

**2022**ENVIRONMENTAL, SOCIAL AND  
GOVERNANCE REPORT

## Thinking about Today with the Future

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Jiangxi Copper Co., Ltd.

Stock code: H shares: 00358 A shares: 600362

# About the report

This report is the sixth Environmental, Social and Governance (ESG) report issued by Jiangxi Copper Co., Ltd.(also referred to as "Jiangxi Copper", "our company" or "us").This report sets out Jiangxi Copper's key ESG practices and outcomes during 2022 in order to respond to stakeholders' expectations and concerns and contribute to the company's continued improvement in sustainable performance.

## Reporting Entity .....

Unless otherwise specified, the scope of this report covers Jiangxi Copper Co., Ltd. and its subsidiaries.

## Time Range .....

This report is an annual report. The time range covers January 1, 2022 to December 31, 2022, consistent with the financial year. Some information relates to prior years or is forward-looking in description.

## Compilation Basis .....

This report is prepared in accordance with *Guidelines on Environmental Information Disclosure of Listed Companies* published by Shanghai Stock Exchange (SSE), *Appendix 14 Corporate Governance Code and Appendix 27 Environmental, Social and Governance Reporting Guide of the Main Board Listing Rules* published by The Stock Exchange of Hong Kong Limited (HKEX), *Sustainable Development Reporting Standard (2021 edition)* published by Global Reporting Initiative (GRI), the *International Organization for Standardization Social Responsibility Guide (ISO 26000)*, the national standard *Social Responsibility Guide (GB/T 36000-2015)* and other domestic and foreign ESG report standards.

## Data Description .....

The data involved in this report comes from the company's internal statistical ledger, company documents, audit reports and other materials, some of the economic data comes from the company's annual report. Unless otherwise specified, all currency units used in this report are RMB(yuan).

## Report Release .....

The report is available in electronic form on the web and is available on the official websites of the SSE, the HKEX and Jiangxi Copper Co., Ltd. ([www.jxcc.com](http://www.jxcc.com)).

## Report Language .....

This report is released in Chinese and English. In case of any discrepancy, the Chinese version shall prevail.

## Contact Information .....

Jiangxi Copper values the views of stakeholders and welcomes readers to contact our company through the following contact information. Your comments will help the company further refine this report and improve its overall performance in implementing the concept of sustainable development.

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## MESSAGE FROM THE CHAIRMAN



2022 is an extremely extraordinary and even more impressive year for all employees of Jiangxi Copper. In the past year, we bravely shouldered our missions and tasks, and worked together to overcome difficulties with perseverance and high-spirited fighting spirit, finally accomplishing various full-year targets and tasks with high quality. We delivered excellent results that fulfilled our missions by pushing the production and operation to a new high, accelerating the project construction with higher quality, continuously enhancing the strength of scientific and technological innovation, further improving the governance mechanism, promoting the "carbon peaking and carbon neutrality" strategy in an orderly manner, speeding up the construction of digital ecology, strengthening the risk management and control and comprehensively deepening co-creation and sharing.

Facing the *Paris Agreement* on climate change and the "carbon peaking and carbon neutrality" goal, we have always adhered to the core concept of "thinking about today with the future" and stayed committed to the path of clean, low-carbon and green development. We have been dedicated to continuously exploring the value of resources, and abided by our commitment to sustainable development to pursue the harmonious coexistence of man and nature. Our company has refined the green, recycling and low-carbon development requirements into the whole field, process, and link of production and operation, promoting the high-quality development of the nonferrous industry with the green concept. In 2022, main production units fully completed the establishment of green mines(factories), with a total of 4 national-level green mines and 8 national-level green factories built, blazing a new path of ecology-first and green development.

With the goal of being a "world-class" non-ferrous metal enterprise, we constantly innovate, improve and enrich our new management model. Through systematic changes and overall reshaping, we continue to enhance the synergy, innovation and risk control of the operation management and control system, making the corporate governance more scientific, modern and efficient. Under the overall planning of the ESG Development Committee, we have promoted and carried out various ESG-related work in an orderly manner. At the same time, we have deeply explored the market-oriented employment mechanism and stimulated vitality, which not only effectively promotes the high-quality development of the enterprise, but also reflects our unremitting pursuit of "people-oriented, talent first" goal.

Staying committed to innovation-driven concept, we have completed the top-level design of "Digital Jiangxi Copper" with high quality, accelerated the development of Jiangxi Copper's industrial Internet integration system based on "one platform", and strengthened digital engines, digital applications and digital empowerment to enable safe, green production and high-quality development. We have accelerated the construction of "smart mines" and "smart factories", strived to promote the implementation of financial sharing centers and fund management systems, and promoted the full application of marketing and trade information platforms. Through digital empowerment, we have not only transformed and upgraded traditional industries, but also seized the opportunities for development in the new era of cross-border integration and digital ecology.

We always adhere to placing equal emphasis on business development and social responsibility,

with the spirit of service to the people. Based on the concept of "fulfilling social responsibility and being an excellent corporate citizen", we actively participate in social public welfare undertakings, and continue to share the achievements of corporate development with employees, society and stakeholders. We improve the "work-for-relief" assistance measures and actively develop targeted assistance to Yaoqian Village's characteristic industries, thus promoting the diversified development of rural revitalization. Focusing on improving employees' sense of gain, happiness, and security, we effectively protect the legitimate rights and interests of employees and continue to give assistance to employees, with a view to creating a beautiful place for employees.

To turn the grand goal into a beautiful reality, we must work hard and strengthen solidarity. Looking back on the past, countless Jiangxi Copper people have forged today's Jiangxi Copper with hard work, struggle and sweat through the whole journey. Standing at a new starting point, we need to work hard to create the future, and strive to achieve great achievements. We should seize the momentum to forge ahead with enterprise and fortitude and make great efforts to build a world-class enterprise with global core competitiveness, and accelerate the construction of a modern and beautiful Jiangxi Copper, accordingly making a new and greater contribution to the creation of Chinese-style modern Jiangxi, to the overall construction of a modern socialist country and to the comprehensive promotion of great rejuvenation of the Chinese nation!

Jiangxi Copper Co., Ltd. Chairman of the Board

**Zheng Gaoqing**

# ABOUT US

## Company profile

Jiangxi Copper Co., Ltd. was established in 1997, and was listed in Hong Kong and London simultaneously in the same year, becoming the first overseas listed mining stock in China. In 2002, our company was listed on the Shanghai Stock Exchange. Our company has a holding listed company—Shandong Humon Smelting Co., Ltd., four operating smelters, five fully-owned operating mines and eight modern copper processing plants. In 2022, our company ranked 31st in the "Fortune China 500".

As the largest comprehensive copper production enterprise in China, our company has been engaged in various business covering mining, smelting and processing of copper and gold; extraction and processing of dissipated metal; sulfide industry, finance, trade and other fields. Our company has a complete industrial chain integrating exploration, mining, mineral dressing, smelting and processing. Among them, our company's copper smelting and processing capacity ranks in the tops in China, and our holding subsidiary, Shandong Humon Smelting Co., Ltd. is one of the top ten gold smelting enterprises in China. At the same time, our company has established mining bases in Peru, Albania, Afghanistan, Kazakhstan, Mexico and other countries, gradually improving our international development map.

Our company's products include: cathode copper, gold, silver, sulfuric acid, copper rod, copper tube, copper foil, selenium, tellurium, rhenium, bismuth, etc., more than 50 varieties, of which "Guixi Smelter Brand", "Jiangxi Copper Brand" and "HUMON-D brand" cathode copper are registered products at the London Metal Exchange, and "Jiangxi Copper Brand" gold and silver are registered products at the London Bullion Market Association.

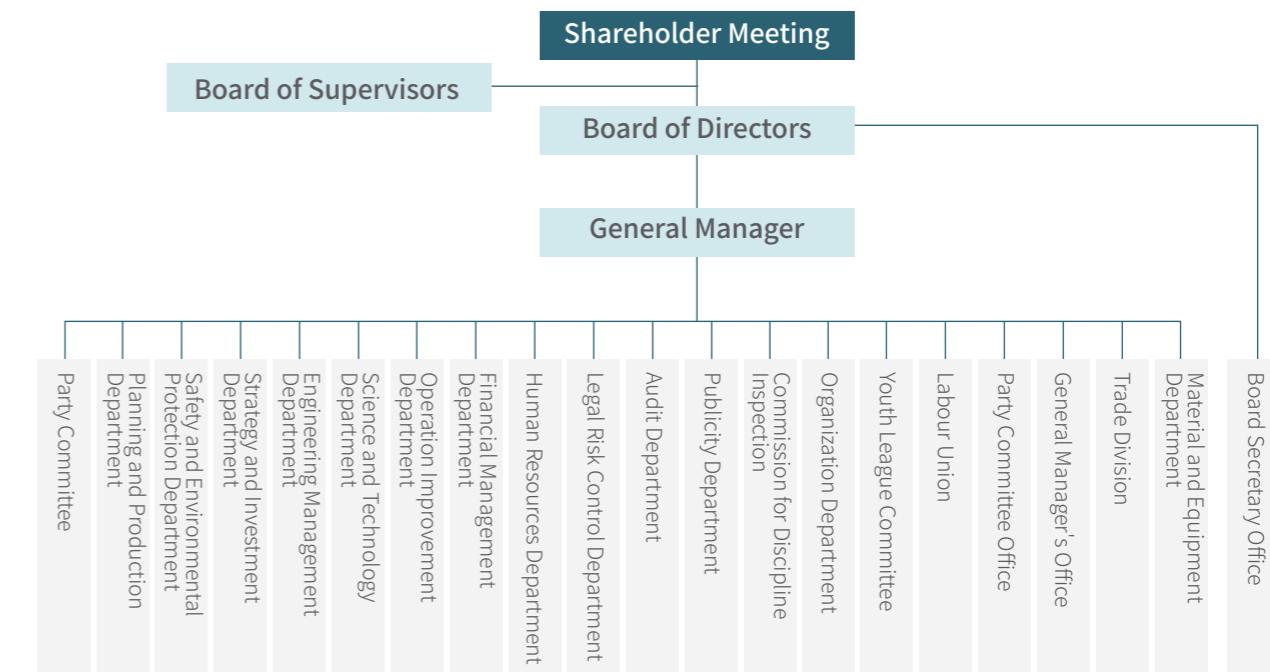


<sup>1</sup> Guixi Smelter, Jiangxi Copper (Qingyuan) Co., Ltd., Jiangxi Copper Hongyuan Copper Co., Ltd. and Zhejiang Jiangxi Copper Fuye Heding Copper Co., Ltd

<sup>2</sup> Dexing Copper Mine (including Copper Plant Mine, Fujiawu Mine, Zhushahong Mine), Yongping Copper Mine, Chengmenshan Copper Mine (including Jinjiwo Silver-Copper Mine), Wushan Copper Mine and Yinshan Mining Company

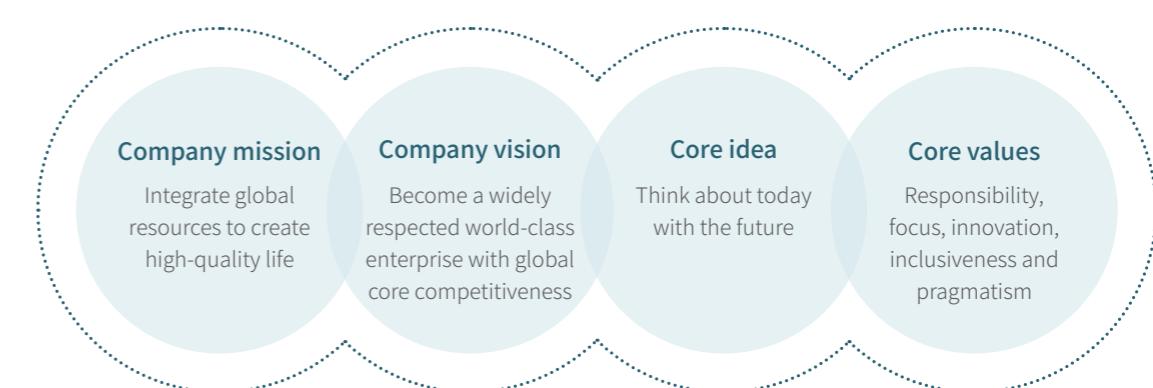
<sup>3</sup> Jiangxi Copper Co., Ltd., Guangzhou Jiangxi Copper Co., Ltd., Jiangxi Copper Foil Technology Co., Ltd., Jiangxi Copper-Taiyi Special Electrical Materials Co., Ltd., Jiangxi Copper Longchang Precision Copper Tube Co., Ltd., Jiangxi Copper Corporation Copper Co., Ltd., Jiangxi Copper North China(Tianjin) Copper Co., Ltd. and Jiangxi Copper East China(Zhejiang Copper) Co., Ltd.

## Organizational structure



## Business philosophy

Adhering to the concept of building "Powerful Jiangxi Copper, Scientific Innovation Jiangxi Copper, Green Jiangxi Copper, Digital Jiangxi Copper, International Jiangxi Copper and Vigorous Jiangxi Copper" centering on the controlling shareholder, Jiangxi Copper Corporation, our company pursues a development strategy "copper-oriented, transformation and upgrading, diversified development, dual-cycle mutual promotion". Our company always upholds the new development concept of innovation, coordination, green, openness, and sharing, focuses on the main business, high-quality development and adheres to innovation-led, talent-driven principle, thus striving to keep a steady and sound path of innovation-driven, investment-driven, reform-driven, integrated and interactive, open-driven, and green linkage development. Through the joint efforts of all Jiangxi Copper employees, our company will comprehensively build a world-class enterprise with global core competitiveness and become a new modernized Jiangxi Copper after a period of continuous struggle.



## Annual honor

Corporate Level		
Date of award	Award Name	
September 2022	Excellent Service Provider Award for China Enterprise Risk Management "Golden Great Wall" Award	
November 2022	China Securities Journal "Golden Bull Award"	
Technical Level		
Date of award	Technology/project name	Awards
June 2022	"Complex Copper Polymetallic Sulfide Ore Low-alkali Inhibition-Oxidation Activation Separation and Comprehensive Utilization Technology"	Awarded the first prize of Jiangxi Science and Technology Progress Award in 2021
	"Development and Application of Bidirectional Parallel Flow High Current Density Copper Electrolysis Process and Special Equipment"	Awarded the second prize of Jiangxi Science and Technology Progress Award in 2021
August 2022	"Key Technology for Large-scale Safe and Efficient Mining of Open-pit Metal Mines"	Successfully selected into the <i>Catalogue of Advanced Applicable Technologies for Conservation and Comprehensive Utilization of Mineral Resources(2022 Edition)</i> issued by the Ministry of Natural Resources
	"Sulfide Extraction Technology of Low Concentration Copper Resources in Acidic Water"	
	"Centerline Embankment Technology"	
December 2022	"Key Technology and Practice of High Efficiency Open-pit and Underground Collaborative Mining in Complex Copper Metal Mines"	Awarded the first prize of the 2022 China Nonferrous Metals Industry Science and Technology Award
	"Key Technology and Demonstration Application of Pollution Barrier and Ecological Restoration of Non-ferrous Mining and Metallurgy Solid Waste Yard"	
	"Precise Prediction and Reinforcement Control Technology and Application of Rainfall-induced Mine Landslides"	Awarded the second prize of the 2022 China Nonferrous Metals Industry Science and Technology Award
	"Development and Industrial Application of Key Technologies for Green, Low-carbon and High-efficient Desulfurization of Non-ferrous Metallurgy Flue Gas"	

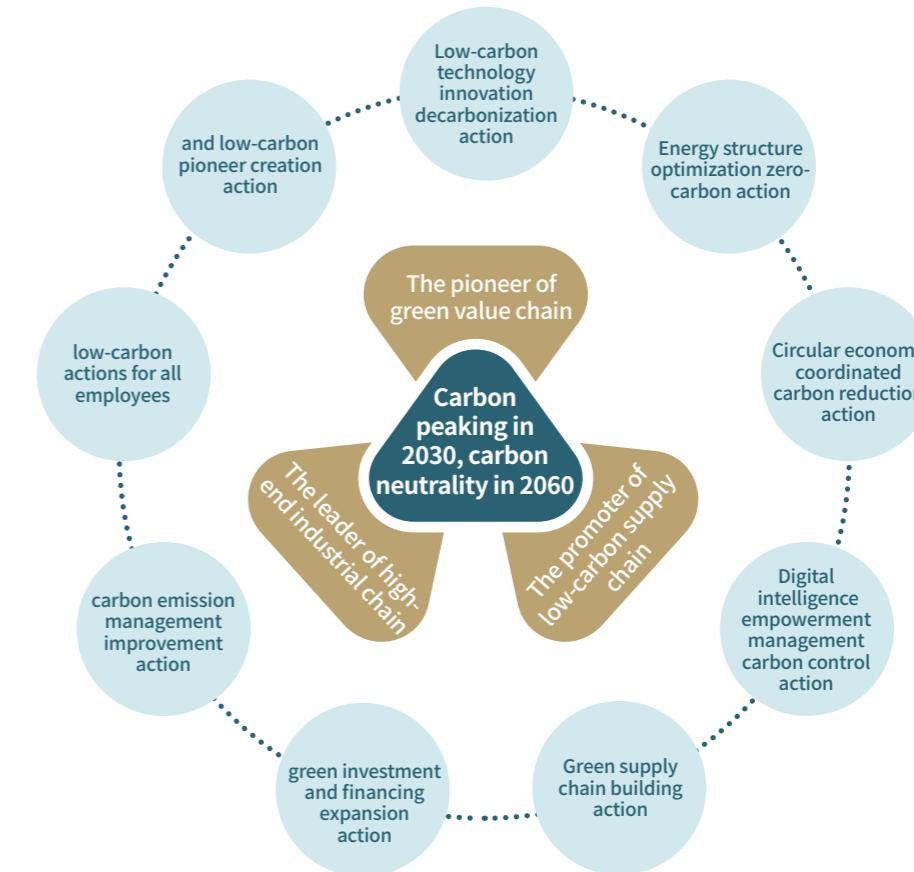
## Sustainable development strategy

In response to the Sustainable Development Goals(SDGs) , the *Paris Agreement* and the national policy on "carbon peaking and carbon neutrality", our company follows the sustainable development strategy of "139 'Dual Carbon' Strategy" set by the controlling shareholder, Jiangxi Copper Co., Ltd to incorporate carbon peak and carbon neutrality into the overall development of our company and actively promote the implementation of clean, low-carbon and green transformation centered on "production operation, energy structure, and product supply". Based on the basic principles of goal-oriented, resource conservation first, innovation-driven, coordinated development, and safe carbon reduction, our company will continue to improve the efficiency of energy and resource utilization, explore new paths for energy conservation and carbon reduction for non-ferrous enterprises and promote the transformation of the non-ferrous industry to an innovation-driven and low-carbon intensive industry, thus providing strong support for accelerating the building of world-class enterprises with global core competitiveness, and making contribution to the carbon peak and carbon neutrality of Jiangxi Province.

**One goal:** carbon peaking in 2030, carbon neutrality in 2060

**Three strategic orientations:** the leader of high-end industrial chain, the promoter of low-carbon supply chain, and the pioneer of green value chain

**Nine key actions:** low-carbon technology innovation decarbonization action, energy structure optimization zero-carbon action, circular economy coordinated carbon reduction action, digital intelligence empowerment management carbon control action, green supply chain building action, green investment and financing expansion action, carbon emission management improvement action, low-carbon actions for all employees, and low-carbon pioneer creation action.



