



招金礦業股份有限公司

ZHAOJIN MINING INDUSTRY COMPANY LIMITED

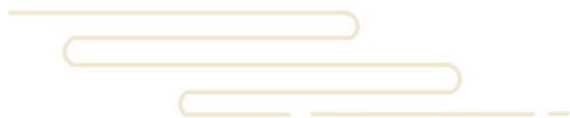
(a joint stock limited company incorporated in the People's Republic of China with limited liability)

(Stock Code:1818)

# 2021 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



THE GOLD INHERITS MILLENNIUM  
BENEVOLENCE AND RIGHTEOUSNESS  
KNOT THE WORLD



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# ABOUT THIS REPORT

Zhaojin Mining Industry Company Limited and subsidiaries as listed in “Scope of Report” (collectively the “Group”, the “Company”, “Zhaojin”, “we” or “us”) are pleased to publish the environmental, social and governance (“ESG”) report (the “Report”), summarising our policies, initiatives and performance on managing ESG-related issues and risks. The Report has been reviewed and approved by the board of directors (the “Board”) of the Company. This Report can be downloaded from the Company’s website and the website of The Stock Exchange of Hong Kong Limited (“the Stock Exchange”).

## Scope of Report

The Report covers the period from 1 January 2021 to 31 December 2021 (the “Reporting Period” or “2021”). The Report focuses on our major businesses, including the Company and 11 subsidiaries. Unless otherwise specified, the scope of data will be the same.

Zhaojin – Xiadian Gold Mine, Dayingezhuang Gold Mine, Jinchiling Gold Mine and Canzhuang Gold Mine;

Zhaoyuan Jintongling Mining Industry Company Limited (“Jintongling”);

Xinjiang Xinhui Copper Company Limited (“Xinhui Copper”);

Tuoli Zhaojin Beijing Mining Company Limited (“Zhaojin Beijing”);

Xinjiang Xingta Mining Company Limited (“Xingta Mining”);

JHKASHI Tonghui Mining Company Limited (“Tonghui Mining”);

Fengningjinlong Mining Company Limited (“Fengningjinlong”);

Gansu Hezuo Zaozigou Mining Industry Company Limited (“Zaozigou”);

Zhaoyuan City Zhaojin Jinhe Technical Company Limited (“Zhaojin Jinhe”);

Liaoning Zhaojin Baiyun Gold Mining Company Limited (“Zhaojin Baiyun”);

Gansu Zhaojin Precious Metal Smelting Company Limited (“Gansu Smelting”); and

Laizhou Ruihai Mining Industry Company Limited (“Ruihai Mining”).

The Company will continue to review the scope of reporting regularly according to our materiality principles and the key stakeholders’ opinions, and will extend the scope in the future if necessary.

## Reporting Standard

The Report has been prepared in accordance with the mandatory disclosure requirements as set out in Part B and the “Comply or Explain” provisions as set out in Part C of the ESG Reporting Guide under Appendix 27 to the Rules Governing the Listing of Securities on the Stock Exchange (“Stock Exchange ESG Reporting Guide”). If there is any discrepancy between the English and Chinese versions, the Chinese version shall prevail.

## Contact & Feedback

The Group values your feedback on this Report and our sustainability performance. If you have any comments or suggestions, please feel free to contact us via:

Zhaojin Mining Industry Company Limited – Secretary to the Board Office

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## ABOUT THE GROUP

Zhaojin was jointly established by Shandong Zhaojin Group Company Limited, Shanghai Fosun Industrial Investment Co., Ltd., Shanghai Yuyuan Tourist Mart (Group) Co., Ltd., Shenzhen Guangxin Investments Co., Ltd. and Shanghai Laomiao Gold Co., Ltd. and has obtained approval from the People's Government of Shandong Province. The Company was incorporated as a joint stock limited company on 16 April 2004 and listed on the Main Board of the Stock Exchange on 8 December 2006.

The Company is an integrated large-scale enterprise with exploration, mining, processing and smelting operations, focusing on gold production business. The Company is one of the leading gold producers and one of the largest enterprises of gold smelting in the PRC. Principal products of the Company include standard Au9999 and Au9995 gold bullions. The Company's main production technologies and facilities are leading in the PRC and of advanced international standards. The Company is a national high and new technology enterprise.

The Company is based in the Zhaoyuan city in the Jiaodong peninsula of Shandong Province, the PRC, which is well placed with abundant resources and has a long history of gold exploration and production. According to the statistics provided by the China Gold Association, gold resources in Zhaoyuan city account for approximately 10% of the remaining gold resources in the PRC. Zhaoyuan city is named by the China Gold Association as the "Gold Capital of the PRC" and is the largest gold production base and the first gold production city in the PRC.

Recently, the Company insists on focusing on gold mining as well as technology and management innovation in order to strengthen our technologies and cost advantages in the industry. Thus, the Company has achieved remarkable results in increasing gold reserves, production volume and corporate efficiency every year.

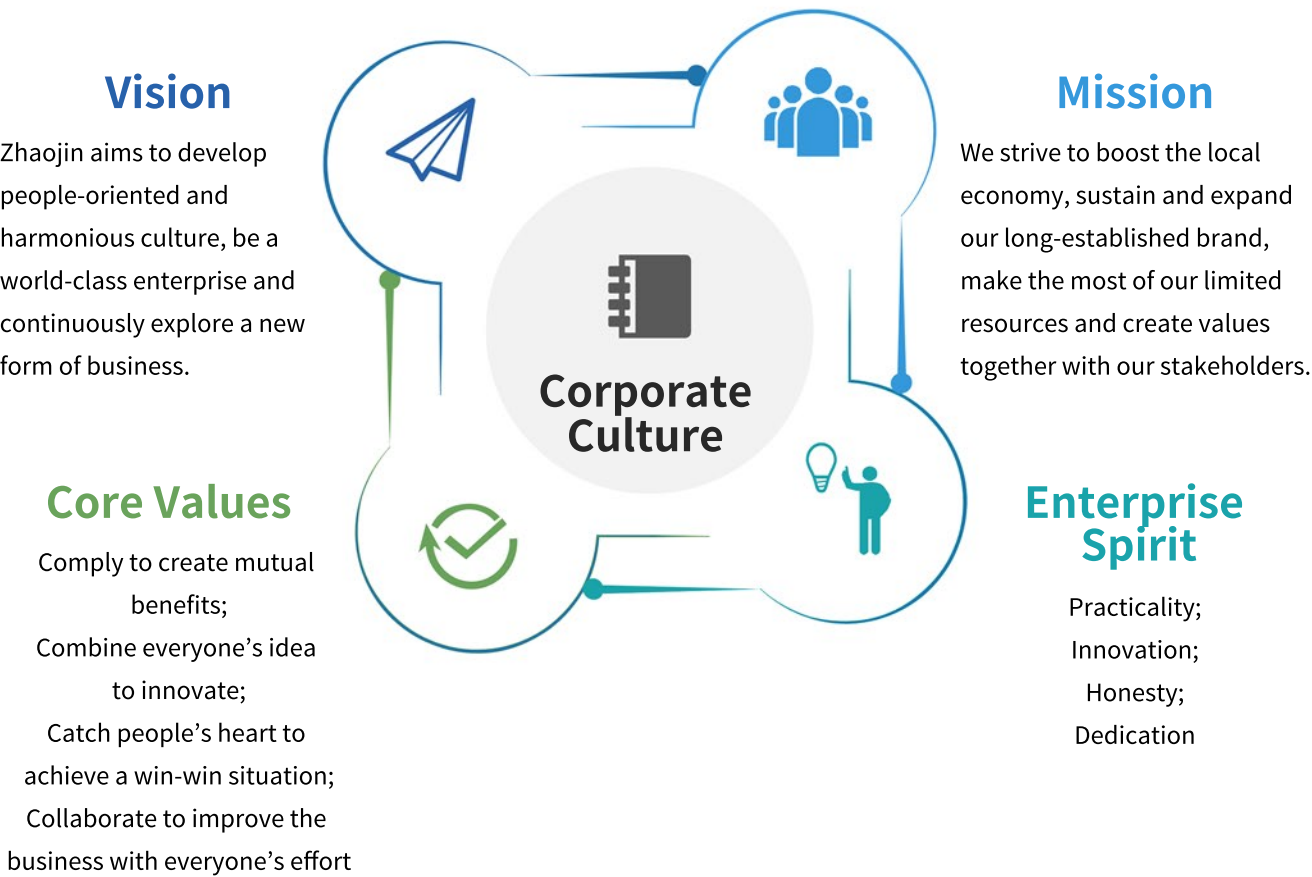




Our Culture and Values

It is the core content of Zhaojin’s culture to establish a cultural system with the characteristics of the gold industry and the Company’s own characteristics, facilitate corporate development with culture and shift the corporate management model from institutional management to cultural management. Looking back on our development, we always incorporate environmental and social concerns into our business models and utilise an innovative management approach to work towards our business goals and also society’s wider goals. We value and share common values with our stakeholders, thereby helping us to continuously improve and motivate ourselves and make innovation.

Corporate Culture



## Awards and Recognition

In 2021, we have achieved fruitful results in various areas such as party building, technological innovation, production and operation, and cultural construction, which have earned us various awards and recognition in the market.



2021 Chinese Enterprise Best ESG Practices Award



The 5th China Outstanding IR – Best Information Disclosure Award



The Best Southbound Trading Company of the 6th Golden Hong Kong Stock



The first batch of "China's Top 500 ESG Outstanding Enterprises"

Awards and Recognition



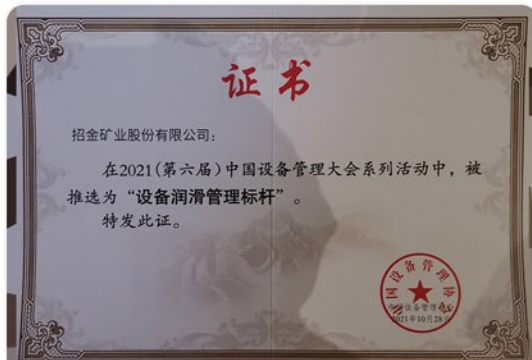
## Awards and Recognition



5G+Industrial Internet Application  
Benchmarking Entity of the Year



Plaque of the 5G+Industrial Internet Application  
Benchmarking Entity of the Year



Certificate of the Equipment Lubrication  
Management Benchmarking Entity of the Year



Equipment Lubrication Management  
Benchmarking Entity of the Year



The "Experiment and Application of Magnetic  
Levitation Blower in Gold Flotation Process" won  
the First Prize of Shandong Provincial Equipment  
Management Innovation Achievements



The only enterprise in the gold mining industry  
to be selected as one of the first batch of pilot  
enterprises in Shandong Province for  
implementing the chief data engineer system

# CHAIRMAN FOREWORD



Chairman

In 2021, the normal production and operation of the Group was severely challenged and affected by factors such as the large-scale inspection and rectification of production safety issues in Shandong Province and the clean-up and rectification of non-coal mines in Yantai city. Facing the severe impact and challenges, with the concerted efforts of the entire Group, we were able to turn around the adverse situation and put our production and operation on the right track. These accomplishments are based on the improved production management, cost control, and governance capabilities of the Group. More importantly, it also thanks to the dedicated work of all employees and constant support and care of our shareholders, as well as the strong support by all our stakeholders.

In 2021, the Group continued to emphasize on “double focus” and solved major difficult problems. Both concentrating on the exploration by key enterprises and prospecting ore in resource exhausted mines have made new achievements, resulting in an additional output of 52.55 tons of gold metal and an additional output of 1,257 tons of copper metal in total. Ruihai Mining successfully obtained the mining license, completed the environmental impact assessment approval. The design of safety facilities has also passed the review recently. Breakthroughs were achieved in scientific research, and the research on key processes for reducing tailings at the source of key tailings resources broke through technical bottlenecks, fundamentally solved the issues of sustainable development for mines. The Company had 42 technical innovation projects, 87 patent applications and 125 licensed patents throughout the year. Overseas mergers and acquisitions achieved major breakthroughs as the Company became the major shareholder of Australia’s Tietto Minerals through investment. The “Double H” internationalization strategy became clearer.

In 2021, being a “safety rectification year”, the Group strengthened production safety, enhanced the level of safety management, improved the production safety responsibility system, promoted the application of 126 four new technologies such as magnetic levitation blowers and carbon-based capacitor batteries. Information platforms such as big data and safety intelligent centralized control are put into operation. During the year, we invested a total of RMB42 million in environmental protection, including ecological restoration, flue gas treatment, wastewater treatment and solid waste stockpile treatment. Throughout the year, a total of 21.692 hectares of green areas were added, the total number of green mines at the national level reached 10, and the number of green factories at the national level reached 2. We won 14 provincial-level or above scientific and technological progress awards, 5 management innovation awards, participated in the development of 13 standards, and were successively awarded 16 honors in all kinds such as the first batch of pilot enterprises of the “Chief Data Engineer System in Shandong Province” and the “Harmonized Labour Relations Enterprise in Shandong Province”.

