



**CHINA TIANRUI GROUP CEMENT COMPANY LIMITED**

**中國天瑞集團水泥有限公司**

*(Incorporated in the Cayman Islands with limited liability)*

**(Stock code: 1252)**

**Environmental, Social,  
and Governance Report  
2020**

**CHINA TIANRUI GROUP CEMENT COMPANY LIMITED**  
ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT 2020

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## **1 ABOUT THE COMPANY**

The main scope of business of China Tianrui Group Cement Co. Limited (Stock Code: 01252) (“the Company” and, with its subsidiaries, collectively referred to as “the Group”) is production, sales and export of cement, clinker, fly ash, slag powder, concrete, aggregates and other cement products. The Group has 20 clinker production lines and 58 cement grinders for the year ended 31 December 2020. The annual production capacity of clinker, cement and aggregates is approximately 28.4 million tonnes, 56.4 million tonnes and 21.2 million tonnes respectively.

The Group has established internationally recognized policies and management framework to achieve control of environmental responsibility-driven and quality-driven operations. The Group has been committed to a sustainable business that balances important environmental, social and governance (ESG) issues through comprehensive frameworks and regular reviews of key performance indicators.

## **2 ABOUT THIS REPORT**

### **2.1 BASIS OF PREPARATION OF REPORT AND SCOPE OF REPORTING**

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This report is prepared in accordance with Appendix 27 *Environmental, Social and Governance Reporting Guide of the Rules Governing the Listing of Securities of the Stock Exchange of Hong Kong Limited*, and make references to standards issued by China Cement Association, T/CCAS 002-2018 *Guidelines for Cement Corporate Social Responsibility Report Writing* and T/CCAS 001-2018 *Cement Corporate Social Responsibility Guidelines*, and is based on the principle of materiality, quantitative, balance and consistency.

**Materiality:** In order to identify and assess the material concerns of our stakeholders, the Group determines the factors that have material impacts on our sustainable growth through a number of stakeholder engagement activities.

**Quantitative:** The quantitative principle applies to all information in this Report. All performance indicators are provided with clear definition and unit measurement is clearly stated.

**Balance:** The source of information and cases of this Report was mainly derived from the Company’s statistical reports obtained in 2020, relevant documents and internal communication documents. The Group undertakes that this Report does not contain any false information or misleading statement, and accept responsibility for the contents of this Report as to its authenticity, accuracy and completeness.

**Consistency:** We prepared this Report in accordance with the Guidelines. Should there be any changes in the future that may affect the comparison with previous reports, footnotes will be added by the Group in the corresponding sections of the Report.

This report has fulfilled the “Comply or Explain” requirements set out in the reporting guide. It has also provided the performance of key performance indicators in regard to the Group’s social aspect, following the “recommended disclosure” requirements in the guidelines.

This report covers environmental, social and governance related activities from 1 January 2020 to 31 December 2020.

This ESG report covers the main production areas of the Group that include its cement, clinker and aggregates production businesses in Henan, Liaoning, Tianjin and Anhui Province, among them, Henan and Liaoning account for the largest proportions.

## **2.2 CONTACT INFORMATION**

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The Group welcomes comments and suggestions related to the report. Please feel free to send us your feedback to [larryli@ctr cement.com](mailto:larryli@ctr cement.com) or [karencmng@ctr cement.com](mailto:karencmng@ctr cement.com).

### **3 MESSAGE FROM THE BOARD OF DIRECTORS**

We are pleased to share the Group's significant achievements in promoting sustainable development in this 2020 Environmental, Social and Governance (ESG) report.

The Board assumes the overall responsibility for the sustainable development, and leads the Group to fulfil social responsibility. We will also ensure its development direction is in line with the stakeholders' expectations by ongoing sustainability risk management and stakeholder communication.

In 2020, the economy of the PRC suffered severe impact from COVID-19. With the gradual and effective prevention and control of the pandemic, operation and production resumption and economic stimulus policies promulgated in different regions, the economic data gradually showed a rising trend. The cement industry continued to implement a series of policies such as the government's supply-side reform and environmental protection, and to take measures such as energy conservation and emission reduction, off-peak production and comprehensive rectification of mines. The self-discipline effect of the industry was significantly improved. During the year, the Group proactively made plans and reasonable layouts, and rigorously implement alternative production arrangements as well as proactively optimize product structure and promote the innovative efficiency enhancement activities of digitalization and intelligentization, while maintaining good pandemic control and prevention, which paved the way for the Group to mitigated the effect of the pandemic to a certain degree, and at the same time the Group achieved a significant results in energy conservation and reduce in consumption as well as environmental protection.

The Group attaches great importance to corporate social responsibility and is committed to promoting business development and bringing greater returns to stakeholders. The Group endeavored to fulfill its corporate social responsibility during the year. The management focused on staff professional skills training and team building, and won numerous provincial and municipal quality awards. For example, the Group was awarded the "Concrete Glorious Cup" in the seventeenth national large-scale comparison on cement chemical analysis by National Cement Quality Supervision and Inspection Center, and "Hi-tech Enterprise" accredited by the Leading Group of State High and New Enterprises Accreditation. The Group is committed to fulfilling its own environmental responsibilities, continuously optimizing production processes, creating smart manufacturing demonstration enterprises, saving water and energy, reducing emissions, and doing a good job in environmental pollution prevention and control, and completing quality, environment, energy, occupational health and safety. The Group has obtained the "Five in One" Certification. Many branches have also obtained a number of provincial and municipal Green Mines, Green Factory, Green Supply Chain and other honors. We participated in public welfare activities such as student assistance and poverty alleviation, community volunteer services, and created a stable and harmonious community environment.