Response to SDGs	Company Strategy and Goals
  	<ul style="list-style-type: none"> <li>Continue to improve the ESG governance structure, increase ESG information disclosure, and improve ESG governance capabilities.</li> <li>Include ESG factors as an important part of risk management and internal control. Maintain an annual growth rate of <b>15%</b> in R&amp;D investment.</li> <li>Make efforts to promote the integrated development of the digital economy and the real economy, and accelerate the construction of "Digital Jiangxi Copper".</li> </ul>
    	<ul style="list-style-type: none"> <li>Promote low-carbon technology and process throughout the industrial chain, make in-depth plans for "carbon peaking and carbon neutrality" actions, comprehensively build green factories and green mines, and promote industrial transformation and upgrading of our company.</li> <li>By <b>2025</b>, all mines and factories will meet the construction standards of national green mines and green factories, and more than <b>two</b> national mine parks will be established.</li> <li>Maximize the use and recycling of water resources, minimize the external water sources required for operation, and minimize the discharge of sewage and wastewater to the external environment. The total reuse rate of industrial water is over <b>90%</b>.</li> <li>Accelerate zero-carbon energy substitution actions, fully realize green and low-carbon circular development, and reach international leading levels in energy utilization efficiency and carbon emission intensity before 2060.</li> <li>The coverage rate of plants in the area of the ecological restoration project (excluding the hardened area) will reach <b>90%</b> or above, the plant diversity will exceed <b>seven</b> or more species, and the maximum bare area of a single block will be less than <b>3</b> square meters.</li> </ul>
        	<ul style="list-style-type: none"> <li>Take up social responsibilities with practical actions, and continue to carry out projects such as rural revitalization, emergency rescue and disaster relief, and education donations.</li> <li>The labor contract signing rate, social insurance coverage rate and employee occupational health examination rate are kept at <b>100%</b>.</li> <li>The overall complaint resolution rate of the product is kept at <b>100%</b>.</li> <li>Respect employees' religious beliefs, cultural background, gender, ethnicity, nationality, etc., treat overseas workers equally, and resist all forms of forced and compulsory labor.</li> <li>Pay attention to the internal training of talents and the overall development of employees, create a variety of channels such as education and training, skill competitions, and job training, build a good platform for employee career development, and guide and encourage all kinds of talents to grow up and achieve great success based on their posts.</li> <li>Pay attention to the development of the community where the project is located, and actively carry out communication with stakeholders.</li> </ul>

## Materiality evaluation

### Communication with stakeholders

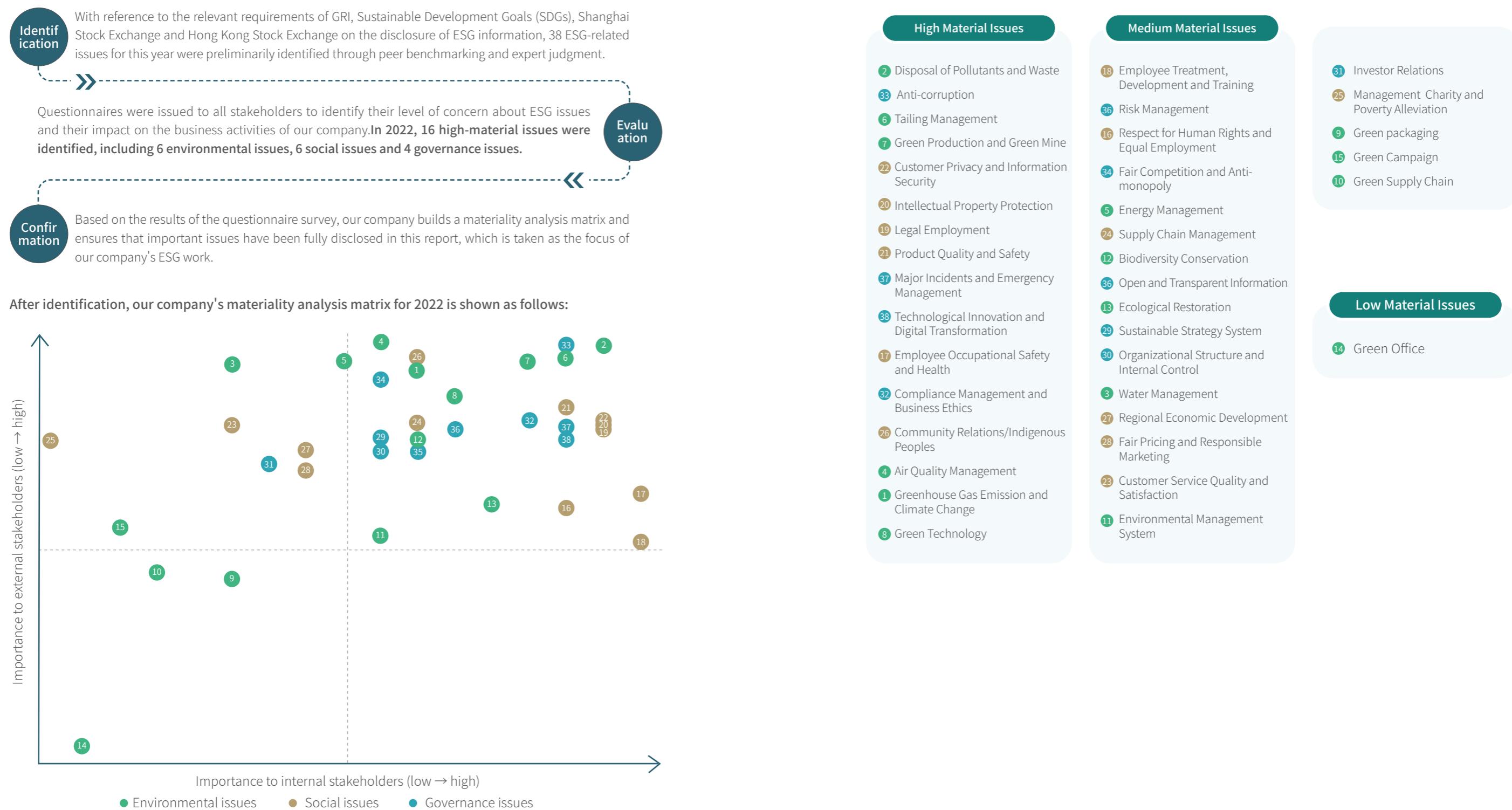
Our company attaches great importance to communication with internal and external stakeholders, formulates communication channels and mechanisms for all stakeholders, and adopts positive measures to make response through regular and irregular communication in the daily operation process to ensure that the demands and expectations of all stakeholders in environmental, social and governance aspects are fully understood and implemented.

Stakeholder	Demands and Expectations	How to Communicate and Respond
Employee	Equal employment Remuneration performance Occupational safety and health Rights and interests guarantee Training and promotion Communication mechanism and channel	Workers and employees' congress Visit and assistance Recreational and sports activities Conference and training Union communication Company Intranet, Bulletin Board, WeChat Official Account Platform
Client	Product quality Communication mechanism and channel Privacy security	Customer satisfaction survey Customer complaint channel Daily communication
Industry association and scientific research institution	Standard construction Industry participation Fair competition	Industry exchange seminar Subject project cooperation
Government and regulatory department	Tax payment according to law Compliance operation Anti-corruption Business ethics Environmental protection and response to climate change	Site visit Participation in government projects, policies and proposals Government and regulatory meeting Information disclosure platform Energy saving and emission reduction and pollution treatment
Investor and shareholder	Corporate governance Information transparency Participation in decision-making Risk management Performance growth	Performance briefing General meeting of shareholders Information disclosure Investor communication channel
Business partner	Purchasing and supply chain management Business ethics Communication mechanism and channel	Supplier/contractor communication Supplier/contractor evaluation Supplier/contractor training
Commonweal and community organization	Environmental protection and response to climate change Communication mechanism and channel Community development Ecological restoration Information transparency Charity	Energy saving and emission reduction and pollution treatment Open day in mining area Communication with community Charity activity
Media and general public	Information transparency Rural revitalization Charity Focus on vulnerable groups Environmental protection and response to climate change	Information disclosure Public opinion monitoring Charity activity Industry support Energy saving and emission reduction and pollution treatment

## Analysis of material issues

In combination with the characteristics of the business, our company has formed a material issues analysis process, and on the basis of the previous year's work, continues to carry out the identification, evaluation and identification of ESG issues, screens out material issues with major importance, and makes key disclosures in the report.

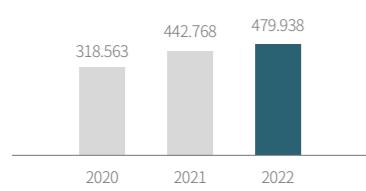
The specific process is as follows:



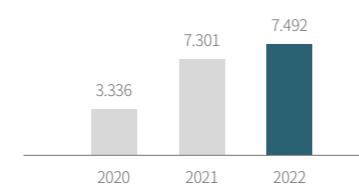
## Annual ESG key performance

### Economic performance

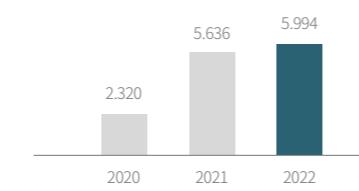
Operating income  
**479.938** billion yuan ↑8.39%



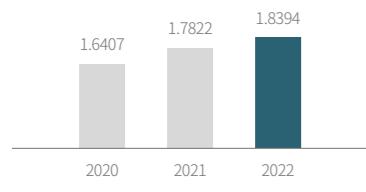
Total profits  
**7.492** billion yuan ↑2.62%



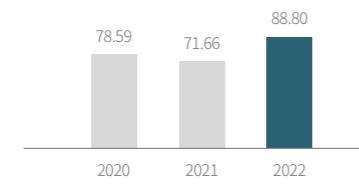
Net profit attributable to parent  
**5.994** billion yuan ↑6.35%



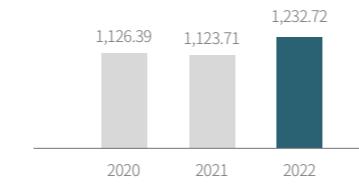
Cathode copper  
**1.8394** million tons ↑3.21%



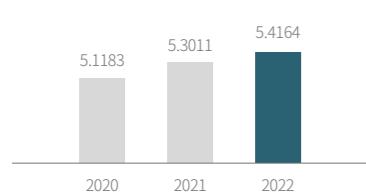
Gold  
**88.80** tons ↑23.92%



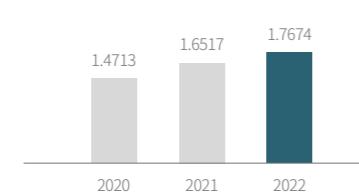
Silver  
**1,232.72** tons ↑9.70%



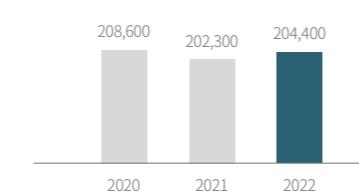
Sulfuric acid  
**5.4164** million tons ↑2.18%



Copper processing products  
**1.7674** million tons ↑7.00%

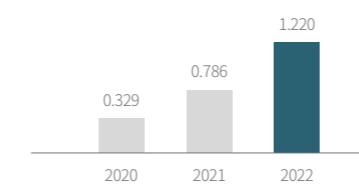


Copper in self-produced copper concentrate  
**204,400** tons ↑1.04%

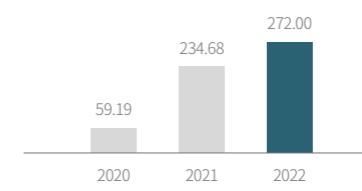


### Environmental performance

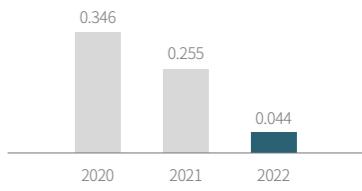
Total investment in environmental protection  
**1.220** billion yuan ↑55.22%



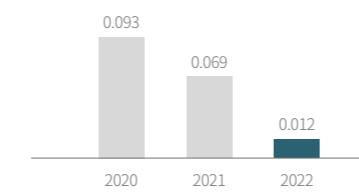
Total area of ecological restoration  
**272.00** hectares ↑15.90%



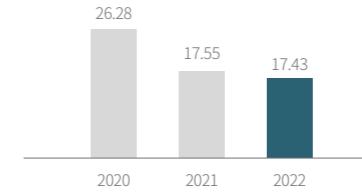
Greenhouse gas emission density  
**0.044** tCO<sub>2</sub>/ 10,000 ↓82.75%



Comprehensive energy consumption density  
**0.012** tce/10,000 ↓82.61%



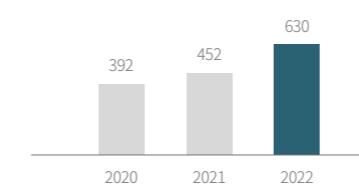
Total water intensity  
**17.43** t/10,000 yuan ↓0.68%



Reuse rate of industrial water  
**94.90%**

### Social performance

Total investment in production safety  
**630** million yuan ↑39.38%



1,000,000 man-hours accident rate  
**0.20%**



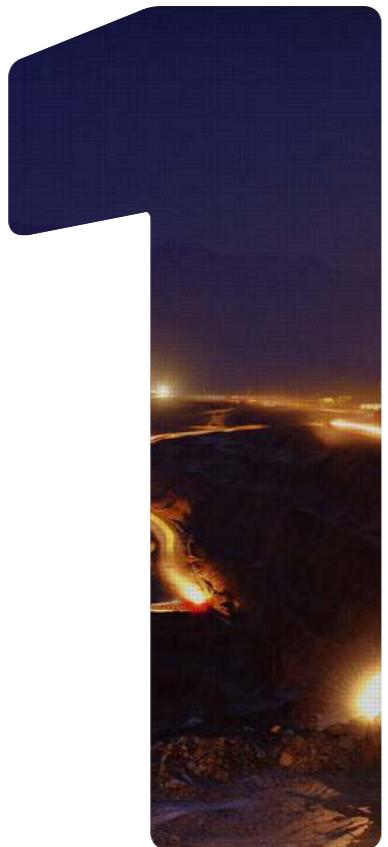
Total number of employees  
**25,051** 人



Employment rate of local staff  
**66.50%**



Training hours per capita  
**74.29** hours/person



## **RESPONSIBILITY GOVERNANCE**

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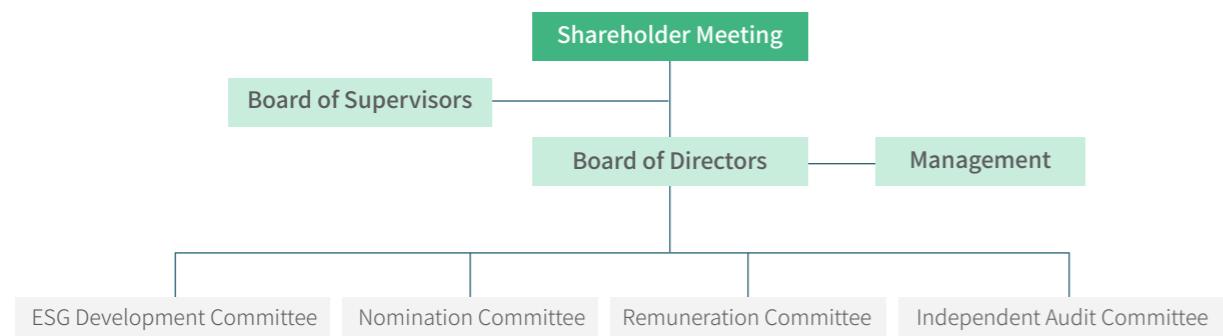
Corporate governance according to the law is the basis, the foundation and the policy of strengthening, revitalizing and improving an enterprise, and the inexhaustible driving force for their sustainable development. Our company continuously optimizes governance structure by incorporating ESG concepts into corporate governance culture, and keeps upgrading the legal risk management and control mechanism to improve the law-based governance system, enhance governance capabilities and law-based corporate governance, and comprehensively promote the implementation of law-based corporate governance and legal construction. With the help of high-quality governance, our company will strive for the vision of being a world-class enterprise.

# RESPONSIBILITY GOVERNANCE

## Corporate governance

### Governance structure

In strict compliance with the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Governance Code for Listed Companies*, the *Listing Rules of Shanghai Stock Exchange*, the *Listing Rules of the Stock Exchange of Hong Kong Limited* and other relevant laws, regulations and normative documents, our company continues to improve corporate governance structure to ensure compliance operation and long-term stable development of our company. The board of directors, the board of supervisors and the special committees of the board shall perform their duties according to law. Our company takes "three boards and one level" as the main body, with the general meeting of shareholders as the highest authority, the board of directors as the decision-making body, the board of supervisors as the supervisory body and the management as the executive body. Under the board of directors, there are four special committees for ESG development, nomination, remuneration, and independent review, with clear powers and responsibilities, each performing its duties, and promoting the steady development of our company.



### General meeting of shareholders

Our company strictly follows the rules and requirements of the China Securities Regulatory Commission (CSRC) on the *General Meeting of Shareholders of Listed Companies* and *Guidelines on the Articles of Association of Listed Companies* to ensure that all shareholders, especially small and medium shareholders, enjoy equal status and can fully exercise their rights.

In 2022, our company held a total of 3 general meetings of shareholders, including 1 annual general meeting and 2 extraordinary general meetings, and a total of 21 proposals were reviewed and approved. According to relevant regulations, our company adopted a combination of on-site and online voting for the three general meetings of shareholders to conduct separate vote counting for small and medium-sized investors.

### Board of directors and special committees

Our company nominates and elects directors in strict accordance with the procedures stipulated in the *Articles of Association of Jiangxi Copper Co., Ltd. (hereinafter referred to as the "Articles of Association")*. The number and composition of the board of directors comply with relevant laws and regulations and the *Articles of Association*. At the same time, our company adopts a multicultural policy for the board of directors, and comprehensively considers factors such as the age, gender, educational background, work experience, skills and knowledge of the board members to ensure the diversity of the board of directors.

As of the end of 2022, our company's board of directors has a total of 11 directors, including 5 internal executive directors, 2 external directors and 4 independent non-executive directors. Information on all directors has been published in our company's 2022 annual report.

During the reporting period, our company held a total of 13 board meetings and reviewed 49 proposals; the special committees of the board of directors held 2 audit committee meetings, 3 nomination committee meetings, 1 remuneration committee meeting, and 1 ESG development committee meeting.

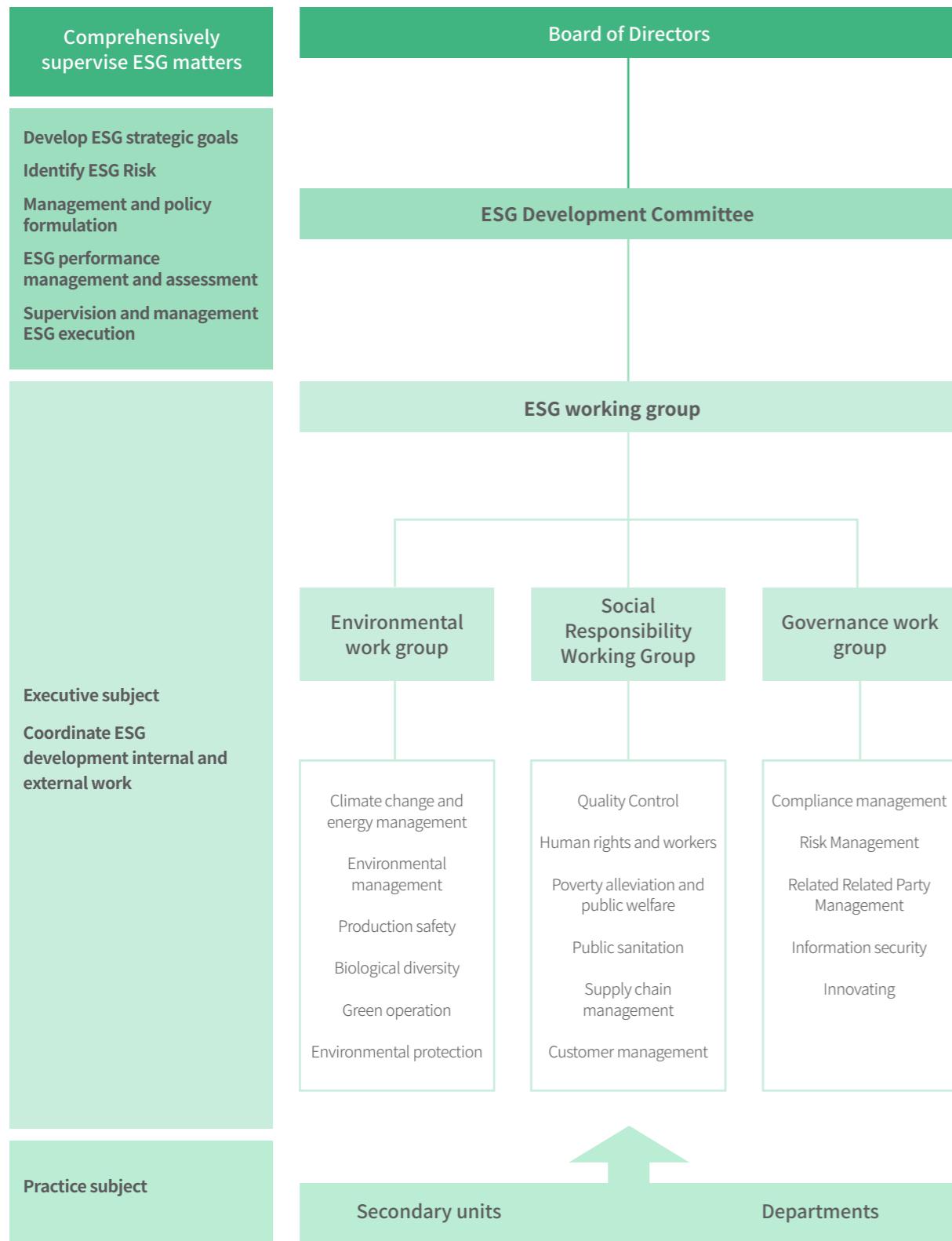
### Board of supervisors

Our company nominates and elects supervisors in strict accordance with the procedures stipulated in the *Articles of Association*. The number and composition of the board of supervisors comply with relevant laws and regulations and the *Articles of Association*. Our company's board of supervisors independently exercises supervisory power in accordance with the law to promote our company's standardized operation. In 2022, our company held a total of 8 meetings of the board of supervisors, with 38 proposals reviewed.

## ESG governance

Our company's board of directors comprehensively supervises ESG matters and actively leads and continuously improves our company's environmental, social and governance capabilities. As a special committee under the board of directors, the ESG Development Committee is mainly responsible for formulating ESG strategic goals, identifying ESG-related risks, management and policy formulation, ESG performance management and assessment, and supervising and managing ESG implementation. The ESG Development Committee is chaired by the chairman of our company, responsible for presiding over the work of the committee. At the executive level, our company's various functional departments and subordinate secondary units implement ESG-related work across departments. During the reporting period, our company continued to improve the ESG governance structure, increased ESG information disclosure, and completed the preparation of ESG reports.

In 2022, our company organized the first meeting of the ESG Development Committee of the Ninth Board of Directors, at which the *Environmental, Social and Governance Report of Jiangxi Copper Co., Ltd* in 2021 was reviewed and approved, and submitted to the seventh meeting of the ninth Board of Directors for deliberation.