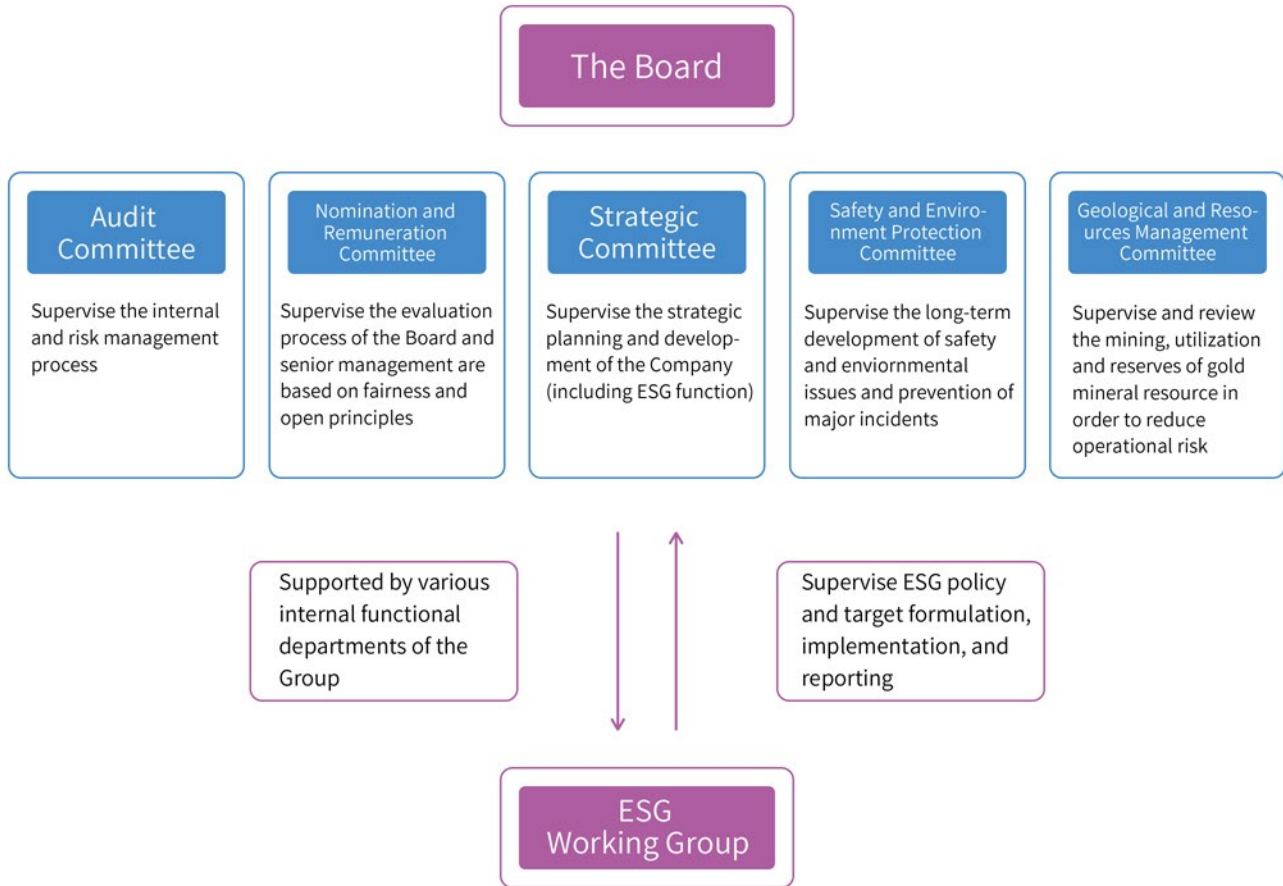
In 2021, the Group adhered to the people-oriented philosophy, advanced pro-people projects such as caring measures for families of offsite workers, work opportunities for children of senior employees and the Golden Autumn Scholarship, enhanced the community relations and the relations between the management and citizens. The Group also demonstrated its commitments and missions as a state-owned enterprise through practical actions with targeted poverty alleviation that supported 110 poor families, donated over RMB5 million to combat the pandemic and other difficulties, disbursed mutual aid funds of RMB0.6 million for employees. In addition, the Group further advanced the construction of corporate culture to enhance the influence of our golden brand. We focused on the large-scale inspection and rectification of production safety issues, the production and operation of frontline production enterprises, corporate reform and development and other hot topics, to deeply explore the effectiveness and highlights of corporate governance at all levels of the Company. Throughout the year, 147 articles were published in newspapers and media at provincial level and above, the Company's party building materials were appraised as an innovative achievement in the "Cases of Innovative Practices of Chinese Enterprises at the Beginning of the 14th Five-Year Plan Period", and the Company offered constructive suggestion through communication and exchange with various central enterprises.

In 2021, the Group overcame the impact of the pandemic and adjusted the focus of its investor relations management in a timely manner based on the shareholder coverage in recent years, and shifted the focus of its investor relations work from overseas to domestic operation. In terms of communication channels, we emphasised the use of visual and multimedia tools such as pictures, animations and short videos to present the Company's operating results to investors in a more popular and intuitive manner, thereby enhancing the quality and efficiency of information disclosure.

The year 2022 is a crucial year for the Group to implement its strategic plan and the 14th Five-Year Plan, and a year to consolidate its foundation, improve quality and increase efficiency. Under the general keynote of development, the Group will make every effort to implement the task of “six reductions and six ensures” and continue to implement the strategy of “one addition, one improvement and one reduction” to enhance and upgrade our main business. The Group will put efforts in reducing risks, liabilities, expenses, costs, stocks and receivables, pay attention to health and environmental protection, and firmly ensure stability, compliance, growth, sustainable momentum and value appreciation, thereby strengthening its own competitiveness to increase income and benefits. In addition, the Group will emphasize on “double focus”, tackle critical development problems, focus on production capacity enhancement, allocate advantageous resources to backbone enterprises and backbone projects, implement the “production capacity expansion” plan to achieve production resumption and meet production targets, and take multiple measures to release development potential in order to accelerate the pace of development. Facing new changes, opportunities and challenges amidst unprecedented times, the Group will identify changes accurately, make appropriate responses, capture opportunities by proactively seeking changes, develop first-mover advantages, concentrate our efforts and march forward with hard work and diligence to facilitate high-quality, comprehensive, stable and sustainable development.

# OUR SUSTAINABILITY MANAGEMENT

## Sustainability Governance



The main driving force of social development and a major consumer of environmental resources, enterprises play an important role in the process of promoting ecological civilisation and taking up the important task of developing a green economy. We believe that effective sustainability requires a clear hierarchical structure that facilitates an internal cross-departmental division of labour and communicates key messages to all levels of the Company in order to facilitate the Company to achieve the goal of sustainable development through a top-down approach.

The Board of the Company oversees the sustainability initiatives, practices and progress as important part of the business strategy and risk management process through the support of the five special committees including Audit Committee, Strategic Committee and Safety and Environment Protection Committee. The Board takes responsibility in ESG management, including ESG strategies, initiatives and target formulation, policy and procedures approval etc. Our governance approach incorporates in the daily operations, where different internal functional departments are responsible for their line of responsibility. The functional departments regularly provide a report containing KPIs to the management and/or the Board for evaluation of effectiveness of the business operations.

The Board of the Company sets up 5 special committees. Every year, at least one special meeting is held for discussing sustainability issues in core aspects such as compensation system, internal risk control, corporate development plan, social responsibility engagement, values of shareholders, safety and environmental protection, resource reserve etc. of the Group. The ESG report is reviewed and approved by the Board before publishing for investors to read.

### Strategic Committee and ESG Working Group

Led by the Board, the Strategic Committee is responsible to determining the Group's strategy, decision-making on major business issues, set forward-looking goals, monitor the implementation effectiveness and timely discuss on the business planning for sustainable development of the Group, identify sustainability opportunities and risks, review the annual ESG work report and report to the Board. We also set up the ESG working group to reinforce the management of relevant issues, aiding to coordinate the policy and procedures implementation, and ESG reporting works. In addition, the working group regularly conduct review and analyze on a variety of sustainability development topics, identify relevant risks and opportunities, and report to the Board in order to establish policies, procedures, strategies, and goals timely.

### Safety and Environment Protection Committee

In strengthening the Group's management on the safety and environmental issues, the Safety and Environment Protection Committee is responsible to (1) determine the major investment in environmental and safety project, (2) confirm the annual commitment and targets, (3) formulate long-term and yearly plan, (4) comply with the national laws and regulations, (5) conduct due diligence and supervision of the implementation progress. The committee will also supplement the Board with information in determining the Group's strategies.

### Geological and Resources Management Committee

Geological and Resources Management Committee adjust and authorize resource exploration, development, utilization, and reserve plans according to the actual operating conditions. While ensuring the business development and resource reserve are as planned, we can conduct the exploration work in a more environmentally friendly and safer way, as well as to better manage ecological and environmental protection work, in order to minimize our impact on the surrounding environment and local residents.

### Audit Committee

The committee is responsible to oversee the internal control and risk management processes, as well as evaluating the efficiency of risk control measures, including sustainability risks and challenges. The Group's internal management practices and systems are reviewed on a regular basis to ensure risk analysis, optimization, and management are performed fairly and independently.

### Nomination and Remuneration Committee

Effectiveness of a corporate governance structure can optimize the management success. As such, the Nomination and Remuneration Committee is responsible for supervising the performance appraisal and human resource systems of the senior management to ensure their capability of performing their duties (including ESG-related matters).

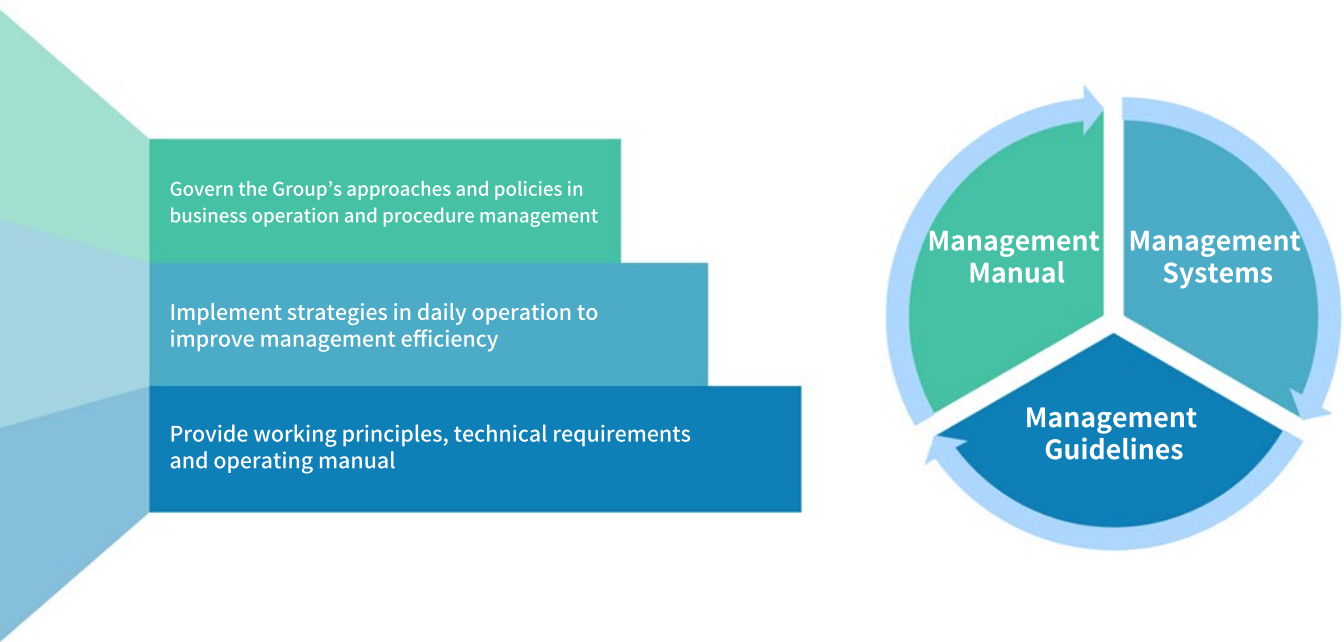
ESG Risk Management

By establishing a comprehensive risk management system, the Group is able to monitor risks in a timely and reliable manner and make every effort to keep them within limits, thus ensuring the orderly operation of its business.

As mentioned above in this Report, the Board of the Company has set up the Audit Committee to supervise the risk management process (including sustainability risks). By adopting enterprise risk management system, the Audit Committee strives to identify, analyze and audit the major issues and risks and report relevant risks to the senior management and the Board when necessary.

Management Framework

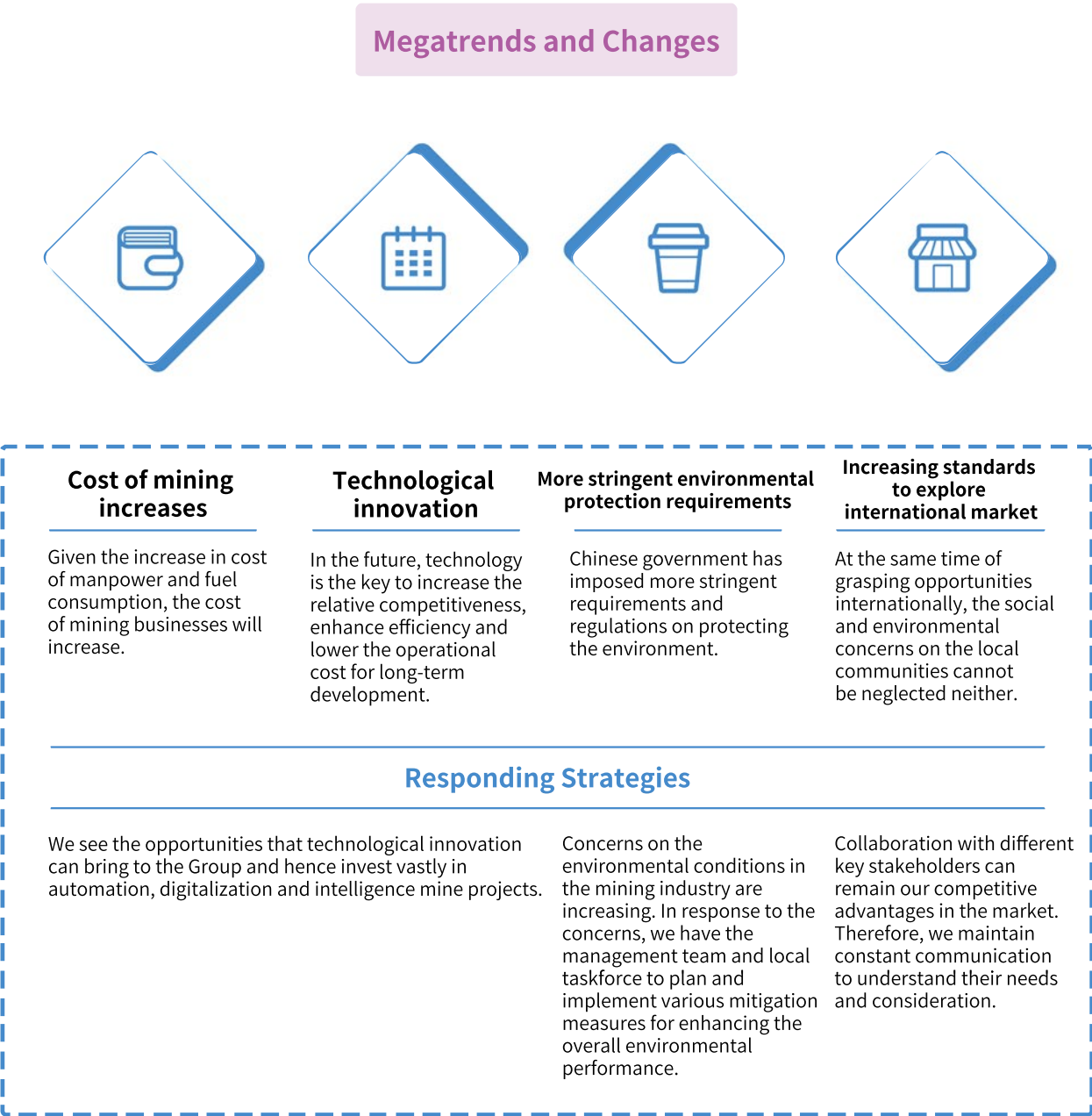
The Company implements Integrated Management Manual in defining our principles for various departments and our subsidiaries to design, implement and monitor the entire management process. We apply top-down and bottom-up approach, and adopt the national and international standards as our fundamental management basis, such as ISO 9001:2015, ISO 14001:2015, GB/T 28001-2011 and GB/T 23331-2012.



