



CNBM

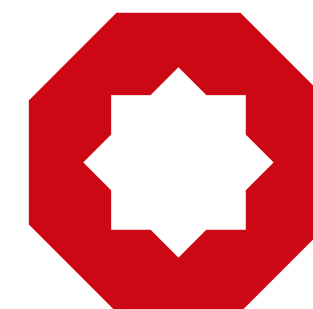
China National Building  
Material Company Limited

**CNBM**

**2017**

Environmental, Social, and  
Governance (ESG) Report

Stock Code  
3323



**CNBM**



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# 01

## About this Report

Reporting Period

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# About this Report

This environmental, social and governance report (the "Report") provides the latest information relating to the work for sustainable development in 2017 conducted by China National Building Material Company Limited (the "Company" or "CNBM") and its subsidiaries (the "Group", and references to the "Group" in this Report should be construed to only include the subsidiaries of the Company during the Reporting Period). The Report mainly includes environmental and social issues related to the Group's sustainable development that the Group's stakeholders are concerned about, in order to facilitate all stakeholders to better understand the concepts, measures and related performance of the Group's sustainable development. This Report should be reviewed together with the Group's 2017 Annual Report (in particular the "Corporate Governance Report" contained therein) for a comprehensive understanding of the Group's relevant performance. The Report will be published in both Chinese and English. Should there be any discrepancy between the Chinese and the English versions, the Chinese version shall prevail.

## Reporting Period

This Report covers the period from 1 January 2017 to 31 December 2017 (the "Reporting Period"), unless otherwise mentioned. The information presented in this Report includes the Group's specific policies and performance in environmental, social and sustainable aspects. Due to the continuity and comparability of the information disclosed, the timeframe of selected contents are adjusted where necessary.

## Reporting Scope

The reporting scope of this Report is based on the principle of materiality. Unless otherwise mentioned, the material content of this Report is derived from China National Building Material Company Limited and its subsidiaries.

Due to the merger of the Company and China National Materials Company Limited ("Sinoma"), and Sinoma completed the share exchange on 2 May 2018, following the share exchange, the subsidiaries of Sinoma have become subsidiaries of the Company. In order to provide stakeholders with a more comprehensive understanding of the environmental, social and governance performance of the Group and Sinoma and its subsidiaries (the "Sinoma Group") during the Reporting Period, this Report will include certain relevant statistics and performance related to the Sinoma Group, and will specify the relevant statistics relating to the Sinoma Group as such. After the merger, the Group and the Sinoma Group are collectively referred to as the "Enlarged Group".

## Reporting Guideline

This Report is prepared in accordance with the *Environmental, Social and Governance Reporting Guide* under Appendix 27 of the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited* (the "Listing Rules") of The Stock Exchange of Hong Kong Limited ("HKEX").

## Response to the Report

If you have any comments on the Group's work relating to the Environmental, Social and Governance Report, please contact the Group by the following e-mail: [cnbm ltd@cnbm.com.cn](mailto:cnbm ltd@cnbm.com.cn).





# 02

## About Us

- 2.1 Company Profile
- 2.2 Environmental Protection Concepts
- 2.3 Building Integrity
- 2.4 Company Honours





# About Us

## 2.1 Company Profile

With 中國建材集團有限公司 (China National Building Material Group Co., Ltd.\*), Beijing New Building Material (Group) Co., Ltd., China National Building Materials & Equipment Import & Export Corporation, China Cinda Asset Management Co., Ltd., and China Building Materials Academy as Promoters, CNBM was converted into a joint stock limited company on 28 March 2005. The Group is mainly engaged in cement, light weight building material, glass fibre, composite material and engineering services businesses. As regards the current market positions (in terms of the production capacity in 2017), the Group is:

- the largest cement producer in the world;
- the largest commercial concrete producer in the world;
- the largest gypsum board producer in the world;
- the largest rotor blade producer in China;
- the largest glass fibre producer in the world through China Jushi Co., Ltd. ("China Jushi"), an associate of the Company;
- an international engineering firm that provides design and turn-key project services that include design, procurement and construction (EPC) services of glass, cement production lines and solar power stations in China, leads and dominates the engineering technology market of domestic high-end glass and China's export of high-end glass.

\* For identification purposes only

On 8 September 2017, after approved by the Board of Directors of the Company, the Company entered into a merger agreement with Sinoma, pursuant to which Sinoma was absorbed by and merged with the Company in accordance with the *PRC Company Law* and other applicable laws of the People's Republic of China ("PRC"). On 6 December 2017, the merger proposal of the Company and Sinoma was approved at the Company's general meeting. On 2 May 2018, the Company completed the domestic shares and H shares exchange. On 3 May 2018, the new H-shares of CNBM started trading on HKEX. Following the share exchange, the Company has assumed all assets, liabilities, businesses, employees, contracts, qualifications and all other rights and obligations of Sinoma. The subsidiaries of Sinoma have also become subsidiaries of the Company.

In 2017, the Company adhered to the principle of improving the quality and efficiency of development; it coordinated various work with supply-side structural reform as its main line, and achieved excellent business operating performance. The Company promoted restructuring and reform simultaneously, and made significant achievements in innovation and transformation as well as new progress in the "One Belt, One Road" initiative.

2018 is a year of deep integration, innovation and development and mechanism reform for CNBM. In the coming year, the Company will herald the future and forge ahead to develop the Company into a world-class and globally competitive building materials enterprise, driving the state-owned capital to make new and greater contributions, and will spare no efforts to return benefits to its shareholders and the society.



## 2.2 Environmental Protection Concepts

In 2017, the Group focused on 3 major aspects of environmental protection, namely - energy saving, pollution reduction and environmental protection; the Group also upheld the core value of "Green Development to Achieve Green Transformation" and made efforts to make greater contributions to environmental management. Through technological innovation and cooperating with the "Thirteenth Five-year" Plan for Ecological Environment Protection, Opinions on Further Strengthening the Treatment of MSW Incineration, "Thirteenth Five-year" Plan for Renewable Energy Development, Water Pollution Prevention and Control Law (draft revision) and various environmental protection policies, the Group adhered to the latest policy trends, seized opportunities for development and actively advocated sustainable development.

In 2017, the Group implemented the Environmental, Safety and Health Management System. Guided by the relevant information disclosure, the Group established an integrated system comprising of pre-event identification and assessment, in-progress inspection and review and post-event evaluation. This system improved the standard of daily management and allowed risks to be controlled from the source, thus strengthening the Group's sustainable development capabilities and propelling it to become a world-class comprehensive building material company.



Pre-event identification and assessment



In-progress inspection and review



Post-event evaluation



## 2.3 Building Integrity

The Group regards integrity construction as the cornerstone of the Company's long-term development and resolutely prevents corruption. The Group strictly abides by the *Criminal Law of the People's Republic of China*, *Anti-Money Laundering Law of the People's Republic of China* and other laws and regulations; the Group has also developed the *CNBM Responsibility System for Clean Party*, *Measures for Implementing the Conversation Reminder System of CNBM Party* and other regulations and revised the *Measures for Implementing the Responsibility System of CNBM Party*. The Group's focus is on establishing a sound system of punishing and preventing corruption, and with the improvement of the system's implementation, to gradually establishing a complete system of anti-corruption to further strengthen the Group's clean Party and anti-corruption work. In 2017, the interim Party of CNBM signed the *Responsibility Commitment of Clean Party* with the Party organization of each of the Group's business segments; the commitment clearly identified the inspection, assessment, responsibility and supervision mechanisms of the clean Party and companies at all levels were required to sign this responsibility commitment.

During the Reporting Period, the Group did not receive any reported cases relating to bribery, extortion, fraud and money laundering.





## 2.4 Company Honours

The Group unswervingly follows the path of green and sustainable development, and has been awarded several honorary titles including “IFW Golden Bauhinia Award– the Best Listed Company” issued by Ta Kung Pao, “Pioneering Company in Climate Attention and Ecological Civilization” issued by Global Compact Network China, “2017 China Financial Market Award – the Best Sustainable Development Performance” issued by China Financial Market Magazine, “100 Energy Saving and Emission Reduction Demonstration Enterprise in Construction Material Industry” issued by China Building Materials Federation, “Advanced Group in China Cement Industry for Energy Conservation and Emission Reduction” issued by China Machinery, Metallurgy and Building Materials Union, China Building Materials Federation and China Cement Associate, “China Green-Benefit Enterprise Award: Best Model in 2017 World Economic and Environmental Conference” issued by International Ecological Economy Promotion Association, United Nations Industrial Development Organization and United Nations Educational, Scientific and Cultural Organization.