## Business ethics

### Anti-corruption

In strict accordance with the *Interim Regulations on the Prohibition of Commercial Bribery* and other relevant anti-corruption laws and regulations, our company has formulated the *Implementation Measures for the Management of Integrity Risk Prevention of Jiangxi Copper Co., Ltd.*, *Measures of Jiangxi Copper to Strengthen Supervision and Inspection of Leading Officials (Revised Version)*, *Administrative Measures of Disciplinary Inspection and Supervision Organizations to Supervise Major Economic Activities of Enterprises(Revised Version)* and a series of rules and regulations to carry out anti-corruption unwaveringly, and make every effort to promote

#### Don't dare to be corrupt

Our company has zero tolerance for fraud and corruption, and resolutely investigates and punishes any corruption. Our company unwaveringly promotes discipline enforcement and anti-corruption, and strengthens the supervision over "top leaders" and leading officials by means of letters and visits, daily supervision, and assessment of the accountability system for building a clean government. Oriented by problems, our company carries out collective anti-corruption talks and centralized investigations and corrects problems. During the reporting period, our company did not receive any written sentence or civil ruling paper due to corruption.

#### Be unable to be corrupt

Our company continues to intensify the supervision and inspection of project approval, engineering construction, material procurement, scientific research management, finance, trade and other fields, and severely punishes corrupt behaviors such as related party transactions, rent setting and seeking, and benefit transfer. Our company seriously handles the key issues and problem clues handed over by local discipline inspection and supervision, auditing, and ecological and environmental protection inspection organizations, and investigates and deals with hidden corruption-related issues. At the same time, our company actively explores overseas corruption governance models to prevent problems before they happen.

#### Don't want to be corrupt

Through a series of training and major case warning education, our company guides employees to strengthen their recognition and practice of our company's "three non-corruptions" system and mechanism. In 2022, our company carried out warning education around typical cases; conducted pre-employment talks on clean governance on a regular basis and pre-appointment talks with 104 persons directly in charge; conducted interviews with 43 persons on issues such as performance effectiveness, integrity and self-discipline. In promoting the construction of clean culture brand throughout our company, seven clean culture brands, such as Dexing Copper's "Clean and Incorruptible Dexing Copper", have been identified as excellent clean culture brands of our company.

#### Case **Publicity and Education Month Activity with the theme of "cultivating a clean and honest family tradition and building a clean and honest Jiangxi Copper"**

In June, our company carried out a publicity and education month activity with the theme of "cultivating a clean and honest family tradition and building a clean and honest Jiangxi Copper". Focusing on promoting the "introduction of the culture of integrity" to the family, this activity is carefully designed to "carry out a family study, give a book on family traditions, organize a home visit on integrity, conduct a special investigation, hold a special event, and produce a special work" to continuously extend the depth of education on building a clean government. In addition, the discipline inspection commissions of the secondary units of our company also carried out special activities such as

the integrated construction of the "three non-corruptions" system and mechanism.



The company conducts anti-corruption publicity and education training

speech contests, symposiums, and special party classes around "integrity culture into the family", with nearly 3,000 participants.



Figure:Picture: Dexing Copper Mine's family letter reading activity deeply rooted in the hearts of people

## Fair competition

In strict accordance with the *Anti-Monopoly Law of the People's Republic of China*, *Law of the People's Republic of China against Unfair Competition* and other relevant laws and regulations on anti-monopoly and anti-unfair competition, our company encourages and emphasizes fair competition, and by strengthening the main responsibility, raises the awareness of laws and regulations of managers and employees, stops unfair competition, and effectively protects the legitimate rights and interests of operators and consumers, thus promoting the healthy development of the market economy. During the reporting period, our company organized a training course on legal knowledge, with a total of more than 90 people participated in the training.

In 2022, there did not have any legal proceedings against our company for unfair competition, anti-trust, or anti-monopoly practices.

## Tax payment according to law

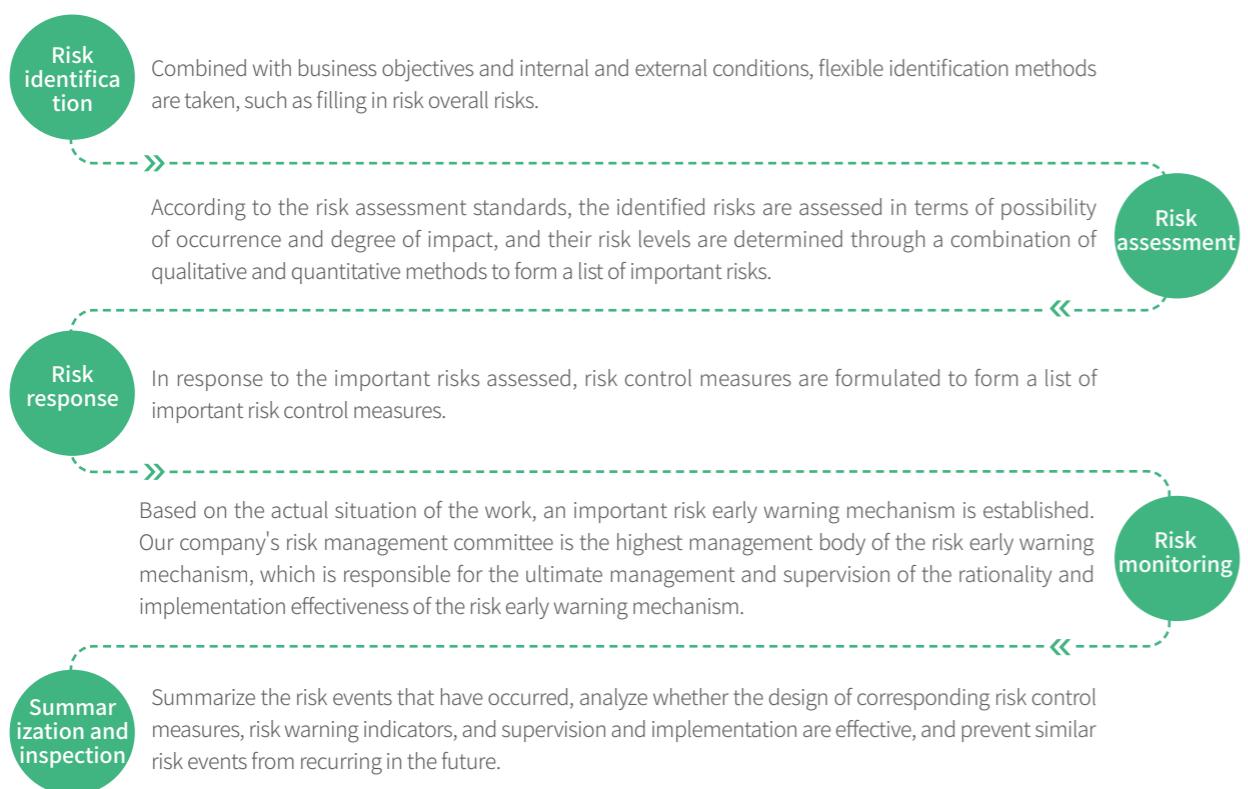
In strict compliance with tax-related laws and regulations, our company adheres to integrity operation and pays taxes according to law, not only providing tax sources for the business location, but also making a contribution to the prosperity and development of the local society and economy. For more information about our company's tax payment, please refer to our company's 2022 annual report.

## Sustainable risk management

### Risk management system

Our company has established a risk management and internal control organizational system consisting of the board of directors, the risk management committee, legal risk control department and other functional departments and affiliated units. Our company has also created and improved a major risk control system and risk culture, focusing on ten major fields, such as investment, trade, market, finance, technological innovation, human resources, finance, safety and environmental protection, quality and service, and politics to continually optimize the risk management system, enrich risk management tools and improve the risk management in important areas.

Our company's risk management process is as follows:



## Risk control and internal control

Our company attaches great importance to the sustainable responsibility that enterprises should undertake, and includes ESG factors as an important content of our company's risk management and internal control.

### In terms of corporate risk management

Our company pays close attention to the impact of production and operation activities on the ecological environment, as well as the safety of the production and operation process, which is taken as the risk assessment index of our company and our subordinate production units to evaluate the dimension and degree of the impact, specifically, "impact on the environment" and "impact on safety". We also attach great importance to our company's image in the public society, and take "the scope of influence and degree of recovery of reputation" as one of the dimensions of corporate risk assessment.

### In terms of internal control

Our company sorted out the potential risks of the environment, society and governance, clarified the control objectives and activities, and formulated a supporting internal control management system. In the Internal Control Manual, our company:

1 / We regulated the control activities of corporate governance, covering the establishment, formation and operation of the corporate governance structure, the establishment and operation of the general meeting of shareholders, the establishment and operation of the board of directors and the board of supervisors, the responsibilities of the professional committees under the board of directors, and the establishment of company management, the management of holding subsidiaries, etc.

2 / Social responsibilities are regulated as a separate sub-process, including work safety, product quality, environmental protection, energy conservation and emission reduction, employment promotion and guarantee of employee rights and interests, etc.

## Investor relations

According to the *Investor Relations Management System of Jiangxi Copper Co., Ltd.*, our company is committed to further strengthening the information interaction mechanism between our company and investors/potential investors. Our company's investment value and market influence are effectively enhanced by enhancing the transparency of company information and investors' understanding and recognition of our company.

On the one hand, our company has established the collection, arrangement, approval and disclosure procedures of internal information, and compiled and disclosed regular and interim reports in strict accordance with the requirements of domestic and foreign regulatory agencies. During the reporting period, our company's information disclosure was carried out in accordance with the stock exchange and information disclosure management regulations, disclosing our company's major events and related transactions in accordance with the requirements of the exchange, and the A and H share announcements were consistent. As of the end of 2022, our company has disclosed a total of 4 periodic reports, 199 temporary announcements, and 0 regulatory announcements.

On the other hand, our company actively maintains investor relations, keeps communication with investors through telephone conferences, on-site research, E-interaction, etc., making corporate operation more open, transparent and efficient under the premise of legal compliance. During the reporting period, our company received a total of 35 domestic and foreign intermediary agencies and funds through strategy meetings, telephone conferences, and on-site research.

In addition, our company maintains communication with the regulatory authorities of listed companies, and actively participates in meetings, trainings and various activities organized by the Shanghai Stock Exchange and the China Securities Regulatory Commission. In active response to the call of the Securities Regulatory Commission of Jiangxi Provincial on investor protection, our company participated in activities such as "3.15 Investment Education Activity", "Illegal Securities and Futures Prevention Publicity Month" "Fair Competition Publicity Week" and "International Investor Week" in 2022, which publicizes relevant knowledge to investors to guide them in setting up the concept of long-term investment and rational investment and implement the protection of legitimate rights and interests of investors through electronic screens, official accounts, and company websites.



## ENVIRONMENTAL GOVERNANCE

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Our company adheres to the path of clean, low-carbon and green development, is committed to continuously exploring the value of resources, abides by the promise of sustainable development, and pursues the harmonious coexistence of man and nature. Under the guidance of Jiangxi Copper Corporation's "139 'carbon peaking and carbon neutrality'" strategic plan and the ecological and environmental protection work policy, our company actively responds to climate change and continues to promote environmental governance, energy conservation and emission reduction, ecological restoration, and cost reduction, which promotes the coordination and sustainable development of our company's production construction and ecological environment.

# ENVIRONMENTAL GOVERNANCE

## Environmental management

### Environmental management system

Our company strictly abides by the Environmental Protection Law of the People's Republic of China and national laws, regulations, guidelines and policies related to ecological environmental protection, and actively carries out ecological environmental governance based on the principle of "protection first, prevention first and comprehensive management" to establish a sound environmental management system.

**In 2022, our company invested 1.22 billion to implement ecological and environmental protection projects, an increase of 55.2% over the previous year.** At the same time, there were no penalties for environmental violations during the reporting period, with the ecological and environmental governance further improved.

#### In terms of management mechanism

Our company follows the ecological environment protection and related responsibility system documents. According to the working policy of "safety first, environmental protection first", our company implements the responsibility mechanism of "chief position taking in charge, supported by deputy position and business departments in charge of their own responsibilities, supervised and inspected by safety and environmental protection management department" from top to bottom.

#### In terms of organizational structure

A leading group for ecological and environmental protection is set up to hold a regular meeting every quarter for the planned deployment and supervision of the overall ecological and environmental protection. The group office is led by the Department of Safety and Environmental Protection, and the subordinate secondary units establish corresponding organizations to sort out their own environmental protection problems and formulate and implement corresponding solutions.

#### In terms of project construction

Our company implements the environmental impact assessment system in strict accordance with the Environmental Impact Assessment Law, Regulations on the Administration of Environmental Protection of Construction Projects and other laws and regulations, and ensures that pollution prevention and control facilities are designed, constructed, and put into operation at the same time as the main construction project.

#### In terms of environmental protection review

On-site environmental protection inspections are organized at a regular interval within our company to ensure legal compliance throughout the entire life cycle of production, and hidden risks are rectified in a timely manner.

#### In terms of performance assessment

Our company has developed a clear environmental protection target assessment mechanism, including emission qualified rate, rate of reaching the standard, resource recycling, responsible pollution accidents and other contents into the performance assessment, so as to motivate all departments and subordinate secondary units to implement environmental protection responsibilities.

#### In terms of system certification

As of the end of 2022, our company has obtained ISO14001 environmental management system certification, ISO50001 energy management system certification, ISO10012 measurement management system certification and other related qualifications.



Figure: Environment-related Management System Certification

In addition, our company actively promotes emerging technologies such as big data to empower environmental governance, develops and operates a safety and environmental protection management system, realizing the systematic integration of environmental target management, environmental information sharing, risk investigation, online monitoring, emergency and accident management, key area management, dangerous goods management, environmental ledger and archives management, task assignment and assessment and other functions, and greatly promoting our efficient environmental governance and digital transformation.

### Environmental risk management

Our company, according to the *Eco-environmental Protection Management Measures*, continuously strengthens environmental monitoring and statistical management capabilities and environmental accident emergency management capabilities, sorts out and forms important environmental factors and major hazards under the control of our company, strictly monitors and controls potential environmental risks and takes effective measures to make positive response.

#### In terms of risk monitoring

Our company has formulated monitoring plans applicable to each production unit in accordance with relevant requirements of the *Self-monitoring and Information Disclosure Measures of National Key Monitoring Enterprises* and *Self-monitoring Technical Guidelines for Pollutant Discharging Units*. The online monitoring and management system for pollutants should be implemented based on the combination of installing online monitoring devices and setting up environmental monitoring stations in mining, smelting and other key environmental monitoring units, and monitoring data should be uploaded to the monitoring platform. During the reporting period, the online monitoring data compliance rate of each production unit of our company was 100%.

Table: Statistical Table of Online Monitoring Data Compliance (by the end of 2022)

Unit	Online Monitoring Compliance(daily average value)				
	Number of Monitoring Points	Number of Monitoring Days	Total Number of Monitoring	Number of Excessive Pollution	Compliance Rate%
Dexing Copper Mine	1	365	365	0	100%
Yongping Copper Mine	2	365	636	0	100%
Wushan Copper Mine	2	365	730	0	100%
Chengmenshan Copper Mine	1	365	365	0	100%
Yinshan Mining Company	1	365	365	0	100%
Guixi Smelter	8	365	2,470	0	100%
Copper foil company	1	365	365	0	100%

**In terms of hazard investigation**

Our company always adheres to the principle of "treating both symptoms and root causes, thoroughly treating them, and eradicating future troubles", organizes relevant staff to carry out regular and irregular environmental hazard investigations, and implements rectification and implementation of the investigation results. With the joint efforts of various parties, the ecological and environmental problems have been rectified with high quality and efficiency. In 2022, Yongping Copper Mine and Dexing Copper Mine were included in the national and provincial ecological and environmental warning films, respectively, with remarkable achievements in the rectification of hazards.

**In terms of emergency management**

According to the *Emergency Management Measures for Environmental Emergencies*, each production unit of our company has formulated an emergency plan for environmental pollution, developed a comprehensive response mechanism for sudden environmental accidents, and established an emergency rescue system for environmental events to maximize the protection of personnel, environment and property safety, and reduce the impact of environmental accidents as much as possible. **During the reporting period, our company actively carried out more than 70 environmental emergency drills, with more than 2,400 participants.**

## Climate change

### Emission of greenhouse gases

In active response to the *United Nations Framework Convention on Climate Change, Paris Agreement and China's National Strategy for Adapting to Climate Change*, our company, fully implements various tasks related to carbon neutrality and carbon peaking. Centering on "one goal", "three strategic orientations" and "nine key actions", our company effectively promotes the emission reduction of units at all levels by optimizing energy structure, promoting circular economy, innovating low-carbon technology, creating carbon sinks through ecological reclamation, and strengthening carbon emission management and assessment. **During the reporting period, our total greenhouse gas emissions were 2.1226 million tons of carbon dioxide equivalent.**

Table: Greenhouse Gas Emissions from Production Activities of Our Company

Indicator	Unit	Emissions in 2022	Emissions in 2021	Emissions in 2020
Emission of greenhouse gases(Scope 1)	10,000 tons of carbon dioxide equivalent	27.22	28.81	28.23
Emission of greenhouse gases(Scope 2)	10,000 tons of carbon dioxide equivalent	185.04	188.16	192.20
Total emission of greenhouse gases	10,000 tons of carbon dioxide equivalent	212.26	216.97	220.43
Greenhouse gas emission density	10,000 tons of carbon dioxide equivalent/100,000,000 yuan income	0.044	0.255	0.346

Note: Our company has been committed to energy conservation and emission reduction, and carbon emissions have been reduced year by year. In order to facilitate carbon trading in the future, from 2022, the company adopts the average emission factor 0.581 tons of carbon dioxide/MWh of the national power grid to calculate carbon dioxide emissions. Under this method the carbon dioxide emissions in 2022 will be 2,315,087.253 tons of carbon dioxide equivalent. If we select the previous method with the emission factor of 0.5257 tons of carbon dioxide/MWh to calculate carbon dioxide emissions, the carbon dioxide emission in 2022 will be 2,122,630.537 tons of carbon dioxide equivalent, which will reduce the emission by 47,054.14 tons than 2021.

At the same time, our company actively organizes and participates in professional training related to greenhouse gas emissions, which is aimed at employees at all levels of our company to help them deeply learn the latest policies and tools of greenhouse gas emission and management, the latest trends of carbon market and carbon products, etc., so as to strengthen our carbon emission management ability and effectively carry out carbon emission verification and monitoring.

**Case | Participation in the group's carbon emission management training**

From August to September 2022, our company successively participated in two sessions of carbon emission management trainings held by Jiangxi Copper Group, the controlling shareholder. The training was carried out online and offline for our company and our subordinate secondary units' energy management and carbon emission management leaders, business backbones and relevant personnel of our divisions, departments and offices. The first training mainly covers carbon emission trading policy and situation, carbon peaking and carbon neutrality-led high-quality economic development, carbon asset management and carbon finance, industrial green and low-carbon development, carbon emission verification and monitoring plan, national carbon emission rights registration and trading and carbon quota allocation and CCER project development; the second training mainly involves the interpretation of greenhouse gas emission accounting methods, corporate carbon emission verification and monitoring plans, and how industrial enterprises carry out "carbon peaking and carbon neutrality" actions.



Figure: Our participation in carbon emission management training

### Emergency response to climate disasters

As climate change becomes an important source of financial risk for companies, our company are increasingly paying attention to the physical risks posed by climate change, as well as transformational risks related to regulatory changes, laws, technology, markets and reputation, such as environmental damage caused by extreme climate disasters, safety accidents and their impact on the normal production and operation of our company, and taking active countermeasures. Our company formulates relevant emergency plans for various meteorological disasters such as flood, typhoon, lightning, rain and snow, freezing, high temperature, etc., and arranges regular inspections during the high-incidence season of relevant meteorological disasters. For example, our company will arrange the flood control and drainage work in advance during the flood season, and confirm whether the mine roads, tailings and the intercepting ditches dump are cleared and dredged in time, etc., improves infrastructure construction and ensures equipment safety. In addition, our company formulates emergency supply guarantee management measures for important risk materials to ensure supply guarantee capabilities, prevent and reduce supply interruption risks caused by sudden climate disasters to the greatest extent, and improve the ability to respond to sudden climate disasters.

**Case | Dexing Copper Mine actively responds to climate disasters**

In June 2022, Dexing Copper Mine encountered the strongest rainfall since it was established. Facing the severe baptism brought by climate change, Dexing Copper Mine made scientific deployment and kept calm under the guidance of the emergency plan. The leaders and employees of the mine were united as one, and built the "Great Wall of Steel" against floods with the work attitude of "fighting the natural, making everything become possible", successfully winning this historic battle against danger, flood control and production defense.



Figure: Dexing Copper Mine responds to sudden climate disasters

## Energy conservation and emission reduction

### Energy management and consumption

In order to rationally utilize energy, reduce energy consumption, and improve economic benefits, our company formulated the *Energy Management Measures of Jiangxi Copper Co., Ltd.* and established a leading group for energy conservation and energy use rights to deploy our energy management, and strengthen the construction of internal energy management organizations. In 2022, in active response to the call of the controlling shareholder, Jiangxi Copper Group, our company upgraded the energy assessment mechanism to ensure new breakthroughs in the optimization of the green and low-carbon development model by promoting the implementation of conceptual changes, technological changes and management changes. On the basis of the original energy consumption index assessment, six sections including system construction, energy report and analysis, energy management system, equipment energy saving, energy saving projects and carbon reduction management have been added to form a long-term mechanism of carbon reduction from the source and carbon reduction through technology and green carbon sequestration.

#### In terms of management capability improvement

Our company has improved the energy-saving management informatization through energy budget management, the establishment of energy management centers, and online monitoring systems.