The purpose of this report is to disclose the Group's environmental, social and governance management methods and the overall performance achieved by each measure. We strive to play an important role in the circular economy, sparing no effort in the sustainable management of raw materials and by-products to continue to provide high quality products. We would like to thank all departments and teams for their dedication and contribution to the Group's sustainable development.

**4 STAKEHOLDER PARTICIPATION**

The Group firmly believes that understanding stakeholders’ expectations is critical to the direction of company development. It values the comments and feedback of each stakeholder. The Group has carried out intermittent contact with stakeholders through various channels, including clients, employees, government organizations and community organizations, with a view to building consensus on corporate social responsibility. The Group proposed a corporate social responsibility framework that covers four main areas, namely the **environment, product responsibility, manpower** and **society**, for the sustainable development goals of itself and its stakeholders based on a mutual understanding.

**5 OVERVIEW OF THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE PERFORMANCE**

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- Environment**
- Obtained the Environmental Management and Energy Management System Certification
  - Conducted carbon emissions accounting
  - Used denitrification system and high quality coal with low sulfur content to reduce the discharge of pollutants
  - Installed electrostatic bag composite dust remover to increase dust removal efficiency in exhaust
  - Used enclosed belt conveyors and storage sheds and installed vehicle cleaning equipment and dust collectors in loading lane to reduce dust
  - Used advanced NSP technology and waste heat recovery system in production line to increase energy efficiency during production
  - Installed water recycling system, implemented the recycling of water resources at the production lines to achieve zero industrial wastewater discharge
  - Used industrial by-products of other industries as production resources to build a cross-industry circular economy industry chain
  - Many branches have won many provincial and municipal Green Mines, Green Factories, Green Supply Chain and other honours
- 

- Product Responsibility**
- Obtained Quality Management System Certification
  - Self-built laboratory obtained Cement Industry Laboratory Certification
  - Regularly allocated testing organizations at provincial-level or above to test product quality
  - Committed to completing investigations regarding complaints received by the relevant department within 24 hours. Held supplier exchange conferences to promote communication between parties
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- Manpower**
- Valued multiculturalism, advocated gender equality
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	<ul style="list-style-type: none"><li>• Obtained Occupational Health and Safety Management System Certification</li><li>• Organized monthly comprehensive safety inspections</li><li>• Hired a third-party agency to conduct occupational health status assessments every three years</li><li>• Provided employees with personal protection equipment</li></ul>
<b>Society</b>	<ul style="list-style-type: none"><li>• Published the whistle-blowing telephone number, e-mail address and instant messenger number to ensure the confidentiality of reporting of incidents</li><li>• Set up a prevention education division to educate the staff by using corruption and bribery cases</li><li>• Established a work contact mechanism with the local auditing and judiciary department</li><li>• Actively participated in volunteer tree planting activities and visits to underprivileged and needy families</li><li>• Actively participated in charitable projects such as local road repairs and building water conservancy projects</li></ul>

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## **6 ENVIRONMENT**

### **6.1 EMISSION CONTROL MANAGEMENT**

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The cement industry plays its leading role in enhancing the environmental quality. As a member of the cement industry, the Group phased out old production approaches and continuously adopts new management approaches and new supporting systems to improve environmental protection quality, in response to the attention of our stakeholders regarding the emission performance.

The clinker production process in the cement industry is one of the main sources of atmospheric pollutant emission. Burning coal in the kiln is the main source that causes atmospheric pollutant emissions. Emissions include contaminants such as nitrogen oxide and suspended particulate matter. The Group has always adhered to high environmental protection standards by adopting various measures to reconstruct the production flows as below:

- High quality coal with low sulfur content were used to reduce sulfide production;
- Electrostatic bag composite dust removers were installed to increase exhaust air dust removal efficiency;
- Used denitrification systems and introduced modern techniques to improve the "ammonia-free denitrification" of rotary kilns to reduce nitrogen oxide;
- Enclosed belt conveyors and sealed ingredients scale were used;
- Retrofitted fast curtain doors and set up enclosed sheds;
- hardened roads and retrofitted sprinklers devices;
- Retrofitted dust collectors in loading lane; and
- Installed factory vehicle cleaning equipment to reduce dust.

The particulate matter concentration of all production lines of the Group are below the threshold of 10mg. The Group has installed flue gas treatment facilities such as denitrification systems and bag composite dust removers for all clinker production lines. The emission concentrations

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of sulfur dioxide, nitrogen oxides and particulate matter have been lower than the national pollutant emissions standard limits. The Group has also set up a central control room to track and inspect production instantaneously to ensure emission levels meet the requirements.

During the reporting period, the Group has complied with laws and regulations related to particulate matter, nitrogen oxide and sulfur dioxide emissions, such as:

- Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution;
- Emission Standard of Air Pollutants for Cement Industry;
- Standard for Pollution Control on Co-processing of Solid Wastes in Cement Kiln;
- Measures for the Administration of Automatic Monitoring of Pollution Sources;
- Specifications and Test Procedures for Continuous Emission Monitoring Systems of Flue Gas Emitted from Stationary Sources.

Overview of Atmospheric Pollutant Emissions	
Pollutant Emissions <sup>1</sup>	Total Amount
Nitrogen oxide (Tonnes)	6,814
Particulate matter (Tonnes)	1,280



**Check and Acceptance of Yuzhou Branch's Implementation of Clean Production by Xuchang Ecological Environment Protection Bureau**

<sup>1</sup> Pollutant emissions amount is based on the actual measurement of the on-site monitoring system at the factory.