The Company has established the management manuals with corporate goals and directions which are supplemented with management guidelines and principles so that a consistent work approach can be achieved at site-level.

Megatrends and Changes

Standing at a new historical turning point, the Group has carefully assessed the potential difficulties and megatrends of the gold mining industry and determine the strategic direction of business development in long run based on the current situation and policy environment.



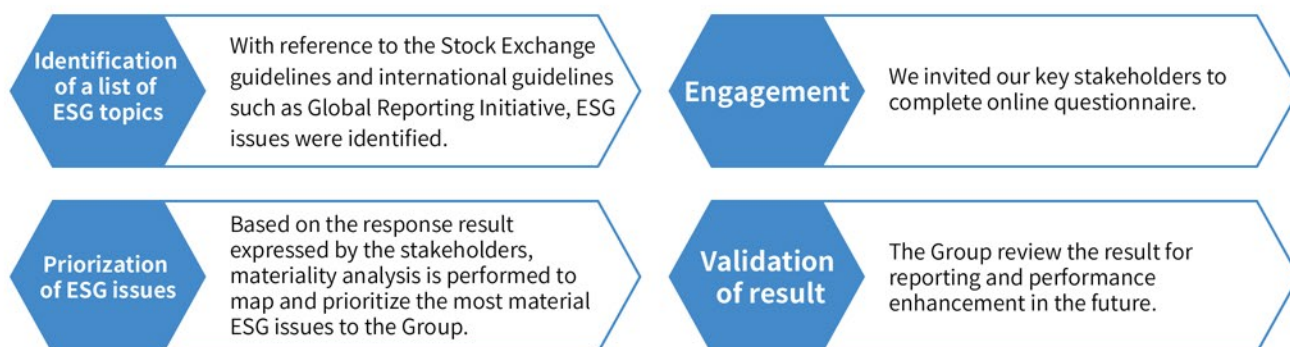
## Stakeholder Engagement

The Group always values the views and opinions of our stakeholders, and we continuously improve our social responsibility information disclosure system, establish internal and external communication mechanisms, and proactively understand the expectations and demands of our stakeholders through various means including online channels such as the Company's website and WeChat public account, different types of announcements, convening of general meetings and participation in activities of various social organisations.

Types of stakeholder group	Communication channels	Stakeholders' concern	Our response
<b>Investors and shareholders</b>	<ul style="list-style-type: none"> <li>• Company website</li> <li>• Company's announcements</li> <li>• Annual general meeting</li> <li>• Annual and interim reports</li> <li>• Roadshow and reverse roadshow</li> </ul>	<ul style="list-style-type: none"> <li>• Production quality</li> <li>• Compliance and information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>• Devise policies and procedures to comply with relevant laws and regulations</li> <li>• Timely and systematically disclose the Company's information</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Company website</li> <li>• Customer direct communication</li> <li>• Customer feedback and complaints</li> <li>• Customer satisfaction surveys</li> </ul>	<ul style="list-style-type: none"> <li>• Product and service quality</li> <li>• Customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• Establish two-way communication channels to collect opinions from our customers and follow-up by relevant functional departments to analyze and provide recommendation for improvement</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Training and orientation and other employee activities</li> <li>• Social networking platform, e.g. WeChat, corporate website, internal communication platforms and emails</li> <li>• Regular meetings, e.g. staff meeting</li> <li>• Employee performance evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Remuneration package</li> <li>• Working environment</li> <li>• Personal development</li> <li>• Legal employment</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure our employment condition complies with all the legal requirements</li> <li>• Establish a fair and open employment system and promotion ladder</li> <li>• Develop green mine and improve the working environment by installing online monitoring system</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Company website</li> <li>• Community activities</li> <li>• Communication platforms, e.g. newspaper, TV</li> </ul>	<ul style="list-style-type: none"> <li>• Compliance of laws</li> <li>• Operational impact to the society</li> </ul>	<ul style="list-style-type: none"> <li>• Deliberately consider the impact of our business operation to the surrounding environment and community before each production plan, and formulate mitigation and improvement plan</li> </ul>
<b>Suppliers and business partners</b>	<ul style="list-style-type: none"> <li>• Selection assessment</li> <li>• Procurement process</li> <li>• Performance assessment</li> <li>• Regular communication with business partners (e.g. emails, meetings, on-site visit etc.)</li> </ul>		
<b>Government authorities, industry associations</b>	<ul style="list-style-type: none"> <li>• Documented information submission</li> <li>• Compliance inspections and checks</li> <li>• Regular meetings with local government representatives</li> <li>• Forums, conferences and workshops</li> </ul>		
<b>Non-governmental organisations</b>	<ul style="list-style-type: none"> <li>• Emails</li> <li>• Phones</li> <li>• Charity donations and voluntary services</li> </ul>		
<b>Media</b>	<ul style="list-style-type: none"> <li>• Company website</li> <li>• Company's announcements</li> <li>• Social networking platforms</li> </ul>		

## Material Topics Analysis

We commissioned an independent consultant to conduct special survey in the form of online questionnaires, which were considered and analyzed based on “importance to stakeholders”, thereby forming the initial assessment results of material topics.



A total of 3,443 survey responses were received in this assessment, and the results of analysis of material topics are presented in tabular form. Based of the results of assessment, we will continue to review and develop corresponding ESG policies and targets in order to pursue continuous improvement in relevant work in the future.

### Core Material Topics of 2021

Governance topics	Social topics	Environmental topics
Socio-economic compliance	Prevention of child labour and forced labour	Emission management
Customer privacy and data protection	Occupational health and safety	Environmental compliance
Intellectual property	Diversity and equal opportunity	Use of water resources and wastewater treatment
Business ethics	Labour-management relations	Waste management
Responsible supply chain management	Employee retention	Energy efficiency
Customer satisfaction	Employee training	Use of materials
Customer service quality and complaints handling	Diversity and equal opportunity	Climate change
/	Non-discrimination	/
/	Community support	/

Note: Topics are presented in order of importance

## ETHICAL BUSINESS

Integrity is a key component of the Group's core values and culture. As such, we highly emphasize the integrity of our employees during our business operations, and conduct business with professionalism, honesty and integrity in all business transactions and relationships. To this end, we specifically formulated the Opinions on Credit System Construction with a view to establishing a comprehensive credit system, thereby forming a mechanism for conduct monitoring and continuous improvement. There is no legal case regarding corrupt practices brought against the Group or its employees during the Reporting Period.

The Group has formulated clear management manuals and requires our employees to strictly follow such manuals. In addition, we require all personnel in charge to sign an Integrity Responsibility Declaration annually to establish an anti-corruption risk prevention and control structure. For job positions that involve higher integrity risks, integrity agreement will be signed by the employees and job rotation system will be adopted to minimize the risks.

For establishing an external credit system, we establish various communication channels - "One Website, Two Boxes, Three Platforms" for domestic and international stakeholders to report any suspected misconducts, through website, email, telephone and WeChat etc. All reported cases will be investigated and reported to the management and working group for verification. If the case is confirmed, the Group will take necessary disciplinary actions or even file lawsuit according to the relevant laws and regulations. We will keep the identity of the whistle-blowers in high confidentiality to prevent them from any unfair treatment.

The Company has formed a Discipline Inspection Department and entrusted professional auditors to efficiently audit and supervise our production, business performance, and internal and external affairs. The Group has also set up an Administrative Personnel Accountability System to clearly declare management's responsibility in taking relevant actions.



## Integrity Training

The Group always attaches great importance to anti-corruption and anti-bribery, and we conducted a total of 870 hours of anti-corruption training during the Reporting Period. Apart from organising regular training for our general staff, the Implementation Measures on Establishing a Credit System for Management's Integrity Education is published to manage integrity education for our senior management. We require our management staff to study the party disciplines and the Company's systems before taking online quizzes for evaluating their learning outcomes and the results are taken into consideration during their annual integrity assessment.





# CARE FOR OUR EMPLOYEES

## Healthy and Safe Workplace

The Group attaches great importance to the physical and mental health of our employees. During the Reporting Period, we prepared a production safety checklist for all employees in accordance with the "Production Safety Responsibility Checklist for All Employees in Production and Operation Units in Shandong Province". In addition, the Group made comprehensive revisions to the rules of management of explosive materials, management of underground operation led by leaders and construction team management in accordance with the new Production Safety Law, the Safety Regulations for Metal and Non-metal Mines and the Notice on the Issuance of Work Plan for Enhancing Safety Production in Key Areas of Non-Coal Mines.

In terms of position setting, the Group has designated eight safety directors in eight enterprises of highly risky industries such as mining, smelting and road transportation in accordance with the regulations of Shandong Province, with dedicated personnel to be in charge of safety matters.

We also regularly engage professionally qualified medical institutions to conduct on-the-job occupational health check-ups for our frontline staff. These check-ups cover blood pressure, heart rate, blood test, urine test, chest X-ray, electrocardiogram, hearing test and other items to prevent occupational diseases. Through occupational health check-ups, employees are able to monitor their health status in a timely manner, thus relieving them of any concerns. In addition, the Group also creates occupational health records for employees based on the occupational health test reports issued by doctors.

## Strictly implementing pandemic prevention and control measures

The global COVID-19 pandemic continued in 2021. The Company has strengthened the control of the source of the pandemic through normalized, full-staff, and online pandemic prevention and control, monitored from multi-aspects to warn in advance and conducted pandemic prevention and control in key areas, to ensure a continuously stable pandemic prevention situation.

## Carrying out comprehensive inspection and rectification throughout the year

In 2021, the Company carried out comprehensive and broad-based production safety inspection and rectification activities, formulated a special plan and 14 checklists, convened a company-wide mobilisation meeting and set up a comprehensive supervision and inspection team to form a basic framework for long-term safety control throughout the year.

## Further promoting the “regional management +” integrated mechanism

The Group follows the management philosophy and closed-loop management mindset of "systematic management, standardized operation, refined process, and data-based results" to achieve effective integration of basic information and on-site management through "regional management + dual prevention mechanism + standardization + development of projects applying the four new technologies" with regional management as the starting point, thereby clarifying “responsible areas”. It also followed up on standardized construction and carried out highly standardized on-site construction. With the dual prevention mechanism, the Group managed and controlled relevant risks and identified potential threats. By promoting the development of projects applying the four new technologies, we improved our hardware to ensure intrinsic safety. With the “regional management +” integrated mechanism, we finally achieved the objective of regional corporate management, standardized management of production safety, implementation of a dual prevention system and simultaneous construction of projects applying the four new technologies.

### Strengthening safety training and conducting targeted education to raise the awareness of production safety

During the Reporting Period, based on the requirements of special action of “comprehensive warning, training and testing” of the higher authority, the Group focused on warning education, laws and regulations, rules and policies and operating procedures, and organized over 850 training sessions of various topics with 53,000 participants. Our chairman, president and the persons in charge of each branch organized more than 40 training sessions and gave lecture in person.

In addition, the Group also launched an operational safety training and education platform system, which enables digital management of safety information of all employees of the Company, reminders of upcoming training plans and expiry of licenses of relevant staff, automatic archiving of training records and examination results, as well as test with randomly selected questions, daily quiz and search of regulatory documents.

### Continuous in-depth implementation of the three-year special rectification campaign

In 2021, the Group added the tasks on mining machinery equipment, improving the automation level of drainage and ventilation and construction of intelligent safety monitoring platform based on the task checklist of three-year special rectification. It has basically achieved 100% mechanical, automatic and intelligent mining in large mines and 50% mechanical mining in small and medium-sized mines. In addition, the Group actively responded to the requirements of the Emergency Bureau of Yantai city, and all enterprises located in Zhaoyuan have installed additional monitoring devices at important underground checkpoints, fully upgraded their staff positioning systems, installed access control systems and face recognition systems at all well entrances, carried out standardised renovation and construction of all signal rooms at well entrances and elevators, and added 15 deep well ground pressure sensors to improve the standardised management of production safety. The Group has built and developed an intelligent safety centralised control platform, which integrates data such as video monitoring, staff positioning, underground environmental monitoring and online monitoring of tailings storage at each unit, thereby enabling system sharing, data sharing and information synchronisation between the headquarters and each branch, and improving the level of intelligent and refined safety management.

### Conducting emergency drills

During the Reporting Period, the headquarter and all branches of the Group strictly implemented the "Emergency Measures for Production Safety Accidents in Shandong Province" and the "Guidelines for Preparation of Emergency Plans for Production Safety Accidents in Production and Operation Units", and completed the revision and filing of emergency plans in accordance with the new standards. The Company organised 21 comprehensive drills, over 45 special drills and 470 on-site handling plans for fire accidents and mechanical injuries with 7,400 participants.



## Application of innovative safety measures

### ◆ Safety education and training management platform

The Group uses the "Safety Education and Training Management Platform" to achieve digital staff learning, intelligent remote education, standardised training management and sharing of safety knowledge, enabling employees to change from "offline learning" to "online learning". The platform allows us to set up training programmes for our staff, provide them with online learning, online examinations, construction team management and knowledge database management, and create learning records for each staff member to realise "one file for each staff". In addition, the Group has adopted the "three-in-one" technological prevention method to integrate the staff positioning system, intelligent facial recognition system and safety education and training system, which effectively solves the problems of staff not carrying positioning cards, staff not matching with their cards, underground operation by staff not passing the safety education and training, and non-compliant management of underground operation by outsiders, thereby ensuring compliant and controllable management of underground operation and providing an application demonstration for the standardised management of underground operation of various mining enterprises.

