the Report covers the period from 1 January 2022 to 31 December 2022. The information presented in the Report includes the Group's specific policies and performance in ESG aspects. Considering the continuity and comparability of the information disclosed, the timeframe of certain 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 framework 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). 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 "Materiality": During the preparation of this Report, major stakeholders and ESG issues of concern have been identified, and targeted disclosures have been made in this Report according to the importance of their concerns.

"Quantitative": This report presents key performance indicators at the environmental and social levels in the form of quantitative data and makes calculations according to national regulations or industry standards, such as the General Principles for Calculation of Comprehensive Energy Consumption, the Guidelines for Accounting Methods and Reporting Greenhouse Gas Emissions of China's Cement Production Enterprises, the Notice on Key Work Related to the Management of Greenhouse Gas Emissions Report of Enterprises in 2022, and the Annual Development Report of China's Electric Power Industry 2022. The measurement standards, methods, assumptions and/or calculation tools of the key performance indicators in this report, as well as the sources of conversion factors used, have been explained in the corresponding positions. Unless otherwise specified, the monetary unit is RMB.

"Balanced": This report follows the principle of balance to objectively present the Group's ESG performance and management status.

"Consistency": Unless otherwise specified, this Report applies the same statistical method with the 2021 Environmental, Social and Governance Report of the Company.

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" for more details.

Confirmation and Approval

The Report was confirmed by the ESG team members of the Company in March 2023. The Board has reviewed, confirmed, and approved the Report, and ensured 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 both Chinese and English version. If there is any discrepancy in the content, the Chinese version shall prevail. The Chinese and English PDF files of the Report are available on the Company's official website (http://www.cnbmltd.com) 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 are preparing or planning for information disclosure in the future to introduce the status of fulfilling corporate social responsibility.

The ESG reports or sustainability reports issued by the subsidiaries of the Group for the year 2022 are as follows.

2022 New Tianshan Cement Environmental, Social and Governance (ESG) Report

2022 Ningxia Building Materials Environmental, Social and Governance (ESG) Report

2022 Qilianshan Environmental, Social and Governance (ESG) Report

2022 BNBM Environmental, Social and Governance (ESG) Report

2022 China Jushi Environmental, Social and Governance (ESG) Report

2022 Sinoma Technology Environmental, Social and Governance (ESG) Report

2022 Sinoma International Environmental, Social and Governance (ESG) Report

2022 Zhongfu Shenying Environmental, Social and Governance (ESG) Report

2022 BNBM PNG Sustainable Development Report

The relevant report is available on the Group's website (www.cnbmltd.com/col/col1313). More information about the Group's ESG performance can be obtained from the WeChat official account of CNBM.

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.

E-mail: esg@cnbm.com.cn







Chairman Statement

The year 2022 was truly momentous, remarkable and difficult. Confronted with the complex and unpredictable international situation and arduous domestic tasks of continuing reform and development and maintaining stability, we insisted on the core philosophy of "Make good use of resources and serve the construction" and the core values of "Innovation, Performance, Harmony, Responsibility" to seek progress and improve quality unswervingly and steadily. As a result, the Group made remarkable progress in all aspects of work, showing strong resilience. During the reporting period, the Group made substantial progress in ESG management system capacity building, and delivered a satisfactory result to shareholders and other stakeholders in terms of economic, environmental, social and governance development.

Achieving business breakthroughs by further reforming.

2022 was the last year of the three-year action plan for SOE reform. We have made efforts to tackle the hardest tasks, and completed the main account tasks ahead of schedule, achieving a high quality result, and the operating results were in line with expectations. The Group has continuously consolidated the foundation of basic building materials, while the new materials segment has grown rapidly against trend, and the engineering technical services segment has been improved steadily. At the same time, we also have always been committed to the concept of sustainable development and has set up environmental goals and action plans based on our own business development and effectively implemented them. In 2022, on the basis of the existing ESG governance structure, we actively explored ways to further strengthen the ESG governance structure and system, established the ESG Committee of the Board¹ in March 2023, optimized the ESG strategic objectives and management strategies, improved the ESG overall management network, and effectively responded to the risks and opportunities related to ESG and climate change, and continuously improved ESG performance.

¹ On March 24, 2023, the fifth meeting of the fifth session of the Board of the Company reviewed and approved the establishment of the ESG Committee of the Board.

Advancing "Carbon Peaking and Carbon Neutrality" goals and promoting transformation by improving quality and addressing empowerment.

We have been implementing "Carbon Peaking and Carbon Neutrality" approaches in a meticulous way, actively advancing green management, insisting on green manufacturing and promoting green products, to make every effort to protect the ecological conservation and build a beautiful China. In 2022, we insist on driving innovation, for the basic building materials segment, we accelerated the management of "High Energy Consumption and High Emissions", promotion of energy efficiency improvement, fuel substitution, power optimization, raw material substitution and low-carbon cement development, sequestrated and buried carbon through CCUS and mine recover, and continued to optimize emission indicators to promote the construction of green factories. For the new materials segment, the Group increased the intensity of investment in research and development, promoted green transformation and achieved the transformation of new and old kinetic energy. For the engineering technical services segment, the Group continued to serve the green, low-carbon and sustainable development with innovation through high-standard technological transformation projects. We pay attention to the full life cycle performance of our products, and we are committed to providing high-guality, safe, healthy, and green basic building materials and new material products, to contribute to the sustainable development of the whole society. In addition, we have also been carrying out the rectification and reform of the problems of ecological and environmental protection inspectors, with a 100% completion rate of the rectification and reform of the Central Environmental Protection Supervision by 2022 and has been promoting the "Carbon Peaking and Carbon Neutrality" strategy in an orderly manner to accelerate the green and low-carbon transformation.

Ensuring product quality by innovation.

We bear in mind the country's most fundamental interests and commits to creating "great material of the country" to highlight the role of innovation as the primary driving force. We have long been focusing on the development of the building materials industry and the improvement of product quality by incorporating the spirit of craftsmanship. In doing so, we seek common development with peer enterprises. On the one hand, we continue to strengthen strategic cooperation with large enterprises, leading enterprises and local governments to facilitate the origination of technology and drive business growth; on the other hand, we actively promotes the technological innovation of new material products, builds the graphite new material industry chain, improves the industrial layout, cultivates new economic growth points, and continuously enhances the digitalization of operation and management and the visualization of data application through the industrial Internet platform, accelerating the digital transformation of intelligent manufacturing in the building materials industry. Furthermore, we firmly believe that "the interests of the industry take precedence over those of an enterprise", therefore, 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, to manage environmental and social risks in the supply chain and promote the upgrading of the industry.

Undertaking social responsibility and putting people first.

We adhere to the people-oriented principle and regards talents as priority. We continue to improve the mechanism of identifying, employing and fostering talents, so as to continuously empower company capacity to meet the goal of creating "great material of the country". We regard employees by focuses on maintaining the diversity of the team, caring for employees, and continues to enrich employee benefits, vocational training, leisure activities and volunteer services and support. Meanwhile, we actively participate in public welfare activities such as rural revitalization and assistance to Xinjiang and Tibet, and insists on fulfilling its social responsibilities to improve people's lives. We also firmly establish the concept of a human community with a shared future, continue to promote high-level open cooperation, and we are committed to the Belt and Road Initiative, effectively enhance our global resource allocation and integration capabilities, and truly fulfil the corporate mission of "materials create a better world".

The year 2023 is the opening year to fully implement the spirit of the 20th National Congress of the Communist Party of China and the key year to implement the 14th Five-Year Plan. Standing at a new starting point, we will actively fulfill our economic and social responsibilities as a central enterprise, taking our core competitiveness increasing and core functional position strengthening as the two cores of high-quality development and create a better world together!

Zhou Yuxian Chairman of the Board Beijing, China March 24, 2023

Highlights of CNBM



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Board Statement

The Group is committed to practicing the concept of sustainable development. The Board attaches great importance to ESG management and has established an ESG management system with the responsibility of the Board, organization from the management, cooperation of the departments and upward and downward linkage. The Board has established the ESG Committee. The Committee is accountable to the Board and is mainly responsible for evaluating the Company's corporate governance, environmental and social responsibility management and the risks and opportunities faced, formulating and reviewing the Company's corporate governance, environmental and social responsibility management vision, objectives and strategies, and regularly reporting to the Board on major topics related to ESG work. The Board regularly listens to and reviews the ESG work progress report of the ESG Committee, and guides the ESG work guidelines. Management is responsible for the specific implementation of ESG strategies and objectives, and regularly reports to the ESG Committee on major topics related to ESG work.

The Group attaches great importance to the evaluation of the materiality of ESG issues, optimizes the way of stakeholder engagement, identifies, evaluates and manages material ESG issues, and compares the differences with the evaluation results in previous years. The specific assessment process and results are detailed in the "Establishing the

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 Group's H Shares under the initial public offering were listed on the Stock Exchange on 23 March 2006 (Stock Code: 03323). As of the end of the Reporting Period, the Group owned seven A-share listed companies² with approximately 150,457 employees.

The Group is the core industrial platform and flagship listed company of China National Building Materials Group, a large central building materials enterprise. 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 2022), the Group is: Foundation of Sustainable Development" section of this report and reviewed by the Board.

In respect of ESG risk management, the Group has integrated ESG risk management into its daily risk management system. All departments and subsidiaries of the Group identify and prevent significant ESG risks in the daily operation and production process. The ESG Committee regularly reviews such risks and reports the risk management to the Board on a regular basis.

The Group has developed effective strategies to maintain a balance between the Company's environmental and social impact and the achievement of its business objectives to promote sustainable development. The ESG Committee reviews and evaluates the Group's ESG strategy on a regular basis to review and ensure alignment with the Company's development strategy. During the reporting year, the Group also established environmental objectives associated with its business operations and reviewed the achievement of the objectives in the previous year. The establishment of objectives and the results of the review are detailed in the "Environment" of this report and reviewed and discussed by the Board.

This report discloses in detail the progress and effectiveness of the Group's 2022 ESG work, which has been reviewed and approved by the Board on March 24, 2023.

0	The largest cement producer in the world
0	The largest commercial concrete producer in the world
0	The largest glass fiber producer in the world
0	The largest gypsum board producer in the world
0	The largest wind power blade producer in the world
0	The largest light steel stud producer in the world
0	The largest cement engineering system integration service provider in the world

Business overview

The business segments and the major operating entities of each business segment for the Group as of 31 December 2022 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	84.52%	Cement, Commercial concrete, Aggregate
	Ningxia Building Materials	49.03%	Cement, Commercial concrete, Aggregate, Intelligent logistics
	Qilianshan	26.73%	Cement, Commercial concrete, Aggregate
New materials	BNBM	37.83%	Gypsum board, Stud, Waterproof, Coating
	China Jushi	26.97%	Glass fiber
	Sinoma Science & Technology	60.24%	Glass fiber, Wind power blade, Lithium battery separator, Hydrogen energy cylinders
	China Composites	100%	Wind power blade, Carbon fiber
	Sinoma Graphite	100%	Graphite new materials
Engineering technical services	Sinoma International	47.77%	Cement and mining technical equipment and engineering services, Transportation and repairment
Others	CNBM Investment	100%	Overseas warehouse (including overseas chain stores), Resource development, Logistics, Investment

Note: Established in November 2022, Sinoma Graphite is not included in the scope of data disclosure in this report. Unless otherwise specified, the environmental and social data disclosed in this report is the sum of the data of the Group and the above subsidiaries (except for CNBM Graphite), and has nothing to do with the shareholding proportion of the Company.

Awards and Recognition

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. In 2022, the Group and its subsidiaries received a number of honorable awards, including but not limited to the following:

Ŷ	C	omprehensive award
	0	The Company was ranked No.45 in Fortune
	0	The Company was ranked first in the Most sector by Institutional Investor, "Asia-Pacifi
	0	The Company was ranked first in the comp Companies of Global Building Materials in 2 Federation
	0	New Tianshan Cement was listed as the anr Enterprises of "2022 Forbes China's Top 50
	0	BNBM was ranked 150th in "Top 500 Asian building materials brands
	0	China Jushi was awarded "Top 50 Best List
	0	China Jushi and Sinoma Science & Technolo Technological Breakthrough Leaders in the 2022" by the China Building Materials Fede
	0	Zhongfu Shenying, affiliated to China Comp Innovative Science and Technology Innovat Association
	0	Sinoma International was listed as ENR's " Contractors", ranking 44th in the world an
	0	CNBM Investment was listed in the "2022 C Top 100" by the China Building Materials Fe

S e (Chinese edition) "List of China's Top 500" Honored Company in the Basic materials fic Company Management Team" prehensive strength ranking of "Listed 2022" by China Building Materials nual Model of China's Sustainable Industrial Model Sustainable Industrial Enterprises" brands", and once again in top 3 of Asian sted Company" of the Fourth New Fortune logy was listed as "Top Ten Scientific and e National Building Materials Industry in eration posites, won the title of "2022 Most tion Board Listed Companies" by Caixin "The World's 250 Largest International nd 11th in Chinese enterprises China Building Materials Service Industry ederation

P ESG awards

- O The Company was ranked first in the Most Socially responsible Company in the baisc materials sector by Institutional Investor, "Asia-Pacific Company Management Team" "
- O The Company was selected in Forbes "2022 China ESG 50" list
- O The Company, China Jushi and Sinoma International continue to be selected in the ESG Pioneer 50 Index of Central Enterprises
- O The Company was awarded Wind "ESG Hong Kong Stock Best Practice Award (Governance)" in 2022
- O BNBM was ranked 150th in "Top 500 Asian brands", and once again in top 3 of Asian building materials brands
- O The Company won Sina Finance "The most ESG listed company in Hong Kong and US stocks" in 2022
- ◎ The Company was selected in the Hang Seng Climate Change 1.5 °C Target Index
- New Tianshan Cement's Deepening the Construction of ESG System and Promoting the Development of the World's First-class was selected into the ESG Excellent Practice Cases of Listed Companies by the China Association of Listed Companies
- O China Jushi's Responsibility and Wealth Sharing Boost the" Three Highs "Development of Enterprises was selected into the ESG Excellent Practice Cases of Listed Companies by the China Association of Listed Companies
- Sinoma International won the first ESG Golden Bull Award as a "Governance Pioneer"
- Sinoma International won the "Golden Responsibility Award" for the Best Responsibility Enterprise
- Sinoma International won the "ESG Gold Jasmine Award" at the second Jiangsu Capital Market Summit

P Outstanding practice awards

South Cement, Zhonglian Tongli and Linli South New Material, affiliated to New Tianshan Cement, won the "First Prize of Excellent Achievements in Reform and Development of Chinese Enterprises in 2022" O Ningxia Building Materials' "Financial Sharing to Improve Data Quality and Activate Data Value" was selected as the 2022 Autonomous Region-level Enterprise Management Modernization Innovation Achievement O Gulang and Yongdeng, subsidiary companies of Qilianshan, were awarded "National Safety Culture Model Enterprise" by China Production Safety Association **O** BNBM Passed the 18th National Quality Award Enterprise Confirmation Evaluation O China Jushi won the 23rd China Patent Golden Award, the 3rd High-end Manufacturing CIO Forum "Digital Manufacturing Excellence Award", and the Science and Technology Progress Award of Zhejiang Province O Jiujiang Company, a subsidiary of China Jushi, was awarded "National Model Enterprise for Creating Harmonious Labor Relations" O Beijing Composite, a subsidiary of Sinoma Technology, was awarded "Science Reform Demonstration Enterprise" by the State Council State-owned Enterprise Reform Leading Group Office Sinoma Technology was awarded "National Intellectual Property Model Enterprise" O NRDI, a subsidiary of Sinoma Science and Technology, was awarded "National Intellectual Property Edged Enterprise" O Sinoma International won the First Prize of Scientific and Technological Progress in **Building Materials Industry** O CBMI Construction France MK3 Project of Sinoma International won the Second Prize of Quality Management in National Building Material Industry O China Standard Sand, a subsidiary of CNBM Investment, was awarded "Rising Star" of National Specialization

Establishing the Foundation of Sustainable Development

- **U** Sustainability governance
- **Stakeholder engagement**
- ➡ Materiality assessment
- **UN** SDGs alignment

China National Building Material Group Co., Ltd., the parent company of the Group, formally joined the United Nations Global Compact (UNGC) in 2014. As a practitioner of international social responsibility and a leading enterprise in the integrated building materials industry both at home and abroad, the Group adheres to its core philosophy of "Make Good Use of Resources and Serve the Construction" and core values of "Innovation, Performance, Harmony, Responsibility", forging a unique sustainable development concept. Owing to the joint efforts of the management and all employees, the Group has orderly promoted green and low-carbon transformation, technological innovation and breakthroughs, safety production and construction, and achieved satisfactory results in sustainable development and governance during the reporting period.

Core philosophy

Make Good Use of Resources and Serve the Construction

The Value Concepts of the Group

Core values

Innovation, Performance, Harmony, Responsibility

Sustainability governance

To proactively fulfil 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.

Mission Materials Create a **Beautiful World** Code of conduct Reverence, Gratitude, Modesty, Propriety

ESG governance structure

Approved by the Board, the Company formulated and implemented the "Working Instruction of the ESG Committee of the Board" and "Management System for the ESG Working Group" of CNBM, defined the Company's ESG governance structure

and further strengthened the management duties and works concerning climate change to better respond to the nation's advocation of "Carbon Peaking and Carbon Neutrality" .

Read The Board

as the highest decision-making body of the Company's ESG work, is responsible for the Company's ESG strategy and reporting. The Board receives and reviews regular reports from the ESG Committee on the progress of ESG work and provides guidance on ESG issues.

The ESG Committee

is a professional ESG management committee, which supervises ESG matters and regularly reports to the Board on major topics related to ESG work. The main responsibilities of the ESG Committee include:

- · Studying and formulating the overall ESG management objectives, management strategies and management policies of the Company, including the process of evaluating, prioritizing and managing material ESG-related issues (including climate change, employee safety and health, labor management, waste management and pollutant discharge and business ethics);
- Monitoring and reviewing the Company's ESG policies and practices to ensure that these policies and practices keep pace with the times, meet the needs, and comply with applicable laws, regulatory requirements and international standards;
- · Assessing and defining the risks and opportunities of CNBM and all its subsidiaries in relation to ESG, and ensuring that the Company has set appropriate and effective ESG risk management and internal control systems;
- · Reviewing material ESG management issues, including but not limited to reviewing the Company's compliance with the Environmental, Social and Governance Reporting Guide as set out in Appendix 27 to the Listing Rules, reviewing and approving the annual ESG report and reviewing the progress of the annual ESG overall objectives, and explaining the relationship between the relevant objectives and the Company's business;
- · Reviewing and giving opinions on the ESG management policies, objectives and strategies of the Company;
- Regularly assessing whether the company's ESG structure is adequate and effective;
- Evaluating the way the Company communicates with stakeholders on ESG issues and ensuring that appropriate engagement policies and channels are in place to effectively promote the relationship between the Company and stakeholders.

ESG working group

is a working group under the ESG Committee, it is authorized by the Board to assist the ESG Committee in guiding and supervising the Company to implement the management of ESG issues. 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:

- report to the ESG Committee for approval;
- Coordinating and supervising the Group's implementation of ESG works;
- Reviewing the progress of achieving ESG targets and assisting the ESG Committee to review;
- Reporting the ESG management works (including but not limited to evaluation, prioritization, and management of material ESG issues) to the ESG Committee 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, 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 and training of ESG and the communication with stakeholders, etc.

· Organizing and implementing ESG works, setting up related policies and procedures and

		Т	he Board				
		ESG	i Committ	ee			
		ESG V	Vorking G	roup			
Secretariat C I F F	Business Management Department		Science, Technology and Digitalization Department	Party Affairs Department	Discipline Inspection Commission Office	Legal Affairs Department	Other

ESG Risk Management

The Group integrates ESG risk management into its daily risk management system, and actively carries out special risk identification and assessment in the areas of climate change, environmental protection, technological innovation, production safety, employee growth, social responsibility and business ethics. During the reporting period, the work flow of ESG risk identification and assessment carried out by the Group is as follows:



- 01 Building ESG risk library around key areas and material issues
- 02 Assessing ESG risks based on the Group's actual situation and future development
- 03 Deeply communicating with the Group's stakeholders through multiple channels and in a comprehensive manner to determine the ESG risk level
- 04 Developing recommendations for the Group's response to ESG risks at current and future stages based on the results of the risk level
- **05** ESG risk assessment results and response recommendations are reviewed and confirmed by the Board or management, and ESG risk management is integrated into the Group's strategy

After careful assessment, the Group has not found any significant ESG risk. To better implement risk management and control, the Group has taken appropriate risk management measures around the environmental and social aspects according to the actual situation. Please refer to each chapter for details.

Stakeholder engagement

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, keeps

Establishing a stakeholder grievance mechanism

The Group has established a stakeholder grievance mechanism to ensure that all stakeholders can feedback their opinions and suggestions through appropriate channels. For example, in the preliminary design stage of various projects, the Group will openly consult and widely collect the opinions of the residents around the project location on the project, and thoroughly understand the key concerns of the relevant residents. At the same time, the Group appoints a professional environmental assessment agency to conduct a comprehensive environmental impact assessment of the project and formulate an impact mitigation plan, so as to minimize the potential impact of the project on the surrounding environment and community.

We mainly identify relevant individuals or groups as the Group's 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;
- Group.

Spotlight

communication with them to understand their expectations for, interests in and requirements for the Group's development process and future, and strive to respond and meet the requirements.

() whether they have interests in or are affected by the business, products, services, and relationships of the

The main stakeholders identified by the Group and the main engagement channels and frequencies are as follows:

Key Stakeholders	Main Engagement Channels	Frequency
Board members,	Employee meeting/forum	Annually/Regularly
management, and	Employee performance appraisal interview	/From time to time
employees	Employee satisfaction survey	
	On-site investigation and research	
	Recreational activity and voluntary activity for	
	employees	
	Stakeholder ESG surveys	
Governments/ regulatory	• Telephone/email	Regularly/From
authorities	Meeting and interview	time to time
	Stakeholder ESG surveys	
Clients	Telephone/email	Regularly/From
	Meeting and interview	time to time
	Stakeholder ESG surveys	
Suppliers/ contractors	 Issuance of invitation for bids on procurement of products/services 	Regularly/From time to time
	 Inspection and supervision of work 	time to time
	Supplier/contractors conference	
	Telephone/email	
	Meeting and interview Statushalder ESC surgery	
	Stakeholder ESG surveys	
Shareholders/investors	General meeting	Annually/Regularly
	Investor conference	/From time to time
	Press release/announcement	
	Annual/interim result presentation	
	Analyst seminar	
	Roadshow	
	Meeting and interview	
	Corporate Day	
	Stakeholder ESG surveys	
Members of	• Telephone/email	Regularly/From
communities/	Meeting and interview	time to time
organizations	Stakeholder ESG surveys	

Key Stakeholders	Main Engagement Channel
Media	 Press release/announcem Media interview Stakeholder ESG surveys
Business partners	 Inspection and supervision Telephone/email Meeting and interview Stakeholder ESG surveys

The Group obtains opinions and suggestions from various stakeholders through the above channels, transforms them into practical experience applicable to operation management and business development through analysis and judgment, and summarizes and

Materiality assessment

In order to identify the ESG issues that were critical to the Group's main stakeholders, during the preparation of the Report, the Group, by referring to the standards and guidelines, including the Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide") published by the Stock Exchange of Hong Kong Limited, SASB standards (Engineering & Construction Services sector) and recommended disclosure framework by

Work contents				
01	Updating the database of ESG issues and screening of			
02	Identifying the most relevant ESG issues for the Grou			
03	Conducting stakeholder surveys in the form of online			
04	Identifying material issues by drawing a materiality n			
05	Reviewing and confirming the results of identificatio			

els	Frequency
ment	Regularly/From time to time
′S	
ion of work	Regularly/From time to time
r.	

publicizes them at various meetings, so as to maximize the engagement effect among stakeholders and promote the sustainable development of the Group.

TCFD, through questionnaires, reviews and summaries, and exchange meetings, actively understands and responds to stakeholders' concerns about the company's ESG issues, identifies and judges the materiality of the issues concerned by stakeholders according to the process shown in the table below, which serves as an important reference for the extent and boundary of issue disclosure.

ng out potential ESG material issues

- Group
- nline questionnaire
- ty matrix based on the survey results
- ation of material issues

2022 Materiality Matrix of the Group



Environmental	Social	Governance
I -1 Emission management	II-1 Human resource management	III-1 Anti-corruption
I -2 Waste management	II-2 Occupational health and safety of employees	Ⅲ-2 Anti-unfair competition
I -3 Greenhouse gas emission and management	II-3 Employee career development and training	III-3 Compliance management
I -4 Energy use and efficiency	II-4 Child labor and forced labor	III-4 Information security
I -5 Raw material substitution	II-5 Supply chain environment and social risks	
I -6 Use and efficiency of water resources	II-6 Product and service quality	
I -7 Ecological environment and natural resources protection	II-7 Scientific research investment and innovation	
I -8 Tackling climate change	II-8 Community investment and participation	
I -9 Green products		

The Group conducted a comprehensive analysis of the data collected during the assessment of substantive issues, obtained the results of the survey on materiality as shown in the above matrix, and identified 12 material issues that were of greatest

Subject area	Material issues of most concern to stakeholders	Response chapter
Environmental	Emissions management	Environment-Insisting on green manufacturing
	Greenhouse gas emission and management	Environment-Tackling climate change
	Energy use and efficiency	Environment-Insisting on green manufacturing
	Use and efficiency of water resources	Environment-Insisting on green manufacturing
	Ecological environment and natural resources protection	Environment-Protecting ecological conservation
	Green products	Environment-Promoting green products
Social	Occupational health and safety of employees	Social-Upholding safety commitment
	Employee career development and training	Social-Caring for employee development
	Supply chain environment and social risks	Governance-Supply chain management
	Product and service quality	Social-Ensuring product quality
Governance	Anti-corruption	Governance-Integrity system building
	Compliance management	Governance-Internal Control and Compliance Management

concern to key stakeholders. This Report will focus on the Group's management systems, initiatives, indicators and objectives on these material issues to respond to the information needs of these key stakeholders.

UN SDGs alignment

In 2015, the United Nations Sustainable Development Summit formally adopted 17 Sustainable Development Goals (SDGs) to guide global sustainable development efforts from 2015 to 2030. The Group has responded positively to the goals and diversified our actions to achieve sustainable development.

SDGs

Actions of the Group



The Group pursues the common development and growth of the enterprise and the region where it is located, and carries out a number of investment activities in the territory to promote the development of local economy, education, culture, science and technology, and help to eliminate poverty and hunger.

- In 2022, the Group donated a rural revitalization assistance fund of 61.89 million yuan.
- 3 GOOD HEALTH
- · The Group has established a sound employee health and safety system, actively improved the supporting facilities and first-aid equipment in production sites, and organized regular health checkup for employees.
- The Group helps employees achieve work-life balance and conducts fun sports and cultural activities to promote their physical and mental health.
- In 2022, the Group conducted 65,772 safety, environmental and health inspections of various types and 4,847 drills such as emergency drills and fire drills, with annual safety and health-related investment amounting to 1,570 million yuan.