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Burning coal in the kiln directly and other energy consuming equipment generates direct and indirect greenhouse gas emissions respectively. As such, the Group has taken measures to reduce carbon emissions, such as using calcined raw materials to reduce the annual coal consumption. The Group has identified carbon emission sources according to the requirements of the national and provincial development and reform commission policy and subcontractors' verification agencies. The Group has also calculated the carbon emission amount according to the relevant carbon emission policy and calculating method. Quantifiable carbon reduction goals have been developed and have been carried out during the production process. The effectiveness of carbon reduction would be evaluated regularly whereby problems and imperfections would be analysed and corrected. For example, the subsidiary, Guangshan branch has set a goal of reducing carbon dioxide emissions per ton of clinker by 5%.

Overview of Greenhouse Gas Emissions	
Greenhouse Gas Emissions <sup>2</sup>	Total Amount
Scope 1: Direct emissions (from production line) (Tonnes of carbon dioxide equivalent)	22,334,646
Scope 2: Indirect emissions (from electricity consumption) (Tonnes of carbon dioxide equivalent)	1,142,005
Total amount of greenhouse gas emissions (Tonnes of carbon dioxide equivalent)	23,476,651
Intensity of greenhouse gas emissions (Tonnes of carbon dioxide equivalent/ tonnes of production)	0.53

The Group has strongly adhered to the principle of recycling to handle waste materials generated during the production process, both hazardous and non-hazardous waste would be identified and segregated. The Xiaoxian branch company set hazardous waste reduction targets to reduce the amount of hazardous waste produced by 1% from previous years. Liaoyang Branch is committed to taking diversified measures to reduce hazardous waste, and has set a goal to reduce the amount of hazardous waste generated from previous years by 5%.

Hazardous waste generated at the production site mainly came from chemicals used for machinery maintenance. Under certain circumstances, chemical waste produced from large production processes would be used again as lubricating material for on-site equipment and machinery. Other chemical wastes that could not be reused would be appropriately stored and handled according to local laws and regulations. The Group classified waste rock and soil from mining and sold to construction sites to be reused. Recyclable waste material such as steel scrap produced from equipment replacement would be regularly collected and handled by recycling companies.

The relevant laws and regulations include:

- Law of the People's Republic of China on the Prevention and Control of Environmental Pollution of Solid Waste;

<sup>2</sup> Being calculated according to the Greenhouse Gas Emissions Calculation Method and Reporting Guide for China's Cement Production Companies (Trial) and based on grid emission factor. According to historical data, the greenhouse gas emissions caused by fuel and gas consumption only accounted for about 0.1% of the total amount of Scope 1 and Scope 2, which were not included in the data in this table based on the principle of materiality.

- Standard for Pollution on the Storage and Disposal Site for General Industrial Solid Wastes

Waste Data Overview	
Hazardous waste (Tonnes)	3.45

## 6.2 USE OF RESOURCES

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The cement industry plays a key role in building a cross-sector green industry chain. As the Group serves as vanguard in protecting the environment, it continually improves its own environmental protection performance, makes good use of its unique nature of the industry and uses industrial by-products and wastes from other industries for production.

The Group used its production line to absorb fly ash from power plants, slag from steel plants, sulfuric acid slag and industrial by-products such as limestone tailings from chemical plants to use as production resources. The Group has set up factories near the main raw material, limestone, mining source and sales channels to reduce resources used for transportation of raw materials and finished products. The Group obtained necessary licenses for limestone mining, and satisfied the mining conditions and procedural requirements of paying mine resource compensation and taxes. This allowed the Group to carry out mining work in a manner that was compliant to the existing laws and regulations in the PRC.

All clinker production lines have been equipped with advanced NSP technology to reduce energy consumption and carbon pollutant emissions. The Group has equipped most production lines with residual heat recovery system, so that the heat generated from the clinker production process would be captured and recycled through the heat recovery system for cement production, to reduce the overall energy needed to operate and further reduce the raw materials used during production. Moreover, the Group has saved a substantial amount on cost and contributed to a cleaner production by increasing efficiency and reducing coal consumption, to improve its competitiveness. During the year, the addition of variable-frequency drives for the loop fan motor in Yong'an Branch led to 10% of reduction in electricity consumption. Yuzhou branch and Xiaoxian Branch has set a quantifiable targets to reduce the consolidated electricity consumption per ton of clinker by half unit of electricity, electricity consumption of cement processed by half unit of electricity and the raw coal consumption per ton of clinker by one kilogram. Liaota Branch has set a power-saving target targeted to save 420,000 kWh. During the year, 1 million kWh of reduction in electricity consumption compared to last year which achieved the power saving target. Liaoyang Branch has set a power saving target targeted to save 500,000 kWh. During the year, more than 1 million kWh of reduction in electricity consumption compared to last year.

During the reporting period, the main sources of energy consumption was from coal consumption and electricity usage during the production process. The table below shows the energy consumption of the Group during the reporting period.

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<b>Overview of Energy Consumption of the Group<sup>3</sup></b>	
<b>Direct energy</b>	
Coal (MWh)	25,546,940
<b>Indirect energy</b>	
Electricity (MWh)	1,890,197
Total energy consumption (MWh)	27,437,137
Energy intensity (MWh/ tonnes production)	0.62

As freshwater is extremely valuable, the Group has adopted water saving management policies. To boost the water consumption efficiency, our Group has taken the following measures:

- Installed water recycling systems, water resources at the production line would be treated and reused;
- Recycled water was used as cooling agent for production facilities;
- Discharged water treated by sewage treatment station was used for irrigation; and
- Recycled water was used for watering and dust control.