#### In terms of project promotion

Our company vigorously promotes the continuous implementation of energy conservation projects from the aspects of management upgrade, technology upgrade, equipment upgrade, and green energy applications.

#### In terms of energy efficiency improvement of equipment systems

Our company constantly improves the energy efficiency and energy saving potential from the perspective of strengthening basic motor management, formulating energy efficiency improvement plan, carrying out energy-saving transformation of stock motor, increasing high efficiency and energy saving application, actively implementing efficient motor remanufacturing, and promoting the intelligent improvement of motor system.

#### In terms of experience promotion

Guixi Smelter achieved new breakthroughs in energy conservation and consumption reduction by promoting the construction of a "low-carbon production" energy system, saving 32.28 million KWH of electricity compared with the same period last year, setting a benchmark for energy conservation and efficiency increase.

Our company conducts internal energy audits in accordance with relevant management regulations, and energy management is audited and certified in accordance with the requirements of the ISO50001 system. **During the reporting period, our main energy structure included electricity (74.68%), diesel (13.49%), natural gas (6.96%), heavy oil (2.99%), steam (1.81%) and gasoline (0.07%), with the comprehensive energy consumption of 583,156.11 tons of standard coal.**

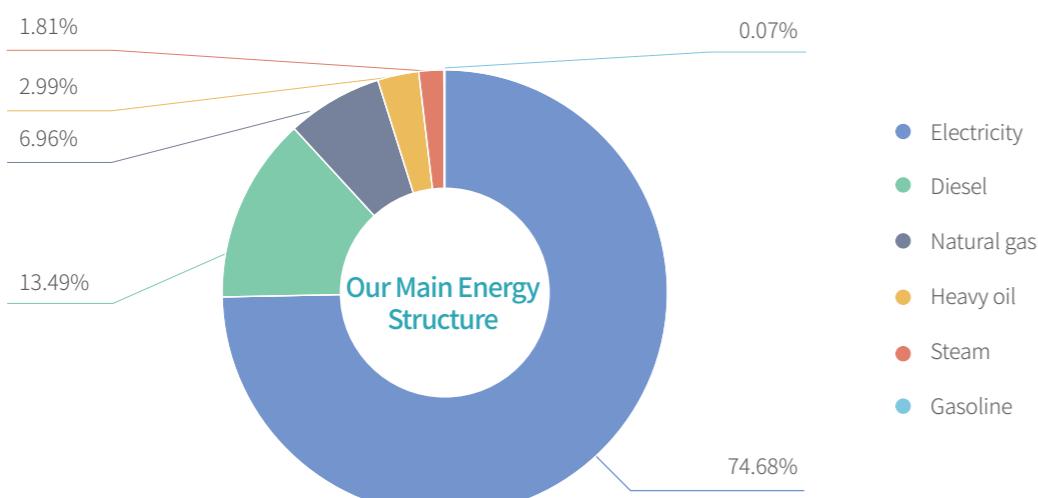


Figure: Our Main Energy Structure

Table: Energy Consumption Statistics of our company during the Reporting Period

Data Indicator		Unit	2022 Data
Direct energy	Gasoline	ton of standard coal	430.19
	Diesel	ton of standard coal	78,683.4
	Natural gas	ton of standard coal	40,566.73
	Other Energy (Heavy Oil)	ton of standard coal	17,457.21
Indirect energy	Purchased electricity	ton of standard coal	435,453.64
	Purchased steam	ton of standard coal	10,564.94
Comprehensive energy consumption		ton of standard coal	583,156.11
Comprehensive energy consumption density		ton of standard coal/10,000 yuan income	0.012

### Clean energy use

Being fully aware of the necessity and urgency of energy structure adjustment, our company relies on project technological transformation, clean energy replacement and process management innovation to comprehensively optimize the proportion of green and low-carbon energy and reduce the total amount of energy consumption. In order to improve the energy cleanliness, we use the roof of the plant building to vigorously promote the development of photovoltaic and other renewable energy projects, and helps achieve the "carbon peaking and carbon neutrality" goal by realizing energy transformation.

#### Case Utilization of clean energy in the development of rooftop photovoltaic power generation projects

In 2022, our company cooperated with a third-party photovoltaic investment company to develop rooftop photovoltaic projects through the contract energy management model, and used the solar energy resources on the roof of the plant building to build a distributed rooftop photovoltaic power station on the roof of the building. The power generated by the power station was preferentially supplied to production and operation activities, and the excess electricity was incorporated into the public grid. The photovoltaic power generation project Phase I has an annual power output of 1.7 megawatts, which has been successfully connected to the grid and put into operation in February 2023; Phase II has an annual power output of 1 megawatts, which is expected to be put into operation by the end of 2023; it is expected to reduce carbon emissions by 1,568.7 tons of carbon dioxide.



Figure: Photo of Photovoltaic Power Generation Project Site

## Water resources and wastewater management

Water resource management is an important part of our sustainable development. At present, our main water sources are surface water, circulating water and municipal water. Our company is maximizing the use and recycling of water resources and minimizing the external water source required for operation and the discharge of waste water to the external environment by adjusting the water structure, innovating equipment and processes, applying water-saving technologies, and increasing the reuse rate of industrial water.

In 2022, the industrial water consumption of our main production units was 83.50 million tons, and the total reuse rate of industrial water reached 94.90%, which is higher than the target value, and there were no violations of water intake and drainage.

Table: Statistics of Our Water Resources and Waste Water during the Reporting Period

Data Indicator		Unit	2022 Data	2021 Data	2020 Data
Water resource	Total water consumption	10,000 tons	83,634.33	77,691.70	83,713.00
	Total water intensity	10,000 tons/100,000,000 yuan income	17.43	17.55	26.28
	Industrial water reuse rate	%	94.90	95.86	95.67
Sewage and wastewater production	COD	ton	1,011.00	1,054.09	1,404.77
	Ammonia nitrogen		56.20	58.08	133.68
	Copper		1.53	1.02	1.45
	Zinc		1.68	2.61	2.42
	Lead		1.34	1.58	1.97
	Suspended solids emissions		561.58	262.34	332.57

### Case Dexing Copper Mine Old Acid Reservoir Seepage Control Project

By reference to the new national environmental protection standard, Dexing Copper Mine, based on the current situation of the old acidic reservoirs, proposed the vertical seepage prevention technical solutions of "chemical grouting + cement clay grouting" for Fujiawu acid water reservoir and "impermeable wall + chemical grouting" for Yangtaowu acid water reservoir through the early efforts, so as to improve their impermeable grade. With total investment of 120 million yuan, it has been verified and passed by academicians and experts. The construction unit of the anti-seepage project adopted the method of "construction and inspection at the same time" to keep an eye on the quality of each process, and completed the pre-acceptance of the project completion on November 26, 2022. The effect of anti-seepage treatment has been achieved, and the environmental risk management and control of acid water reservoirs has been greatly improved, providing a replicable and propagable model for the same industry to treat old acidic reservoirs.

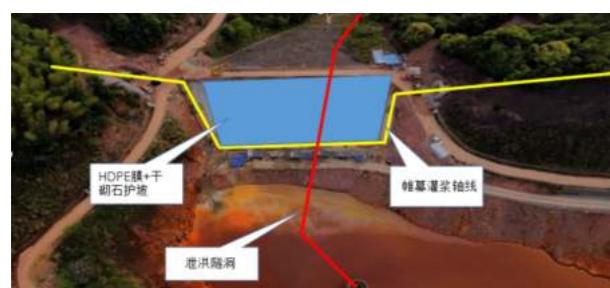


Figure: Schematic Diagram of Anti-seepage Treatment Area of Fujiawu Acid Reservoir



Figure: On-site construction Photo of Yangtaowu Acid Reservoir Seepage Control Project

## Air quality management

We have clearly stipulated the waste gas generated by production activities in the production, discharge and treatment links. In terms of production, our company continues to promote the control of air pollutants through fuel substitution, application of efficient desulfurization and dust removal technology and equipment, and dust control; in terms of discharge, our company sets discharge outlets in accordance with laws, regulations and regulatory requirements; in terms of treatment, our company adopts centralized collection treatment and other measures to strictly control the emission of dust and air pollutants.

During the reporting period, our main air pollutant emission indicators were far below the national standards.

Table: Statistics on Emissions of Air Pollutants by Our Company

Indicator		Unit	2022 Data	2021 Data	2020 Data
Exhaust emission	Sulfur dioxide	ton	1,239.00	1,458.51	1,453.50
	Particulates	ton	181.57	196.67	209.75

## Mineral resources and tailings management

### In terms of mining rights management

Our company, according to laws and regulations such as the *Mineral Resources Law of the People's Republic of China*, implements the strategy of ecological civilization, and formulates and promulgates the *Mining Rights Management Measures of Jiangxi Copper Co., Ltd.* to promote the comprehensive utilization and reasonable development of mineral resources in the mines it belongs to and ensure the security of energy resources.

### In terms of green exploration

Our company, according to *Specification for Solid Mineral Exploration (GB/T 33444-2016)*, *Specification for Green Geological Exploration (DZ/T 0374-2021)* and other related requirements, released the *Measures for the Administration of Geological Exploration Projects of Jiangxi Copper Co., Ltd.* to guide the continuous, green and healthy development of company's geological exploration, ensure the implementation of corporate resource strategies, increase mine resource reserves, enhance engineering control, improve the category of resource reserves, and improve the comprehensive utilization of resources.

### In terms of mine excavation

Our company, according to the *Management Measures of Mining (Stripping) Technical Plan of Jiangxi Copper Co., Ltd.*, controls reasonable excavation, ensures the balance of ore production, fully recovers mineral resources, reduces mining loss rate and ore dilution rate, and improves ore dressing recovery percentage and comprehensively recycles resources. engineering control, improve the category of resource reserves, and improve the comprehensive utilization of resources.

### In terms of tailings treatment

Our company monitors all tailings ponds and formulates emergency plans, mainly carrying out governance with tailings resource recovery and comprehensive utilization of tailings as two breakthrough points. During the reporting period, we had 5 mines in production and 7 tailings ponds in use, with a total tailings storage capacity of about 2.10 billion cubic meters; by the end of 2022, the tailings storage volume was 965 million cubic meters (1.351 billion tons, mainly copper tailings). In 2022, our tailings production was 54.4244 million tons; the comprehensive utilization of tailings reached 9.2521 million tons.

<sup>4</sup>They are: Dexing Copper Mine, Yongping Copper Mine, Yinshan Mining, Wushan Copper Mine and Chengmenshan Copper Mine

Tailings Treatment		Governance Effectiveness
Tailings resource recovery	Copper recovery from tailings	Dexing Copper Mine Tailings Recycling Plant uses tailings from Sizhou and Dashan Concentration Plants as raw materials for regrinding and re-dressing, with a processing capacity of 23,000 tons per day and an annual recovery of 1,000 tons of copper metal (the grade of copper concentrate is greater than 15%).
	Sulfur recovery from tailings	Utilizing sulfur concentrate purification technology and high-sulfur roasting acid production technology, sulfur concentrate is recovered from copper tailings, and sulfur concentrate roasting is used to produce acid, which realizes waste-free production in the whole process. Every year 2.3 million tons of sulfur concentrate are recovered and 900,000 tons of sulfuric acid are produced.
Comprehensive utilization of tailings	Tailings goaf filling	Cemented filling is a production process in which the tailings slurry is classified by a cyclone, with coarse sand and cement mixed in a certain proportion, and used for underground goaf filling. The annual cement filling volume of our company is 900,000 cubic meters per year.
	Full tail paste filling	Full-tail paste filling uses full-size tailings, and our company fills 470,000 cubic meters of full-tail paste per year.
	Building materials made from tailings	Jiangxi Wantong Environmental Protection Material Co., Ltd. uses copper tailings as raw materials to produce building materials, realizing waste-free mining, with consumption of 2.5 million tons of tailings per year. In 2022, it will actually consume 1.96 million tons of tailings.

## General emissions management

Adhering to the concept of "prevention first and combination of prevention and control", and in strict accordance with the relevant laws, regulations and industry standards on various pollutants exhausted, we combine source management with process control to fully ensure the emissions meet standards. Our all production units have obtained pollutant discharge permits or registered pollutant discharge permits. **During the reporting period, the total discharge of major pollutants of our company was lower than the limit.**

Based on the disposal principle of "reduction, recycling, and harmlessness" of solid waste, we recycle available solid wastes, and conduct the classification, storage, anti-seepage and leakage prevention and transfer of temporarily unusable solid waste to solve the problem of solid waste disposal and utilization.

## Hazardous chemicals and hazardous waste management

Our company attaches great importance to the management and disposal of hazardous chemicals and toxic/hazardous wastes, and strictly abides by laws and regulations such as the Catalog of Hazardous Chemicals, the *Catalog of National Hazardous Wastes*, and the *Pollution Control Standards for Hazardous Waste Storage* to strictly control the production, operation, storage, transportation, use, waste disposal and other links.

### In terms of hazardous chemicals management

Our company adopts a combination of regular and irregular methods to check the management of relevant production departments involved in hazardous chemicals, and rectify hazards discovered in a timely manner. At the same time, emergency plans are formulated by strengthening emergency management to strengthen the building of emergency team. In addition, our company lists the leakage of hazardous chemicals and other items generated during production operations as an important environmental factor for our control, which is controlled strictly by taking various measures, such as inspection, access to relevant records, collection and statistics of various statements and urging of the rectification.

### In terms of hazardous waste management

Our company selects temporary or permanent storage sites according to the characteristics of hazardous waste, while taking measures to prevent leakage, scattering, and loss. Our company transfers hazardous wastes to qualified units for disposal, and takes prevention and control measures during the storage, transfer, transportation, and comprehensive utilization of hazardous wastes to prevent secondary pollution.

**During the reporting period, our company produced a total of 39,400 tons of hazardous wastes, all of which were effectively managed and controlled, without safety accidents occurred.**

## Ecological restoration and land use

### Ecological environment management

Under the guidance of the concept of ecological civilization, our company, strictly according to the relevant national laws and regulations on ecological environment protection, water and soil conservation, wild animal and plant protection, and nature reserves, does not carry out any exploration, mining and construction activities within the scope of control of nature reserves, ecologically sensitive areas, and ecological red lines, focusing on the protection of the ecological environment in mining areas, and strengthening the management of the ecological environment in the entire life cycle of project construction.

#### Before the construction of the project

Through the preparation of the environmental impact assessment report, the pre-assessment should be carried out to reduce the impact on the surrounding water resources, vegetation, soil, etc.

#### During the construction of the project

Resource exploitation and the impact on and damage to the ecological environment of surrounding areas are minimized from the source.

#### After the completion of the project

Through the element identification of the damaged surrounding environment and damaged ecosystem, ecological restoration and biodiversity restoration should be carried out in a timely manner, and the quality of the regional ecological environment continuously improved.

## Ecological restoration and biodiversity

In strict accordance with relevant laws and regulations on the development of mineral resources, we require the tailings ponds and dumps of our mines to be closed and ecologically restored in a timely manner after they cease to be used. For ecological restoration projects, our company has formulated the *Interim Regulations on the Acceptance of Ecological Restoration Projects of Jiangxi Copper Co., Ltd.*, which clearly prescribes that the coverage rate of plants in the area of our ecological restoration projects (excluding hardened areas) should reach 90% and above, and the plant diversity should exceed seven and above, and the maximum exposed area of a single block should be less than 3 square meters. New technologies such as "reclamation of high and steep rocky slopes", "in-situ substrate improvement+ direct vegetation" and "suspended-net mixed spraying vegetation" are mainly used for our company's ecological restoration process. Various plants such as albizia, chinchilla, green bristlegrass, photinia fraseri, ligustrum lucidum, etc., are mainly planted in the restoration area to fully ensure the biodiversity in the area.

**During the reporting period, we have invested 320 million yuan in ecological restoration, with the total area of ecological restoration up to 272 hectares.**



Figure: Egrets in Deposit No. 4 of Dexing Copper Mine

**Case Ecological restoration has become a green business card of Dexing Copper Mine**

During the reporting period, Dexing Copper Mine carried out a series of ecological restoration projects:

1 / The reclamation model of industrial and mining wastelands has been taken for the 300 dump site ecological restoration project to carry out mine ecological restoration. Our company has reclaimed the mining land and regreened the slopes within the mine, with the investment of 129 million yuan, the ecological restoration area of 1,268 mu and the scale of newly added construction land of about 85 hectares. Through land transfer, it is expected to create an economic value exceeding 100 million yuan.



Figure: Photo of 300 Dump Reclamation Site



2 / Four ecological restoration and carbon reduction projects, including slopes above 410m in Xiyuanling, with a total investment of 50.29 million yuan, have entered the conservation period and are growing well, with the overall vegetation coverage reaching more than 90%, and the combination of grass, bush and tree, and more than 20 kinds of plants. At the same time, the Xiyuanling slope ecological restoration area will be built into a new ideal place for taking photos.



Figure: Reclaimed Slope above 410m in Xiyuanling



3 / The local ecological reclamation project on the slope above 230m in Yangtaowu won the first batch of high-quality non-ferrous metal industry projects in 2022 to 2023.

Through a series of measures such as site trimming, slope protection, soil improvement, and vegetation restoration, the above-mentioned projects have improved the ecological environment and natural landscape of the environmental control area and surrounding areas, achieving the effect of restoration and control, and becoming the green business card of Dexing Copper Mine. Highly recognized by the National People's Congress, the provincial Department of Natural Resources and other departments, these projects have stirred crowds in the industry and have been recommended for the national ecological restoration demonstration project.



Figure: Current Situation of Local Ecological Reclamation on Slopes above 230m in Yangtaowu

**Case Innovative Technology Applied in Chengmenshan Copper Mine for Ecological Management of Tailings**

In 2022, the Chengmenshan Copper Mine implemented the project of membrane dam surface greening and carbon reduction and ecological utilization in Liujiagou Tailings. It used "tailings mixed matrix improvement spraying" "planting soil covering+ in-situ matrix Improvement+ direct vegetation" and other technologies, which fundamentally solved the problems of difficult survival, easy degradation, and high cost of ecological restoration of tailings ponds, with the restoration area of 260,000 square meters.



Figure: Ecologically Restored Liujiagou Tailings in Chengmenshan Copper Mine

## Land use and reclamation

During the reporting period, we revised and completed the *Land Management Measures of Jiangxi Copper Co., Ltd.*, implementing the principle of paying equal attention to land resources and land assets management, fully utilizing land assets and capital benefits, and continuously improving the comprehensive, unified and scientific land management.

### In terms of development and utilization and expropriation compensation of project construction land

Our company strictly follows the *Land Administration Law of the People's Republic of China*, *Regulations for the Implementation of the Land Administration Law*, *Measures on Implementation of Land Administration Law of Jiangxi Province*, local government expropriation compensation standard documents, development and utilization planning.

### In terms of post-project land improvement and land reclamation

In strict accordance with the *Regulations of the People's Republic of China on Land Reclamation*, *Measures for the Implementation of Land Reclamation Regulations and Regulations of Jiangxi Province on Ecological Restoration and Utilization of Mines*, our company carries out land reclamation for lands damaged by production and construction activities based on the principle of "whoever destroys, whoever recovers", and actively fulfills the land reclamation obligations and ecological restoration responsibilities.

In 2022, in accordance with the relevant policy documents of the Ministry of Natural Resources and the Jiangxi Provincial Department of Natural Resources, our company innovatively opened up a new path for land restoration, that is, from the original greening restoration to a professional land agency to vacating abandoned industrial and mining lands declared by specialized land organizations, which can not only fulfill the legal duty of land reclamation, but also transfer the original industrial and mining construction land index to generate economic benefits.



Figure: Ecological Reclamation of Yinshan Mining

## Green transformation

### Clean production

In active response to the call for green and low-carbon transformation, our company takes the construction of green mines and factories as the starting point to continuously promote the green development and the construction of ecological civilization. The comprehensive implementation of clean production methods, the use of environmentally friendly mining and smelting technologies and equipment, and innovative research and development of green and clean technologies enable our company to realize the transformation of efficient utilization of resources, clean production, waste resources and low-carbon energy.

By the end of 2022, we have a total of 4 national-level green mines<sup>5</sup> and 8 national-level green factories<sup>6</sup>.



Figure: Green Jiangxi Copper

In terms of green technology, our self-developed “Key Technology for Large-scale Safe and Efficient Mining of Open-pit Metal Mines”, “Sulfurization Extraction Technology for Low-concentration Copper Resources in Acidic Water” and “Centerline Tailings Dam Construction Technology” were successfully selected into the *Catalogue of Advanced and Applicable Technologies for the Conservation and Comprehensive Utilization of Mineral Resources (2022 Edition)* issued by the Ministry of Natural Resources. Two achievements including “Key Technologies and Practices of High-efficiency Open-pit and Underground Collaborative Mining in Complex Copper Metal Mine” and “Key Technology and Demonstration Application of Pollution Prevention and Ecological Restoration in Solid Waste Yard of Non-ferrous Mining and metallurgy”, won the first prize of Science and Technology Award in Chinese Non-ferrous Metal Industry and two achievements including “Accurate Prediction and Reinforcement Control Technology and Application of Rain-induced Mine Landslide” and “Development and Industrial Application of Key Technologies of Green, Low carbon and High Efficient Desulphurization of Non-ferrous Metal Flue Gas”, won the second Prize of Science and Technology Award in Chinese Non-ferrous Metal Industry.

<sup>5</sup>They are Dexing Copper Mine(Copper Factory), Yinsan Mining, Wushan Copper Mine, and Chengmenshan Copper Mine.

