

THINKING
ABOUT
TODAY WITH
FUTURE

Environmental, Social and Governance Report



江西铜业股份有限公司
Jiangxi Copper Company Limited

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ABOUT THIS REPORT

This report is the seventh 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 2023 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, 2023 to December 31, 2023, 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 Goals (SDGs), *Sustainable Development Reporting Standard (2021 edition)* published by Global Reporting Initiative (GRI), the *International Organization for Standardization Social Responsibility Guide (ISO 26000)*, *IFRS Sustainability Disclosure Standard* published by International Sustainability Standards Board (ISSB), *Indicator System for ESG Reporting of Listed Companies Held by Central Enterprises* published by State-owned Assets Supervision and Administration Commission of State Council (SASAC) 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).

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

2023 represents the first year to fully implement the guiding principles as laid out in the 20th CPC National Congress, and it is also the beginning year for Jiangxi Copper to fully implement the Three-Year Action for Further Improvement for high-quality development. In the face of shocks and challenges such as the slowdown in global economic growth and the complex and volatile external environment, we unswervingly moved forward in the direction pointed out by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and fully and faithfully applied the new development philosophy on all fronts. As a result, our production and operation performance has been improving amid stability and turning for the better based on such improvements, and various full-year goals and tasks have been completed efficiently to high standards.

Over the past year, we stayed committed to the core idea of thinking about today from the perspective of the future and stuck to the development guideline of copper-based development focus, transformation and upgrading, diversification, dual-circulation and mutual promotion, continued to consolidate the business foundation, and promoted coordinated development of our major business segments and accelerated the construction of a modern industrial system. We have efficiently promoted the construction of domestic and foreign projects such as Wushan Copper Mine Phase III project and Kazakhstan tungsten mine, and improved the scale and efficiency of smelting. We insisted on benchmarking against the highest standards, focusing on offering what is the best, and anchoring what is the optimal, thus having been listed among global top players in terms of multiple mine-related indicators, consolidated our position as the No.1 player in the world in terms of multiple technical and economic indicators related to smelting, and listed among domestic top players in terms of yield of copper processed products. In addition, the output of major products has outstripped the set target.

Over the past year, we have implemented Xi Jinping's Thought on Ecological Civilization, adhered to the development philosophy that lucid waters and lush mountains are invaluable assets, coordinated efforts to reduce carbon emissions, reduce pollution, expand green areas, and grow, and continued to fight for the defense of blue skies, clear waters, and pure land and build a solid ecological security shield. We continue to cultivate new areas for growth of green economy, open up new arena for environmental protection technologies, and made major breakthroughs in tailings recycling, comprehensive utilization of solid wastes, and ecological restoration of mines. By implementing the carbon peaking and carbon neutrality strategy, we systematically promoted energy conservation and carbon reduction management, extensively carried out system waste heat recovery and transformation, actively consumed green electricity, and made the industry greener.

Over the past year, we upheld the concept of fulfilling social responsibilities and practicing putting people first, regarded serving the society and people's livelihood as an internal driver for our development, and made ourselves more service-oriented and responsibility-oriented. Oriented towards high growth, strong incentives, we reshaped the development and training mechanism for our employees, and further stimulated their vitality and competitiveness while creating a safe and healthy working environment and a fair and just career development space for them. We actively participate in the construction of the One Belt and One Road initiative. While attaining to new heights in expanding our exchanges and cooperation, we also paid close attention to community assistance in domestic and overseas markets. We integrated caring for people's livelihood and well-being into the protection of vulnerable groups, support for community services, and tolerance of cultural differences and multiple other aspects to promote the joint development and common prosperity of the communities and the society.

Over the past year, we actively seized new opportunities arising out of national strategies, accelerated technological self-reliance and digital transformation, continued to increase R&D investments, put into place national key laboratories, and continuously improved the innovation system. Focusing on the No. 1 Project on Development of the Digital Economy, we accelerated the creation of a provincial platform to empower the digital transformation of the Jiangxi's copper industry, steadily advanced the construction of smart mines and smart factories, and enabled transformation and upgrading of the industry with digital intelligence. We continued to upgrade science and technology innovation consortium of the copper industry, deepened substantive cooperation with universities and institutes, introduce high-level talents from around the world, and promoted the high-quality development of the copper industry chain in Jiangxi Province with our efforts. We focused on our main businesses, main processes, main technologies, and main products to collaboratively strive to make technological breakthroughs, broke production bottlenecks, and overcame key and common technical problems in the industry. As a result, new technologies and new material research and development achievements continued to emerge, and our core competitiveness has been increasingly deepened.