The Group achieved zero industrial wastewater discharge so as to reducing water consumption. For sewage that must be discharged, the Group has strictly adhered to the requirements on the sewage discharge permit. In order to mark the important dates such as World Water Day, China Water Week and Urban Water Conservation Publicity Week in 2020 and promote habits of saving water in daily life, continued efforts would be made to foster a “water saving”, “water loving” and “water protecting” atmosphere in the community. Xiaoxian Branch aimed to reduce water consumption by 50 m<sup>3</sup> per year. Liaota Branch aimed to reduce the average water consumption of employees from 19 m<sup>3</sup> to 17 m<sup>3</sup>. Average consumption of employees now amounted to 16 m<sup>3</sup> after a series of back-office water-saving measures, such as reuse of greywater and installation of water-saving devices have been carried out, leading to the achievement of water saving target. Liaoyang Branch aimed to reduce the per capita water consumption from 40 m<sup>3</sup> to 38 m<sup>3</sup>, and finally reduced the per capita consumption to 37 m<sup>3</sup> through a series of water-saving measures.

<b>Overview of Water Consumption</b>	
Total water consumption (m <sup>3</sup> )	867,001
Intensity (‘000 m <sup>3</sup> /Million tonnes production)	19

During the reporting period, the amount of material used for product packaging is as follows;

<b>Overview of Amount of Packaging Material Used</b>	
Total amount of packaging material (tonnes)	3,184
Intensity of packaging material usage (‘000 tonnes/Million tonnes production)	0.07

<sup>3</sup> According to historical data, fuel and gas consumption accounted for only about 0.1% of the total energy consumption, which is not included in the data in this table based on the principle of importance.

### **6.3 ENVIRONMENT AND NATURAL RESOURCES**

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The Group is committed to improving its environmental performance within the industry through various aspects. It has promoted environmental protection awareness with software, upgraded hardware to improve production efficiency. The Group and all subsidiaries of the Group have passed the four-in-one certifications for quality, environment, occupational health and safety management systems and products. All clinker production lines have passed the Energy Management System Certification.

During the mining process, the Group vigorously carried out mine restoration and greening work, which effectively reduced the soil erosion in and around the mine. The Group actively carried out the construction and planting of green mines, that started to yield results and being included in the National Green Mine List by the Ministry of Natural Resources.

The Group has established coal, energy, water and gas conservation management policies and measures, and have set incentives to encourage repair and reuse, and to conserve energy by technological transformation. The Group has placed great importance on promoting and educating employees on environmental protection in regard to daily work tasks and production by providing seminars and training on environmental protection periodically.

### **6.4 CLIMATE CHANGE**

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Global warming is an indisputable fact. The Group is concerned about the implication of climate change and it has already identified and assessed the risks of it. The Group has formulated measures to mitigate the impact on the operations of the Company and to protect its employees, which include ensuring the infrastructure of the Company having a design capacity to withstand extreme weather and strictly following the relevant extreme weather guidelines issued by the government. Various measures such as extreme weather warning, emergency drills and strengthening plant facilities. Desilting of canals used as water evacuation are carried out and emergency supplies for extreme weather are stocked by all working units regularly.

## **7 PRODUCT RESPONSIBILITY**

### **7.1 SUPPLY CHAIN MANAGEMENT**

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The Group makes good use of its own industrial characteristics to aid various industries in improving their waste material management. Some materials required for production are derived from industrial by-products and waste. This sustainable procurement policy effectively solves corporate social responsibility problems in the supply chain.

The Group's management committee, legal affairs department, control department, finance department, audit department and other professional management departments supervise, inspect and assess all material bidding of the Group. The control division of the Group is the main inspection body during the bidding procedures and is responsible for the Group's inspection work. During the procurement process, the Group would make supplier selections through bidding procedures based on factors such as quality, pricing, delivery time, service quality, reliability, the geographical location, environmental and social risks. A closer proximity to the Group's operational site would enable better control on delivery time and reduce the environmental impacts caused by transportation, so suppliers who located close to

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the production site would be considered with first priority after considering a wide range of matters.

The Group would regularly evaluate suppliers by assessing the quality, timeliness, after-sale service and other considerations such as suppliers' track record of compliance with relevant environmental and social laws. The Group would also regularly host networking events for suppliers to improve relations and build trust with each party, strengthen partnerships and minimize risks caused by the supply chain.

Number of suppliers by geographical region	
Mainland China	1,507
Others	0

### 7.2 QUALITY AND COMPLIANCE MANAGEMENT

The Group produced and sold high-quality products for many years. It commits to providing high-level quality and service, and has earned the "customer first and service first" reputation, and always adheres to a unified, open and fair publicity strategy. The Group supports benign competition, it ensures that all aspects from raw material procurement to product sales are fair and lawful, and says no to monopoly.

The Group's quality control department is responsible for monitoring the production process and inspecting the output quality of the cement products. The quality control department ensures the products have met all relevant laws and customer requirements through inspecting suppliers to reviewing the requirements on the quality and health and safety of the products. Our laboratory has been awarded the Cement Enterprise Laboratory Certificate and would test the quality safety of the products and raw materials according to various requirements. The finished products were inspected and tested in accordance to a variety of national standards, including compressive strength and cement chemical analysis. The Group has also allocated testing organizations at provincial-level or above to regularly carry out product quality tests to verify the accuracy of the test results performed by the laboratory, and to ensure that the product inspection information is reliable and effective. The Group's recall procedure requires that, once a product fails to meet standard, it must be recalled and the investigation will be carried out with a view to improving quality. The Group has strictly controlled the quality and remained committed to excellent after-sales service. Based on the ISO 9001 quality management international standards, the Group has established a comprehensive framework to manage quality of the products, and has obtained the Quality Management System Certification.