- The Group provides regular and comprehensive development training and career planning advice to its employees, with 47 training hours per employee in 2022.
- The Group is committed to promoting inclusive and equitable quality education, reducing educational inequality, and providing assistance to students with financial difficulties through the establishment of scholarships. In 2022, the Group set up 8 special scholarships, with a total annual scholarship of 0.24 million yuan.



• The Group ensures that there is no gender discrimination in the process of recruitment and work process, and that there is no form of unequal treatment of employees on the basis of gender. By the end of 2022, the Group's female workforce accounted for 23.7% and the proportion of women among senior staff reached 8.0%.



SDGs





Actions of the Group

reduction.



- an all-round way.





- national green mines.

Establishing the Foundation of Sustainable Development

• The Group strictly complies with the relevant laws and regulations on sewage and waste discharge and has formulated internal rules and regulations on sewage and waste management.

By strengthening leadership, improving systems, implementing responsibilities and strengthening supervision, the Group has achieved remarkable results in measurement management, water saving system construction, sewage treatment and reclaimed water reuse.

The Group has accelerated the establishment of a clean, efficient, safe and sustainable energy supply system, and a number of subsidiaries were engaged in the development and construction of clean energy in their

The Group actively deploys photovoltaic and wind power generation devices to continuously increase the proportion of clean energy usage. In 2022, the Group consumed 103 thousand MW-h of photovoltaic power generation, equivalent to 59 thousand tonnes of carbon dioxide emission reduction, and 7.78 million MW-h of waste heat power generation, equivalent to approximately 4.44 million tonnes of carbon dioxide emission

The Group is committed to creating a diverse and inclusive corporate culture, continuously improving the scientific system of talent retention, promotion and development, and designing a welfare system that runs through the entire life cycle of employees in the workplace, so as to protect the career development and workplace experience of employees in

Relying on the high-level research and development platform, the Group strives to promote the research, development and application of new products, new technologies and new equipment.

By the end of 2022, the Group had accumulated 12,760 valid patents, including 2,814 invention patents.

The Group adheres to the principle of equal employment, while respecting and protecting the special rights and interests of female workers in accordance with the law. In addition, the Group requires suppliers to safeguard the legal rights of their employees.

• By producing green, low-carbon and sustainable building materials, the Group actively assumes the relevant responsibilities related to the construction of sustainable cities and communities, and contributes to the construction of sustainable cities and communities.

By the end of 2022, the Group has 207 green factories, of which 129 are national green factories; there are 111 green mines, of which 42 are

SDGs Actions of the Group

12	RESPONSIBLE Consumption And production
(30

The Group actively promotes the use of alternative fuels and alternative materials in its products, and is committed to providing high-quality, safe, healthy, green and environmentally friendly basic building materials and new material products, so as to contribute to the sustainable development of the whole society.



• The Group regularly calculates and discloses greenhouse gas emissions data to assess the impact of our business activities on climate change.

· In order to cope with the short-term, medium-term and long-term impacts of climate change, the Group has taken targeted measures to control related climate risks.



The Group carries out environmental impact assessment on the project in strict accordance with national laws and regulations, and strictly demonstrates the site selection and layout of the factory, protects natural habitats, wetlands, forests, wildlife corridors and agricultural land in the project construction, thus avoiding damage and impact on the habitats of surrounding organisms due to project operation and protecting biodiversity.



- The Group strictly abides by the national laws and regulations on anti-corruption, anti-money laundering and anti-fraud, and formulates internal rules and regulations related to the construction of a clean and honest administration.
- In 2022, CNBM signed 142 Letters of Responsibility on Improving the Party's Ethic and Upholding Integrity with middle-level cadres and the management of affiliated companies.
- In 2022, the Group held and organized 2,641 anti-corruption training sessions. The coverage rate of anti-corruption training for directors was 100%, and the coverage rate of anti-corruption training for employees was 100%.

17 PARTNERSHIPS FOR THE GOALS \mathfrak{B}

- By establishing long-term, stable and sustainable cooperative relationships with suppliers, the Group has achieved sustainable win-win development and promoted the progress of the industry.
- In 2022, 22,852 suppliers established long-term cooperation with the Group, of which 15,594 suppliers passed environmental and social risk screening and control, and 11,613 suppliers passed quality, occupational health and safety, environmental or energy management system certification.

15 LIFE ON LAND

Spotlight

Establishing the Foundation of Sustainable Development



Spotlight

- Creating great material of the country and serving the great strength of the country
- Industrial intelligent manufacturing creates the development engine

Creating great material of the country and serving the great strength of the country

Independent innovation is undoubtedly the only way for Chinese manufacturing to move towards highquality development. The Group has continued to accelerate the creation of a source of original technology, actively promoted the scientific and technological innovation of basic building materials and new material products, as well as stepped up the realization of high-level technological self-reliance and self-improvement, as a way that helps the implementation of major national strategies.

Focusing on the main responsibility and main business, accelerating the adjustment, transformation and value recreation of the basic building materials industry

The Group has constantly improved its strategic layout, continuously promoted the integrated application of technology based on the cement industry, persisted in improving the equipment level of production lines, and strengthened the R&D and manufacturing of high-performance products and personalized products, so as to provide high-end

Case: Low heat cement supply, creating a "seamless dam" architectural miracle

To promote the transformation and engineering application of low heat cement achievements, Jiahua Special Cement, together with China Building Materials Academy and China Three Gorges Corporation, has jointly tackled key problems and formed key technologies of low-temperature-rise micro-expansion high-crack-resistance concrete and dam construction with independent intellectual property rights, which greatly improves the integrity, safety and durability of dams and provides a new technical solution to the world problem of "temperature cracks" in hydraulic mass concrete. The low heat cement supplied by Jiahua Special Cement has been applied to Wudongde Hydroelectric Power Station and Baihetan hydropower station (two world-class super high arch dam hydropower stations), solving the cracking problem of large-scale water conservancy projects and creating a "seamless dam" architectural miracle.



products and personalized services for major national projects and key areas. The Group has developed and manufactured more than 60 kinds of special cement, including low heat cement, oil well cement, nuclear power cement and transportation cement, which meet the needs of China's major engineering construction.

"Seamless Dam" of Baihetan Hydropower Station

Case: A deep chasm can be turned into a thoroughfare by the breakthrough of earlystrength low-shrinkage low-heat portland cement

In order to actively serve the construction of the Sichuan-Tibet Railway, Jiahua Special Cement and China Building Materials Academy jointly launched the "Research and Application Demonstration of early-strength low-shrinkage low-heat portland cement for the Sichuan-Tibet Railway" to solve the problems of easy cracking and poor durability of concrete in the environment of large temperature difference, strong radiation and high tropic in Qinghai-Tibet Plateau. The early-strength low-shrinkage low-heat portland cement has been successfully developed and applied in the field test of the Lalin section of the Sichuan-Tibet Railway, and has been applied in the construction of the main track of the Ya'an-Nyingchi section of the Sichuan-Tibet Railway, which has achieved a major breakthrough in the field of railway engineering with special cement, and is of great significance to promote the economic and social development of the western region.



Pier Construction Site of Waze No.1 Super Major Bridge of Sichuan-Tibet Railway

To tackle the problems of originality and mass production through innovation of new materials

The decade of the new era is a crucial decade for the innovation of China's new materials industry. The Group focuses on new materials with urgent and long-term needs of the country, strives to overcome the strength and toughness problems in the field of composite material innovation, and solves the originality problem of "from 0 to 1", so as to realize the independent supply of key materials. The Group is also committed to solving the problem of mass production "from 1 to 100", striving to create "great material of the country", so that the achievements of material innovation can benefit millions of households.

Case: Jushi Egypt's fiber glass factory helps to create a new situation for territorial industry

Jushi Egypt is the largest overseas production base of China glass fiber, which has developed from 80 thousand tonnes of production capacity in 2012 to 320 thousand tonnes of production capacity at present, realizing the overseas application of a complete set of mature glass fiber production technology, allowing Egypt to become the fourth largest glass fiber producer in the world.



The world's longest wind power blade helps the development of new energy technology

The world's longest wind power blade was successfully completed for the first time in Zhongfu Lianzhong, a subsidiary of China Composites. The blade is 123 meters long, with a single mass of over 50 tonnes, a blade root diameter of over 5 meters, and a surface area of over 1 thousand square meters. This blade uses high-performance composite materials to meet the needs of lightweight and large-scale blades. Double-sided pure carbon fiber is used as the main beam of the blade to reduce the weight of the blade by 30%. The blade will be suitable for 16MW offshore wind turbines, with an annual power generation capacity of more than 50 million kW-h per unit, which will not only save a lot of the space occupied by machine sites and sea area, but also help to promote the energy structure transformation process of the whole industry and society.



123-meter wind power blade structure

Jushi Egypt's Fiber Glass Factory



The world's longest 123-meter wind power blade was successfully completed for the first time in Lianyungang

Case: The diffusing section of jet pipe of solid rocket engine developed by Beijing Composite helps to launch "Kuaizhou-11 solid-fuelled carrier rocket"

"Kuaizhou-11 solid-fuelled carrier rocket" engine is China's largest size, the largest filling, the largest thrust of the solid rocket engine, as the developer and producer of the diffusing section of jet pipe of primary and secondary solid rocket engine of "Kuaizhou-11 solid-fuelled carrier rocket", in recent years, Beijing Composite Materials has challenged the development task of large-size and thin-walled diffusion section, formed a low-cost and high-quality modelling technology, and helped the "Kuaizhou-11 solid-fuelled carrier rocket" to successfully blast off, which is of far-reaching significance to the rapid development of China's solid carrier rocket space transportation system.



The "Kuaizhou-11 solid-fuelled carrier rocket" was blasted off successfully

Case: Technology development of domestic carbon fiber full-wrapped hydrogen storage cylinder promotes a zero-carbon society

Since 2019, Sinoma Science & Technology has increased its investment in the field of new energy, tackled the problem of supplying carbon fiber, the key raw material of high-pressure composite hydrogen storage cylinder, one of the key core components of hydrogen fuel cell vehicles, and successfully mastered the application technology of domestic carbon fiber high-pressure hydrogen storage cylinders. In 2021, Sinoma Science & Technology became the first domestic enterprise to obtain the certification of 70MPa domestic carbon fiber hydrogen storage cylinders.

The cylinders applied in this achievement have many advantages, such as high hydrogen storage capacity, long endurance mileage, low cost, high safety and so on, which are in line with the development goals proposed by the National Medium and Long-Term Plan for the Development of the Hydrogen Energy Industry. Several achievements were applied in batches in hydrogen buses, logistics insulation vehicles, hydrogen fuel cell police patrol vehicles and fire patrol vehicles for the 2022 Winter Paralympic Games, effectively solving the pain points and difficulties in the development of the fuel cell vehicle industry, which is of great significance for accelerating the commercialization of hydrogen fuel cell vehicles, Hydrogen bus with carbon fiber full-wrapped hydrogen constructing the cooperative development of renewable energy and building a zero-carbon society.



storage cylinder

Case: Zhongfu Shenying works hard and overcomes difficulties to build a model for the development of carbon fiber localization

As the "king of new materials" in the 21st century, carbon fiber is a strategic material urgently needed by the national defense industry and national economic development. With the spirit of hard work and independent research and development, Zhongfu Shenying has conquered the "bottleneck" technology of carbon fiber, and has taken the lead in realizing the industrialization of high-performance dry jet wet spinning carbon fiber in China, forming four core technology systems. In recent years, Zhongfu Shenying's 10,000-tonne carbon fiber production base construction project has opened the leap of dry jet wet spinning technology from 1 thousand tonnes to 10 thousand tonnes. Xining 10,000-tonne carbon fiber base was awarded the top ten super projects of central enterprises in 2021 along with spacecraft Tianhe core module, China-Laos railway and Baihetan Hydropower Station.



To build a benchmark for the engineering technical service industry by R&D and upgrading of key technical equipment

The positive transformation of the building materials industry from rapid development to high-quality development has brought opportunities and challenges to the whole industry. Based on its own position and leading the industry, the Group has continuously increased its investment in R&D of key

Social

China's first 10,000-tonne dry jet wet spinning carbon fiber industrial production line

technical equipment to promote innovative achievements to the world. With years of experience in the industry and based on the actual production, the Group has built a new benchmark in the engineering technical service industry.

Case: The largest single intermediate roller crushing cooler is put into operation, filling the blank of 10,000-tonne cooler in China

The cement clinker cooler developed by TCDRI, a subsidiary of Sinoma International, with an effective grate bed area of 316 square meters, can support 13,000 tonnes of cement clinker per day, it is the largest single cooler in China at present. The equipment adopts riding wheel supporting structure and intermediate roller crushing, ensuring the mechanical stability, high conveying rate, high heat recovery efficiency, high waste heat power generation wind temperature and low clinker temperature of the cooler. The successful operation of this cooler completes the cooling machine spectrum of TCDRI Thermal Engineering Technology and Equipment Company and fills the blank of domestic cooler manufacturing above 10,000 tonnes.



The largest single intermediate roller crushing cooler in TCDRI

Case: Successful application of the largest domestic slag cement vertical mill, efficient co-processing of solid waste resources from cement production

TCDRI, a subsidiary of Sinoma International, has continuously increased investment in R&D and carried out technological innovation for many years. Based on its deep cultivation and accumulation in the field of grinding technology, the Institute has actively expanded the application of vertical mills and successfully developed the largest domestic slag cement vertical mill TRMKS66.4 and realized its integrated application. After thee equipment is put into production, cement and multiple products can be produced simultaneously, which realizes an annual output of more than 2 million tonnes of slag grinding by a single vertical mill and 0.4 million tonnes of steel slag consumed by a single vertical mill every year, with comprehensive energy consumption ≤36kW·h/t, and comprehensive energy efficiency reaching the international advanced level.



The largest domestic slag cement vertical mill TRMKS66.4

Industrial intelligent manufacturing creates the development engine

The Group is continuously committed to accelerating the development engine of digital transformation and intelligent manufacturing, focusing on promoting the integration of the building materials industry with the new generation of information technology, and concentrating on the strategic choice of grasping the new opportunities of the new round of technological revolution and industrial change.

In September 2022, the Ministry of Industry and Information Technology released 60 typical cases of digital transformation of intelligent manufacturing in the building materials industry in 2022, and 11 cases of the Group were included in the list. In November 2022, the Ministry of Industry and Information Technology released the pilot demonstration list for the integrative development of new generation information technology and manufacturing industry in 2022, and 5 companies of the Group were selected. In December 2022, the Ministry of Industry and Information Technology released the list of intelligent

Case: China Jushi "Future Factory" realizes manufacturing digital intelligence and empowers a new future

In November 2022, the intelligent manufacturing base of China Jushi Tongxiang headquarters was fully completed and put into production with high efficiency and quality. As the "future factory" leading the global glass fiber manufacturing, China Jushi has also built a package of systems engineering such as state perception and embedded computing, and introduced innovative applications and technologies such as the whole process logistics system and low-delay 5G network to realize the interconnection of intelligent equipment, intelligent systems and people.

Nowadays, the production technology indicators of "Future Factory" rank first in the world, and the labor productivity per person employed is 30% higher than the industry average. China Jushi's continuous progress in the field of intelligent manufacturing has brought a source of power for the transformation of industry productivity, production relations and production methods, and has joined hands with the upstream and downstream of the glass fiber industry chain to create a new situation of high-quality development through digital and intelligent transformation.



Social

manufacturing demonstration factories and outstanding scenarios in 2022, and China Jushi and TCDRI (a subsidiary of Sinoma International), were selected.

By the end of 2022, the Group had built a total of 20 cement intelligent production lines, and 27 glass fiber intelligent production lines, and there were 19 projects selected as pilot demonstration projects/cases of digital transformation by the Ministry of Industry and Information Technology.



China Jushi "Future Factory" intelligent facilities

Case: New dry process low carbon intelligent manufacturing project empowers green production in an intelligent way

In view of the development needs of "green, low-carbon, digital and intelligent" cement industry, TCDRI, a subsidiary of Sinoma International, led by Southern Cement and other companies, developed a complete set of technology and equipment for high energy efficiency, low-carbon and low-nitrogen cement firing, grinding and deep treatment of pollutants, and established an intelligent manufacturing ecological platform and a digital management and control platform for the whole life cycle. The integrated application has been realized in the demonstration project of Huaikan Southern Cement Clinker Production Line with a daily output of 7,500 tonnes. After the project is put into operation, the standard coal consumption is saved by 8% compared with the advanced index of the same period, the carbon emission is reduced by 3%, the overall technology reaches the international advanced level, and the comprehensive energy efficiency reaches the international leading level.



Huaikan Southern Cement Clinker Production Line

Demonstration project of Huaikan Southern Cement Clinker Production Line with a daily output of

7,500_{tonnes}

The standard coal consumption is saved by is reduced by 8% 3% compared with the advanced index of the

same period



Case: Wuzhong Saima intelligent factory boosts digital transformation of traditional cement industry with high standards

In response to the national supply-side reform and the structural adjustment of the cement industry in the autonomous region, Ningxia Building Materials has built a 5,000-tonne/day environmental protection demonstration production line for comprehensive utilization of new dry process cement resources. On this production line, Ningxia Building Materials has built an intelligent and advanced second-generation cement production line through a series of digital and integrated platforms, such as digital mine, manufacturing execution system (MES), distributed control system (DCS) and intelligent laboratory, which has realized the intelligent comprehensive management of production and operation integration and improved the labor productivity of the whole staff.

In 2022, the project of "Wuzhong Saima New Generation II 5,000-tonne Cement Clinker and Supporting Mining Intelligent Factory" passed the evaluation of intelligent factory and green factory, and was selected into the pilot demonstration list of the Ministry of Industry and Information Technology for the integration development of new generation information technology and manufacturing industry in 2022, as well as the typical case of the Ministry of Industry and Information Technology for the digital transformation of intelligent manufacturing in building materials industry.





Wuzhong Saima New Generation II 5,000-tonne Cement Clinker and Supporting Mining Intelligent Factory

Governance

Case: Ningxia Building Materials embrace digitalization to help business inventory to realize "Zero Inventory"

By studying and drawing lessons from the successful experience of domestic advanced warehousing management, combining with the actual management situation of localization and the characteristics of inventory materials in cement manufacturing enterprises, relying on digital technologies such as material master data coding, bar code, QR code, 3D modeling and big data, Ningxia Building Materials has built an industry-level SaaS platform for intelligent unmanned shared warehouse management- "e-warehouse" unmanned shared warehouse management platform, which shares the physical resources of warehouses and materials, so that visual self-service management can replace human operation, providing an integrated solution for giving full play to the leading role and management value of the manufacturing industry.



Ningxia Building Materials "e-warehouse" 3D visual graphic exhibition board

Case: Intelligent "robot" helps to improve loading efficiency significantly

Ningxia Saima attaches great importance to the combination of efficiency and guality, and has developed Ningxia Saimaa II robot intelligent loading and shipping system. The system has high operational efficiency and loading speed, eliminates dusty environment for loading workers and drivers, provides better transportation protection for customers, and accelerates the intelligent process of the company, which has been well received by customers and workers.



Ningxia Saimaa II robot intelligent loading and shipping system

Case: Innovating digital supply management and creating intelligent purchasing platform

Qilianshan Cement has been committed to the construction of intelligent supply chain for more than ten years, improving the intensive management system, the whole process online closed-loop operation mechanism and data-based and standardized guarantee means. Based on ERP system and BPM system, combined with a number of professional management systems, the Company has completed the construction of intelligent supply chain of intelligent procurement, intelligent production, intelligent sales and intelligent accounting, and achieved full coverage of procurement scope, business processes and supplier resources.

In 2022, the construction of Qilianshan Intelligent Supply Chain has achieved good results, and the electronic bidding rate has been continuously improved, maintaining 100% for six consecutive years, with a cumulative savings of 491 million yuan. In addition, the Company has passed the two-star test certification of the national electronic procurement trading system, and has been selected as a typical case of digitalization of the building materials industry by the Ministry of Industry and Information Technology in



Case: Developing a digital logistics platform to deeply empower industrial development

The Group's "Find a Car" platform relies on industrial Internet and other information technologies, focusing on the five scenarios of building materials, steel, mining, coal and port, providing logistics digital capabilities and services for upstream and downstream partners in the enterprise supply chain, and providing efficient collaboration and support for the logistics service chain. By the end of 2022, the platform had registered 1.217 million vehicles, served nearly 63 thousand cargo owners and transport companies, and obtained nearly 70 intellectual property rights and patents. "Find a Car" platform provides a large number of application scenarios for the application of new energy vehicles and the development of clean energy, and takes the lead in promoting the pilot application of new energy vehicles in the building materials industry. 30 new energy vehicles and 3 charging stations have been put into operation, and the annual carbon dioxide emissions have been reduced by about 2,300 tonnes compared with diesel vehicles. The platform promotes the construction of dual-carbon transportation system in building materials industry and key areas, the construction of regional green low-carbon industrial chain, actively guides carbon emission reduction and green consumption, and pushes the low-carbon transformation of transportation system.



Environmental

- Tackling climate change
- Advancing green management
- Insisting on green manufacturing
- Promoting green products
- Protecting ecological conservation

$\ensuremath{\mathbb{Q}}$ Statistics 2022

0	Total greenhouse gas emissions of 23 a 13% reduction year-on-year
0	Comprehensive energy consumption i of operating revenue
0	Photovoltaic power generation of 10 reducing carbon dioxide emissions by
0	Waste power generation capacity of 7 equivalent to a carbon dioxide emission
0	Use of 366.7 thousand tonnes of bio
0	278 mus of carbon neutral forest, which offset the company's carbon em
0	Nitrogen oxides emissions of 81,470 a year-on-year decrease of 26.9%
0	Sulfur dioxide emissions of 6,488 to a year-on-year decrease of 32.4%
0	Industrial particulates emissions of 9, a year-on-year decrease of 31.4%
0	Volatile organic compounds (VOCs) er a year-on-year decrease of 43.7%
0	Disposal of 103.60 million tonnes o
0	1.36 million tonnes of alternative fue
0	5.44 million tonnes of alternative rav
0	Utilization rate of recycled water reach an increase of 4 percentage points ye
0	685 plants certificated by ISO 14001 certification
0	129 national green factories

0.74 million tonnes,
ntensity of 1,047 MW-h/million yuan
3 thousand MW·h, 59 thousand tonnes
.785 million MW·h, on reduction of 4.44 million tonnes
omass fuel
hissions by about 220 tonnes every year tonnes,
nnes,
835 tonnes,
nissions of 49 tonnes,
f foreign solid waste
1
v materials
ing 92% ,
ear-on-year
environmental management system

The Group actively responds to the national "14th Five-Year Plan", the "Carbon Peaking and Carbon Neutrality" goal and the "Implementation Plan for Building Materials Industry to Reach the Carbon Peaking", and always firmly adheres to the path of ecological priority and green development. The Group grasps the opportunities for green development with practical efforts, actively addresses climate change, continuously improves the green management system, protects the beautiful ecological environment with green manufacturing, and injects green genes into building materials products to promote the high-quality development of the Group and the low-carbon transformation of society.

Tackling climate change

The Group is committed to reducing the impact of its business on climate change through 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 ESG Working Group is responsible for the Group's climate change-related issues, which are also guided, reviewed, and monitored by the ESG Committee. For details of the management structure, please refer to the "Sustainability governance" Section. The ESG Committee 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 ESG Committee also discusses and reviews the progress of targets related to climate change issues on an annual basis. The ESG working group is mainly responsible for coordinating and overseeing climate change related management in the Group and reporting to the ESG Committee.

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 following table summarizes the detailed results of the Group's identification and assessment of climate change-related risks:

Climate Change-Related Risks				
Category of Risks	Climate Change- Related Risks	Potential Impacts of the Risks on the Group	Time Frame of Impact	
Transitional Risks				
Policies and Laws	Stricter policies and supervision on existing products and services	 Requiring investment in low-carbon technological innovation and purchasing renewable energy certificates A more environmentally friendly and low carbon business operation is needed to respond to regulatory requirements 	Long-term	

Strategy

The impacts of climate change on the Group cover a wide range of areas, including the update of policies and regulations, the application of emerging technologies and the changes in market demand. The Group has adopted targeted plans and measures to deal with the short-term, medium-term and long-term impacts of climate change to avoid adverse impacts brought by climate change. The Group has gradually improved the relevant low-carbon development strategies based on its own business characteristics, and has also required its subsidiaries to formulate corresponding strategic plans and implement them.

Category of Risks						
Transitional Risks		1				
Policies and Laws	Stricter policies and supervision on existing products and services	 Higher operating costs due to increased carbon related taxes required by governments resulting from climate change Improving the management of carbon asset in order to cope with the cost pressure brought by the national carbon market 	Medium-term			
Technology	More stringent emission and disclosure requirements	 Increasing investment in low-carbon energy-saving and environmental protection technologies Increasing investment in clean energy and circular economy 	Short-term			
Market	Rising prices of raw materials and energy	 Developing alternative material technologies to reduce the exploitation and use of natural raw materials Adjusting, optimizing its energy structure and improving its ability to cope with energy risks 	Medium-term			
	Market requirements for low-carbon and environmentally- friendly attributes of products are becoming increasingly stringent	 Existing products are facing the risk of substitution, so the Group needs to improve the research and development system of green products and increase the low-carbon environmental protection attributes of products Increasing the proportion of green procurement and managing supply chain environmental risks 	Long-term			
Reputational risk	Reputation damage 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, which requires the Company to attach importance to the control of environmental pollution and greenhouse gas emissions 	Medium-term			
Physical Risks						
Acute	Extreme weather such as floods and typhoons	 Due to the increase in operating costs caused by the suspension of downstream construction operations due to extreme weather, the Group needs to plan in advance to deal with extreme weather 	Long-term			

	Climate Change-Related Risks					
Category of Risks	Climate Change- Related Risks	Potential Impacts of the Risks on the Group	Time Frame of Impact			
Physical Risks						
Chronic	Increasingly hot and cold weather	 There are potential safety hazards in the working environment of employees, so the Group needs to increase the investment in the health and safety of employees Due to the decline in the stability of energy supply, the Group needs to adjust and optimize its energy structure 	Long-term			

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

Category of Opportunities	Climate Change- Related Opportunities	ed the Group		
Resource efficiency	Production, transportation and distribution process with higher efficiency	 Optimization of production processes and technologies to increase production capacity and efficiency Higher revenues when following market trends 	Short-term	
	Use of recycling technology and less resource consumption	 Reducing impact of operation and production on the environment Increasing resource efficiency 	Medium-term	
Energy source	Use of low-emission or renewable energy sources	 Lowering operating costs to a certain extent The application of low-emission or green products is further widely used, and the distribution of green products can increase income 	Long-term	
	Participation in carbon trading market	 New corporate profitability point Promoting the Company's green and low-carbon development 	Medium-term	
	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 	Long-term	

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	Climate	Change-Related Opportunities		
Category of Opportunities	Climate Change- Related Opportunities	Potential Impacts of the Opportunities on the Group	Time Frame of Impact	
Product and service	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 	Medium-term	
	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 	Long-term	
	Availability of new products or services through R&D and innovation	Enhancing competitiveness due to response to market needs.New corporate profitability point	Long-term	
	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 	Medium-term	
Market	Adoption of supportive incentive policies	 Seizing and utilizing national policies about incentives on low-carbon, energy- saving, emission reduction technology transition to obtain subsidies from government 	Medium-term	
	Market demand and initiatives	 Enhancing corporate reputation and social image and increasing business demand 	Medium-term	
Adaptability	Participation in renewable energy projects and adoption of energy efficiency improvement measures	 Improving adaptability of the Group to policy changes 	Long-term	
	Energy substitution/diversifi cation	 Improving resilience to changing and complex environment and exposure to fewer risks due to improved adaptability of the Group to policy changes 	Long-term	

The Group is deeply aware of the importance of adopting a scientific approach in risk assessment management to quantify the impact of climaterelated 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

Risk management

The Group attached great importance to climate risk management and carried out the identification and assessment of climate change-related risks and opportunities through the following processes, which provided reference for the Group's strategic planning and business development.