2024 marks the 75th anniversary of the founding of New China and the 45th anniversary of the founding of Jiangxi Copper. On the new historical juncture, we will always stay committed to the Party's overall leadership, firmly keep to the strategic orientation of New development stage, new development concept, new development pattern and high-quality development, work hard diligently and unremittingly with the enterprising spirit of the strugglers in the new era to promote effective improvement in quality and proper growth in quantity in terms of the development of Jiangxi Copper and make fresh and greater contributions to striving to write a Jiangxi chapter of the Chinese path to modernization.

Jiangxi Copper Co., Ltd.
Chairman of the Board

— Zheng Gaoqing

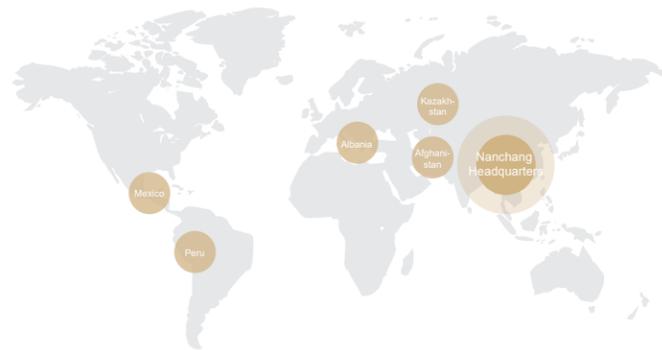
About Jiangxi Copper

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., five operating smelters¹, five fully-owned operating mines² and ten modern copper processing plants³. With the mission of pursuing the harmonious coexistence of man and nature, our company has established an environmental protection control system covering the whole process of the copper industry chain, realised high efficiency and energy saving in production, and actively promoted the combination of greenness and intelligence to create intelligent mines and intelligent smelting. In 2023, our company ranked 29th in the "Fortune China 500".

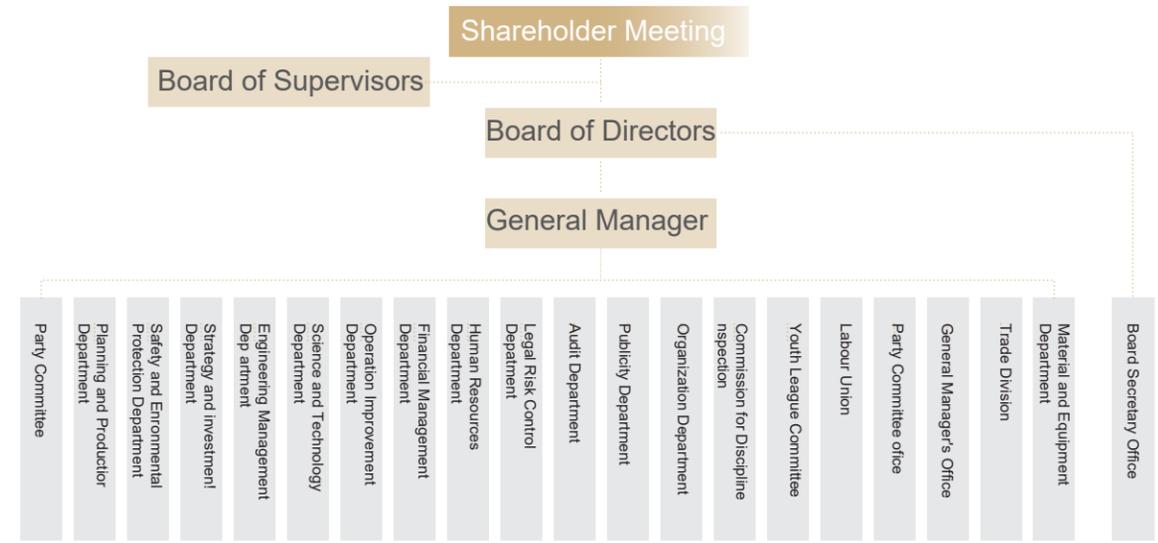
As the largest comprehensive copper production enterprise in China, our company has been engaged in various business covering mining, smelting and processing of copper and gold; extraction and processing of dissipated metal; sulfide industry, trade and other fields. Our company has a complete industrial 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.