The Group has sought to improve the quality of its products and services through regular on-site visits, information exchange on the Internet, communicating with customers through telephone enquiries and collecting customer feedback. As an active approach to quality management, customer satisfactory surveys were initiated to help the Group improve the quality of its products and services. Contact method for complaints have been posted at the place of sales, online promotion platforms, product manuals and product packaging labels. The Group has established emergency response plans for customer complaints at all levels, and has set up a customer service hotline. Upon receiving complaints, the Group would immediately arrange for professionals to handle complaints and follow-up. Responsible departments would complete the investigation within 24 hours and convene with relevant departments to consult and resolve

the issues. Responsible departments would collect customer feedback on a monthly basis, consolidate and analyze the information and follow up with any complaints.

The Group's *Sales Customer Management Method* explains the content of collecting customers' personal information and details the departments that have the right to collect and use customers' personal information. The level of customers' information given to employees would correspond to the management level of the employee. Customers' personal information would be used only for business development, internal analysis and customer relationship contact by business related personnel and is strictly confidential.

The Group attaches great importance to the maintenance and protection of intellectual property rights. All licensed products are purchased from distributors authorized by the copyright owners. The Group promises not to purchase or use pirated products. The Group has a dedicated department responsible for monitoring intellectual property and customer information and has ensured that the Group abides to policies and laws related to information confidentiality and intellectual property. During the reporting period, the Group recorded no recalled products relating to health and safety issues and no substantiated complaints.

## **8 MANPOWER**

### **8.1 EMPLOYMENT AND RESPECT FOR LABOUR RIGHTS**

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The Group's employment culture focused on enhancing employees' work satisfaction and the Group's competitiveness in the long run by creating a respectful and diverse work environment. The Group has advocated a workplace that is inclusive and fair to all employees and the recruitment process focused on hiring suitable talents. It respects for gender, ethnicity, age, religion and other differences. The Group believes that diversity has effectively promoted innovative ideas and experience sharing within the company.

The Group's recruitment and employment procedures strictly complied with local related laws and regulations to prevent child and forced labour within the Group's operational boundaries. The Human Resources Department had been responsible for checking the age of applicants, overseeing employment issues, performing background screening and regular checking. Feedback collection boxes are provided in all working units that employees can express their real-name or anonymous opinions, and the meeting would be held in time for research, processing and reply.

The Group would initiate the salary adjustment mechanism according to external and internal factors that affect the actual value of the employees' salary, individual performance and the Group's overall financial results as well as the market standards and other companies within the cement industry, for retaining, recruiting and motivating talented people. The Group's various managerial positions would be selected by external recruitment or internal selection. In the event that a position is available due to an addition of a role, a demotion or a resignation, an internal selection would typically be carried out initially before performing an external recruitment.

The Group focused on providing employees with fair compensation and remuneration, reasonable working hours and rest periods, career development opportunities and a friendly working environment. To enhance good long-term career development for employees, a variety of employment training and external training opportunities were provided. The Group had also

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paid endowment insurance, medical insurance, work injury insurance, unemployment insurance, maternity insurance and housing provident funds for its employees.

To strengthen employees' sense of belonging and honor, in addition to salary, the Group would provide certain allowances and benefits to the employees based on the Group's financial situation, social responsibility and social customs. These allowance and benefits included on-the-job allowance, summer heat subsidy, washing subsidy, work environment subsidy, holiday welfare, social insurance and paid vacations. During Mid-Autumn Festival and Spring Festival, the Group would provide holiday subsidies in cash or equivalent to all employees. The Group had organized a number of activities for employees to promote company culture and employees' interactions. Team lunches, cooking classes, recreational sports, cultural activities and family gatherings were arranged to boost work-life balance and the physical and mental well-being of employees.

The Group has strictly complied with relevant employment laws including the *Labour Law of the People's Republic of China*, and there have been no cases of prosecution for violation of the relevant employment laws during the period.

<b>Total number of employees at the end of the period</b>	
<b>By gender</b>	
Male	5,734
Female	2,053
<b>By employment type</b>	
Full-time	7,787
Part-time	0
<b>By age group</b>	
Age 18-30	945
Age 31-45	3,565
Age 46-60	3,111
Age 61 and above	166
<b>By location</b>	
Mainland China	7,787
Others	0

<b>Employee turnover rate</b>	
<b>By gender</b>	
Male	12%
Female	13%
<b>By age group</b>	
Age 18-30	60%
Age 31-45	7%
Age 46-60	5%
Age 61 and above	14%
<b>By location</b>	
Mainland China	13%
Others	Not applicable



**Talent Show to Celebrate Lunar New Year**

**8.2 SAFETY AND HEALTH**

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The Group fulfills the responsibility of maintaining a safe working environment and promotes safety-first culture. The Group has established an occupational health and safety system and has obtained relevant certifications. The Group has implemented the health and safety performance management process to create a healthy and safe working environment for employees, so as to benefit to the long-term development of the Group.

The production unit would put up a dangerous operation notification card in high-risk areas of the workplace to identify and notify employees of the high-risk tasks in the employees’ work procedures. For example, warning signs on noise and dust would be placed to remind employees of operations and equipment that could eliminate danger. The production unit has organized monthly comprehensive safety inspections and safety issues would be rectified within a certain time limit. To ensure employees’ health, the Group would carry out regular occupational disease examination to identify potential problems early. Based on relevant national occupational health laws and regulations, the Group has hired a third-party organization to carry out occupational health status assessments every three years, and conduct occupational hazard testing work every year.





#### **Annual occupational health examination**

The Group has a specialized unit that is responsible for occupational health and safety matters. The Group would regularly provide occupational health and safety educational training to raise employee awareness and strengthen employee awareness on operational procedures to minimize the risk of accidents and injuries. The Group has provided protection equipment such as hard hats, protective suits, construction boots for employees. Safety rope and other equipment and tools have been provided for work at high places. In the summer, heatstroke prevention, cooling medication and other first aid supplies would be given.

