



CHINA SHANSHUI CEMENT GROUP LIMITED
中國山水水泥集團有限公司
(於開曼群島註冊成立的有限公司)
(Stock Code: 691)



2021

China Shanshui Cement Group Limited Environmental, Social and Governance Report



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A decorative graphic in the center of the page features several overlapping circles in shades of blue, green, and orange. Behind these circles is a photograph of an industrial facility, likely a steel mill, with tall chimneys and complex piping. The background of the photo shows a landscape with rolling hills and wind turbines under a clear sky. The overall aesthetic is clean and modern, with a focus on environmental and industrial themes.

About the Report

This Environmental, Social and Governance Report (“**the Report**”) is the sixth Environmental, Social and Governance (“**ESG**”) Report of China Shanshui Cement Group Limited (the “**Company**”), which mainly discloses the performance relating to ESG of the Company and its subsidiaries (collectively referred to as the “**Group**” or “**China Shanshui Group**”) in 2021, so as to enable each stakeholder to have a better understanding of the Group’s sustainability philosophy, management approach, measures, relevant performances, etc. The Report is to be read in conjunction with the “Corporate Governance Report” section¹ of *China Shanshui Cement Group Limited 2021 Annual Report* (“**2021 Annual Report**”), so as to have a holistic view on the Group’s ESG performance.

Reporting Period

Unless otherwise stated, the Report’s reporting period is consistent with the 2021 Annual Report of the Group, which is 1 January 2021 to 31 December 2021 (the “**Reporting Period**”). Where necessary, some of the content goes beyond the aforesaid period so as to enhance the comparability of the Report.

Reporting Organizational Scope

Unless otherwise stated, such as the specific notes for data scope in the “Environmental Key Performance” section in the Report, the Report covers the Company and its subsidiaries and the reporting organizational scope of the Report remains the same as the previous reporting scope. Unless otherwise stated, all information disclosed in the Report was sourced from the Group’s documents and statistical reports, and the currency mentioned was in RMB.

Reporting Guideline

The Report was prepared based on the *ESG Reporting Guide* (2019 version) under Appendix 27 to the *Rules Governing the Listing of Securities* (“**Listing Rules**”) issued by the Stock Exchange of Hong Kong Limited (“**SEHK**”). Moreover, it was prepared based on the principles of materiality, quantitative, balance and consistency to determine and disclose its contents. The Report was prepared in accordance with the “mandatory disclosure requirements” and “comply or explain” provision set out in the *ESG Reporting Guide* issued by SEHK.

In the process of preparing the Report, the Group’s application of the above reporting principles was as follows:

Materiality: use materiality assessment to identify material issues of the Group during the Reporting Period, and then focus on the identified material issues in the preparation of the Report;

Quantitative: disclose the standards and methods used in the relevant data calculation in the Report, and disclose the applicable assumptions or calculation tools; and

Consistency: the preparation method of the Report is basically the same as that in previous years. Explanations are made for the data where there are changes in scope of disclosure and calculation methodology.

¹For Corporate Governance Report, please refer to pages 65-84 of the 2021 Annual Report.



Access to the Report

The Report is published in two languages - Traditional Chinese and English. If there is any inconsistency between the two versions, the Traditional Chinese version shall prevail. You are welcome to obtain the Traditional Chinese and English versions of the Report in a PDF format at the Company’s website, www.sdsunnsygroup.com, and SEHK’s HKEx news website, www.hkexnews.hk.

Confirmation and Approval

The Board of Directors of the Company (the “**Board**”) confirmed and approved the Report on May 30, 2022, and believed that the content of the Report is true, accurate and complete.

Comments and Feedbacks

If there are any comments or feedbacks for the Group’s ESG report, you are welcome to contact the Group by email at anitalee@sdsunnsygroup.com.

Board Statement

First of all, the Group would like to express its sincere gratitude to the management and all employees for their cooperation and dedication in achieving the Group's sustainable development strategy in a complex and ever-changing market environment. The Group also pays high respect to all shareholders, investors, customers and suppliers who have long-term trust and support to China Shanshui Group.

The Group understands the importance of good corporate governance, including governance of ESG-related issues that are crucial to sustainable development. The Group has been committed to integrating the concept of sustainable development with the overall strategies, policies and business plans. A top-down environmental and social responsibility system with clear responsibilities has been established and the work system for sustainable development strategy has been gradually improved.

The Board is responsible for overseeing and approving the ESG management approach and strategy and also participates in identifying, evaluating, prioritizing and managing material ESG-related issues. Based on the sustainable development strategy, the Group conducts a materiality assessment of ESG issues once a year. The management and improvement of material issues are regarded as the key tasks every year. The Board has reviewed and confirmed the results of the materiality assessment. The material issues are considered as part of the overall strategic formulation of the Group, and the management and performance of such issues are monitored.

In terms of ESG risk management, the Board ensures that the Group has established an appropriate and effective ESG risk management and internal control system. During the Reporting Period, the Group carried out the work of ESG risk identification and assessment. It analyzed the potential risks and related impacts of important ESG issues on the Group's business strategy, identified and evaluated ESG risks that have a significant impact on the Group. The Group reviewed the internal management gaps in respect of the identified ESG risks, which will continue to be managed and improved.

In terms of ESG-related targets management, the Board is responsible for approving the Group's ESG-related targets and reviewing the progress of achieving these targets. During the Reporting Period, the Group selected certain operating regions to establish relevant applicable targets in five environmental aspects, namely air pollutant emissions, greenhouse gas ("GHG") emissions, waste emissions, use of energy and use of water. Indicators and corresponding measures were formulated to measure the achievement of targets, helping to reduce the negative impacts of the Group's operations.

Going forward, the Group will continue to improve its governance structure and ensure effective monitoring and control of potential risks in its operations. The Group will identify and analyze ESG-related risks and related impacts on a regular basis and continue to improve appropriate and effective ESG risk management and internal control systems. The Group will promote its experience and set scientific goals in more operating regions, and vigorously promote ecological and environmental protection, helping to make continuous progress on the path of sustainable development.



About the Group

China Shanshui Group is a large-scale enterprise group with cement and clinker production as its main businesses and one of the 12 national large-scale cement enterprises with key supports received from the country.

The Group is headquartered in Jinan, Shandong, and has six operating regions including Eastern Shandong Operating Region, Western Shandong Operating Region, Southern Shandong Operating Region, Shanxi Operating Region, Northeast China Operating Region, and Xinjiang Operating Region. The Group has more than 100 subsidiaries, covering 10 provinces (municipalities, autonomous regions) including Shandong, Liaoning, Shanxi, Tianjin, Inner Mongolia, Xinjiang, etc. As of the end of the Reporting Period, the Group's total cement production capacity exceeds 94.79 million tons. While consolidating the development of the cement industry, the Group has also extended its industrial chain, with the aggregates, compounding and machinery industries taking shape.

The Group has always adhered to the concept of scientific development and strived to establish itself as a resource saving and environmentally friendly enterprise. Most of the cement subsidiaries of the Group in China have been certified to be in conformity to ISO 9001 Quality Management System, ISO 14001 Environmental Management System, ISO 50001 Energy Management System and OHSAS 18001 Occupational Health and Safety Management Systems. In addition, the Company's cement brand, "Shanshui Dong Yue", is rated as Shandong Famous Trademark and acquired the National Certified Quality Credit AAA Gold Medal. It is widely used in national key projects, railways, highways, airports, real estates and other infrastructure construction.

Over the years, the Group has been awarded the honorary titles of Advanced Group of National Building Material System, National May 1st Labor Certificate, National Advanced Grassroots Party Organization, National Model Worker's Home, Shandong Civilized Unit, Shandong 60 Years and 60 Brands, Shandong Top 100 Taxpaying Enterprises, Top 100 Listed Companies in Hong Kong, China Top 500 and so on.

04

Continuous Governance and Fulfilling Responsibility

4.1 Social Responsibility Management

4.2 Stakeholders Communications

4.3. Materiality Assessment

4.1 Social Responsibility Management

The Group is committed to maintaining a high level of corporate governance. Good corporate governance standards are one of the necessary factors for promoting sustainable development of enterprises. They can also provide a basic framework for enterprises to increase corporate values, formulate business strategies and policies, and enhance transparency and accountability. The Board has established four committees, namely, the Audit Committee, the Remuneration Committee, the Nomination Committee and the Executive Committee, to monitor specific aspects of the Company's affairs. The Company's Audit Committee, Remuneration Committee and Nomination Committee have specific written terms of reference, which are published on the Company's website and the SEHK's website.

The Group has established a relatively sound risk management and internal control system to effectively control risks. The audit department of the Group supervises and inspects the implementation of the risk management and internal control system, which also includes ESG-related risks. Through regular or irregular special audits to the Group's business activities, the internal control system is effectively implemented, the risk management level is continuously improved, and the operational quality is continuously improved. During the Reporting Period, the Group carried out the 2021 ESG risk identification and assessment by building an ESG risk database, formulating and distributing ESG risk assessment questionnaires, and confirming the priority of ESG risks, so as to analyze the potential risks and related impacts of important ESG issues on the Group's business strategy. The Group identified and evaluated the ESG risks that have a significant impact on the Group, such as biodiversity loss, resource utilization crisis, policy risks, and emerging technologies or inventions. The Group will focus on managing and controlling these ESG risks and formulating corresponding countermeasures.



The Group attaches great importance to ESG management. In order to implement the Group's sustainable development strategy and to carry out ESG work systematically and effectively, the Group has further strengthened the construction of ESG management. A top-down environmental and social responsibility system with clear responsibilities has been formed, which is composed of the Company's senior management, relevant functional departments, and subsidiaries with significant influences on ESG matters of the Group. The system ensures the effectiveness and smooth processing of decision-making, organization, and implementation of the Group's ESG matters. In the future, on the basis of actual situation, the Group will continue to improve its ESG management in accordance with the opinions and guidelines of the SEHK on the disclosure of ESG-related information by listed companies, to make ESG management more professional and systematic, thereby promoting the sustainable development of the Group.









4.2 Stakeholders Communications

The Group actively maintains communication with all stakeholders to know about their opinions and expectations on the Group's sustainable development performance. The Group organized relevant ESG work to respond to the opinions and expectations of stakeholders.

The Group focused on “the degree of influence of the Group” and “the degree of influence on the Group” to identify major stakeholders, so as to carry out more targeted communication. The Group communicated through various channels and formulated relevant actions to respond to the expectations of all parties.

The major stakeholders identified by the Group during the Reporting Period include shareholders and investors, employees, government, customers, suppliers and the community and the public. The following is a summary of the communication between the Group and its major stakeholders:

Stakeholders	Expectation	Communication Channels	Frequency	Actions of the Group
 Shareholders, investors and creditors	Business capability Profitability Corporate governance	Shareholders' meetings Regular reports Results announcements	Annual quarterly irregular	<ul style="list-style-type: none"> Increasing production and operation quality and sustainable profitability Keeping optimizing corporate governance Conducting regular communication and strengthening information disclosure
 Employees	Employee rights and benefits Occupational health and safety Training and development	Employment contracts Employee activities Training courses	Regular/irregular	<ul style="list-style-type: none"> Constantly improving the human resource management system and protecting employee rights and benefits Improving employee occupational health and safety work Proactively implementing training to foster employees' knowledge and skills
 Government	Legal compliance Compliant operation Implementation of national policies	Policy formulation Work reporting Information disclosure	Regular/irregular	<ul style="list-style-type: none"> Strictly complying with laws and regulations and proactively cooperating with regulatory departments Strengthening corporate's compliant operation
 Customers	Product quality Service guarantee Product research and development	Customer feedback mechanism Customer service The Company's website	Annual/quarterly/irregular	<ul style="list-style-type: none"> Enhancing the quality assurance system to guarantee product quality Improving the customer service and feedback mechanism Promoting technological research and innovation to increase efficiency in production
 Suppliers	Fair and just procurement Cooperation with mutual benefits Sustainable win-win situation	Contracts and agreements Meetings Supplier assessment	Regular/irregular	<ul style="list-style-type: none"> Strengthening procurement management measures and ensuring fair and transparent bidding and procurement processes Fulfilling contracts and agreements Holding procurement meetings for communication
 Community and the public	Community investment Harmonious development Environmental protection	Community support Community visits Philanthropic activities	Regular/irregular	<ul style="list-style-type: none"> Engaging in community support activities, such as rural revitalization Proactively organizing philanthropic activities such as volunteering activities Implementing environmental protection works



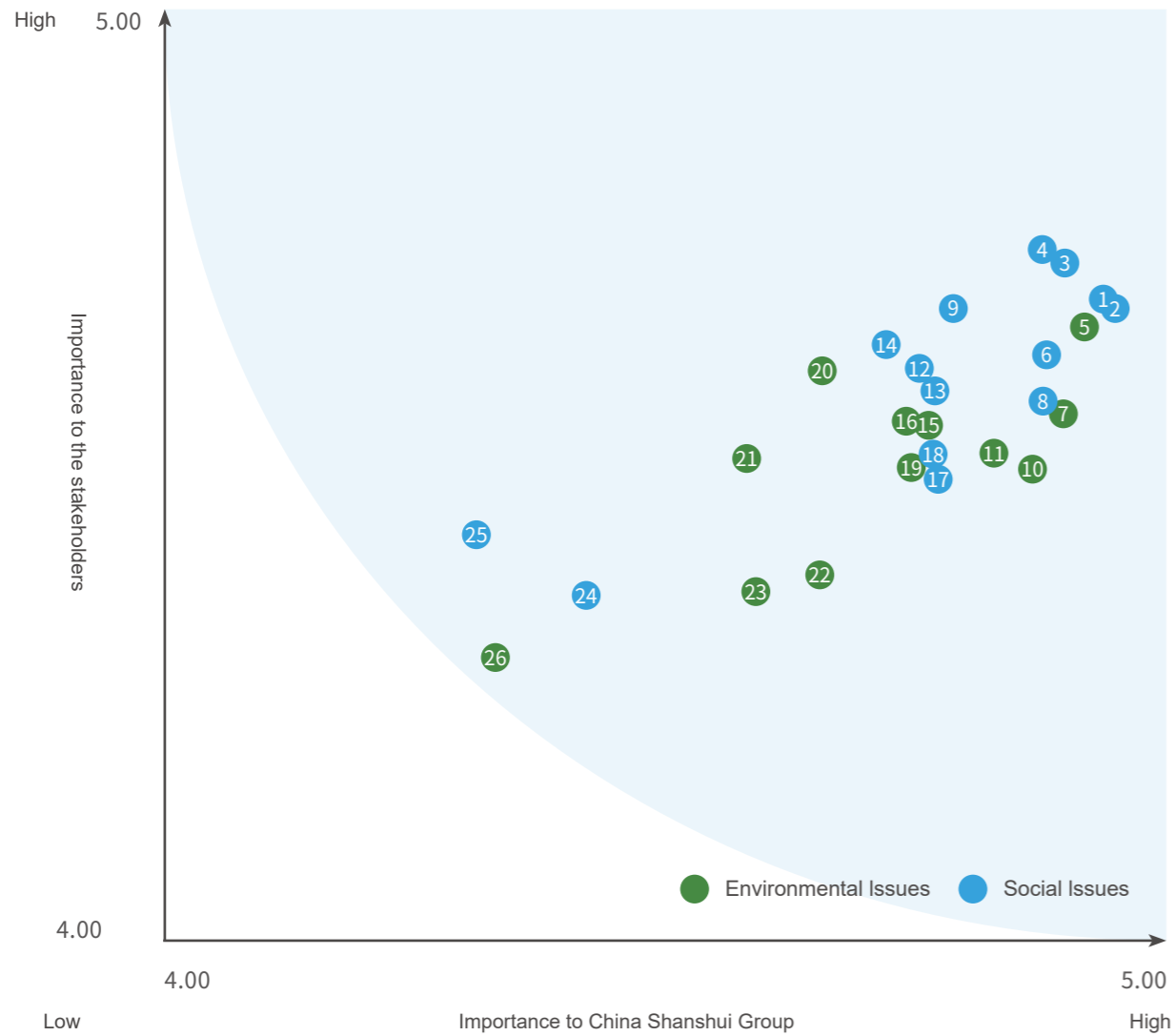
4.3 Materiality Assessment

During the Reporting Period, in order to deeply know about the important concerns of stakeholders on the Group's ESG issues, and to respond to their focal material issues and demonstrate corresponding performance in a targeted manner, the Group conducted the materiality assessment of ESG issues based on the principle of “Materiality”.