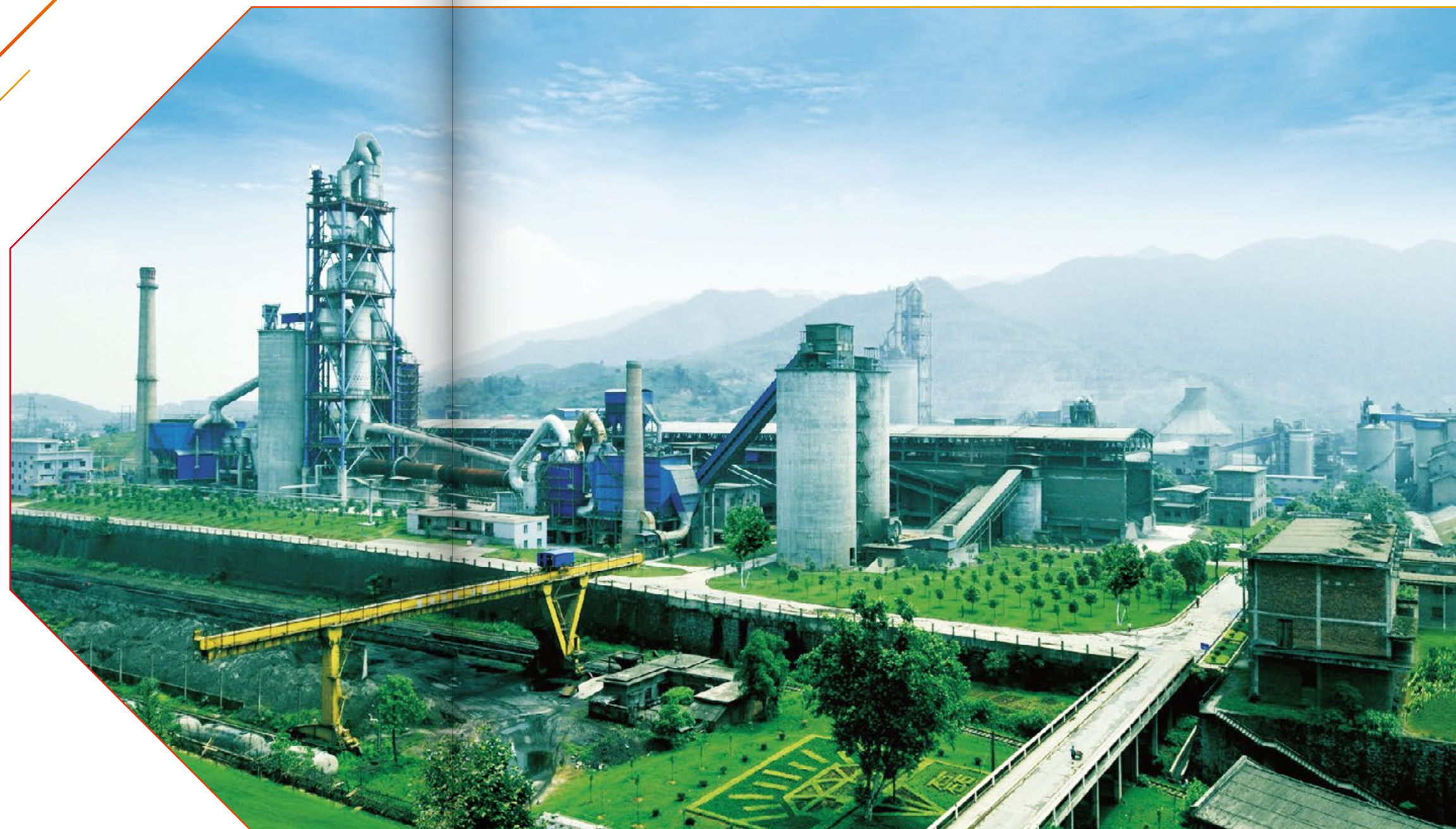




# 03

## Energy- saving and Environmental Protection

- 3.1 Green Operation
- 3.2 Green Manufacturing
- 3.3 Green Production
- 3.4 Green Ecology
- 3.5 Environmental Performance





## Energy-saving and Environmental Protection

To proactively address the issues of climate change and excess production capacity, and to uphold green, low-carbon and sustainable development, the Group has vigorously implemented the “Responsibility for Blue Sky” action program that focuses on energy saving, emissions reduction, ecological protection, circular-economy and other key areas to promote energy saving and the transformation and upgrading of works.

### 3.1 Green Operation

The Group is committed to maintaining a green operating environment and has resolutely implemented the laws and regulations on environmental protection formulated by the State, the local government authorities and the Group respectively. In doing so, the Group's management system and management methods in environmental protection have been continuously improved. The Group has actively advocated for a green office to achieve energy-saving and emission reduction, and to improve resource utilisation efficiency.



### 3.1.1 Compliance

To prevent and control pollution and to reduce the emission of pollutants, the Group strictly abides by the *Environmental Protection Law of the People's Republic of China*, *Atmospheric Pollution Prevention and Control Law of the People's Republic of China*, *Water Pollution Prevention and Control Law of the People's Republic of China*, *Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes*, *Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise*, *Cleaner Production Promotion Law of the People's Republic of China*, *Atmospheric Pollution Emission for Cement Industry* and other laws and regulations related to environmental protection; the Group has also revised and formulated the *CNBM Environmental Protection Management System* and *CNBM Energy Saving and Emission Reduction Management System* with reference to the State and the Group's relevant laws and regulations and systems. In addition, the Group's subsidiaries have formulated their own energy saving and emission reduction related system based on their business characteristics and relevant national and local laws and regulations. For example, Lianyungang Zhongfu Lianzhong Composite Material Group Company Limited ("Zhongfu Lianzhong") formulated the *Environmental Protection Management System* in order to prevent and control pollution, reduce pollutant emission and to achieve sustainable development; Jushi Group Company Limited ("Jushi Group") implemented the *Waste Management System* to standardise the management of all types of waste produced in the production and living processes, and to achieve "Recycling, Weight Reduction, Harmlessness". During the Reporting Period, the emission of exhaust gases and greenhouse gas, the disposal of sewage to water and land, and the production of hazardous and non-hazardous waste at the sites of the Group's business operations all complied with relevant laws and regulations.

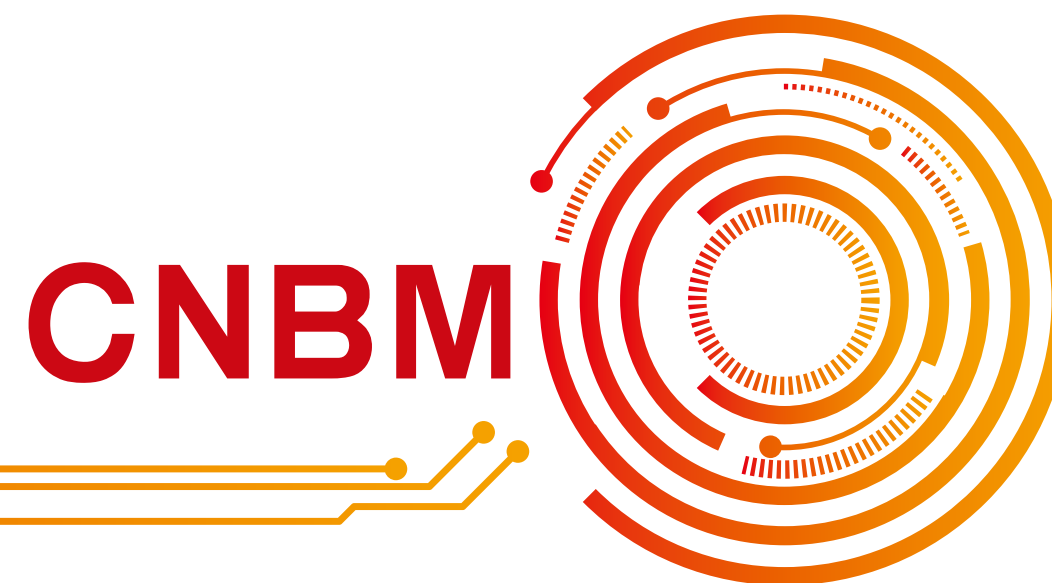
During the Reporting Period, the Group did not receive any reported complaints relating to significant environmental pollution problems.