The Group has regularly organized a variety of safety education activities, such as “Safe Production Month” and “Fire Drill” to effectively enhance employees work safety and fire rescue awareness, in order to further strengthen employees' safety awareness.



**Treatment of Occupational Diseases Publicity Week**

COVID-19 has been spreading all around the world during the year. The Group stepped up action against threats of the spread of virus for the resumption of work and production. General emergency responses for COVID-19 mainly include:

- educating employees about the importance of good hygiene practices, encouraging employees to keep office and living place sanitary;
- controlling the flow of visitors, checking the health condition of visitor, all employees having to measure their body temporary before going to work and getting off work, any person being suspected of acute infectious diseases will be put in quarantine; providing temperature checks at the entrance and exit to measure the body temperature of person entering and leaving the Company, especially to check visitors' body temperature, to provide them masks, and to leave their personal information;
- cleaning of working areas, staff quarters and meeting rooms, and opening doors and windows for natural ventilation at regular time to improve indoor air quality;
- strengthening the hygiene management in canteens, carrying out shifting meal-taking system, providing hand-washing facilities at the entry area, all service personnel must wear masks, utensils must be sanitized with disinfection cabinet, and the cupboards for staff to store utensils will be cleaned and sanitized regularly; and
- restroom will be disinfected and kept ventilated after use, keeping hand-washing basins and hand dryers clean, refilling hand sanitizer to strengthen sanitation management; keeping restroom clean; cleaning frequently contacted facilities everyday, such as front desks, desks, door handles, restroom, fixtures, toilets, mobile phone, computers and tables; cleaning any surfaces that may be contaminated with blood, body fluids and secretions or excrement.

The Group has complied with relevant safety laws and regulations such as the *Law of the People's Republic of China on Work Safety and Law on the Prevention and Treatment of Occupational Diseases*. There have been no cases of prosecution due to violation of laws related

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to occupational safety during this period, thanks to trainings and strict compliance with health and safety laws and regulations.



**Emergency Response drill**

**8.3 EDUCATION, TRAINING AND CAREER DEVELOPMENT**

The growth of a corporation is attributed to the employee’s vocational development. Through diverse technical and managerial training courses, the Group focused on developing employees’ capabilities and provided training covering all areas of work and extensive career development programs.

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Newly hired employees would attend pre-job training organized by the hiring unit regarding introduction of the Group and associated units, company culture, management system, employee regulations, labour safety, policies, and job responsibilities. Training programs included direct purchase supervisor training, 5-in-1 comprehensive system training on product quality, environment, energy, occupational health and safety and product certification, as well as official document and reporting method training.

All employees at managerial level would have to provide on-the-job training, guidance, job skills and business quality to their subordinates. Managers would make reasonable arrangement on the training content and time, and to assist and supervise subordinates to share and apply their training knowledge and skills in practical work. The Group's human resources strategy focused on identifying and developing high standard talents, and as such, managers would assess employee performance and potential based on the Group's standards. The Group has also encouraged and supported employees to attend various academic training and would subsidize eligible applications.

	<u>Percentage of employees that attended training</u>	<u>Average number of training hours per employee</u>
<b><u>By gender</u></b>		
Male	100%	1.7
Female	100%	2.0
<b><u>By employment category</u></b>		
Senior management	100%	1.9
Middle management	100%	2.8
Supervisor	100%	2.0
General staff	99%	1.7

## 9 SOCIETY

### 9.1 ETHICS, INTEGRITY AND ANTI-CORRUPTION

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The Group upholds its moral and integrity, and considers that is the key to winning trust and success. Therefore, it has established anti-corruption policies to monitor business operations and prevent bribery and corruption. An internal case investigation division has been set up to review all reports and set punishments based on rules and regulations. By publishing a report phone number, e-mail and WeChat number, the Group has also set up a reporting policy that would allow employees to report any possible corruption cases internally through confidential and comfortable reporting channels.

The Group has developed a code of conduct for the employees, which specifies various job behaviours and anti-corruption and bribery work practices. Employees are not allowed to receive gifts from related parties. Gifts allowed to be accepted would be submitted to the relevant department by the unit. The Group would appoint professional personnel to set up a unit specialized in audit and supervision whereby the supervisor would be appointed to be responsible for internal review. The Group has established a working relationship mechanism with local auditing and judicial departments to observe and report crimes like bribery, extortion, fraud and money laundering. The Group has hired independent non-executive directors to supervise the company's operations.

The Group has strictly complied with relevant anti-corruption and bribery laws, and there have been no cases of prosecution due to violation of *Regulations of the People's Republic of China for Suppression of Corruption* and other relevant laws.

**9.2 COMMUNITY PARTICIPATION**

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While enhancing business operations, the Group endeavors to give back to the society, assume social responsibility, and strive to be a good corporate citizen, extending care to the community, thereby enabling the business to develop better. With a vision to create a stable and harmonious community, the Group actively participated in public welfare activities and work to support the underprivileged. During the year, with mutual support among employees, they were arranged to take part in the Environmental Protection Knowledge Competition organized by the the Xiaoxian Ecology and Environment Bureau to make donations to the needy university students, and sent greetings to the children on the International Children's Day.



**Volunteer to Plant Trees**



**The Activities "Cooling in Summer"**

All units of the Group provided strong support to relevant organizations of the local streets, communities and government departments in arranging employment, tax payment and poverty relief work. They also actively participated in public welfare activities such as local road repairs and water engineering projects, and have established good partnership relations with relevant departments and organizations. More than 1,200 hours and 600 thousand RMB have been dedicated to volunteer work during the period.