In the preparation stage of the materiality assessment, the Group referred to relevant ESG disclosure guidelines of the SEHK, while fully considering the Group's corporate characteristics and development strategies, and reviewing the material issues of previous years, so as to build a pool of potential material issues during the Reporting Period.

On this basis, the Group collected stakeholders' expectations through online questionnaires based on two dimensions of “importance to China Shanshui Group” and “importance to stakeholders”. During the Reporting Period, the directors of the Group actively participated in the materiality assessment, evaluated and prioritized the potential material issues from the perspective of importance to China Shanshui Group. The results were combined with the opinions of stakeholders such as employees, customers, and suppliers. Finally, 26 issues as material issues (including 13 environmental issues and 13 social issues) were identified and determined. These issues have been approved by the Board and will be taken as a reference for the focus of ESG work in the future.

China Shanshui Group 2021 Materiality Assessment Matrix



1	Product Responsibility	14	Supply Chain Management
2	Health and Safety	15	The Environment and Natural Resources
3	Anti-corruption	16	Ecological Diversity and Green Mine Construction
4	Operation with Integrity and Compliance	17	Employment
5	Sustainable Development	18	Project-related Ecological Environment and Natural Resources Protection
6	Labour Standards	19	Use of Raw Materials
7	Environmental Laws and Regulations	20	Green Office
8	Human Resources Development and Management	21	Water Usage
9	Employee Caring	22	Addressing Climate Change
10	Use of Energy	23	GHG Emissions
11	Air Emissions	24	Community Investment
12	Product and Service Innovation	25	Charity
13	Development and Training	26	Use of Packaging Materials



05

Green Operation to Promote Environmental Protection

- 5.1 Strict Emission Management
- 5.2 Cherishing and Saving Resources
- 5.3 Constructing Ecological Mining Areas
- 5.4 Addressing Climate Change
- 5.5 Environmental Key Performance

5.1 Strict Emission Management

The Group strictly abides by relevant laws, regulations, standards and provincial, municipal and local implementation provisions of environmental protection that have significant impacts on the Group relating to air and GHG emissions, discharges into water and land, generation and disposal of waste and minimizing significant impacts on the environment and natural resources, which include but are not limited to the *Environmental Protection Law of the PRC*, the *Atmospheric Pollution Prevention and Control Law of the PRC*, the *Water Pollution Prevention and Control Law of the PRC*, the *Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste*, the *Law of the PRC on Prevention and Control of Pollution from Environmental Noise*, the *Environmental Protection Tax Law of the PRC*, the *Emission Standards of Air Pollutants for Cement Industry*, the *Technical Specification for Application and Issuance of Pollutant Permit Cement Industry (HJ 847-2017)*, the *Comprehensive Emission Standard for Regional Air Pollutants in Shandong Province*, the *Regulation on the Administration of Permitting of Pollutant Discharges*, and the *Implementation Plan of Ultra-Low Emission Transformation of Cement Industry in Shanxi Province*.

2021 marks the first year of the “14th Five-Year Plan” and the first year of taking actions on further prevention and control of pollution. In order to comprehensively strengthen the ecological and environmental protection work and effectively improve the level and quality of environmental protection work, the Group has established a leading group for environmental protection work. The Group continues to obtain external certifications for its environmental management system.

As of the end of the Reporting Period, among the 35 kiln and kiln grinding subsidiaries of the Group, 5 subsidiaries have obtained the three-system certifications, namely ISO9001 certification, ISO14001 certification and ISO45001 certification, and 29 subsidiaries have obtained the four-system certifications, namely ISO9001 Certification, ISO14001 Certification, ISO45001 Certification and Energy Management System Certification ISO50001. Among the Group’s grinding subsidiaries, 20 grinding subsidiaries have obtained the three-system certifications, and they are on the way to obtain energy management system certification, and 27 grinding subsidiaries have obtained the four-system certifications. The Group has also obtained environmental related certifications for its products and services. 6 subsidiaries including Chifeng Yuanhang and Liaoyang Qianshan Company obtained China Low-Carbon Product Certification. 6 subsidiaries including Qingdao Ji’an Concrete and Weifang Commercial Concrete obtained the Green Building Material Evaluation Label Certification. 19 subsidiaries including Linqu Shanshui and Pingyin Shanshui obtained the Green Factory Certification. Anqiu Shanshui obtained the Global Energy Management Insight Award. Shanshui Heju and Linfen Company obtained the Type III Environmental Declaration Certification, and Qingdao Chuangxin was rated as a leading company in the performance rating of key industries in heavy pollution weather in Shandong Province.

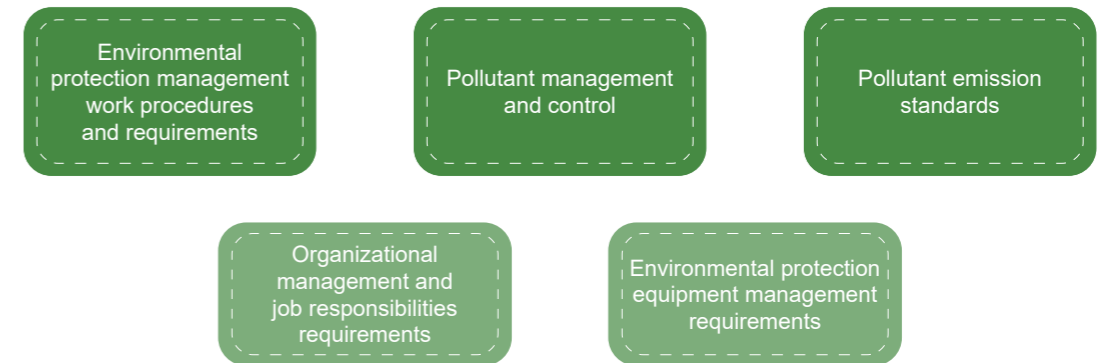


A Subsidiary of the Group Obtained the Environmental Management System Certification

The Group has formulated and implemented the *Environmental Protection and Energy Management System of Shanshui Group in accordance with the above laws and regulations*.

The system is divided into two parts: environmental protection management system and energy management system.

The main components of the environmental protection management system



The main components of the energy management system



During the Reporting Period, the Group approved a total of 272 applications for environmental protection investment, involving environmental protection projects such as dust removal facilities renovation, denitrification and nitrogen reduction, desulfurization renovation, noise control, fugitive dust sealing and dust reduction renovation, water conservation and reduction of wastewater discharge, installation of online monitoring facilities, co-processing of domestic waste by cement kilns, co-processing of municipal sludge by cement kilns, co-processing of hazardous waste by cement kilns. The Group purchased, upgraded and renovated environmental protection equipment and facilities, with a total investment of RMB 223.2 million.

During the Reporting Period, the Group did not have violations of laws and regulations relating to air and GHG emissions, and discharges into the water and land.



5.1.1 Air Pollutants

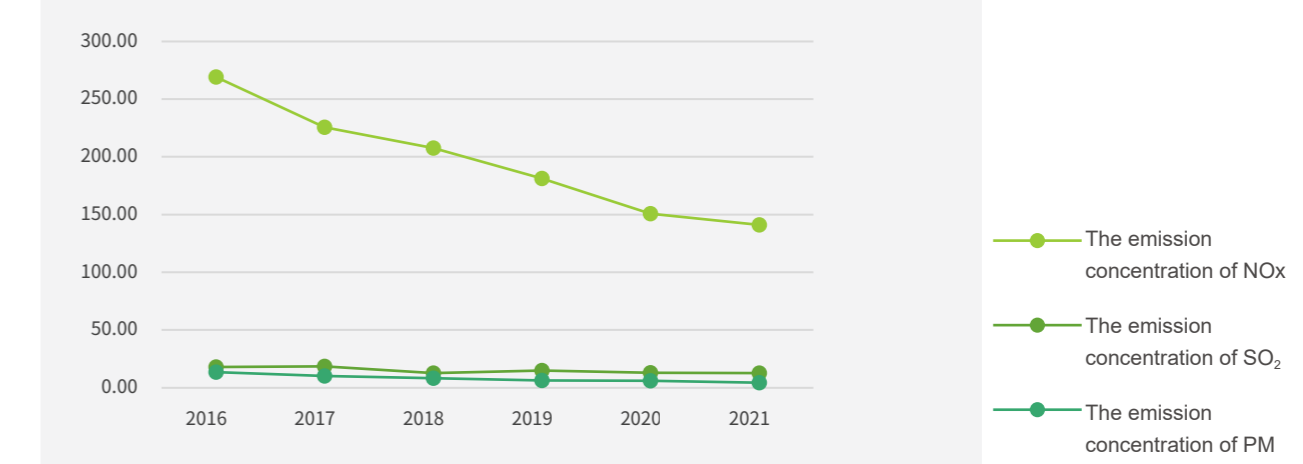
The Group attaches great importance to the management of air pollutant emissions. The Group generates air pollutants during its operations, mainly including nitrogen oxides (NOx), sulphur dioxide (SO₂) and soot. The Group ensures that its cement and clinker production enterprises are issued with pollutant discharge permits. The Group regularly entrusts independent environmental monitoring agencies to monitor emissions. During the Reporting Period, the Group was not subject to any environmental fines due to excessive pollutants.

The Group has goals with regard to the air pollutants, which are that the emission concentration of air pollutants, including NOx, SO₂ and particulate matter (PM), shall not exceed the national and local emission limits, while the total amount of emissions shall be lower than the requirements of the total amount of pollutant discharge permits, and the emissions shall continue to decrease. In order to achieve these goals, the Group has adopted the following measures:

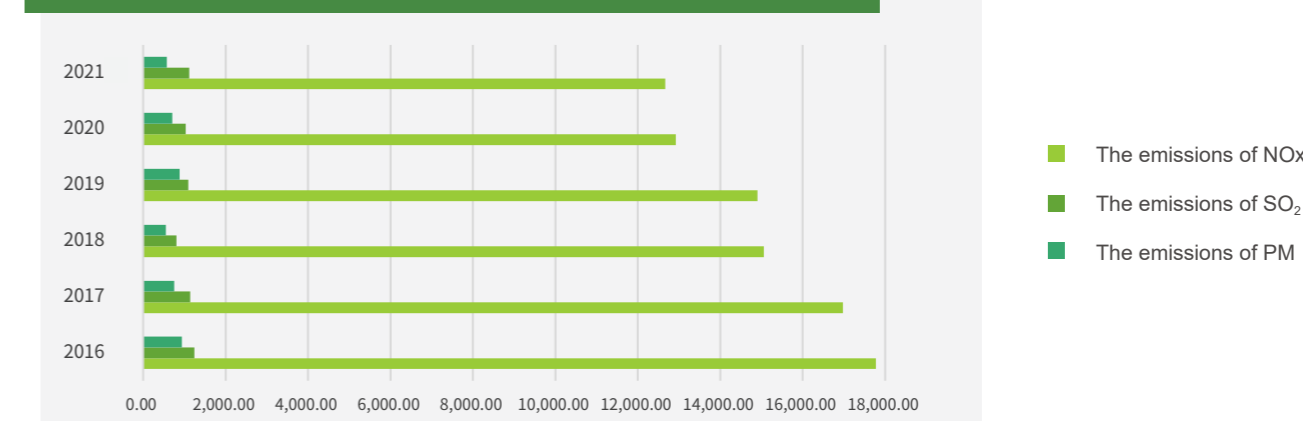
- 1 Handling the pollutant discharge license or pollutant discharge registration in accordance with the local requirements, and implementing the change and renewal work in accordance with the Regulation on the Administration of Permitting of Pollutant Discharges.
- 2 Regularly entrusting independent environmental monitoring agencies to monitor emissions.
- 3 Continuing to increase investment in environmental protection. The Group reviewed and approved the application for environmental protection investment, including dust removal facilities renovation, denitrification and nitrogen reduction, desulfurization renovation, noise control, fugitive dust sealing, dust reduction renovation and other projects.
- 4 Adopting advanced technical methods continuously for denitrification, desulfurization and dust removal equipment and facilities. The Group controlled NOx emissions from the source, in which that Yingjisha Shanshui, Weishan Shanshui, Taiyuan Shanshui and Lvliang Shanshui have implemented denitration transformation for process at the end of the kilns in their rotary kilns.
- 5 Applying advanced pollution prevention technology and refined management. All cement production lines have been equipped with comprehensive air pollution prevention and control equipment to strictly control pollutant emissions.



Trend of Average Emission Concentration of Main Pollutants in China Shanshui Group(in mg /m3)



Total emission of main pollutants in China Shanshui Group (in Tons)



During the Reporting Period, compared with 2020,



the Group's NOx emissions decreased by **1.99%** year on year, NOx emission concentration decreased by **6.39%** year on year, NOx emissions and emission concentration continued to decline for six consecutive years.



SO₂ emission concentration decreased by **2.59%** year on year, decreasing for two consecutive years.



Kiln particle emissions decreased by **18.44%** year on year, and kiln particle emission concentration decreased by **26.10%** year on year, and emission concentration has been declining for six consecutive years.

The Group will continue to reduce the emission of air pollutants in production. With 2020 as the base year, the Group has formulated the following environmental targets, action plans, and completion time limits. The Group will continue to record and disclose relevant data and information in the future to evaluate environmental performance.