### 3.1.2 Systematic Management

In order to further strengthen the environmental protection management of production enterprises, CNBM has revised and improved its energy saving, emission reduction and environmental protection management system in accordance with the relevant national laws and regulations and with reference to actual conditions. In 2017, the Group's *Emergency Management Measures for Environmental Emergencies* and *Reporting Management Measures for Environmental Incidents* were prepared by the Group in accordance with the *Emergency Response Law of the People's Republic of China*, *Emergency Plan for National Environmental Incidents*, and *Reporting Management Measures for Information on Environmental Incidents* and this has improved the Group's environmental emergency preparatory system, standardised the information reported for environmental incidents and improved environmental emergency management. In addition, based on daily work situations, the Group has revised the regular meeting system for energy saving and emission reduction to a monthly reporting system. This has enabled the prompt reporting of the subsidiaries' production status, the identification of potential problems through analysis, and the rectifications based on timely feedback.

The subsidiaries of CNBM have also developed strategies, policies, plans and systems for energy saving and emission reduction in accordance with their own situation. For example, China United Cement Corporation ("China United") has implemented an energy saving reward system and has established a leading group for the construction of an energy management system: such leading group holds regular meetings to discuss energy conservation work and has formulated energy conservation goals and conducted assessments; Southwest Cement Company Limited ("Southwest Cement") has formulated an energy saving and emission reduction assessment and incentive system to make energy saving and emission reduction work an important part of the assessments, and to promote continuous improvement of such work.





The Group has implemented a standardised management system and has achieved energy saving, consumption reduction and clean production through lean management. The Group's manufacturing subsidiaries have established a basic standardised system for quality, environment and energy management. In 2017, 346 manufacturing subsidiaries of the Group obtained environmental management system certifications, 96 manufacturing subsidiaries of Sinoma Group obtained environmental management system certifications, and 442 manufacturing subsidiaries of the Enlarged Group obtained environmental management system certifications.

With regard to setting up energy-saving and emission-reduction teams, the Group has continuously enriched the knowledge of energy-saving and emission-reducing personnel and improved their professional ability. China United is equipped with 419 personnel tasked with energy-saving and emission-reducing responsibilities; in 2017, 1,152 people participated in energy-saving and emission reduction training, and 2,891 hours of training were conducted. South Cement Company Limited ("South Cement") focuses on energy-saving and emission-reduction management and promotion and 31 thematic trainings were held and 2,173 technical personnel were trained throughout the year. Southwest Cement held 4 large-scale energy-saving trainings in 2017, and more than 1,500 trainees attended these trainings.



In 2017, **346** manufacturing subsidiaries of the Group obtained environmental management system certifications

**96** manufacturing subsidiaries of Sinoma Group obtained environmental management system certifications.

China United is equipped with **419** personnel tasked with energy-saving and emission-reducing responsibilities

**2,891** hours of training were conducted by China United

**1,152** people of China United participated in energy-saving and emission reduction training

**31** thematic trainings were held by South Cement

**2,173** technical personnel of South Cement were trained throughout the year

more than **1,500** trainees of Southwest Cement attended the energy-saving trainings.

### 3.1.3 Green Office

The Group actively promotes a green office environment and has formulated a detailed green office plan for electricity saving, water saving, and reduction of office supplies, while the operating performance of the green office has also been included in the Group's routine monitoring and evaluation system. The Group actively promotes the establishment of a video conference system to reduce the number of on-site meetings and reasonably arranges business trips and gives priority to low-carbon transportation.

## 3.2 Green Manufacturing

The Group has continuously improved energy efficiency and the units for the Group's main products have maintained an advanced standard in energy efficiency. At the same time, the Group strictly implements pollutant emission standards, improves monitoring and emission reduction systems, and ensures compliance with emission standards and clean production.



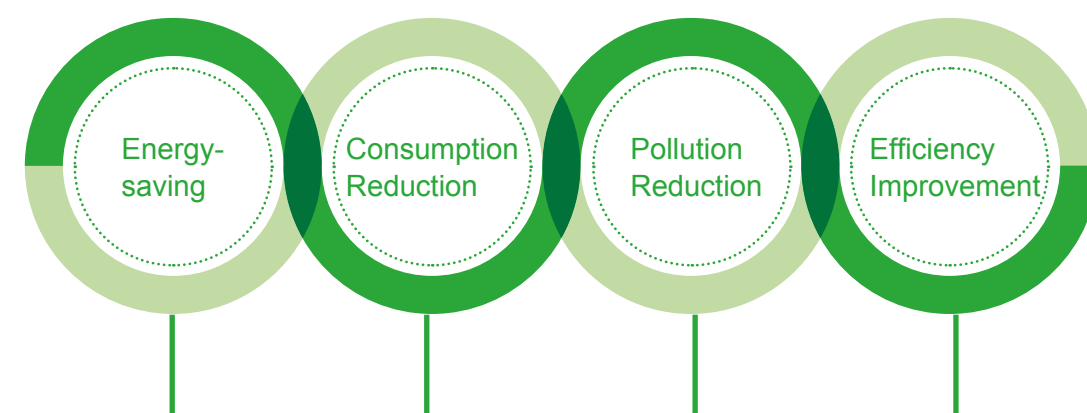
### 3.2.1 Clean Production

The Group strictly follows the concept of green development and vigorously promotes clean production.

In 2017, China United launched a new round of clean production auditing. Through the clean production audit, the China United's clean production and management standards have been upgraded in a comprehensive manner, achieving the goal of "Energy-saving, Consumption Reduction, Pollution Reduction and Efficiency Improvement". In 2017, China United Zaozhuang Co., Ltd. passed the "Green Factory" certification assessed by the Ministry of Industry and Information Technology of the People's Republic of China. In April, 2017, China United Nanyang Branch started the fourth round of audit with respect to clean production, and during the auditing period, a total of 57 clean production projects were produced and all of which have been completed. The total investment of the said projects were RMB 8.1667 million with an annual economic benefit of approximately RMB 3.3302 million. These projects have produced environmental benefits such as water saving, electricity saving, coal saving, and pollutant emissions reduction etc.

At present, 27 branches and subsidiaries of Beijing New Building Material Public Limited Company ("BNBM") have carried out clean production audits or self-assessments, and the enterprises' production and business activities are constantly achieving "cleanliness" and sustainability.

The total investment of the projects of China United Nanyang branch were RMB **8.1667** million with an annual economic benefit of approximately RMB **3.3302** million. These projects have produced environmental benefits such as water saving, electricity saving, coal saving, and pollutant emissions reduction, etc.



### 3.2.2 Comprehensive Utilization of Waste

The Group complies with the *Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes* and *Management Measures for Hazardous Waste Operation Licenses*, and other relevant local laws and regulations. With regards to waste disposal, the Group standardizes the management of various types of waste generated in the production processes and living to achieve "Recycling, Reduction, and Harmlessness". The Group is also committed to reducing waste emissions and reducing environmental impacts. With regards to hazardous waste disposal, the Group has signed the *Hazardous Waste Disposal Contract* with companies that have relevant hazardous waste disposal qualifications to conduct centralised disposals of hazardous waste generated from the Group's production processes. In order to effectively enhance the comprehensive utilisation of waste, CNBM actively responds to the call of the national and local governments: the cement business segment vigorously promotes the comprehensive utilisation of resources by using a large amount of industrial waste for cement production; the light building materials business segment comprehensively utilise industrial waste by extensively recycling and utilising desulphurised gypsum and phosphogypsum.

During the Reporting Period, the Group utilized and eliminated approximately 84.39 million tonnes of industrial waste, of which 70.28 million tonnes and 14.11 million tonnes were consumed and utilized by cement businesses and lightweight building materials businesses respectively; the cement businesses of the Sinoma Group consumed and utilized approximately 18.30 million tonnes of industrial waste; the Enlarged Group utilized and eliminated approximately 102.69 million tonnes of industrial waste, of which 88.58 million tonnes and 14.11 million tonnes were consumed and utilized by cement businesses and lightweight building materials businesses respectively. In addition, the Group actively promotes the collaborative processing of municipal waste, sludge and hazardous waste, etc., and makes full use of the advantages of cement kiln to develop cement kiln collaborative disposal projects; these projects neutralise hazardous wastes into harmless states, and helps the Group to move towards the green development of building materials. As of December 2017, the Group established 9 collaborative disposal projects and 4 other projects were under construction, including 6 hazardous waste collaborative disposal projects, 3 domestic waste disposal projects, 4 sludge and solid waste disposal projects, as well as another 15 proposed projects; the Sinoma Group established 3 collaborative disposal projects, including 1 hazardous waste collaborative disposal projects and 2 domestic waste disposal projects, and another 2 proposed projects; the Enlarged Group established 12 collaborative disposal projects and 4 other projects were under construction, including 7 hazardous waste collaborative disposal projects, 5 domestic waste disposal projects, 4 sludge and solid waste disposal projects, and another 17 proposed projects.