<sup>6</sup>They are: Copper Foil Company, Guangzhou Copper Material, Guixi Smelter, Group Copper Material, Copper Industry Copper Material, Jiangxi Copper Longchang, Jiangxi Copper Taiyi, Qingyuan Jiangxi Copper.

### Green project

We seize the current strategic opportunity for green development, and actively integrate into the development of green industries such as energy conservation, environmental protection, and new energy, and develops emerging green projects to achieve high output and low pollution, and minimize the impact on the environment.

#### Case Active Development of New Energy Projects

On February 28, 100,000-ton lithium battery copper foil (Phase I) project, the largest investment project in Jiangxi Copper (Shangrao) Industrial Park kicked off. The project has a total investment of 11.4 billion yuan, covering an area of 509 acres, with a designed annual production capacity of 100,000 tons. It will be constructed in two phases, mainly producing high-grade ultra-thin lithium battery copper foils such as 4.5 microns and 6 microns, which will be used in new energy vehicles, lithium battery and energy storage industry.



Figure: Project Commencement Site

### Green procurement

Our company closely follows the development pace of Jiangxi Copper Group, the controlling shareholder, which is to continuously improve the utilization efficiency, optimize the energy structure, and to accelerate the construction of the world's leading green supply chain and value chain. We integrate the concepts of green environmental protection and resource conservation into the procurement of materials and equipment, pay close attention to the market and application of new energy-saving equipment and low-carbon equipment, and seize the opportunity to promote the green procurement.

With the concept of green procurement, our company prohibits the procurement of high energy consumption and high pollution equipment, and at the same time upgrades or eliminates existing high energy consumption equipment. We include access review indicators in the evaluation of suppliers' safety, environmental protection and green development, requiring suppliers and their products to meet a certain level of green environmental protection, energy saving and consumption reduction. In addition, our company also incorporates green procurement into employee performance assessment with awarded marks.

### Circular economy

In order to further promote the development of circular economy, improve resource utilization efficiency, and protect and improve the environment, our company is fully aware of the significant environmental impact and potential utilization value of industrial packaging, and actively takes actions to recycle industrial packaging wastes and comprehensively utilize valuable materials. At present, our product packaging materials mainly include iron brackets, wooden brackets, etc., of which 100% of iron brackets have been recycled, and more than 80% of wooden brackets have been recycled by our company.

## Green office

Our company actively encourages employees to practice the concept of green office, and implement the concept of resource conservation and environment protection into daily life and work. In response to the "energy saving and consumption reduction starts with me" initiative, we carried out multiple rounds of office building inspections in 2022 to further promote the normalization of energy conservation in office space.

Green office	Specific initiatives
Electricity management	The air conditioning temperature in offices, conference rooms and other places shall not be lower than 26°C in summer nor over 20°C in winter; Computer, printer, copier and other office equipment shall be turned on and off in time to reduce standby energy consumption; Turn off the lights and prevent lights on for long time or without attendance; Give priority to green energy-saving lighting fixtures and make full use of natural light;
Water management	Post water conservation slogans in washrooms and break rooms;
Paper management	The office process mainly adopts the online OA approval procedure to minimize the use of paper documents and promote paperless office;
Vehicle management	Strictly control the number of business vehicles in accordance with the principles of economy, use and strict management, and improve the efficiency of business vehicles;
Catering management	Strengthen process control, make accurate statistics on the number of diners and the consumption of ingredient, reasonably manage and control costs, and keep the amount of kitchen waste low;

## Green training

Our company attaches great importance to the cultivation of employees' green and low-carbon concepts and the improvement of green production-related professional capabilities, and actively organizes and carries out theme publicity activities to continuously promote our high-quality development and high-level protection of the ecological environment, and further promote our green compliance production and operation.

### Case Organizing training on green mining/factory construction

In December 2022, our company organized green mining/factory construction training online and offline, and invited external experts and leaders to give training lectures on the topics of "Green Mine Policy and Brand Image Forming Practice" and "Green Manufacturing System Construction and Carbon Peak and Carbon Neutrality Policy Interpretation". The training involved 47 persons in charge of green development management and technical personnel of our all units.



Figure: Green mining/Factory construction training

### Case Organize and carry out training on improving ecological and environmental protection management ability

In the reporting period, we invited external experts to carry out training on the interpretation of solid waste laws and other relevant laws, regulations and standards, as well as on-site environmental protection inspections of enterprises. Participants include the main principals of each unit and management personnel at all levels, with more than 1,000 online and offline participants.



Figure: Ecological and environmental protection management ability improvement training course

### Case Organize and carry out the training on benchmarking, innovation and empowerment

In July, our company carried out innovation and empowerment training courses in special fields such as mining, beneficiation, smelting and processing technology and benchmarking practice, mainly including "Application Research and Development of Underground Large Diameter Deep Hole Mining Technology", "Intelligent Mine Construction Practice and Key Technologies", "Benchmarking Management of Lead and Zinc Smelting Process and Energy Consumption" and "Overview of our company's Benchmarking Innovation Practice in beneficiation", involving 55 relevant professional technicians and benchmarking management personnel.



Figure: Benchmarking, innovation and empowerment training



## PRODUCT GOVERNANCE

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World-class enterprises are the starting point of China's construction of a modern and powerful country, and product excellence is the starting point for high-quality development. With the first-class enterprise standard of "high-quality product, outstanding brand, leading innovation and modern governance" as the goal, our company continues to pay attention to the demand checks and balances between various departments and enterprises and stakeholders in the sustainable era. By integrating the green concept into the implementation of rights and responsibilities, institutional construction, scientific and technological innovation, external linkage and other measures, our company empowers the key production links of the non-ferrous metal industry and promotes the construction of a product management system demonstration with technology, demand and green features.

# PRODUCT GOVERNANCE

## Product quality

### Institutional construction

Our company adheres to the concept of quality first, attaches importance to quality-related health, safety, advertising, authorization and complaints and other detailed requirements, strictly abides by the *Product Quality Law of the People's Republic of China, Consumer Rights and Interests Protection Law* and all standards and laws and regulations in the industry, and has formulated a series of product quality review specifications according to relevant contents, covering all kinds of product production, service and related engineering construction.

Among them, from the perspective of product measurement quality, our company has formulated the *Measures for Measurement Quality Management of Jiangxi Copper Co., Ltd.*, revised the *Measures for Objections to the Measurement Quality of Smelting Raw Materials and Products* and other documents based on the trend of production and market changes, and decomposed and implemented the quality management objectives to ensure that the quality internal control responsibilities of relevant departments and lines are assigned. From the perspective of brand quality strategy, our company employs experts to carry out product quality review and evaluation based on national norms, industry standards, enterprise standards and authorized standards, promotes the establishment and improvement of the brand identification system of Jiangxi Copper. Meanwhile, strengthen quality management, and ensure the coordinated development of product quality and our brand strategic planning. **By the end of 2022, we has obtained a total of 8 Jiangxi famous brand product certifications.**

### Quality management system

In the reporting period, our company continued to deepen the construction of the "big quality" management system and actively promoted the operation plan of the integrated management system. The first is to "fix the foundation". Consolidate the existing basic management results, and ensure the strict management of quality. The second is to "increase elements". Implement quantitative and graded evaluation of the system, actively carry out relevant management system certification, obtain corresponding test qualifications, further promote the transformation of our integrated management system from compliance to performance improvement, and achieve high-quality leapfrog development.



Figure: Jiangxi famous brand product certificate



Figure: Quality management system certification



Figure: Official certification of LME Listed Tester



Figure: ISC-2020-0671 Measurement Management System Certificate



Figure: Measurement Management System certification certificate

### Random inspection of project quality management

In addition to the basic guarantee of product quality, our company made every effort to promote the supervision of project quality, issued the *Measures for Industrial Engineering Quality Management of Jiangxi Copper Co., Ltd.*, standardized the quality management behaviors of construction projects, and fully implemented the quality responsibilities of all parties involved. At the same time, through measures such as joint inspection, quality spot check of construction in progress, project quality grade verification, special quality inspection of non-ferrous metal projects, etc., the subordinate secondary units are urged to make timely rectification, help production lines at all levels maintain high quality in large-scale development, and form a comprehensive quality management guarantee foundation integrating key elements such as "quality-safety-environment".

During the reporting period, our company carried out spot checks on subordinate secondary units and formed 69 opinions on quality management spot checks. In view of the problems found in the inspection, the construction unit has completed the rectification in writing. In 2022, the overall quality control of the construction in progress is good, and there are no quality accidents and unqualified projects.

### Improvement of overall quality management capability

In order to stimulate the enthusiasm and creativity of employees to participate in QC group activities, our company established a quality management group (QC group) and formulated the *Management Measures for Quality Management Group Activities of Jiangxi Copper Co., Ltd.* to encourage employees to carry out quality management group activities consciously, solidly, healthily and effectively, and to improve the quality of products, projects and services of our company with "soft" strength.

During the reporting period, in combination with the operation requirements of the management system, our company organized the integrated system training of "safety and environmental management system internal reviewer certificate training course" and "quality and energy management system internal reviewer certificate training course" successively to comprehensively improve the professional quality of quality management related personnel. The training duration was 16.5 hours.



Figure: Certification training course for internal reviewers of safety and environmental management system



Figure: Quality and energy management system internal reviewer certification course

**Case** Results of Our QC Group in 2022


Figure: 2022 China Excellence QC Certificate for Guixi Smelter Workshop



Figure: 2022 China Excellence QC Certificate of Yongping Copper Mine Dressing Plant

**Case** We launched the "Quality Month" campaign

In order to implement the spirit of the *Notice on Carrying out the National "Quality Month" Activity in 2022* issued by the national ministries and commissions, and actively respond to the "Quality Month" activity theme of "Promoting Quality Reform and Innovation and Promoting the Construction of a High-quality Country", Shangrao Industrial Park Project held the 45th National Quality Month Signature Activity, which enhanced the quality awareness of all parties involved in construction and created a strong atmosphere of paying attention to project quality, advocating project quality and pursuing project quality.

## Rights and interests of customers

### Customer rights and interests protection

Our company adheres to the business philosophy of "creating value with customers", implements after-sales rights and responsibilities layer by layer through high-level appeal benchmarking, and actively responds to product quality feedback. Precise focus and key publicity have formed an all-round customer rights and interests system with high-quality development as the internal driving force and the responsible copper company brand as the external traction, ensuring the long-term operation and insight of multi-chain customer groups, and effectively deepening the connection between Jiangxi Copper and customers. Based on the *Law of the People's Republic of China on the Protection of Consumer Rights and Interests* and the development characteristics of the industry, our company has continuously improved the relevant norms for the protection of customer rights and interests, and established and improved the customer management system with the characteristics of "humanization" of Jiangxi Copper. Through the establishment of detailed and accurate customer files and customer management mechanisms, Jiangxi Copper carries out customer evaluation and customer credit management to ensure timely and in place actions when providing customers with services such as order guidance, product consultation and maintenance, brand promotion and comments and suggestions records. At the same time, in order to maintain the basic rights of customers such as the right to information security, the right to be respected and the right to fair trade, our company strictly abides by the relevant confidentiality regulations in the after-sales consultation process, implements classified confidentiality management on customer archives and materials, and strengthens privacy protection. In addition, through visits, meetings, annual "customer appreciation meeting" and other measures, our company attaches importance to maintaining good and close customer and product relations, ensuring that the relevant information on customer rights and interests is fully delivered and the positive feedback is effective.

## After-sales management system

In order to strengthen the after-sales service management, our company formulated the *Product After-sales Management Measures of the Trade Division of Jiangxi Copper Industry Co., Ltd.* and clearly defined and divided the rights and responsibilities from the aspects of customer receipt management, settlement and reconciliation management, after-sales consultation, product use tracking, sales objection and complaint management, complaint responsibility division, return and replacement, sales reduction, compensation, supervision and assessment, so as to guarantee the advantages of product remarketing and further enhance the professionalism, safety and timeliness of after-sales management of Jiangxi Copper.

After-sales management	Specific initiatives
Customer receipt	Clarify the customer's receipt of goods, obtain the relevant vouchers for the transfer of goods rights, and ensure that the exchange and transfer of goods are well documented. The sales business department will respond within 24 hours after receiving the customer's objection and communicate for the next step.
Settlement and reconciliation	After the settlement is completed, submit the settlement documents to the finance department for invoice, and deliver the invoice to the customer in the current month. Actively handle and adjust any objected product orders.
After-sales consulting	Record customer comments and suggestions and make subsequent improvements. Accept customer inquiries, including product technical performance, instructions, complaint handling and other contents. Continuously improve the level of professionalism and responsiveness of consulting.
Tracking product use	The sales department shall track customer's product use and understand customer's individual needs for product quality and service. The defective products shall be made clear and the objection handling method shall be agreed with the customer.
Handling of customer objections and complaints	Keep records of customers' opinions on all aspects of the product. Strengthen communication with customers and respond to relevant comments and objections in a targeted manner. Strengthen daily communication and reduce complaints. Feedback product quality complaints to the corresponding management departments and make improvements. The result of the complaint handling opinion shall be return or exchange of goods or price reduction, etc.
Division of responsibilities for complaint handling results	After the complaint is handled, the sales department, together with our planning and production department, shall carry out cause analysis and divide responsibilities.
Return and exchange of goods	Return and exchange of goods in question.
Compensation for price reduction	Make price reduction for degraded goods. To compensate customers for damage to machinery and equipment caused by the use of our products, product quality problems, etc.
Supervision and assessment	The sales department shall make record-filing instructions to the risk management department on abnormal orders caused by return, price reduction and compensation. The planning and production department shall supervise and urge the production unit to make corresponding rectifications according to the complaint handling results and customer feedback.

## Product complaint mechanism

In order to implement the requirements for the construction of our large risk control system and further standardize the handling procedures of customer complaints, we have formulated the *Management Measures for the Handling of Measurement Quality Complaints of Jiangxi Copper Products*, and gathered the forces of the planning and production department, trade business department, processing units at all levels to standardize the acceptance, identification, analysis, disposal and implementation evaluation of measurement quality complaints arising from the external sales of products within and outside the province. In 2022, our company received a total of 75 complaints about copper rods, copper wires and other products, down 45% year-on-year, and the overall complaint resolution rate remained at an excellent level of 100%.

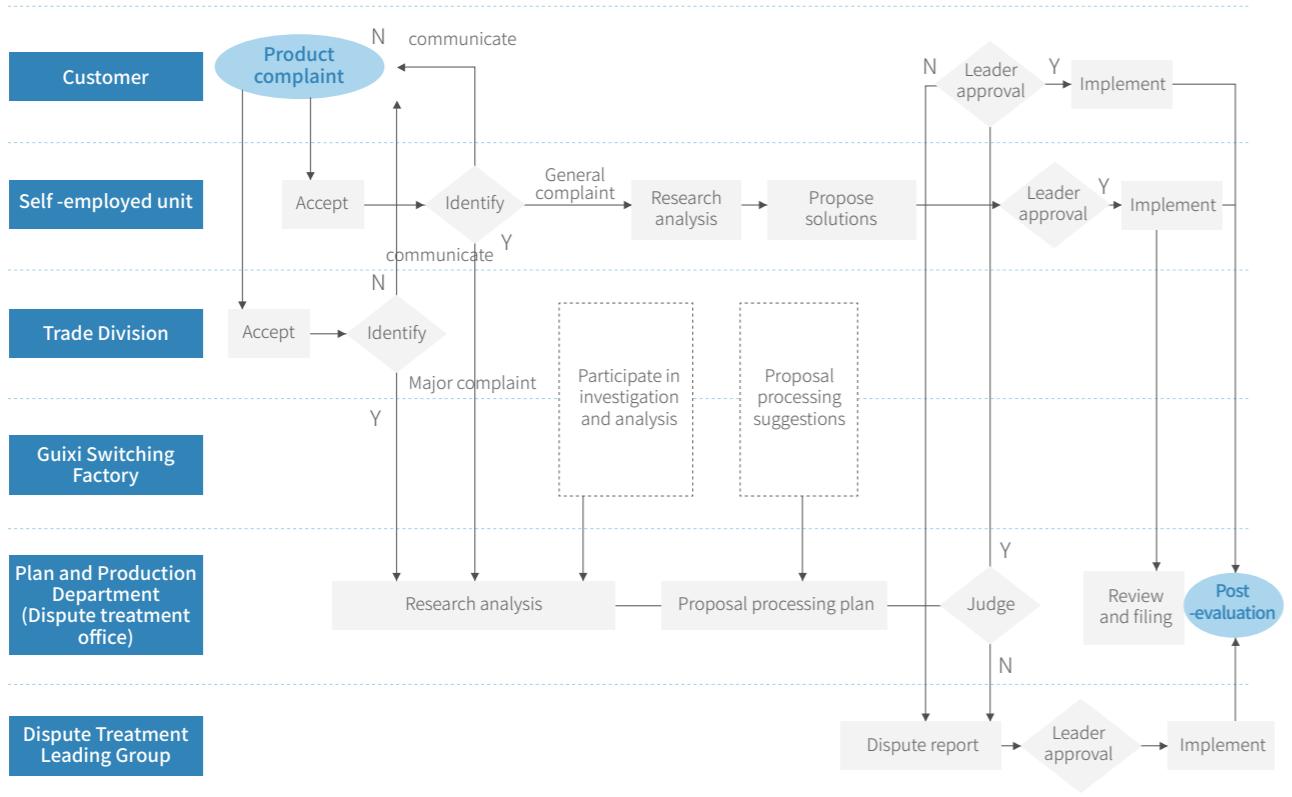


Figure: Process for handling complaints about product measurement and quality

In terms of supplier classification management, in 2022, our company completed the product-based supplier classification of 273 major items and more than 2,000 minor items, improved the supplier management level, processed 25 suppliers, issued risk alerts for 13 suppliers, and introduced 86 suppliers, including 73 production-oriented suppliers, accounting for 85%, greatly reducing the number of traders introduced.

In terms of supplier access, in order to achieve accurate supply assurance, cost reduction and efficiency increase, our company adheres to the six principles of selecting suppliers, and in 2022, our company focused on adding the review requirements for suppliers in terms of safety, environmental protection and green development level, product energy conservation and consumption reduction level, etc. In the survey of production-oriented suppliers, in addition to the necessary qualifications, research and development, quality management, research and development and other conventional materials, suppliers also need to make special explanations on green resources such as energy conservation and emission reduction, recycling and promoting the application of new materials and new technology equipment.

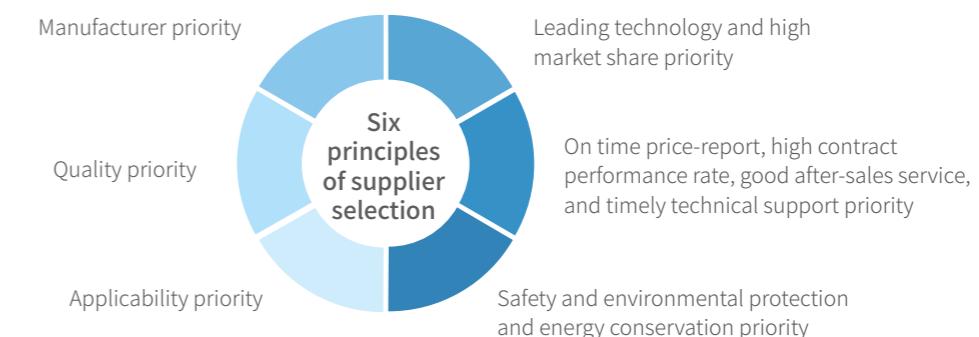


Figure: Six principles of supplier selection

## Supply chain management

### Institutional norms

In 2022, our company added or improved 17 systems, including the *Guiding Opinions on the Management of Green Suppliers of the Material and Equipment Department*, the *Management Measures for Suppliers of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd. (2022 Edition)* and the *Management Measures for Localization of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd.* to plug loopholes and prevent risks from the perspective of supplier basic management, green development and localization. Among them, in order to optimize procurement channels and cultivate and create a good supply environment, the *Management Measures for Suppliers of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd. (2022 Edition)* adds regulatory requirements for suppliers' products in safety production, environmental protection and other aspects, as well as requirements for management system certification or production control system.

### Supplier access and review

According to the *Management Measures for Suppliers of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd. (2022 Edition)*, our company has carried out strict classification management, access setting and tracking supervision on suppliers to ensure that the risks of products and production supply can be identified and controlled from the source, so as to ensure the orderly and stable operation of the industrial chain with Jiangxi Copper as the main link.

Preliminary review of the supplier management department  
Expert review team review  
On-site inspection

Enter the management of e-commerce platforms and carry out uniform information



Figure: Our Supplier access process

## Supplier management

Our company implements unified management and hierarchical responsibility for suppliers based on the electronic file platform. During the reporting period, according to the *Implementing Rules for Supplier Management of the Materials and Equipment Department (2022 Edition)*, our company evaluated and rated the business performance of suppliers in three aspects of "competitiveness, product quality and overall service" and put forward rectification opinions, and focused on timely tracking and collecting the dynamic information of suppliers and the effectiveness of qualification documents, and gradually established a supplier management credit system.

In the review in the first quarter of 2022, a total of 1,240 suppliers were included in the review, and 1,080 were qualified, of which, 38 suppliers were downgraded, 73 were disqualified, 87 were included in the alternative list, and 13 suppliers were adjusted or disqualified due to dishonesty.