Environmental Targets	Action Plan	Completion Time Limits
The emission concentration of NO _x does not exceed the local emission limit, and the total amount of emission is lower than the total amount of indicators of the pollutant discharge permit	<ol style="list-style-type: none"> 1. Strictly controlling the quality of denitrification ammonia water; 2. Maintaining and managing the denitrification facilities, timely cleaning up the blockage of ammonia guns and nozzles to ensure the atomization effect of ammonia water; 3. Investing more than RMB 20 million to upgrade the denitrification systems for kiln process for Yingjisha Shanshui, Lvliang Shanshui, Weishan Shanshui, Taiyuan Shanshui, Yishui Shanshui, Zibo Shanshui, Linqu Shanshui, Jincheng Shanshui, Shanshui Heju, Liaoyang Qianshan and Linfen Company. Investing RMB 0.7 million to upgrade denitrification control systems for rotary kilns for Yishui Shanshui, Pingyin Shanshui, Anqiu Shanshui. 	Short-term (1-2 years)
The emission concentration of sulphur oxides does not exceed the local emission limits, and the total amount of emissions is lower than the total amount of indicators of the pollutant discharge permit	<ol style="list-style-type: none"> 1. Strictly controlling the sulphur content of incoming raw fuels and materials; 2. Ensuring the quality of desulfurizing agents; 3. Maintaining and managing the desulfurization facilities to ensure effective operation; 4. Investing RMB 1.5 million to transform the flue gas desulfurization of the clinker production line of Bohai Cement. 	Short-term (1-2 years)
The concentration of soot emission does not exceed the local emission limit, and the total amount of emission is lower than the total amount indicators of the of pollutant discharge permit	<ol style="list-style-type: none"> 1. Strengthening the maintenance and management of dust collectors. 2. Investing more than RMB 21 million to change the electric dust collector of kiln head to bag dust collectors in Linqu Shanshui, Dalian Shanshui and Kangda Company. 3. Investing RMB 1.4 million to replace the filter bag in dust collectors of kiln head and kiln tail in Hequ Shanshui; 4. Replacing the existing dust collectors with folding filter bags in Shuozhou Shanshui New Era to increase the dust collection area and ensure that the dust collection meets the emission standards. 	Short-term (1-2 years)
The number of rotary kilns with ultra-low emission reaches 15 within 5 years	Implementing ultra-low emission transformation for rotary kilns	Medium-term (3-5 years)

5.1.2 Greenhouse Gas Emissions

2021 marks the first year of the "14th Five-Year Plan". The Group is fully aware that green and high-quality development of the cement industry plays an important role in promoting green development in the country. The Group strictly follows the "14th Five-Year Plan", earnestly implements the deployment of the Party and the State Council, firmly establishes the development ideals of innovation, coordination, green, open and sharing, and continuously innovates and promotes green and low-carbon development.

The Group actively responds to the national strategic goals of Carbon Peak and Carbon Neutrality, controlling the total amount of carbon emissions within the national carbon emission quota. The Group will strive to achieve carbon peak by 2030, in which the emission intensity per ton of clinker will be reduced year by year after carbon peak.



5.1.3 Wastes

The Group takes effective measures to ensure the safe and effective disposal of hazardous waste and promotes the efficient recycling of non-hazardous wastes to reduce the environmental burden caused by the wastes.

The major hazardous waste generated by the Group are used machine oil from large speed reducers. The major non-hazardous waste are general production and domestic waste. The Group follows the national environmental protection requirements to classify and dispose of wastes.

The Group gives priority to the recycling and reuse of recyclable waste. Depending on the natures, non-recyclable waste is either incinerated in kiln or recycled and treated by qualified agencies. For hazardous waste, the Group follows the principle of "reduce, reuse and recycle" to recycle the waste oil generated in the production process, minimizing the generation of hazardous waste. In daily production and operation, the Group also takes effective measures to reduce non-hazardous waste, such as recycling dust collected by dust collectors and recycling plastic and paper generated in daily office operation, so as to achieve the recycling of waste generated from production and operation.

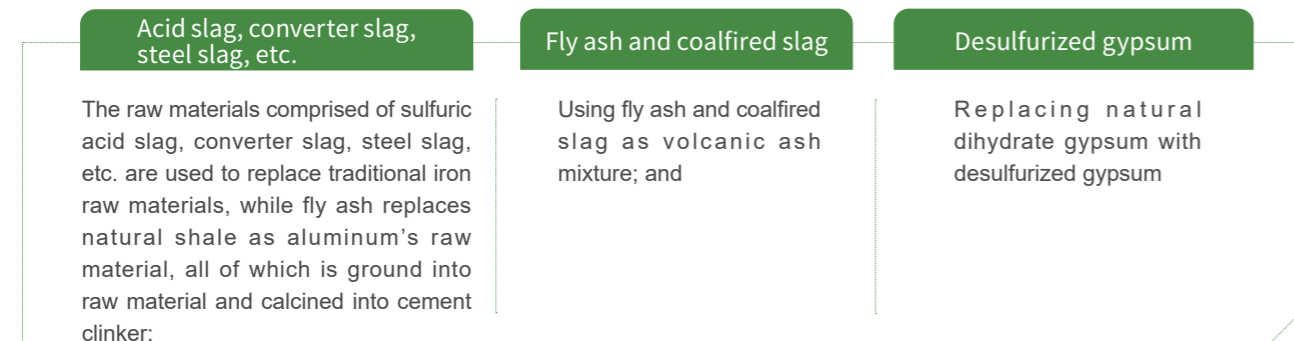


Reusing Waste Residue

The Group attaches great importance to the comprehensive utilization of resources in the production process and actively consumes industrial waste.

The Group effectively uses converter slag and electric furnace slag produced by iron and steel companies, fly ash and desulfurized gypsum from coal-fired power plants, and sulfuric acid slag and fluorogypsum from chemical plants. After processing with advanced production technology, various types of high-quality cement can be produced. While reducing the pollution caused by industrial solid waste to the environment, transforming it into treasure has both circular economic benefits and socio-environmental benefits. A total of over 14,547,400 tons of industrial solid waste were treated in the Reporting Period.

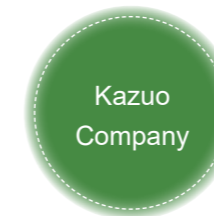
The Group actively consumes industrial waste and produces various types of high-quality cement:



Promoting Collaborative Disposal of Cement Kilns

The Group actively promotes co-processing of cement kilns in accordance with the *Technical Specifications for Environmental Protection in Collaborative Disposal of the Solid Waste of Cement Kilns*, the *Technical Specifications in Collaborative Disposal of the Solid Waste of Cement Kilns* and other systems. Relying on its own technological advantages, the Group comprehensively promotes collaborative disposal projects in three areas, namely urban and rural domestic waste, municipal sludge and industrial hazardous waste. By doing so, a complete solid waste disposal solution has been created. While fulfilling its social responsibilities, the Group promotes green development, promotes industry progress and achieves sustainable development.

During the Reporting Period, the Group actively promoted the projects of co-processing of cement kilns and committed to strengthening the recycling of resources. The Group increased the waste recycling and disposal rate and made significant progress:



Kazuo Company carried out the project of co-processing of cement kilns for municipal sludge, with an investment of RMB **12 million**. The designed treatment capacity was **200 tons/day**, which has been put into operation since August 2021;



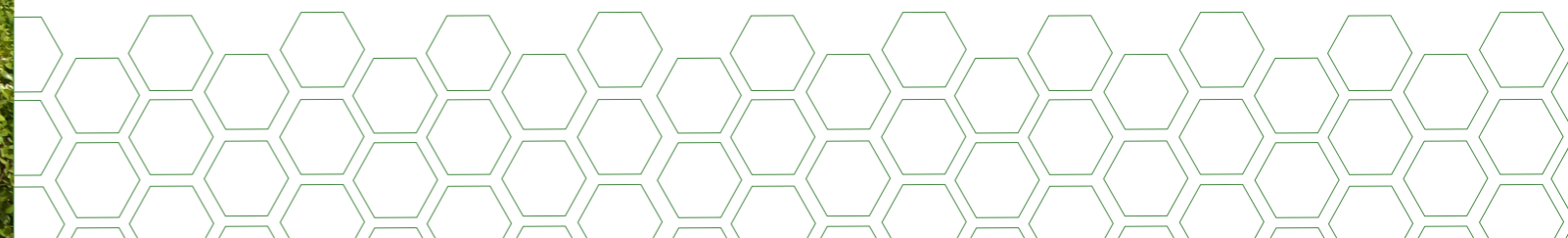
Gongyuan Company carried out the co-processing project of cement kilns for municipal sludge and hazardous waste which made investment of RMB **30 million**. The project was designed with annual sludge treatment capacity of **50,000 tons/year** and hazardous waste treatment capacity of **50,000 tons/year**. It is expected to be put into operation in June 2022;



Kangda Company's co-processing project of cement kilns for hazardous waste, with a designed annual treatment capacity of **100,000 tons of hazardous waste** is expected to be put into operation in May\ 2022; and



Pingyin Shanshui's co-processing project of cement kilns for municipal sludge and hazardous waste project with annual processing capacity of **150,000 tons/year**, which will be put into operation at the end of 2022.



5.2 Cherishing and Saving Resources

The Group strictly complies with the *Environmental Protection Law of the PRC* and other relevant laws and regulations and implements the *Outline of the PRC for the 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives through the Year 2035*. The Group implements the basic national policy of resource conservation and environmental protection and accelerates the replacement of old growth drivers with new ones. The concepts of resource conservation and recycling have been cultivated and practiced, promoting green and low-carbon development.

The *Environmental Protection and Energy Management System of Shanshui Group* was formulated and implemented, in which the energy management policy of "complying with laws and regulations, saving resources, saving energy and reducing consumption, and striving for excellence in indicators" has been formulated, and the principles of energy and water consumption have been strictly stipulated.

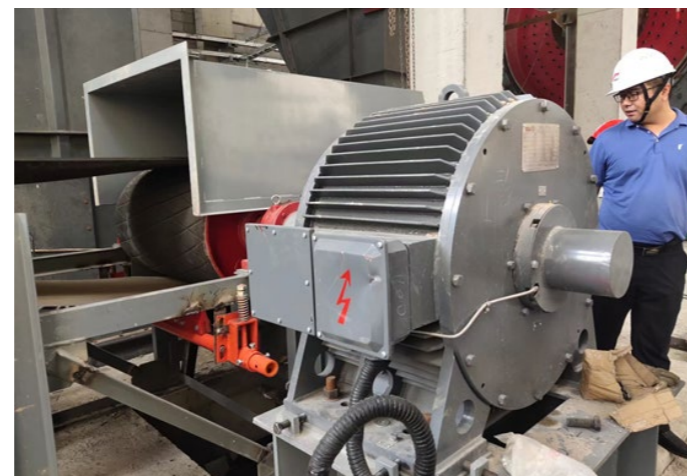
5.2.1 Energy

The Group strives to improve energy efficiency and reduce energy consumption, complying with the requirements of standards and documents such as the *Limits to Energy Consumption Per Unit of Cement Production* and the *Catalogue for the Elimination of High-energy-consuming and Outdated Mechanical and Electrical Equipment (Products) (1st to 4th batches)* to carry out energy management.

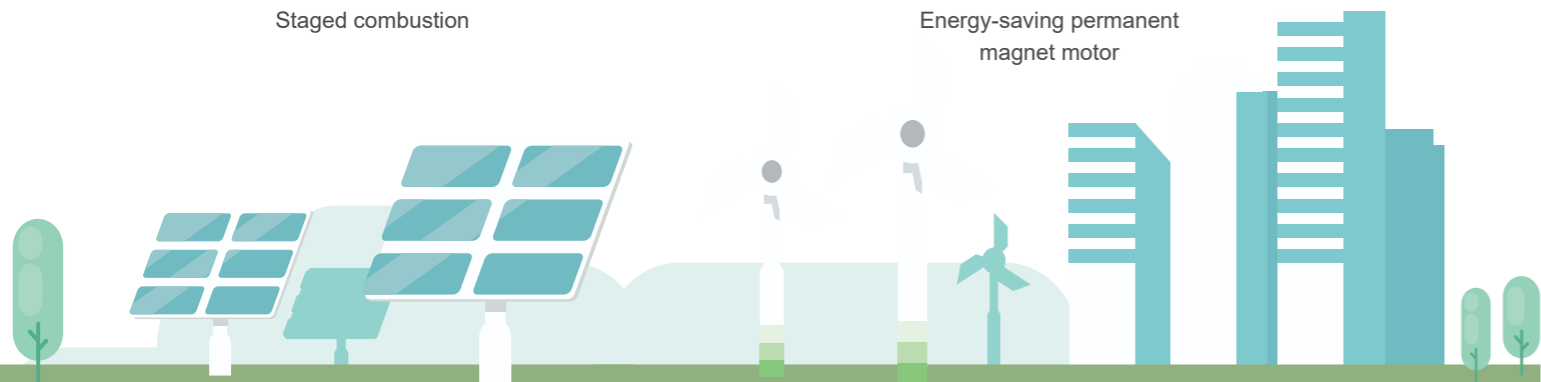
In order to achieve the goal that the product indicators meet the national energy consumption limit standards, the Group continues to invest in energy-saving technological transformation and production optimization. During the Reporting Period, the Group carried out energy-saving technology upgrading and transformation and transformed grate coolers and energy-saving permanent magnet motors. Energy-saving technological transformation of water pumps was promoted and energy-saving water pumps were replaced. Additionally, the transformation of coal feeding pipelines, multi-level combustion and fans was conducted, and coal-saving catalysts and coal-fired agents were used. The Group also optimized material mix and took measures such as sealing, which will improve the efficiency of coal and electricity use and reduce energy consumption.



Staged combustion



Energy-saving permanent magnet motor



5.2.2 Water Resource

In terms of water sourcing, the Group strictly complies with the requirements of environmental assessment and approval. It actively cooperates with the local environmental protection department to consider and implement water sourcing, insisting on taking water within the scope of water withdrawal permission. During the project design period, the Group fully considers the water intake of the project, knows about the local water resource pressure, and adopts appropriate water intake methods. For example, the Group adopts air-cooled residual heat power generation method to reduce water consumption in water-consuming areas. For areas where water intake is difficult or where groundwater is not allowed due to policy, the Group actively responds to water intake transformation, using surface water and municipal water to replace groundwater. Therefore, there is no concerns about sourcing water.

The Group strives to improve the utilization rate of water resources. Under the premise of increasing water demand for production and operation, the Group strives to achieve the basic water consumption target that is consistent with the previous year. By actively reducing the water consumption per unit of product, the Group strives to achieve the goal of saving water resources to the greatest possible extent. In addition, the Group has also selected some representative subsidiaries, including Pingyin Shanshui, Linqu Shanshui and Bohai Cement, to set a quantitative five-year water consumption target, namely based on water usage in 2021, the target is to reduce the absolute amount of net fresh water consumption by 1% each year.