¹Guixi Smelter, Jiangxi Copper (Qingyuan) Co., Ltd., Jiangxi Copper Hongyuan Copper Co., Ltd., Zhejiang Jiangxi Copper Fuyue Heding Copper Co., Ltd. and Jiangxi Copper Guoxing (Yantai) Copper Co., Ltd. Guixi Smelter is the largest and technologically leading crude and refined copper smelter in China.
²Diesing Copper Mine (including Copper Plant Mine, Fujiaowo Mine, Zhushahong Mine), Yongping Copper Mine, Chengmenshan Copper Mine (including Jinjiwo Silver-Copper Mine), Wushan Copper Mine and Yinshan Mining Company.
³Jiangxi 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., Jiangxi Copper East China Copper Co., Ltd., Jiangxi Copper East China Electric New Material Technology Co., Ltd. and TJDFW Copper Industry 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", 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.

Company mission	Integrate global resources to create high-quality life	Company vision	Become a widely respected world-class enterprise with global core competitiveness
Core idea	Think about today with the future	Core values	Responsibility, focus, innovation, inclusiveness and pragmatism

Annual Honor

Company and Subordinate Units Level	
Award-winning Units	Award
JiangxiCopper	2023 Annual List of Chinese Listed Companies in Terms of Brand Value
	Ranked 29th among the top 500 Chinese listed companies in China by Fortune Magazine
	Most Caring Donation Enterprise Award out of the Third Jiangxi Province Ganpo Charity Award
GuixiSmelter	2022 Annual List of Energy Efficiency Forerunner in Key Energy-Consuming Industries (Copper Smelting Industry)
	The only company in Jiangxi Province included in the 2023 (Second) Annual List of Top 100 Benchmark Smart Factories in China

Project and Technical Level	
Project/Technology Name	Award
Exploration on Energy Conservation of Large-scale Fans for Acid Production with Flue Gas A Method of Reducing Gold From Low Gold-Content High-Impurity Solutions by Guixi Smelter	Third Prize for National Mechanical, Metallurgical and Building Materials Industry Employee Technological Innovation Achievement Award
Online Detection and Intelligent Control of PH of Nonferrous Metal Flotation Pulp by Chengmenshan Copper Mine	
Patent for Invention of Guixi Smelter-A Process for Producing Platinum and Palladium Products Using Platinum and Palladium Concentrate as the Raw Material	The 5th Jiangxi Province Patent Transformation and Application Award
R&D and Industrial Application of Complete Key Technologies for Manufacturing high-strength and Low-Profile Electronic Copper Foil for 5G by Jiangxi JCC Copper Foil Technology Co., Ltd.	First Prize of Jiangxi Provincial Science and Technology Progress Award for 2022
Disaster-Causing Mechanism of Large-scale Loose Accumulation Body in Mines and Multi-source Information Intelligent Collaborative Early Warning Control Technology by Dexing Copper Mine and Yongping Copper Mine	Second Prize of Jiangxi Provincial Science and Technology Progress Award for 2022
Key Technologies for Green and Efficient Utilization of High Concentration Arsenic Complex Gold Concentrates by Shandong Humon Smelting Co., Ltd.	Selected as one of the Excellent Practice Cases on Green and Low-Carbon Development of Enterprises for 2022
Accurate Prediction and Reinforcement Control Technology and Application for Rainfall-induced Mine Landslides by Dexing Copper Mine	Second Prize of China Nonferrous Metal Industry for Science and Technology