### ◆ Intelligent mine safety centralised control platform

The Group has built a transparent, reliable and efficient visualised comprehensive control platform, which can display in real time the total number of underground operators, shift leaders and historical tracks of workers from the mine operator positioning system, as well as information on temperature, wind speed, dust, oxygen and harmful gases from the environmental monitoring system and the video monitoring system; and enables real-time collection, integration, early warning analysis and three-dimensional visualisation of monitoring data such as surface displacement of tailings dams, pond water level, dry beach length, phreatic line and dust level. The above intelligent mine safety centralised control platform can solve the problems of "fragmented" existing mine information systems, difficulties in data integration and sharing, lack of intuitive interaction between data and scenarios, and lack of timely access to production safety data and early warning information by leaders at different levels, thereby enabling remote safety supervision and mobile supervision in various scenarios, greatly enriching the technological supervision tools of the safety management department and effectively enhancing the safety management capabilities of the Company's management.

### ◆ Automatic fire extinguishing system for power distribution rooms

The Group has installed the XQQW10/1.6-ZY automatic heptafluoropropane gas fire extinguishing device for mining areas in the power distribution room, so that inspectors can visually check the temperature inside the wiring compartment of each high voltage cabinet through the computer and the dispatch centre can check the temperature inside each high voltage cabinet at any time. Tests have shown that by installing monitoring probes and fire suppressant ejectors in each individual wiring compartment of the high voltage cabinet, abnormal temperature rise can be detected immediately, and once the temperature rise exceeds the critical value, the system can quickly determine and immediately execute fire suppression to extinguish the source of fire within 1.5 seconds, and the ejected gas is non-corrosive, non-polluting and non-conductive and thus will not cause secondary damage. The application of such system ensures the intrinsic electrical fire safety of the power distribution room, which enhances the level of intrinsic safety, and serves as an example of electrical fire safety management of underground high voltage cabinet for the industry.

### ◆ Application of three-dimensional visualisation and real-time monitoring technology for ventilation systems

Dayinggezhuang Gold Mine under Zhaojin cooperated with the University of Science and Technology Beijing to conduct study on technology for three-dimensional visualisation and real-time monitoring of ventilation system, jointly measured and calculated the parameters of the underground ventilation system such as frictional resistance coefficient of the tunnel, frictional resistance system of each ventilation shaft and effective airflow, and constructed the VENTSIM mine ventilation three-dimensional visualisation model, thereby enabling the integration of visualised monitoring of ventilation and airflow simulation. After simulation and optimisation, the effective airflow rate of the ventilation system reached 76.3% and the wind speed passing rate reached 94%. The application can provide a more advanced and reliable technological tool for underground ventilation optimisation and cooling in the later stages, which is conducive to creating a good underground working environment and protecting the physical and mental health of workers.

### Safe Production Month

Zhaojin continuously strengthens its safety management system, promotes the standardisation of production safety management, and organizes special activities such as "Safe Production Month" every year. During the Reporting Period, the Group launched the safe production month campaign under the theme of "Implementing Safety Responsibility and Promoting Safety Development" based on the requirements of the government at higher levels and the actual situation of the Group.

For the safe production month of 2021, the Group produced and displayed more than 600 banners with slogans such as "Launching the 20th National Safe Production Month Campaign" and "Implementing Safety Responsibility and Promoting Safety Development" to create a strong atmosphere for the campaign.

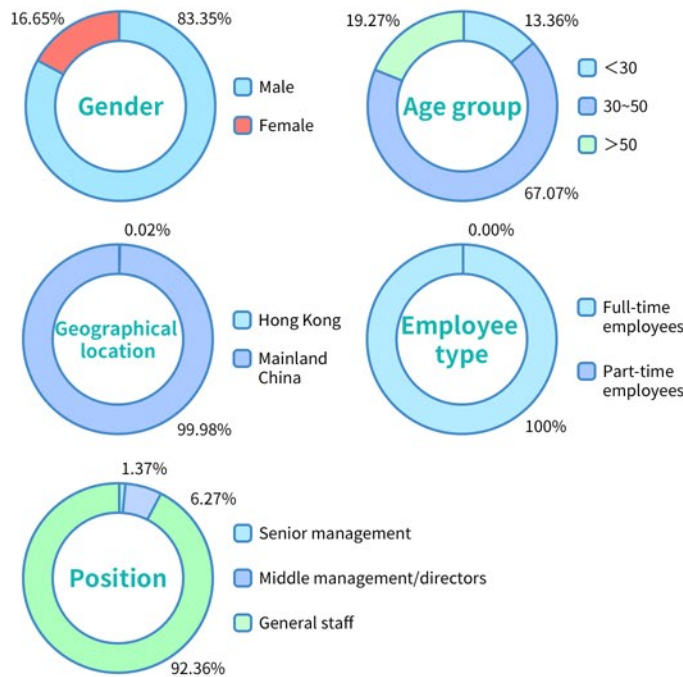
In the first half of 2021, Zhaojin organised a total of 201 emergency drills with 4,043 participants.



Safety Performance of the Group from 2019 to 2021	Number of work-related fatalities	Rate of work-related fatalities	Lost days due to work injury
<b>2019</b>	<b>0</b>	<b>0%</b>	<b>0</b>
<b>2020</b>	<b>0</b>	<b>0%</b>	<b>0</b>
<b>2021</b>	<b>0</b>	<b>0%</b>	<b>0</b>

## Compliant Employment

Zhaojin adheres to the "people-oriented" philosophy for human resources management, considers its employees as valuable assets, strictly complies with the national laws and regulations on employment, upholds the concept of openness and equality, and shares the results of development with its employees.



During the Reporting Period, the Group revised and improved its policies on human resources management, mainly revised seven policies including Organizational Setting and Staffing of the Headquarters, Human Resources Management Rules, Broadband Remuneration Management System of the Headquarters, 2021 Training Plan, Internal Experts Database Management Rules, Management Rules for Total Salaries and Benefits of Branches and Subsidiaries and Continuous Implementation of Five-Optimal Competition; is currently revising two policies including Management Measures for Professional Assessment and Guidelines for Dual-Track Remuneration System of Branches and Subsidiaries; and completed one corporate governance reform plan, being the Work Plan for Optimising Corporate Management System and Modernising Corporate Governance Capability.

As of 31 December 2021, the Group had a total of 5,982 full-time employees. Of which, employees aged 30 to 50 accounted for 67.07% of our total workforce, while employees aged below 30 and over 50 accounted for 13.66% and 19.27% respectively.

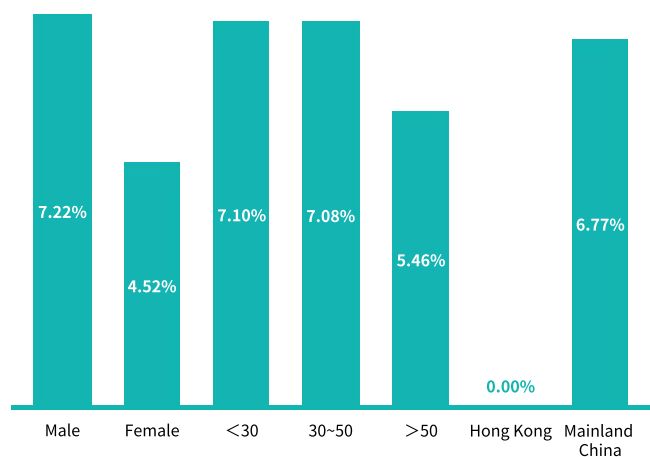
## Remuneration and Benefits and Employee Protection

Zhaojin always abides by the Labour Law and other relevant laws and regulations, fully encourages employees to give full play to their personal strengths and helps them realize their personal values, while emphasising both material and non-material motivation to enhance the happiness of employees.

We have a well-established remuneration management system whereby employee bonuses are closely related to the Company's operating conditions, the performance of the employee's department and the employee's performance and contribution. To maximise the protection of rights and benefits of our staff, we provide allowances (including housing allowance for those working outside hometown, business travel allowance and mobile allowance) and educational subsidies etc. to suitable candidates. Full-time employees are entitled to paid leaves (including annual leave, sick leave, home leave, marriage leave, maternity leave, paternity leave and compassionate leave) and social insurance (including endowment insurance, medical insurance, work-related injury insurance, unemployment insurance, and maternity insurance).

During the Reporting Period, the employee turnover rate of the Group was 6.77%.

### Employee Turnover Rate in 2021



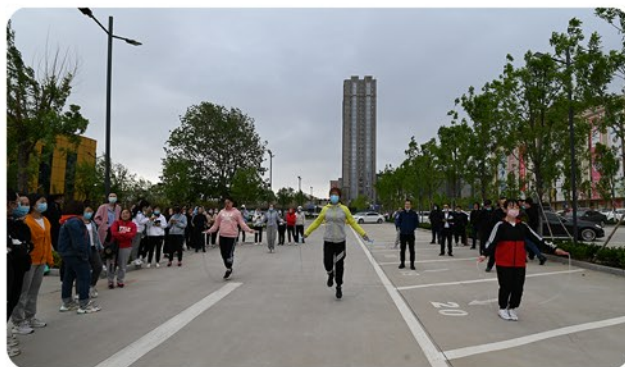
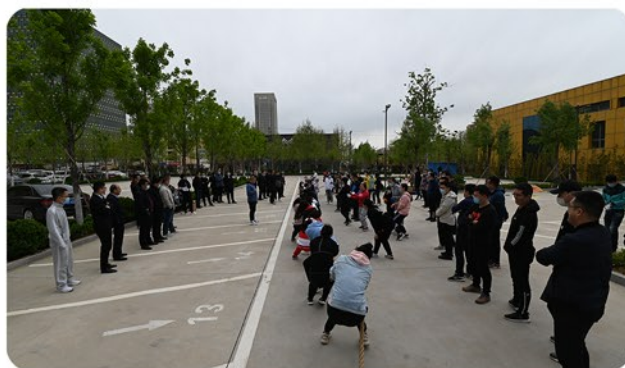
## Care for Employees

In 2021, Zhaojin adhered to the Company's core values and launched a series of employee care activities based on the needs of employees in various forms, at multiple levels and through multiple channels to fully mobilise their passion.

### Holiday Activities and Benefits

#### Case: "1 May" Labour Day Activities

On the "1 May" Labour Day, in order to enrich the leisure life of the staff, enhance the physical quality of the staff and stimulate the enthusiasm of the staff and the vitality of the competition, the trade union of the Group organized the staff of the headquarters to carry out various fun activities such as tug of war, table tennis, and basketball competitions to stimulate the vitality and vigour of team building through competitions, encourage all staff to uphold the spirit of model workers and craftsmanship, and create a good atmosphere of honouring labour, treasuring knowledge and valuing talents within the Company.



### Case: "1 June" Children's Day Activities

We care for the children of our employees with blessings, love and warmth. On the "1 June" International Children's Day, our trade union launched the annual activity of gifting learning materials to the children of our off-site employees under the theme of "Run, Golden Boys". The trade union further demonstrated the meaning of "corporate home culture" by sending warmth to the children of off-site employees, and let them feel the care from our trade union on the children's day, which was highly praised by our employees.

In recent years, with the development needs of the Company to build a world class mining company with international competitiveness, more and more Zhaojin staff have joined the task of external development, and their long-term work away from home has reduced the time spent with their families and compromised the duty of taking care of family members. In view of this, our trade union persists in playing the role of family to offer comprehensive care and warmth by carrying out "pro-people projects" with Zhaojin's characteristics. We put more and more efforts in caring for children of offsite workers with practical actions to make up for the regrets of employees and relieve their concerns, so that they can have a greater sense of achievement and happiness.



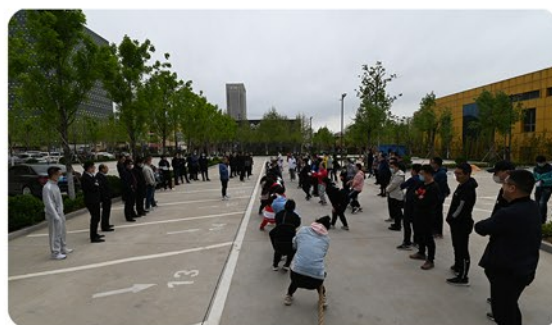
### Case: Double Ninth Festival Activities

On the occasion of the "Double Ninth Festival", a traditional Chinese festival to honour the elderly, in order to provide care for the parents of offsite employees, enhance the satisfaction of the employees and their families with the Company, and strengthen the sense of pride and happiness of working for Zhaojin, the trade union committee of the Group organised a Double Ninth Festival warming activity under the theme of "Filial Piety and Love in Zhaojin" to send greetings and care to the parents of offsite employees.



### Helping Employees in Difficulty

The living conditions of our employees in difficulty are always of utmost concern to us. With deep concern, the Group's leaders at all levels visited the homes of some employees in difficulty and offered them comforting gifts, conveyed the Company's sincere greetings and good wishes to the employees, and encouraged them to build up confidence and live with optimism. The Company's leaders talked with the employees and their families at each visit, asked them about their family, work and living conditions, and encouraged them to build up confidence, take proactive actions to overcome difficulties and create a better life with their hard work.



### Health and Safety

Zhaojin attaches great importance to the health and safety of its employees and strives to improve the production and working environment of its employees by providing them with the necessary labour protection gears and conducting annual occupational health check-ups for frontline staff.