Therefore, the Group actively took measures, including but not limited to:

- 01 >> Increasing the capacity of the circulating cooling tower of residual heat power generation, improving the concentration rate of circulating water, and achieving the purpose of reducing water discharge;
- 02 >> New water treatment facilities for waste heat power generation were added to increase the concentration rate of circulating water in waste heat power generation, so as to reduce the discharge volume and achieve the water balance of the whole plant;
- 03 >> Using treated wastewater from waste heat power generation for road spraying, material spraying and vertical grinding spraying; and
- 04 >> Replacing circulating water pipelines to reduce the water leakage rate of pipelines.



The quantitative five-year water consumption target is to reduce the absolute amount of net fresh water consumption by **1%** each year based on water usage in 2021.

In addition, the water used for production of the Group is fully recycled for waste heat power generation and equipment cooling, with a recycling rate of over 97%. Domestic wastewater is recycled in the integrated water treatment facility to meet the national A level standard for urban sewage discharge. After reaching the standard, it will be used for road spraying, material's dust reduction spraying, greenery irrigation, etc. The Group stipulates that the water used for road spraying and greenery shall be given priority to use recycled water, and to avoid the use of water resources such as groundwater and tap water.

5.3 Constructing Ecological Mining Areas

The mining of the Group adheres to the concept of green and harmonious development. The Group constructs green mines according to local conditions, in order to reduce the impacts of mining activities on the mining area and the surrounding environment.

In order to strengthen the management of mine resources, the Group has established a Mine Resource Management Office, with a three-level management structure consisting of the Group, operating region and enterprise. The Mine Resources Management Office drafted and improved the *Regulations on Mine Resources Management* based on the current status of the Group's mine management, clarifying the requirements for mining procedures, the management requirements for the mining teams, the management requirements for green mine construction, the assessment methods for mine resources management and other management systems. Through the refinement of the mine resource management system, each operating region and clinker enterprise assign dedicated personnel or relevant personnel to be responsible for corresponding mine resource management according to the actual situation. In addition, the Group introduces professional mining teams to give full play to the advantages of professional management and technology of mines. The mining has also gradually shifted to standardized and scientific mining.

Professional Management

The Group utilizes its professional technical personnel in mine resource management when reviewing mine projects. The Group strictly controls project approval, implementation of application, technical scheme's demonstration, investment expenditures, etc. Especially in the aspect of green mine construction, the Group strictly abides by the evaluation requirements of green mine construction implementation plan. By doing so, not only can requirements of local government and relevant departments in charge be met, but also excessive investment in green mine construction can be avoided.

The Group's Resource Management Office promptly supervises the processing and renewal of mining licenses and safety production licenses for clinker enterprises, so as to ensure the legitimate mining of all subsidiaries. During the Reporting Period, more than 10 subsidiaries have completed the new and extended mining licenses and safety production licenses procedures as scheduled.

During the Reporting Period, the Group has legally obtained a total of 89.28 million tons of mine resources and basically completed the target in the Reporting Period, including:

Pingyin Shanshui has completed the expansion of the blank area to increase the reserve of limestone for cement production of 27.88 million tons and has legally obtained 15 million tons of limestone for construction in the aggregate production line. The mining scale has been expanded from the original 2.09 million tons/year to the production scale of 6 million tons/year including the No.3 production line, which has reached the legal and compliant mining procedures of mines (including aggregates);

Zhaqi Shanshui has completed the expansion of the boundary and increased the reserves by 13.6 million tons. The payment of the transfer proceeds from the mining rights has been completed, and the formalities for the deep boundary expansion are being processed;

Huixian Company's mine and Chunjiang Company's mine resources have been combined, integrating the mine's resource reserves of approximately 109 million tons. Huixian Company obtained 32 million tons of resources and completed the mining license procedures of 6 million tons/year; and

Yingjisha Shanshui has newly increased 0.8 million tons of Yinjiziya Limestone Mine resources in Yingjisha County.

Standardized and Specialized Mining and Mine Management Projects

Since the Group has entered into a strategic cooperation with Sinoma Mine Construction Co., Ltd., to strengthen the professional management of mines, and the results have been significant. Through the introduction of specialized mine construction teams and after nearly two years of standardized mining, the Group's internal mine management has been gradually improved, and the level of green mine construction is at the forefront of the industry, after 4 subsidiaries' mines, Zibo Shanshui, Zaozhuan Chuangxin, Linqu Shanshui Tushan mining area and Anqiu Shanshui No. 1 mining area, being awarded as national green mines in 2019. As of the end of Reporting Period:

A total of 5 mining areas were also selected as national green mines, including Pingyin Shanshui Qinglong Mountain mining area, Shanshui Heju Sijiazhang mining area, Bohai Cement Fuergou mining area, Yushugou mining area and Yingjisha Shanshui No. 2 mining area;

6 mining areas were selected as provincial (autonomous region) green mines, including Zaozhuang Shanshui Lianhuashan mining area, Linqu Shanshui Yangcheng mining area, Anqiu Shanshui No. 2 mining area, Jincheng Shanshui, Chifeng Yuanhang, and Zhaqi Shanshui; and

Anqiu Shanshui Yinjiazhuang mining area and Jining Shanshui Heishan mining area were selected in the provincial green mine list for review and acceptance.

It is crucial to efficiently use existing resources to meet production needs. The Group adheres to the principle of "stripping and mining simultaneously and stripping first", and makes rational use of existing resources, therefore, efficiently using existing reserves and increasing the service lifespan of mine resources. As of the end of the Reporting Period, with regard to the comprehensive utilization of mine resources only, it can create benefits of RMB 62.34 million (excluding waste rock yard leasing fees and waste rock yard management fees), realizing the full and effective utilization of existing resources in the mining area.



Case 1: 2021 National Green Mine Case-Shanshui Heju Sijiazhang Mining Area

Shanshui Heju attaches great importance to the construction of green mines, adheres to the guidance of "scientific development, safe development and green development", earnestly implements the development concept of "improving development quality and efficiency". Shanshui Heju continuously increases manpower, material resources and capital investment, increases construction and rectification efforts, and has made remarkable achievements in terms of environmental beautification, comprehensive utilization of resources, energy conservation and emission reduction in mining areas. In the whole process of green mine construction and mineral resource development, Shanshui Heju implements the scientific and orderly mining plans, which manages the impacts on the ecological environment of the mining area and its surrounding areas within a controllable range. This results in realizing the ecologicalization of mining environment, application of scientific mining methods, efficient utilization of resources, digitalization of management information and harmony of mining communities.

1. The ecologicalization of mining environment

Shanshui Heju always adheres to the concept of green and sustainable development to ensure the continuous promotion of high-standard and high-quality ecological governance of mines. In 2021, it was the first time to put forward the concept of "ecologicalization" into the process of ecological restoration of mines. In accordance with the governance and restoration standards, specifications, and requirements of time limit, the subsidiary continued to increase investment in human and material resources. The long-term mechanism for ecological and environmental protection of mines has been established and improved. The management of mineral resources and the protection of geological environment of mines in accordance with the law has been strengthened. The subsidiary achieved the reasonable development and utilization of mineral resources and the coordinated development of economy, society, resource and environment.

Establishing a long-term mechanism for "green mines"

The Group has established a sound and long-term mechanism and conscientiously implemented the green mine construction plan. The Group strengthened leadership responsibility, courageously took responsibility, and implemented at all levels. According to the annual green mine construction plan, the subsidiary promoted the target tasks, implemented each construction task to every position and person, and implemented the work style of "strict, detailed, practical and quick" throughout the whole process. In the process of developing and utilizing mineral resources, the subsidiary minimized the impact and damage to the surrounding environment of the mining area.

Restoring eco-environment of mining areas

The mine area should be as green as possible, with a greening rate of 100% during the Reporting Period. In 2021, the Group invested a total of more than RMB 3 million to implement mine restoration and treatment, completing slope restoration and treatment on 980 and 970 ending slopes, with a restored area of approximately 10,000 square meters. Relying on the 920 ending slopes platform, the Group built the first ecological environment restoration and governance demonstration zone for open-pit mines in Shanxi Province.



Building a "Green Shanshui" flower and tree planting base

By cooperating with professional institutions, the Group implemented ecological restoration and treatment at no cost and created a nursery industry base. After implementing a series of ecological restoration and treatment measures such as soil reclamation, soil neutralization and nutrient spraying, the waste rock dump was transformed into a flower and tree town. A "Green Shanshui" flower and tree planting base has been created.



Building an ecological environment restoration and governance demonstration zone (ecological park)

The Group invested more than RMB 5 million to build a mining park with a high-quality plan and high standard of approximately 20,000 square meters at the 920 ending slope.



Installing an intelligent dust suppression system

The construction of a 2,000-meter intelligent high-pressure sprinkler dust suppression system from uphill road to the mining area was completed. The high-efficiency water guns powered by solar energy were equipped to sprinkle water and reduce dust, creating a comprehensive and intelligent sprinkler dust reduction system.

2. The application of scientific and standardized mining methods

- Strictly implementing the development and utilization plan of mineral resources and the mining design plan. The top-down and step-by-step mining method and the medium-and-deep-hole blasting plan were implemented, which complied with the blasting safety regulations and were evaluated by a special agency;
- The mechanization of mining operations was achieved and special mine vehicles were purchased. The Group made investment in key equipment for mining and applied advanced mining operation methods;
- Taking reasonable stripping to minimize forest occupation and soil erosion. The exposed area in the mining area was less than 50%; and
- Re-greening while mining. In accordance with the requirements of green mine construction, systematic treatment and vegetation restoration were carried out for the exposed part of the original ending slopes by stages and batches.



3. The efficient utilization of resources

Throughout the mining process, the process flow was optimized. The subsidiary adopted modern production technology and production equipment, improved the mining efficiency of mine resources and developed a circular economy. For the discharged solid waste from mines, a comprehensive utilization by the methods of matching with cement kilns and processing of building stones were achieved, so as to improve the utilization rate of mines.

4. The harmonious mine in the mining communities

Shanshui Heju adheres to the concept of “building a mine and benefiting the community”. It actively builds a corporate-local communication mechanism, and cooperates to build a win-win system, driving the development of local economy with the development of the enterprise. Leveraging the advantageous resources of various parties, Shanshui Heju donated more than RMB 2 million to the society through multiple channels and in various forms in respect of road and bridges donation, caring for the elderly and students assistance. The subsidiary helped the local people and fulfilled its social responsibilities. Shanshui Heju has successively won the honors and titles of “Enterprise in Combating COVID-19” and “Charity Donation Enterprise”.

Case 2: 2021 National Green Mine – Pingyin Shanshui Qinglong Mountain Mining Area

Pingyin Shanshui adheres to the guiding ideology of “legalization of mining, standardized management of mines, efficient use of resources, ecologicalization of the mining area and digitization of the production environment”. Pingyin Shanshui cooperates with professional mining teams to conduct comprehensive rectification on mining, and meticulously builds facilities in strict accordance with green mine construction plans. Therefore, green mine construction has achieved good results.



Panorama of Pingyin Shanshui's 5G intelligent and digital green mine

As a benchmark enterprise of green mines in Shandong Province, Pingyin Shanshui Qinglong Mountain mining area successfully undertook the meeting of green mines and digital mines of the National Cement Association in September 2021. The meeting was highly appraised and recognized by the leaders of the provincial and municipal natural resources departments. Pingyin Shanshui adheres to the development concept of “lucid water and lush mountains are invaluable assets”, and continues to increase investment in mining and refine mine management.

1. Standardization of mining area management

- In accordance with the first-level standard of mine safety production standardization and the green mine construction standard, various management systems such as safety, environmental protection, and production have been revised and improved;
- The annual mining plan was compiled. The mining plan objectives were clarified. The working area of each mining area have been reasonably arranged to achieve a benign mining plan of one year mining, three years observing, and five years planning; and
- By adjusting and optimizing the layout of mining surfaces, the mining order was further standardized, and the mining method was more scientific.



2. Beautification of the mining area

- Pre-splitting blasting technology was applied on slopes around the mountain and discharging platform in urban areas of treated slope around the mountain. The pre-splitting blasting technology scheme for non-detonating cable slope was successfully developed, which effectively reduced blasting vibration and noise;
- Slope greening was adopted for the small platform at lower level, and creeper was planted at the bottom, so as to make the platform more beautiful; and
- The asphalt roads around the mountains were refurbished, and greening on the car stalls was carried out.



3. Ecologicalization of the mining area

The subsidiary always adheres to the concept of green development, integrates mine production with ecological governance, carries out "mining, governance, recovery, and green mine construction at the same time, development and protection simultaneously", and vigorously promotes the restoration and governance of the mine's ecological environment.

4. Digitalization and intelligentization of production process

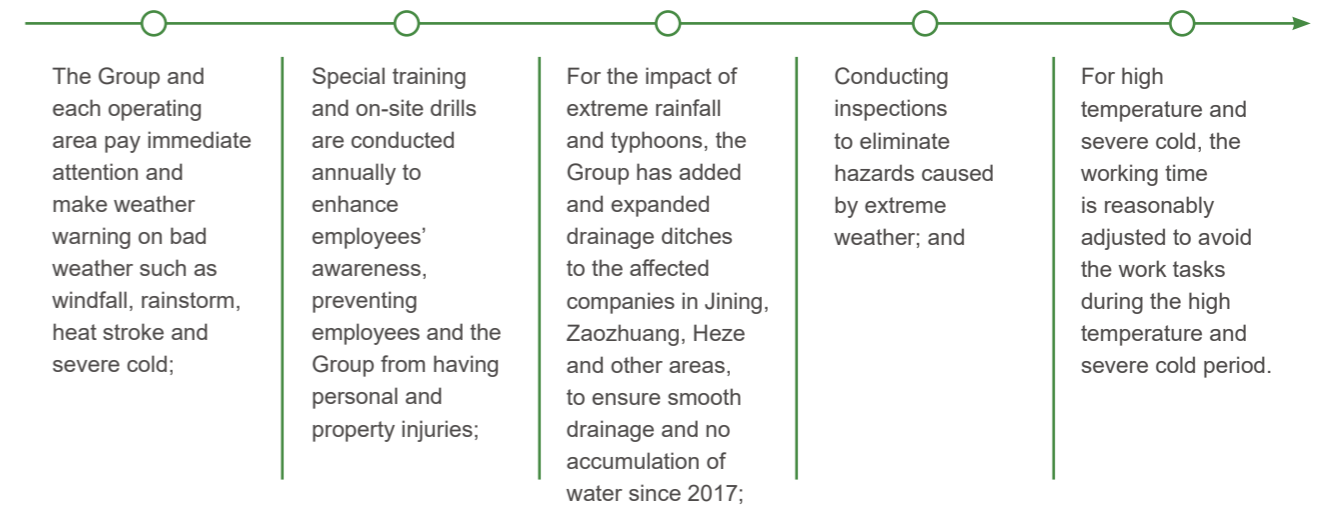
In line with the concept of "mining with science and technology, science and technology boost mining", digital mines will be built to continuously improve the level of informatization. Trucks, mining and auxiliary equipments were monitored and optimized, realizing intelligent and optimized dispatching, refined distribution, and automatic mining production management and control. Based on the established mine truck scheduling system and limestone online analyzer, Pingyin Shanshui built a digital mine with "one center, two platforms, and multiple systems" based on the actual demand, which contributed to building a leading digital intelligent mine in China.