The Enlarged Group utilized and eliminated approximately **102.69** million tonnes of industrial waste

The cement businesses of the Enlarged Group consumed and utilized approximately **88.58** million tonnes of industrial waste

The lightweight building materials businesses of the Enlarged Group consumed and utilized approximately **14.11** million tonnes of industrial waste



Case  
1

## Jushi Group standardises the construction of solid waste storage sites and establishes comprehensive solid waste management

Jushi Group invested more than RMB 3 million in 2016 and 2017 to renovate its hazardous waste warehouse and general waste storage yard. The hazardous waste warehouse was renovated mainly to enlarge the area and volume of storage, increase video surveillance, strengthen ground anti-seepage and increase warehouse waste gas collection and treatment devices, etc. The renovation of the general waste storage yard was mainly for refurbishment. The area was divided according to the type of general waste, and the storage yard was fully sealed to prevent odour leaking from the yard. In August 2017, Jushi Group invested a further RMB 26,000 to install video monitoring equipment at each sludge generation point, centralised storage point, weighing point, and vehicle access point. Additionally, the said sets of video equipment were connected to the Tongxiang Municipal Government's centralised monitoring platform so that various records could be compared and traced.

### In terms of waste management



hazardous wastes have been entrusted to qualified companies for disposal



industrial wastes have been entrusted to qualified companies for neutralization and disposal



the leftover dried sludge from reused waste water and waste gas have been entrusted to thermal power plants for incineration



glass fiber waste wires (except recyclable parts) have been sent for disposal



domestic wastes have been centralised and collected for disposal by the government's sanitation department



records of all waste disposal are collected and archived in a unified manner

In 2017, Jushi  
Group produced  
**2,010.89** tonnes  
of industrial waste

disposed of  
**2,002.4**  
tonnes

disposal rate of  
**99.58%**

produced  
**12,922.43**  
tonnes of sludge

disposed of  
**12,471.08**  
tonnes

disposal rate of  
**96.51%**

produced **27,331**  
chemical barrels

disposed  
**24,547**  
pieces

disposal rate of  
**89.81%**

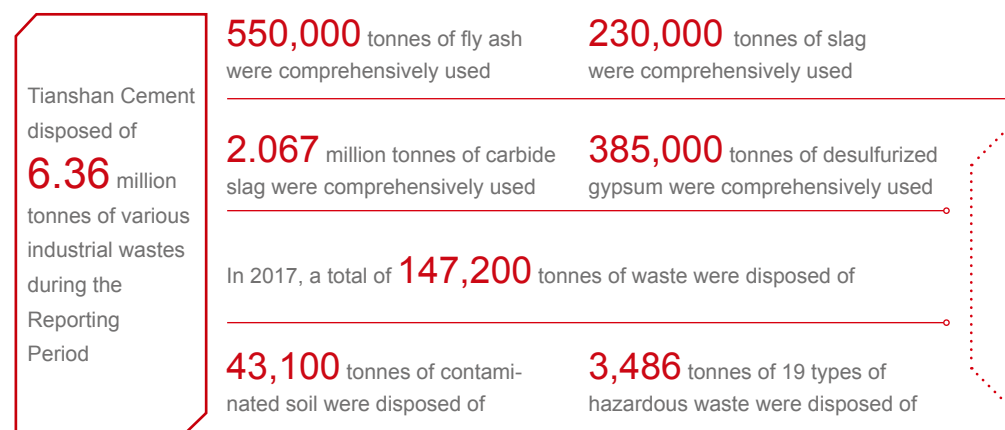




Case  
2

## Tianshan Cement comprehensively utilises various types of waste

A subsidiary of Sinoma- Xinjiang Tianshan Cement Co., Ltd. ("Tianshan Cement") utilized and eliminated and disposed of 6.36 million tonnes of various industrial wastes during the year 2017, of which 550,000 tonnes of fly ash, 230,000 tonnes of slag, 385,000 tonnes of desulfurized gypsum and 2.067 million tonnes of carbide slag were comprehensively used; this effectively mitigated environmental pollution caused by industrial waste. In addition, Tianshan Cement has actively promoted the collaborative disposal of rubbish and hazardous waste in cement kilns. In 2017, a total of 147,200 tonnes of waste, 43,100 tonnes of contaminated soil, and 3,486 tonnes of 19 types of hazardous waste were disposed of.



## 3.2.3 Elimination of Backward Production Capacity

The Group has implemented national "Thirteenth Five-year" energy-saving and emission reduction targets, and corporate assessment targets at various business segments and member companies. Responsibility documents for energy saving and emission reduction targets have been signed with local governments in accordance with relevant national policies. Each business segment has actively carried out energy-saving and emission reduction works, and all segments have met the annual targets, and some companies even exceeded their targets. For example, all the energy consumption indexes of China United Cement Yi'nan Co., Ltd were above the advanced value requirements specified in *Energy Consumption Limit of Cement Unit Products*.

Cases

## The Group resolutely replaced backward production capacity and addressed overcapacity and overproduction.

China United resolutely replaced high energy-consuming and backward electromechanical equipment (products). Additionally, China United promotes peak-shifting production and stabilises the balance between supply and demand. The production at the enterprises of China United in Shandong, Henan, Inner Mongolia, Hebei, etc. paused for over 150 days during the year, representing an increase of 30 days compared to the same period last year. Clinker production decreased by 780,000 tonnes compared with the same period last year.

In 2017, South Cement implemented energy-saving and production limits for some clinker production lines and cement production lines that had not been included in compulsory replacement but had relatively high energy consumption and weak market competition. For the whole year, South Cement had limited the production of a total of 6.18 million tonnes of clinker and 42.07 million tonnes of cement.

In accordance with the local environmental protection requirements and market needs, North Cement Company Limited ("North Cement") actively practiced peak-shifting production and paused kiln production, and cumulatively reduced clinker production by 3.32 million tonnes.

Southwest Cement has adopted planning and adjustments of production. First, it allows some low-cost production lines to produce more, while allowing high-cost production lines to produce less; second, it has temporarily suspended production for specific cement clinker lines; and third, temporarily suspends production lines with no market competitiveness and high costs, which decreases overall production costs. In Sichuan, two production lines were optimised, and the production costs were reduced by about RMB 3/tonne. Furthermore, pursuant to the requirements of the local governments, enterprises of Southwest Cement in each region carried out peak-shifting production in 2017 and ceased production for 50 to 100 days.

BNBM has eliminated production lines with insufficient production capacity and some enterprises have also implemented peak-shifting production, which has reduced energy consumption and emissions, and achieved the goal of restricting energy consumption.

The production at some enterprises of China United paused for over **150** days during the year, with an increase of **30** days compared to the same period last year. Clinker production decreased by **780,000** tonnes

South Cement had limited the production of a total of **6.18** million tonnes of clinker and **42.07** million tonnes of cement for the year

North Cement cumulatively reduced clinker production by **3.32** million tonnes



### 3.2.4 Water-saving

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

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

In addition, the Group has no problem in sourcing water. The Group implements water resources management measures such as diversion of clean water and sewage, rain and sewage diversion, production wastewater and domestic sewage segregated collection and pre-treatment. All wastewater is reused after advanced treatment by the plant's sewage treatment station, and is mainly used for vehicle washing, water spraying for dust reducing in the storage yard, as well as ground washing, road sprinkling, and green watering, etc. to achieve zero discharge of wastewater.

#### Case

#### The sewage treatment and reuse system of Jushi Group has achieved significant water saving effects

Jushi Group is committed to building a water-saving enterprise. In order to achieve targets of energy conservation, emission reduction and reduced production costs, Jushi Group invested RMB 31 million to acquire 5,800 square meters of land in Tongxiang economic development zone and built an advanced sewage treatment and reuse system. This project came into effect in January 2009 and achieved full recycling of sewage. The average daily water production is approximately 2,100 tonnes/day, and the amount of water intake can be reduced by 770,000 tonnes per year while simultaneously reducing effluent discharge; furthermore, through technological transformation, high-energy-consumption pumps have all been replaced with energy-saving pumps.

Through technical transformation and production capacity expansion, the production line's output is expected to reach 795,000 tonnes in 2018, and the production unit (glass fibre yarn) is expected to require 1.80 cubic meters of water per tonne of yarn, which is 79.61% less than the level of water consumption in 2009, a significant achievement of water-saving results.

### 3.2.5 Technology Upgrade

The Group encourages companies to strengthen energy conservation and emission reduction and improve resource utilisation efficiency through independent innovation.

South Cement invested RMB **368.8** million to carry out medium and small-scale technological transformation, focusing on the promotion of kiln system optimisation, fan energy saving, waste heat power generation transformation, rotary kiln coordinated disposal, etc. These projects achieved a conservation of **239.66** million kWh of electricity and **55,400** tonnes of standard coal, and a reduction of **172,200** tonnes of carbon dioxide emissions, while the cement kilns collaborated disposal of **230,000** tonnes of various types of waste.