Project and Technical Level	
Project/Technology Name	Award
Copper Smelting Material Flow Collaborative Optimization and Intelligent Monitoring Key Technologies and Applications of Jiangxi Copper	First Prize of Jiangxi Provincial Science and Technology Progress Award for 2022
Key Technologies and Applications for Natural Recovery of Heavy Metal Contaminated Soil and Enhanced Collaborative Carbon Sequestration and Emission Reduction of Jiangxi Jiangtong Environmental Resources Technology Co., Ltd.	First Prize for China Industry-University-Research Innovation Achievements for 2022
Key Technologies and Applications for Soil Heavy Metal Pollution Control and Collaborative Carbon Sequestration and Emission Reduction of Jiangxi JCC Environmental Resources Technology Co., Ltd.	China's Top Ten Scientific and Technological Developments in Ecological Environment for 2022
Building a High-Quality Operation Mode of Grassroots Party Building with Characteristics of State-Owned Enterprises by Guixi Smelter	First Prize of the 23rd Jiangxi Province Enterprise Management Modernization Innovation Achievement Award
Achieve Four-Networks-All-in-One thoroughly Horizontally and Vertically Stretched Cost Management and Control Operation for Integrated Finance and Cost Management and Control by Shandong Humon Smelting Co., Ltd.	
Objective Enhancement Management with Building Copper Mines with Benchmark Wells as An Example by Wushan Copper Mine	Second Prize of the 23rd Jiangxi Province Enterprise Management Modernization Innovation Achievement Award
Management with the Goal of Improving the Efficiency of Micro Governance at the Grassroots Level of Mining Enterprises by Wushan Copper Mine	
Shell Liner of Large-Scale Semi-Autogenous Grinding Mill and Casting Method by Dexing Copper Mine	First Prize for National Mechanical, Metallurgical and Building Materials Industry Employee Technological Innovation Achievements
Development of Extra Large Caliber Ultra-High Molecular Weight Polyethylene Pipe By Rapid Topping Method by Dexing Copper Mine	Second Prize for National Mechanical, Metallurgical and Building Materials Industry Employee Technological Innovation Achievement Award
Research and Development of High-Performance Ultra-Fine Grain Bronze Tape by Copper Strip Company	

Annual Key Performance

Environmental Performance

Total investment in environmental protection 545 million RMB	Total area of ecological restoration 101.01 Hectares	Total greenhouse gas emissions 2.2877 million tons of CO2 equivalent
Greenhouse gas emission density 0.044 tCO2/10,000 RMB operating income	Comprehensive energy consumption 569,852.92 tce	Comprehensive energy consumption density 0.011 tce/10,000 RMB operating income
Reuse rate of industrial water 95.77%	Wastewater treatment capacity 374.7333 million tons	Tailings recycling rate 33.08%

Social Performance

Total number of employees 26,066 Person	Employment rate of local staff 67.79%	Proportion of female employees 15.07%
Signing rate of labor contract 100%	Social security coverage rate 100%	Occupational health examination rate of employees 100%

Training hours per capita 80.91 Hour/person	Difficulty employee benefits 224.800 RMB	Poverty alleviation funds (rural revitalisation assistance) inputs 5.91 million RMB
Pro-poor product procurement 4.8825 million RMB	Charitable donations 1.70 million RMB	Work-related deaths rate 0%

Governance Performance

Operating income 521.893 billion RMB	Total profits 8.380 billion RMB	Total assets at the end of the period 168.151 billion RMB
Proportion of independent non-executive director 40%	Investment in scientific and technological research and development 5.442 billion RMB	Percentage of procurement expenditure by domestic suppliers 95.78%
Localisation substitution rate 94.00%		

D1

Seeking Collaborative Development and Building a Sustainable Development System

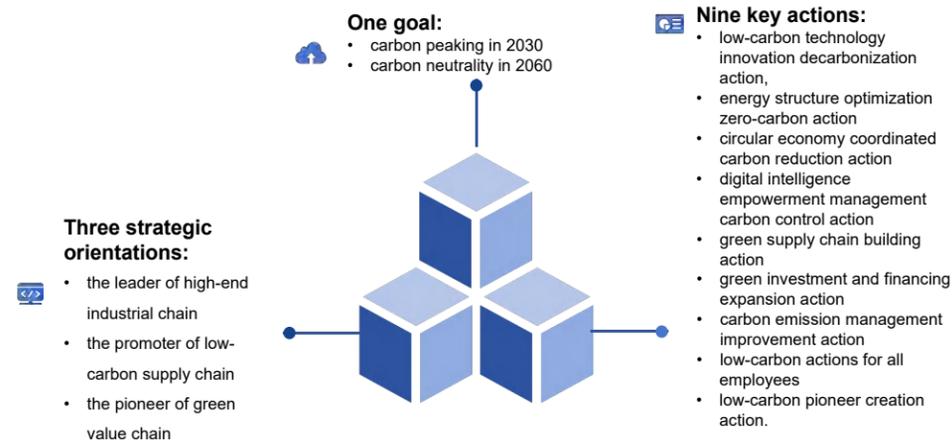
We actively responded to the United Nations Sustainable Development Goals (SDGs) and the decisions and arrangements of the CPC Central Committee and the State Council on carbon peaking and carbon neutrality. Based on the new development stage, we fully and faithfully applied the new development philosophy on all fronts and built a new development pattern, incorporated carbon peaking and carbon neutrality into our overall development, fulfilled social responsibilities, and demonstrated corporate responsibilities. We were more closely following the guidance of the strategic planning for the 14th Five-Year Plan and practiced the concept of sustainable development, aiming to achieve coordinated development of ecological environmental protection and economic construction.