## 10 AWARDS AND RECOGNITION

<b>Award / achievement name</b>	<b>Issuing authority</b>
Acceptance of Clean Production	Xuchang Ecological Environment Protection Bureau
Top 10 Industrial Enterprises in Yuzhou	Yuzhou Municipal People's Government
Granted A Donation Certificate for Donating 30,000 to "Special Donation for COVID-19 Prevention and Control"	Red Cross of Chuanhui District
Performance Leading Enterprise	Provincial Department of Ecological Environment
Zhengzhou Transformation and Innovation Outstanding Enterprise	Zhengzhou Enterprise Federation, Zhengzhou Entrepreneurs Association, Zhengzhou Industrial Economy Federation
5 Henan Building Materials Industry Technological Innovation Awards of "Kang Ning Cup": 2 first prizes, 1 second prize, 2 third prizes	Henan Provincial Committee of Machinery, Metallurgy and Building Materials Industry, Henan Building Materials Industry Association
Respect for Teachers and Teaching	Xuanhua Town Committee of Chinese Communist Party and People's Government of Xuanhua Town
Performance Rating Class A Company	Department of Ecology and Environment of Henan Province
Selected Company as Energy Efficient Leader in Key Energy-using Industry 2020	Energy Conservation and Comprehensive Utilization Department of Ministry of Industry and Information Technology
Provincial Water-Saving Enterprise	Henan Water Conservancy Department, Department of Industry and Information Technology of Henan Province
Qualification of Engineering Technology Research Center in Henan Province 2020	Henan Provincial Department of Science and Technology
Second Batch of New and High Technology Enterprises in Henan Provinces 2020	National Office of Leading Group for Administration of Hi-tech Enterprise Recognition
Enterprise with Sound Behaviours under AAA Standardization	China Association for Standardization, China Quality Mark Certification Group
Leading Enterprise	Department of Ecology and Environment of Henan Province
Liaota Company Won the Title of "Liaoyang Enterprise Technology Center"	Jointly Presented by Liaoyang City Industry and Information Technology Bureau, Liaoyang Municipal Finance Bureau, Liaoyang Tax Bureau of the State Administration of Taxation
Liaota Company Won the Honour of International Workers' Day Labour Award	Liaoyang Federation of Trade Unions

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Award / achievement name	Issuing authority
Liaoyang Municipal Intermediate People's Court Sets up Service Counter at Liaota Company	Liaoyang Municipal Intermediate People's Court
Liaota Company Successfully Completed the Renewal of the Discharge Permit	Administrative Approval Bureau of Liaoyang
Liaota Company Won Prize of the 17th National Comparison of Cement Quality Index Inspections	National Cement Quality Supervision and Inspection Center
Certificate with Honours	Xinyang Red Cross
Adjustment Measures for Abnormal Vibration of Raw Material Roller Press	The Magazine China Cement
Liang Shangqiu City Park Tax Advanced Enterprise	Shangqiu Liang Park District of Chinese Communist Party, People's Government of Liangyuan District
Pingdingshan City International Workers' Day Labour Award	Workers General Union of Pingdingshan City
Excellent Enterprise in Safe Production	People's Government of Ruzhou City
Ruzhou City Leading Excellent Enterprise	People's Government of Ruzhou City
Ruzhou Advanced Enterprise for Tax Contribution	People's Government of Ruzhou City
Smart factory	Henan Provincial Department of Industry and Information Technology
High-tech Enterprise	Leading Group of State High and New Enterprises Accreditation ( Torch High Technology Industry Development Center )
"Concrete Glorious Cup" in the seventeenth national large-scale comparison on cement chemical analysis 2020	National Cement Quality Supervision and Inspection Center
Innovative Organisation of Donating and Supporting Education 2020	People's Government of Shecun Town
Liaoyang Company Won the Title of Provincial Level Enterprise Technology Centre of Liaoning	Liaoning Province Industry and Information Technology Commission
Liaoyang Company Won the Liaoning Province Cement Quality Index Comparison Award	Liaoning Provincial Product Quality Supervision and Inspection Institute
Liaoyang Company Won the Liaoyang Private Economy Tax Outstanding Contribution Award	Liaoyang Municipal People's Government
Evaluation certificate of integration management of two industries	China Classification Society Certification Company



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Award / achievement name	Issuing authority
Harmonious Labor Relations Enterprise in Nanyang City	Nanyang City Federation of Trade Unions
Nanzhao Youth 4th May Medal	Propaganda Department of Chinese Communist Party Nanzhao County Party Committee
Safety Production Demonstration Unit	Office of Work Safety Committee of Henan Province, Henan Work Safety Knowledge Contest Organizing Committee
Four-star Tax-paying Enterprise	Nanzhao County People's Government of Chinese Communist Party
Outstanding Contribution Enterprise	Nanzhao County People's Government of Chinese Communist Party
Suzhou City Quality Improvement Demonstration Enterprise	Suzhou Quality Development Committee
Caring for the Next Generation Advanced units of "Love to Help Students" of Xiaoxian	Caring for the Next Generation Working Committee of Xiao County
Suzhou City Harmonious Labor Relations Demonstration Enterprise 2020	Suzhou Human Resources and Social Security Bureau, Suzhou City Federation of Trade Unions, Suzhou City Federation
Ranked 78th among the Top 100 Comprehensive Private Enterprises in Anhui Province in 2020	Anhui Provincial Federation of Industry and Commerce, Provincial Department of Economics and Information Technology, Provincial Market Supervision Administration
Green Factory in Anhui	Anhui Economic and Information Technology Department
Anhui Province Performance Rating Class A Enterprise 2020	Department of Ecological Environment of Anhui Province
Certificate of Donation for COVID-19 Prevention and Control	Dalian Changxingdao Economic Zone Land Reserve Trading Center
2020 Corporate Brand Value Evaluation Certificate	Liaoning Provincial Brand Construction Promotion Association
The 7th Dalian Mayor Quality Award	People's Government of Dalian City
National Green Factory	Ministry of Industry and Information Technology of PRC
Outstanding Enterprise in Cuimiao Town Award	People's Government of Cuimiao Town
"Transformation and Innovation Outstanding Enterprise" of Xingyang City	Xingyang Enterprise Confederation, Xingyang Entrepreneurs Association
"Advanced Grassroots Trade Union" of Xingyang City	Xingyang City Federation of Trade Unions
Winner of Henan Province "Ankang Cup" Competition	Henan Provincial Federation of Trade Unions, Henan Provincial Emergency Management Bureau