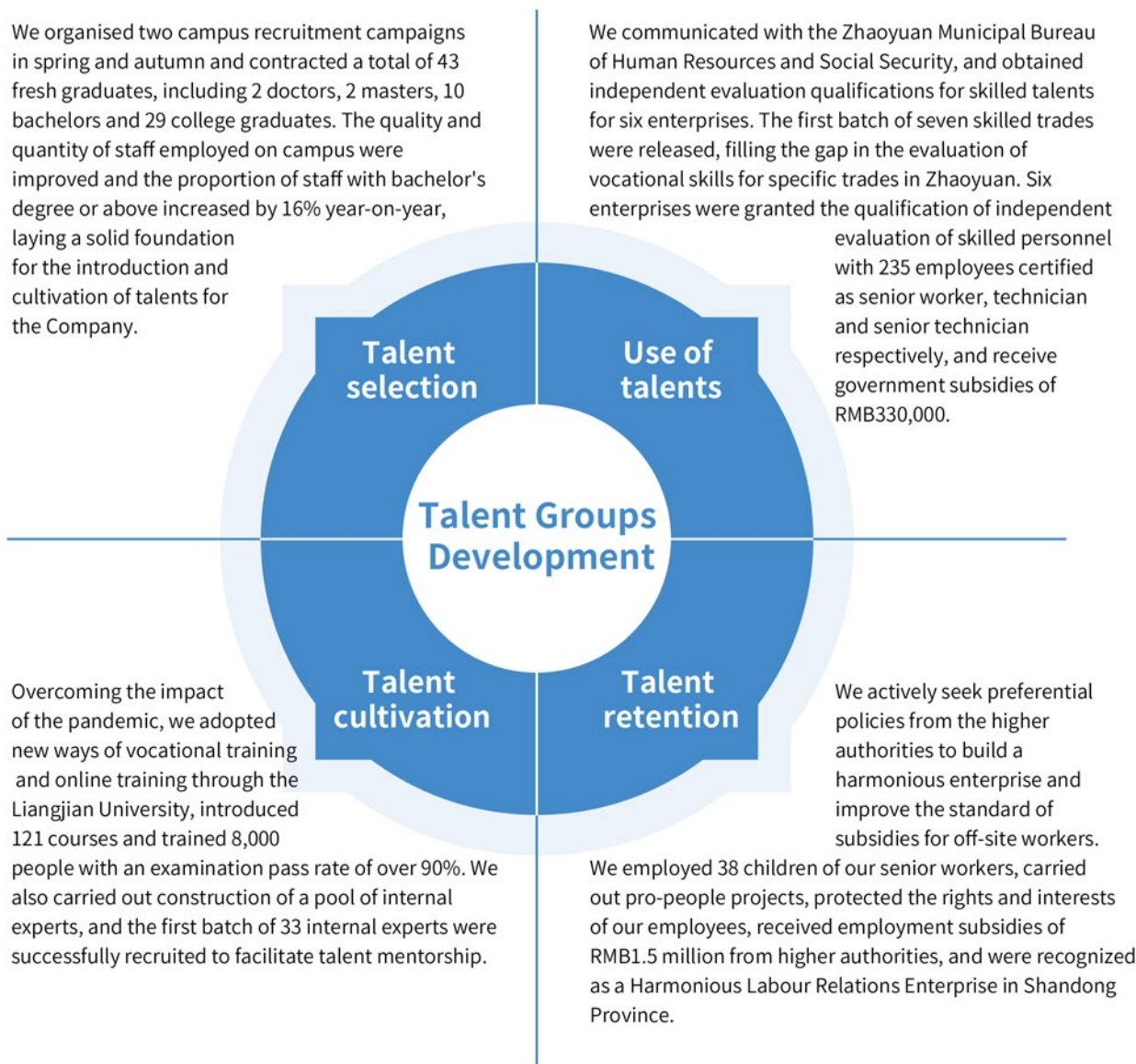


# Training and Empowering Staff

The growth of employees is the cornerstone of success of the Company, and providing proper continuing education and skills training for employees has a profound impact on the sustainability of the Company.

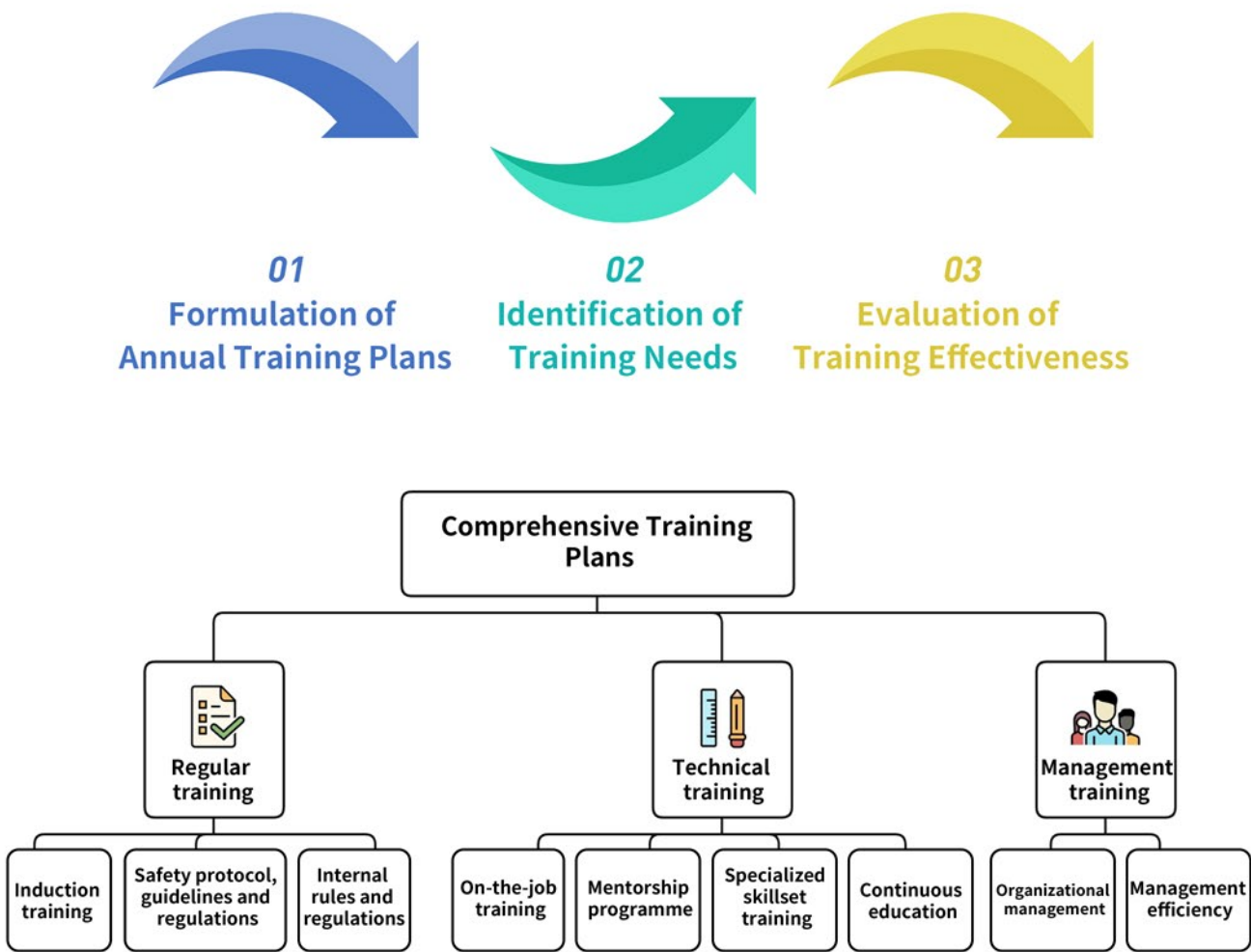
## Talent Groups Development

During the Reporting Period, in order to strengthen talent groups development and build a pool of management talents, we closely follow the talent strategy of “selection, use, cultivation and retention” and carry out the following works:



Comprehensive Training Plans

The Group has developed a series of training requirements and standards for its staff based on their positions and needs. In addition to organising various internal training for our staff, we also provide subsidies to encourage them to participate in external vocational training to continuously acquire new knowledge and skills.





### **“Three Teams” Cultivation Programme**

To unleash the potential of the employees and reinforce the Group’s foundation on talent development, a “Three Teams Cultivation Programme” was organised to focus on training the employees from the management, mining technology, and professional team, aiming to improve their strategic thinking and professional skills.



### **Professional Technician Training Programme**

In order to enrich the technical skills and increase learning opportunities of our technicians, the Group corporates with the Yantai Gold College to provide short term trainings (from three to six months) to our employees. The trainings cover a wide range of practical topics such as operation of underground ventilation system, techniques for mining, mining processing and surveying.



### **Internal Professional Training Programme**

Each professional department is responsible for designing training plans to its employees based on their capability and desired development direction. The training plans should be in line with the Group’s expectation and requirements on professionals as well.



### **Online Training Platform for Top Management**

Business environment is rapidly changing and bringing new challenges to different industries nowadays. It is essential for top management to keep themselves updated in order to lead their businesses to survive in the competitive world. The Group has therefore launched an online self-learning platform with courses covering wide range of topics for top management. The courses are updated annually to allow them to learn the latest information. In 2021, courses related to risk management, taxation, tendering, and negotiation skills etc. are provided.



### **Internship Programme**

Bringing new blood to the Group can stimulate new thinking, allowing businesses to stay innovative and motivated. To make the Group more appealing to young talents, an internship programme is organised annually for new generations to provide work experience.



### **“Golden Seed” Programme**

In addition to internship programme, the Group recruits fresh graduates from university annually. Orientation camp is organised to allow the hired fresh graduates to explore more on our corporation culture and background. The Group also wish to create a welcoming environment for them, which could enhance their sense of belonging.

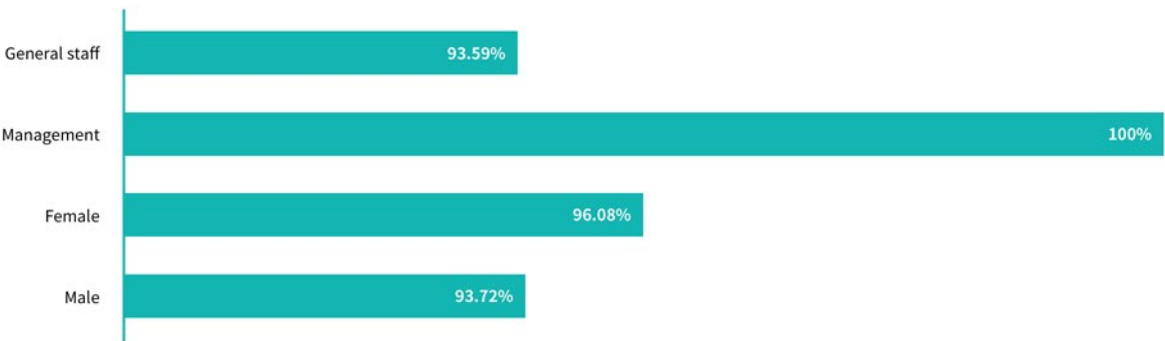


### **Expanding the Quality Improvement Channel for Staff**

We organised eight professional skills competitions for electricians, fitters, ore crushers, welders, mining technology, fire-fighting skills, emergency self-rescue and equipment management, and promoted the further improvement of quality of our technical staff through the "eight competitions".

As of 31 December 2021, the Group organized 618,635 hours of training, and the average training hours per employee were 103.42 hours. In particular, the management received an average of 130 hours of training and the general staff received an average of 103.25 hours of training. The training coverage rates of male and female employees were 93.72% and 96.08% respectively.

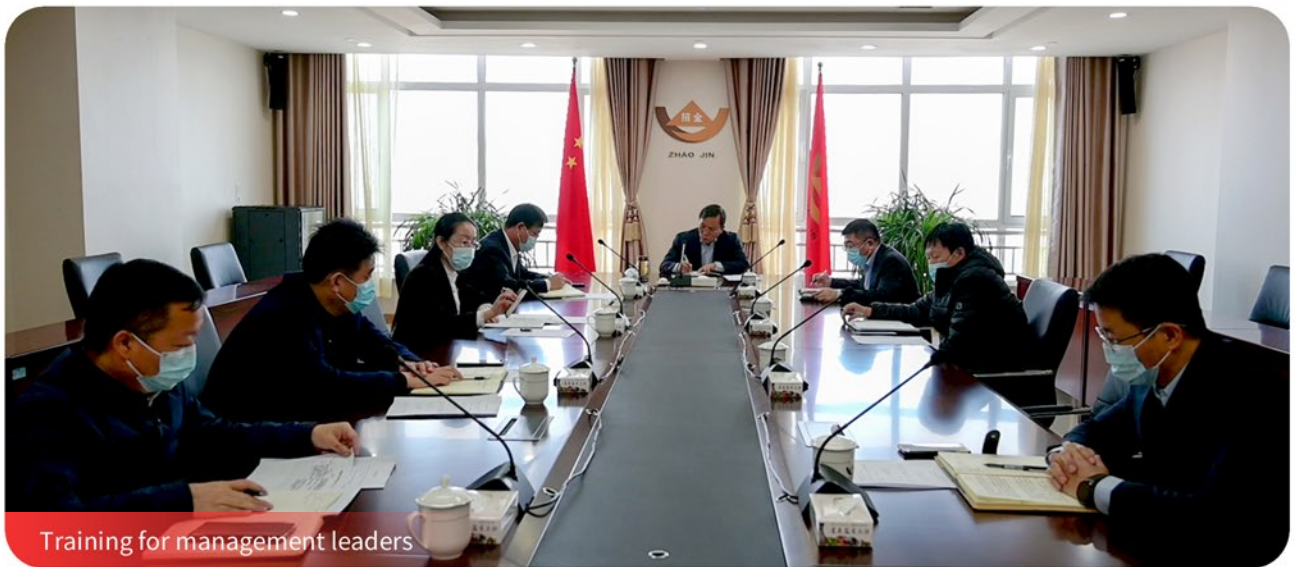
Training Coverage Rates of Employees in 2021



Average Training Hours of Employees in 2021

Unit: Hours







Performance-based Incentives

The Group focuses on employee development by designing a comprehensive incentivised system, being the employee performance management system, in order to encourage employees to strive for excellence and facilitate sustainable development of the Company. Our employee performance management system set KPIs based on the Group’s strategic KPIs for employees’ performance evaluation, and promotes employees’ growth and our corporate goals by formulating performance evaluation plan, implementation of performance management, coaching employees and applying the evaluation results. The system enables to promote employees’ growth and our corporate goals. Under the management system, we also established the HCM Human Resources Management Platform managed by the Human Resources Department to enable full lifecycle management of employees, strengthen compliance and internal risk control, and achieve information sharing.