Through the technological optimization, Southwest Cement has reduced the consumption of about **294,900** tonnes of coal and **13.050** million kWh of electricity, and reduced peak electricity consumption by **42.045** million kWh.



The technological renovation of the drying machine of BNBM Ningbo Company Limited has increased production capacity by **33%**, and the energy consumption per unit of product has been reduced from **0.82** kg of standard coal to **0.76** kg of standard coal.



China Jushi has actively promoted advanced energy-saving and emission reduction technologies and has invested a total of RMB **1,048,294,600** on the technological transformation of two glass fibre production lines, and has resulted in an increased production capacity with a decreased energy consumption, which has reduced an overall energy consumption of **8,500** tonnes of standard coal.







### 3.2.6 Circular Economy

The Group adheres to the concept of “Making the Best of Resources to Serve Construction” and attaches great importance to the rational and efficient use of resources; it actively develops a circular economy and promotes resource conservation. The Group vigorously continues the promotion of low-temperature waste heat power generation in cement rotary kilns. As of December 2017, the power generated by the waste heat power generation system of the Group’s cement business subsidiaries amounted to 6.394 billion kWh, equivalent to a conservation of 2.30 million tonnes of standard coal and a reduction 6.03 million tonnes of carbon dioxide emission and this has generated nearly RMB 2.6 billion in economic benefits; the power generated by the waste heat power generation system of Sinoma Group’s cement segment subsidiaries amounted to 1.848 billion kWh, equivalent to 227.1 thousand tonnes of standard coal and a reduction 832.7 thousand tonnes of carbon dioxide emission and this has generated nearly RMB 102 million in economic benefits; the power generated by the waste heat power generation system of the Enlarged Group’s cement business subsidiaries amounted to 8.242 billion kWh, equivalent to a conservation of 2.5271 million tonnes of standard coal and a reduction 6.8627 million tonnes of carbon dioxide emission and this has generated nearly RMB 2.702 billion in economic benefits.

BNBM has gradually incorporated all gypsum board production lines into an internal circular economy production operating system. The raw material waste and residue paper produced during production processes are used for making pulp, which in turn, are used to fill the gypsum board core and improving the strength of the gypsum board. Unsatisfactory products are made into packing strips, guard plates or broken into accessories to achieve a 100% solid waste utilisation rate.

Taishan Fiberglass Inc. (“CTG”), a subsidiary of Sinoma, actively promotes a circular economy and has recycled and reused 50,000 tonnes of waste wire throughout the year, achieving a reuse rate of 30%, and 60% of packaging materials were reused; Sinoma Wind Power Blade Co., Ltd. (“Sinoma Blade”), a subsidiary of Sinoma, reuses old waste fiberglass cloth and residual resin to form a glass fibre reinforced plastic collecting pool, further improving the waste recycling rate.

Jushi Group adopts international advanced pure oxygen combustion technology to reduce fuel consumption by approximately **50%**; it uses advanced insulation materials to fully insulate the furnace, which can save energy consumption by **10% to 20%**; through the use of waste heat boilers, the heat in exhaust gas is converted into steam to further recover the heat; a patented exhaust gas denitrification technology has been developed to reduce nitrogen oxide emissions, and it can achieve an overall denitrification rate of over **80%**.



In 2017, Sinoma Cement Co., Ltd (“Sinoma Cement”), a subsidiary of Sinoma, invested more than RMB **60** million in the reduction of nitrogen and denitrification of all cement clinker production lines, and the denitrification rate reached approximately **65%**, ensuring that the production lines met discharge standards.





### 3.3.Green Production

The Group integrates the concept of low-carbon and environmental protection into the entire process of products' development, design, production, packaging, sales and recycling, and provides customers with systematic products created with low-carbon and environmental protection concepts.

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

In addition, the Group also provides advanced and serialised wind turbine blades, solar thin film battery modules and special cement products to provide guarantees for the healthy development of new energy industries such as wind power, solar photovoltaic and hydropower, etc.



### 3.4 Green Ecology

The Group adheres to sustainable development and strives to explore the pattern of harmonious coexistence of nature, society and industry. Mining is carried out according to the *Green Mine Convention*. The mining process is required to be scientific and orderly, in order to strictly control the impacts on mining areas and the surrounding environment and to protect the ecological environment. The Group carries out ecological restoration swiftly after mining is completed. During the Reporting Period, South Cement strengthened mine construction management and actively promoted green mine construction. South Cement owns a total of 7 national-level green mines.

In addition, the Group respects the *Convention on Biological Diversity*. The Group carries out strict verification on the site selection and layout of factories; during the construction of projects, steps are taken to protect natural habitats, wetland, forests, corridors for wildlife and agricultural land, and to mitigate adverse impacts on the surrounding environment and communities as much as possible. The subsidiaries of the Group engaging in manufacturing industry pay attention to the greening and beautification of the plant area and its surrounding environment; the Group has combined industrial production, garden landscapes and flora and fauna, and is committed to creating a green factory to achieve the natural integration of the industry and its surrounding ecology.



3.5 Environmental Performance

The environmental performance data on emissions and resource consumption by the Group and the Sinoma Group respectively during the Reporting Period are listed in the table below.

Environmental Performance	Amount of the Group	Amount of Sinoma Group	Amount of the Enlarged Group
<div>Basic Information</div>			
Production area	132,043,744.17 square metres	26,715,847.00 square metres	158,759,591.17 square metres
Number of manufacturing enterprises certified with environmental management systems	346 enterprises	96 enterprises	442 enterprises
<div>Pollutant Emissions</div>			
Annual emissions of industrial particulate matter	17,911.00 tonnes	4,668.91 tonnes	22,579.91 tonnes
Nitrogen oxide(NO <sub>x</sub> )	143,051.62 tonnes	44,063.91 tonnes	187,115.53 tonnes
Sulphur dioxide(SO <sub>2</sub> )	29,290.78 tonnes	5,331.63 tonnes	34,622.41 tonnes
Greenhouse gas emissions	195,455,163.54 tonnes CO <sub>2</sub> e	56,769,466.78 tonnes CO <sub>2</sub> e	252,224,630.32 tonnes CO <sub>2</sub> e

Environmental Performance	Amount of the Group	Amount of Sinoma Group	Amount of the Enlarged Group
Greenhouse gas emissions per production area	1.48 tonnes CO <sub>2</sub> e/square metre	2.12 tonnes CO <sub>2</sub> e/square metre	1.59 tonnes CO <sub>2</sub> e/square metre
Annual production of hazardous solid waste	1,652.58 tonnes	2,625.59 tonnes	4,278.17 tonnes
Production of hazardous solid waste per production area	0.000013 tonnes/square metre	0.000098 tonnes/square metre	0.000027 tonnes/square metre
Annual production of non-hazardous solid waste	151,746.71 tonnes	34,462.51 tonnes	186,209.22 tonnes
Annual production of non-hazardous solid waste per production area	0.001 tonnes/square metre	0.001 tonnes/square metre	0.001 tonnes/square metre
Self-produced solid waste disposal	153,399.29 tonnes	37,088.10 tonnes	190,487.39 tonnes
Total amount of annual solid waste utilisation, elimination and disposal	59,777,552.33 tonnes	18,301,250.00 tonnes	78,078,802.33 tonnes



Environmental Performance	Amount of the Group	Amount of Sinoma Group	Amount of the Enlarged Group
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## Resource Consumption

Electricity consumption	22,120,906,019.00 kilowatt-hours	8,253,105,400.00 kilowatt-hours	30,374,011,419.00 kilowatt-hours
Electricity consumption per production area	167.53 kilowatt-hours/ square metre	308.92 kilowatt-hours/ square metre	191.32 kilowatt-hours/ square metre
Coal consumption	33,625,955.80 tonnes	7,383,400.00 tonnes	41,009,355.80 tonnes
Coal consumption per production area	0.25 tonnes/square metre	0.28 tonnes/square metre	0.26 tonnes/square metre



Environmental Performance	Amount of the Group	Amount of Sinoma Group	Amount of the Enlarged Group
Natural gas consumption	244,756,090.94 cubic metres	189,730,100.00 cubic metres	434,486,190.94 cubic metres
Natural gas consumption per production area	1.85 cubic metres/ square metre	7.10 cubic metres/ square metre	2.74 cubic metres/ square metre
Total water consumption	134,965,388.12 tonnes	29,273,319.44 tonnes	164,238,707.56 tonnes
Total water consumption per production area	1.02 tonnes/square metre	1.10 tonnes/square metre	1.03 tonnes/square metre
Cement packing bags	1,931,535,940.55 Pieces	507,878,511.00 Pieces	2,439,414,451.55 Pieces



# 04

## Employee Care

- 4.1 Equality and Diversity
- 4.2 People-oriented
- 4.3 Health and Safety
- 4.4 Progress Together





## Employee Care

The Group regards human resources as its most valuable asset. The Group respects the differences of employees and creates a safe and harmonious working environment. Moreover, through human resources policies, employee benefits, vocational training and related activities, the Group unites employees' compassion and sense of belonging, and to pursue and achieve the core values of the Group.