- Creating a database of climate change-related risks and opportunities based on the Group's business and product characteristics, including the impact of climate change on the Group's finance, production, assets, supply chain and personnel;
- Identifying and assessing climate change-related risks and opportunities via questionnaires, and analyzing the possible impact of climate change-related risks and opportunities on the Group;
- Combining the results of identification and assessment to formulate targeted measures and action plans, and striving to smoothly resolve climate changerelated risks and seize the opportunities brought by climate change;
- Deeply understanding the stakeholders' opinions towards issues about climate change via questionnaires, meetings and exchanges etc.

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. Based on the assessment results, the 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.

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.

	Cli	mate Change-Related Risks
Category of Risks	Climate Change-Related Risks	Response Measures Taken by the Group
Transition Risks	·	
Policies and Laws	Stricter policies and supervision on existing products and services	 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
	Pricing of greenhouse gas emissions	 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
		 Carrying out self-investigation and inventory of carbon emission data since 2020, organizing the filling of carbon emission data statistical system, and gradually establishing a carbon emission database
Technology	More stringent emission and disclosure requirements	 Actively promoting the construction of green factories, green mines and ecological factories, and increasing investment in research and development, popularization and application of environmental protection technologies
Market	Rising prices of raw materials and energy Market requirements for low-carbon environmental protection attributes of products are becoming increasingly stringent	 Analyzing the substitution risk of products and the competitive advantages and disadvantages of other materials, improving the research and development mechanism of green products, and applying environmental protection technologies, including waste heat power generation, comprehensive energy-saving and consumption-reducing technological transformation, use of alternative fuels and alternative materials, etc.
Reputational risk	Reputation damage due to business practices	 Establishing ESG Committee and ESG Working Group to maintain good and smooth communication with stakeholders regularly Establish specific communication channels with various
		 stakeholders Developing and implementing rectification plans to address identified issues promptly, clarifying rectification targets and measures and disclosing the rectification plans to the public

Clin	mate Change-Re
Climate Change-Related Risks	Response Me
Extreme weather such as floods and typhoons	 Comprehe dealing wi summarizi extreme w
Increasingly hot and cold weather	Continuou to reduce
	Climate Change-Related Risks Extreme weather such as floods and typhoons

CNBM Matrix of Risks Related to Climate Change



A: Stricter policies and supervision on existing products and services

B: Pricing of greenhouse gas emissions

C: More stringent emission and disclosure requirements

D: Rising prices of raw materials and energy

E: Market requirements for low-carbon environmental protection attributes of products are becoming increasingly stringent

Related Risks

easures Taken by the Group

ensively and systematically analyzing typical cases of vith extreme weather in recent years, scientifically zing experiences and developing emergency plans for weather

usly monitoring relevant climate change-related risks e safety hazards in the work environment

The speed of onset

F: Reputation damage due to business practices

G: Extreme weather such as floods and typhoons

H: Increasingly hot and cold weather

I: Increasing concern from stakeholders about corporate's negative news

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 policies and supervision on existing products and services	Medium-high	Medium-high	Low	Medium-low
Pricing of greenhouse gas emissions	High	Medium	Medium-low	Medium-low
More stringent emission and disclosure requirements	Medium-high	High	Low	Medium-low
Rising prices of raw materials and energy	High	Medium-high	Medium-low	Medium
Market requirements for low- carbon environmental protection attributes of products are becoming increasingly stringent	Medium-high	Medium-high	Medium-low	Medium
Reputation damage due to business practices	High	Medium-low	Medium-low	Medium-low
Extreme weather such as floods and typhoons	Medium	Medium	Medium	Medium-low
Increasingly hot and cold weather	Medium	Medium-high	Medium	Medium-low
Increasing concern from stakeholders about corporate's negative news	Medium-high	Medium	Medium	Medium

Metrics and	Targets
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Following the TCFD guidelines, the Group set out a set of climate change-related and environmental targets during the Reporting Period, considering the material issues, 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.

49	China National	Building Material	Company Limited
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Category of Targets	Targets set in last year	Work progress in 2022	Targets set for the future	Action Plans	Time Frame
Air pollutant emissions	The emission intensity of nitrogen oxides in cement clinkers shall not be higher than that of the previous year	In 2022, the emission intensity of nitrogen oxides in cement clinkers of the Group decreased by 18.4% year on year.	In the future, we will continue to maintain the emission intensity of nitrogen oxides in cement clinkers no greater than 0.32 kg/tonne.	 Deployment of relevant subsidiaries to divide targets into smaller ones and promote a year-on-year reduction in the emission intensity of NOx in cement clinkers across the Group Completion of the denitrification and nitrogen reduction and other environmental protection transformations in cement production lines Adoption of this indicator into the annual assessment 	Long- term (5-10 years)
	The rate of meeting the emission requirem- ents of the pollutant discharge permit reaches 100%	In 2022, the Group achieved 100% compliance with the emission permit requirements.	In the future, we will continue to implement the working target of 100% compliance ratio of emission requirements of emission permits.	 To strengthen the management of pollutant discharge permit, the Company to which the pollutant discharge belongs is required to apply for a pollutant discharge permit, those that have not been obtained may not discharge pollutants For affiliated companies that have received administrative penalties due to excessive emissions, the assessment shall be carried out in accordance with the relevant regulations of the Group 	Short- term (1-2 years)
Green- house gas emissions	Reduction in the emission intensity of carbon dioxide	In 2022, the Group completed the treatment of 64 clinker lines and 129 grinding lines with excessive limits. In 2022, the intensity of carbon dioxide emissions from industrial output value of 10,000 yuan decreased by 1% year on year.	In the future, we will continue to implement the target of reducing emission intensity of carbon dioxide.	 Development of new business opportunities on new materials with low-carbon emissions to improve the profitability of new material products Promoting the use of alter- native raw materials and fuels Increasing R&D 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)
Energy use	Reduction in the compreh- ensive energy consump- tion intensity of cement clinkers	In 2022, the Group's comprehensive energy consumption per tonne of cement clinker decreased by 2.4% year on year.	Using 2022 as the benchmark, the comprehensive energy consumption per tonne of cement clinker will decrease by 1.5% year-on- year in 2025.	 Skills transformation to achieve 40% of clinker capacity exceeding the energy efficiency benchmark in the cement industry by 2025 	Mediu m-terr (3-4 years)

In addition, the Group has added new targets in resource recycling to guide its future work on climate change.

Category of Targets	Targets set for the future	Action Plans	Time Frame
Resource recycling	The utilization rate of recycled water is maintained at over 90%.	 Taking active water conservation measures, recycling industrial cooling water in the production system, reusing all wastewater after deep treatment in the plant sewage treatment station, and striving for zero discharge of production wastewater 	Long-term (5-10 years)
	Maintaining the comprehensive utilization rate of harmless solid waste above 90%.	 Continuing to increase the comprehensive utilization of solid waste resources and increasing the proportion of industrial waste residues such as slag, steel slag, fly ash and desulfurization gypsum replacing natural mineral raw materials 	Long-term (5-10 years)
Other	Based on the end of 2022, 40 green factories in the basic building material segment and 10 green factories in the new material segment will be established by the end of 2024	 Strengthening the construction and declaration of green factories, and doing a good job of low carbon, energy conservation and emission reduction in production 	Medium- term (3-4 years)



51 China National Building Material Company Limited

Advancing green management

The Group actively has improved the internal green system and strictly implemented the management in accordance with the requirements of relevant national laws and regulations. With continuous efforts, more and more factories have passed the certification of environmental management system, and the local ecological environment of factories continues to improve. The Group also attaches great importance to the cultivation of environmental awareness, and helps everyone to cultivate environmental awareness by means of green office and publicity for environmental protection, so as to jointly be the guardian of the green earth.

Improving management system

The Group always implements the concept of green management and green development, and strictly abides by and implements the Environmental Protection 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 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, the Group has developed more than ten regulations including the Responsibility System for Environmental Protection of CNBM, the Interim Measures for Accountability for Ecological Environmental Protection Issues of CNBM, the Management Measures for Assessment of Energy Conservation and Emission Reduction of CNBM, and the Management Measures for Risk and Hidden Danger Investigation and Management of

Ecological Environmental Protection to coordinate and standardize the environmental management of all business sectors. 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.

In order to ensure the implementation of the system, the Group has continuously established and improved the responsibility structure of environmental management. The chairman and the president jointly assume the leadership responsibility of environmental protection work, while the vice president in charge of environmental protection work implements the overall environmental protection leadership work, while other management staff are responsible for the environmental protection work within their respective areas of responsibility. As the first person responsible for the environmental protection work of the department, the person in charge of each department leads the employees of the department to actively implement the environmental management system of the Group, thus forming a complete management system from top to bottom.

In addition, the Group accepts the external inspection of central and local environmental protection. In 2022, 26 companies of the Group have accepted the environmental sampling inspection by the East China Inspectorate of the Environmental Protection, and completed the rectification on time and in accordance with the quality. At the same time, the Group conducts internal environmental protection audits through on-site and online means. In 2022, the Group conducted on-site environmental protection audits on 5 subsidiaries and online environmental protection audits on 15 subsidiaries, pointed out 17 problems and hidden dangers, and urged the subsidiaries to complete rectification.

Basic building materials, as the ballast stone business of the Group, is the top priority of green management. In 2022, New Tianshan Cement established an ecological environment protection system and formulated 12 green management related systems such as the Ecological Environment Protection Management Measures and the Ecological Environment Protection Responsibility System of Tianshan Cement to implement the green development requirements of the Group.

In respect of the new materials segment, China Jushi put forward and promoted the implementation of new ideas on green management in 2022, accelerated the green transformation and upgrading of its products and manufacturing system, ishing the Foundation

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closely followed the dynamics of environmental protection policies, and actively carried out environmental protection training. China Composites has set up an ecological and environmental protection leading group to study the environmental protection work of the Company, formulated environmental protection systems such as the Environmental Protection Management System and the Contingency Plan Management Measures for Environmental Emergencies of China Composites, and also formulated the Special Action Plan for Environmental Protection Improvement of Composite Wind Turbine Blades and Carbon Fiber based on product characteristics. Every year, China Composites and its affiliated companies sign the annual Energy Conservation and Ecological Environmental Protection Assessment Responsibility Letter level by level, and ensure the effective implementation of management by increasing and upgrading environmental protection equipment, real-time monitoring of waste water and waste gas emissions, strict solid waste disposal, and implementing the "Three Simultaneities" system of project construction, to promote the sustainable development of the Company.

In the Engineering technical services segment, Sinoma International has formulated the Management Responsibility System for Ecological Environment Protection, the Environmental Impact Assessment Management System for Construction Projects, the "Three Simultaneities" Environmental Protection Management System at the Construction Stage of Construction Projects, the Cleaner Production and Energy Conservation and Emission Reduction Management System, the Environmental Information Disclosure Management System in Accordance with the Law, the Mine Eco-environmental Protection Management System and other systems to fully

implement the concept of green development.

In 2022, the Group continued to actively promote various environmental certifications for its subsidiaries, with 685 plants obtaining ISO14001 environmental management system certification, and 302 plants obtaining ISO50001 energy management system certification.

Green development and environmental protection awareness

The Group implements the green management system, conscientiously organizes its subsidiaries to carry out the activities of National Energy Conservation Publicity Week and National Low Carbon Day in 2022, publicizes and interprets the relevant policy requirements of Carbon Peaking and Carbon Neutrality, and promotes the work related to green energy conservation in a coordinated and orderly manner. In addition, the Group actively promotes the concept of green office, realizes electronic office through the OA system, reduces the use of paper materials, prioritizes the purchase of sign pens with replaceable refills and green paper, and extends the service life of printing equipment and lighting equipment through activities such as repairing old and recycling. The Group calls on employees to save water and electricity actively, classify waste and travel green from little things around them, to contribute to the sustainable development of the Group through thematic activities such as "Practicing Economy, Carbon Peaking and Carbon Neutrality with Me".

Case: Opening for visitors to visit green factories, promoting and strengthening environmental awareness

Ningxia Building Materials launched the Day of Making Good Use of Resources-an enterprise opening activity of "Entering the Green Factory", and invited retired employees, local governments, suppliers, friendly enterprises, local communities and other quests to participate in the activity. Ningxia Building Materials invited the guests to see the construction achievements of the first batch of national "Green Mines" and "Standardized Mine Demonstration Units" in Ningxia, and listen to the report of the 4,000-tonne/day secondgeneration new dry energy-saving, environmental protection and green intelligent demonstration project under construction by the Company. The opening of the factory enhanced the guests' understanding of the Company's environmental protection and green design concepts and actions, strengthened the environmental awareness of all employees of the Company, and urged the future to continue to develop into an environmentally friendly technology-based enterprise.



Ningxia Building Materials launches the Day of Making Good Use of Resources. an enterprise opening activity of "Entering the Green Factory"



Insisting on green manufacturing

In 2022, the Group firmly established the new development concept of innovation, coordination, green, open and sharing, vigorously promoted the improvement of energy efficiency and realized the development of energy conservation and carbon reduction; the Group also strengthened the comprehensive utilization of resources and continuously, promoted the circular development, firmly pushed clean production to significantly reduce pollution emissions and devoted itself to contribute to the realization of the "Carbon Peaking and Carbon Neutrality" goal.

As of December 2022, the Group has a total of 129 national green factories, 68 provincial green factories and 10 other green factories, totaling 207, of which 56 have passed the evaluation in 2022.

Low-carbon development

The Group accelerates green and low-carbon transformation to drive development from three aspects: "carbon reduction", "carbon sequestration", and "carbon management". In 2022, the Group steadily pushed forward the work of Carbon Peaking and Carbon Neutrality, with intensity of greenhouse gas emissions³ of 922 tonnes/million yuan of operating revenue, and comprehensive energy consumption intensity³ of 1,047 MW·h/million yuan of operating revenue.

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129 national green factories

68 provincial green factories

10 other green factories

evaluation in 2022

56 have passed the



adopts a staggered production policy to restrict production.

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Carbon

reduction

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Carbon

sequestration

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O Driven by scientific and technological innovation, the Group carries out research on hydrogen fuel substitution and key technology standards, promotes energy-saving and carbon-reducing technological transformation in an orderly manner.

The comprehensive energy consumption of cement clinker per tonne, glass fiber per tonne and gypsum board per square meter decreased by 2.25%, 0.39% and 2.76% respectively.

> \odot The Group increases the popularization and application of advanced and applicable energy-saving and carbon-reducing technology and equipment, and makes greater use of new energy sources such as solar energy and wind energy to promote green and low-carbon energy transformation.

In 2022, the Group outsourced 939,049 MW·h of renewable electricity.

In 2022, the Group actively promoted photovoltaic projects and built 22 "photovoltaic plus" energy plants, with an installed capacity of 146.56 MW, generating 103 thousand MW·h, equivalent to reducing carbon dioxide emissions by 59 thousand tonnes.

In 2022, the Group's cement clinker production lines were fully equipped with waste heat power generation, the installed capacity of the waste heat power generation system is 2,167 MW and the waste heat generation capacity of 7.785 million MW·h, equivalent to a carbon dioxide emission reduction of 4.44 million tonnes.

In 2022, the Group uses 366.7 thousand tonnes of biomass fuel.

- capacity.
- every year.
- and CCUS.

³ The 2022 greenhouse gas emissions intensity and comprehensive energy consumption intensity data include the affiliated company China Jushi.

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 \odot 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

In 2022, the Group's total direct energy consumption was 231,140,502 MW·h, of which 212,999,333 MW·h was consumed from coal.

◎ The Group actively promotes the construction of green mines and environment-friendly factories, constantly enhances the carbon sink

In 2022, the Group explored various new ways of carbon sequestration and promoted the implementation of pilot carbon neutral forests. Fujian Sanming South invested in the construction of 278 mus of carbon neutral forest, which offset the company's carbon emissions by about 220 tonnes

^(O) The Group adheres to the drive of scientific and technological innovation, and carries out joint research on low carbon, zero carbon, negative carbon Establishing the Foundation of Sustainable Development

management

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Carbon

() Innovative application of digital tools to manage and reduce carbon emissions, promoting regional synergy to achieve the carbon peaking and carbon neutrality goal

TCDRI, a subsidiary of Sinoma International, has independently developed a carbon digital public service platform, which integrates the use of big data, digital twin model and other technologies to provide one-stop green low-carbon services for enterprises, parks and governments.

Each affiliated company carries out carbon emission statistics, verification and training, and builds various online monitoring and analysis platforms for energy consumption. China Jushi has also cooperated with professional institutions to prepare the Enterprise Carbon Footprint Calculation Report, which deepens the awareness of each production unit on the concepts related to carbon emissions and the sense of responsibility for carbon emission reduction.

 \odot The Group continues to pay attention to and make good use of green finance, empowering green building materials with green finance.

A total of RMB 3 billion of green bonds have been issued by the Group.

In 2022, 13 companies affiliated with New Tianshan Cement have participated in carbon trading in pilot provinces.

Basic building materials segment

The basic building materials companies actively promote the low-carbon development of cement through the double control of total amount and intensity. On the one hand, these companies vigorously implement reduction replacement and self-discipline production restriction to reduce the total amount of products, on the other hand, these companies accelerate the promotion of energy efficiency improvement, fuel substitution, power optimization, raw material substitution and lowcarbon cement development in the basic building materials segment, fixed and buried carbon through CCUS and mine recover to achieve the continuous reduction of total carbon dioxide.

Concrete business

- Reducing the consumption of cement in concrete
- Developing and popularizing ultrahigh performance concrete
- Increasing the use of recycled aggregate and strengthening recycling
- Strengthening carbon drop and carbon reduction in the production process
- Gradually exploring the application of new cementitious materials
- Strengthening the research on the application of digital technology in all aspects of production

Cement business

- Capacity reduction and carbon reduction
- High-efficiency clinker sintering equipment and technical application
- High efficiency grinding equipment and technology application
- Alternative raw material/fuel technology application
- Application of low carbon clinker technology
- Promoting the application of "zero carbon" mine technology
- New energy technology carbon capture and purification technology pilot
- Doing a good job of co-disposal of hazardous waste, municipal solid waste and municipal sludge in cement production line
- Strengthening the research on the application of digital technology in all aspects of production

Aggregate business

- Speeding up the research on fine aggregate technology
- Exploring energy-saving and efficient modes of transportation
- Optimizing mining process and equipment
- Strengthening the comprehensive utilization of solid waste resources
- Strengthening the research on the application of digital technology in all aspects of production

Case: CUCC Jiyuan Cement Kiln Carbon Capture Project, a pioneer of carbon capture industrial application

In November 2022, the construction of the cement kiln carbon capture project, in which CUCC Jiyuan, a subsidiary of New Tianshan Cement, participated and cooperated, was completed. The project uses metallurgical solid waste steel slag powder and carbon dioxide in the flue gas of the cement kiln as the main raw materials for gas-solid reaction, which can achieve an annual output of 0.30 million tonnes of carbon capture steel slag, directly reduce the emission of 16 thousand tonnes of carbon dioxide, and prepare low-carbon cement. This is the first project in China to realize the practical industrial application of carbon capture and the first industrial production line in the world to use steel slag for capturing.



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CUCC Jiyuan Cement Kiln Carbon Capture Project

Case: CUCC Qingzhou carbon capture and purification demonstration project, realizing carbon dioxide reuse

CUCC Qingzhou, a subsidiary of New Tianshan Cement, plans to construct a green emission reduction demonstration project with an annual output of 200 thousand tonnes of carbon dioxide capture and purification in the existing factory area. Upon completion of the project, an annual production capacity of 100 thousand tonnes of industrial grade carbon dioxide, 95 thousand tonnes of food grade carbon dioxide and 5 thousand tonnes of finished dry ice will be formed, which will strongly promote the low-carbon sustainable development of the building materials industry.



Case: Vigorously carrying out energy-saving technological transformation and promoting carbon dioxide emission reduction

New Tianshan Cement implemented kiln system optimization, grate cooler transformation and fan energy-saving technical transformation in 2022, saving 393 million kW·h of electricity, 112.6 thousand tonnes of standard coal and 304 thousand tonnes of carbon dioxide. Among them, CUCC Lunan Zhonglian Cement, a subsidiary of New Tianshan Cement, applies the first external circulation vertical mill in cement finish grinding system in China, with higher grinding efficiency and less consumption of wear-resistant materials, which greatly reduces the power consumption of material lifting and conveying, thus improving product performance and reducing product power consumption. By the end of December 2022, the cement vertical mill had reduced carbon dioxide emissions by more than 55.4 thousand tonnes.



Case: Actively transforming the structure of energy use and promoting the development of clean energy

In response to the national "Carbon Peaking and Carbon Neutrality" strategy, a number of subsidiaries of the Group have carried out clean energy development and construction in operation sites and carried out energy structure transformation, strongly supporting the Group's energy diversification and cleanliness.

- Ningxia Building Materials has built 21 DC charging piles and put 30 new energy tractors and trailers into be changed from oil to electricity, saving traditional energy consumption;
- throughout the year, and reduce carbon dioxide emissions by 5,703 tonnes.



operation, so that the short-distance transportation project from Ningxia Saima to Ningdong Branch can

New Tianshan Cement has built a photovoltaic power generation capacity of 20.79 MW, which generated 18.34 million kW·h of electricity in 2022 year and reduced carbon dioxide emissions by 12.9 thousand tonnes. CUCC Linyi, a subsidiary of New Tianshan Ccement, invested in the construction of a 6.5 MW distributed photovoltaic grid-connected power station, which can generate 10 million kW-h of electricity

CUCC Linyi 6.5MW Distributed Photovoltaic Grid-connected Power Station

Case: Promoting green logistics, "Train instead of Truck" brings new opportunities for carbon reduction

The Group has intensified its efforts in "Transportation by train, ship, corridor instead of truck". In 2022, CUCC Dezhou shipped nearly 2 million tonnes of limestone and aggregate by train throughout the year, reducing carbon dioxide emissions by about 1,300 tonnes. CUCC Linyi launched the "Public Transit Railway" in early November, shipping two trains of 4 thousand tonnes of raw coal and reducing carbon dioxide emissions by about 269 tonnes. Yuzhou Chenglei Building Materials, with motor-rail multimodal transportation, in 2022, nearly 1 million tonnes of products was shipped, reducing carbon dioxide emissions by about 650 tonnes.

New materials segment

The new materials segment companies focus on the implementation of the target of "Carbon Peaking and Carbon Neutrality", actively strengthens the optimization and adjustment of energy structure, develops photovoltaic power generation, increases the proportion of green power consumption, energy-saving and

low-carbon technology transformation, strengthens the construction and declaration of green factories, and continues to strengthen cooperation with new energy and carbon emission enterprises in the field of green manufacturing.

Case: China Jushi digital intelligence innovation drives the improvement of environmental benefits

In 2022, China Jushi actively implemented green technology innovation and tackled key problems, completing 158 energy-saving projects throughout the year, saving about 40 thousand tonnes of standard coal and reducing carbon dioxide by over 164 thousand tonnes, equivalent to about 8.96 million trees planted. In February 2023, China Jushi launched the project of Huai'an Zero Carbon Intelligent Manufacturing Base, contributing to the development and exploration of green zero carbon glass fiber manufacturing technology in the industry.



Case: Taking multiple measures for energy-saving technical transformation to continuously improve the level of production line consumption reduction

BNBM actively promotes "green manufacturing", replaces fuel forklifts with electric forklifts, carries out projects such as speeding up and reducing consumption in production lines, switching to energy-saving motors, and intelligent transformation of production lines to improve energy saving and consumption in production lines, and by 2022, 57% of gypsum board production lines achieved "near-zero" emissions of soot, sulfur dioxide and nitrogen oxides. BNBM invested 297 million yuan in energy-saving and environmental protection throughout the year, implemented more than 70 energy-saving technological transformation projects, and achieved annual energy saving of more than 10 thousand tonnes of standard coal. In 2022, 21 of its affiliated companies were awarded the title of national "Green Factory".

Through heat exchange pipe at low temperature, process adjustment, equipment improvement and other ways, CTG, a subsidiary of Sinoma Science & Technology, has reduced the energy consumption per tonne of products by nearly 20% compared with the beginning of the year, and has achieved 20% energy saving compared with traditional equipment by applying highefficiency equipment such as suspension fans and permanent magnet motors; Suzhou Limited has upgraded the heat treatment furnace to effectively reduce the surface heat loss and save 3,500 cubic meters of natural gas annually.

Case: Persisting in the utilization of waste heat and promoting energy transformation

In 2022, many subsidiaries of the Group continued to vigorously promote energy reuse and new energy applications, including waste heat utilization.

- · CTG implemented the utilization of medium-temperature waste heat from kiln gas, reducing photovoltaic capacity reached 18 MW;
- · Sinoma Lithium Membrane promoted the "Gas Recovery and Desorption Gas Waste Heat Recycling Project", the project can save 1.25 tonnes of steam per hour;
- The factory with 600 thousand-square-meter roof of China Jushi has been fully covered by and all of them are returned to production;
- power share of 8.3%;
- 20 affiliated companies of BNBM used natural gas to replace 85 thousand tonnes of coal, and 366.7 thousand tonnes of biomass fuel were used.

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carbon by more than 3,000 tonnes, and carried out energy-saving research and application of aeration system in sewage station, reducing carbon by 368 tonnes. In addition, CTG continued to promote the construction of photovoltaic projects, selected new energy electric vehicles to increase the proportion of green energy. In 2022, the increased installed

solar photovoltaic panels, which can generate nearly 70 million kW h of electricity every year

• Funing Company, a subsidiary of Sinoma Blade, subscribed for 2.2 million kW·h of green power, which is equivalent to reducing carbon dioxide emissions by 1,254 tonnes; China Composites purchased 6.507 million kW·h of green power throughout the year, with a green

3 affiliated companies used steam to replace 33 thousand tonnes of coal. And made effective use of process waste heat through the transformation projects of dryer, rotary kiln waste heat recovery and utilization, steam waste heat recovery and utilization. In addition, two companies affiliated to BNBM piloted photovoltaic power generation of 5.63 million kW·h, and 50 production lines promoted the use of biomass fuel instead of coal. In 2022, a total of

Engineering technical services segment

As a global leader in cement engineering construction, CBMI Construction, a subsidiary of Sinoma International, has been conducting a series of research on low-carbon, green and intelligent engineering technologies in the whole chain of cement industry for many years, such as carbon emission reduction, ultra-low energy consumption, alternative raw materials and fuels, carbon dioxide capture and purification, and intelligent construction. The French MK3 project is the first far-reaching project for its owners to invest in Europe in response to new environmental standards in recent years. Since the implementation of the project in 2017, CBMI Construction Technology Center and the project implementation team, based on their strong technical experience and combined with the technical parameters of the owner, have been brave in innovation to complete the high-heat substitution of fuel, reducing carbon by 240 kg per tonne of clinker, reducing carbon emissions by 28%, and reducing carbon dioxide emissions by 163 thousand tonnes per year. In 2022, the alternative fuel rate of MK3 project has exceeded 80%.