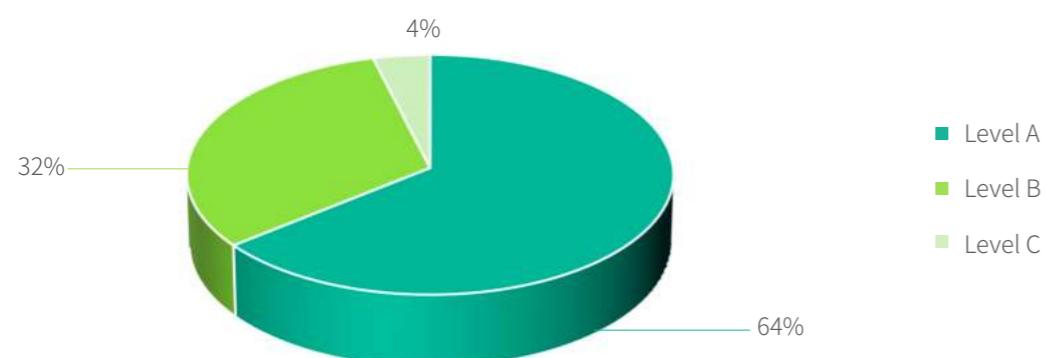


Figure: Proportion of qualified supplier ratings in 2022

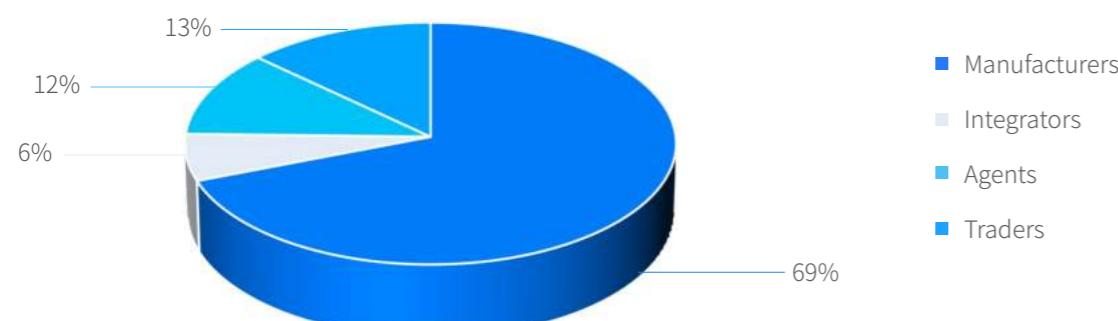


Figure: Classification proportion of qualified suppliers in 2022

In addition, except for force majeure, our company implements a strict review process for the withdrawal of suppliers, covering the assessment scope of compliance, quality, safety, dishonesty and malicious competition. Suppliers with low annual evaluation grade shall not have business dealings with Jiangxi Copper for at least three years, and those discovered with business dealings involving collusive quotation, malicious competition, false qualification, bribery and other behaviors shall not have further business with our company.

## Focus on local suppliers

Our company revised and issued the *Management Measures for the Localization of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd.*, and continuously promoted the localization construction. During the reporting period, our company had a total of 1,241 suppliers at home and abroad, of which local suppliers (including Hong Kong, Macao and Taiwan) accounted for 98.71%, and local suppliers (in Jiangxi Province) accounted for 27.72%.

### Case Localization of ball grinder motor

In 2022, our company promoted the localization of the 4# ball grinder motor of Dashan Dressing Plant of Dexing Copper, invited equipment manufacturers to the production site for surveying and mapping, and finally achieved localized procurement. This alone has saved the procurement cost of 12 million yuan, making a good demonstration for the industry to carry out the localization progress of the industrial chain, and also visually demonstrate the strength of "China's intelligent manufacturing" to domestic and foreign investors.

## Supply chain due diligence management

In 2022, according to the detailed document on gold supply chain management requirements in the RGGV9 version issued by the London Bullion Market Association (LBMA), our company newly revised the *Management Measures for Due Diligence of Gold and Silver Supply Chain of Jiangxi Copper* to carry out due diligence and control on the supply chain of purchased mineral gold, recovered gold and other gold-containing materials other than mining by-products and mineral silver, recovered silver and other silver-containing materials with silver content higher than 15% to ensure that the requirements of the LBMA for gold and silver producers are continuously met.

At the functional construction level, our company established the LBMA due diligence gold and silver supply chain compliance team to establish and improve our gold and silver supply chain management system in accordance with the requirements of *LBMA RGG and LBMA RSG*. Our company identified and assessed risks in the gold and silver supply chain and developed appropriate controls. Our company established internal and external communication channels. Our company was audited by an external auditor accredited by the LBMA. Our company carried out implementation of improvement proposal. Our company completed and published *Gold and Silver Supply Chain Due Diligence Reports* and implemented other matters.

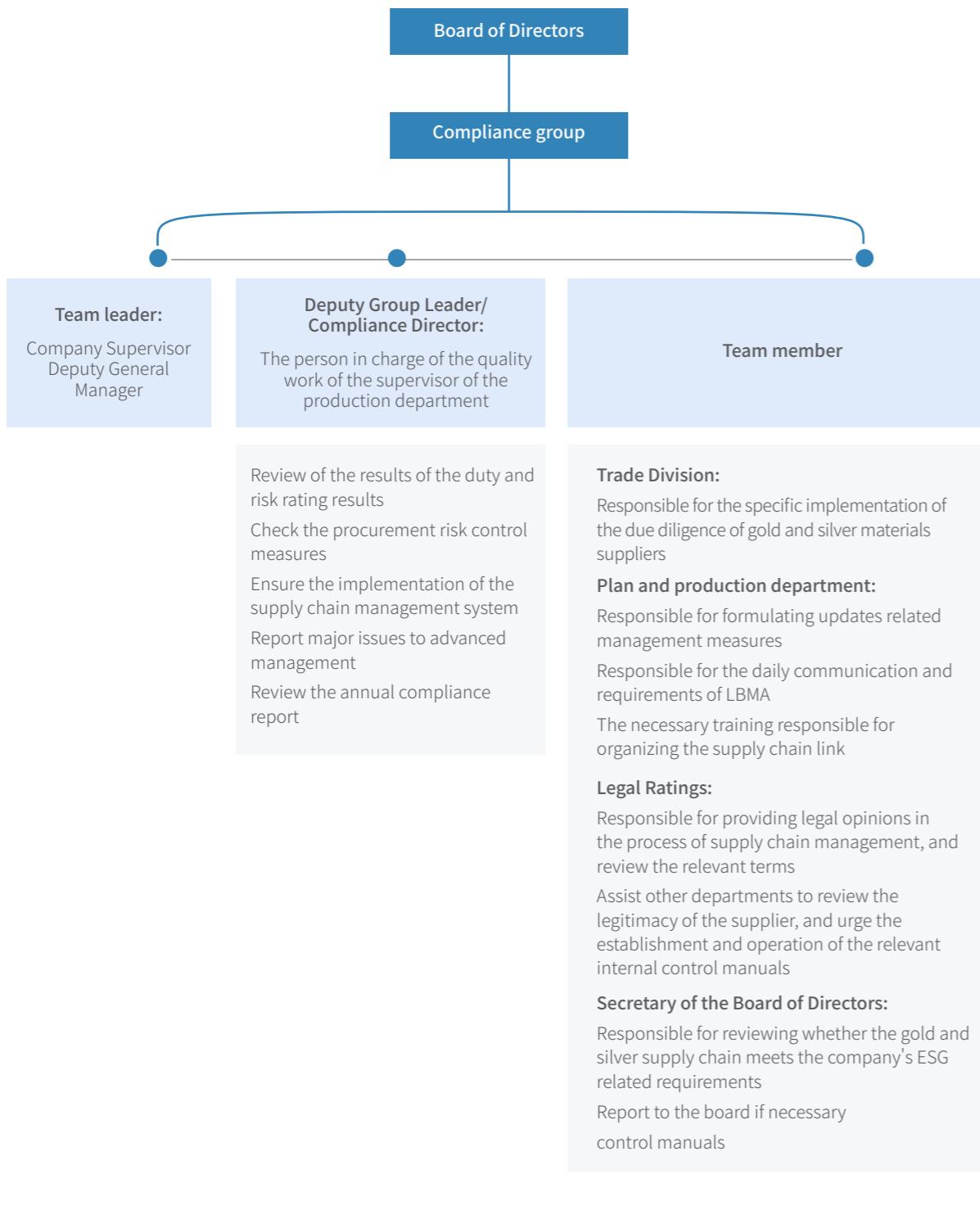


Figure: LBMA due diligence gold and silver supply chain compliance group

From the aspect of work content, our company has established a complete due diligence process for gold and silver supply chains. The implementation departments led by the trade business department are responsible for information collection, risk identification, risk assessment, risk management measures, risk rating, transaction risk monitoring, information and communication, etc. The planning and production department and the legal risk control department cooperated to improve the training and compliance matters in the process.

## Scientific and technological innovation and digital transformation

Our company promotes digital transformation according to the overall idea of "top-level planning and step-by-step implementation", adheres to the strengthening of innovation ability and the "integration of government, industry, education and research", and provides digital and intelligent support for production and operation to achieve high-quality technological breakthrough. Our company has formed a "top-down" digital transformation project construction path by formulating a digital transformation master plan. By the end of 2022, we have added 181 newly authorized patents, including 27 newly authorized patents for inventions. From the scientific and technological aspect, our company has won a total of 18 provincial and ministerial awards and pilot demonstrations in 9 categories.

## Construction of digital project construction management system

Our company has formulated the *Interim Management Process for Project Approval and Procurement Implementation of Digital Projects of Jiangxi Copper Co., Ltd. (Trial)* to further standardize the investment approval and procurement implementation management of digital projects and ensure the orderly promotion of our digital projects. At the same time, in order to promote the drafting and research of the internal digital project construction management regulations in an orderly manner, our company took the lead in formulating the *Digital Jiangxi Copper Project Construction Management Regulations of Jiangxi Copper Co., Ltd. (Draft)*, and organized the affiliated units of our company for discussion. The draft was initially formed and is still being revised and improved. At the assessment level, our company has carried out the formulation of the *Assessment Measures for Jiangxi Copper Digital Project* and organized the affiliated units in the province to complete the collection of various indicators and assessment opinions for the whole life cycle of digital projects, which are currently being revised and improved.

## Construction of work functions of digital Jiangxi Copper

Our company set up a leading group for *Digital Jiangxi Copper Top-level Design* to complete the design and review of *Digital Jiangxi Copper Top-level Design* with high quality, and used it to guide the digital transformation of all units. The design builds a data base and a data service platform by improving the industrial Internet platform system, optimizing the "cloud network side-end" architecture and the integration of "three networks", establishing and improving the data governance system, helping the common drive of data and business needs, running through our core business sectors. It realizes high efficiency information management, production management and control network coordination. It also realizes full coverage of intelligent manufacturing, continues to optimize and upgrade on the basis of the pilot of smart mines and smart factories, and leads the digital transformation and upgrading of the non-ferrous metal industry and Jiangxi industry.

**Case List of digital construction achievements of units at all levels**
**► Dexing Copper Mine:**

The card adjustment system has been officially put into use, and the card adjustment function application is being continuously improved.

The smart transformation of the railway transportation system and the pilot project of unmanned electric wheel are being implemented.

The network system transformation of the mine management center building has been completed and accepted.

The *5G+ Railway Ore Transportation Full Process Driverless Project* has been selected as the first batch of provincial digital technology application scenario demonstration projects in 2022.

**► Guixi Smelter:**

Completed the acceptance of *Product Traceability and Spare Parts Identification Construction Project and Integrated Development Information System of Application Rapid Customization Platform*.

The preparation for the acceptance of *Demonstration and Verification System of Smart Network Cooperative Manufacturing for Copper Smelting* is underway.

10 projects such as *Centralized modification of process control system of electrolysis I system, Smart modification of ti-plates maintenance for electrolysis I and Smelter vehicle smart modification* are being implemented.

**► Chengmenshan Copper Mine:**

The projects of *Research on Unmanned Technology of Articulated Truck and Chengmenshan Copper AR Training Center* have been completed. *SGS Dressing Expert Control System* is being implemented.

## Capacity building for digitalization and scientific and technological innovation

Through digital capacity building and special capacity building of science and technology innovation, our company promoted the reserve of internal scientific and technological talents and research strength, adhered to the transformation of achievements into guidance, and added bricks and tiles to the strategic practice of "encouraging science and technology innovation in Jiangxi Copper". On the one hand, our company actively organized all units to apply for provincial and ministerial-level digital transformation-related demonstrations and participate in digital innovation competitions, and vigorously cultivated new reserves of composite talents around the strategy of strengthening enterprises with talents, which accumulated a rich talent and technical foundation for our company to enter a new stage of high informationization, high automation and high technology content. On the other hand, new documents such as *Management Measures of Jiangxi Copper Co., Ltd. for Scientific and Technological Research (Trial)*, *Management Measures for Patent of Jiangxi Copper Co., Ltd. (Trial)*, *Special Assessment Plan for Scientific and Technological Innovation in 2022* have been prepared, *Management Measures for Scientific Research Funds of Jiangxi Copper Co., Ltd.* and *Management Measures on Promoting the Transformation of Scientific and Technological Achievements of Jiangxi Copper Co., Ltd.* have been revised to establish a transformation demonstration and evaluation mechanism after the completion of scientific research projects and to guide the scientific innovation process of the whole Company to standardized development. During the reporting period, our R&D investment reached 509,300 yuan. There were 181 newly authorized patents, including 27 newly authorized invention patents. By the end of 2022, our company held a total of 1,163 patents, of which 125 were granted invention patents. Five new scientists were introduced, bringing the total number of scientists to 13. A total of 49 doctors and 55 masters were recruited throughout the year, and a research and development team of 101 doctors and 116 masters has been formed. The copper alloy R&D team won the honorary title of "Excellent Youth Commando Team" of Jiangxi SASAC system.

## Industry participation

Based on the status of the leading enterprise in China's copper industry, our company takes the initiative to actively organize industry enterprises to carry out in-depth research and cooperation on various new technologies, new products and new methods, continue to deepen scientific and technological cooperation with the compound and the institute, and form a rapid, accurate and comprehensive scientific and technological cooperation docking mode by establishing a forum mechanism, hosting symposiums and forums and other measures. During the reporting period, our company continued to work with internal and external forces to promote the coordinated deepening reform of scientific and technological innovation, and promote the research and development of major projects related to sustainable strategies.

## Participation in the development of multiple standards

Through the implementation of the "Special Action for Breakthrough in Standard Formulation", in 2022, our company presided over (participated in) the formulation/revision of 39 standards, an increase of 16 year-on-year, including 2 international standards, 18 national standards, 12 industry standards and 7 group standards. Among them, our company presided over and perfected the two national standards of *Energy Consumption Limit for Unit Products of Heavy Nonferrous Metal Enterprises and Copper Wire Billet for Electrical Engineering*, which respectively won the first prize of the 2022 National Nonferrous Metals Standardization Committee Technical Standard and the first prize of the First Standard Innovation Contribution Award of Jiangxi Province.



Figure: We won the Technical Standard Excellence Award from the National Nonferrous Metals Standardization Technical Committee

## Lead the establishment of copper industry science and technology innovation consortium

Our company gave full play to the role of bridge, actively carried out the province's copper industry layout, distribution of key enterprises, production technology status, common technical bottlenecks and scientific and technological innovation needs, visited Nanchang University, Nanchang Research Institute of Peking University, Central South University, copper processing enterprises in Jiangxi, and participated in exchanges with external scientific research teams on copper industry science and technology cooperation. At the same time, our company organized a symposium and round table meeting for copper processing enterprises, fully mobilized the professional resources of the government and the industry, discussed the current situation of the industry and the sustainable development trend of technology, and prepared the *Jiangxi Copper Industry Technology Research Report* to seek a far-reaching path for the survival of the industry in the new era.

**Case First appointment at ISO**

On November 1, 2022, the domestic preparatory meeting of ISO/TC26 Copper and Copper Alloy Technical Committee was held in Xiamen. Zha Kebing, our supervisor, served as the chairman of the ISO/TC26 Copper And Copper Alloy Technical Committee. He attended the meeting and discussed the future development of TC26 with more than 40 experts. It is expected that TC26 will actively speak out in the international standard setting in the next five years.



Figure: ISO/TC26 domestic preparatory meeting

**Case Hosting the "5th National Exchange Conference on High-efficiency Utilization of Low-grade Mineral Resources New Technology"**

From September 27 to 29, 2022, our company hosted in "5th National Exchange Conference on New Technologies for the Efficient Utilization of Low-grade Mineral Resources", aiming to "strengthen the green development and ecological civilization construction of China's mineral resources, and promote the progress of common technologies for complex and difficult mineral resources such as low-grade ores, co-associated ores and tailings." Deputy General Manager Tu Dongyang attended the meeting and delivered a speech.



Figure: Speech by Deputy General Manager of our company

**Case Jiangxi copper industry science and technology innovation consortium round table**

On September 15, the round table meeting of Jiangxi Copper Industry Science and Technology Innovation Consortium organized by our company was successfully held. The meeting focused on the high-quality development of Jiangxi copper industry, focusing on the theme of "Talent Cluster Creates the Future of Jiangxi Copper", during which the participating experts and enterprises had in-depth exchanges. Zhou Shaobing, deputy secretary of the party committee and general manager of our company, attended the meeting and made a speech.



Figure: Jiangxi copper industry science and technology innovation consortium round table

**Participate in the construction of national standard innovation base for green ecology and non-ferrous metals**

Our company actively implements the new development concepts of innovation, coordination, green, openness and sharing, cooperates with local departments and upstream and downstream units to carry out the joint construction of innovation bases, and promotes the standardization of the construction of national innovation bases and the green and low-carbon intelligentization of the industry to achieve "synergetic" development. First, under the leadership of the Jiangxi Provincial Market Supervision and Administration Bureau, jointly with the Jiangxi Provincial Institute of Standardization, prepare for the establishment of the National Technical Standards Innovation Base (Jiangxi Green Ecology). Based on the green ecological characteristics of Jiangxi and the core goal of "supporting the construction of the National Ecological Civilization Experimental Zone (Jiangxi)", through the construction of key tasks of "six platforms and one alliance", explore the experience model of standardization to support the construction of ecological civilization, build the "Jiangxi Green Ecology" brand, and transform Jiangxi's ecological advantages into economic development advantages. The second is to make preparation for the establishment of the national technical standards innovation base (non-ferrous metals). Through the absorption of more than 50 units of production, education, research and application, effectively integrate the upstream and downstream enterprises of the industrial chain and the standardization technology institutions, increase the national resource development and new materials development and other key areas and strategies with aggregation effect, and promote the interactive development of standardization and scientific and technological innovation around the fields of green metallurgy management, ecological mining, intelligent manufacturing, energy conservation and environmental protection.

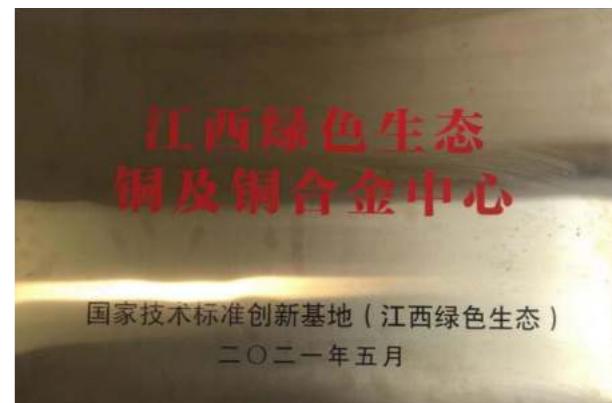


Figure: National Technical Standards Innovation Base (Jiangxi Green Ecology)



Figure: National Technical Standards Innovation Base (Nonferrous Metals)



## HUMANISTIC GOVERNANCE

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Talent is the cornerstone for enterprises to achieve sustainable development and create a better future. In recent years, our company has always advocated the people-oriented human resources strategy, actively safeguarded and protected the rights and interests of all employees, strived to promote the well-being of employees, and created a safe and healthy working environment for employees and a fair and just career growth environment. In 2022, all employees of our company have continued to adhere to the core values of "solidarity, co-creation and co-advancement" of Jiangxi Copper. It is the unity, harmony and tolerance of these employees that helped our company to achieve the common progress of the employees, the enterprises, and the society.

# HUMANISTIC GOVERNANCE

## Guarantee of human rights

Our company shall, in accordance with the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *Provisions of the People's Republic of China on the Prohibition of the Use of Child Labor* and other current national laws and regulations on human rights protection and labor standards, and the standardized employment plan formulated by our company, standardize the employment objectives and working principles, and ensure that our employment conforms to the laws. Our company attaches great importance to human rights, respects and protects the human rights and personality of employees, and prohibits child labor and forced labor.

In the international market, our company consistently abides by international human rights conventions, including the *International Covenant on Economic, Social and Cultural Rights and the Elimination of Discrimination in Employment and Occupation*, and strictly abides by the relevant laws, regulations and systems of the host country when hiring workers. Our company respects employees' religious beliefs, cultural background, gender, nationality, etc., treats foreign workers equally, and resists all forms of forced labor. In addition, our company also holds stakeholder participation programs and public consultation meetings with local communities, stakeholders and special interest groups during the project planning period to fully consider the negative impact of the project construction on the community, and actively takes mitigation measures to eliminate the impact, such as providing necessary commodity and water supply and commercial service infrastructure to promote local economic growth and employment.

## Employment in accordance with regulations

### Fair employment

In accordance with the *Management Measures of Jiangxi Copper Co., Ltd. for Labor Contracts* and the *Management Measures for Human Resources Recruitment and Allocation* and other relevant internal systems, our company adheres to the principles of fairness and justice, and personnel-post matching to select talents as needed. Our company treats employees fairly, actively strives to promote gender equality, respects the rights and interests of female employees and employees of ethnic minorities, eliminates all kinds of discrimination such as gender, ethnicity, age, religion and nationality, and conducts compliant and fair employment.