Different assessment methods have been adopted for employees from the headquarter and its subsidiaries:

● <b>Employee Type</b>	Employees at our headquarter	Employees at our subsidiaries and branches
● <b>Assessment Content</b>	Monthly duty completion rate, quality of work, effectiveness etc.	KPIs such as: equipment failure rate, product consumption, improvement and rectification etc.
● <b>Assessment Method</b>	Self-evaluation, superior evaluation, cross-level evaluation	Self-evaluation, superior evaluation
● <b>Feedback Method</b>	Zhaojin e-Home, HCM Human Resources Management Platform, performance meeting	Performance appraisal report, email, performance interview



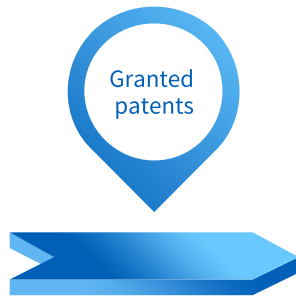
# PRODUCT RESPONSIBILITY

Our products fulfil the national requirement (GB/T4134-2015) and Regulations of the PRC on the Control of Gold and Silver. In the entire project lifecycle from infrastructure construction, exploration, mining, smelting, refining and tail management, we implement certified ISO 9001:2015 quality management system and internal guidelines on each production processes for comprehensive management. Internal and third party analysis are conducted to ensure the product quality. The gold is processed into standard gold ingots and transported to the designated warehouse of Shanghai Gold Exchange directly. During Reporting Period, we did not receive any complaints or non-compliance of relevant laws and regulations in relations of product quality.

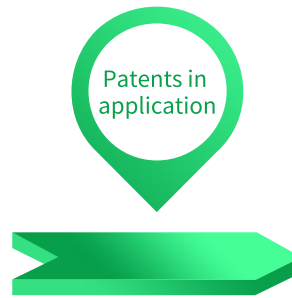
## Technological Innovation

### Patents

A total of 125 patents were granted in 2021, including 8 invention patents and 117 utility model patents.



A total of 87 applications for patents were filed in 2021, including 21 invention patents and 66 utility model patents.



### Case 1: Construction of smart mine

In 2021, we continued to steadily promote the construction and automatic and intelligent transformation of smart mines and realized the in-depth integration of new technologies such as industrial Internet of Things, cloud computing, artificial intelligence, big data, 5G communication and intelligent equipment with the mine safety management system as scheduled.

Our specific efforts included the following: Firstly, we actively carried out research and design for automatic and intelligent main power supply and distribution, main ventilation and main ventilation systems for mining enterprises located in Zhaoyuan, so as to enable unmanned automatic operation through technical transformation. Secondly, we vigorously promoted the construction of the project of "replacing human with machines, reducing manual operation through automation and unmanned intelligent operation". Thirdly, we continued to strengthen the construction of the smart mine decision-making platform at the Dayingezhuang Gold Mine.

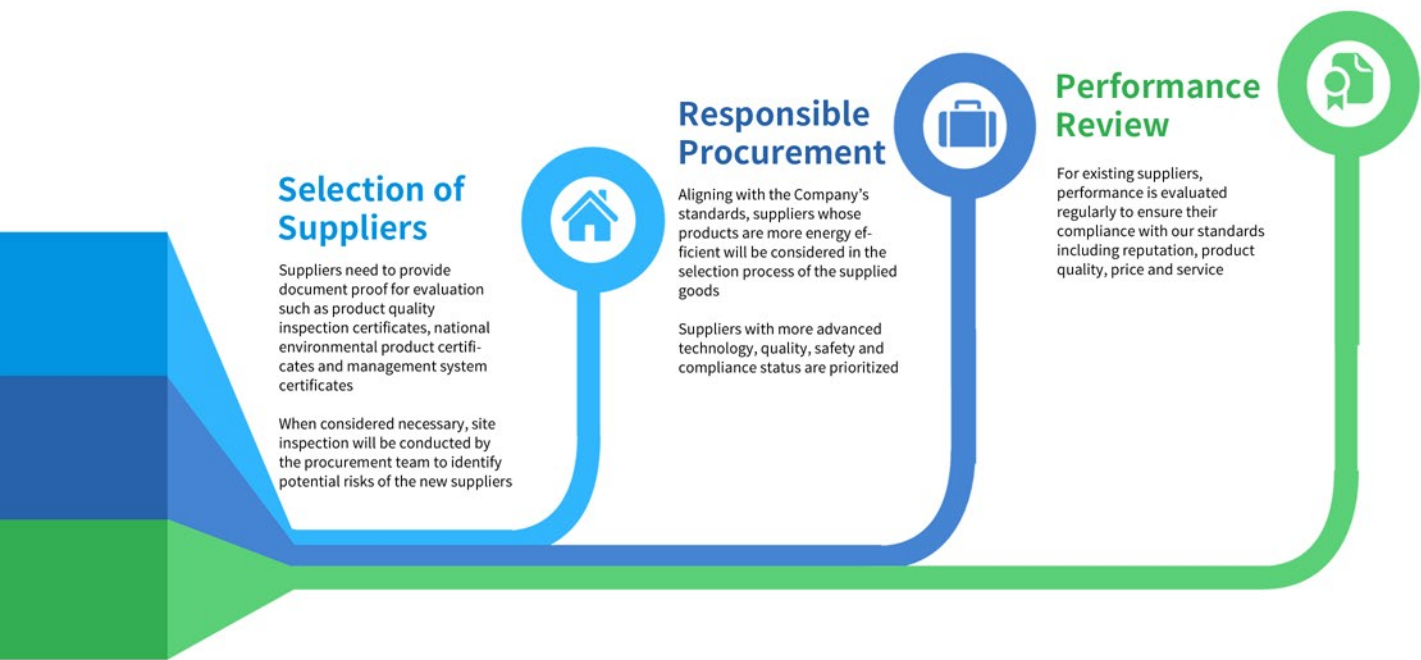
### Case 2: Establishing intelligent mine safety centralized control platform

By building a mine safety supervision platform, Zhaojin initially realized integrated safety management during the Reporting Period. With the help of technologies such as the Internet of Things, GIS and digital twin, we have established a three-dimensional mine model with Dayingezhuang Gold Mine as a pilot site, successfully realising integrated mine safety management. With the above intelligent mine safety central control platform, the Group's safety managers at all levels can keep track of real-time data such as underground staff positioning, monitoring and control, online monitoring of tailings storage, ventilation system, etc. At present, the six tailings ponds in use by mining enterprises located in Zhaojin have been connected to 3,219 devices with 38.56 million pieces of real time data, enabling online collection, analysis and visualisation of monitoring data.

## Supply Chain Management

We can reduce risks and improve production quality through rational selection of suppliers, assessment of required documentation, effective management models and careful selection. Our Logistic and Equipment Management Standard stipulates guidelines in tendering, procurement, internal review and monitoring procedures. Potential suppliers are required to undergo a series of selection procedures before being qualified as approved suppliers and we will conduct continuous review on suppliers, regularly assess their performance and adhere to the principles of openness and fairness to minimize the supply chain risks. All the suppliers of the Group were located in Mainland China in 2021.

Moreover, business integrity is essential for our collaboration with suppliers. In case integrity issues such as corruption and fraud or violation of our contractual requirements are identified, it may result in termination of contract. In addition, we have set up a communication channel for suppliers on important matters. Every year, we hold a Procurement Transparency Meeting for discussing major equipment in the year and procurement of material supplies to achieve transparent communication and information disclosure.







# OUR ENVIRONMENT

## Environmental Management

The Group attaches great importance to the construction of ecological civilisation and always closely links its business development with environmental and resource protection. Our environmental management system, certified with ISO 14001:2015, is implemented in various business operations, which provides a systematic framework to identify key environmental aspects in preventing and mitigating the environmental impact. The system outlines the commitment, responsibility, principles, implementation practices and performance indicators to review the performance of the Group and drive continuous success.



## Environmental Targets and Initiatives Formulation

We highlight prevention against mitigation to protect the environment. Environmental professionals are assigned in site-level to coordinate the management and supervision of the works, as well as to set up environmental targets and initiatives that are in line with the Group's standards. Commitments of the environmental initiatives and pollution prevention are encouraged by linking employees' environmental performance to the annual performance appraisal to increase their accountability.



## Environmental Risk Management and Inspection

To eliminate risks of environmental incidents that impact on the natural environment, production facilities and employees, environmental risks should be comprehensively assessed and inspected by the Group regularly. For the major risk sources, management and monitoring practices should be established. We also implement zone management to ensure adequate inspection are conducted at all work processes.

## Law and Regulation Management

Compliance of environmental laws and regulations are the fundamental basis of the Group's development. The Group always keeps pace with the latest development of applicable laws and regulations, updates the existing law and regulation management system and conducts analysis to ensure compliance with the latest updates.



## Emergency and Incident Management

In response to the major environmental pollution incidents (such as hazards waste storage, chemical storage and wastewater treatment facilities), management standards are provided to prepare for the emergency plans and drills. We classify to levels of response, and line of communication is clearly defined under emergency condition.

## Environmental Trainings

In order to enhance the awareness of environmental protection, we strengthen employees' knowledge and skills by environmental training on topics such as internal environmental rules and standards, environmental incident reporting mechanism, case study of major environmental events, laws and regulations etc.



An investigation team will be set up after an environmental pollution event to identify the root cause and recommend measures to prevent reoccurrence of the similar cases.

## Key Environmental Initiatives

In order to promote environmental development in a sustainable and effective manner, we formulate environmental work plans every year. In 2021, our work focused on the following three aspects: safeguarding the bottom line of ecological development, timely implementation of clean production and promoting green exploration. The following table details our work plan for the Reporting Period:

### I. Safeguarding the bottom line of ecological development

1. Strictly implement the requirements of environmental impact assessment
2. Strictly prohibit damage to the ecological environment
3. Strictly prohibit the illegal emission and discharge of exhaust gas, wastewater and waste in excess of relevant limits

### III. Promoting green exploration

1. Choose methods and means of exploration that have little impact on the environment and minimise damage to the environment caused by exploration and development of mineral resources
2. Use slag disposal equipment for harmless treatment and green solidification of waste from exploration

### II. Timely implementation of clean production

In accordance with the requirements of the local government, we prepared clean production assessment plans suitable for the Company based on previous clean production situation, production process, technology and equipment level, energy and resource consumption and environmental impact.



## Green Mine

Lucid waters and lush mountains are invaluable assets. Zhaojin always strives for excellence in green mine construction. During the Reporting Period, we continue to organize relevant competitions under the theme of “Beautiful scenery” and support the “Clear Water and Green Mountains Project”. The Group invested a total of RMB42.476 millions in environmental protection funds. Throughout the year, a total of 21.692 hectares of green areas were added, the total number of green mines at the national level reached 10, and the number of green factories at the national level reached 2.

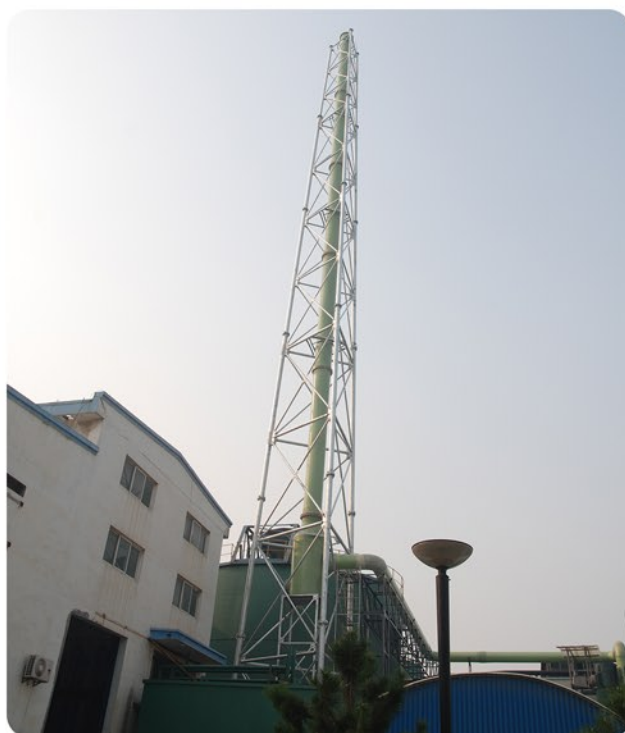


## Air Emission

In our production process, dust or other gaseous emissions can be generated from the entire lifecycle of the operation, including exploration, construction, manufacturing, operation, rehabilitation and closure.

In view of this, we outline the management standards in mitigating the air emission at mine, smelting processes, mine rocks storage, tailings storage and vehicular emission etc. In the confined production facilities, centralized dust collection system is in place for removal to ensure the emission can fulfill the standards such as integrated emission standard of air pollutants (GB16297-1996), ambient air quality standards (GB3095-1996), emission standard of pollutants for copper, nickel, cobalt industry (GB25467-2010) etc.

In addition, the flue gas will undergo filters, cyclone, electric and bag removal process to reduce dust at workplace. Dust generation from the fugitive sources such as underground and storage areas are suppressed by water spraying and mists.



Our major air pollutants include particulates, sulphur dioxide and nitrogen oxides. During the Reporting Period, emission of major air pollutants of the Group is within the permitted levels by laws.

Particulates

**85.14** tonnes

Sulphur dioxide

**44.42** tonnes

Nitrogen oxides

**112.34** tonnes

## Water Stewardship

In mining process, we use water resources such as surface water, groundwater and generate wastewater from dewatering, production process and domestic uses. In preserving the water resources, we explore opportunities in recycling wastewater and reduce the discharge, carry out practices in protection of the water resources aiming and endeavour to achieve zero discharge.

Sewage and leachate from mining processes may contain toxic chemical substances such as cyanide and heavy metals. All subsidiaries install the wastewater treatment facilities, where wastewater must be passed through to remove impurities and toxic substance, in order for reusing in production processes. Greywater is also filtered, disinfected and used for irrigation, and excess water is stored in a collection tank to enhance recycling rate. When the wastewater cannot be reused, we must ensure the discharge is in compliance with the discharge requirements as required in the environmental impact assessment and relevant regulations.



During the Reporting Period, the Group strictly complied with the laws and regulations including Water Pollution Prevention Law of the PRC. Regular monitoring is also conducted and real-time monitoring is promoted to further enhance the supervision of the wastewater quality.