### 4.1 Equality and Diversity

The Group strictly complies with the *Labour Law of the People's Republic of China*, the *Labour Contract Law of the People's Republic of China* and other relevant laws and regulations. The Group also upholds the principles of equal competition and merit-based employment selection; the personnel management system has been formulated and recruitment and employment procedures have been strictly standardised. As of December 31, 2017, the Group had a total of 100,218 full-time employees, Sinoma Group had a total of 55,040 full-time employees, and the Enlarged Group had a total of 155,258 full-time employees. Furthermore, the Group has formulated the *Regulations of Labour Contracts* to standardise dismissal procedures. The Group also requires new employees to provide accurate and actual personal information when onboarding. Applicants that have provided material or information which is later verified to be false will not be hired; the Group will terminate the probation period or labour contracts for employees that have provided falsified material or information. Additionally, in the recruitment process, the Group strictly reviews the identity information of candidates to prevent recruiting child labour. Meanwhile, the Group firmly complies with the laws and regulations related to prevention of forced labour. During the Reporting Period, there were no cases of forced labour or child labour.

The Group also respects the diversity of employees and does not differentially treat employees based on their gender, age, ethnicity or cultural background and upmost efforts are made to provide an ideal career environment for employees' development. The Group abides by the principle of distributing work according to employees' capabilities, job responsibilities, market pay level and other factors into consideration when establishing the remuneration system. In addition, the Group regularly conducts annual performance appraisals and assessments of all formal employees and arranges promotions and salary adjustments accordingly.

### 4.2 People-oriented

The Group adheres to a "People-oriented" concept and pays attention to the employees' physical and mental health. The Group has formulated an internal employees' *Leave and Attendance Regulation*, which stipulates that employees can enjoy sick leave, ad hoc leave, marriage leave, maternity leave, paid annual leave and statutory holidays, etc. At the same time, the Group implements annual leave policy, regulate employees' working hours, and offers overtime compensation for employees who exceed the legal working hours in accordance with the *Regulations of Paid Annual Leave of Employees* and other relevant regulations. In addition, the Group pays basic pension insurance, basic medical insurance, unemployment insurance, maternity insurance, work-injury insurance and housing funds for all formal employees, and encourages employees to achieve a win-win model of work-family balance through a series of welfare measures. In addition, the Group from time to time organises various cultural and sports events to enrich employees' cultural life, enhance employees' communication and improve team cohesion.

During the Reporting Period, the Group did not receive any complaints about violation of employees' rights and interests.



Employees' activity 1:

Spring walking activity organised by CNBM



Employees' activity 2:

China Composites Group Corporation Limited ("China Composites") held the 7<sup>th</sup> badminton friendly match

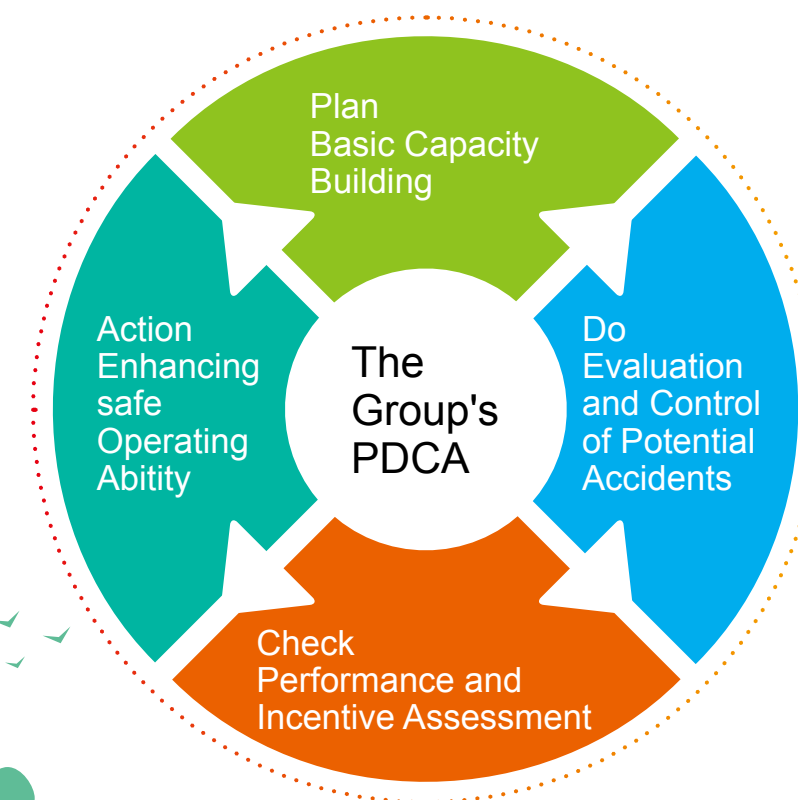
## 4.3 Health and Safety

The Group places safe production accountability system at the core and designates safe production as the standard, safety technical regulations as prominent, troubleshooting and treatment of potential accidents as procedural methods and safety management information as tools to strive towards the development of safety culture. In doing so, the Group is dedicated to establishing a domestically top-ranking management system, guaranteeing employees' occupational safety and their avoidance of occupational harm, and the provision of a safe and comfortable working environment for employees.

The Group strictly abides by the *Work Safety Law of the People's Republic of China*, *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, *Measures for the Supervision and Administration of "Three Simultaneities" of Facilities for the Prevention and Control of Occupational Diseases of Construction Projects* and other national laws and regulations and standardised guidelines for work safety, and has established a relatively comprehensive safe production organisational system. In accordance with related laws and regulations as well as its own characteristics, the Group has formulated the *Measures for the Supervision and Administration of Occupational Health in Workplaces* to strengthen the supervision and management of occupational health, and to effectively prevent, control and eliminate occupational hazards. In addition, based on in-depth studies and analysis of building material production characteristics, the Group has installed and optimised supporting facilities for dust prevention, gas defense, noise reduction and emergency alerts; first-aid equipment has also been provided in production areas. In strict accordance with the requirements of labour protection, employees are equipped with quality and reliable protective equipment such as work clothes, safety helmets, protective shoes, gloves, anti-noise earmuffs, dust masks, etc. The Group also regularly arranges for employees to take health examinations and organised additional health checks for employees working in positions that may be susceptible to exposures of dust, radiation etc.



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





As a national pilot enterprise of standardised safe production, the Group actively promotes the establishment of cement enterprises' standardised safe production and improves the safety management system, increases the safety management level and boosts safety management performance. The heads of the enterprises are the primary persons responsible for safety in workplaces, and they are directly responsible for safe production. All key production enterprises are equipped with full-time safety management personnel. The Group has also established a smooth channel for feedback and encourages all the staff to participate in safety management. The Group also attaches great importance to building up its safety management team and strictly follows the CNBM Safety Training Rules. It guarantees the popularisation of safety knowledge and execution of safety procedures, deepens employees' awareness of safety responsibilities, and improves employees' awareness of occupational hazards and self-protection capabilities through various types of trainings and assessments.

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

During the Reporting Period, there were no significant safe production accidents.



## 4.4 Progress Together

Through reflecting on advanced personnel training experiences and combining this with the Group developmental characteristics, the Group has established an employee development and training platform with multiple channels, multiple forms, different levels and various focuses. The Group adopts the training methods of "internal training as the principal, external training as the supplement", sharing educational resources and building the Group's three-dimensional training system. The Group also supports employees' enrollment in independent training and encourages employees to study proactively by providing support and back-up (in terms of working hours, training investment input and incentive mechanisms) to encourage further-education, further-training and further-learning.

Some of the Group's internal training activities are as follows:

 Training Category	 Training Content
 New Employee Training	Lectures for corporate management and business knowledge, on-site inspections at enterprises and team quality expansion, etc.
 Emergency Drill Training	To carry out various forms of emergency drills, thereby improving the feasibility, tightness and reliability of emergency rescue systems and contingency plans. To accumulate practical experience of dealing with emergency situation and enhance safety awareness and skills of employees.
 Safety Knowledge Training	To improve the level of safety production through safety training. To improve the level of technical knowledge of workers and the level of safety management of managers, and to encourage them to update their technical knowledge in a timely manner.