In addition, Sinoma International has established a management system for the development and comprehensive utilization of mine resources, stripped topsoil and waste rocks as much as possible in the cement ore business, carried out ecological restoration and management of mines, utilized engineering measures and land consolidation, and restored vegetation by combining arbor, shrub and grass to effectively increase the amount of forestry carbon sink. With real engineering cases, the Group strives to write a vivid page of the green answer sheet of "Carbon Peaking and Carbon Neutrality".

Recycling and reuse

The Group standardizes waste treatment, conserves and utilizes resources, increases the recycling of resources, promotes the reuse of waste and water resources, and helps improve the level of circular economy in the whole industry.

In terms of waste treatment, the Group standardizes the management of various types of waste generated in the production and living processes to achieve "Recycling, Reduction and Harmlessness". The amount of self-generated non-hazardous solid waste generated for the year was 2,248,200 tonnes, or 8.98 tonnes per million yuan of operating income, the comprehensive utilization of

harmless solid waste was 2,102,205 tonnes. with a comprehensive utilization rate⁴ of 92%. 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. The amount of self-generated hazardous solid waste generated for the year was 8,877 tonnes, or 0.036 tonnes per million yuan of operating revenue. In addition, the Group uses its own production facilities to assist in the consumption of foreign solid waste. The total amount of foreign solid waste consumption and treatment was 103.60 million tonnes in this year, including 99.56 million tonnes of industrial solid waste, 0.42 million tonnes of household waste, 0.13 million tonnes of hazardous waste such as waste oil, contaminated soil and medical waste and 3.49 million tonnes other waste. At the same time, the Group is gradually promoting the use of alternative fuels. The Group's use of alternative fuels this year mainly includes tyre powder, biomass (bagasse, platy codon) and codisposal of solid waste, totaling 1.36 million tons

Among them, cement kiln co-disposal, as an important way of solid waste disposal, can not only achieve proper disposal of waste, but also reduce the use of coal. In 2022, the Group has 49 cement kiln co-disposal waste projects in operation, with a total annual disposal scale of 4.93 million tonnes.

In 2022, the Group continued to increase the comprehensive utilization of solid waste resources and increased the proportion of industrial waste residues such as slag, steel slag, fly ash and desulfurization gypsum replacing natural mineral raw materials. During the year, the Group's consumption of steel slag and calcium carbide slag reached 5.44 million tonnes to substitute raw materials.

In terms of water resources conservation and protection, the Group's water sources come from surface water, tap water and reuse water, and all companies have obtained water drawing permits in accordance with the law. 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, therefore, there are no issues in water sourcing that fit for purpose in the Group's business.

In 2022, the Group achieved remarkable results in water measurement management, water-

⁴ The combined utilization rate of non-hazardous solid waste in 2022 is calculated by deducting the amount stored in previous years for comprehensive utilization.

63 China National Building Material Company Limited

Saving system construction, waste water treatment, water reuse and other areas, with the utilization rate of recycled water reaching 92%, representing an increase of 4 percentage points as compared with 2021. The water withdrawal intensity is 498 tonnes/million yuan of operating revenue.

Basic building materials segment

The basic building materials segment companies vigorously promote the comprehensive utilization of resources, and a large amount of industrial waste residues such

Case: Achieving multiple benefits of cost reduction and efficiency increase by recycling industrial waste residue

Qingtongxia Cement, a subsidiary of Ningxia Building Materials, has carried out experiments with different proportions by adding different kinds of admixtures (such as limestone, slag, dry coal ash, etc.) for many times to determine the proportion of different kinds of admixtures that can reduce the power consumption of the process and the cost of cement manufacturing. The concrete subsidiaries of Ningxia Building Materials use superplasticizer and superfine mineral admixtures to prepare high-performance concrete, greatly saving cement consumption, realizing the multiple benefits of full utilization of waste residue, prevention of secondary pollution of waste residue, energy saving and resource saving.

Case: Giving full play to the residual value of waste by recycling desulphurization gypsum

CUCC Qufu actively conducts experiments to explore and optimize the material structure, and uses dried desulfurization gypsum powder for raw material production, reducing the amount of gypsum from 14% to 11.5%, which reduces the production cost of raw material by nearly 4 yuan per tonne.

Case: Serving urban environmental governance by cement kiln co-disposal solid waste

In 2022, Qilianshan's first 200 thousand-tonne cement kiln co-disposal solid hazardous waste project was put into operation, and Jiangxi Nancheng South Cement's cement kiln codisposal solid waste project was also put into operation in August. With the help of the existing cement production process and equipment for hazardous waste disposal, the project does not produce residues and fly ash, does not require secondary treatment of pollutants, which has outstanding ecological and environmental benefits and will effectively alleviate or eliminate the environmental pollution problems of hazardous waste and solid waste in the local and surrounding counties and cities. The project is an excellent model for traditional cement manufacturing enterprises to transform into "Urban Evolver".

as fly ash, slag, desulfurized gypsum and carbide slag are used for cement production. The light building materials segment companies recycle a large amount of desulfurized gypsum and phosphor gypsum, and use high calorific value wastes as alternative fuels to improve the efficiency of resource utilization and reduce carbon emissions. In addition, the Group develops codisposal 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.



Jiangxi Nancheng South Cement's cement kiln co-disposal solid waste project

The basic building materials segment companies take active water conservation measures, recycling industrial cooling water in the production system, reusing all wastewater after deep treatment in the plant sewage treatment station, mainly for vehicle washing, dust suppression and water spraying of the storage yard, ground washing, road water spraying, greening watering, and striving for zero discharge of production wastewater.

Case: Rainwater collection and recycling pool project of Xingjian Cement improves the ecological environment

In 2022, Yunnan Xingjian Cement invested 2.36 million yuan to build a rainwater collection and circulation pool covering an area of 24 thousand square meters in the company's factory area, with an estimated water storage capacity of 15 thousand cubic meters, in a way that solves the problems of uneven spatial and temporal distribution of seasonal rainfall and insufficient surface water. Through the collection of initial rainwater, the project can meet the needs of part of the production system for recycling water and greening water. After it is formally completed and put into use in October 2022, about 45 thousand cubic meters of seasonal rainwater can be recycled annually, which can save up to 35 thousand yuan of water resources.



Yunnan Xingjian Cement's rainwater collection recycling pool project

New materials segment

The new materials segment companies always adhere to the "three wastes" treatment concept of "Focusing on the Source, Controlling the Process and Strengthening the Treatment", dispose of hazardous and harmless solid wastes in compliance with the regulations, and continuously improve the level of waste recycling. Meanwhile, the Group actively promotes measures such as recycling of production water, reuse of reclaimed water and diverting wastewater from clean water to protect the surface water and groundwater systems in which the base is located, and formulates targeted water system testing plans to prevent sewage infiltration and improve the treatment process of wastewater system.

Case: Gypsum board water and weight reduction project continuously reduces material consumption

By further promoting two-step desulfurization gypsum frying technology, bubble technology, water resources recycling, water reducing agent and coagulant addition technology, BNBM has further reduced the single weight of gypsum board, improved the strength of gypsum board, and realized the continuous reduction of various material consumption.

Case: Maximizing resource utilization by recycling production waste and packaging materials

China Jushi vigorously carries out the recycling of industrial waste and wastewater. In 2022, the single-line recycling rate of sludge reached 70%, and the recycling rate of water resources reached 98%. In addition, in view of the fact that a large number of leftover waste silk are produced in the production process of glass fibers, China Jushi has successfully developed a waste silk grinding and recycling process system, which adopts the combined process of "pre-drying waste silk + screening + pre-crushing + electromagnet needle suction + grinding" to achieve 100% waste silk recycling rate. Sinoma Blade continues to carry out circular economy reuse projects, and about 47 thousand packaging barrels have been recycled in 2022.

Case: Building a provincial "Waste-free Factory" by applying a complete set of green glass fiber production technology

With the principles of source reduction, in-plant recycling and green and low carbon, China Jushi has made great efforts in raw materials and production line processes, improved intelligence and production efficiency and promoted green production by adopting advanced production technology and equipment. China Jushi makes full use of solid waste recycling technology such as renewable raw materials, waste gas treatment technology and waste water recycling technology to promote waste recycling, and has won the honorary title of "Waste-free Factory" in Zhejiang Province.



China Jushi "Waste-free Factory"

Case: Sinoma Science & Technology water resources recycling grasps the initiative of water saving

Companies affiliated to Sinoma Science & Technology have adopted various water recycling measures and significantly reduced the total water consumption:

- · A factory of NRDI has realized self-circulation of screen washing water through filtration, and the total water consumption of a single line is reduced by 40%-50%;
- · Circulating water is used for dry loss pulping of NRDI, and it is estimated that 20 thousand tonnes of water will be saved annually;
- NRDI has transformed the sewage treatment system, which can treat 220-250 tonnes of wastewater per day for production, achieving an annual water saving of 90 thousand tonnes;
- The production water of each unit of Suzhou Limited is basically recycled, mainly involving heat treatment furnace, pickling process cleaning water, intermediate frequency furnace, etc., saving 11 thousand tonnes of water annually.

Engineering technical services segment

During the project design period, Sinoma International fully considers the water intake of the project, investigates and studies the abundance of water resources in the project site, and selects a suitable construction area; during the project construction period, Sinoma International fully implements the concept of water saving to avoid excessive consumption and waste of water resources.

Green production

Adhering to the core concept of "Smart Use of Resources to Serve the Industrial Construction", 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 the Group 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 to strive to promote green and sustainable development.

In 2022, the Group continuously reduced three waste emissions through process improvement, technology improvement, management improvement and innovation improvement.



Basic building materials segment

The air pollutants generated by the basic building materials segment companies include sulfur dioxide, nitrogen oxides, particulates and volatile organic compounds emitted from the cement production lines, as well as raise dust from mining and cement transportation. The Group has met the emission standards after treatment with various waste gas treatment processes and equipment. The

Case: Initial rainwater collection and reuse system solves rainwater pollution problem

New Tianshan Cement has built initial rainwater collection, treatment and reuse systems in several commercial concrete companies, so that rainwater can be discharged up to the standard after a series of multi-equipment regulation and purification, thus avoiding environmental pollution.



Case: Dust pollution prevention and control special rectification helps to ensure a clear and boundless sky

The member units of Ningxia Building Materials have carried out special rectification of dust pollution prevention and control through technical transformation and continuous improvement of pollution prevention and control facilities. Ningxia Saima, Wuhai Xishui and Wuzhong Saima use intelligent bagged cement loading system to effectively reduce the dust pollution in the cement loading process. In addition, the Company continues to carry out the special investigation and treatment of "Leak" in the production site, promotes the wet operation method, upgrades some grate coolers, improves the closed management of the storage shed, reduces the secondary dust in the storage process of raw materials, and effectively controls the unorganized emissions in the daily production process.

wastewater mainly comes from industrial cooling water and production and domestic wastewater in the factory area, which is reused after advanced treatment by recycling treatment facilities and sewage treatment stations. The Group conducts guarterly sampling and testing of sewage to ensure that the water quality meets the standards and avoid soil pollution.

Initial rainwater collection pool and related equipment
Case: Strictly observing the responsibility of environmental protection objectives to continuously reduce the emission level of air pollutants

In 2022, Ningxia Building Materials carried out denitrification technology transformation on several production lines of Ningxia Saima, Qingtongxia Cement and Sinoma (Tianshui), effectively reducing nitrogen oxide emissions.

In 2022, New Tianshan Cement signed the Target Responsibility Letter for Energy Conservation and Eco-environmental Protection with regional companies, specifying the target of reducing the emissions of nitrogen oxides, sulfur dioxide and particulate matter per unit product in this year by 5%, 3% and 2% respectively compared with the previous year. Through a series of measures, such as ultra-low emission transformation, control of sulfur content in raw materials and fuels, and upgrading of existing dust collection equipment, New Tianshan Cement achieved emission reduction target.

New materials segment

The air pollutants generated by the new materials segment companies include sulfur dioxide, nitrogen oxides, particulate matter and volatile organic compounds emitted from various production lines, while the wastewater mainly comes from the production and domestic wastewater in the factory area. All production and operation units have built supporting environmental protection facilities for waste water, waste gas, noise and solid waste treatment, and all production companies at all levels have obtained pollutant discharge permits, regularly carried out pollutant discharge monitoring, established and improved the ecological environmental protection contingency plan, strengthened the maintenance of energy-saving and environmental protection facilities, and ensured the efficient operation of equipment and facilities.

The affiliated companies actively carry out environmental protection enhancement work, linking pollutant emissions with staff assessment. For example, China Composites has clarified the responsibility management and assessment measures in the Environmental Protection Management System of China Composites Group Corporation Limited and the Energy Conservation and Ecological and Environmental Protection Assessment Responsibility Letter signed every year in case of exceeding emission standards or receiving administrative penalties. In addition, in strict

administrative penalties. In addition, in strict accordance with the Special Action Plan for Environmental Protection Improvement of Composite Fan Blade and Carbon Fiber, China Composites carried out environmental protection improvement work, formulated and implemented the Work Plan for Air Pollution Control in 2022, and strictly implemented the production and transportation arrangements in the joint prevention and control area.



Case: Actively carrying out environmental protection research and technological transformation, leading the industry to improve the level of environmental protection

The new materials segment actively carries out various environmental protection technology research and process technology transformation, continuously breaks through lower emission levels of air pollutants and water pollutants, leading the industry in the continuous progress of environmental protection level.

- 300mg/L to 100-150mg/L, which is 70% lower than the standard requirement;
- level of the industry;
- deep treatment technology and industry;
- discharge standard.



• By upgrading the sewage treatment system, the subordinate companies of NRDI has reduced the chemical oxygen demand of the discharged sewage from the original average of 250-

• The membrane material company has upgraded the volatile organic compounds waste gas treatment facilities and installed a waste gas detection platform. The total emission of volatile organic compounds has been reduced by about 27%, and the emission concentration is as low as 0.5 mg/m³, far below the industry standard (80 mg/m³), reaching the advanced

• NRDI has completed the project of "Industrial Flue Gas Multi-pollutant Collaborative Deep Treatment Technology and Application", and has made significant innovative breakthroughs in flue gas conventional and unconventional multi-pollutant collaborative control theory, core functional materials, deep treatment technology and equipment, and won the first prize of national scientific and technological progress, leading the progress of industrial flue gas

• In 2022, China Jushi's tonnes of yarn sewage discharge decreased by 5% year-on-year, and the discharge concentration of chemical oxygen demand was lower than 80% of the national

Promoting green products

The Group always pays attention to the full life cycle performance of its products, and is committed to providing high-quality, safe, healthy, green and environmentally friendly basic building materials and new material products, so as to contribute to the sustainable development of the whole society.

Basic building materials segment

In addition to carrying out work such as improving energy efficiency and optimizing energy structure to enhance the energy-saving nature of product manufacturing, the Group develops the use of industrial waste resources as raw materials for the production of building materials and applies high calorific value waste as alternative fuels to reduce the consumption of natural minerals and fossil energy, so as to provide customers with high-quality green and low-carbon cement products.



Case: Promoting the substitution of raw materials and fuels helps the cement industry to take the road of green and low-carbon development

Since December 2021, Fumin Jinrui and Yiliang Southwest, affiliated to Yunnan Cement, have taken the lead in carrying out the pilot project of tire powder fuel substitution in Yunnan region, purchasing tire powder for kiln tail decomposition furnace and directly replacing raw coal. A total of 9,523 tonnes of raw coal were replaced by waste tires in the two places, reducing 20.1 thousand tonnes of carbon dioxide and equivalent to carbon emission reduction benefits of over one million yuan. Since September 2022, Heilongjiang Binzhou Cement has used rubber particles as alternative fuel, which can replace 12,330 tonnes of raw coal consumption and reduce carbon dioxide emissions by approximately 29,520 tonnes per year.

New Tianshan Cement actively carries out the substitution of raw materials and fuels, produces 2.3641 million tonnes of cement clinker by using carbide slag instead of silicate raw materials, reducing 1,040.2 thousand tonnes of carbon dioxide.

Case: The production line transformation of Wangcang Cement provides high-quality green low-carbon cement products

In cooperation with the local design and research Institute, Wangcang Cement has invested more than 80 million yuan in the technical transformation of energy saving and emission reduction of the production line, which achieves ultra-low emission of various air pollutants, with an annual emission reduction of more than 500 tonnes of nitrogen oxides, more than 300 tonnes of sulfur dioxide and more than 60 tonnes of particulate matter. The cement products produced by the production line have obtained the "China Low Carbon Product Certification".



New materials segment

In addition to vigorously developing energysaving and low-carbon green manufacturing techniques, the Group has developed green design from the source of formula to promote the green upgrade of new material products. Meanwhile, the inherent innovation of new materials enables them to play a role in new energy, intelligence and other cutting-edge scientific and technological fields, effectively contributing to the green and sustainable development of the whole society.

In 2022, the operating revenue generated by the Group's products that can promote the green development of society (such as wind turbine blade, carbon fiber, lithium battery separator, hydrogen cylinders, new graphite materials and other products that can be used in the new energy industry) reached approximately RMB 26 billion.

Wangcang Cement cement low-carbon product production line

In respect of green manufacturing

China Jushi insists on optimizing its product mix and promoting green upgrade of its products. On the one hand, the whole series of products adopt high-performance glass fiber formula, which effectively improves the physical performance of the products while reducing the content of harmful substances in the products; On the other hand, in the production and manufacturing process, the proportion of pollutants is greatly reduced by implementing the low-cost large-scale production technology of high-performance glass fiber and the development project of complete sets of equipment, the use of high melting rate mineral raw materials, the use of self-developed advanced green production technology and the proportion of pollutants is greatly reduced. At the end of the life cycle of

Establishing the Foundation of Sustainable Development

Environmental

Social

Governance

glass fiber products, China Jushi has developed recyclable reinforced thermoplastic highperformance glass fiber yarn products, which are used in aerospace, new energy power generation, new energy vehicles, intelligent household electrical appliances and so on. For three consecutive years, China Jushi has accounted for 100% of the output of green products and 100% of the sales of products, which is at the leading level in the industry. In 2022, China Jushi was selected as the fourth batch of "Industrial Product Green Design Demonstration Enterprises" announced by the Ministry of Industry and Information Technology of China.

NRDI, a subsidiary of Sinoma Science & Technology, invented "A High-air Permeability Non-woven Fabric Laminated Filtering Material and Preparation Method Thereof as Well as Laminating Device", which can effectively solve the problem of ultra-low emission of fine particles in industrial smoke and dust, achieve high efficiency, low resistance and long life of the filter material, and won the China Patent Gold Award. Relevant products have been exported to many countries, realizing the upgrading of the performance of the original coated products, and promoting the independent innovation and technological progress of environmental protection materials.

As a platform for green building materials industry, BNBM creates a whole life cycle green building industry chain from green raw materials, green production, green construction, green application and green recycling. With perfect green design application and transformation ability, BNBM has many product life cycle assessment reports and carbon footprint certificates of products and technologies, has developed 10 kinds of green products such as pure aldehyde gypsum board and phase change gypsum board, and has led or participated in the formulation of 16 green product related standards in the past three years. In 2022, BNBM was selected as the fourth batch of "Industrial Product Green Design Demonstration Enterprises" announced by the Ministry of Industry and Information Technology of China.

In respect of promoting the green development of society

Sinoma Blade, a subsidiary of Sinoma Science & Technology, is committed to providing wind power blade products with low load, high power generation, friendliness and lightweight. In 2022, Sinoma Blade produced about 3,100 sets of wind power blades, which can create 29 million MW·h of effective green electricity for customers every year, equivalent to reducing carbon dioxide emissions by 16.54 million tonnes.

In 2022, Zhongfu Lianzhong, a subsidiary of China Composites, produced 1,294 sets of wind power blades, which can generate 12.09 million MW·h of effective green power for customers every year. Compared with thermal power generation, it is equivalent to reducing 6.90 million tonnes of carbon dioxide emissions for the whole society every year.

As the core power of large megawatt wind power blades, the successful research and development of China Jushi high-modulus and high-strength glass fibers has made the application of over 100-meter blades possible, greatly reducing the cost of wind power. Based on the global installed capacity of 837 gigawatts of wind power, the blades made with China Jushi's high-modulus and high-strength glass fiber can generate up to 1,800 billion kW·h of electricity per year, which can reduce global carbon dioxide emissions by 1.03 billion tonnes per year compared with thermal power.

Lithium battery is the cornerstone of the development of new energy transportation industry. The total production capacity of lithium battery separator of Sinoma Lithium Membrane, a subsidiary of Sinoma Science & Technology, reaches 1.2 billion square meters per year. The performance of the lithium battery separator produced is excellent and stable, which ensures the high safety, high cycle life and excellent electrochemical performance of the battery. The product has passed the certification and use of many highend lithium battery manufacturers at home and abroad, meeting the growing demand for highquality separators in the domestic and international lithium battery market in all aspects.

In the field of green shipping, Zhongfu Lianzhong, a subsidiary of China Composites, manufactures the first composite material rotor sail in China. When the ship sails on a specific route with long-term lateral wind, it uses wind energy as additional power to reduce fuel consumption, which can achieve 5%-30% fuel savings, providing more possibilities for the global shipping industry to achieve green transformation.

Protecting ecological conservation

The Group carefully plans for ecological and environmental protection work, and the three major business segments of basic building materials, new materials and engineering technical services segment go hand in hand to create a green and beautiful new future.

Protection of the ecological environment of raw material mining areas such as mines has always been an important task for the Group to carry out ecological civilization construction and reduce the impact on the business environment. The significant impact of the Group's operating activities on the environment and natural resources mainly includes the felling of vegetation at the mine site during the mining of some raw materials for the cement business, as well as fuel consumption and waste gas emissions during the operation of the cement business. The Group continues to improve the planning of raw material mining and the management system of mining operations, comply with the Convention on Green Mine, and formulates relevant management systems such as the Interim Measures for the Protection of Mine Ecological Environment and the Measures for the Design Review and Completion Acceptance of Safety Facilities for Non-Coal Mine Construction Projects of CNBM. The subsidiaries of the Group have also formulated relevant regulations and documents based on their situations, such as the Mining Management System of Ningxia Building Materials, the Plan for Geological Environmental Protection and Ecological Governance and Restoration of Mines and the Plan for Mine Land Reclamation of Sinoma International. The continuous improvement of mine management system not only helps to ensure the scientific and orderly mining process, but also strictly controls the environmental impact of mining activities. The Group implements the principle of "Mining While Managing", carries out ecological restoration of the mining area in a timely manner during and after the mining, and implements the concept of sustainable development with a high sense of social responsibility. The Group fully promotes green mine construction. By the end of 2022, the Group has constructed 111 green mines, including 42 national level green mines and 69 green mines at other levels.

New Tianshan Cement focuses on the greening and beautification of the mining area and the surrounding environment when selecting sites for new construction or reconstruction projects, so as to achieve the natural integration of industry and surrounding ecology. At the same time, New Tianshan Cement carries out highstandard mine management and creates green and beautiful mines. In 2022, the establishment rate of green mines was \geq 75%.

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.



Case: Unlocking the ecological code by mine green restoration

In 2022, the ecological restoration work carried out by the Group in Sanhuashan Mine was highly recognized by the Zhongguancun Green Mine Industry Alliance and won the Outstanding Contribution to Green Mine Award. Adhering to the development concept of "Lucid Waters and Lush Mountains are Invaluable Assets", the project has introduced the technology of external-soil spray seeding and greening in combination with the actual situation of the mine, continuously planted Koelreuteria and jujube tree on the slope platform of the mine, which are mixed with grass seeds, and carried out ecological restoration of about 40 thousand square meters of permanent slope of the mine. This project thoroughly improves the overall appearance of the original mine, and also provides a new idea and method for the ecological restoration of the permanent slope in the whole mining industry.



Sichuan Sanhuashan mine regreening helps high-quality development

Case: Making every effort to protect the lucid waters and lush mountains and creating green business cards

The Group strictly implements the environmental impact assessment system and adheres to the ecological red line. Linli Southern New Materials, a subsidiary of New Tianshan Cement, insists on adopting the most advanced technology in ecological restoration, and has completed the restoration of 103 thousand square meters since its operation, with a restoration rate of 100%. The park was awarded the title of "Green Industrial Tourist Attractions in Hunan Province" and "Most Beautiful Mine in Hunan Province" by virtue of its beautiful scenery better than the park.



Ecological Restoration and Beautification of Green Mountains by Linli Southern New Materials of Hunan Province

Case: Engineering construction does not forget the original intention of green, and ecological governance promotes harmonious development

In 2022, Sinoma MC, a subsidiary of Sinoma International, completed 20 digital smart mines, and Sinoma Xi'an carried out mine restoration and management construction and green mine construction for Langou Limestone Mine in Sanmenxia. The project has invested a total of 40 million yuan to carry out land restoration and management in mining areas, mine information construction, mine intelligent monitoring system construction, mine road hardening and other work, completed 333.3 thousand square meters of ecological restoration planning and land restoration and management work, planted more than 58,600 trees of various types, and restored a total of 0.30 million square meters of forest and grassland. The ecological environment of the mining area has been effectively improved. The mine was selected as the "National Green Mine List" and awarded the title of "XCMG Cup" and "Top Ten Mines" by China Cement Association in July 2022.



Establishing the Foundation of Sustainable Development

Social

- Leading industry by the innovation
- **Ensuring product quality**
- Upholding safety commitment
- Caring for employee development
- Undertaking social responsibility

∲ St	atistics 2022
Ø	Accumulated 12,760 valid patents
	112 new ISO9000 quality manageme years
0	1.57 billion yuan invested in safety a
Ø	692 companies certified for ISO4500 management system
Ø	65,772 safety, environmental and he correction rate of hidden dangers
0	Safety education and training 1.576
Ø	150,457 employees
0	Over 96% employee satisfaction of a
0	The average number of training hours f
	increase of 20.5% year-on-year
0	Total investment in philanthropy amou
0	48,299 hours of volunteer activities

As a leader in the global building materials industry and a social corporate citizen, the Group adheres to the bottom line of product quality, implements the strategic position of scientific and technological innovation, helps to build a green consumption system, implements the main responsibility of safe production, promotes the construction of safety and

ent system certified companies in three
ind health
1 occupational health and safety
nealth inspections with 99.2%
million person-times
all category
for all employees was 47 hours, an
inted to 106.50 million yuan
5

health management system, cares for the physical and mental health and career development of employees, strengthens the construction of talent team, takes the initiative to exert its strength, serves the society, benefits the people and contributes to the stable and sustainable development of the society.

Leading industry by the innovation

Building materials manufacturing industry is in a critical period of industrial transformation and upgrading and promoting high-quality development. Over the years, the Group has been accelerating the transformation of new and old kinetic energy,

continuously increasing R&D investment, carrying out original and leading scientific and technological research, accelerating the improvement of building materials quality and driving the industry forward.