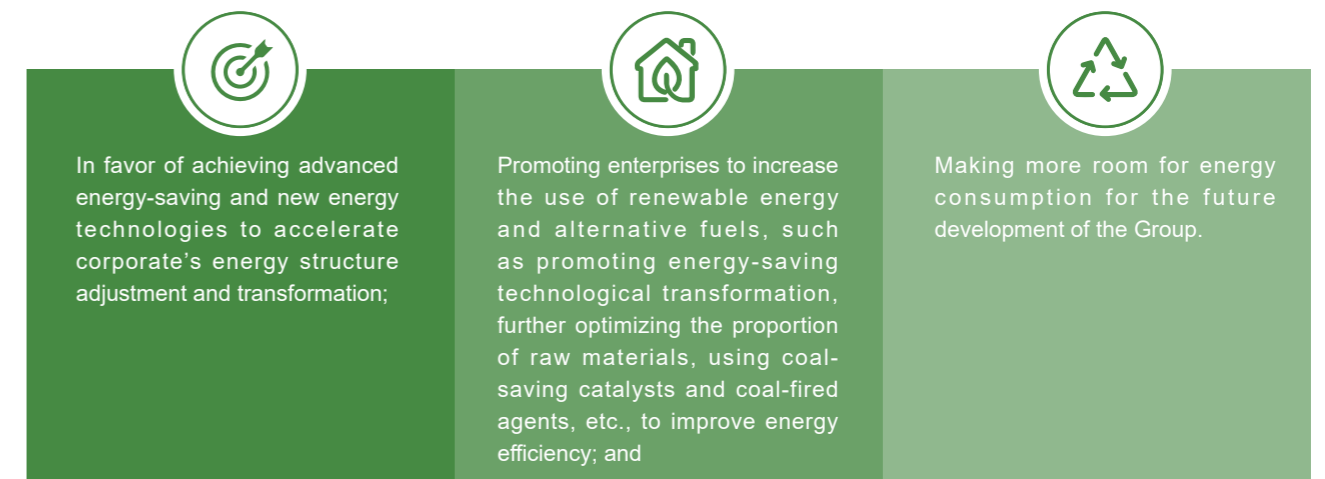
5.4 Addressing Climate Change

In response to climate change, China pledged to peak carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060 in September 2020. In 2021, the Chinese government issued the *Working Guidance for Carbon Dioxide Peaking and Carbon Neutrality in Full and Faithful Implementation of the New Development Philosophy*, the *Action Plan for Carbon Dioxide Peaking Before 2030*, and the *Opinions on Promoting the High-quality Development of State-owned Enterprises to Achieve Carbon Peak and Carbon Neutrality*. The work of "carbon peaking and carbon neutrality" was deployed. The Group actively responds to the national policies and requirements on carbon neutrality and carbon peak, and actively implements major national guidelines and policies such as the *Notice by the State Council of the Action Plan for Carbon Dioxide Peaking Before 2030* and the *Measures for the Administration of Carbon Emissions Trading (for Trial Implementation)*, continuously pays attention to climate change-related matters, identifies and manages climate change risks, and actively addresses the impact of climate change.

The Group identifies and assesses the physical risks of climate change that may occur and affect the regions where the Group operates. Corresponding preventive and emergency measures to prevent and reduce losses were formulated:



The Group also attaches great importance to the opportunities and risks to the Group arising from the transition risks caused by climate change. The Group actively identifies and seizes the opportunities arising from climate change:



The Group is actively promoting the research and deployment of "carbon peak and carbon neutrality" and actively studying relevant policies. A path suitable for the Group will be formulated, and the Group's ability to cope with climate risks will be continuously improved. Through the coal consumption, electricity consumption and material consumption of each subsidiary, the Group follows the national "carbon peak and carbon neutrality" strategy, and gradually explores the path of low-carbon transformation from the aspects of reducing carbon emissions and increasing financial investment in technological transformation projects.

5.5 Environmental Key Performance²

The Group's environmental performance of emissions and use of resources during the Reporting Period is listed in the table below.

Indicators		Units	2021	2020	2019
Basic Information					
Clinker production		Tons	44,390,550	43,828,833	40,078,458
Air Pollutants ³					
Nitrogen oxides emissions		Tons	12,667.55	12,924.97	14,900.26
Sulfur dioxide emissions		Tons	1,115.52	1,034.05	1,097.73
Soot emissions		Tons	365.61	410.40	481.60
GHG ⁴					
Carbon dioxide emissions	Scope 1	Tons	36,222,290	37,995,310	34,535,335
	Scope 2	Tons	1,815,392	1,564,728	
Carbon dioxide emissions per ton of clinker production ⁵		Tons	0.86	0.90	0.86
Use of resources ⁶					
Indirect energy	Electricity consumption ⁷	kWh in '000s	4,134,836.97	4,008,896.21	3,703,702.19
	Electricity consumption per ton of clinker production ⁸	kWh in '000s	0.055	0.056	0.056
	Electricity consumption per ton of cement production ⁹	kWh in '000s	0.075	0.076	0.075
Direct energy	Raw coal consumption	kWh in '000s ¹⁰	30,819.72	31,020.77	28,986.49
	Raw coal consumption per ton of clinker production ¹¹	Tons	0.119	0.122	0.124
Total energy consumption		kWh in '000s ¹²	40,661,639.93	39,431,054.71	36,756,989.42
Total water consumption		Tons	12,248,400	12,611,395	10,762,433
Water consumption per ton of clinker production ¹³		Tons	0.25	0.26	0.24
Water consumption per ton of cement production ¹⁴		Tons	0.27	0.28	0.26
Packaging bags of cement		Pieces	226,403,436	211,194,410	201,545,797
Resource recycling					
Electricity generated from waste heat recovery		kWh	1,425,276,394.00	1,448,388,233.70	1,324,006,348.69

²As the Group's environmental impacts mainly came from production activities, the environmental performance only included relevant data of the Group's production areas.
³As the Group's air pollutant emissions mainly came from the clinker production process, the pollutant-related performance included all 35 clinker production enterprises of the Group, and the data was derived from the monitoring data of the projects, including Baishan Shanshui, a newly commissioned subsidiary.
⁴As the Group's GHG emissions mainly came from the clinker production process, the data scope only included all 35 clinker production companies. The calculation of carbon dioxide emissions was set out based on the *Accounting Method and Reporting Guideline for GHG Emissions of Cement Production Enterprises in China*. During the Reporting Period, carbon dioxide emissions were disclosed in direct (scope 1) and indirect energy (scope 2) respectively. According to the requirements of the *2022 Notice on Strengthening the Relevant Work of Management of Corporate GHG Emissions Reporting*, local authorities in China will verify the submitted GHG data of the Group. The review of the audit report will be finished before 31 December 2022. The verified GHG emission data of the Group according to the review shall prevail.
⁵This indicator is a commonly used production indicator of the Group.
⁶As some subsidiaries of the Group did not engage in production activities, the resource consumption data included data of 82 companies of the Group, including kiln-grinding enterprises (including kiln enterprises) and grinding enterprises. The calculation of unit conversion involved in the calculation of direct and indirect energy consumption was set out based on the *General Principles of Comprehensive Energy Calculation (GB/T 2589-2008)*.
⁷Electricity consumption includes purchased electricity and waste heat power generation.
⁸This indicator is a commonly used production indicator of the Group.
⁹This indicator is a commonly used production indicator of the Group.
¹⁰In order to comply with the disclosure requirements of relevant regulatory requirements, the Group adjusted the measurement unit of raw coal consumption to "kWh in '000s" during the Reporting Period, and re-calculated and disclosed the raw coal consumption in 2020 and 2019 according to this measurement unit.
¹¹This indicator is a commonly used production indicator of the Group.
¹²In order to comply with the disclosure requirements of relevant regulatory requirements, the Group adjusted the measurement unit of total energy consumption to "kWh in '000s" during the Reporting Period, and re-calculated and disclosed the total energy consumption in 2020 and 2019 according to this measurement unit.
¹³Water consumption per ton of clinker referred to the calculated water consumption per ton of clinker produced based on the water consumption of clinker production.
¹⁴The water consumption per ton of cement production referred to the calculated water consumption per ton of cement produced based on the water consumption of cement production.



06

Uniting Employees for Mutual Growth

6.1 Protecting Rights and Interests of Employees

6.2 Strengthening Safety Management

6.3 Promoting Career Development

6.1 Protecting Rights and Interests of Employees

The Group adheres to the people-oriented philosophy and is committed to providing employees with a broad growth platform and an equal and harmonious working environment. The Group strictly abides by relevant laws and regulations that have significant impacts on the Group relating to remuneration and dismissal, recruitment and promotion, working hours, holidays, equal opportunities, other benefits and welfares, and prevention of child labor and forced labor, including but not limited to the *Labor Law of the PRC*, the *Labor Contract Law of the PRC*, the *Provisions on the Prohibition of Using Child Labor*, the *Law of the PRC on the Protection of Minors*, the *Social Insurance Law of the PRC*, and *Hong Kong's Employment Ordinance*. During the Reporting Period, the Group has strictly complied with the above-mentioned relevant laws and regulations. The Group has also formulated and implemented several internal policies to protect the rights and interests of employees in every aspect of the employment process.

The Group has formulated and implemented the *Regulations on Recruitment Management of Shanshui Group*. The recruitment is carried out based on the principles of openness, fairness, justice, equal competition and merit-based selection.

Recruitment of child labor is strictly prohibited

- Specifying the minimum working age in the recruitment brochure, and strictly reviewing the applicants' information during the recruitment process, such as ID cards, household registration books, and academic certificates to ensure that they reach the minimum legal working age.
- If child labor is found, the employment will be terminated immediately. Meanwhile, the reasons shall be found in the internal unit to prevent such situation from happening again.
- During the Reporting Period, the Group did not have any violations of employing child labor or minors and did not have any violations of withholding workers' identities, educational certificates or request of paying various deposits.

Localization of talents

- Relying on the management of the operation region to conduct local recruitment of talents, so as to gradually realize the localization of talents. Making contributions by cultivating management professionals and technical talents in the local industry for relatively technological backward areas in the central and western regions (Northeast, Shanxi, Xinjiang), and promoting local employment at regions where the subsidiary operates.

Employee diversity

- Advocating a diversified employment policy and do not treat employees differently based on ethnicity, gender, religion, etc.



The Group has further optimized the organizational structures and remuneration system of the Group, and clarified the position setting, job responsibilities, personnel allocation and remuneration packages of major management positions at all levels of the Group one by one, laying the foundation for further clarification of the career development paths of employees in the future. Additionally, the Group regularly reviews the remuneration packages of its employees in light of market conditions, corporate economic benefits and employees' income levels, which ensures that employees' efforts are recognized by the Group. It is noteworthy that at half-year and year-end, the Group rewards its employees by grades based on the operating conditions. The Group actively takes the lead in complying with the regulation of staggering production halt. During the production halt, relevant compensation is paid under national regulations to protect the legal rights and interests of employees. At the same time, the Group has formulated a reasonable salary distribution system and reward and punishment measures during normal production months. The overall compensation does not decrease due to the reduction of working hours but increases every year.



The Group's subsidiaries have also formulated a reasonable salary incentive distribution system. In addition to regular items such as position salary and performance salary, the Group also provides corresponding subsidies for academic qualifications, vocational skills, special operations, professional and technical titles, etc., to motivate employees to improve their quality and professional skills. The Group also provides corresponding subsidies according to the length of time employed.

During the Reporting Period,

more than **500**

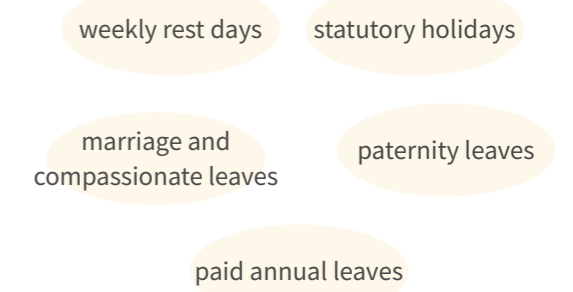
employees have obtained vocational skills certificates through professional training,

and an increase of more than **200**

employees have obtained junior, middle, senior and senior professional and technical titles during the Reporting Year, after being assessed by the title assessment departments of government at various levels.

In addition to various social insurances (including basic pension insurance, medical insurance, unemployment insurance, maternity insurance, and work-related injury insurance) and housing provident fund stipulated by the Social Insurance Law, the Group also provides personal accident insurance to personnel in production and related positions for increased protection.

The Group fully respects employees' rights of taking rest and leaves. The *Management Measures for Employee Attendance of Shanshui Group* and the *Implementation Measures for Paid Annual Leaves of Shanshui Group* have been formulated and implemented, complying with the labor law's requirements that employees should not work more than 40 hours per week. The Group strictly controls overtime work and the absence of rest on statutory holidays. In addition, appropriate subsidies are also provided for work out of normal working hours in accordance with relevant regulations.



To provide a broad growth platform for all kinds of talents and promote outstanding employees to stand out and grow rapidly, the Group has formulated and implemented the *Selection, Training and Adoption Plan for Reserve Talent of Shanshui Group*. In order to strengthen the management level of the Northeast, Shanxi, and Xinjiang operating regions and subsidiaries, the Group selected outstanding cadres from Shandong to work in subsidiaries with weaker performance. This helps to introduce new ideas and promotes the improvement of corporate management, elevating the management standard of the Company to a new level.

For employees leaving the Group, the Group first communicates with employees in accordance with the *Regulations on Resignation Management of Shanshui Group*, in order to understand their reasons for leaving. The Group assists employees in completing the resignation procedures according to situations and implements compensation for resignation. In addition, necessary rectifications that need the subsidiaries' attention are carried out by the Group for improvement.