Training activity 1:

The new employee training of BNBM in 2017



Training activity 2:

China United (Nanyang Branch) held safety knowledge training



# 05

## All-win Harmony

- 5.1 Supply Chain Management
- 5.2 Product Quality
- 5.3 Intellectual Property Rights Protection
- 5.4 Privacy Protection





## All-win Harmony

The Group serves customers with high quality products and grows together with suppliers and partners to establish a value creation platform for all stakeholders. In addition, the Group upholds the concept of “industry interests outweigh corporate interests” and is dedicated to promoting industrial restructuring and transformational upgrades in order to achieve mutual development and win-win situations with the industry and peers in the same industrial chain.



## 5.1 Supply Chain Management

The Group has established standard operating procedures to ensure the objectivity, impartiality and scientificity of the selection and evaluation of suppliers, to strengthen the daily management and quality assessment of the Group's suppliers and to establish a stable and win-win cooperative relationship. The Group also regularly reviews and evaluates such procedures to regulate supplier management. Each subsidiary has also developed a supplier management system that meets their actual conditions in accordance with the relevant management policies of the Company, such as the *Measures of BNBK Supplier Management*, the *Policy of BNBK Procurement Management*, the *Policy of Jushi Group Supplier Management*, the *Procedures of Jushi Group Procurement Control*, the *Measures of North Cement Supplier Management*, the *Policy of Zhongfu Lianzhong Procurement Management*, etc.

With regard to supplier selection, the Group mainly considers the credit rating, qualification certificate, sources of the products and the quality assurance to evaluate and grade the suppliers. The Group gives priority to suppliers with reliable quality, good reputation, environmental-friendliness and scientific management. After identifying the suppliers to cooperate with, the Group signs formal contracts with such suppliers, and such contracts set out the laws and regulations which the suppliers should comply with, together with various additional requirements related to sustainable development and anti-commercial bribery. In addition, the Group regularly communicates with suppliers on major issues of safety and environment, and promptly rectifies identified problems.

In the purchasing process of raw materials, the Group strongly implements green procurement and gives priorities to the products that are environmentally-friendly and with low carbon emission. For the selection of energy products, clean energy are given primary consideration. The Group vigorously promotes the use of low-grade energy, domestic waste, biomass energy and other non-fossil energy. As to daily office supplies, products with simple packaging and easy recycling are selected where possible.

In the aspect of logistics trade, the Group applies modern internet-of-things technology and e-commerce operational experience into the effective integration of large building materials suppliers, logistics, credit insurance, inspection and quarantine services. The Group is committed to providing comprehensive solutions to the whole process of international trade in order to completely achieve one-stop online management, and thereby enabling the Group to become a global-oriented service supplier in the building materials supply chain.

As of December, 2017, the number of suppliers with long-term relationships with the Group was

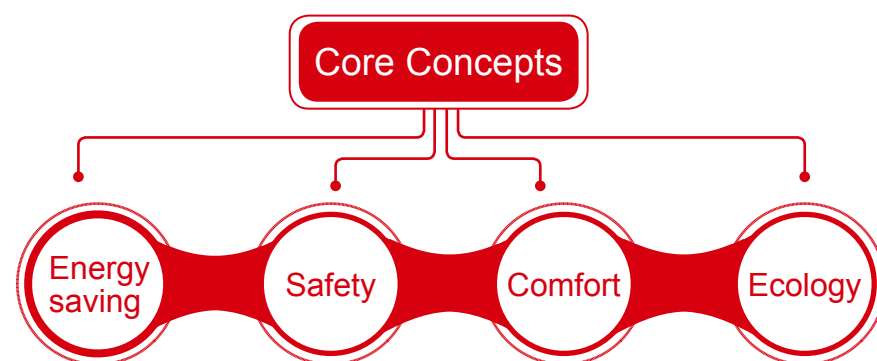
**18,872**, the number of suppliers with long-term relationships with Sinoma Group was **9,012**,

and the number of suppliers with long-term relationships with the Enlarged Group was **27,884**.

## 5.2 Product Quality

The Group has been constantly optimising the traditional industrial structure, extending the industrial chain and promoting industry trends towards greenness, intelligence and being high-end oriented. With regard to product quality, the Group actively promotes quality control (QC) group activities and implements product quality management throughout the entire process from the inflow of raw materials to the factory to the outflow of products leaving the factory.

The Group is committed to providing green building material products. The Group researches and develops new building materials based upon four core concepts, namely: energy saving, safety, comfort and ecology. In the production process of green building materials products, the Group reuses waste so that the waste can be used as energy once again and be recycled. In the selection of materials, the Group thoroughly considers the problems of scrapping, recycling and reusing materials. The Group also designs processes which avoid using methods that may produce harmful substances and implements clean production, clean processing, and accelerates the development of green building materials.



The Group strictly abides by the *Advertising Law of the People's Republic of China*, the *Trademark Law of the People's Republic of China* and other relevant laws and regulations regarding health and safety, advertising, labelling and remedial measures for the products and services provided by the Group. In accordance with the Group's actual situation, it has formulated the *Process of Quality Verification and Procedures of Product Recovery* and the *Procedures of Process Quality Control and (Semi) Finished Product Monitoring Control*, to ensure that the products meet the requirements of production. For example, based on relevant regulations, China United controls the raw materials, fuel materials and clinker products required for production, and sets quality requirements and inspection rules for raw materials and fuel materials for production; it strictly implements inspection procedures of products entering and leaving the factory; it resolutely identifies the causes of major quality accidents and investigates the responsibility of responsible departments and responsible persons; it provides a good after-sales service, establishes and maintains a return visit system to consult customers' comments on products' quality, performance, packaging, etc, establishes customer profiles and continuously improves and tracks the quality of products and services.

With regards to product services and complaints, the Group has established pre-sales consulting, sales and after-sales service systems. In order to regulate the after-sales service, the Group has developed the *After-sales Service Management System*. For after-sales problems on product quality, technical staff will provide door-to-door service and retrieve the sample for subsequent inspection and takes steps to resolve the problems promptly. In addition, the Group has also developed the *Procedures of Processing and Control on Customer Complaints* to regulate the processing procedures of customer complaints and to further improve the processing efficiency of customer complaints. In the face of customer complaints, responsible personnel are required to deal with the problem at the very first instance, and feedback is quickly provided to customers. The Group has always adhered to a customer-first principle. No litigation (relating to the health and safety of products and services which might have had a significant impact on the Group's productions and operations) commenced during the Reporting Period.

## 5.3 Intellectual Property Rights Protection

The Group strictly abides by the *Patent Law of the People's Republic of China* and the *Anti-Unfair Competition Law of the People's Republic of China*. An intellectual property rights management system with the characteristics of the building materials industry has been established to provide the mechanism guarantee for the orderly conduct of scientific research. This has been established in line with the protection of intellectual property rights, the management of scientific research funds, the confidentiality of information and the consolidation of these aspects with internal control system construction and risk management requirements. Moreover, with the development of the *Management System of CNBM Science and Technology Work* and the *CNBM Patent Management Measures*, the Group has strengthened the legal protection of the intellectual property rights ("IPR") of the Group and improved the Group's ability to manage IPR in research activities, production and business operations. During the Reporting Period, the Group did not receive any incidents of violations to the regulation and voluntary codes (including but not limited to products' and services' information and labels, marketing communications and property rights) related to the provision and the use of the Group's products and services which have had significant impacts on the Group.

As of December, 2017, the Group owned **4,686** effective patents, including **704** invention patents; the Sinoma Group owned **1,431** effective patents, including **508** invention patents; the Enlarged Group owned **6,117** effective patents, including **1,212** invention patents.



## 5.4 Privacy Protection

The Group attaches importance to protect the privacy of itself and its customers. The Group has implemented a strict confidentiality policy on the personal data of customers and it requires employees that possess confidential information to sign confidentiality agreements with the Group. For example, in order to further standardise the confidentiality of sales information, Jushi Group has formulated the *Implementation Measures for the Confidentiality of Sales Information*, which regulates the work of relevant personnel involved in sales information and implements the confidential management of customer data and sales information.

During the Reporting Period, there were no complaints that violated customer privacy in the Group.





# 06

## Contribution to Community





## Contribution to Community

The Group has established emergency response mechanisms in order to provide rapid disaster relief, civil defense and other public safety services. The Group also provides financial and welfare assistance for disaster affected areas, impoverished areas science, education, culture and hygiene businesses, welfare projects and environmental protection to support social development. In 2017, the Group's total donations amounted to RMB 15.4375 million, the Sinoma Group's total donations amounted to RMB 3.746 million, and the Enlarged Group's total donations amounted to RMB 19.1835 million.