Construction of innovation system

The Group continues to improve the innovation system, formulates relevant rules and regulations such as the Measures for the Award of High-tech Enterprises and Patents, Patent Management Measures and Management System for Scientific and Technological Work of CNBM, actively guarantees the standardizes operation of innovative work such as technology research and development, equipment upgrading, and efficiently integrates scientific and technological innovation resources from product planning, R&D investment, R&D team management and other aspects to cultivate expertise in R&D direction.

The Group actively explores the new mode of combining production and research between enterprises and research institutes, builds an effective platform for the industrialization of R&D achievements and independent innovation of enterprises, and concentrates on enhancing the comprehensive strength of innovation. The Group currently takes possession of 1 national key laboratory, 1 national new material testing and evaluation platform, 4 national engineering (technology) research centers, 10 state-certified enterprise technology centers and 8 transformed research institutes. Relying on the high-level R&D platform, the Group carries forward our advantages, focuses on promoting the research, development and application of new products, new processes and new equipment, vigorously develops the innovation of basic building materials and new materials products, and have achieved gratifying results.

In 2022, the Group applied for 3,067 patents, including 1,138 invention patents, 2,747 authorized patents, of which 659 were invention patents, 12,760 valid patents were accumulated, of which 2,814 were invention patents, and 588 software copyrights were successfully registered.

During the Reporting Period, the subsidiaries of the Group continue to optimize management on innovation initiatives and improve the incentive mechanism for innovation.



Incentive system for innovation management of the Company's subsidiaries

Name of subsidiaries	Innovating Management Incentiv
Qilianshan	Revising the Measures for the M Measures for the Evaluation and A strengthen the Company's technolo employees at all levels to actively p and efficiency creation.
China Jushi	Formulating the Management Syste and implementing the whole proces
Sinoma Science & Technology	Implementing the Interim Measu Achievements and completing the Award of the Company.
China Composites	Revising the Regulations on the Ma the Regulations on the Manageme award standards for the establish standards for the formation of implementing the Implementation Edition) and carrying out science an
Sinoma International	Exploring and implementing the po- the implementation of innovatio mechanism; organizing and compl- first science and technology award Company.

R&D of innovative products

The stream strikes the water, and those who rush hard go advance. The Group persists in innovation and pursues continuous first-class performance and strives for domestic leadership and excellence. The Group has continuously optimized the product R&D system for a long time, actively invested a large amount of funds in R&D new products, and achieved effective integration of technological innovation resources by cultivating expertise in R&D direction. The Group gives full play to the advantages of industrial concentration, actively promotes the effective integration of the innovation chain and industrial chain of its subsidiaries, and successfully completes the joint R&D of a number of important products. In addition, through cooperation with a number of universities, the Group has developed and trained a large number of high-level technological leaders to provide talent support for the transformation of scientific and technological achievements

tive System

Management of Technological Innovation and the d Award of Technological Progress Awards to further ological innovation capacity building, and encouraging y participate in and carry out technological innovation

stem of Foreign Technology Development Agreement cess management of foreign technology development.

asures for Rewarding Scientific and Technological the evaluation of the first Science and Technology

Management of Science and Technology Projects and ment of Science and Technology Awards to clarify the shment of scientific research projects and the award of new products by scientific research projects; ion Plan for Science and Technology Awards (Trial and technology award activities.

policy of R&D investment as profit return to promote tion incentive mechanism and incentive guarantee upleting the evaluation and bonus distribution of the rd and the second technology innovation award of the

Qilianshan adheres to the concept of green and lowcarbon development of products and continuously deepens the management of scientific and technological innovation. The main cement products of its subsidiaries have successively passed the certification of low-carbon products in China, the certification of selected products for green buildings and the certification of limited harmful substances in products; New breakthroughs are made in the R&D of new products, including the successful development of Portland cement for nuclear power projects and the acquisition of production licenses. The sulfur-resistant, nuclear power, road, low-alkali and 52.5 cement products are widely used in military nuclear power, aerospace, high speed rail and other fields.

Case: Product innovation serves market demand, and technological breakthroughs lead industry development

In 2022, China Jushi's ultra-high modulus glass fiber made great breakthroughs in product performance, large-scale production and intelligent manufacturing, and was successfully applied to the world's longest wind blade project, strongly promoting the large-scale and lightweight upgrading of wind power blades. With its rapid development, China Jushi actively promotes the common development of upstream and downstream enterprises, and constantly leads the industry to achieve innovative breakthroughs. In 2022, China Jushi won the honor of Top Ten Leading Enterprises in Scientific and Technological Breakthrough in the National Building Materials Industry in 2022 and the China Patent Gold Award.

With the rapid development of wind power industry, the market has put forward new requirements for the greening and high performance of wind power blades. Sinoma Science & Technology takes the lead in introducing advanced R&D guality tools in the global wind power industry, carries out key technology and industrialization research of large composite wind turbine blades, and leads in solving the problem of efficient manufacturing of megawatt blades, forming a low-cost, high-efficiency, high-quality, high-power and low-wind-speed wind turbine blade design, material, process and equipment and other key technology system and laying a solid foundation for the high-quality development of the wind power industry.

Technological transformation and upgrading

Basic building materials products are widely rooted in the consumer market and have a profound impact on the national economy and people's livelihood, which has always been the focus of the Group's innovative R&D work. The Group takes full advantage of its leading edge in science and technology, strengthens technological innovation, and its subsidiaries also actively upgrade and transform their production technologies.

Case: Helping production lines save energy and reduce consumption through R&D on energy efficiency improvement

Focusing on the pain point of high energy consumption in the cement industry, Sinoma International has conducted R&D on energy efficiency improvement. By focusing on the research of the overall scheme of the transformation of the first-level energy efficiency technology of the production line, the Company has upgraded the original production line to the first-level energy efficiency and put it into operation in Longshan, Xuzhou. After the production line is put into production, it saves about 24,180 tonnes of standard coal and reduces about 66,737 tonnes of carbon dioxide every year. In addition, Sinoma International has also completed the energy efficiency improvement and transformation solution for the production line of cement kiln co-disposal domestic waste. After putting into operation, the daily transportation of waste will reach 200-250 tonnes per day, and the consumption of clinker standard coal will be less than 97 kg.

Case: Helping industry digital transformation and upgrading by releasing the standard of cement smart factory

With the continuous transformation of cement production and processing to digitalization and intellectualization, more and more intelligent manufacturing equipment, advanced technology and intelligent optimization control system of key processes are applied in the field of cement production. New Tianshan Cement cooperates with Sinoma International to carry out the consultation project of Cement Smart Factory Pilot and Production Informatization Planning, forming seven achievements such as Three-year Planning Report of Smart Factory Pilot and Production Informatization Construction, refining and summarizing four standard documents such as Smart Factory Construction Guide and Digital Mine Construction Guide, marking a new stage in the construction of smart cement.



mines

In 2022, New Tianshan Cement invested more than RMB 10 million to take the lead in exploring the construction of smart mines and put them into operation in August 2022. The construction content of the project includes seven systems: data center, digital mining software, smart production management and control system, truck smart scheduling system, stope integrated security, three-dimensional visualization management and control system, slope detection system. The data of each functional system is centralized management, centralized distribution and interrelated. After the completion of the project, it is estimated that the production efficiency of Datong Limestone Mine of Shanya Nanfang Cements will be increased by 10%, the fuel consumption of main materials will be reduced by 2%, the freight will be saved by 0.7 yuan/ tonnes, and the utilization rate of low-grade resources will be increased by 12%.



Spotlight

ablishing the Foundation



New Tianshan Cement and Sinoma International jointly release smart factory standard

Case: Digital empowerment of basic building materials and efficient mining of smart



Smart mining of Datong Limestone Mine of Shanya Nanfang Cements improves efficiency

Ensuring product quality

The Group adheres to the principle of quality first and strives to provide customers with the best quality products and services. Adhering to the concept of "Protecting the Common Health of Human Beings and the Earth", the Group are committed to establishing environmentally friendly green production systems such as green procurement and green consumption.

Quality management

The Group strictly complies with the Product Quality Law of the People's Republic of China and other relevant laws and regulations, and has formulated the **Ouality and Standards Management Measures of** CNBM , which clarifies the responsibilities and authorities of quality-related personnel, ensures that guality control responsibilities are assigned to people, points out the direction and ways for the continuous improvement of quality management of subsidiaries, and continuously promotes the improvement of product quality. In addition, the Group actively organizes subsidiaries with production and operation activities at all levels to pass the quality management system certification, and 112 new productionoriented subsidiaries obtained ISO9000 quality management system certification within three years from 2020 to 2022.

Ningxia Building Materials has always adhered to the management theory of "Strengthening Enterprises by Quality" and constantly improved the quality management system. At the end of December 2022, 12 cement production companies, 2 commercial concrete companies, 1 cementing material company and 3 network logistics technology companies affiliated to Ningxia Building Materials have all passed the quality management system certification.

BNBM has established a whole-process product

quality control mechanism, formulated rules and regulations such as the Product Quality Management System, strictly controlled the quality of raw and fuel materials and semi-finished products required for production, strictly implemented the inspection procedures for raw and fuel materials entering the factory and products leaving the factory, resolutely identified the causes of quality accidents, and pursued the relevant responsible departments and persons.

Through strict enforcement of the Group's quality requirements, Sinoma Science & Technology has formulated policies such as the Quality Management Practices, Regulatory and Related Party Requirements Control Procedures, APQP Control Procedures, Product Inspection and Testing Procedures and the Non-conforming Product Control Procedures to strictly control the quality, avoid selling unqualified products while standardizing the handling and recycling of substandard products. 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 to provide high-quality products and services to customers.

Customer service

The Group attaches great importance to the experience of customer satisfaction. Guided by customers' demands, the Group has continuously improved its customer service system to enhance customer satisfaction and brand trust. In 2022, the Group has received a total of 331 complaints about products and services.

In the basic building materials segment, Ningxia Building Materials, Qilianshan, CNBM Investment and other subsidiaries continue to promote the construction of customer service system, formulate the Rules for Customer Complaint Handling Management and Management Standards for User Visits and Talks and other provisions, regularly conduct in-depth customer satisfaction surveys, summarize and analyze the survey results, implement timely rectification of the deficiencies and problems revealed in the surveys to improve customer satisfaction.

O Ningxia Building Materials: In 2022, the customer satisfaction reached 98%

Oilianshan: In 2022, the customer satisfaction reached more than 98%

O CNBM Investment: In 2022, the customer satisfaction reached more than 95%

In the new material segment, BNBM adheres to the principle of quality first and service first, and formulates the Measures for Handling Customer Complaints of BNBM. Customers can lodge complaints through multiple channels and get timely replies within 48 hours; Sinoma Blade, a subsidiary of Sinoma Science & Technology, formulates rules and regulations such as Customer Satisfaction Management Measures, Customer Complaints Management Measures and After-sales Service Management System to regularly investigate, analyze and evaluate

customer satisfaction, and timely correct and strengthen prevention.

In the engineering technical services segment, the subsidiaries to Sinoma International implements the Customer Satisfaction and Service Management Measures, regularly conducts customer satisfaction surveys, establishes after-sales service business groups and other after-sales service systems, and carries out better after-sales services in a many-for-one manner.

Green consumption

The Group focuses on advanced technologies and innovative ideas in domestic and overseas industries, continuously improves product performance, maintains excellent foresight to the market, and fosters and incubates sustainable consumption orientation.

Qilianshan publicizes product performance through company brochures and other written materials, and guides customers to use more environmentally friendly measures to protect the environment. BNBM actively organizes and participates in the activities of green building materials going to the countryside, publicizes green environmental protection products and product environmental risks through multimedia and outdoor advertisements, and urges consumers to choose sustainable products and services. The packaging materials of CNBM Investment adopt recyclable materials, as a way that professional institutions and consumers to bring packaging materials into the waste recycling system.

Case: BNBM promotes green products and leads green consumption fashion

BNBM Coating, a subsidiary of BNBM, launches BN Paintings, an environmental protection product, which adopts the latest raw materials, formulas and production technologies with aldehyde purification, odor purification and stain resistance, which not only fully guarantees the raw materials, production, construction and use of aldehyde purification and odor purification in all aspects, but also has super scrub resistance, especially for the interior decoration crowd with higher health and safety requirements for the environment. The products reflect the Company's concept of green environmental protection and sustainable development.



Upholding safety commitment

The Group is committed to providing every employee with a safe, healthy and harmonious working environment and achieving the safe, stable and sustainable development of the Group by strengthening the safety production system, implementing safety production measures and strengthening employee safety training and awareness.

In 2022, the Group invested a total of RMB1.57 billion to ensure effective and safe production. No major and above liability accidents occurred in the subsidiaries of the Group, the total number of production safety accidents and the total number of casualties "double declined" for five consecutive years, no major accidents occurred for two consecutive years, no new occupational cases were found, and the situation of safe production was basically stable.

From 2020 to 2022, the Group had in each year 5, 4 and 5 work-related deaths, with a death rate of 0.032‰, 0.020‰ and 0.033‰ respectively, and lost 30,279 days due to work-related injuries in 2022. The completion of the Group's safety production objectives is as follows:



In 2023, the Group will take the safety production target of



as the guide, implement safety production management, and ensure the stability of safety production situation and the safety and health of employees.

Protecting health

The Group strictly implements national laws and regulations such as the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, the Regulations of the People's Republic of China on the Prevention and Control of Pneumoconiosis, the Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used, the Provisions on the Supervision and Administration of Occupational Health at Work Sites, and the Measures for Supervision and Management of Occupational Health Surveillance of Employers, and continuously improves the rules and regulations of CNBM such as the Measures on Supervision and Administration of Occupational Health in Workplaces and the Measures on Management of Employee Health Examination to strengthen the protection and management of employees' occupational health and prevent, control and eliminate occupational diseases effectively. The subsidiaries of the Group formulate a safety management standard system according to their own characteristics and adopt various control measures. The Group constantly improves the supporting facilities and first-aid equipment for dust prevention, gas prevention, noise reduction and emergency management at work sites, equips with reliable labor protection equipment in strict accordance with the requirements of labor protection, and organizes regular health check-ups for employees to ensure their health and safety.

Case: Taking multiple measures to reduce occupational risks and completing facilities to ensure employee safety

China Jushi adopts a combination of engineering protection and labor protection to take protective measures for key occupational hazard positions, such as the use of low-hazard raw materials, the allocation of complete labor protection equipment, and the adoption of engineering measures to reduce labor hazards, so as to take multiple measures to ensure the effectiveness of protection. In order to enhance the safety awareness of employees, China Jushi has set up a safety experience hall and has received more than 3,000 visitors to experience it.

In 2022, Sinoma Science & Technology equipped with 8 new defibrillators, 61 air respirators, 53 ventilators in confined spaces, 20 new mini-fire stations, and conducted occupational health examinations for all 12.8 thousand employees exposed to occupational risks to fully cope with potential occupational health risks.



Case: Implementing the epidemic prevention policy and protecting the health of employees

According to the global epidemic situation, BNBM Tanzania timely formulates epidemic prevention and control contingency plan, widely publicizes epidemic prevention and control knowledge among employees, including African malaria, dengue fever, cholera and other epidemic prevention knowledge, provides clean and hygienic drinking tap water for employees, encourages local employees to receive vaccinations, and provides them with transportation subsidies. Sinoma International invites local hospital medical worker to vaccinate local employees and distributes anti-epidemic health kits to protect their health.

Building a firm system

The Group strictly abides by the laws and regulations related to production safety, including but not limited to the Production Safety Law of the People's Republic of China and other national laws and regulations as well as industrial safety standardization standards, and establishes a sound production safety organization system, and formulates of CNBM System of Safety Production Responsibility for All Employees, Measures for Emergency Management, Measures for the Management of Production Safety Accident Emergency Plan, Measures for the Management of Production Safety Accident Report, Management Measures for Production Safety Statistics, Interim Measures for Punishment of Production Safety Violations, Management Measures for Production

The subsidiaries of the Group also formulate systems and measures related to production safety according to their own conditions, clarify their safety responsibilities by signing production safety responsibility letters at all levels and link the performance of production safety with the rewards and punishments of leaders at all levels, so as to ensure that responsibilities are assigned to people and measures are in place. China Jushi signed a total of 12,540 safety production target management responsibility letters throughout the year.

In 2022, the Group further promoted the construction of safety standardization system, and established 14 firstlevel safety standardization companies, 249 second-level safety standardization companies, and 692 companies at all levels obtained occupational health and safety management system certification.

In the basic building materials segment

New Tianshan Cement adheres to the management orientation of "All Accidents Can be Controlled and Avoided", highlights the five key points of "Assigning responsibility, Improving the system, Enhancing awareness, Making Great Efforts to Rectification and Strengthening Safety Leadership", realizes the three major changes of safety management "Sound Organization, Smooth System, Safety and Stability", and constructs a long-term mechanism for safe production of the Company. New Tianshan Cement formulates 20 Rules of Zero Tolerance for Tianshan Cement Safety Behavior and continuously promotes "20 Rules of Zero Tolerance" to take root in the Company.

Spotlight

Safety in Engineering Projects, Management Measures for Grading and Control of Safety Risks, Management Measures for Monitoring of Major Dangerous Sources of Dangerous Chemicals, Management Measures for Production Safety in Overseas Organizations, Management Measures for Reporting of Emergencies in Overseas Organizations and other internal management systems to clarify the basic principles, organizational structure, division of responsibilities, management requirements, investigation and handling, emergency handling, incident punishment and accountability of safety production work, and to make detailed provisions on safety production management, safety production management of engineering projects and safety production management of overseas institutions.



In the new materials segment

According to the requirements of relevant national laws and local regulations and standards, Sinoma Science & Technology formulates Measures for Safety Production Management, Responsibility System for Safety Production, Regulations for Graded Management and Control of Safety Production Risks, Regulations for Education and Training of Safety Production, Measures for Punishment of Safety Production Violations and other management systems to establish a set of unified and effective safety management system from top to bottom to strengthen the safety production management of production-oriented enterprises.

Building safety together

The Group takes safety production actions focusing on prevention, starts with hidden danger investigation and safety inspection, clarifies safety production management responsibilities of companies at all levels, and implements specific safety production measures. In 2022, the Group carried out 65,772 safety, environmental and health inspections (including self-inspection, mutual inspection, special inspection of hazardous chemicals, special inspection of mines, superior supervision, etc.), with a rectification rate of hidden dangers of 99.2%.



In the basic building materials segment

New Tianshan Cement launches the "Safety Production Centralized Rectification Month" and "Safety Production Promotion Year" actions, formulates and issues 18 issues of Safety and Environmental Protection Presentation, promotes the excellent practice of safety and environmental protection of member companies within the Company, continuously inspects and rectifies hidden dangers to implement safety production measures.

In the engineering technical services segment

Sinoma International, under the overall planning of the Company's special working group on safety and environmental protection, has carried safety cross-audits for five consecutive years in every unit and project, covering all its subordinate units, with 21 audited projects.

In the new materials segment

BNBM proactively implements the closedloop control of "Identification of Hazard Sources — Formulation of Rectification Plan — Implementation of Plan — Inspection and Improvement", establishes a sound accident potential investigating and management system, and achieves online management of important processes and links of safety production management through informatization. In 2022, the investment in safety and environmental protection of Sinoma Science & Technology increased by 10.6% year on year, the certification rate of environmental and occupational health and safety management system reached 95.5%, the number of registered safety engineers increased by 20% year on year, a total of 24 comprehensive contingency plan were compiled, and 17 thousand potential safety hazards were investigated and managed.



In terms of overseas safety, the Group earnestly implements the deployment of the State-owned Assets Supervision and Administration Commission, the Ministry of Commerce and the Parent on overseas safety risk prevention and control, forwards relevant documents to overseas projects in a timely manner and requires overseas projects to strictly implement relevant work. In 2022, the Safety and Environmental Protection Department of the Group conducted a video inspection on the safety production and security work of 42 overseas projects including the Russian branch of CBMI Construction, proposed 78 work suggestions, issued 17 safety warning messages, and organized 6,263 employees of 150 overseas projects to participate in overseas safety risk prevention and control video training.

Strengthening training

The Group carries out safety inspections and safety management assistance at all levels, and enhances employees' safety awareness and ability through various safety training and safety drills such as first aid knowledge and skills training, fire emergency evacuation drills, and psychological guidance for overseas employees. The Group has also formulated relevant rules and regulations such as the "Safety Training Management Measures" of CNBM to ensure the effectiveness of safety training for employees, updated the "Production Safety Accident Warning Cases" as a teaching material for warning education carried out by subsidiaries, and urged subsidiaries to earnestly draw inferences about other cases from one instance on safety issues.

New Tianshan Cement compiles training materials such as the Handbook of Safety Production, the Compilation of Production Safety Accidents in Cement Enterprises and the Compilation of Accidents in Commercial Concrete Enterprises, holds online trainings such as the 2022 Training Course for Registered Safety Engineers, and establishes the management mechanism of "Examination for Every Investigation and Examination for Training" of the headquarters to promote the work of safety production. Sinoma Science & Technology vigorously promotes the construction of safety production culture. In 2022, the Company organized 6,300 safety production training sessions and trained 252 thousand people.





Caring for employee development

The Group always adheres to the people-oriented principle, protects all legitimate rights and interests of employees, and provides employees with a healthy and safe working environment and a comfortable and convenient living environment. In addition, the Group adheres to the talent-led strategy, takes various measures to attract and train talents, actively builds a broad career development platform for employees, and establishes a sound remuneration incentive mechanism to enable employees to share the fruits of development.

People-oriented

The Group regards employees as the most valuable asset of the Company, creates a fair and equitable employment mechanism, continuously improves the scientific talent retention, promotion and development system, designs a welfare system that runs through the entire life cycle of employees in the workplace, to protect the career development and workplace experience of employees in an all-round way and enhance employees' happiness and sense of belonging.

Regulating 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, anti-harassment, and other benefits and welfare, 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, to protect the legitimate interests of both the company and the employee. The Group establishes rules and regulations such as the Measures for Employee Management and the Measures for Employee Leave and Attendance, which spell out in detail the management procedures for hiring, firing, change of employment, working hours and contract operation of employees.

The Group implements a five-day work system, with employees working eight hours per day. The Group clearly stipulates the working hours of employees and the annual leave and various leave hours that employees have, safeguards the right of employees to rest and vacation, and standardizes the management procedures for employees' leave and vacation.

The Group has established a multi-channel career system for employees, set up a number of job sequences such as management sequence, professional sequence and support sequence, and carried out supporting systems in terms of employee performance assessment and salary management, so as to smooth the career development path of employees, improve the incentive and restraint mechanism for employees, fully mobilize the enthusiasm and creativity of employees, and support the strategic development of the Company.

The Group reasonably regulates the dismissal in accordance with the relevant measures. For different circumstances such as unilateral dismissal by employees, unilateral dismissal by the Company, and dismissal by consensus of both parties, the Group implements the compliance procedures in accordance with the Special Guidelines on Compliance Management of CNBM. – Labor and Employment. The Group resolutely abides by the relevant laws and regulations and internal systems that prevent the employment of forced labor or child labor, including but not limited to the Law of the People's Republic of China on the Protection of Minors, the Criminal Law of the People's Republic of China and the Special Guidelines on Compliance Management of CNBM. – Labor and Employment. 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. During the Reporting Period, there was no violation of the above laws and regulations.

As of December 31, 2022







Female

35.58

Case: China Jushi is committed to creating good conditions and environment to attract talents

As is one of the earliest companies in Tongxiang City, Zhejiang Province, with the highest coverage of provident fund. China Jushi has established a sound salary and welfare system, and has maintained a per capita income growth of more than 10% for 14 consecutive years. The company launches the action plan for common prosperity of employees, which consists of six aspects of "Considerable Income, Worry-free about Living, Robust Career Growth, Sound Labor Security, Spiritual Pleasure and Practical Social Responsibility for Employees", further clarifying the direction of the Company's protection of the rights and interests of on-the-job and retired employees, and helping to enhance the employees' sense of belonging, happiness, and acquisition.

China Jushi also implements collective wage consultation, builds a democratic communication mechanism, and the president regularly communicates with employees face to face every year to listen to their voices. The Company improves the caring mechanism, provides assistance to employees in difficulty and visits the families of employees stationed overseas every year. In addition, China Jushi builds a Jushi Talent Pool to promote the medium and long-term training of the Company's core talents, sets up an independent evaluation platform for the skill level of industrial workers, improves the setting of the allowance level for skilled personnel, and carries out skills training and skills competition to stimulate the "Internal Motivation" of industrial workers. In 2022, the Company was selected into the list of "Leading Goose Action of Happy Community Enterprises" in Zhejiang Province.



Helping the employees in difficulty



Employee skill competition



Visiting the family members of overseas employees



Face-to-face communication between president and employees

In January 2023, at the Spring Talent Recruitment Fair of "Spring Wind Action" in Tongxiang, China Jushi Recruitment Site attracts nearly 100 people to submit resumes, while China Jushi Smart Manufacturing Base also attracts thousands of industrial workers to apply for jobs. This is not only a full affirmation of China Jushi's efforts over the years to achieve "Smiling on the Face, being Driven, Love in the Heart", but also a powerful proof of the promotion of China Jushi's brand influence.

Protecting human rights

The Group is committed to creating an environment of diversity, inclusiveness and equality, following all internationally recognized human rights policies as set out in the United Nations Universal Declaration of Human Rights, the International Covenants on Human Rights and the core conventions of the International Labor Organization. The Special Guidelines on Compliance Management of CNBM – Labor and Employment and Compliance Manual also clearly stipulate that the Group must protect employees' right to equal employment and independent choice of employment in accordance with the law, and must not discriminate against any applicant in the recruitment and hiring process in terms of hiring, treatment and promotion due to differences in ethnicity, race, gender, physiology, religious belief and marital status in the process of recruitment and employment. There is zero tolerance for discrimination, sexual harassment and forced labor. If the Group discriminates against job seekers or employees in the process of employee recruitment, employment and work, and violates relevant regulations, it will be subject to the administrative punishment of being ordered to make corrections (and may also be fined) by the administrative department of labor security; if damage is caused to the parties involved, it shall be liable for compensation. In addition, the Group also takes reasonable measures such as prevention, acceptance of complaints, investigation and handling to prevent sexual harassment and forced labor. In case of violation, the Group and individuals shall bear corresponding civil, criminal and administrative liabilities.

The Group guarantees equal pay for equal work for male and female employees, and ensures that female employees are equal to male employees in terms of company promotion, professional technology and job skills training, and welfare benefits. The Group respects and protects the special rights and interests of female employees in accordance with the law, strictly abides by relevant rules and regulations such as the Special Provisions on Labor Protection for Female Employees and the Provisions on the Scope of Taboo Labor for Female Employees, and has also issued special provisions to protect the special rights and interests of female employees. For

example, female employees can enjoy leave according to the stipulated standards during pregnancy, childbirth and breastfeeding. During this period, the Company shall not terminate the labor relationship with them, and the expiration of the labor contract shall automatically continue until the expiration of pregnancy, childbirth and lactation. During the reporting period, the Group and the Women Workers' Committee also actively supports the construction of the spiritual and cultural life of female employees, organizes activities such as reading and learning and oil painting experience for female employees, fully reflecting the Group's concern for female employees. The Group also distributes exclusive holiday gift packages to female employees during Women's Day on March 8.