Total water consumption

**7,346,662.38<sub>M<sup>3</sup></sub>**

Water consumption intensity  
(m<sup>3</sup>/Revenue) (RMB million)

**1,035.85**

Water recycled and reused

**6,454,669.41<sub>M<sup>3</sup></sub>**

Wastewater discharge

**731,658.89<sub>M<sup>3</sup></sub>**

Wastewater intensity  
(m<sup>3</sup>/Revenue) (RMB million)

**103.16**

COD discharge

**3.28<sub>tonnes</sub>**

Ammonia nitrogen discharge

**0.36<sub>tonnes</sub>**

Noise Mitigation

Noise is emitted from the breaking of mine, mining and processing facilities, construction and extension of mining sites. We strictly comply with the laws and regulations such as Emission Standard for Industrial Enterprises Noise at Boundary (GB12348-2008) and Environmental Noise Pollution Prevention Law of the PRC. Mitigation measures such as noise barrier, noise and vibration absorber, silencer, low-noise model of the mining production equipment are adopted when considered appropriate in minimizing the noise pollution. In addition, noise generated from the transportation is controlled by speed limit and maintenance of the vehicles.

Waste Management

Currently, the Group’s main waste streams are waste rocks and tailings. We try to achieve “waste utilisation” by actively exploring the reuse of waste rock for underground backfilling, constructing the dam for the tailing storage areas and making bricks within the site. In addition, excess amount is sold to the external parties for producing construction material.

Tailings	Waste rocks	Others
3,109,544.51	339,295.87	15,644.28
tonnes	tonnes	tonnes
Non-hazardous waste	Non-hazardous waste intensity (Tonnes/Revenue) (RMB million)	
3,464,484.66	488.48	
tonnes		



Tailing Management

We also have a series of disposal solutions for tailings. For example, the tailings are treated and detoxified to extract the harmful chemicals and cyanide through wastewater treatment methods such as sedimentation, chlorination, electrocoagulation etc. before depositing in the tailing storage area for disposal.

In addition, we explore ways to reuse the tailings within the production processes. As far as we know, gold mining companies typically use 60% of coarse-grained tailings for underground filling and the other 40% of fine-grained and muddy tailings are discharged to the tailing storage.

Our Canzhuang Gold Mine’s latest mine filling method, “Fine Tailing Cementation Filling”, broke the traditional mine filling method. 70% of the fine-grained tailings are easily coagulated and backfilled in underground mine with the support of a new form of cementitious material. The remaining 30% of the coarse tailings are processed into high-silicon materials after being classified by cyclones for utilization of raw materials for ceramics and building materials, realizing zero tailings. The popularization and application of fine tailings filling expertise has opened up a whole new world for tailings-free mine construction.

Hazardous Waste Management

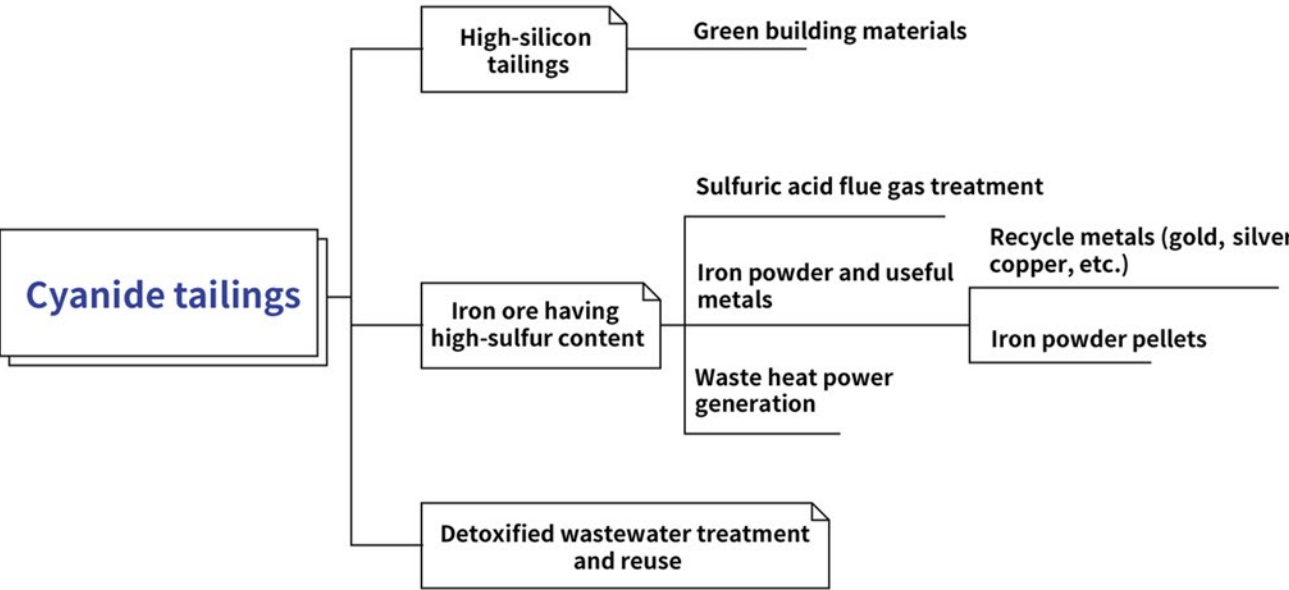
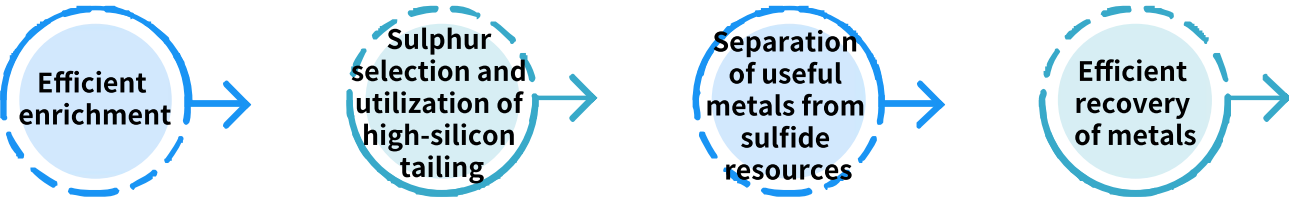
The Group takes a serious and conscientious approach to handle toxic and hazardous substances. When handling hazardous waste, we strive to store such waste separately to prevent mixing with other waste, and store the waste in enclosed containers with chemical labels for preventing pollution problems. It is also forbidden to pour any chemicals or wastewater containing chemicals into drainage to prevent pollution of water source.

For handling of hazardous waste, qualified and licensed contractor is employed to dispose the waste. To enhance the awareness of the employee, regular training on hazardous waste is conducted.

Hazardous waste	663,485.38tonnes	Hazardous waste intensity
Cyanide	657,940.39tonnes	(Tonnes/Revenue)
Others	5,544.99tonnes	(RMB million)
		93.55

Cyanide Management

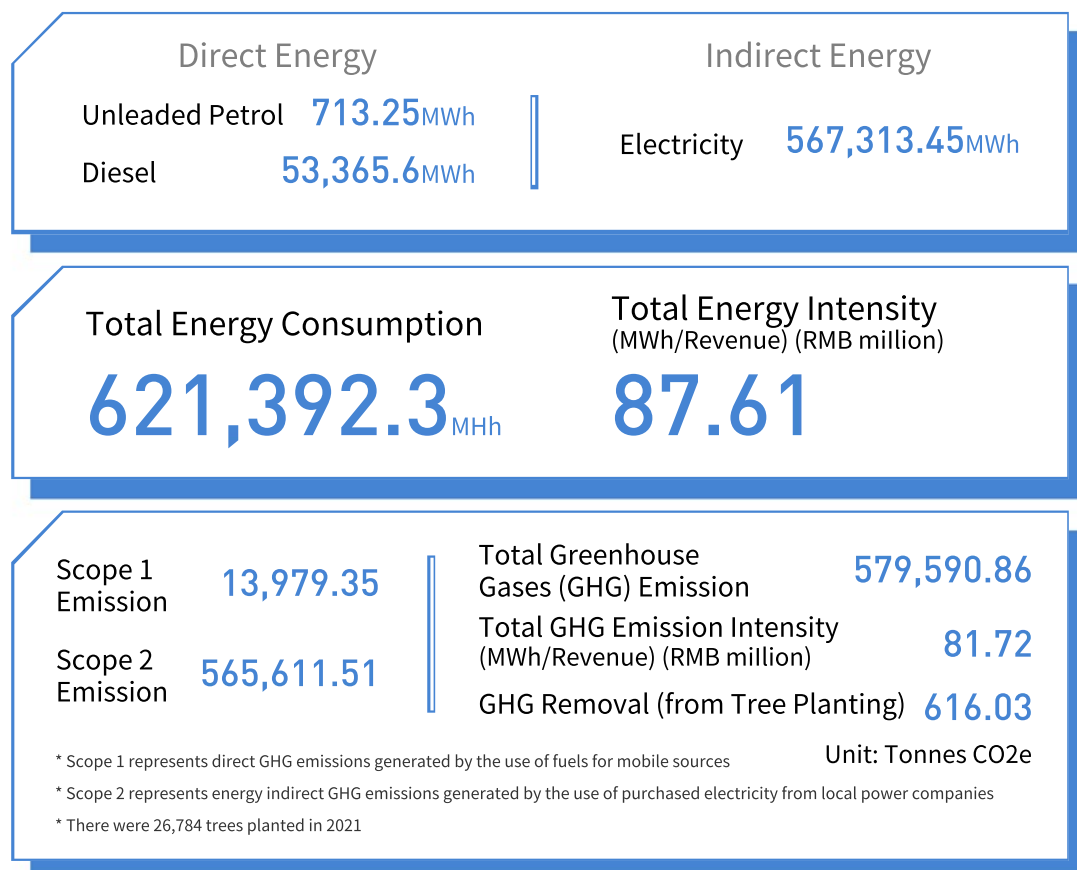
The major hazardous waste generated from our business operations is cyanide, accounting for over 99% of the total hazardous waste. We understand spillage of cyanide can create contamination and create potential harm to human health. Therefore, Management Standard on Mine Processing and Smelting is established to regulate the storage and usage of raw materials. The possibility of recovery of the cyanide is always looked into to improve comprehensive utilization of resources including recycling and reuse. After years of R&D effort, we use four major technologies to treat wastewater, waste and waste gas from the smelting process, including:



## Energy Efficiency and Carbon Emission Control

During the Reporting Period, we strived to minimize our carbon footprint. We have conducted preliminary climate risk assessment, and will continue to follow up and monitor the risks and formulate relevant strategies in a timely manner.

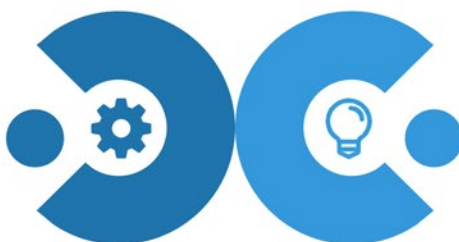
In 2021, majority of the footprint came from the use of electricity, accounting for approximately 98% of the total carbon emission in 2021.



To minimize energy consumption, our Logistics and Equipment Department is responsible for energy management including energy commitment formulation, target achievement and energy audit etc. In addition, specialized energy management task-force is set up for actual implementation.

### Optimization of production process

- Replace the old and energy intensive equipment such as replacing old heat pump/ coal-fired boilers to air-source heat pump
- Optimize power distribution system to reduce power loss
- Increase inspection and maintenance to reduce energy consumption
- Improve the peak electricity management



### Investment in energy saving technology

- Use of energy efficient equipment e.g. transformer, generators etc. and prohibit the use of equipment listed in directory of phased-out products
- Install time control system to reduce unnecessary use of electricity
- Use of LED lightings in the underground mine
- Use of solar streetlighting

## Case: Energy Saving Promotion Week and National Low Carbon Day Activity



### Energy Saving Promotion Week and National Low Carbon Day Activity

Date: 2 July 2021

Activity: Carrying out low carbon day promotion activity under the theme of "Energy Saving and Carbon Reduction for Green Development"

Preparation: Multi-dimensional and multi-channel promotion activity

Content: The Equipment and Energy Division called on all departments to stop using high-powered electrical appliances for one day and not to turn on or reduce the use of lighting in the office. This activity made all staff feel the inconvenience that energy constraints bring to our lives and work, and strengthened the energy saving awareness among all staff.

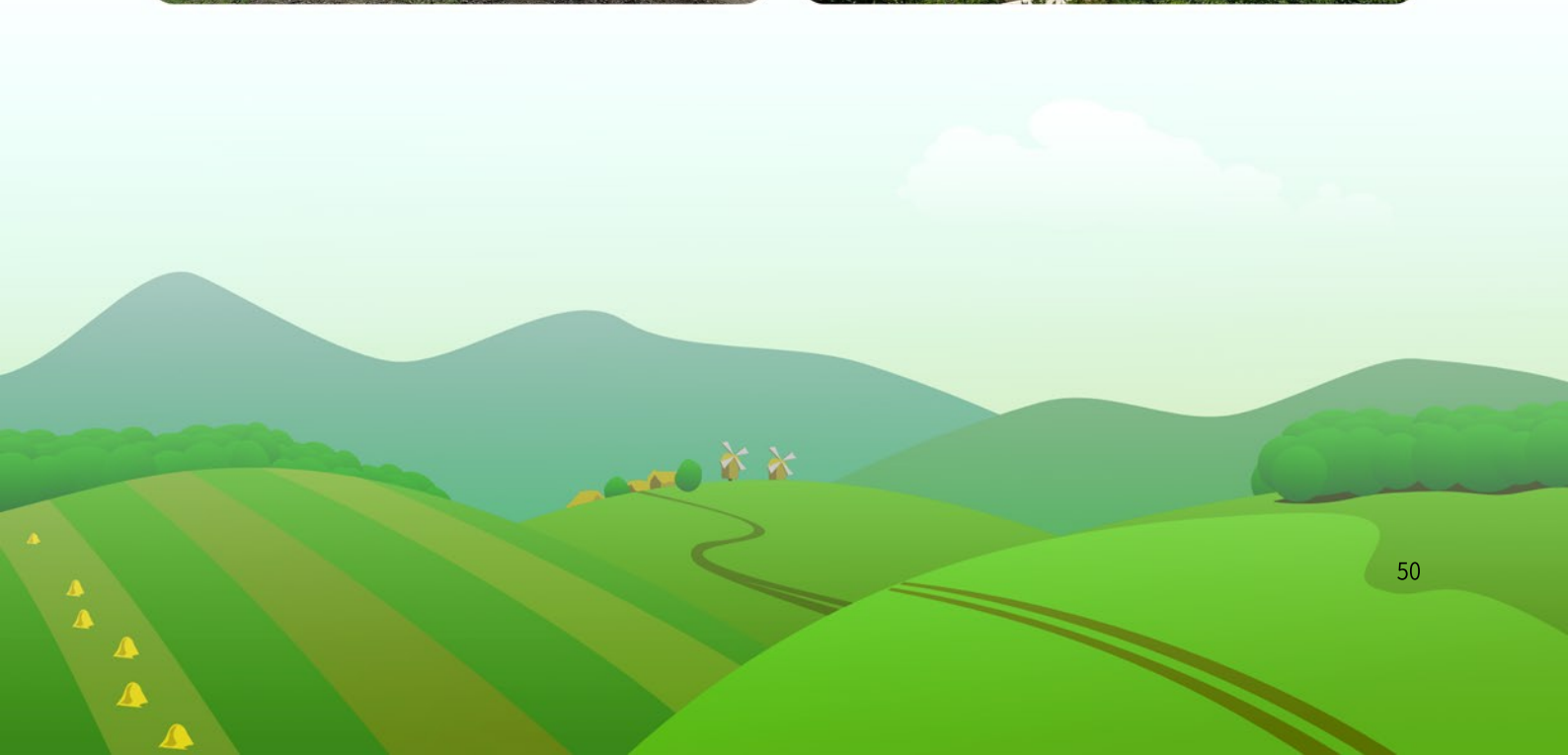
With focus on energy saving at the source, we minimised the use of energy-intensive equipment and made rational allocation and efficient use of different types of energy. We also strengthened the use and management of our company vehicles, scientifically rated fuel consumption quota per vehicle, allocated and used vehicles reasonably and reduced the frequency of use.