Number of employees and turnover rates¹⁵ of the Group

	2021	2020
Total Number of Employees ¹⁶	17,485	17,839
Total Employees by Gender		
Male	13,183	13,466
Female	4,302	4,373
Total Employees by Region		
Headquarters	447	399
Eastern Shandong Operating Region	4,135	4,374
Western Shandong Operating Region	4,321	4,358
Southern Shandong Operating Region	1,459	1,454
Northeast China Operating Region	4,492	4,557
Shanxi Operating Region	2,086	2,143
Xinjiang Operating Region	545	554
Total Employees by Job Responsibility		
Production	10,184	10,381
Sales	1,268	1,281
Technician	1,759	1,689
Finance	634	698
Administration and Management	1,716	1,545
Others	1,924	2,245
Total Employees by Education Level		
College or above	5,182	5,196
Technical secondary school, technical school and senior high school	6,867	7,272
Secondary school and below	5,436	5,371
Total Employees by Age		
16-20 years old	19	16
20-30 years old	2,195	2,415
30-40 years old	6,585	6,764
40-50 years old	5,184	5,301
Above 50 years old	3,502	3,343

¹⁵As the employee turnover rate is a new indicator disclosed in the Reporting Period, only the situation in the Reporting Period is disclosed.

¹⁶During the Reporting Period, all employees of the Group were full-time. There were no part-time employees.

Number of employees and turnover rates¹⁵ of the Group

The turnover rate of the Group in 2021			
Employee Turnover Rate by Gender		Employee Turnover Rate by Age	
Male	7.95%	Below 20 years old	52.63%
Female	6.79%	20-30 years old	18.41%
Employee Turnover Rate by Region		30-40 years old	4.98%
Headquarters	5.37%	40-50 years old	4.01%
Eastern Shandong Operating Region	8.83%	Above 50 years old	11.14%
Western Shandong Operating Region	5.23%		
Southern Shandong Operating Region	5.55%		
Northeast China Operating Region	8.26%		
Shanxi Operating Region	10.26%		
Xinjiang Operating Region	10.83%		



6.2 Strengthening Safety Management

The Group always insists on the safety production concept of "people-oriented, life first, safety development, due diligence and accountability". The Group places safety and occupational health of employees as the core of the enterprise's safety production. The Group strictly complies with laws and regulations at the national, provincial, municipal and local levels that have significant impacts on the Group relating to the provision of a safe working environment and the protection of employees from occupational hazards, including but not limited to the *Work Safety Law of the PRC*, the *Law of the PRC on Safety in Mines*, the *Special Equipment Safety Law of the PRC*, the *Law of the PRC on the Prevention and Treatment of Occupational Diseases*, the *Emergency Response Law of the PRC*.

The Group has formulated and implemented a series of safety management rules and regulations, such as the *Compilation of the Safety Management System of Shanshui Group*, the *Safe Production Operating Procedures* and the *Electric Safety Management Manual*, to clarify the safety responsibilities of each position and regulate the safe production behavior. The Group has established and improved the corporate safety management organization network, continuously revised the safety management rules and regulations, and consolidated the foundation of safety management. The *Safety Issues/Incident Management Procedures* and the *Management Systems of Accountability for Production Safety Incident* have been revised and improved. Moreover, the *Safety Director Establishment Plan* has been formulated. All of these rules and regulations help to urge the full implementation of the main responsibility of safety production, realizing the safety production accountability system applying to the whole process of safe production with accountability for dereliction of duty and diligent responsibility.

During the Reporting Period, the Group carried out a series of safety management work and took effective measures from various aspects to ensure the health and safety of employees:

1 Strengthening the implementation of safety leadership and improving safety management performance

- In order to promote the implementation of safety leadership, at the beginning of the year, the safety responsibility letter of the leadership team was signed at all levels. Also, the members of the corporate safety production committee were adjusted in a timely manner;
- Safety leading groups were set up, which were led by the general manager or the person in charge of production under the safety management requirements such as safety month and "four preventions" during the summer and winter; and
- The Group strengthened safety training for corporate leaders on a daily basis and held monthly safety production regular meetings.



2 Improving the safety awareness of employees by focusing on safety training, education, and promotions

• Carrying out a variety of special safety activities and actively using various new media to promote the change of thoughts from “full participation” to “full accountability”. The activities continued to improve employees’ awareness of safety production and occupational health protection, and enriched employees’ safety knowledge. For example, a series of safety month activities such as “everyone is a trainer” activity, “safety publicity and consultation day”, “safety knowledge competition” and “safety whistleblower” created a strong atmosphere of safety production. During the Reporting Period, the subsidiaries of the Group provided a total of 3,530 training sessions with about 147,492 participants;

• Combining safety activities with production activities. The Group regularly carried out emergency rescue drills which were for specific themes such as ammonia leakage, chemical burnt-out, electrical fire, and power station boiler accidents, etc. These activities effectively improved employees’ safety skills and emergency response capabilities, effectively trained the emergency rescue team and effectively improved employees’ vigilance against safety accidents. During the Reporting Period, the Group organized a total of 1,131 emergency drills with 16,543 participants; and

• Strengthening the power of safety emergency rescue and improving the skills of emergency rescue personnel. The Group specially engaged a professional emergency rescue company to conduct the Group-wide emergency rescue training activity. A total of 912 people were trained in this activity, with 8 training hours/person. All employees who participated have obtained the International First Aid Certificate of the American Heart Association, AHA. This activity effectively improved the professional knowledge and first-aid skills of employees in safety emergency rescue.



Training sessions

the Group provided

a total of **3,530** sessions

Participants of training sessions

147,492 participants



Emergency drills

the Group organized

a total of **1,131** drills

Participants of training sessions

16,543 participants



Employee safety emergency rescue training drills

3 Emphasizing safety risk analysis and control as well as hidden danger investigation and management

In order to effectively reduce safety accidents, each subsidiary of the Group carried out improvement activities around two major factors that may lead to accidents, which were “unsafe behavior of people” and “unsafe state of objects”, to eliminate the accident before it happens.

- Controlling the unsafe behavior of people by focusing on “position compliance”. The Group continued to update the *Assessment Standard for Position Safety Compliance* to evaluate the job competence and conducted spot checks and assessments in time periods and on a pro-rata basis, so as to understand the work status of employees in a timely manner and reduce unsafe behaviors of people;
- Strengthening the investigation and management of hidden dangers and controlling the unsafe conditions of objects;

- Successively issuing notices on comprehensive and special safety inspections, such as the *Notice on Carrying out the Inspection of Production Safety Conditions of Enterprises and the Notice on Carrying out the Safety Inspection of Pre-heater Framed Structure*. The Group focused on the inspection of safety blind spots and parts with major risks in each subsidiary and analyzed existing risks;

- Based on seasonal risks, the Group carried out targeted comprehensive and special danger investigation and management activities such as “four preventions in summer”, “four preventions in winter” and “special safety in electrical engineering”. The subsidiaries conducted more than 700 hidden danger investigation activities and identified 25,875 potential dangers in total; and

- Through cross-audits, the Group comprehensively identified the problems in corporate safety management and found safety management highlights. Among them, 2,979 issues and 196 highlights were found in the second quarter of safety audits, while 3,013 issues and 563 highlights were found in the third quarter of safety audits.

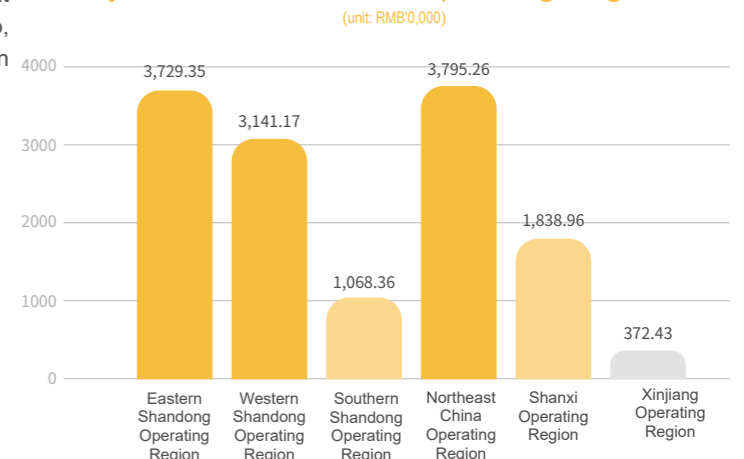


4 Ensuring the safety input and paying attention to the update and improvement of on-site safety protection facilities. Also, the Group ensured that safety protection equipment is in place.



the Group invested a total of approximately RMB **139,455,300** in safety.

Safety Investment of Each Operating Region in 2021



5 Strengthening occupational health management and paying attention to the physical and mental health of employees

Each subsidiary actively implemented the “one file for one person” system for occupational health management and the full coverage system for occupational health examination. Also, the subsidiaries conducted special training activities for occupational health and expanded the depth of occupational health management of employees. Moreover, the Group paid attention to the mental health of employees. All of these created a management atmosphere of “safe work, healthy life”.

During the Reporting Period, the Group's work-related injuries and rate of work-related fatalities were as follows:

	2021	2020	2019
Number of work-related fatalities	2	0	0
Rate of work-related fatalities	0.011%	0	0
Lost days due to work injury	0	100	125

The Group immediately initiated the plan for rescue and reported to relevant government departments after the accident. The accident investigations were carried out to analyze the causes and summarize the lessons to avoid the next occurrence. The Group organized the compilation of the *Electric Safety Management Manual* and revised the *Management Systems of Accountability for Production Safety Incident* to strengthen the evaluation of position safety compliance and improve the safety awareness and safety operation skills of employees.

Facing the recurrence of the COVID-19 pandemic, the Group made great efforts in the prevention and control of the pandemic, continuing to carry out normalized management of the pandemic prevention and control. During the Reporting Period, the Group achieved that there were no COVID-19 cases or suspected cases in all operating regions and subsidiaries.

1. Strengthening the implementation of responsibilities.

The Group has set up a leading group for pandemic prevention and control which are in charge of the formulation of the Group's work plan for pandemic prevention and control. The pandemic work plan was implemented in all workshops, teams and the responsible persons at all levels were clarified.

2. Refining division of labor.

- Organizing employees to receive COVID-19 vaccination.
- Continuing to conduct promotion and education on pandemic prevention and control. Organized emergency drills for pandemic prevention and control.
- Strictly monitoring the health of employees and managing the routine work such as daily temperature measurement, disinfection, registration, and hygiene management. The Group established a regular disinfection system, carried out comprehensive disinfection, pandemic prevention and safety inspection of equipment and facilities in public places, and continued to keep records.
- Ensuring the supply of pandemic prevention and control materials and improving the temperature measurement equipment and temporary isolation rooms. Supplies for pandemic prevention and control including protective masks, and disinfectants were provided to employees.
- Strengthening the prevention and control of the pandemic brought by external personnel. The Group assigned employees to take charge of pandemic control, including the recording of the origin and health status of personnel, and the establishment of personnel information registration forms. External transportations and service personnel were required to register on a real-name basis, wear protective equipment, conduct body temperature checks and should be accompanied by assigned personnel.



6.3 Promoting Career Development

The competition between corporates is ultimately the competition of talents. Strengthening technical training is an effective way to improve the labor performance of corporates, to enhance corporates' competitiveness, and to achieve high-quality development. The Group attaches great importance to the training and cultivation of technical talents. To this end, the Group organizes high-standard and high-quality technical training activities for its employees every year. In accordance with the development requirements of the Group at this stage, employee training is divided into two categories: induction training for new employees and on-the-job training.

Provide induction training for new employees. The Group provides pre-job training for new recruits, aiming to enable new employees to further understand the Group through induction training, and have a comprehensive understanding of corporate development, corporate culture, business processes, management systems, etc., so as to quickly integrate and adapt to the needs of the job.

Provide on-the-job training. The Group provides training for on-the-job employees in a planned way and based on actual conditions, to enhance their job skills and job performance, and meet the development needs of the Group. On-the-job training implements the two-level management, including the Group level and subsidiaries and departments (offices) level. The training is carried out based on the principle of “mainly internal training, supplemented by external training” and equal emphasis on theories and practical skills.

During the Reporting Period, training activities held by the Group were outlined as follows:

“School-Enterprise Cooperation” to Promote Industry-Education Integration

The Group held a signing ceremony for strategic cooperation with the University of Jinan to strengthen school-enterprise cooperation and promote the deep integration of industry and education. At the signing ceremony, more than 300 middle and senior management personnel from the Group's headquarters, Western Shandong Operating Region, Eastern Shandong Operating Region and Northeast China Operating Region participated in the training of the comprehensive ability improvement project for enterprise management personnel. In addition, the Group cooperated with the University of Jinan to establish the “University of Jinan-Shanshui Green Development and Intelligent Technology Innovation Institute” in August 2021.



Special training on “Carbon Peak and Carbon Neutrality”

In order to deepen the understanding of the background of “Carbon Peak and Carbon Neutrality” and the understanding of relevant policies, the Group held a special training on “Carbon Peak and Carbon Neutrality”. The Group invited experts to give lectures. The Group's responsible persons and employees, as well as related responsible persons of the six operating regions and the subsidiary companies, participated in the training in the form of on-site and video conferences. The training helps the group to learn advanced experience and formulate effective emission reduction measures based on the Group's reality.



A Comprehensive Ability Improvement Training Was Held For The Marketing Team In The Western Shandong Operating Region

A closed comprehensive ability improvement training was held for the marketing team in Qihe in the Western Shandong Operating Region. In this training, the Group specially engaged experts and lawyers to give lectures on site, with a total of more than 40 participants. Through the training, the Western Shandong Operating Region further enhanced the cohesion of the marketing team and effectively improved the marketing management ability and business skills of the team.



During the Reporting Period, the Group's training performance is as follows:



Percentage of Employees Trained			Average training hours per employee (hour)		
By gender	Male	80.82%	By gender	Male	58.61
	Female	86.49%		Female	53.32
By job responsibilities	Production	86.10%	By job responsibilities	Production	58.25
	Sales	74.68%		Sales	36.29
	Technician	64.41%		Technician	59.11
	Finance	92.11%		Finance	65.70
	Administration and Management	93.82%		Administration and Management	72.58
	Others	69.33%		Others	41.66



07 Strict Management to Ensure Quality

- 7.1 Establishing Win-Win Procurement
- 7.2 Guaranteeing Product Quality
- 7.3 Optimizing Customer Experience
- 7.4 Upholding Anti-corruption

7.1 Establishing Win-Win Procurement

The Group takes achieving continuous win-win development with partners as the objective of supply chain management. The Group always upholds the basic principles of "openness, fairness and impartiality", standardizes supply chain management and controls the environmental and social risks in the supply chain with reference to the Group's five basic regulations, namely the *Management Measures for Monitoring and Control of Procurement and Supply of Shandong Shanshui*, the *Coal Procurement and Supply Management Measures of Shandong Shanshui*, the *Management Measures for Centralized Procurement of Materials of Shandong Shanshui*, the *Waste and Old Materials Disposal Management Measures of Shandong Shanshui*, and the *Supplier Management Measures of Shandong Shanshui*. The Group has established a material supplier management and control system with a three-level structure, consisting of headquarter, operating regions and subsidiaries. The Group strives to implement centralized procurement and to supply for general, shared, large quantity and resource-based materials, and has established a centralized procurement platform.