The Group not only pays attention to protecting the legitimate rights and interests of the Company's employees, but also requires suppliers to protect the legitimate rights and interests of their employees. In the basic building materials segment, Ningxia Building Materials explicitly requires construction units to provide their employees with insurance coverage and insurance descriptions, and to give clear requirements for their protective equipment for workers. In the new materials segment, BNBM requires suppliers to provide proof of social security payment for employees in bidding for key projects to prevent wage arrears of migrant workers. In the engineering technical services segment, Sinoma International clearly requires the age of workers in the subcontract, provides strict guarantee for the payment of wages for migrant workers, and makes detailed agreements on commercial insurance for migrant workers.

In 2022, the Group conducted an employee satisfaction survey for all employees to collect the satisfaction level and opinions and suggestions from employees at all levels on job content, working environment as well as promotion, benefits and remuneration through an online questionnaire. The questionnaire results show that the satisfaction rate of the Group's employees by gender, nationality, position level and age group is more than 96%. See the "ESG Performance Table" in this report for details of the survey and results.

Remuneration

The Group strictly abides by the relevant national laws and regulations, formulates rules and regulations such as the Measures for the Administration of Employee Remuneration, the Interim Measures for the Administration of the Remuneration and Appraisal of Corporate Principals, and the Measures for Appraisal of the Operating Performance of Managerial Members, and establishes a scientific and sound remuneration management and welfare system to ensure that the remuneration level is coordinated with the overall development of the Company and the national economic development, and is compatible with social progress.

The Group sets up differentiated remuneration management systems, formulates the management measures for grading the professional and technical ranks, provides equal promotion opportunities for non-management sequence employees. The Group adheres to the principles of internal fairness and external competitiveness, and constantly optimizes the performance appraisal system based on factors such as job responsibilities, working ability and work performance of employees. The appraisal results are used as the main basis for the appointment, removal, promotion and demotion of employees, salary distribution and position adjustment, and the design of incentive salary units such as floating salary and bonus is used to stimulate the enthusiasm of employees. Taking Sinoma International as an example, a variety of medium and long-term incentive methods have been implemented, including equity incentive (stock option, restricted stock) of listed companies, post dividend of technology-based enterprises, excess profit sharing, and excess profit sharing of engineering projects, covering 12% of employees.

In addition, the Group provides non-compensation benefits, such as various social insurances and housing provident funds, for all employees in a timely manner and in full amount, and also establishes supplementary welfare benefits such as enterprise annuity, supplementary medical insurance, personal accident insurance, special breast-feeding room, breastfeeding leave, childcare leave and nursing leave to build a multi-level pension and medical insurance system.

Strengthening the enterprise by the talents

The Group focuses on the use of talents and is more committed to the cultivation of talents. With a relatively sound training management system, the Group formulates relevant rules and regulations such as the Employee Training Management Measures of CNBM, collects training needs of various departments every year, and determines the final annual training plan in combination with the Group's annual operation and management strategy, so as to promote the common development of employees and the Group. The Group establishes a multichannel, multi-form, hierarchical and focused employee development and training platform to help employees enhance their personal values.

The Group adopts the training methods of "Internal Training as the Principal, External Training as the Supplementary", 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. In addition, new employees of the Group are required to participate in collective pre-employment training, and in-service employees are provided with job knowledge and skills training according to professional categories in accordance with the Company's development plan and the work needs of various departments.

The subsidiaries of the Group also actively carry out the training of various talents based on their own development and business needs. In 2022, the employees of the Group participated in a total of 2.43 million hours of safety and environmental protection training, 1.96 million hours of skills and business training, and 710 thousand hours of management training. The average number of training hours for all employees was 47 hours, representing an increase of 20.5% as compared with 2021.

Case: Strengthening school-enterprise cooperation to help cultivate talents

In order to improve the quality and skills of local employees, the Nigerian subsidiary of Sinoma International participated in the school-enterprise docking meeting of China-Nigeria Vocational and Technical College and Chinese Workshop Construction, and cooperated with Jiangxi College of Applied Technology to bid for the Nigerian Chinese Workshop Project, which provides professional skills training in Chinese, logistics customs clearance, business negotiation, civil engineering, machinery, electricity and engineering cost for the local employees of the Company, and creates a group of local talents with solid skills and high Chinese level.

In June 2022, Sinoma International East Africa Company was invited to the University of Dar es Salaam in Tanzania to carry out campus recruitment activities, and reached a talent cooperation and exchange agreement with the University of Dar es Salaam.



Sinoma International East Africa Company holds a campus recruitment talk at the University of Dar es Salaam, Tanzania

Case: Improving the skills of employees and mobilizing active production

In 2022, the Group launched various competitions such as "Formwork Construction" and "Welder Skills Competition" to promote the continuous improvement of employee skills and quality, which greatly mobilized the enthusiasm and creativity of employee in production and operation.



Case: Improving political literacy and strengthening management ability

On April 26, 2022, the first two-month training course for improving the political literacy and management ability of young and middle-aged cadres of Sinoma International was successfully completed, with a total of 44 trainees, and achieved fruitful learning results, laying a solid foundation for comprehensively improving the political literacy and management ability of young and middle-aged cadres and promoting the implementation of the Group's "1236" strategy.



Sinoma International's first two month training course for improving political literacy and management skills of young and middle-aged cadres

Case: Innovating the training mechanism and consolidating the training effect

In April 2022, Sichuan-Chongqing Cement, a subsidiary of New Tianshan Cement, actively launched the management team "Everyone Speaks". The activity adopts an innovative training mechanism, with the leading group of member companies as the keynote speaker, takes lean production as theme, focuses on safety, technology, quality, electrical, mechanical and other professional knowledge, and enables the company to develop with high quality by a combination of "Theory Explanation + Practical Case Analysis".

Undertaking social responsibility

The Group establishes a global vision, targets world-class enterprises, solves community difficulties, maintains community relations, and actively fulfills its social responsibility to build a community with a shared future for mankind.

Community investment

The Group 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 employment, culture and

O Promoting employment

The Group not only provides high-quality engineering technical services to the world, but also strives to promote the economic and social development of the project sites and promote local employment.

BNBM Tanzania provides more than 100 stable jobs for local people every year, formulates job training plans for different jobs, adopts the form of Chinese apprenticeship, improves local people's operational skills, technical skills and grass-roots management skills, and actively cultivates localized talents.

Jushi Egypt has completed the construction of 4 glass fiber production lines and 6 strand mat production lines, and has auxiliary production workshops for kaolin, guicklime, guartz sand and packaging materials, directly providing more than 2,000 jobs for the local area, indirectly driving more than 3,000 jobs, and creating a large number of employment opportunities for the surrounding areas.

Sinoma International actively carries out localized operation. By the end of 2022, the number of overseas jobs created by overseas projects (companies) was 15,298; the number of overseas employees was 3,206, of which 1,792 were long-term foreign employees, with a localization rate of 55.9%.

BNBM PNG adheres to the principle of localized employment, abides by the local labor laws and regulations of Papua New Guinea, and provides reasonable salary, welfare and job security for its employees. By the end of 2022, BNBM PNG has provided more than 10,000 local jobs, the localization rate of employees has reached 92%, and the proportion of employees who have served for more than 10 years reaches 8.23%, of which the longest service life of employees reaches 28 years, and more than 80 foreign employees are engaged in middle and senior management.

education, industrial and economic development, infrastructure construction, community public health and other community investment. In 2022, Nigerian subsidiary, CBMI Construction, a subsidiary of Sinoma International, its case of Building a Highstandard, Sustainable and Benefiting People's Livelihood was selected into the Blue Book of Stateowned Enterprise Power of Hundred Enterprises and Thousand Villages issued by China Corporate Social Responsibility Alliance in Africa.

Case: Sinoma International increases the proportion of local workers to promote local employment

In 2022, the ratio of local employment of Sinoma International Vietnam projects reached 1:5, and the diversified projects undertaken by subsidiaries in Africa achieved 100% local installation employment. In this year, Sinoma International contracts the EPC project of 5800TPD cement production line of the second line of L'AMALI in Argentina, which solves the employment problem for nearly 2,000 local workers.



Sinoma International Argentina L'AMALI second line 5800TPD cement production line

© Educational promotion

The Group has been actively fulfilling its social responsibilities, fully supporting and promoting the development of local cultural and educational undertakings through a series of donations and public welfare activities as well as contributing to the promotion of education equity.

Case: Volunteer help to improve the quality of teaching

BNBM Tanzania contacts with surrounding primary and secondary schools every year, organizes building materials donation activities for the teaching environment of the surrounding primary and secondary schools, helps the local people to build school buildings, improving the learning environment and conditions of the local people.

Jushi Egypt makes one-to-one donations to Hope schools in the Maadi area of Cairo. The donated materials are mainly teaching equipment, including bookcases, desks, uniforms, teaching aids, computers and other equipment.

The Nigerian subsidiary of Sinoma International takes Lagos Ikeja Primary School as a designated volunteer and assistance object, organizes employees to do volunteer service at the school regularly, constantly follows up the actual difficulties of running the school, improves the quality of school teaching, repairs tables and seats for the school, donates colored stone metal tiles that can be used as roof materials, greatly solving the local community and promoting educational equity in poor areas.

BNBM PNG takes the initiative to contact a local national non-profit organization dedicated to improving the literacy rate of residents and cultivating children's learning hobbies, and donates tarpaulins, refrigerators, microwave ovens and other daily necessities, as well as drawing boards, pencils and other school supplies.



Governance

BNBM PNG donates money for children's education

Case: Enhancing international publicity and promoting cultural integration

For two consecutive years, Sinoma International has held the "Cloud Open" activity in Nigeria, where local residents could participate in cultural interaction, as well as learn more about the Group. Local employees and their family members participated in the company's video shooting, where they discussed about positive changes in the local community brought by Sinoma International. The Group also set up its first overseas training base in Nigeria to actively organize cross-cultural integration activities, so that more local people can participate in cultural exchange. Sinoma International also aims to enhance Nigerian people's awareness of Chinese enterprises, which also leads to better understanding of China.







Sinoma International's "Cloud Open" activity in Nigeria

© Economic development

The overseas business of the Group insists on working with local governments, enterprises, suppliers, financial institutions and other partners, and actively establishes long-term cooperative relationships with the upstream and downstream of the industrial chain, which effectively promotes the development of local manufacturing, construction, transportation and other related industries. The Group also focuses on the implementation of the local procurement policy, and will give priority to business cooperation with local suppliers when the conditions for cooperation with suppliers are met, so as to promote the coordinated development of local society and economy.

Case: Selecting local companies to help industry make up for the shortcomings

In order to promote the local economic development of Argentina and make full use of the local resource advantages, Sinoma International selects 4 local professional design companies and 12 equipment, steel structure and material suppliers to provide products and services during the implementation of the secondline project of L 'AMALI. For its outstanding contribution to local economic development and employment, Sinoma Argentina was awarded the "Enterprise Honor" award by the city of Olavarria, where the project is located, and the "Cooperation Model of Sino-Argentine Trade Union" honorary award by the Argentine Construction Workers Union.



Building the Foundation for Sustainable

Sinoma International Argentina Subsidiary won the Honorary Award of Ola Enterprise

Case: Developing the glass fiber industry and helping open up the industrial chain

As the largest glass fiber production base in the Middle East and North Africa, Jushi Egypt takes advantage of a series of resources to help open up the downstream industrial chain and assists downstream customers to solve technical problems and develop new products. The rapid development of the glass fiber industry in Egypt has effectively radiated the upstream glass fiber industries such as mineral raw material processing and packaging material processing, as well as the downstream glass fiber industries such as wind power generation, glass fiber products, pipe manufacturing, sanitary ware manufacturing, logistics and transportation, attracting a large number of glass fiber supporting upstream and downstream enterprises to Egypt and driving the overall industry chain to flourish.

Case: Carrying out long-term cooperation in the industrial chain to promote economic development

BNBM Tanzania carries out extensive upstream and downstream cooperation with local enterprises around the company's main business to promote local economic development. BNBM Tanzania establishes long-term cooperative relations with local gypsum mining suppliers, coal mining suppliers and sales agents to effectively promote local economic development.

Infrastructure construction

The Group actively participates in the construction of major local projects, helps improve infrastructure and contributes to the development of local infrastructure through donations and other means.

CNBM Zambia Industrial Park is a comprehensive building material industrial park invested and constructed by Sinoma Cement in Zambia. The Park has long been insisting on the core philosophy of "Smart Use of Resources to Serve the Industrial Construction", cultivating, sowing and rooting in Zambia, deepening local integration and practically solving problems and difficulties for the local community by building schools, hospitals, roads, solar lighting facilities, water supply and drainage systems, cultural exchange activities, public welfare clinics, and charity donations, etc. While promoting the social and economic development of the area where the industrial park is located, the Park also actively assumes corporate social responsibility. In 2022, CNBM Zambia Industrial Park donated 490 thousand kwacha to repair roads in Chiyeya village.

Case: Signing a community development agreement to promote community infrastructure development

When the Nigerian company was established, the Company signed a community development agreement and a chieftain service agreement for the ljebu mining area with the local village community in the mining area. The agreement includes ensuring smooth access to the community, digging drinking water wells, building community affairs buildings, and setting up a joint toll station for vehicles, which effectively promotes the development of local infrastructure.

In addition, since the Community Development Agreement came into effect, the Nigerian company has provided a certain amount of stones or the equivalent amount of stones to four land rental families every year as a resource tax, paid a certain amount of advance payment and expenditure to the community every month, and paid a certain amount to the Community Development Association every quarter as operating funds to provide a certain economic guarantee for local infrastructure.

Safeguarding public health

The Group is committed to continuously promoting the local public health development of domestic and international enterprises in various aspects. In 2022, we made overall arrangements for goods donation, assisted the government in drug control, and took multiple measures to promote public health development in our location.

Case: Supporting the construction of public projects and helping safeguarding public health

In 2022, BNBM went all out to support the construction of public health projects in various places, including local hospitals, donated goods with love, and participated in voluntary services.

ng the Foundation

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04

Governance

Case: Organizing health activities and assisting health facilities

The employees of BNBM PNG participate in the first international public welfare event "Pink October" seven-kilometer race in Port Moresby, and the funds raised by the event are used to support the construction of the cancer ward in Port Moresby General Hospital.



BNBM PNG "Pink October" seven-kilometer race event

Case: Assisting the government in drug control and protecting the health of residents

Lijiang Southwest Cement undertakes the drug control task of Lijiang Municipal Government in Yunnan Province and uses cement kilns to dispose and destroy 125.44 kg of various drugs, which has made positive contributions to the protection of green homes, urban ecology, green hills and clear waters and the health of residents.

Rural revitalization

The Group contributes to the national rural revitalization from multiple angles and effectively addresses the basic needs of the people in need, and allows the results of rural revitalization and assistance to benefit people's livelihood. During the reporting period, the Group carried out a number of efforts in various aspects, including the selection of cadres, employment assistance, environmental improvement

Case: Symposium on labor employment promotes rural employment

In May 2022, Sinoma Suzhou and Yongshan County held a symposium on labor employment. Yongshan County is a county with a large output of workers, and Sinoma Suzhou has put forward effective suggestions and initiatives in expanding employment and ensuring employment, which has effectively promoted rural employment assistance and rural revitalization.



Symposium on employment assistance and employment between Sinoma Suzhou and Yongshan county

and capital investment, which contributed to the specific work of rural revitalization.

In 2022, the Group's capital investment in helping rural revitalization amounts to 61.89 million yuan. Since 2018, a total of 51 designated cadres have been selected and assigned to towns and townships for designated assistance. In order to effectively link up the achievements of poverty alleviation and rural revitalization, Southwest Cement has set up a support leading group, appointed a special person to act as the first secretary and team leader stationed in Gongshan Town, Nanjiang County, Bazhong City, Sichuan Province, and actively initiated the funding of successful people in the society during the period of carrying out fixed-point support work. The village road was hardened 1.3 kilometers, the field civilized road was 600 meters, and 300 streetlamps were installed to realize the great transformation of the rural environment.





Hardening village roads

Street lamps on the village road

Public charity

The Group has never forgotten its social responsibility and has formulated rules and regulations such as the Measures for the Management of External Donations by Enterprises of CNBM to manage external donations and strictly regulate donations. The subsidiaries of the Group actively participate in public welfare undertakings, formulate donation budgets every year, and provide protection and support for various public welfare volunteer activities in terms of personnel organization, working mechanism, time arrangement, financial support and communication and liaison. In

2022, the Group invested 106.50 million yuan in philanthropy and carried out 48,299 volunteer hours.

The Group supports its employees to actively participate in various voluntary activities to convey warmth. Under the leadership of trade unions and the Communist Youth League, the subsidiaries at all levels have established a number of volunteer activity organizations and carried out a series of volunteer projects such as environmental protection, caring for the elderly and volunteer teaching.

Case: Build harmonious community relations with active charitable engagements

BNBM Tanzania actively fulfills its corporate social responsibility, carries out charitable activities from time to time, and promotes the development of local public utilities through donations. In 2022, BNBM Tanzania, together with BNBM Brothers in Tanzania, donated 1.5 million Tanzanian shillings to the Tanzania Association for the Elderly, giving warmth and care to vulnerable groups such as the elderly; donated 100 gypsum boards to surrounding middle schools to help build school buildings and improve the learning environment and conditions of local people; donated gypsum boards and putty powder to local people to fulfill their social responsibilities.

Case: Colorful classroom-volunteer teaching with love activity gives full play to the power of love and care services

The Group actively carries out colorful classroom-volunteer teaching with love activity. In 2022, 58 youth volunteers from 9 subsidiaries participated in the volunteer teaching activity. Colorful classroom helps children enrich their knowledge, broaden their horizons, enhance their abilities, brings care and encouragement to children, reduces educational inequality and promotes the development of local education.



Colorful classroom: volunteer teaching activity

Social

Case: Actively helping students in difficulty to realize their dream of higher education

BNBM PNG continues to donate to local hospitals, schools, orphanages, associations for the disabled and other institutions, and actively provides assistance to poor areas and vulnerable groups. In 2022, Wess Lee, a local student sponsored by BNBM PNG Limited, successfully graduated from the University of Papua New Guinea with a bachelor's degree in political science.



Wess Lee and his Mother



Governance

- Internal control compliance and risk management
- ➡ Integrity system building
- Patent and brand protection
- Privacy security management
- **Supply chain management**

↓ Statistics 2022

- Number of corruption cases initiat
 - companies and employees is 0
- © 22,852 suppliers

with its partners

- The Group entered into 25,017
 prevention of corruption and 28,
- Coverage of director in anti-corrup employee in anti-corruption training

Internal control compliance and risk management

The Group attaches great importance to and actively promotes compliance management, risk management and internal control, establishes and continuously improves the coordination mechanism of legal affairs, compliance, internal monitoring and risk management, and promotes the effective enhancement of the ability to govern the enterprise in accordance with the law. The Group complies with relevant laws, regulations and rules such as the Company Law of the People's Republic of China, the Anti-Monopoly Law of the people's Republic of China,

ed and concluded against
cooperation agreements on 140 integrity commitment letters
otion training is 100%, coverage of ng is 100%

the Companies Ordinance of Hong Kong and Rules for Listing Securities of Stock Exchange Limited, and refers to the COSO risk management framework of peers and internationally accepted practices to formulate relevant rules and regulations such as Compliance Management System, Compliance Manual, Rules and Regulations Management Measures, Legal Risk Control Measures, Internal Control System and Internal Control System Evaluation Management Measures to provide compliance control guidelines for subsidiaries.

Strengthening compliance management

In 2022, the Group launched the "Year of Strengthening Compliance Management". All subsidiaries participated in the signing of the Compliance Commitment Letter, adopted several effective compliance control measures, further deepened the rule of law and compliance construction, and gradually formed a compliance management system with clearer division of responsibilities, smoother mechanism operation and stronger compliance awareness, which promoted the effective improvement of the ability to manage enterprises according to law.

Sorganizational construction

The Board of the Group gives full play to the functions of formulating strategies, making decisions and preventing risks, while the management plays the role of planning operations, grasping implementation and strengthening management. The committee of the Board has added a committee to promote the construction of the company's rule of law, guide the construction of the company's compliance management system, and set up a compliance management committee led by the chairman of the board, with the general counsel serving as the working group leader of the compliance management committee, so as to effectively guarantee the implementation of compliance management system and mechanism.

System construction

The Group takes the "2 + N" compliance system as the core, that is, taking the Compliance Management System and Compliance Manual as the basis, coordinating with the special compliance system measures of each department and many special compliance guidelines such as safety and environmental protection, labor employment, intellectual property rights, etc., constantly improving the compliance system, continuously carrying out the abolition, reform and establishment of the system to ensure the effective operation of the mechanism.

Hechanism construction

The Group uses various mechanisms such as compliance due diligence mechanism, compliance review mechanism, compliance risk identification and assessment mechanism, compliance risk feedback mechanism and compliance reporting, investigation and rectification mechanism in parallel, and establishes a four-in-one cooperation mechanism of "Legal Affairs, Compliance, Internal Control and Risk Management" to jointly protect the Group's compliance management.

[™] Information construction

The Group uses the risk control system as a platform to integrate several compliance risk control management modules. All system modules are universal at all levels. On the basis of covering rules and regulations, legal disputes, trademark names, legal personnel and risk monitoring, the Group has developed and established a compliance risk event database system, statistically analyzed the categories of high-incidence compliance risks, and continuously improved the level of compliance management according to law.

Perfecting internal monitoring

To improve the management level and ensure the realization of business strategic objectives, the Group has established an internal control system including internal control environment, risk assessment, internal monitoring process, internal control system including information and communication, internal control supervision and evaluation, and implemented internal monitoring activities covering all aspects of operation, to ensure the effective implementation of internal monitoring systems for governance structure, quality management, production safety, environmental management, and human resources policies.

Internal monitoring objectives of the Group

- O Establishing and improving a modern corporate governance structure, standardizing the promoting the realization of the strategic planning development objectives;
- \bigcirc and operation;
- \bigcirc
- \bigcirc Improving business efficiency and create value and profit;
- Improving the quality of financial and accounting information and ensuring the authenticity, accuracy and completeness of information disclosure;
- rules of HKEx and internal rules.

The Group solidly promotes the construction and supervision of the internal control system, constantly improves the rules and regulations, strictly implements the monitoring procedures of all operational links, collects, processes and transmits relevant information, and ensures the authenticity, accuracy and integrity of accounting information, social responsibilities information, safety and environmental protection management and other information. At the same time, the effectiveness of internal control shall be self-evaluated on a regular

Social

operation of the shareholders' meeting, the board of directors and the board of supervisors, and

Enhancing risk management capability to ensure the healthy and stable operation of production

Ensuring the safety and integrity of assets and realizing the value maintenance and appreciation;

Ensuring the compliance and implementation of relevant national laws and regulations, listing

basis, the internal control self-evaluation report shall be issued, the defects and deficiencies found in the process of internal control monitoring and internal control evaluation shall be sorted out, and the rectification shall be urged in a timely manner. In addition, the Group has prepared and updated relevant management systems to enable all employees to master the internal organization settings, job responsibilities, business processes and other provisions, and establish a good internal monitoring system.

Risk closed-loop management

The Group has established a relatively systematic and effective risk management system based on its strategic objectives and development ideas, considering the industry characteristics of each business segment. The Group has continuously strengthened its three lines of defense in risk management, with business and functional departments as the first line of defense for daily risk management, professional departments such as the legal and compliance department as the second line of defense for continuous risk monitoring, and discipline inspection, audit, inspection and other departments as the third line of defense to implement risk supervision. Based on the set control objectives, the Group collects relevant information comprehensively and systematically, and conducts risk assessment in a timely manner to achieve risk control. At the beginning of each year, the Group prepares the Major Risk Assessment Report based on the assessment results to prevent relevant risks in the production and operation management, forming a closed-loop management mechanism including risk identification, risk assessment, risk strategy formulation, risk plan, risk report, risk disposal, risk accountability, risk supervision and improvement to effectively prevent various operational risks and ensure the long-term, high-quality and sustainable development of the Group.

Integrity system building

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, Rules of Procedure for the Discipline Inspection Commission, Measures for the Discipline Inspection Commission of the Affiliated Enterprises to Report to the Discipline Commission of the Superior Enterprises, Measures for the Work of Conversation and Inquiry by the Discipline Commission, and Rules

for the Work of the Coordination Group for the Construction of a Clean and Honest Party Style and Anti-Corruption Work (Interim), the Interim Measures for Conducting Return Visit Education for Personnel Subject to Party Discipline and Administrative Punishment. The Group 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. With continuous efforts, in 2022, the Group did not find any significant risks related to corruption through risk assessment, and no corruption lawsuits against the Company and employees were filed and concluded in 2022.

Integrity commitment

In 2022, CNBM signed 142 Letters of Responsibility on Improving the Party's Ethic and Upholding Integrity with middle-level cadres and the management of affiliated companies, making commitments to the implementation of integrity employment, urging cadres to abide by the rules and regulations, and signing a Letter of Commitment on Complying with the Rules and Disciplines with all employees of the Department to make commitments on the elimination of illegal acts and truthful reporting of major personal matters, and to urge

Conflicts of interest

The Group stipulates that if the relatives of the middle-level (and above) leaders and managers are prohibited from having business relations with the Group in the prescribed contents, or forming competition in the same industry, or having other acts that infringe on the interests of the Group, the

Reporting and supervision

The Group allows employees to report violations of business ethics and employee standards through email, telephone, mail and other means in the bidding, cadre promotion, inspection and other procedures. the Group also strictly abides by the China Party Discipline Inspection Supervision and Discipline Work Rules, and does not privately retain, disclose or disseminate relevant information such as the contents of problem clues, the progress of clue investigation and the parties and informants of problem clues in any form. The Group keeps secrets for employees who submit complaints and reports, and protects the safety of informants. The work contents of the Commission for Discipline Inspection related to letters and visits are not transferred through the public network or local area network, but by CD-ROM copy or paper documents, to realize the full confidentiality of information.

Social

employees to consciously comply with laws and regulations and Company system. In addition, in the Measures for the Management of Employees of the Headquarters of CNBM, the Group stipulates those employees who violate social morality and professional ethics, such as integrity problems, will be given warnings, demerits, demotions, dismissals and termination of labor contracts according to the seriousness of the circumstances, and corresponding economic penalties will be imposed according to the salary system.

leaders involved in the decision-making process that must have business relations with them shall recuse themselves, take the initiative to report on the matters that have existed, and make rectification within a certain period of time to ensure the creation of a culture of integrity.

The Group will conduct independent investigation and follow-up work in a timely manner upon receipt of reports. After receiving the report of letters and visits, the case trial room of the Commission for Discipline Inspection will hand over the report of letters and visits to the Commission for Discipline Inspection with authority to investigate and handle according to the authority of cadre management. After putting forward the disposal opinions in the case trial room, the supervisory and disciplinary office of the Commission for Discipline Inspection at this level independently carries out the disciplinary work and writes the investigation report according to the disposal opinions approved by the leaders, and then hands it over to the case trial room of the Commission for Discipline Inspection to carry out the trial work, so as to ensure that everything reported by letters and visits is answered and implemented.

Integrity inspection

Since 2019, the Group has established a leading group for the investigation, prevention and control of integrity risk of CNBM, which aims to effectively identify potential integrity risks within the scope of authority of each department of each sector company, analyze the causes item by item and formulate practical and specific preventive measures, and eventually formulate the CNBM's Guideline for Examination, Prevention and Control of Integrity Risks (Trial) to further promote the construction of a clean government.