- ✔ Sustainable Development Strategy
- ✔ Response to SDGs
- ✔ ESG Governance
- ✔ Communication with Stakeholders
- ✔ Analysis of Material Issues



Sustainable Development Strategy

We followed the *Strategic Planning for Carbon Peaking and Carbon Neutrality of Jiangxi Copper Group* formulated by our controlling shareholder Jiangxi Copper Group, adhered to the four basic principles of conservation first, innovation-driven, coordinated development, and safe carbon reduction and further promoted clean, low-carbon and green transformation with production and operation, energy structure, product supply as the core. By accelerating the transformation of mindsets, production mode, energy structure, and industrial structure in an all-round way, we continued to improve the efficiency of energy and resource utilization, explored new paths to energy conservation and carbon reduction for non-ferrous metal enterprises, and accelerated the construction of global-leading green and intelligent industrial chain, supply chain, and value chain to provide sustainable and strong strategic support for accelerating the creation of a world first-class enterprise with global core competitiveness.



Response to SDGs

Dimensions	Response to SDGs	Company Strategy and Goals
Environmental		<ul style="list-style-type: none"> 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. By 2025, all mines and factories will meet the construction standards of national green mines and green factories, and more than two national mine parks will be established. 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 90%. Accelerate zero-carbon energy substitution actions,

Response to SDGs

Dimensions	Response to SDGs	Company Strategy and Goals
Environmental		<p>fully realize green and low-carbon circular development, and reach international leading levels in energy utilization efficiency and carbon emission intensity before 2060.</p> <ul style="list-style-type: none"> The coverage rate of plants in the area of the ecological restoration project (excluding the hardened area) will reach 90% or above, the plant diversity will exceed seven or more species, and the maximum bare area of a single block will be less than 3 square meters.
Social		<ul style="list-style-type: none"> 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. The labor contract signing rate, social insurance coverage rate and employee occupational health examination rate are kept at 100%. The overall complaint resolution rate of the product is kept at 100%. Respect employees' religious beliefs, cultural background, gender, ethnicity, nationality, etc., treat overseas workers equally, and resist all forms of forced and compulsory labor. 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. Pay attention to the development of the community where the project is located, and actively carry out communication with stakeholders.
Governance		<ul style="list-style-type: none"> Continue to improve the ESG governance structure, increase ESG information disclosure, and improve ESG governance capabilities. Include ESG factors as an important part of risk management and internal control. Maintain an annual growth rate of 15% in R&D investment. Make efforts to promote the integrated development of the digital economy and the real economy, and accelerate the construction of "Digital Jiangxi Copper".