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Award / achievement name	Issuing authority
Zhengzhou Outstanding Enterprise for Transformation and Innovation	Zhengzhou Entrepreneurs Association, Zhengzhou Entrepreneurs Federation, Zhengzhou Industrial Economic Federation
Henan Building Materials Industry Technology Innovation Award of “Kang Ning Cup”	Henan Building Materials Industry Association



**Honoured as National Green Factory**



**The 7th Dalian Mayor Quality Award**



**The Provincial Water-Saving Enterprise**

## **11 VISION**

As one of the national cement industry leaders receiving significant support from the government, the Group shall take advantage from the policies and its own strengths by enhancing internal structure, refining management level, strictly complying with standards of environmental protection, strengthening water and soil pollution prevention, strengthening ecological construction. The Group also utilize the support from the Chinese government such as tax incentives, special projects or financing approvals and optimize production process to increase production efficiency, so as to promote regional market integration and synergy effect, as well as promote the elimination of backward production capacity of the cement industry and increase industry barriers.

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 REPORTING GUIDE INDEX**

<b>A</b>	<b>Environment</b>	<b>Section</b>
<i>Scope A.1</i>	Emissions	6.1
KPI A.1.1	Types of emissions and relevant emissions data	6.1
KPI A.1.2	Total amount of greenhouse gas emissions and intensity	6.1
KPI A.1.3	Total amount of hazardous waste produced and intensity	6.1
KPI A.1.4	Total amount of non-hazardous waste produced and intensity	No significant non-hazardous waste is discharged due to the focus of its business model on working in synergy
KPI A.1.5	Description of emissions reduction measures and results	6.1
KPI A.1.6	Description of hazardous and non-hazardous waste handling methods, emissions reduction measures and results	6.1
<i>Scope A.2</i>	Use of resources	6.2
KPI A.2.1	Direct and/or indirect energy consumption and intensity by type	6.2
KPI A.2.2	Total amount of water consumption and intensity	6.2
KPI A.2.3	Description of effective use of energy plan and results	6.2
KPI A.2.4	Description of problems with water source, enhance water usage plan and results	6.2
KPI A.2.5	Total amount of packaging material used for finished products and per unit of production	6.2
<i>Scope A.3</i>	Environment and Natural Resources	6.3
KPI A.3.1	Description of impact the business has on the environment and natural resources, and management measures taken	No issues that had major impact on the environment and natural resources during the period
<b>B</b>	<b>Society</b>	
<i>Scope B.1</i>	Employment	8.1
KPI B.1.1	Total number of employees by gender, employment type, age and geographical location	8.1
KPI B.1.2	Employee turnover rate by gender, age and geographical location	8.1
<i>Scope B.2</i>	Health and Safety	8.2
KPI B.2.1	Number and percentage of deaths caused by work	No details are disclosed
KPI B.2.2	Number of days lost caused by work injury	No details are disclosed
KPI B.2.3	Description of occupational health and safety measures taken, and relevant execution and monitoring methods	8.2
<i>Scope B.3</i>	Development and Training	8.3
KPI B.3.1	Percentage of employees that attended training by gender and employment type	8.3
KPI B.3.2	Average number of training hours per employee by gender and employment type	8.3
<i>Scope B.4</i>	Labour Standards	8.1
KPI B.4.1	Description of measures taken to review recruitment practices to avoid child labour and forced labour	8.1
KPI B.4.2	Description of steps taken to eliminate the situation after discovery of a violation	No violation in the period
<i>Scope B.5</i>	Supply Chain Management	7.1

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KPI B.5.1	Number of suppliers by geographical locations	7.1
KPI B.5.2	Description of practices for hiring suppliers, the number of suppliers, and the execution and monitoring methods of the relevant practices	7.1
<i>Scope B.6</i>	<b>Product Responsibility</b>	7.2
KPI B.6.1	Percentage of sold or delivered products recalled because of safety and health reasons	7.2
KPI B.6.2	Number of complaints received regarding products and services, and solution	7.2
KPI B.6.3	Description of practices related to protecting and ensuring intellectual property	7.2
KPI B.6.4	Description of quality inspection process and product recall process	7.2
KPI B.6.5	Description of consumer data protection and privacy policy, and related execution and monitoring methods	7.2
<i>Scope B.7</i>	<b>Anti-corruption</b>	9.1
KPI B.7.1	Number of corruption cases filed by the issuer or employees during the reporting period, and the outcome of the proceedings	No corruption lawsuit in the period
KPI B.7.2	Description of preventive measures and reporting methods, and related execution and monitoring methods	9.1
<i>Scope B.8</i>	<b>Community Participation</b>	9.2
KPI B.8.1	Focus on scope of contribution	9.2
KPI B.8.2	Resources used on focused area	9.2