Moreover, the Group encourages employees to participate in social welfare activities. The Group also provides guarantees and support for voluntary activities in aspects such as organisational structures, work mechanisms, scheduling, financial support, communication and liaisons. With the Communist Youth League at the core of the voluntary service system, the Group and its business segments have established several volunteer activity groups that have carried out a variety of voluntary activities, demonstrating the enthusiasm of participants and spreading happiness.

Group's total donations  
amounted to RMB  
**15.4375** million

Sinoma Group's total  
donations amounted to RMB  
**3.746** million



### Public welfare activity 1:

China United donated to the Hope Primary School of Yangling Village in Ningxia

In December, 2017, the staff of China United came to the CNBM Hope Primary School of Yangling Village and donated cotton coats, school uniforms, sports shoes, school bags, and school supplies to students and contributed to local education.





## Public welfare activity 2:

### South Material Company Limited of Xinyu, Jiangxi Province organised voluntary activities

South Material Company Limited of Xinyu, Jiangxi Province carried out voluntary activities for helping students, serving the people and provided compassionate donations. The female security teams of the company provided learning and material assistance to local orphans; the company's youth volunteer service team regularly conducted voluntary service activities for the people and the company organised donations for employees with difficulties.



## Public welfare activity 3:

### South Graphite Company Limited provided assistance to targeted poverty alleviation

South Graphite Company Limited actively responded to the national strategy of targeted poverty alleviation. It arranged special personnel and allocated special poverty alleviation funds to targeted poverty alleviation work in Hengjing Village, Tuqiao Town, Rucheng County and Chenzhou City. The company established poverty alleviation files for 218 people in 88 poverty-stricken households in the village and implemented accurate assistance. By the end of 2017, 42 households with a total of 120 people were taken out of poverty.







#### Public welfare activity 4:

The CNBM Tanzania corporates donated to the World AIDS Day

On December 5, 2017, the Group's subsidiaries in Tanzania jointly donated 10 million Tanzanian shillings to the Medical Committee of Dar es Salaam Government for AIDS prevention and disability relief.

#### Public welfare activity 5:

Qilianshan Cement participated in disaster relief

On August 7, 2017, Gansu Qilianshan Cement Group Company Limited ("Qilianshan Cement"), a subsidiary of Sinoma, organised a rescue team to rush to the disaster affected areas to participate in rescue after a debris flow disaster occurred in Wen County, Wudu County in Gansu. They also donated materials worth more than RMB 260,000 to the disaster-affected area.



#### Public welfare activity 6:

Tianshan Cement Kuche Company conducted poverty relief donation activities

On August 28, 2017, Tianshan Cement Kuche Company, a subsidiary of Sinoma, donated office facilities worth RMB 13,600 to the community of Tuanjie in Yaha Town, Kuche County, helping the local residents to be free from poverty.



#### Public welfare activity 7:

Sinoma Science & Technology (Suzhou) Technical Research Institute carried out environmental promotion activities

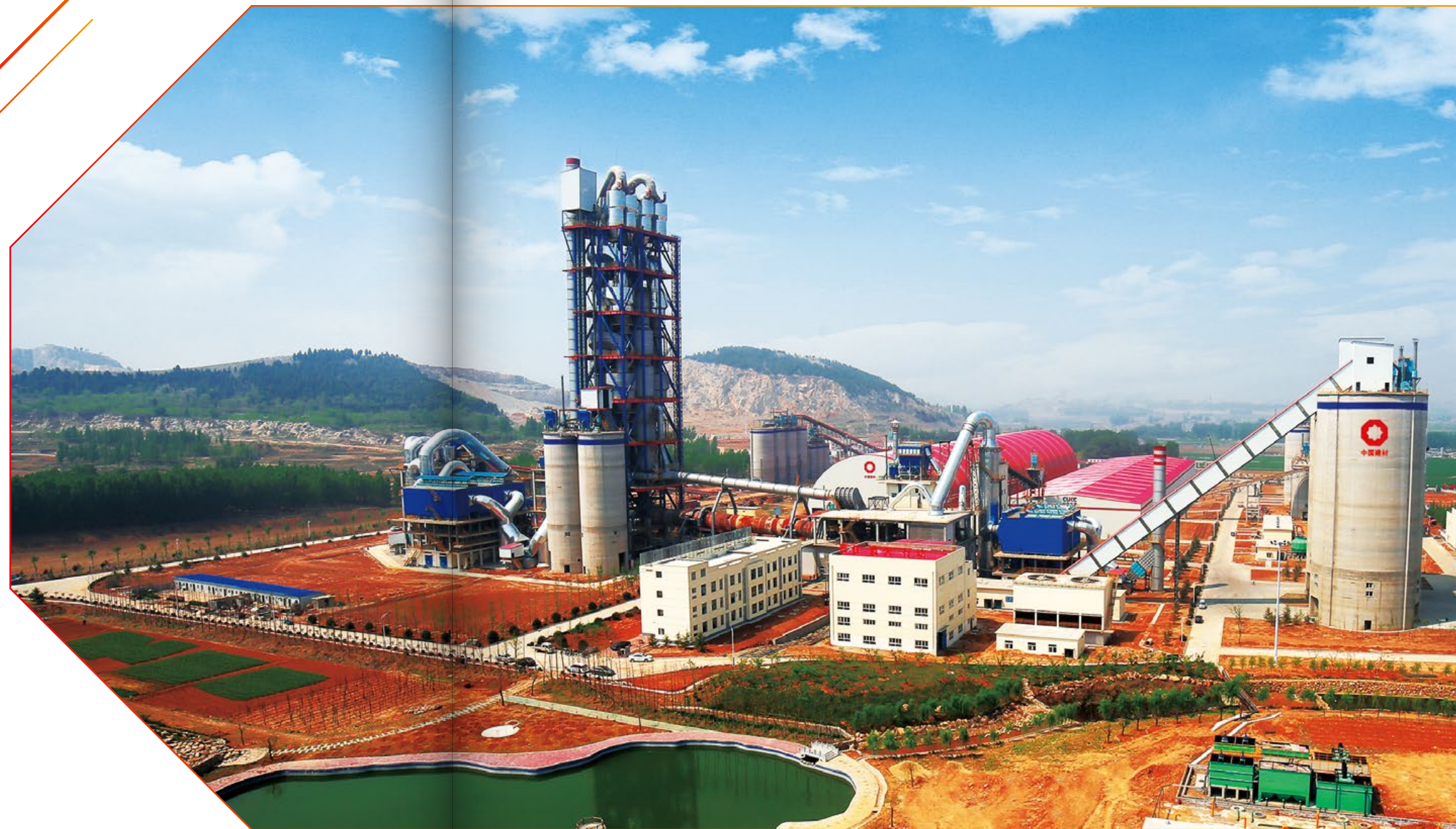
In order to raise public awareness of environmental protection, Sinoma Science & Technology (Suzhou) Technical Research Institute, a subsidiary of Sinoma, organised a walk for employees along Suzhou Moat on May 6, 2017, with the aim of promoting environmental protection knowledge.





# 07

## HKEX *Environmental, Social and Governance Reporting Guide Index*





HKEX *Environmental, Social and  
Governance Reporting Guide Index*

“Comply or explain” Provisions			Disclosure in this Report
A. Environmental			
Aspect A1: Emission	General Disclosure Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.		P20
	KPI A1.1	The types of emissions and respective emissions data.	P36-37
	KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P36-37
	KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P37
	KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P37
	KPI A1.5	Description of measures to mitigate emissions and results achieved.	P21-24
	KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	P25-28

“Comply or explain” Provisions			Disclosure in this Report
A. Environmental			
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc		P30-31
	KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P38-39
	KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P39
	KPI A2.3	Description of energy use efficiency initiatives and results achieved.	P28-33
	KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	P30
	KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced	P39
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impact on the environment and natural resources.		P35
	KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P35

“Comply or explain” Provisions		Disclosure in this Report
B. Social		
Employment and Labour Practices		
Aspect B1: Employ- ment	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, antidiscrimination, and other benefits and welfare.	P42-43
Aspect B2: Health and Safety	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	P44-46
Aspect B3: Develop- ment and Training	Policies on improving employees' knowledge and skills for discharging duties at work. Description of trai'ning activities.	P46-47
Aspect B4: Labour Standards	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	P42



“Comply or explain” Provisions		Disclosure in this Report
B. Social		
Operating Practices		
Aspect B5: Supply Chain Man- agement	Policies on managing environmental and social risks of the supply chain.	P50-51
Aspect B6: Product Re- sponsibility	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	P52-54
Aspect B7: Anti- corruption	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	P13
Community		
Aspect B8: Community Investment	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P56-63







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