The Group regularly conducts audits and inspection to improve the construction of the integrity system.

In response to the problems found by the Commission for Discipline Inspection in the course of daily supervision and inspection and investigation of problem clues, the Group conducts timely investigations and reflects on the reasons for their occurrence, and sends Disciplinary Inspection Proposal to the Party Committee of the relevant affiliated company, setting out the problems found on that occasion, and requesting that drawing inferences about other cases from one instance for problems raised and asking for rectification within a time limit. In this year, the Commission for Discipline Inspection of CNBM has sent 6 Disciplinary Inspection Proposals.

Integrity training

The Group holds warning education conferences and party ethic and upholding integrity conferences every year, which require leading cadres and employees in key areas to attend and achieves full coverage of training materials for all levels of employees (including full-time, part-time and labor dispatch employees). The Group has expanded ways and methods to carry out integrity reminder and warning education in a diversified and all-round way. The Commission for Discipline Inspection of CNBM has launched 12 "Monthly Talks on the Party Ethic and Upholding Integrity", which has been fully promoted in the sector companies to discuss policy implementation, work deployment, problem

reminders, warning cases and integrity reminders; A warning educational film was played before the monthly office meeting, and a total of 49 issues of Discipline Inspection Bulletin were compiled every week. In addition, the Group also organizes other forms of integrity training, such as integrity training for new employees, integrity talks for newly recruited cadres before taking office, and integrity notices for all employees before the festival, to promote the creation of a culture of integrity.

In 2022, 100% coverage of the Group's directors and 100% coverage of employees participated in anticorruption training.

Case: Setting up correct ideas by carrying out integrity education for young cadres

During the Youth Day Activities in 2022, the Group organized more than 4,000 young leaders and employees to participate in the education conference on the theme of young cadres' growth and success, where typical cases of young cadres' violation of rules and regulations were reported, and the characteristics of young cadres' violation of rules and regulations were analyzed, playing a profound warning effect.

CNBM Investment organizes young cadres at all levels to watch a warning educational film to guide young cadres to strengthen their sense of discipline and treat power correctly. The Company also teaches integrity education courses for new employees to encourage them to work with a clean, pragmatic and responsible attitude.

Patent and brand protection

The Group strictly abides by the Patent Law of the PRC, the Anti-Unfair Competition Law of the PRC, Advertising Law of the PRC, and the Trademark Law of the PRC. An intellectual property rights (IPR) management system and brand practice system with the characteristics of the building materials industry have 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, such as the Management System for Scientific and Technological Work, the Patent Management Measures, the Trademark Management Measures and the Rewards for High-tech Enterprises and Patents of CNBM. The establishment of the system has strengthened the legal protection of the Group's intellectual property rights, improved the Group's ability to manage intellectual property rights in its research and development, production and operation activities, and also provided a mechanism to ensure the orderly conduct of scientific research.

Privacy security management

The Group strictly abides by the Personal Information Protection Law of the People's Republic of China and other relevant laws and regulations and 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. In order to effectively protect customer privacy and business secrets, Qilian Mountain has launched a cement e-commerce platform, set up a customer management module and authority to view customer information, and agreed on confidentiality clauses in relevant agreements signed with customers. In order to improve the preservation and confidentiality system of customer information, BNBM has formulated the Measures for the Management of Customer Archives. The relevant departments in charge are responsible for the filing, preservation and confidentiality of customer archives, and special personnel are assigned to ensure the validity of customer archives. China Composites has formulated the Confidentiality Management System, the Management System for the Use of Confidential Information Systems and Information Equipment, and the subsidiaries of Sinoma Science & Technology have formulated the Confidentiality Management System, the Regulations on the Protection of Trade Secrets and Non-competition, the Confidential Management Manual and the Compilation of Confidentiality Procedure Documents to comprehensively regulate the privacy protection of both parties.

Social

Through sorting out and identification, the Group has listed intellectual property risks as one of the overall risks of the Company and has formulated and organized the implementation of corresponding risk management strategies and countermeasures to ensure that intellectual property risks are always controllable, under control and tolerable.

On the basis of complying with the policies and systems of the Group, the subsidiaries of the Group have formulated and improved corresponding management systems according to their respective actual conditions. In 2022, BNBM, Sinoma Science & Technology and other companies revised the Patent Incentive Measures and other systems to better adapt to the development of the Company; China Jushi established and implemented the strategy of "Attaching Equal Importance to Quantity and Quality, Focusing on Layout", and built a patent operation system of "Encouraging Creation, Effective Use, Legal Protection and Scientific Management"; Sinoma International started the special work of improving the Company's intellectual property management.

Spotlight

Environmental

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. In order to strengthen the construction of the information security system, the Group has formulated rules and regulations such as the Contingency Plan for Network Security, the Measures for Network Security Management, the Project Management System for Network Security and Informatization, the Work Management System for Network Security and Informatization and the Measures for Computer Information Security Management of CNBM. These rules and regulations define a leading group with the chairman, president and senior management of CNBM as the core members, as well as a working group composed of responsible leaders, heads of departments such as the Science, Technology and Digitalization Department and relevant staff. The above system not only requires all employees to conscientiously implement the network security responsibility system, but also stipulates the process of reporting and reporting information security issues by employees, and completes the deployment of micro-enterprise privatization to improve the level of communication security.

In order to improve the level of information security technology, the Group has formulated contingency plan to ensure business continuity, completed the filing of all information systems for application systems, and cooperated with relevant business system service providers to improve vulnerability repair. Through the dynamic linkage of situational awareness devices and firewalls, the Group has achieved closed-loop handling of risk events and unified analysis and management of logs. In addition, the Group has joined forces with third-party technology companies to strengthen the protection of the website system, carry out vulnerability scanning and high-risk vulnerability elimination, and timely repair zero-day vulnerabilities to eliminate hidden dangers. 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: Strengthening information security training to enhance information security awareness

According to the annual network security training plan, Qilianshan carried out one core leadership collective learning and two full-level network security video training including leaders at all levels in 2022, covering network security and data security-related laws and regulations, network security awareness, network security prevention skills, etc., with a total training time of 7 hours, and more than 500 people have received the training



Supply chain management

The Group is committed to building a transparent, dynamic and traceable supply chain management system. The Group integrates the concept of responsible procurement into the whole process, focusing on the green attributes of purchased products and services, as well as the sustainable development performance of suppliers in terms of occupational health and safety of employees. By expanding our influence, the Group hopes to establish long-term, stable and sustainable cooperative relations with suppliers and achieve sustainable win-win development with partners.

In respect of the construction of the supply chain management system, 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. We have formulated rules and regulations such as Material Procurement Management Measures and Bidding Management Measures of CNBM, Bidding Management Measures and others, to strengthen material procurement management, standardize procurement behaviour, and ensure effective supply of materials needed for

Case: Centralized procurement improves efficiency, reduces costs and enhances efficiency to promote development

CNBM Investment focuses on centralized procurement and supply chain business, forming a centralized procurement model with mature model, stable supply and strong anti-cyclicality.In 2022, CNBM Investment signed medium and long-term contracts with major coal suppliers, with a total procurement volume of 17 million tonnes for the production and use of more than 300 cement production companies affiliated to the Group. The signing of the contract has rewritten the traditional multi-layer distribution mode of coal in the cement industry, and achieved zero disputes over all quality inspection indicators of coal.



Qilianshan has built a "12346" centralized procurement control system with Qilianshan's characteristics by taking digital means as a grip and working intensively for 12 consecutive years. Since 2016, the bidding rate and centralized procurement rate have been significantly improved, with a cumulative savings of 491 million yuan, a 32.09% decrease in inventory, and a decrease of 2.43 yuan per tonne of cement capital consumption.

production and construction. CNBM has strictly implemented the requirements of the Bidding Management Measures, established a bidding management leading group and a bidding management group, and comprehensively managed the bidding work from all stages of bidding, bid opening, bid evaluation and bid determination, and required the affiliated companies to formulate the bidding management system according to their own business characteristics, to continuously consolidated and improved the bidding system.

The subsidiaries of the Group have introduced a supplier management system according to their own procurement needs and local conditions, such as Tianshan Cement Supplier Management Measures, Ningxia Building Materials Group Co., Limited. Procurement Management Measures, BNBM Supplier Management Measures, Jushi Group Co., Ltd. Supplier Management System, Jushi Group Procurement Control Procedure, Sinoma Mining Centralized Procurement Management System, etc., to constantly standardize supplier access mechanism and cooperation, maintain and develop long-term and stable supplier relationships.

Establishing the Foundation of Sustainable Development

Spotlight

cD

Social

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The Group also focuses on the ESG performance of suppliers and examines them throughout the cooperation cycle. During the access phase, the Group actively integrates ESG requirements on the basis of the existing supplier access mechanism, and selects high-quality suppliers in a more comprehensive and perfect manner. During the cooperation evaluation stage, the Group focuses on supplier risk management, reduces supply chain risks through strict requirements on suppliers' environmental and social risks, and strives to build a long-term and stable procurement system.

Building a credible and honest procurement by integrity

The Group pushes the sunshine procurement mode of "fairness, openness and impartiality", and continuously improves the transparency of procurement by increasing the proportion of public bidding and expanding the scope of price seeking. The subsidiaries of the Group actively promote the construction of supplier system and bidding platform, and facilitate sunshine and transparent procurement with the help of digital technology. When signing contracts with suppliers, the Group requires all departments and subsidiaries to send integrity notification letters or sign integrity commitment letters and integrity contracts to the parties involved in the cooperation, including clauses prohibiting the parties involved in the cooperation from providing various benefits and conveniences to the Group's staff, their relatives and specific related parties. At the same time, integrity as a one-vote veto system, suppliers will not be allowed to participate in bidding and will be blacklisted if they violate the rules.

During the reporting period, the Group entered into 25,017 cooperation agreements on prevention of corruption and 28,140 integrity commitment letters with its partners, and sent 229 integrity notification letters. The integrity notification letters, integrity commitment letters or integrity contracts have covered all suppliers.

Case: Signing integrity commitment and working together for healthy development

In 2022, New Tianshan Cement issued the Notice on Signing the Letter of Integrity Commitment with the Business Parties of Tianshan Cement, which regards the Letter of Integrity Commitment as one of the necessary annexes for signing relevant contracts and agreements. In the process of contract negotiation and drafting, the contents of the Letter of Integrity Commitment shall be communicated with the partners for approval, review and management.

BNBM held an integrity agreement signing ceremony and signed an integrity commitment letter with part of the suppliers on site, while other suppliers stamped the integrity commitment letter and sent it back to BNBM. A total of 426 commitment letters were recovered. Sinoma Science & Technology held an anticorruption work conference and invited representatives of suppliers to attend the conference. The representatives of suppliers made statements on integrity cooperation on the spot and signed an integrity co-construction agreement.



Strict access and responsible procurement improve quality

In terms of supplier access, the Group strictly abides by the requirements of national laws and regulations, industry regulations and relevant management systems, and requires suppliers to be qualified legal persons who abide by laws and regulations. The supplier's production capacity and the quality of presale, in-sale and after-sale services shall meet the cooperation requirements with strong anti-risk ability. The subsidiaries shall strictly abide by the system

Case: Selecting suppliers strictly, only responsible procurement can promote development

New Tianshan Cement formulates supplier qualification review standards and organizes relevant departments to conduct qualification review on potential suppliers. Qualification examination includes qualification examination and on-site examination. Qualification examination refers to the examination of the supplier's production technology, product quality, company performance, credit rating, quality and environmental management system and other related qualifications, or comprehensive evaluation by means of external platforms. On-site examination is a compliance review conducted by the review team on the supplier's relevant supply service capability, in which the supplier of important spare parts shall conduct on-site examination or use digital technology to achieve the effect of "seeing the factory, equipment, products, management and performance". According to the principle of "who reviews, who is responsible", the participating units and personnel are responsible for the authenticity of the review results, and form a report and sign it.

As a responsible company, the Group is committed to driving the sustainable development of the supply chain and actively integrating ESG requirements into the supplier access mechanism. The subsidiaries of the Group give preference to green products, and select suppliers who have obtained certifications of environmental management system, quality management system, occupational health and safety management system and energy management system. In addition, the Group encourages that suppliers fully consider energy saving, water saving, environmental protection, recycling, low carbon, regeneration and other factors in product design and manufacturing, and advocates that suppliers give priority to clean energy transportation to reduce carbon emissions. The ESG requirements are clearly written into the scoring rules of the bidding

requirements, conduct a preliminary review of the bidder's qualification materials, production capacity, product quality, operation and reputation in the access stage, require suppliers to have corresponding quality, safety, environmental protection and other production and operation qualifications, eliminate suppliers with low credit and poor supply guarantee ability, and avoid potential risks.

- documents. For example, in the bidding documents of Sinoma Science & Technology, the scoring proportion of ISO14001 environmental management system certification is about 5 ‰ -1%, and the proportion of social responsibility is about 5%. About 10% of the bidding scores of China Composites are from ESG scores.
- BNBM has formulated the BNBM Procurement Management System to advocate green procurement. Under the same conditions, the Group gives priority to products with low carbon and environmental protection, low environmental damage, green packaging products, clean energy products and low energy consumption equipment.

Spotlight

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CNBM Investment has developed a code of conduct for suppliers in accordance with the relevant requirements of ISO14001 environmental management system certification, C-TPAT and GSV anti-terrorism system, covering the environment, child labor, human rights, working conditions, remuneration, health and safety and business ethics. China Composites requires suppliers to comply with the relevant requirements of national laws, regulations and standards on environmental and occupational health and safety in their production activities, products and services. Suppliers should give priority to the use of green energy, raw materials and packaging materials that can be recycled or safely disposed of, and continuously upgrade process technology, equipment and facilities to continuously reduce energy consumption and reduce the use of energy-intensive equipment. Suppliers should also fully identify the risks related to environmental and occupational health and safety arising from the transportation, disassembly, installation and

operation of the products they provide, and take effective control measures. In addition, Suppliers should fully consider the rectification opinions on environment and occupational health and safety put forward by China Composites. For suppliers who fail to rectify in time, China Composites will adjust the cooperative relationship according to the situation, and even cancel the qualification of qualified suppliers or terminate the contract.

In the future, the Group will strengthen the review of potential ESG risks of suppliers and guide suppliers to further enhance their awareness of environmental, social and governance risk assessment. Sinoma International plans to achieve full coverage of environmental and social risk assessment and monitoring of registered gualified suppliers by 2023. China Composites plans to further increase the proportion of environmental and social risk assessment suppliers, with the goal of reaching 50% by 2023, 70% by 2024 and 90% by 2025.

Case: Building a green procurement system and implementing the responsibility of ecological protection

Sinoma Science & Technology has signed the Supplementary Agreement on Energy Conservation and Consumption Reduction, the Cooperation Agreement on Recycling Economy and Reuse, and the Official Letter on Exerting Influence on the Safety and Environmental Behaviors of Relevant Parties with suppliers, and assessed the comprehensive performance of suppliers in bidding documents, including ISO14001 environmental management system certification and social responsibility-related requirements, to actively promote the green and sustainable development of the supply chain. In addition, Sinoma Science & Technology has also formulated the Environmental Material Management Specification, signed the Supplier Environmental Management Material Guarantee Card with suppliers or required suppliers to provide a declaration of conformity to ensure that the purchased products must comply with the EU RoHS, REACH and other hazardous chemical substances and environmental substances requirements.

All subsidiaries of the Group actively strengthen the environmental protection and energy-saving requirements for suppliers' products. For example, Sinoma Blade took the lead in completing the transformation from oily coatings to water-based coatings in the industry, which reduced the emission of volatile organic compounds by 120,000 kg in 2022.



Case: Paying attention to labor protection and sticking to the bottom line of human rights

Sinoma Science & Technology requires its suppliers to sign the Code of Conduct on Social Responsibility of Suppliers, which expresses requirements for suppliers and sub-contractors in terms of child labor, freedom of association, discrimination, forced labor, working hours, wages and benefits, occupational health and safety, and business ethics for examination, and establishes a mechanism for eliminating negative matters to avoid violating requirements in labor management and human rights.

Reducing risks by cooperation consolidation and comprehensive evaluation

During the cooperation period, the Group continuously pays attention to the production and operation of suppliers, and regularly and irregularly evaluates suppliers by combining online and offline methods, to focus on enterprise qualifications, supply and after-sales services, and compliance of anti-corruption. The evaluation will be based on the performance of access suppliers during the assessment period, and will directly affect the revision of the supplier catalogue, so as to realize the dynamic management of the catalogue.

Enterprise qualification

 Financial status, production equipment, quality control, management level, intangible assets, corporate reputation, environmental protection level, safety management and social responsibility, etc.

Supply availability

0 Product quality, product price and purchase cost, etc.

After-sales service

 \bigcirc Quick response ability, service satisfaction and smooth communication of information, etc.

Spotlight

Environmental

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A long-term, sustainable and stable supply chain has always been the cornerstone of the Group's stable development. The subsidiaries of the Group determine the "long-term cooperation" suppliers according to the cooperation period, the number of cooperation projects and other indicators. For example, in the list of qualified suppliers, suppliers who have signed more than two contracts are recognized as "long-term cooperation" suppliers by Sinoma International.

During the period of cooperation with suppliers, the Group continues to implement the concepts of ESG and responsible procurement, evaluates suppliers' environmental and social risks more prudently and strives to build a long-term stable supply chain

system. Based on the Supplier Risk Assessment Form, the subsidiaries of the Group assess the environmental, social and other sustainable risks of suppliers from the perspectives of enterprise operation, product quality and delivery capacity. For the problems found in the supply chain risk assessment, the subsidiaries will ask the supplier to solve them in time, and provide assistance through in-depth communication and joint action, so as to reduce the environmental and social risks of its own supply chain and deepen the cooperative relationship with the supplier. In 2022, the Group did not identify suppliers with high sustainability risk. In addition, the Group also organizes its subsidiaries to conduct annual supplier satisfaction surveys to promote continuous improvement and common improvement of both parties.

Case: Implementing supplier assessment management and promoting win-win cooperation and development

Sinoma Science & Technology conducts annual on-site examinations on suppliers planned to be introduced, suppliers that had major quality accidents in the previous year, suppliers who received more complaints about quality issues in the previous year, suppliers with a comprehensive performance evaluation score of less than 60 and suppliers with an on-site examination interval of more than 2 years. The examination scope includes system operation, supplier management, production process, customer service, health, safety and environment integration, etc. After the examination, it is required to complete the rectification of the problem items within 1 month and submit the verification data.

China Composites mainly focuses on the operation of the QEHS system of suppliers and the manufacturing process of products, and achieves full coverage of supplier examinations on the above key points every two years. The Company also evaluates suppliers according to the examination results and issues a list of nonconformities to suppliers, and tracks the rectification results of non-conformities.

Selecting the best cooperation to promote development by implementing a concept of hierarchical management

As an efficient management supplier, the Group comprehensively judges the importance of suppliers from multiple dimensions such as operation, evaluation results, cooperation years and ESG performance, and implements hierarchical management. Based on the characteristics of its own supplier system, the subsidiaries of the Group carry out hierarchical management of suppliers in various forms. For example, according to the evaluation results, Ningxia Building Materials divides suppliers into five categories: green, blue, yellow, red and black, and adopts different cooperation strategies accordingly.



 \odot The black rating is for suppliers who have serious problems (such as major responsibility for safety production accidents, environmental pollution incidents), and are immediately disqualified as a qualified supplier, and are not allowed to participate in the Company's scope of various bidding activities within five years.

Qilianshan classifies suppliers into strategic suppliers, important suppliers and general suppliers. Among them, the strategic suppliers are the suppliers who provide products with high recognition, stable and reliable quality, obvious superiority, advanced technology and equipment, outstanding industry status, great brand influence and good company reputation. Important suppliers are usually those who provide products within the scope of the company's procurement materials, and have stable product quality, large supply share, good production and operation status, and strong ability to perform and guarantee supply.

The subsidiaries of the Group also attach great importance to the environmental and social risks of suppliers when carrying out hierarchical management of suppliers, and adopt differentiated cooperation priorities and cooperation strategies according to the rating results. Based on the supplier risk assessment results, China Jushi classifies its suppliers into riskfree, low risk, moderate risk, relatively high risk and high risk according to the Supplier Risk Assessment

written application to the competent department of the Company's procurement business (including information on product quality, product price, service quality, payment method and risk resistance capacity during the performance of the contract), which shall be collectively approved by the leading group of centralized procurement as excellent suppliers with green rating. The qualification of green rating suppliers can be extended to the validity period of the

by the purchasing management department of the company and listed as the key concern

of contract and damage to the legitimate rights and interests of the Company, and are not allowed to participate in the Company's scope of various bidding activities within three years.

> Form. After the evaluation, the supply chain management committee of the Company will discuss and confirm whether the grading is reasonable and makes adjustments according to the sustainable risk situation of the industry, such as raising the risk level of dangerous chemicals enterprises and mining enterprises.

> For high-risk suppliers, China Jushi will include them in the list of bottleneck suppliers and examine them in the next year, and organize the supplier assessment team to carry out on-site second-party audit on bottleneck suppliers. Unqualified suppliers will be eliminated, while qualified but problematic suppliers are required to rectify the problem items and provide rectification information. After the rectification and acceptance are gualified, the supply gualification can be maintained. In 2022, China Jushi identified 4.3% of high-risk suppliers. Sinoma Science & Technology continued to assess the environmental and social risks of its suppliers in 2022, with a total of 85 suppliers assessed.

ESG Performance Table

Environmental data

Key performance indicators	Unit	2022	2021
Total emission of nitrogen oxides (NOx) ⁵	(tonnes)	81,470	111,452
Total emission of sulfur dioxide (SO ₂)	(tonnes)	6,488	9,596
Emissions of industrial particulate matter	(tonnes)	9,835	14,328
Total emission of volatile organic compounds (VOCs)	(tonnes)	49	87
Amount of chemical oxygen demand (COD)	(tonnes)	605	1,020
Proportion of companies meeting noise level standards	%	100	100
Direct greenhouse gas emissions (Scope 1)	(million tonnes)	216.67	250.66
Indirect greenhouse gas emissions (Scope 2)	(million tonnes)	14.07	15.30
Total greenhouse gas emissions ⁶	(million tonnes)	230.74	265.96
Greenhouse gas emissions from basic building materials business	(million tonnes)	222.02	256.28
Greenhouse gas emissions from new materials business ⁷	(million tonnes)	8.11	7.18
Greenhouse gas emissions from engineering services	(million tonnes)	0.61	2.50
Direct energy consumption ⁸	(MW·h)	231,140,502	359,401,963
Indirect energy consumption	(MW·h)	31,002,839	36,941,816
Electricity	(MW·h)	30,585,136	35,094,401
Purchased electricity	(MW·h)	22,696,703	25,072,409
Purchased heat consumption	(MW·h)	417,703	1,847,415

Key performance indicators	Unit	2022	2021
Comprehensive energy consumption	(MW·h)	262,143,341	396,343,780
Number of built cement clinker production lines	(lines)	361	368
The number of cement clinker production lines that have been equipped with waste heat power generation	(lines)	326	332
Alternative raw material consumption	(million tonnes)	5.44	4.36
Total circulating water consumption ⁹	(tonnes)	1,496,185,551	1,007,811,188
Circulating water utilization rate	%	92	88
Water withdrawal	(tonnes)	124,661,815	141,919,672
Number of issues in sourcing water that is fit for purpose	(cases)	0	0
Cement packing bags ¹⁰	(pieces)	1,280,815,544	1,387,762,217
Number of recyclable cement packaging bags	(pieces)	39,172,679	42,443,554
Land area affected by operations	(m ²)	14,237,000	24,611,000
Restored land area	(m²)	8,806,290	8,971,800
Amount of environmental investment	(RMB' 0,000)	373,043	367,381
Operating income from products that can promote social green development	(RMB' 0,000)	2,596,779	2,555,282
Number of national green factories ¹¹	-	129	83
Number of provincial green factories ¹¹	-	68	59
Number of green factories at other levels ¹¹	-	10	-
Number of national green mines ^{11,12}	-	42	44
Number of provincial green mines ^{11,12}	-	64	66
Number of green mines at other levels ^{11,12}	-	5	9

Social data

Key performance indicators		Unit	2022	202
Salaries, bonus, and other allowances ¹³		(RMB'000)	19,833,436	20,685,96
Retirement plan contributions ¹³		(RMB'000)	2,424,844	2,296,89
Total number of employees		(person)	150,457	153,10
Total number of employees by	Male	(person)	114,870	117,2
gender	Female	(person)	35,587	35,8
Total number of employees by	Han employees	(person)	140,701	143,3
ethnic group	Minority employees	(person)	9,756	9,7
	Senior ¹⁴	(person)	1,896	1,9
	Number of female	(person)	151	1
	Number of minority	(person)	150	1
Total number of employees by job level	Middle-level ¹⁵	(person)	7,417	7,5
	Number of female	(person)	1,630	1,6
	Number of minority	(person)	318	3
	General employees	(person)	141,144	143,6
Total number of employees by	Long-term ¹⁶	(person)	146,637	150,5
employment type	Short-term ¹⁷	(person)	3,820	2,5
	Under 30 years old	(person)	20,595	34,0
Total number of employees by age	30 to 50 years old	(person)	102,372	94,9
5	Over 50 years old	(person)	27,490	24,0
	Mainland China	(person)	145,888	151,2
Total number of employees by region	Region of Hong Kong, Macau, and Taiwan	(person)	16	
	Overseas	(person)	4,553	1,8

Key performance indicators		Unit	2022	202
Employee turnover rate by gender	Male	%	4.9	4.
	Female	%	5.0	4.
	Under 30 years old	%	7.3	6.
Employee turnover rate by age	30 to 50 years old	%	4.4	3.
	Over 50 years old	%	4.1	2.
	Mainland China	%	4.9	4.
Employee turnover rate by region	Region of Hong Kong, Macau, and Taiwan	%	0	
	Overseas	%	6.5	6
Received complaints on violations c rights and interests	f employees' legitimate	(cases)	0	
Received complaints on discriminati and employees	on against applicants	(cases)	0	
Comforting special employees and difficulties	helping employees with	(person-times)	18,547	5,83
Offering grants to the children of er to go to school or rewarding the ch go to school	nployees with difficulties ildren of employees to	(person-times)	1,107	1,14
Helping employees with critical diseases		(person-times)	478	39
Total expense on comforting special employees and helping employees with difficulties		(RMB' 0,000)	613	67
Total expense on offering grants to employees with difficulties to go to children of employees to go to scho	school or rewarding the	(RMB' 0,000)	1,120	19
Total expense on helping employee	s with critical diseases	(RMB' 0,000)	1,138	17
Number of employee activities held and organized		-	8,089	4,83
Number of times participated in various activities organized by relevant industry associations (above the provincial level)		-	242	6
Person times of employees participa	ated in various activities	(person-times)	271,529	351,63
Total number of employees particip survey	ating in satisfaction	(person)	8,499	3,38

y performance indicators Percentage of total number of employees		Unit	2022	2021
		%	5.6	2.2
	Number of male participating in the satisfaction survey	(person)	6,241	2,378
	Percentage of total number of male	%	5.4	2.0
3y gender	Number of female participating in the satisfaction survey	(person)	2,258	1,003
	Percentage of total number of female	%	6.3	2.8
	Number of Han participating in the satisfaction survey	(person)	8,061	3,197
	Percentage of total number of Han	%	5.7	2.2
By ethnic group	Number of minority participating in the satisfaction survey	(person)	438	184
	Percentage of total number of minority	%	4.5	1.9
	Number of senior employees participating in satisfaction survey	(person)	166	64
	Percentage of total number of senior employees	%	8.8	3.3
By job level	Number of middle-level employees participating in satisfaction survey	(person)	1,413	569
	Percentage of total number of middle-level employees	%	19.0	7.6
	Number of general employees participating in satisfaction survey	(person)	6,920	2,748
	Percentage of total number of general employees	%	4.9	1.9