## Ecological Rehabilitation

Ecological protection and rehabilitation are the Group's agenda in green mine construction and operation, and are also the tasks that we have worked on for a long time. During the environmental impact assessment stage, we carefully consider the design of the tailing storage areas in order to minimise our impact on the environment. In addition, we actively and regularly communicate with the local authority and exercise the mine rehabilitation plan in due course. After closure of the mine, the land resources which are used for waste mining rock storage, transportation route, tailing storage will be restored and vegetated for landscaping and returning to an ecological balanced condition.



## COMMUNITY PARTICIPATION

The Group always persists in serving the community and creating a harmonious and inclusive community environment, and strives to share its resources with the community and fully participate in community development. In 2021, the core projects in community participation that we focused on included community development, education support, poverty alleviation and rescue support.

### Education Support

The development of education in rural areas is an important pillar of the rural revitalisation strategy. The Group strives to improve the quality of basic education in rural areas so that children in rural areas can fully benefit from high-quality and fair educational opportunities and environment. During the Reporting Period, the Group strived to improve basic education in rural areas and provided children with high-quality and fair educational conditions by donating funds to schools and improving campus environment.



## Industrial Assistance

Industrial assistance is a long-term solution to increase the growth drivers of impoverished areas and facilitate local employment for local residents. With our strengths, we enable the community to benefit from our presence. The Group nurtures and develops featured industrial projects based on local resources and advantages and provides capital, technological, market and channel resources for the development of featured industries in impoverished villages. For example, during the Reporting Period, we took the lead in organising seminars for village enterprises and purchasing harvesting machines for impoverished villages, in an effort to enable the local community to receive more benefits from industrial development.



Purchasing harvesting machines for impoverished villages



Seminars for village enterprises

## Rescue Support

The community is one of the most important stakeholders for enterprises and enterprises should work together with the community to overcome difficulties. As such, the Company's headquarters and subsidiaries are the first to dispatch rescue teams in the event of major natural disasters in or near the areas where the Company is based, and make every effort to help local governments transfer relief materials and make donations, thereby performing the responsibilities as a state-owned enterprise. For example, during the Reporting Period, our branches donated firefighting and rescue equipment to the governments where they are based.



Donation of firefighting equipment

## Community Development

Enterprises cannot only pursue economic goals, and instead, they should take up their responsibilities as "social citizens". Corporate involvement in community development is a necessary step to enhance brand value. The Group has been actively involved in community development through local community public welfare activities such as friendship activities between the Company and ethnic minority communities and visits to stationed soldiers, thereby forming good interactions with relevant communities and creating a harmonious atmosphere for the communities while providing a more favourable and relaxed environment for its own development.



"4 May" friendship activity with Dashankou community to promote ethnic unity



Youth volunteers participated in community development



Community public welfare activities



Visits to stationed soldiers



Voluntary activities



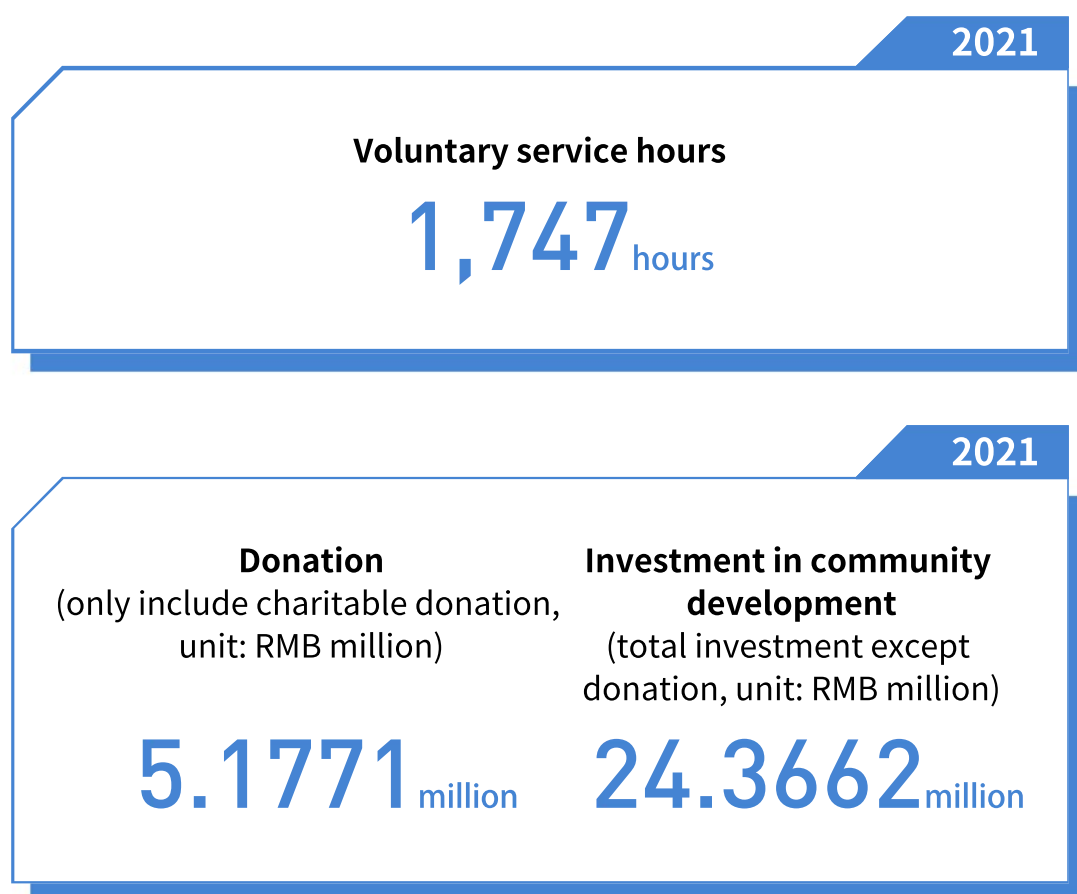
Appreciation flag from residents in villages around Zaozigou



Friendly basketball match with Payzawat County Tax Bureau

Based on the social conditions, public opinions, ethnic characteristics, religion, culture and other characteristics of the areas where our headquarters and branches are located, we fully understand the needs and development situation of the local community in order to carry out corporate projects and undertake corporate social responsibilities through community involvement in different aspects, thereby giving back to the community.

During the Reporting Period, the Group donated RMB5.1771 million to charity, invested RMB24.3662 million in community development and spent 1,747 hours in these events, representing a year-on-year increase of 39.4%. We involve in volunteer works, disaster rescue, education, charity works, community integration, and employment opportunities to create values for the society, take our responsibility, and lay a foundation for the local development, in order to enhance the community's recognition of our corporate values, and create a good development environment. To swiftly respond to the community's concerns and opinions on time, we enhance the information collection system through the use of technology and the "89000 Community Service Platform". We value the feedback from the community and make effective and timely responses to address residents' problems.



# APPENDIX – STOCK EXCHANGE ESG REPORTING GUIDE INDEX

Stock Exchange ESG Reporting Guide General Disclosures & KPIs		Explanation/ Reference Section
<b>Subject Area A: Environmental</b>		
<b>A1 Emissions</b>	<p>Information on:</p> <p>(a) the policies; and</p> <p>(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.</p> <p>Note: Air emissions include NO<sub>x</sub>, SO<sub>x</sub>, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</p> <p>Hazardous wastes are those defined by national regulations.</p>	<p>Our Environment</p> <p>During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p>
<b>KPI A1.1</b>	The types of emissions and respective emissions data.	Our Environment
<b>KPI A1.2</b>	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Energy Efficiency and Carbon Emission Control
<b>KPI A1.3</b>	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste Management
<b>KPI A1.4</b>	Total non-hazardous waste produced (in tonnes) and where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste Management
<b>KPI A1.5</b>	Description of emissions target(s) set and steps taken to achieve them.	Our Environment
<b>KPI A1.6</b>	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Waste Management

Stock Exchange ESG Reporting Guide General Disclosures & KPIs		Explanation/ Reference Section
<b>Subject Area A: Environmental</b>		
<b>A2 Use of Resources</b>	<p>Policies on efficient use of resources including energy, water and other raw materials.</p> <p>Note:</p> <p>Resources may be used in production, storage, transportation, buildings, electronic equipment, etc.</p>	Our Environment
<b>KPI A2.1</b>	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).	Energy Efficiency and Carbon Emission Control
<b>KPI A2.2</b>	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Water Stewardship
<b>KPI A2.3</b>	Description of energy use efficiency target(s) set and steps taken to achieve them.	Energy Efficiency and Carbon Emission Control
<b>KPI A2.4</b>	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.	Water Stewardship There is no issue in sourcing water that is fit for purpose.
<b>KPI A2.5</b>	Total packaging material used for finished products (in tonnes), and, if applicable, with reference to per unit produced.	Our business engage in mining activities where packaging material is not a material concern.
<b>A3 The Environment and Natural Resources</b>	Policies on minimising the issuer's significant impact on the environment and natural resources.	Ecological Rehabilitation
<b>KPI A3.1</b>	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Ecological Rehabilitation
<b>A4 Climate Change</b>	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Energy Efficiency and Carbon Emission Control
<b>KPI A4.1</b>	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Energy Efficiency and Carbon Emission Control

Stock Exchange ESG Reporting Guide General Disclosures & KPIs		Explanation/ Reference Section
<b>Subject Area B: Social</b>		
<b>B1 Employment</b>	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.	Compliant Employment  During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare in the PRC.
<b>KPI B1.1</b>	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Compliant Employment
<b>KPI B1.2</b>	Employee turnover rate by gender, age group and geographical region.	Remuneration and Benefits and Employee Protection
<b>B2 Health and Safety</b>	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.	Healthy and Safe Workplace  During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to providing a safe working environment and protecting employees from occupational hazards
<b>KPI B2.1</b>	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Healthy and Safe Workplace
<b>KPI B2.2</b>	Lost days due to work injury.	Healthy and Safe Workplace
<b>KPI B2.3</b>	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Healthy and Safe Workplace
<b>B3 Development and Training</b>	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.  Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	Training and Empowering Staff

Stock Exchange ESG Reporting Guide General Disclosures & KPIs		Explanation/ Reference Section
<b>Subject Area B: Social</b>		
<b>KPI B3.1</b>	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Training and Empowering Staff
<b>KPI B3.2</b>	The average training hours completed per employee by gender and employee category.	Training and Empowering Staff
<b>B4 Labour Standards</b>	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 or forced labour.	Compliant Employment  During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to preventing child or forced labour.
<b>KPI B4.1</b>	Description of measures to review employment practices to avoid child and forced labour.	Compliant Employment
<b>KPI B4.2</b>	Description of steps taken to eliminate such practices when discovered.	Compliant Employment
<b>B5 Supply Chain Management</b>	Policies on managing environmental and social risks of the supply chain.	Supply Chain Management
<b>KPI B5.1</b>	Number of suppliers by geographical region.	Supply Chain Management
<b>KPI B5.2</b>	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Supply Chain Management
<b>KPI B5.3</b>	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Supply Chain Management
<b>KPI B5.4</b>	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Supply Chain Management
<b>B6 Product Responsibility</b>	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.	Product Responsibility  During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.
<b>KPI B6.1</b>	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Our major product is standard gold ingots, which do not involve issues of the products sold or shipped subject to recalls for safety and health reasons.

Stock Exchange ESG Reporting Guide General Disclosures & KPIs		Explanation/ Reference Section
<b>Subject Area B: Social</b>		
<b>KPI B6.2</b>	Number of products-and services-related complaints received and how they are dealt with.	Product Responsibility
<b>KPI B6.3</b>	Description of practices relating to observing and protecting intellectual property rights.	Technological Innovation
<b>KPI B6.4</b>	Description of quality assurance process and recall procedures.	Product Responsibility
<b>KPI B6.5</b>	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Our major product is standard gold ingots which are not directly sold to the customers. Therefore, the Group has no material consumer data protection and privacy issue
<b>B7 Anti-corruption</b>	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.	Ethical Business  During the Reporting Period, the Group was not aware of any breaches of relevant laws and regulations in the PRC that have a significant impact on the Group relating to bribery, extortion, fraud and money laundering.
<b>KPI B7.1</b>	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.	Ethical Business
<b>KPI B7.2</b>	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Ethical Business
<b>KPI B7.3</b>	Description of anti-corruption training provided for directors and staff.	Ethical Business
<b>B8 Community Investment</b>	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.	Community Participation
<b>KPI B8.1</b>	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Community Participation
<b>KPI B8.2</b>	Resources contributed (e.g. money or time) to the focus area.	Community Participation