By the end of 2022, our company has a total of 25,051 employees, of which the employment rate of local employees is 66.50%, the proportion of female employees is 15.28%, the proportion of disabled employees (disadvantaged employees) is 0.97%, and the proportion of ethnic minority employees is 1.61%.

Table: Statistics of our employees

Categories	Sub-categories	Number of people	Proportions
Gender	Male	21,224	84.72%
	Female	3,827	15.28%
Age	30 and under	4,205	16.79%
	Age 31-40	5,669	22.63%
Education	Age 41-50	6,648	26.54%
	Above 50	8,529	34.05%
Regions	PhD	106	0.42%
	Master	638	2.55%
Education	Bachelor	4,701	18.77%
	College	4,887	19.51%
Regions	Secondary technical and under	14,719	58.76%
	Inside Jiangxi Province	16,544	66.50%
Regions	Outside Jiangxi Province	8,250	33.31%
	Hong Kong, Macao and Taiwan	47	0.19%
Total		25,051	100%

## Protection of rights and interests

Our company strictly abides by the *Labor Law of the People's Republic of China* and other relevant laws and regulations, guarantees the basic rights and interests of employees, signs labor contracts with employees in accordance with the law, and pays the "five insurances and housing fund" in full for the employed. **In 2022, our labor contract signing rate, social insurance coverage rate and employee occupational health examination rate are 100%.**

### Employee benefits

Our company offers paid holidays to employees in accordance with the laws and regulations, such as the *Regulations on Paid Annual Leave for Employees and the Implementation Measures for Paid Annual Leave for Enterprise Employees*. And the enterprise annuity system has been formulated to guarantee and improve the living standard of employees after retirement. In addition, our company has established a multi-level employee medical insurance system in accordance with the *Supplementary Medical Insurance Plan of Jiangxi Copper Group Co., Ltd.* formulated by the controlling shareholder Jiangxi Copper Group to further protect the medical level of our employees.

### Care for the disabled

Provide subsidies for disabled employees in accordance with the *Law of the People's Republic of China on the Protection of Disabled* and the *Implementation Measures of Jiangxi Province's Living Subsidy for Disabled and Nursing Subsidy for Severely Disabled*.

### Female employees

The *Notice on Implementing the "Special Labor Protection Regulations for Female Employees in Jiangxi Province"* has been issued to provide practical protection for our female employees.

## Health and safety

During the reporting period, our company successfully completed the "three-year action" of special rectification of work safety with remarkable results, further enhanced safety risk prevention and control capabilities, further consolidated the basic foundation of work safety, further improved the work safety responsibility system, and further improved the long-term mechanism of work safety.

At the same time, our company has actively promoted the rectification of major safety risks and hidden dangers, the management of "high-risk warehouses", the storage and transportation of hazardous chemicals, the construction of smart mines/factories, and the construction of our own underground teams through in-depth rectification of two themes and six special projects. It has effectively promoted the modernization of our safety production management system and governance capabilities, solved a number of key and difficult problems in safety production, eliminated a number of major accident hazards, and formed a number of institutional measures that can be replicated and promoted.

In 2022, our company implemented several "initial" actions in the field of safety production:

**The very first on-site safety supervision was carried out during important holidays.** During the Spring Festival and National Day in 2022, our company successively visited Guixi Smelter, Dexing Copper Mine, Yongping Copper Mine, Wushan Copper Mine, Yinshan Mining, and Shangrao Project;

**Establish our safety and environmental protection expert database for the first time.** At present, the expert database has a total of 242 applications from 7 majors: mineral processing, mining, smelting, hazardous chemicals, electromechanical, environmental protection and others.

**The first long-term safety supervision and supervision on spot was implemented.** In July and October 2022, the Shangrao project and five mining units in the province took a long period supervision on production safety.

## Production safety management mechanism



### Formulate the annual work safety plan

In 2022, our company signed the annual safety and environmental protection management target responsibility certificate with major production units to promote the implementation of safety production responsibility at all levels. At the same time, our company insisted on holding the safety committee, quarterly safety and environmental protection work meeting and special safety production meeting every quarter to timely summarize the work, analyze the deficiencies, and make careful arrangements to promote the implementation of all work.

### Strengthen the construction of safety production compliance

In 2022, our company followed the *Production Safety Law*, *Safety Regulations of Metal and Non-metal Mines*, *Safety Procedures of Tailings Pond*, *Standard for Judging Major Accident Hidden Dangers of Metal and Non-metallic Mines* and other normative documents, strictly required all units to conduct compliance self-inspection in accordance with laws, regulations, standards, specifications and relevant requirements, rectify existing problems and major hidden dangers in a timely manner, formulate

rectification plans for those that cannot be rectified at the moment and actively promote the rectification of problems, and report to the local regulatory authorities and our company for filing. In case of non-compliance with the existing laws and regulations, the illegal acts shall be eliminated in a timely manner, and in case of laws and regulations and norms to be promulgated, the occurrence of non-compliance shall be fully identified and avoided as far as possible.

### Increase investment in production safety

Our company implemented the *Management Measures for the Withdrawal and Use of Safety Production Expenses of Jiangxi Copper Group* formulated by the controlling shareholder Jiangxi Copper Group, and managed the safety production expenses in accordance with the principles of "standard withdrawal, government supervision, ensured demand, standardized use and accurate accounting". In terms of safety investment, our company adhered to the principles of urgent management, special treatment and priority arrangement of safety measures, and safeguarded the use of funds. For major hidden dangers of accidents that had great impact and endangered the safety of life and property, all units were allowed to arrange funds for treatment first before the examination and approval procedures. All units had fully withdrawn the special expenses for work safety in proportion to achieve the idea of special funds for special use. **In 2022, our company has invested about 630 million yuan in production safety.**

### Promote professional management system certification

In terms of system certification, our company has obtained the occupational health and safety management system certification of GB/T 45001-2020/ISO 45001:2018.

## Work safety rectification action



### Issue special safety inspection plans and optimize the safety inspection mode

Our company followed the *Implementation Plan of Jiangxi Copper Group Co., Ltd. for Work Safety Inspection*, the *Circular on Printing and Distributing the Implementation Plan for Centralized Management of Safety Risks of Hazardous Chemicals of Jiangxi Copper Group*, and the two special inspection plans for non-coal mines and hazardous chemicals formulated by the controlling shareholder Jiangxi Copper Group. In addition, our safety inspection has changed from the usual inspection mode in the past. On the basis of cross-inspection, professionals are arranged to conduct long-term post inspection, so that hidden problems on site are not spared and basic materials are fully covered.



Figure: Certificate of occupational health and safety management system

**Regularly carry out special inspections to timely investigate and treat potential safety hazards**

From February to March 2022, our company conducted a special inspection on the compliance of safety facilities for the open pit mines of Chengmenshan Copper Mine and Dexing Copper Mine. In May 2022, our company carried out a major safety inspection. For the problems and hidden dangers found in the inspection, our company timely supervised and tracked the rectification to ensure that each problem was effectively rectified.

**Strengthen the safety supervision of key projects, and start the point supervision for work safety for the first time**

In 2022, in order to escort the construction of key projects, our company for the first time adopted the form of dispatching a supervision group to carry out special safety supervision. On July 26, our company dispatched a safety supervision group to the project headquarters of Jiangxi Copper (Shangrao) Industrial Park to escort the high-quality and safe production of Jiangxi Copper (Shangrao) Industrial Park Project. At the same time, our company strengthened the safety supervision and inspection of Wushan Phase III Project to ensure the safe and steady progress of key construction projects. In addition, our company adopted the point supervision mode in the mine for the first time. From September 30 to October 25, our company successively arranged more than 20 experts in safety, machinery, electricity, tailings pond and other aspects to station in the subordinate mines to carry out one-month on-spot safety supervision to ensure production safety and stability.



Figure: Kick-off meeting of special safety and environmental protection inspection



Figure: Photos of site inspection

## Occupational health protection

Our company has always paid great attention to occupational disease hazards and effectively guaranteed the health of workers.

**Effectively strengthen technological innovation and transformation**

Eliminate outdated processes with occupational disease hazards such as dust poisoning and toxic and harmful gases, and continuously improve working conditions and operating environments, e.g. use ammonia water to replace liquid ammonia in Guixi Smelter, reduce dust generation rate at the mine mouth under the belt with mist spray at Dexing Copper Mine.

**Strengthen occupational disease prevention publicity**

Invite external experts to factories and mines to hold lectures on occupational disease prevention laws and regulations and occupational health.

**Carry out occupational disease hazard assessment**

Strictly implement the "three simultaneities" of occupational hygiene in new construction, reconstruction and expansion projects, and carry out pre-evaluation of occupational disease hazards, design of occupational disease protection facilities, evaluation and acceptance of occupational disease hazard control effects for all construction projects as required.

**Improve occupational health monitoring**

The detection and evaluation of occupational disease hazard factors and occupational health inspections have been carried out in accordance with laws and regulations, and the occupational health monitoring files have been further improved.

## Safety and health training

In June 2022, our company comprehensively carried out the 21st "Safety Production Month" around the theme of "Observing the Production Safety Law and Be a Good First Responsible Person", organized a series of activities with novel content, diverse forms and wide participation of all employees, created a strong atmosphere of all employees paying attention to safety and caring for life throughout our company, and gathered the strong joint efforts of our company to "prevent risks, eliminate hidden dangers, contain accidents and ensure safety" to ensure the stable situation of our production safety.



Figure: Conducting a safety awareness campaign

**Case Hold safety management training courses**

From June 8 to June 14, 2022, under the guidance of the Metallurgical Industry and Trade Department of the Provincial Emergency Department, our company held the metallurgical industry and trade safety management training course, which better enhanced the ability of safety management personnel of relevant enterprises of our company and provided a guarantee for legal and compliant production of enterprises.



Figure: Site of safety management training course

**Case Hold "Safety Lecture" Training**

On June 17, Chengmenshan Copper Mine held the "Safety Lecture" training. Chen Bin, the second-level inspector of Jiangxi Emergency Management Department, and the Mine Safety and Environment Department broadened the horizons of frontline managers from a professional perspective, better enhanced the safety awareness of managers, and deepened their understanding of the importance of safety management.

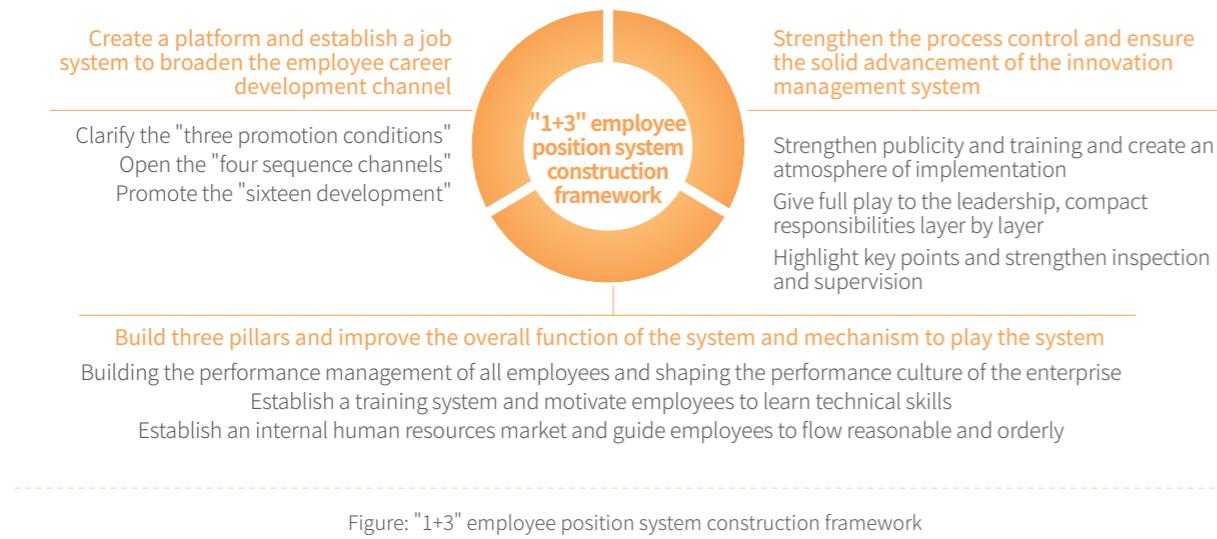


Figure: "Safety Lecture" training

## Staff development

### Management of post system construction

In recent years, our company has continued to deepen human resources management, and creatively put forward the **"1+3" employee position system reform measure**, that is, to use the employee position system as a "platform" to build a solid performance evaluation ranking for all employees, skilled talents, and internal human resources. Use institutional mechanisms to guide employees' self-management, stimulate vitality, and change from "job-oriented" to "self-motivated", providing the "Jiangxi Copper's Plan" for the reform of the "three systems".



2022 is the "transition" year of the reform of our employee position system. The position system has been transferred from the pilot stage to the full implementation stage, and the change has achieved outstanding results:

#### Improve the assessment

The employee performance assessment is further promoted. Our company continued to improve the employee ranking rules, and completed the adjustment of employee positions and the payment of benefits through decision-making procedures and publicity links.

#### Innovative employee flow model

Our company established an internal human resource market, opened up communication channels for outstanding employees, implemented training measures for employees on/off the post, established rules for the diversion of redundant employees, and optimized the allocation of internal human resources.

#### Standardize the daily management of long-term sick employees

Our company has formulated and issued the *Guiding Opinions on the Management of Employees Not Injured Due to Work or Incapacity Due to Illness (Trial)* to take care for employees and regulate employees who are not incapacitated due to work or due to illness, maintaining the authenticity and effectiveness of performance appraisal rankings.

#### Establish an inspection and assessment mechanism

Our company has formulated the *Employee Position System Construction Assessment Plan*, established a long-term operation mechanism for the position system, consolidated management responsibilities at all levels, and reported the completion of the work plan of each unit in the form of monthly briefing, which was included in the annual assessment. At the same time, the special inspection of our position system was normalized. In the second half of 2022, our company organized a special inspection team for the position system to inspect 22 units. The inspection found 110 problems in total, and formed a list of problems, which were issued to relevant units for rectification.

#### Innovatively carry out HRbp pilot projects

Our company carried out HRbp (HR business partner) work pilot projects in four units: Dexing Copper Mine, Guixi Smelter, Wushan Copper Mine and Yinshan Mine. The four units formulated implementation plans based on the actual situation, carried out empowerment training, carefully organized the implementation, and actively explored ways and means of large-scale human resource management.

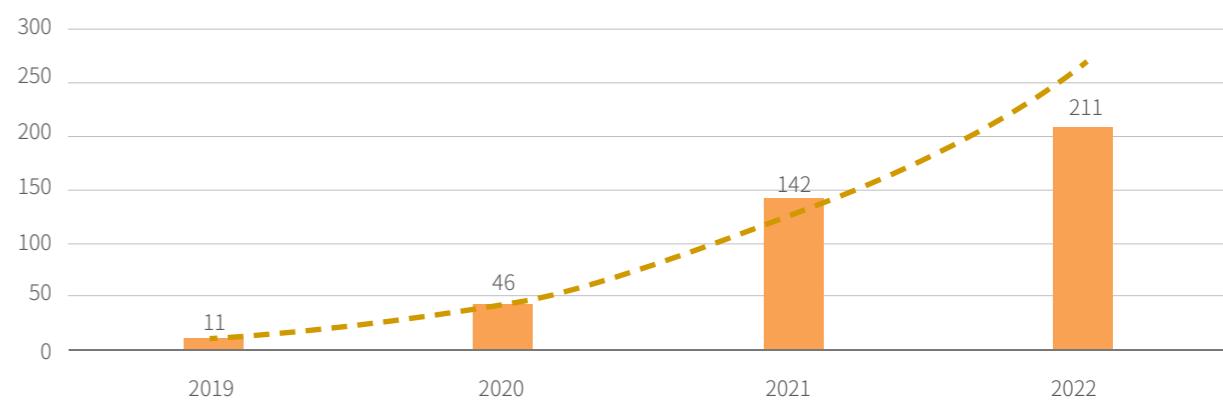


Figure: Our company carries out job system training

#### Solidly promote the outstanding student program

Since the implementation of the "Excellent Students Plan", our company has continued to strengthen the brand building of employers, the number of outstanding students has increased year by year, and the talent cluster effect has been significantly enhanced. By the end of 2022, the number of outstanding students has reached 456, which is 9 times of the number before 2019.

Figure: Recruitment of outstanding students



## Cultivation of talents

Our company has always paid attention to the internal training of talents and the all-round development of employees. Our company creates various ways such as education and training, skill competitions, and post training, to build a good platform for employees' career development, actively strengthens team building, and guides and inspires all kinds of talents to achieve careers based on their positions.

#### Education and training

In recent years, our company has continuously optimized the training management system, further promoted the independent training and evaluation system construction of skilled personnel, improved the talent training mechanism, consolidated the foundation of the three talent teams of management, technology and skills, and continuously enhanced the talent pool for our company to achieve sustainable development in accordance with the *Management Measures of Company Education and Training*, the *Management Measures of Company Education and Training Funds*, the *Management Measures for the Training and Use of Excellent Students*, the *Evaluation Plan for the Implementation of Company Training*, and the *Implementation Plan for the Independent Training and Evaluation of Skilled Personnel*.

#### Case Our first "copper collar" financial talent training class in Shanghai

In order to better meet the needs of our company to build a world-class enterprise for high-quality financial talents, our company launched the "Tongxin, Tongchuang, Tongling, Tongding" four copper financial talent training system construction project. After review, and through comprehensive selection such as written examination and interview, our company selected 50 students as the first Jiangxi Copper "Copper Collar" talent training objects in 2022. On August 8, 2022, our company's first "Copper Collar" financial talent training course was held in Shanghai National Accounting Institute.

**Case | Chengmenshan Copper Mine AR Training Center**

In May 2022, our first AR training system was landed in Chengmenshan Copper Mine. The system aims to fully guide employees in interactive skill training and immersive experience, and further improve the learning effect of theory and practice. It is an important innovation platform integrating skill training, skill appraisal, skill competition, coach training, technical exchange and innovation achievement display, focusing on cultivating high-tech and high-skilled talents and enhancing the independent innovation ability of enterprises.



Figure: Chengmenshan Copper Mine AR Training Center

**► Skill competition**

In 2022, our company built a "double training system" and carried out skill competitions in an all-round way. A group of industrial workers stood out from the competition. Our company has achieved outstanding results in national and provincial skill competitions. In the national non-ferrous metal industry team leader comprehensive management skills competition, the Jiangxi Copper delegation won the third place in the total score, of which 2 people won the individual first prize. In the first professional skill competition in Jiangxi Province, two players were rated as "Jiangxi Province technical experts".

**► Model worker**

In 2022, our company focused on production and operation, scientific research and innovation, vigorously selected advanced models that had made outstanding contributions and had characteristics of the times. Promote model worker's stories and craftsman stories, making them the stellar group of employees. Our company has achieved outstanding results in the selection of national and provincial labor models. The logistics Company has won the "National May Day Labor Award", 3 collectives have been awarded the "Jiangxi Province Workers Pioneer", 1 collective has been awarded the "May Day Women's Pacesetter Post" in Jiangxi Province, and 3 employees have been awarded the "Jiangxi Province May Day Labor Medal".

**Open communication**

In January 2022, our company held the meeting of the fourth employee congress and the fourth meeting of the trade union congress, effectively safeguarding the employees' right to know, right to participate, right to express, and right to supervise.

In addition, our company attached great importance to the diversity of employee representatives. In order to ensure that the representatives came from a widely variety of professions, our company stipulates that the employee representatives shall include frontline employees and middle-level and above management personnel. The proportion of frontline employees shall not be less than 60%. The proportion of middle-level and above management personnel shall not exceed 20%. Female workers, young workers, model workers (advanced workers) and other representatives shall account for a certain proportion.

2022 is the third year of the implementation of the *Jiangxi Copper Co., Ltd. 2020-2022 Collective Contract*. Our labor union completed the survey on the implementation of the collective contract from October to December, and the **employees' satisfaction rate with the implementation of the collective contract was 99%**, suggesting that each unit had conscientiously fulfilled the terms of the Collective Contract, strictly followed laws, regulations and current policies, and protected the legitimate rights and interests of the majority of employees. No violation of the terms of the "Collective Contract" or violation of the vital interests of employees occurred.



Figure: Our trade union carried out research on risk prevention related to collective contracts

**Incentive policy**

Our company attaches great importance to employee motivation and has established four incentive policies in accordance with the requirements of "decent work and all-round development".

**► Salary incentive policy**

Establish a salary management system oriented by performance contribution and based on performance appraisal. The employee sequence ranges from junior to chief totalling 16 ranks. Employees of different ranks can enjoy rank allowances correspondingly, Define the promotion channel, and realize the "entry and exit" of industrial workers, the "up and down" of postions, and the "upgrade and downgrade" of payment.

**► Achievement incentive policy**

Implement measures such as the establishment of scientific research achievements transformation projects, innovation and efficiency selection awards, and improve the profit sharing mechanism for the transformation of achievements. The team for scientific research project can obtain rewards ranging from 5% to 20% of the income from transformation of achievements for 5 consecutive years. A reward of 25 million yuan has been awarded for the transformation of scientific research achievements in the past two years.

**► Honor incentive policy**

Since 2020, 10 people in our company have been awarded model workers above the provincial and ministerial level, including 1 national model worker. 5 people have been awarded provincial May Day labor medals, 21 craftsmen have been awarded the "Tiangong Cup". A total of 166 skill promotion have been made, making high-skilled talents well respected, and more valuable to our company.