Key performance indicators Number of employees under 30 years old participating in satisfaction survey Percentage of total number employees under 30 years ol Number of employees aged 30-50 participating in satisfaction survey By age Percentage of total number employees aged 30-50 Number of employees over years old participating in satisfaction survey Percentage of total number of employees over 50 years old Employee satisfaction rate ¹⁹ Satisfaction rate of male employees participating in satisfaction survey By gender Satisfaction rate of female employees participating in satisfaction survey Satisfaction rate of Han employees participating in satisfaction survey By ethnic group Satisfaction rate of minority employees participating in satisfaction survey Satisfaction rate of senior employees participating in satisfaction survey Satisfaction rate of middle-By job level level employees participating in satisfaction survey Satisfaction rate of general employees participating in satisfaction survey

	Unit	2022	2021
er า	(person)	1,306	527
[·] of old	%	6.3	2.5
k	(person)	5,687	2,271
of	%	5.6	2.2
50	(person)	1,506	583
of d	%	5.5	2.0
	%	97.2	96.3
	%	96.9	96.1
	%	98.0	96.8
	%	97.2	96.8
/	%	96.6	96.2
	%	100.0	93.0
ng	%	99.2	99.1
	%	96.7	89.0

Key performance indicators		Unit	2022	2021
	Satisfaction rate of employees under 30 years old participating in satisfaction survey	%	97.7	96.8
By age	Satisfaction rate of employees aged 30-50 participating in satisfaction survey	%	97.0	96.5
	Satisfaction rate of employees over 50 years old participating in satisfaction survey	%	97.4	97.1
Number of employees of the union ²⁰	e company joining the labor	(person)	148,292	135,411
Percentage of employees of union	the company joining the labor	%	98.6	88.4
Percentage of employees sig	gning collective agreements	%	81.3	53.1
Percentage of employee rep	presentatives among employees	%	24.8	15.3
Person times of employees health and safety training ²¹		(person-times)	1,576,000	1,858,995
Number of safety, environm conducted in the year	ental and health inspections	-	65,772	54,711
Number of hidden danger ir	nvestigation	-	377,669	282,170
Rectification rate of hidden	danger investigation	%	99.2	99.0
Total recordable incidents		(cases)	12	17
Casualties in total recordabl	e incidents	(person)	13	17
Number of reported silicosis	5 cases	(cases)	0	0
Amount of investment related to safety and health		(RMB'0,000)	157,000	116,909
	Number of factories at safety standardization level I	-	14	5
Certification related to safety and occupational health ²²	Number of factories at safety standardization level II	-	249	259
	Number of factories at safety standardization level III	-	227	245

Key performance indicators		Unit	2022	202
	Senior	%	36.0	34.
Training rate of employees in safety and environmental training	Middle-level	%	42.8	42.
	General	%	45.5	45.
	Senior	%	28.4	27.
Training rate of employees in technical business training	Middle-level	%	24.3	25
	General	%	50.7	50
	Senior	%	29.8	28
Training rate of employees in management training (including compliance training)	Middle-level	%	46.3	46
	General	%	30.1	31
	Male	%	75.2	74
	Female	%	65.0	64
	Under 30 years old	%	77.9	76
	30 to 50 years old	%	73.7	72
Employee training rate (various	Over 50 years old	%	80.4	78
types of training) ²³	Han employees	%	80.7	78
	Minority employees	%	52.6	50
	Senior	%	65.3	56
	Middle-level	%	64.7	29
	General	%	87.8	79
Total number of hours trained in safety and environmental training		(hour)	2,432,578	2,899,93
Total number of hours trained in the skills business		(hour)	1,964,763	1,917,41
Total number of hours trained in management		(hour)	712,966	706,90

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Key performance indicators		Unit	2022	2021
	Male	(hour)	47	40
	Female	(hour)	47	36
	Under 30 years old	(hour)	78	46
	30 to 50 years old	(hour)	38	41
	Over 50 years old	(hour)	45	44
Hours of training per capita (all types of training)	Han employees	(hour)	42	41
	Minority employees	(hour)	71	57
	Senior	(hour)	91	45
	Middle-level	(hour)	61	40
	General	(hour)	38	38
	All employees	(hour)	47	39
Number of cases involving suspected child labor and forced labor		(cases)	0	0
	Total	-	22,852	21,686
Number of suppliers who	Mainland China	-	22,237	21,121
have established long- term cooperation with the Company	Region of Hong Kong, Macau, and Taiwan	-	27	37
	Overseas	-	588	528
	Total	-	15,594	18,282
Among them, the number of suppliers screened and	Mainland China	-	15,104	17,848
controlled by the Company's environmental and social risks	Region of Hong Kong, Macau, and Taiwan	-	27	35
	Overseas	-	523	399
Number of suppliers certified and safety, environment or e	d by quality, occupational health nergy management systems	-	11,613	10,373
Proportion of products to be reasons	e recalled for safety and health	%	0	0

	Drs	Unit	2022	
Litigations concerning the health and safety of products and services that have a significant impact on the Group		(cases)	0	
Proportion of complaints	properly replied and handled	%	100	
	Number of annual patent applications	-	3,067	
	Number of invention patents	-	1,138	
	Number of annual authorized patents	-	2,747	
Number of patents	Number of invention patents	-	659	
	Cumulative number of valid patents	-	12,760	
	Number of invention patents	-	2,814	
	Cumulative number of successful registrations of software copyright	-	588	
Number of cases of suspected infringement of intellectual property rights by products and services		(cases)	0	
Comprehensive product qualification rate		%	100	
Number of complaints due to disclosure of customer information				
	ue to disclosure of customer	(cases)	0	
information	ses initiated and concluded against	(cases) (cases)		
information Number of corruption cas companies and employee	ses initiated and concluded against		0	
Information Number of corruption cas companies and employee Number of anti-corruptio	ses initiated and concluded against es on training sessions held and		0	
Information Number of corruption cas companies and employee Number of anti-corruptio organized ²⁴	ses initiated and concluded against es on training sessions held and nti-corruption training	(cases)	0 0 2,641	
information Number of corruption cas companies and employee Number of anti-corruptio organized ²⁴ Coverage of director in ar Coverage of employee in Person times of all emplo	ses initiated and concluded against es on training sessions held and nti-corruption training	(cases) - %	0 0 2,641 100	
information Number of corruption cas companies and employee Number of anti-corruptio organized ²⁴ Coverage of director in ar Coverage of employee in Person times of all emplo subsidiaries who have pa training Person times of all director	ses initiated and concluded against es on training sessions held and nti-corruption training anti-corruption training oyees of the Company and all	(cases) - %	0 0 2,641 100 100	

Key performance indicators	Unit	2022	2021
Number of cases in which employees violated the Company's Code of Conduct	(cases)	0	0
Amount of public charity investment (including material donations) ²⁵	(RMB'0,000)	10,650	10,876
Education	(RMB'0,000)	400	279
Medical and health	(RMB'0,000)	649	102
Infrastructure construction	(RMB'0,000)	1,454	686
Rural revitalization	(RMB'0,000)	6,189	2,789
Other	(RMB'0,000)	1,958	7,020
Number of supportive projects	-	140	72
Number of special scholarship projects	-	8	10
Number of schools involved in the scholarship	-	38	42
Total amount of scholarship ²⁶	(RMB'0,000)	24	30
Number of students who received scholarships	(person)	119	83
Number of entrepreneurial internship bases ²⁷	-	46	95
Provide internship for undergraduates ²⁸	(person-days)	24,460	24,588
Number of established volunteer organizations or groups	(cases)	118	119
Number of volunteers among employees	(person)	7,543	6,819
Annual number of working hours for volunteer activities	(hour)	48,299	24,149
Total investment of all subsidiaries' annual support in volunteer activities	(RMB' 0,000)	73	106
Participate in or support activities relating to the protection of the rights and interests of women, children, or persons with disabilities	(times)	293	153

⁵The emissions of nitrogen oxides, sulfur dioxide, industrial particulate matter and volatile organic compounds are derived from the monitoring and calculation data of the project.

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.

⁷Due to the rise in production of lithium film by Sinoma Technology, the greenhouse gas emissions have increased. ⁸Calculated according to General Rules for Calculation of Comprehensive Energy Consumption (GB/T 2589-2020).

⁹Total circulating water consumption = single circulating water consumption × number of cycles, circulating water utilization rate = total circulating water consumption/ (total circulating water consumption + water withdrawal).

¹⁰Because of the Group's business nature, the consumption of cement packaging bags is counted in "pieces" ¹¹The data shown are the cumulative figures of the Group as of December 31, 2022, the statistics of green mines only include the green mines that have

been publicized

Group decreased.

¹³ Salaries, bonus, and other allowances include directors' salaries. The data of 2021 has been restated. ¹⁴Senior employees refer to the employee serving as senior executives of the Group and each subsidiary company.

¹⁵Middle-level employees refer to the heads of each department of the Group and each subsidiary company.

¹⁶Long-term employees refer to the employees whose contracts are signed for more than one year. The contract period includes more than one year (excluding), three years, five years and no fixed term.

¹⁷Short-term employees refer to the employees whose contracts are signed for one year or less.

¹⁸In the past few years, due to the influence of economic environment, the employee turnover rate has increased. The Group has struggled with the challenges posed by the talent shortage

19"Satisfaction" refers to the situation that "general satisfaction, satisfaction, and very satisfaction" are selected in the satisfaction survey. The proportion of investigators participating in 2021 is recalculated according to the statistical caliber and calculation method of 2022, which shall prevail.

²⁰The statistical caliber of the number and proportion of employees who joined the trade union was optimized in 2022. The 2021 data will be recalculated in the 2022 calculation method, which shall prevail.

²¹In 2022, the number of employees decreased, and the occupational health and safety training personnel decreased correspondingly.

²²In 2022, the safety standardization reassessment work of companies in some regions could not be carried out as scheduled, resulting in a decrease in the number of plants certified as safety standardized.

²³The 2021 employee training rate is recalculated based on the 2022 statistics and calculation method, which shall prevail.

²⁴Due to the consolidation of the former 6 affiliated companies into New Tianshan Cement, a large number of anti-corruption training sessions were combined, resulting in a decrease in the number of anti-corruption training sessions in 2022.

²⁵The total amount of public welfare investment in 2021 will be recalculated and disclosed according to the statistics and methods in 2022. The year-onyear decrease in the amount of "other" public welfare investment is due to the fact that more poverty alleviation projects in 2021 do not belong to the category of rural revitalization, and the corresponding project amount will be transferred to the category of "rural revitalization" starting from 2022 with the victory of poverty alleviation.

²⁶In 2022, Sinoma International switched to the R&D field due to school-enterprise cooperation, and the funds were used for school equipment renewal, not for scholarships, so the total amount of scholarships decreased.

²⁷In 2022, the number of students from partner schools going out for internship decreases, therefore the number of entrepreneurial internship bases decreases.

²⁸In 2021, China Jushi counts all types of employment internship positions, and in 2022, China Jushi counts only non-employment internship positions, so the data in 2022 decreases.

- ⁶The calculation of greenhouse gas emission data is based on relevant conversion factors provided by the Guidelines for Accounting Methods and
- ¹²In 2022, due to the integration of mines, changes in local policies, and the upgrading of the creation level, the overall number of green mines in the

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 2022 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.

I. 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.

II. 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.

III. 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.

IV. 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: • Electricity in 2022

•Water withdrawal in 2022

•Number of work-related deaths in 2022

•The time scope of the Assurance Engagement was with respect to information disclosed from 1 January 2022 to 31 December 2022 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 this 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.

V. 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 interviews²⁹ 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.

VI. 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.

VII. 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 is carried out in various way 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 follows relevant procedures when responding to concerns raised by key stakeholders. Meanwhile, CNBM has disclosed in the ESG Report its sustainable development philosophy, ESG management systems and key stakeholder engagement mechanism 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.

VIII. 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; Promote the engagement of Board on the identification and evaluation of material issues in responds to the concerns from different stakeholders specifically:

•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 longterm planning of corporate sustainability efforts.



²⁹ The Assurance Engagement was conducted through online means and interviews were conducted over the online meeting.

23 March, 2023 Hong Kong, China

Index	X		A1.4 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental- Insisting on green manufacturing Recycling and reuse
Repor	table of the Stock Exchange ting Guide	's ESG	A1.5 Description of emissions target(s) set and steps taken to achieve them	Environmental-Tackling climate change-Metrics and Targets Environmental-Insisting on green manufacturing Green production
Governance Structure		Board Statement	A1.6 Description of how hazardous and non-hazardous wast are handled, and a description of reduction target(s) set and steps taken to achieve them	s Environmental-Tackling climate change-Metrics and Targets Environmental-Insisting on green manufacturing Recycling and reuse
	(iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the		A2: Use of Resources	
Reporting Principles	following Reporting Principles in the preparation of the ESG	About the Report Materiality assessment	General Disclosure: Policies on efficient use of resources including energy, water and other raw materials. Note: Resources can be used for production, storage, transportation, buildings, electronic equipment, etc.	Environmental-Advancin green management- Improving management system
Reporting Boundary	report: materiality, quantitative, consistency. 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	A2.1 Direct and/or indirect energy consumption by type (e.g electricity, gas or oil) in total (kW·h in '000s) and intensi (e.g. per unit of production volume, per facility).	ESG Performance Table- Y Environmental data Environmental- Insisting on green manufacturing Low-carbon Development
A. Environmer			A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	f ESG Performance Table- Environmental data Environmental- Insisting on green manufacturing Recycling and reuse
A1: Emissions	General Disclosure: relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste (a) the policies; and (b) compliance with relevant laws and regulations that have a	Environmental-Advancing green management- Improving management system	A2.3 Description of energy use efficiency target(s) set and steps taken to achieve them	Environmental-Tackling climate change-Metrics and Targets Environmental-Insisting on green manufacturing Low-carbon developmen
	significant impact on the issuer Note: Exhaust emissions include nitrogen oxides, sulfur oxides and other pollutants subject to national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Hazardous waste means as defined by State regulations.		A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) se and steps taken to achieve them.	Environmental-Tackling climate change-Metrics and Targets Environmental-Insisting on green manufacturing Recycling and reuse
A1.1	The types of emissions and respective emissions data	ESG Performance Table- Environmental data	A2.5 Total packaging material used for finished products (in tonnes), and if applicable, with reference to per unit produced	ESG Performance Table- Environmental data
A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per	ESG Performance Table- Environmental data	A3: The Environment and Natural Resources	
	unit of production volume, per facility).	Environmental- Insisting on green manufacturing- Low-carbon Development	General Disclosure : Policies on minimizing the issuer's significant impacts on the environment and natural resources	Environmental-Protectin green products
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	Environmental- Insisting on green manufacturing- Recycling and reuse	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions take to manage them	

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.	Environmental-Tackling climate change
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	Environmental-Tackling climate change
B. Social		
B1: Employment		
	General Disclosure: relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Social-Caring for employee development- People-oriented
B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region	ESG Performance Table- Social data
B1.2	Employee turnover rate by gender, age group and geographical region	ESG Performance Table- Social data
B2: Health and Safety		
	General Disclosure: relating to providing a safe working environment and protecting employees from occupational hazards (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Social-Upholding safety commitment
B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Social- Upholding safety commitment
B2.2	Lost days due to work injury	Social- Upholding safety commitment
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	Social-Upholding safety commitment
B3: Development and	Training	
	General Disclosure : Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities Note: Training means vocational training and may include internal and external courses paid for by the employer.	Social-Caring for employee development- Strengthening the enterprise by the talents
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	ESG Performance Table- Social data
B3.2	The average training hours completed per employee by gender and employee category	ESG Performance Table- Social data

	General Disclosure: relating to preventing child and	Social-Caring f
	forced labor (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	employee deve People-oriente
B4.1	Description of measures to review employment practices to avoid child and forced labor	Social-Caring f employee deve People-oriente
B4.2	Description of steps taken to eliminate such practices when discovered	Social-Caring f employee deve People-oriente
B5: Supply Chain Manag	ement	
	General Disclosure: Policies on managing environmental and social risks of the supply chain	Governance-Su management
B5.1	Number of suppliers by geographical region	ESG Performar Social data
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Governance-Si management- the best coope promote deve hierarchical ma
B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Governance-S management- the best coop promote deve hierarchical ma
B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored	Governance-S management- access and res procurement i quality
B6: Product Responsibili	ty	
	General Disclosure: relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Social -Ensurir quality Governance-P security manag
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	ESG Performar Social data
B6.2	Number of products and service related complaints received and how they are dealt with	ESG Performa Social data Social-Ensurin quality-Custor
B6.3	Description of practices relating to observing and protecting intellectual property rights	Governance-P brand protect

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5.4	Description of quality assurance process and recall procedures	Social -Ensuring product quality-Quality management	TCFD index table		
6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored	Governance-Privacy security management	Area	Recommendation	Corresponding Repor
: Anti-corruption			,	Recommendation	Location
	General Disclosure: relating to bribery, extortion, fraud and money laundering (a) the policies; and (b) compliance with relevant laws and regulations that	Governance-Integrity system building	Governance	Describe the board's oversight of climate related risks and opportunities.	Governance
	have a significant impact on the issuer			Describe management's role in assessing and managing climate	
37.1	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	ESG Performance Table- Social data		related risks and opportunities. Describe the climate related risks and opportunities the organization has	
7.2	Description of preventive measures and whistle- blowing procedures, and how they are implemented and monitored	Governance-Integrity system building		Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	– Strategy
7.3	Description of anti-corruption training provided to directors and staff	Governance-Integrity system building	Strategy		
3: Community Investme	ent				
	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	Social-Undertaking social responsibility		Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	_
38.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	Social-Undertaking social responsibility		Describe the organization's processes for identifying and assessing climate related risks.	
8.2	Resources contributed (e.g. money or time) to the focus areas	Social-Undertaking social responsibility ESG Performance Table- Social data	Risk Management	Describe the organization's processes for managing climate related risks.	Risk management
				Describe how processes for identifying, assessing, and managing climate- related risks are integrated into the organization's overall risk management.	
				Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	
			Metrics and Targets	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Metrics and Targets ESG Performance Table Environmental data
				Describe the targets used by the organization to manage climate related risks and opportunities and performance against targets.	_

SASB Standard index table

Торіс	Accounting Metric	Unit of Measure	Corresponding Reporting Location		Торіс	Accoun
	Direct Greenhouse Gas Emissions (Scope 1)	Metric tonnes (t)CO-e	ESG Performance Table-Environmental data			Total fre
Greenhouse Gas Emissions	Percentage covered under emissions- limiting regulations, such as carbon trading	%			Water Management	Percenta
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions,		Environmental-Tackling climate change-			Percenta High Bas
	emissions reduction targets, and an analysis of performance against those targets	-	Metrics and Targets			Amoun
	Air emissions of NO _x	Metric tonnes (t)	ESG Performance Table-Environmental		Waste Management	Percen
			data			Percent
	Air emissions of SO _x	Metric tonnes (t)	ESG Performance Table-Environmental data			Descr polici
	Air emissions of particulate matter (PM_{10})	Metric tonnes (t)	ESG Performance Table-Environmental data		Biodiversity Impacts	
Air Quality	Air emissions of dioxins/furans	Metric tonnes (t)				Per
	Air emissions of volatile organic compounds (VOCs)	Metric tonnes (t)	ESG Performance Table-Environmental data			Total
	Air emissions of polycyclic aromatic hydrocarbons (PAHs)	Metric tonnes (t)			Workforce Health &	Near empl
	Air emissions of heavy	Metric tonnes (t)				Near empl
	metals					Num
	Total energy consumed	kW∙h	 ESG Performance 			Percer
Energy	Percentage grid electricity	%	Table-Environmental data – Environmental-		Droduct	sustai certifi
Management	Percentage alternative	%	Insisting on green manufacturing- Low- carbon Development		Product Innovation	Total a for pro
	Percentage renewable	%				mate prod
Data Analysis Project	The difference between the total amount of electricity purchased and the amount of electricity generated from the grid	kW∙h	Environmental- Insisting on green manufacturing- Low- carbon Development	_	Pricing Integrity & Transparency	Total ar legal pr activitie

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	Unit of Measure	Corresponding Reporting Location
	m ³	ESG Performance Table- Environmental data
	%	ESG Performance Table- Environmental data
tremely	%	
	Metric tonnes (t)	Environmental- Insisting
	%	on green manufacturing- Recycling and reuse
	%	
ement	-	Environmental-Insisting on green manufacturing
	m²	ESG Performance Table- Environmental data
ored	%	ESG Performance Table- Environmental data
	Number	ESG Performance Table- Environmental data
full-time	%	
contract	%	
	Number	ESG Performance Table- Social data
or credits in truction	%	
f market er, and/or r	Ten thousand yuan	ESG Performance Table- Social data
result of tel activities	Ten thousand yuan	

Definitions

In the Report unless the contaxt other	"Shareholder(s)"	Holder(s) of Share(s)		
in the report, unless the context otherv	vise requires, the following terms shall have the meanings set out below:		"RMB"	Renminbi yuan, the l
"CNBM" "Company"	China National Building Material Company Limited		"Stock Exchange"	The Stock Exchange
"Group"	the Company and, except where the context otherwise requires, all its subsidiaries		"Listing Rules"	the Rules Governing amended from time
"Parent" , "CNBMG"	China National Building Material Group Co., Ltd. (previously known as China National Building Materials Group Corporation)		"Two Highs"	High energy consum
"PRC"	the People's Republic of China		"Beijing Composite"	Beijing Composite M
"State"	the government of the PRC including all political subdivisions (including provincial, municipal and other regional or local government		"BNBM"	Beijing New Building
"ESG"	agencies) and instrumentalities thereof Environmental, Social and Governance		"BNBM Waterproof"	BNBM Waterproof L
			"BNBM Coating"	Beijing Coating Limit
"Report"	the Company's 2022 Environmental, Social and Governance Report		"BNBMG"	Beijing New Building
"Reporting Period"	the period from 1 January 2022 to 31 December 2022		"BNBM PNG"	BNBM PNG Limited
"MIIT"	Ministry of Industry and Information Technology of the People's Republic of China		"Building Materials Academy"	China Building Mate
"Independent third party(ies)"	person(s) or company(ies) which is (are) independent from the Company or its connected persons (as defined in the Listing Rules)		"TCDRI"	Tianjin Cement Indu
		-		

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e Materials Co., Ltd

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ling Material (Group) Co., Ltd.

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laterials Academy Co., Ltd.

ndustry Design & Research Institute Co.,Ltd

"CNBM Investment"	CNBM Investment Company Limited (previously known as "BND Co., Limited")		"Ningxia Building Materials"	Ningxia Building Ma
 "China Standard Sand"	China ISO Standard Sand Co., Ltd.	• •	"Qingtongxia Cement"	Ningxia Qingtongxi
 "CBMI Construction"	CBMI Construction Co., Ltd.		"Ningxia Saima"	Ningxia Saima Cem
 "CNBM Trading"	China National Building Material Import and Export Co., Ltd.	• •	"Wuzhong Saima"	Wuzhong Saima Ne
 "China Composites"	China Composites Group Corporation Limited	.	"NRDI"	Nanjing Fiberglass I
 "Zhongfu Shenying"	Zhongfu Shenying Carbon Fiber Co., Ltd.		"Suzhou Limited"	Sinoma Science & T
 "Zhongfu Lianzhong"	Lianyungang Zhongfu Lianzhong Composites Group Co., Ltd.		"Qilianshan"	Gansu Qilianshan C
 "China Jushi"	China Jushi Co., Ltd. (previously known as China Fiberglass Company		"Gulang Company"	Gulang Qilianshan (
	Limited)		"Yongdeng Company"	Yongdeng Qiliansh
 "Jushi Egypt"	Jushi Egypt for Fiberglass Industry S.A.E		"Sinoma"	China National Mat incorporated in the
 "Jushi Group"	Jushi Group Company Limited		"Sinoma Blade"	Sinoma Wind Powe
 "Sinoma Graphite"	CNBM Graphite New Materials Co., Ltd		"Sinoma Cement"	Sinoma Cement Co
 "Cinda"	China Cinda Asset Management Co., Ltd.		"Sinoma International"	Sinoma Internationa
"CTG"	Taishan Fiberglass Inc.		"Sinoma Lithium Membrane"	Sinoma Lithium Me

Materials Group Co., Limited

gxia Cement Co.,Ltd.

ement Co.,Ltd.

New Building Materials Co.,Ltd.

ss R&D Institute Co., Ltd.

४ Technology (Suzhou) Co., Ltd.

Cement Group Company Limited

n Cement Co., Ltd

nshan Cement Co., Ltd

laterials Company Limited, a joint stock company he PRC with limited liability

wer Blade Co., Ltd.

Co., Ltd.

onal Engineering Co., Ltd.

Membrane Co., Ltd.

"Sinoma Science & Technology"	Sinoma Science & Technology Co., Ltd.
"Sinoma (Tianshui)"	Sinoma (Tianshui) Cement Co., Ltd.
"Sinoma Mining"	Sinoma Mine Construction Co.,Ltd.
"Sinoma Xi'an"	Sinoma Mine Construction (Xi'an) Co.,Ltd.
"CUCC Jiyuan"	China United Cement Jiyuan Co.,Ltd.
"CUCC Qingzhou"	China United Cement Qingzhou Co.,Ltd.
"CUCC Linyi"	China United Cement Linyi Co.,Ltd.
"CUCC Bengbu"	China United Cement Bengbu Co.,Ltd.
"CUCC Nanjing"	China United Concrete Nanjing Co.,Ltd.
"CUCC Dezhou"	China United Cement Dezhou Daba Co.,Ltd.
"Yuzhou Chenglei Building Materials"	Yuzhou Chenglei Building Materials Co.,Ltd.
"Sinoma Suzhou"	Sinoma (Suzhou) Construction Co., Ltd.
"South Cement"	South Cement Company Limited
"Southwest Cement" "Sichuan- Chongqing Cement"	Southwest Cement Company Limited

"Tianshan Cement" or "New Tianshan Cement"	(Ne Xin
"Jiahua Special Cement"	Jial
"Yunnan Cement"	Yuı
 "Xingjian Cement"	Yuı
"Wangcang Cement"	Sic

New Tianshan Cement Co., Ltd.*), New Tianshan Cement refers to injiang Tianshan Cement Co., Ltd. after business integration

ahua Special Cement Company Limited

unnan Southwest Cement Company Limited

unnan Xingjian Cements Co.,Ltd.

ichuan Jinding Guangyuan Cements Co.,Ltd.

Feedback

Thank you for reading the 2022 ESG Report of CMBM. To better meet your needs and provide you with more valuable information, we expect you to fill the feedback form with valuable opinions and suggestions and send it to <u>esg@cnbm.com.cn</u>.

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!





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