Promoting Responsible Supply Chain

The Group has established strict supplier access standards, and implemented supplier hierarchical management. Supplier assessment and review have been incorporated into the whole process of supply chain management.

When selecting suppliers, the Group fully considers the following factors: the supplier's business qualifications, business performance, supply capacity, product quality, price, and social reputation. Under the same conditions, the Group gives priority to enterprises with brand advantages, quality advantages and an emphasis on social responsibility. In order to further reduce the potential environmental and social risks in the supply chain, the Group requires suppliers to comply with environmental protection policies, meet environmental protection requirements, and obtain quality and environmental management system certifications and occupational health and safety management system certifications.

In order to ensure that suppliers can continuously meet the entry standards and continuously optimise the structure of supplier pool, the Group applies a quantitative assessment and survival of the fittest mechanism. The Group organizes review teams to carry out comprehensive review and assessment of suppliers every year to sort out and classify suppliers. For suppliers who fail the comprehensive evaluation, the Group will cancel their supplier qualifications. The Group adopts various forms of assessment for suppliers, such as conducting on-site research and inspection on suppliers' enterprises, and conducting online inquiry on information such as enterprise qualification, business scope, business strength and reputation from Tianyancha. The Group's internal subsidiaries conduct annual cooperation review and comprehensive assessment on suppliers to ensure that suppliers can provide service with better quality to the Group.

Purchasing Raw Materials

When purchasing raw materials, the Group pays attention to the quality of raw materials provided by suppliers and strictly controls the risks posed by the supply of raw materials. The procurement management department of the Group will conduct market research in advance at the initial stage of procurement, and then go to the site for sampling and testing together with the quality control room, and carry out bidding and procurement according to the raw material quality standards of each subsidiary. If products are found not to meet the contractual requirements during product delivery, the Group will rectify the problems according to the internal measures formulated by the Group, such as the *Control Procedures for Non-compliance, Correction and Prevention Measures, the Control Procedures for Monitoring and Measurement of Products and the Technical Requirements for Procurement of Materials*. In case of any objection relating to quality, a product quality arbitration inspection will be carried out by the nationally recognized cement quality supervision and inspection agency at or above the provincial level.

As a result, the Group has entered into long-term strategic cooperation agreements with international, domestic and first-class manufacturers in the industry, established a stable cooperative relationship of direct supply, and achieved win-win cooperation between upstream and downstream enterprises in the industrial chain.

Procurement of coal

Establishing long-term strategic partnerships with large domestic coal companies to realize the point-to-point supply model of "fixed coal mines, single coal type, and direct coal supply". The quality of coal has been steadily improved, and the kiln system is operating more stably.

Procurement of raw materials

Signed a strategic cooperation of direct supply agreement with the thermal power companies, new materials companies, power plants and other manufacturers.




Procurement of oil products, auxiliary materials and spare parts

Maintaining long-term cooperative relations with large domestic enterprises and internationally renowned brands to provide a strong guarantee for material procurement.

Case

The Group and a logistic and trading company have held several exchange meetings on shipping and coal loading and unloading. Through exchanges and communication, they could understand each other's needs, coordinate and promote cooperation affairs, and form a synergistic concept of saving resources and protecting the environment, so as to better fulfill the social responsibility.



Nearest Procurement and Green Procurement

The Group also actively responds to the national environmental protection requirements. In terms of the selection of supply channels, the Group follows the principle of proximity and promotes local procurement, so as to reduce procurement costs and carbon emissions during the transportation of raw materials. When selecting suppliers, the Group pays attention to the recycling of the procurement of environmental protection products. Through active negotiation with the surrounding power plants of its subsidiaries, the Group has obtained direct supply resources such as fly ash and desulfurized gypsum, which not only meets the raw material supply and production needs, but also saves procurement funds and generates good social benefits.

Case

The Group signed a strategic cooperation agreement with a new materials company. This company's by-products such as fly ash and wet furnace are directly supplied to the subsidiary of the Group, generating good economic benefits. At the same time, both parties have established an effective communication mechanism. They actively carried out extensive exchanges and cooperation, while fulfilling their environmental protection responsibilities and achieving win-win cooperation in the supply chain.

Adhering to Transparent Procurement

The Group has long been committed to transparent procurement and has set up an online procurement platform, through which suppliers can participate in tendering and bidding fairly through self-registration. During the Reporting Period, the Group carried out a number of material bidding projects for consumable materials and equipment's spare parts through the dedicated online procurement platform. The number of bidders was 36,964. The Group clearly stipulates in the *Management Measures for Procurement and Supply* that suppliers on the specialized online procurement platform who meet the bidding requirements can participate in the bidding. Qualified bidders participating in the bidding shall not be restricted or excluded, and illegally interfere with the bidding activities in any way. Employees participating in the bidding must strictly abide by the business code and professional ethics. During the bidding process, all units and personnel participating in the bidding shall comply with relevant national laws, regulations and the Group's relevant regulations. They shall adhere to the principles, be honest and self-disciplined, and keep confidential. The Group adheres to openness and transparency in the procurement process and provides contact information for supervision and reporting to accept supervision from the society.

Numbers of Suppliers by Region

During the Reporting Period, the Group had a total of 6,150 suppliers, all of which were managed in accordance with the Group's procurement and supply management measures. They mainly include the following categories of suppliers, including process, machinery and equipment, electrical appliances, consumable and office supplies, raw materials, fuels and equipment for non-cement enterprises.

Region	Eastern China	Northern China	Northeast China	Southwest China	Northwest China	Central China	Southern China	Total
Number	3,489	1,018	943	68	333	248	51	6,150

7.2 Guaranteeing Product Quality

The Group adheres to the business tenet of "customer first, quality first" and the general requirement of "optimizing service systems, improving service procedures, standardizing service contents and improving service quality", and strives to provide customers with high quality products. The Group continuously improves service systems and provides customers with products and services with the highest quality. The Group strictly complies with relevant laws and regulations relating to health and safety, advertising, labelling and privacy matters relating to the products and services provided and methods of redress, including but not limited to the *Standardization Law of the PRC*, the *Metrology Law of the PRC*, the *Regulation of the PRC on the Administration of Production License for Industrial Products*, the *Product Quality Law of the PRC* and the *Rules for Implementation of Manufacturing License for Cement Products*. During the Reporting Period, no product sold or shipped was subject to recalls by the Group for safety and health reasons.

The Group attaches great importance to product quality and has formulated product internal control and quality inspection standards that are stricter than the national standards, including but not limited to the *Quality Management Regulations*, the *Quality Management System*, the *Quality and Technical Requirements for Incoming Raw and Fuel Materials*, the *Laboratory Quality Management Manual*, the *List of Process Quality Control Projects in the Quality Control Room*, the *Operation Procedures for Inspection Equipment*, the *Self-calibration Regulations for Inspection Equipment*, the *Compilation of Instructions of Inspection Operation and the Internal Control Standards for Cement Product Quality*. At the same time, the Group ensures production efficiency and product quality by purchasing manufacturing equipment with excellent performance, providing employees with systematic professional training, and establishing strict quality management standards. In accordance with the hierarchical model of "monitoring by the group and regional management", the Group has implemented a three-level quality control system of "group-operating region-company", and standardized the quality management system, and advanced production technology and equipment.

The Group's quality inspection is divided into the inspection of raw materials and fuels when entering the plant, process inspection, ex-factory cement inspection, inspection and self-calibration of monitoring and measurement equipment, verification of personnel capabilities, external comparison, etc. After entering the plant, raw materials will be inspected in every vehicle in accordance with technical requirements, and the unqualified materials will be rejected. The raw materials will be stored in different areas and used together. Process inspection and ex-factory cement inspection shall be implemented according to the *List of Process Quality Control Items in Quality Control Room*. Cement can only be delivered after 1 day of qualified strength confirmation, and the inspection data for 3 days and 28 days will be filled subsequently. The Group also clearly indicates product information on product packaging in accordance with national standards, including but not limited to implementation standards, cement varieties, strength levels, producer names and production license marks. The name and strength grade of cement are printed with different colors on both sides of the packaging of cement according to the types of cement.

The Group also strictly regulates the product recall process and has formulated and implemented internal policies such as the *Control Procedures for Unqualified Products*, the *Control Procedures for Non-compliance, Correction and Prevention Measures*, and the *Control Procedures for Incident Investigation and Handling*. In order to standardize the recall procedures of unqualified products and prevent and minimize the damage that may be caused by unqualified products, the Group has formulated a product recall system:

- If the products are found to be unqualified after sampling inspection, or the customers complain about the product quality, when the customer complaint is analyzed and confirmed as reasonable and the product surely has quality problems, the recall procedure will be initiated;
- The Group will track the regional markets, terminal building material points and customers based on records where products should be recalled. Also, the Group will arrange corresponding warehousing and transportation to ensure timely and efficient emergency recall immediately and actively take relevant response or remedial measures. The recalled products will be identified on-site and stored separately by types;
- Through the quality assessment of the recalled products, the Group will make specific disposal decisions and analyze the causes, so as to take targeted corrective measures to prevent similar problems from happening again; and
- The Group will also follow up on the related work on the adverse effects in the market due to unqualified products.

In accordance with the requirements of the *Self-Statement Disclosure and Supervision System of Corporate Standard*, the Group's subsidiaries have made public announcements on the "Public Information Service Platform for Corporate Standard" to accept the supervision from the society. During the Reporting Period, the Group had no major quality incidents.

Case: Qingdao Chuangxin Guarantees Product Quality

During the Reporting Period, Qingdao Chuangxin has conducted risk and opportunity analysis in March, identified the needs and expectations of relevant parties, and determined the scope and process of the quality management system. The company adopts the most advanced open-circuit and closed-circuit grinding process in China, and adopts DCS central integrated control in the production process. All raw materials and ex-plant cement are sealed, stored and protected with clear marks. The company conducts quality inspection of raw materials, production process quality control, finished products and other quality inspection in accordance with the quality management procedures of cement enterprises, formulates technical requirements for incoming raw materials, regularly evaluates qualified suppliers, and signs contracts to stipulate relevant quality standards for ex-plant cement. Unqualified products in the process are controlled through matching homogenization and re-grinding. The marketing department is responsible for conducting customer satisfaction surveys. The company also conducts internal audit and management review in accordance with the procedures, and continues to improve in accordance with the PDCA cycle model.

In November 2021, the company passed the third-party audit by a cooperative agent, who issued a quality management system certification.



7.3 Optimizing Customer Experience

Customers are the foundation for the survival and development of an enterprise. While continuously improving product quality, the Group continues to improve the after-sales service system, strengthens the service of China Shanshui Group for customers, and follows up customer service and sales simultaneously, covering all regions. The Group strictly complies with the *Constitution of the PRC*, the *Contract Law of the PRC*, the *Law of the PRC on the Protection of Consumer Rights and Interests*, the *Tort Law of the PRC*, the *Trademark Law of the PRC*, the *Patent Law of the PRC*, the *Advertising Law of the PRC*, the *Anti-Unfair Competition Law of the PRC* and other laws and regulations. During the Reporting Period, the Group did not violate the above laws and regulations.

Response To Complaint Handling

The production subsidiaries of the Group cover ten provinces (regions) including Shandong, Liaoning, Shanxi and Xinjiang, and also municipalities. Each production subsidiary has set up a sales department and customer service department to provide professional sales services according to the types of end customers.

In terms of product services and complaints, the Group has established a service system for pre-sales consultation, in-sales reception and after-sales return visits. Each of the Group's subsidiaries has established a customer service department with dedicated customer service personnel engaged in pre-sales, in-sales and after-sales services. Customer service personnel actively acquire customers' opinions on product quality, performance, packaging and other aspects through telephone inquiries, questionnaire surveys, on-site visits and symposiums. The Group has established customer files to continuously improve and track the quality of products and services.

In order to standardize the after-sales service, the Group has formulated the *Customer Service Management Regulations* to standardize the customer complaint handling process and further improve the efficiency of customer complaint handling. After receiving customer complaints, each subsidiary of the Group handles the complaints in strict accordance with the requirements of the quality complaint management process, details of which are as follows:

01 Determine the content of customer complaints and feedback. If it reflects the sales service problem of the salesman and the customer proposes that the sales service personnel violate their work duties, and the sales manager of each subsidiary will organize personnel to verify. If it meets the facts, it will be dealt with seriously in accordance with the relevant management system. If the situation is inconsistent with the facts, the sales service personnel will be ordered to properly explain to the customer;

02 If the customer gives feedback on the quality of the product, the salesman responsible for the customer will first call on the site to deal with the problem as soon as possible, and determine the customer's complaint, the type of cement used, the ex-factory time, the ex-factory number, the transportation vehicle and other information, and fill in the *Quality Complaint Handling Feedback Form* in detail to provide relevant explanations to the customer. If customers disagree with the handling opinions, they will report the complaint to the company's sales department in a timely manner, and the sales department will contact the relevant personnel of the laboratory to conduct on-site handling and on-site sampling; and

03 The customer satisfaction surveys are conducted on a quarterly basis to provide timely feedback to the company's production department on customers' opinions and suggestions on product quality. The production department makes adjustments according to the actual situation to continuously improve customers' satisfaction with product quality.

During the Reporting Period, the Group received 6 complaints, all of which were related to customers' improper use of products. The complaints received have been responded to and resolved by customers.

Regulated Advertising

The Group maintains and uses trademarks and conducts advertising activities in strict accordance with relevant laws and regulations. Regarding advertising, the Group's operating regions have issued relevant systems in a unified manner, including the standards and coordination management of establishing special funds for advertisement and promotion, the approval and implementation of advertising plans, etc., to standardize advertising management. Each subsidiary sets up special funds for advertising and publicity according to the standards. Each sales department formulates advertising plans and budgets in the sales area based on the characteristics of the local market, and submits them to the marketing center in the corresponding operating region for approval. The marketing center in the operating region reviews and approves the advertising plan based on the Group's overall brand operation principles and regional characteristics. The sales department of each subsidiary assigns dedicated personnel to be responsible for implementation.

Protecting Customer Privacy

The Group is committed to protecting the privacy of itself and its customers. Customer information is of utmost importance to enterprises. The Group keeps customer information strictly confidential. Customer files were established for customer information and filed in a timely manner. All the customer information can be only used for reference and review purposes. All customer-related information is recorded in the sales system, and the designated person is responsible for the account number of the system, and the corresponding authority is set to ensure customer information security, and the required information is not allowed to be circulated without permission.



The Group enters into labor contracts with the company's sales personnel, including the confidentiality of relevant customer information, and signs the confidentiality responsibility letter with the sales management personnel to keep customer information confidential; The sales system has been set up with confidentiality authority, and the account application process has been established, with one person and one real name certification. The Customer Service Department updates and maintains customer information on a monthly basis. Customer information is in strict accordance with the *Customer Service Management Regulations* to ensure customer information is not leaked and maintain customer information security.