**Recreational and sports activities**

With the theme of meeting the needs of employees for a better life, our company carries out colorful employee cultural activities to enrich the spiritual and cultural life of employees. In 2022, our company actively played the leading role in staff cultural and sports activities, and held 19 online knowledge competitions throughout the year with more than 600,000 participants. There were also 227 cultural and sports activities involving more than 25,000 participants.



Figure: Company employees participating in the province's staff volleyball competition



Figure: Staff tennis tournament at Jiangxi Copper



Figure: Staff badminton match at Jiangxi Copper

**Assistance and care**

In 2022, our company continued to promote the normalization, institutionalization and standardization of the work of assistance and care, actively explored inclusive, normal and accurate service methods, increased the efforts of inclusive service for employees, proper placement of old employees, allowing visible, tangible and sensible services to cover the broad masses of employees.

- In 2022, our company visited more than 480 people, including employees in difficulty, model workers, and family members of employees stationed in overseas projects, and distributed more than 2.7 million yuan of medical subsidies and claim settlement assistance.
- Our company carried out self-examination and self-assessment on accurate filing of employees with difficulties, re-investigation of employees with difficulties, and applied for 267,000 yuan of special financial assistance funds at or above the provincial level for employees.
- Mutual aid was incorporated into the enterprise's "great assistance" system, and 58,588 people were insured by 27 affiliated units in the whole year. The number of insured people, guaranteed income, per capita insurance amount, and number of people received compensation increased compared with the previous year.
- In 2022, our trade union provided subsidies of more than 60,000 yuan to 3,369 female employees, 217 model workers (model party members) at or above our company (prefecture and city) level, 6 employees in difficulty and 8 village cadres for rural revitalization in the form of more than 4,000 mutual assistance and protection plans for female employees' welfare, accidental injuries, special or serious illnesses, etc.
- In 2022, 184,000 yuan of scholarships were awarded to 45 outstanding students in the college entrance examination, and 31,000 yuan of Autumn Scholarships was awarded to 8 children of employees with difficulties, so as to reward these outstanding students and help these families in further education.



Figure: The future sets sail from here - Jiangxi Copper gives special courtesy to outstanding college entrance examination students in 2022

# COMMUNITY GOVERNANCE

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Our company has always adhered to the concept of "fulfilling social responsibilities and being an excellent corporate citizen". In addition to economic and legal responsibilities, our company strictly abides by corporate social and moral responsibilities, and has formed a community governance plan and people's livelihood assistance path with characteristics of the times, national characteristics and world standard. By anchoring the objectives and requirements of economic development, environmental protection, community service, employment creation, public welfare and charity, our company actively explores the diversified industrial development model based on social subjects, gathers internal resources, participates in the "responsible" enterprise brand building, and carries out a series of sustainable "investments" with both excellent operating environment and high-quality resources support.



# COMMUNITY GOVERNANCE

## Community relations

Our company strictly abides by the *Regulations on the Implementation of the Mine Safety Law of the People's Republic of China*, the *Pilot Program for the Reform of Mining Land Use Mode*, the *Code for Green Mine Construction* and other laws and regulations, adheres to the principles of cooperation and convenience in the selection of domestic mining areas and engineering construction sites, and stays away from residential living areas to prevent adverse effects on people's lives such as noise, dust and water. At the international project level, our company took into account the domestic conventional construction standards and the laws and regulations of the project location, and comprehensively considered the governance of community relations to ensure the common progress of the "Made in China" brand and Chinese-style production efficiency.

### Case Bakuta Tungsten Mine Project in Kazakhstan Actively Supports Community Construction

The Bakuta Tungsten Mine project of Kazakhstan is carried out in strict compliance with local laws and regulations related to environmental and social responsibility, such as the *Ecological Code of the Republic of Kazakhstan*, the *Water Code of the Republic of Kazakhstan*, the *Land Law of the Republic of Kazakhstan*, the *Waste Law of the Republic of Kazakhstan*, and the *Law on Mineral Resources and Mineral Resources Utilization*.

In order to ensure the legality of resource development and reduce social responsibility risks, in strict accordance with the provisions of the Mining Contract, a certain proportion of money is allocated annually to support local infrastructure and economic construction, train local employees and conduct scientific research. In the annual financial plan, a certain amount of money is set aside to support the local community's economic, cultural and infrastructure construction. At the same time, the department of Community relations was set up to coordinate with the local community, develop a special system of community relations, understand the various demands of the local community, grasp the public opinion, and coordinate the government departments to deal with the problems related to the project development raised by the community, so as to ensure the establishment of a stable and friendly surrounding environment and reduce the risk of social responsibility.

In addition, the project strictly follows the provisions of the Republic of Kazakhstan on the proportion of territorial procurement and related procurement laws, and gives priority to the procurement of territorial materials and equipment on the premise of quality assurance.

## Rural revitalization

Our company closely follows the overall requirements of the controlling shareholder Jiangxi Copper Group for "prosperous industry, livable ecology, civilized rural customs, effective governance and affluent life", assists relevant departments to continue to consolidate and expand the achievements of poverty alleviation, focuses on key work, and paints a beautiful future of rural areas.

### System guarantee and team building

Our company actively responds to the *Notice on Establishing the Leading Group for Assisting Rural Revitalization*, the *Management Measures for Assisting Rural Rejuvenation of Jiangxi Copper Group*, the *Work Plan for Rural Revitalization of Yaoqian Village, Dongshang Town, Jinggangshan City (2021~2023)* and the *Resident Assistance Work System* issued by the controlling shareholder Jiangxi Copper Group, and cooperates with the Group to carry out the planning of rural work. In 2022, the number of resident cadres and working group members and the proportion of young employees stationed in Yaoqian Village, further increased. By regularly carrying out regular household visits, promoting the disclosure of village affairs, carrying out fire patrols and fire prevention and other phased work, the team ensured the rural revitalization as planned.

### Assist rural featuring industries according to local conditions

First, strengthen industrial management and protection and strengthen the construction of representative projects. Through a large-scale visit and combined with the actual situation of the village, our company conducted a detailed investigation on the

development of white lotus, oil tea planting, honey breeding and other industries in Yaoqian Village, and formulated a designated assistance plan. Since 2022, with the help of the controlling shareholder Jiangxi Copper Group and our company, Yaoqian Village has produced 6,000 kg lotus seeds and 3,000 kg honey, and the collective economy has tripled year-on-year to more than 600,000 yuan, giving a remarkable result in poverty alleviation. In 2023, it is expected to further expand the planting scale of white lotus with additional 100 mu of white lotus to achieve a planting scale of 200 mu of white Lotus. Investment in bee breeding shall increase by 100,000 yuan. Strengthen the management and protection of oil tea base to ensure the good growth of seedlings.

Second, adhere to the long-term concept and build a demonstration site for human settlements. Our company cooperates with the members of the village-based group of the controlling shareholder Jiangxi Copper Group, actively cooperates with the local government and grass-roots organizations, participates in the transformation of cultural activity centers, the construction of access roads for field mechanization, and the improvement of the surrounding environment of the project, so as to meet the "one-stop" service needs of villagers, help rural production to become sustainable, attaching equal importance to economic and ecological benefits.

Third, build up the capacity for sustainable development of rural areas based on the "double support of ambition and wisdom". Our company pays attention to the safety of rural drinking water, basic services for subjects, compulsory education for school-age children, social employment skills training and employment channels, and helps local residents in ensuring their basic livelihood. At the same time, our company shall deepen the "work-for-relief" assistance measures, hire poor households and poverty-stricken households to participate in industrial management and protection and infrastructure construction. Such action has achieved an increase of 4,000 yuan per capita labor income in 2022.



Figure: Assisting bee breeding



Figure: Yaoqian Village Cultural Activity Center built by Jiangxi Copper

## Charity and public welfare

Our company actively fulfills social responsibilities and fully demonstrates the role of state-owned enterprises in social welfare activities. Over the years, our company has actively participated in projects such as poverty alleviation, emergency rescue and disaster relief, and education donations. In 2022, under the leadership of the controlling shareholder Jiangxi Copper Group, our company visited 480 employees and their families and invested more than 2.9 million yuan in various subsidies. Our company also participated in the "One-Day Donation" activity and raised more than 1.67 million yuan. Our company was awarded the "Special Contribution Award of the 16th Jiangxi Provincial Games", which fully demonstrated the ambition of the enterprise and employees to help each other and overcome difficulties.



Figure: Dexing Copper Mine conducts volunteer community activities



Figure: Wushan Copper Mine Youth Volunteer Service Team



Figure: Guixi Smelter volunteers caring for the elderly in the community



Figure: Yinshan Mining carries out volunteer service for tree planting

## Appendix I: Annual ESG Performance Overview

### Economic performance

#### Financial indicators

Indicators	Unit	2022 Data	2021 Data	2020 Data
Operating income	100,000,000 yuan	4,799.38	4,427.68	3,185.63
Total profit	100,000,000 yuan	74.92	73.01	33.36
Net profit attributable to parent	100,000,000 yuan	59.94	56.36	23.20
Total assets at the end of the period	100,000,000 yuan	1,673.31	1,610.35	1,408.82
Total amount of dividends	100,000,000 yuan	17.31	17.31	3.46

#### Business indicators

Products	Unit	2022 Data	2021 Data	2020 Data
Cathode copper	10,000 tons	183.94	178.22	164.07
Gold	Ton	88.80	71.66	78.59
Silver	Ton	1,232.72	1,123.71	1,126.39
Sulfuric acid	10,000 tons	541.64	530.11	511.83
Copper processing products	10,000 tons	176.74	165.17	147.13
Copper in self-produced copper concentrate	10,000 tons	20.44	20.23	20.86

#### Scientific and technological innovation

Indicators	Unit	2022 Data
Number of patents	Piece	1,163
Including: number of invention patents	Piece	125
Number of newly authorized patents	Piece	181
Including: Number of newly authorized invention patents	Piece	27
Investment in scientific and technological research and development	10,000 yuan	50.83

### Information of suppliers

Indicators	2022 Data	
	Quantity (number)	Proportion (%)
Number of suppliers in Jiangxi Province	344	27.72%
Number of suppliers from other provinces	878	70.75%
Number of suppliers from Hong Kong, Macao and Taiwan	3	0.24%
Number of overseas suppliers	16	1.29%
Total	1,241	100%

### Management performance

Indicators	Unit	2022 Data
<b>Board of Directors</b>		
Total number of people	Person	11
Internal Executive Director	Person	5
External Directors	Person	2
Independent Non-executive Director	Person	4
Proportion of independent non-executive director	Person	0
<b>Meetings of the Board of Directors, the Board of Supervisors and the General Meeting of Shareholders</b>		
Total number of times	Session	24
Number of the Meeting of the Board of Directors	Session	13
Number of the Meeting of the Board of Supervisors	Session	8
Number of the General Meeting of Shareholders	Session	3
<b>Announcement of our company</b>		
Periodic announcement	Copy	4
Interim announcement	Copy	199
Regulatory announcement	Copy	0
Number of investor exchange activities conducted	Round	35
Number of internal and external training sessions on corporate governance	Round	18
Total number of stakeholder complaints and reports	Round	0

## Environmental performance

### Environmental performance

Indicators	Unit	2022 Data	2021 Data	2020 Data
Total investment in environmental protection	100,000,000 yuan	12.20	7.86	3.29
Total investment in ecological restoration	100,000,000 yuan	3.20	2.86	0.94
Total area of ecological restoration	Hectares	272.00	234.68	59.19

### Greenhouse gas emissions

Indicators	Unit	2022 Data	2021 Data	2020 Data
Greenhouse gas emissions (Scope I)	10,000 tons of CO <sub>2</sub> equivalent	27.22	28.81	28.23
Greenhouse gas emissions (Scope II)	10,000 tons of CO <sub>2</sub> equivalent	185.04	188.16	192.20
Total greenhouse gas emissions	10,000 tons of CO <sub>2</sub> equivalent	212.26	216.97	220.43
Greenhouse gas emission density	10,000 tons of CO <sub>2</sub> equivalent/100,000,000 yuan income	0.044	0.255	0.346

### Energy structure and consumption

Indicators	Unit	2022 Data	2021 Data	2020 Data
Comprehensive energy consumption	tce	583,156.11	582,964.68	589,282.27
Comprehensive energy consumption density	tce/10,000 yuan income	0.012	0.069	0.093

Indicators	Unit	2022 Data
Direct energy	Gasoline	tce
	Diesel	tce
	Natural gas	tce
	Other energy sources (heavy oil)	tce
Indirect energy	Purchased electricity	tce
	Purchased steam	tce

### Water resources and wastewater discharge

Indicators	Unit	2022 Data	2021 Data	2020 Data
Water resources	Total water consumption	10,000 tons	83,634.33	77,691.70
	Total water intensity	10,000 tons/100,000,000 10,000 yuan income	17.43	17.55
	Reuse rate of industrial water	%	94.90%	95.86%
Sewage and wastewater production	Total wastewater discharge	Ton	4,048.2	53,923,727.00
	COD	Ton	1,011.00	1,054.09
	Ammonia, Nitrogen	Ton	56.20	58.08
	Copper	Ton	1.53	1.02
	Zinc	Ton	1.68	2.61
	Lead	Ton	1.34	1.58
	Suspended solids discharge	Ton	561.58	262.34

### Atmospheric emissions

Indicators	Unit	2022 Data	2021 Data	2020 Data
Exhaust emissions	Sulfur dioxide	Ton	1,239.00	1,458.51
	Particulate matter	Ton	181.57	196.67

### Waste disposal

指标	单位	2022 年度数据	2021 年度数据	2020 年度数据
Production of tailings	10,000 tons	5,442.44	5,454.66	5,519.49
Overall utilization of tailings	10,000 tons	925.21	829.24	698.46
Other general waste	10,000 tons	7.20	7.00	8.06
Hazardous waste	10,000 tons	3.95	4.13	3.94

## Social performance

### Employment

Indicators		Unit	2022 Data
Number of employees	Total number of people	Person	25,051
	Gender	Male	21,224
		Female	3,827
	Age	30 and under	4,205
		Age 31-40	5,669
		Age 41-50	6,648
		Above 50	8,529
	Education	PhD	106
		Master	638
		Bachelor	4,701
		College	4,887
		Technical secondary school	1,582
		Vocational school	2,745
		High school	3,404
		Junior high and below	6,988
		Jiangxi	16,660
Regions	Beijing	Person	6
	Sichuan	Person	50
	Tianjin	Person	337
	Guangdong	Person	525
	Shanghai	Person	244
	Shandong	Person	7,182
	Hong Kong	Person	47
	Category	Management personnel	4,022
Category	Engineering and technical personnel	Person	3,138
	Production operator	Person	15,755
	Service operator	Person	1,710
	Off-duty personnel	Person	426
	Employment rate of local staff	%	66.50%
Proportion of female employees		%	15.28%
Proportion of employees with disabilities (disadvantaged employees)		%	0.97%
Proportion of ethnic minority employees		%	1.61%
Proportion of foreign employees		%	0.004%

### Employee turnover

Indicators		Unit	2022 Data
Employee turnover rate	总流失率	%	5.98%
	Gender	Male	4.73%
		Female	1.25%
	Age	20 and under	0.08%
		Age 21-30	0.93%
		Age 31-40	0.94%
		Age 41-50	0.81%
		Age 51-60	3.22%
	Education	PhD	0.02%
		Master	0.20%
		Bachelor	1.01%
		College	0.83%
		High school and under	3.91%
Regions	Jiangxi	%	5.39%
	Shandong	%	0.42%
	Sichuan	%	0.004%
	Shanghai	%	0.11%
	Tianjin	%	0.05%

### Employee's rights and interests

关键指标	单位	2022 年度数据
Signing rate of labor contract	%	100%
Social security coverage rate	%	100%
Occupational health examination rate of employees	%	100%
Basic salary of employees	100,000,000 yuan	7.27
Employee allowance	100,000,000 yuan	1.66

**Staff training**

Key Indicators	Unit	2022 Data
Total number of trainings	Round	56,553
Total number of trainees	Person	19,364
Total hours of training	Hour	1,438,566
Training hours per capita	Hour/person	74.29
Total investment in vocational training	10,000 yuan	1,632

**Production safety**

Indicators	Unit	2022 Data	2021 Data	2020 Data
Number of work-related deaths	Person	1	1	1
Work-related fatality rate	%	0.004%	0.004%	0.004%
1,000,000 man-hours accident rate	%	0.20%	0.22%	0.38%
Total investment in production safety	100,000,000 yuan	6.30	4.52	3.92

**Appendix II: Index Table**
**Environmental, Social and Governance Reporting Guide published by HKEX**

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<b>Mandatory Disclosure Requirements</b>																																														
<b>Governance Structure</b>	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	Sustainable development strategy P12 ESG governance P22 Sustainable risk management P26																																												
<b>Reporting Principles</b>	A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report: <b>Materiality:</b> The ESG report should disclose: (i) the process to identify and the criteria for the selection of material ESG factors; (ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement. <b>Quantitative:</b> Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed. <b>Consistency:</b> The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.	About the report																																												
<b>Reporting Boundary</b>	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About the report																																												
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	A3.1 KPI A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental management P29 Annual ESG performance overview P77																																												

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Aspect A4: Climate Change	<b>General Disclosure</b> Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Climate change P31	Aspect B5: Supply Chain Management	<b>General Disclosure</b> Policies on managing environmental and social risks of the supply chain.	
	A4.1 KPI A4.1 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Climate change P31 Annual ESG performance overview P77		B5.1 KPI B5.1 Number of suppliers by geographical region.	
B. Social				B5.2 KPI B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	
Aspect B1: Employment	<b>General Disclosure</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.	Guarantee of human rights P63 Employment in accordance with regulations P63 Annual ESG performance overview P77		B5.3 KPI B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	
	B1.1 KPI B1.1 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Annual ESG performance overview P77		B5.4 KPI B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	
Aspect B2: Health and Safety	<b>General Disclosure</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.	Health and safety P65	Aspect B6: Product Responsibility	<b>General Disclosure</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.	
	B2.1 KPI B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Health and safety P65 Annual ESG performance overview P77		B6.1 KPI B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	
	B2.2 KPI B2.2 Lost days due to work injury.			B6.2 KPI B6.2 Number of products and service related complaints received and how they are dealt with.	
Aspect B3: Development and Training	B2.3 KPI B2.3 Description of occupational health and safety measures adopted, and how they are implemented and monitored.			B6.3 KPI B6.3 Description of practices relating to observing and protecting intellectual property rights.	
	<b>General Disclosure</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.	Staff development P69		B6.4 KPI B6.4 Description of quality assurance process and recall procedures.	
	B3.1 KPI B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Staff development P69 Annual ESG performance overview P77		B6.5 KPI B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	
Aspect B4: Labour Standards	B3.2 KPI B3.2 The average training hours completed per employee by gender and employee category.		Aspect B7: Anti-corruption	<b>General Disclosure</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.	
	<b>General Disclosure</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 and forced labour.	Guarantee of human rights P63 Employment in accordance with regulations P63		B7.1 KPI B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	
	B4.1 KPI B4.1 Description of measures to review employment practices to avoid child and forced labour.	Guarantee of human rights P63 Employment in accordance with regulations P63 Annual ESG performance overview P77		B7.2 KPI B7.2 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	
	B4.2 KPI B4.2 Description of steps taken to eliminate such practices when discovered.			B7.3 KPI B7.3 Description of anti-corruption training provided to directors and staff.	
			Aspect B8: Community Investment	<b>General Disclosure</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.	
				B8.1 KPI B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	
				B8.2 KPI B8.2 Resources contributed (e.g. money or time) to the focus area.	

**Sustainable Development Reporting Standards 2021 published by Global Reporting Initiative**

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G305-7	(NO <sub>x</sub> )、(SO <sub>x</sub> ) Nitrogen oxides (NO <sub>x</sub> )，sulfur oxides (SO <sub>x</sub> )，and other significant air emissions	Climate change P31
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## Appendix III: Feedback Form

Thank you for reading the Jiangxi Copper Co., Ltd. Environmental, Social and Governance Report in 2022. In order to enhance communication and exchange with stakeholders and further improve our company's ability and level of social responsibility, we expect you to give us your valuable comments and suggestions by filling in the feedback form and choosing any of the following ways to send your comments back to us.

- Address: No. 7666 Changdong Avenue, High-Tech Development Zone, Nanchang, Jiangxi Province, People's Republic of China
- Tel: 0791-82710117
- Fax: 0791-82710114
- E-mail: jccl@jxcc.com

1. Which of the following stakeholders do you belong to:

Goverment    Regulators    Shareholders    Customers    Staff  
 Suppliers    Partners    Community    Environment    Others

2. Your location:

China Mainland    Hong Kong, Macau and Taiwan (China)    Overseas

3. Your overall assessment of this report:

Not good    Average    Good    Very good

4. Your assessment of our practices in environmental protection:

Not good    Average    Good    Very good

5. Your assessment of our practices in social responsibility:

Not good    Average    Good    Very good

6. Your assessment of our practices in corporate governance:

Not good    Average    Good    Very good

7. Do you consider the information disclosed in this report to be accurate:

No    General    Yes

8. Do you consider the information disclosed in this report to be complete:

No    General    Yes

9. Do you consider the content and layout of this report to be clear and easy to understand:

No    General    Yes

10. Do you think this report meets your reading needs:

No    General    Yes

11. Your other comments and suggestions for improving and enhancing our practices of the ESG development concept and this report:

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