Intellectual Property Protection

In order to safeguard and protect intellectual property rights, as well as to safeguard the Group's brand image and protect consumer rights, the Group firmly opposes counterfeit and shoddy products. In accordance with the Group's *Implementation Procedure for Anti-counterfeiting Work in Cement Market*, the Northeast China Operating Region formulated and issued the *Notice on Strengthening the Anti-counterfeiting Work of the Cement Market in the Northeast China Operating Region* in July 2018 and established an anti-counterfeiting office. A market anti-counterfeiting work system has been set up to clarify the operation process of anti-counterfeiting work. The anti-counterfeiting office regularly visits the areas and cross-region where each subsidiary is located, and the research is carried out to avoid the occurrence of imitating the packaging and products of the Group. In order to maintain the brand image of the existing eight major brands, the Northeast Operating Region has formulated the *Cement Packaging Bag Standard and Acceptance Rules* in accordance with the *Group's System for Trademark Maintenance in Cement Market*, which standardizes the packaging bag appearance, quality and acceptance audit process of each brand. Meanwhile, in accordance with the Group's *Notice on Regulating the Group's External Publicity Work*, regulations have been made on the content and form of publicity, which standardizes the external advertising and publicity work, and strengthens the protection of intellectual property rights.

7.4 Upholding Anti-corruption

China Shanshui Group strictly abides by relevant laws and regulations relating to prevention of bribery, extortion, fraud and money laundering, including but not limited to the *Anti-Money Laundering Law of the PRC*, the *Criminal Law of the PRC*, and the *Securities Law of the PRC*. In order to strengthen the awareness and discipline of the party members of the Group's leading cadres, the Group has formulated and implemented the *Regulation on Integrity and Self-discipline of Party Members of Leading Cadres of Shandong Shanshui*, the *Regulations on the Work of Disciplinary Inspection and Petition of Shandong Shanshui*, the *Regulations on Petitioning and Reception of Shandong Shanshui*, and other regulations, on the basis of the *Party Constitution*, the *Party Disciplinary Measures*, the *Party Integrity and Self-discipline Guideline*. The Group has deeply implemented the responsibility system for the construction of clean governance, established codes of conduct for integrity and self-discipline and regulations for disciplinary actions, and insisted on self-discipline as well as external discipline.

 Integrity and Self-Discipline	 Complaint and Report
<ul style="list-style-type: none"> • Establish a code of conduct for integrity and self-discipline, which prohibits the selection and appointment of leading cadres in violation of regulations, the use of powers and duties to facilitate improper interests and duties, engagement in profit-making activities without permission, and practice of jobbery. • Establish and improve punishment regulations, conduct corresponding investigations for violations of prescribed disciplines and transfer suspected crimes to judicial institutions for handling. • Strengthen the supervision and management mechanism. Party organizations at all levels are responsible for implementing the integrity and self-discipline regulations, and conducting supervision and inspection together with the Group's discipline inspection committee, supervision and audit department. 	<ul style="list-style-type: none"> • Clarify the responsibilities of each department. The party department is responsible for reporting, registering, and transferring the complaints and reports. The leaders of the discipline inspection committee and other departments are responsible for reviewing the materials and submitting them to relevant departments for implementation and handling, and the discipline inspection committee is responsible for supervising the implementation. • After receiving complaints and reports, the Group will review and handle relevant matters, and promptly investigate and deal with violations of regulations and disciplines. If the problem is reported to be serious, it will be handed over to the Group for investigation and processing. After the processing is completed, the Group will respond to the real-name whistleblower and file the case in accordance with the regulations.



During the Reporting Period, the Group carried out anti-corruption training to further enhance employees' and management's alertness and sensitivity to corruption and enhance their awareness of integrity and self-care. In November, the Group carried out training on related party transactions and invited lawyers of listed companies to interpret and train the Group's personnel in accordance with the relevant provisions of the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited* on related party transactions and the *Measures for the Administration of Related Party Transactions of Shandong Shanshui Cement Group Ltd*. The participants included the Group's management personnel, relevant business personnel, leadership and management personnel of each operating region, leadership of subsidiaries (branches) and head of legal affairs of each region.

During the Reporting Period, the Group has not violated the above laws and regulations on the prevention of bribery, extortion, fraud and money laundering, nor has there been any corruption lawsuit filed and concluded against the Group or its employees.



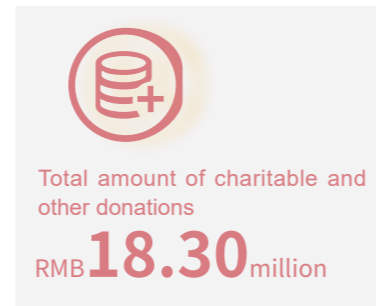
08

Friendly
Community and
Creating
Prosperity
Together

8.1 Fulfilling Social Responsibility

8.1 Fulfilling Social Responsibility

The Group actively fulfills its social responsibilities and civic obligations. According to the *Welfare Donations Law of the PRC*, the *Company Law of the PRC* and other relevant laws and regulations, the Group has formulated the *Management Measures for External Donation and Sponsorship of Shanshui Group (Provisional)* to further standardize the Group's external donation process, donation scale, donation scope, etc., and strengthen the Group's management of donations and sponsorship matters, so as to comprehensively and effectively promote and advocate the Group's brand and corporate image. The Group implements unified management on the external donation and sponsorship of subsidiaries. The scope of external donations and sponsorships of the Group includes donations and sponsorships to disaster-stricken areas, designated poverty alleviation areas, designated assistance areas, disadvantaged social groups, and social welfare undertakings such as science, education, culture, health, environmental protection, energy conservation and emission reduction. During the Reporting Period, the Group participated in various charitable and other donation activities, with a total amount of charitable and other donations amounting to RMB 18.30 million and carried out community charity activities to show love to people in need in the society.



Poverty Alleviation Donations

In April 2021, Pingyin Shanshui donated RMB 600,000 to Meiduo Education Development Foundation. Pingyin Meiduo Education Development Foundation aims at sponsoring students from poor families in Pingyin to help them complete their studies, funding teachers who provide teaching in rural schools, supporting the schools to solve special difficulties encountered in the development process, and rewarding teachers and management personnel who have made outstanding achievements and outstanding contributions in education, teaching and school management, and rewarding students with excellent personality and academic performance.

The employees of Kazuo Company delivered more than 1,000 donated clothes to the post office staff to mail to the poor mountain areas in Liaoning Province.



Passing Love To The Disadvantaged Groups

In 2021, the Group donated a number of "Hope Houses" and launched a series of family companionship activities to help poor children and help get rid of poverty, attacking with practical actions. "Hope House" children caring project mainly targets children from 8 to 14 years old who have no separate place to live and study in poor families, and has built a "Hope Houses" to improve their living and learning environment.



Charitable Donations

In August 2021, Linfen Company and Central Blood Station of Linfen City jointly launched a voluntary blood donation activity with the theme of "donating blood to pass love". Under the active organization of the labor union of Linfen Company, more than 30 employees signed up to participate in the voluntary blood donation activity and donated more than 10,000 ml of blood.



SEHK's ESG Reporting Guide Index

Mandatory Disclosure Requirements	Description	Relevant Chapter(s) in the Report or Other Explanation
Governance Structure	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	2 and 4.1
Reporting Principles	A description of, or an explanation on, the application of the reporting principles in the preparation of the ESG report.	1
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	1

General Disclosure and KPIs	Description	Relevant Chapter(s) in the Report or Other Explanation
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.	5.1
KPI A1.1	The types of emissions and respective emissions data.	5.5
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	5.5
KPI A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Not Applicable ¹⁷
KPI A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Not Applicable ¹⁸
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	5.1
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	5.1
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	5.2 and 5.3
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).	5.5
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	5.5

¹⁷The hazardous waste generated in the production process of the Group is mainly waste engine oil, which is recycled. Thus, this indicator is not applicable.
¹⁸The non-hazardous solid waste generated in the process of production is all recycled, thus this indicator is not applicable.

General Disclosure and KPIs	Description	Relevant Chapter(s) in the Report or Other Explanation
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	5.2
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	5.2
KPI A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	5.5
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	5.3
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	5.3
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	5.4
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	5.4
B. Social		
Aspect B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	6.1
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	6.1
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	6.1
Aspect B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	6.2
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	6.2
KPI B2.2	Lost days due to work injury.	6.2
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	6.2
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	6.3
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	6.3
KPI B3.2	The average training hours completed per employee by gender and employee category.	6.3
Aspect B4: Labour Standards		

General Disclosure and KPIs	Description	Relevant Chapter(s) in the Report or Other Explanation
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	6.1
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	6.1
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	6.1
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	7.1
KPI B5.1	Number of suppliers by geographical region.	7.1
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	7.1
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	7.1
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	7.1
Aspect B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	7.2 and 7.3
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	7.2
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	7.3
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	7.3
KPI B6.4	Description of quality assurance process and recall procedures.	7.2
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	7.3
Aspect B7: Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	7.4
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	7.4
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	7.4
KPI B7.3	Description of anti-corruption training provided to directors and staff.	7.4
Aspect B8: Community		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	8.1
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	8.1
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	8.1

Definitions

In the Report, unless otherwise stated, the following words and expressions have the following meanings:

Eastern Shandong Operating Region	Business located at the Eastern Shandong Province, including Weifang, Qingdao, Yantai, Weihai, ietc.
Western Shandong Operating Region	Business located at the Central and Western Shandong Province, including Zibo, Jinan and Hebei Province and Tianjin, etc.
Southern Shandong Operating Region	Business located at the Southern Shandong Province, including Zaozhuang, Jining, Heze and Henan Province, etc.
Northeast China Operating Region	Business located at Liaoning Province, the Eastern Inner Mongolia, Jilin Province etc.
Shanxi Operating Region	Business located at Shanxi Province, Shaanxi Province etc.
Xinjiang Operating Region	Business located at Kashi, Xinjiang
Linqu Shanshui	Linqu Shanshui Cement Co., Ltd. belonging to Eastern Shandong Operating Region
Anqiu Shanshui	Anqiu Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Region
Weihai Shanshui	Weihai Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Region
Qingdao Chuangxin	Qingdao Shanshui Chuangxin Cement Co., Ltd., belonging to Eastern Shandong Operating Region
Liaocheng Shanshui	Liaocheng Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Region
Zibo Shanshui	Zibo Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Region
Pingyin Shanshui	Pingyin Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Region
Zaozhuang Chuangxin	Zaozhuang Chuangxin Shanshui Cement Co., Ltd., belonging to Southern Shandong Operating Region
Zaozhuang Shanshui	Zaozhuang Shanshui Cement Co., Ltd., belonging to Southern Shandong Operating Region
Jining Shanshui	Jining Shanshui Cement Co., Ltd., belonging to Southern Shandong Operating Region
Bohai Cement	Bohai Cement (Huludao) Co., Ltd., belonging to Northeast China Operating Region
Chifeng Yuanhang	Chifeng Shanshui Yuanhang Cement Company Limited, belonging to Northeast China Operating Region
Zhaqi Shanshui	Jalaid Qi Shanshui Cement Co., Ltd., belonging to Northeast China Operating Region
Baishan Shanshui	Baishan Shanshui Cement Co., Ltd., belonging to Northeast China Operating Region
Dalian Shanshui	Dalian Shanshui Cement Co., Ltd., belonging to Northeast China Operating Region
Shenyang Shanshui	Shenyang Shanshui Gongyuan Cement Co., Ltd., belonging to Northeast China Operating Region
Jinzhou Cement	Bohai Cement (Jinzhou) Co., Ltd., belonging to Northeast China Operating Region
Shanshui Heju	Jincheng Shanshui Heju Cement Co., Ltd., belonging to Shanxi Operating Region
Jincheng Shanshui	Jincheng Shanshui Cement Co., Ltd., belonging to Shanxi Operating Region
Wuxiang Shanshui	Wuxiang Shanshui Cement Co., Ltd., belonging to Shanxi Operating Region
Shuozhou Shanshui New Era	Shuozhou Shanshui New Era Cement Co., Ltd., belonging to Shanxi Operating Region

Yingjisha Shanshui	Yingjisha Shanshui Cement Co., Ltd., belonging to Xinjiang Operating Region
Shanghe Company	Shanghe Shanshui Cement Co., Ltd., belonging to Western Shandong Operating Regions.
Qingdao Company	Qingdao Branch of Shandong Shanshui Cement Group Co., Ltd.
Lvliang Shanshui	Lvliang Shanshui Cement Co., Ltd., belonging to Shanxi Operating Region.
Weishan Shanshui	Weishan Shanshui Cement Co., Ltd., belonging to Southern Shandong Operating Region.
Taiyuan Shanshui	Taiyuan Shanshui Cement Co., Ltd., belonging to Shanxi Operating Region.
Yishui Shanshui	Yishui Shanshui Cement Co., Ltd., belonging to Eastern Shandong Operating Region.
Hequ Shanshui	Hequ County Zhongtianlong Cement Co., Ltd., belonging to Shanxi Operating Region.
Kazuo Company	Kalaqin Left Congyuanhao Cements Co., Ltd., belonging to Northeast China Operating Region.
Gongyuan Company	Liaoning Shanshui Gongyuan Cement Co., Ltd., belonging to Northeast China Operating Region.
Kangda Company	Kangda (Shandong) Cement Co., Ltd., belonging to Eastern Shandong Operating Region.
Liaoyang Qianshan Company	Liaoyang Qianshan Cement Co., Ltd., belonging to Northeast China Operating Region.
Qingdao Ji'an Concrete	Qingdao Ji'an Concrete Co., Ltd., belonging to Eastern Shandong Operating Region.
Weifang Commercial Concrete	Commercial Concrete Branch of Weifang Shanshui Cement Co., Ltd., belonging to Eastern Shandong Operating Region.
Linfen Company	Linfen Shanshui Cement Co., Ltd., belonging to Shanxi Operating Region.
Huixian Company	Huixian Shanshui Cement Co., Ltd., belonging to Southern Shandong Operating Region.
Chunjiang Company	Weihui City Chunjiang Cement Co., Ltd.
Articles of Association	The amended and restated memorandum and articles of association of the Company adopted on 30 May 2019
YOY	Year on year comparison
Raw material	Raw material that needs further processing before being used for productions
Clinker	A semi-finished product in the cement production process
Commercial concrete	Commercial concrete, also named as ready mixed concrete
PRC or China	The People's Republic of China
Hong Kong	Hong Kong Special Administrative Region of the PRC
"14th Five-Year Plan"	"14th Five-Year Plan" with the full name of the Outline of the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China
COVID-19 pandemic, Pandemic	The outbreak caused by novel coronavirus pneumonia



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