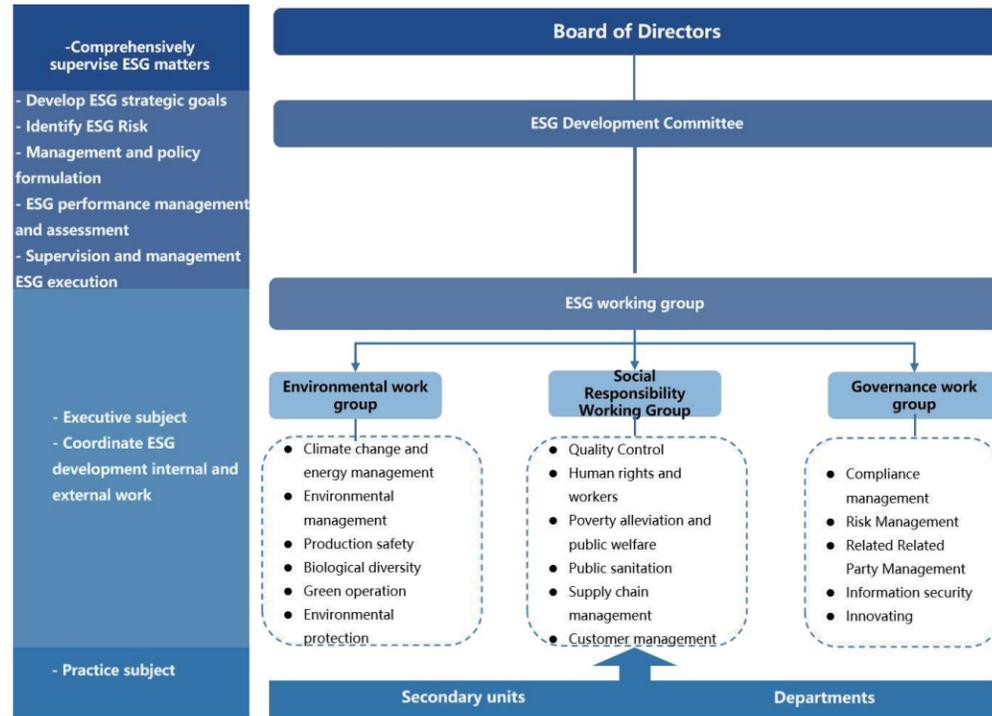
ESG Governance

ESG Governance Structure

We formulated the *Working Rules of the ESG Development Committee under the Board of Directors of Jiangxi Copper Co., Ltd.* As the supreme body responsible for the ESG work, the Board of Directors exercises overall supervises over ESG-related matters, actively leads and advances the capacity building on ESG, thereby promoting our overall value enhancement and sustainable development.

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.

In 2023, our company organized the second 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 2022* was reviewed and approved, and submitted to the 19th meeting of the ninth Board of Directors for deliberation.



ESG Governance Structure Diagram

ESG Risk Management

We have incorporated ESG factors into the risk management mechanism and process. Based on the construction of an integrated risk control system, we have clarified the risk control responsibilities of the three lines of defense. Specifically, the specific risk control responsibilities for ESG factors are assumed by corresponding functional departments and the relevant responsibilities are further detailed in our *Internal Control Manual*.

- **Environmental:** Environmental protection, energy conservation and emission reduction, incorporating environmental protection into risk control activities.
- **Social:** Promoting employment and protecting employees' rights and interests, and board of directors protecting employees' rights and interests and paying attention to undertaking social responsibilities and obligations into risk control activities.
- **Governance:** Including financial report management, capital flow management, research and development management, production inventory management and other production and operation activities as risk control matters.

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 Response Mechanism

Stakeholder	Demands and Expectations	How to Communicate and Respond	
Internal Interested Parties	Board of Directors / Board of Supervisors / Senior Management Members	Strategic Response Modern Corporate Governance Risk and Compliance Management Brand and Image Management	<ul style="list-style-type: none"> Actively respond to national strategies such as carbon peaking and carbon neutrality, high-quality development, green transformation, digital transformation, and rural revitalization; Develop a complete top-level design and management system to continuously promote corporate reform; Regularly hold formal or extraordinary meetings of the Board of Directors, Board of Supervisors, etc.; Establish and improve the risk control and internal control system; Public opinions monitoring and public responses;
	Employee	Equal Employment Rights and Interests Guarantee and Remuneration and Performance Occupational Safety and Health Training and Promotion Communication Mechanisms and Channels	<ul style="list-style-type: none"> Fair and complete employee management system and system construction; Carry out safety patrols from time to time to ensure the production and work safety of employees; Carry out physical examinations for employees, pay visits to and offer assistance to them to strengthen employee care; Complete employee training and promotion mechanism; Organize and carry out diversified training programs and activities such as cultural and sports activities, skills training, ideological and political training for employees; Convene meetings of the workers' congress and improve the construction of the trade union and the communication mechanism;
External Interested Parties	Clients ^a	Product Quality and Safety Communication Mechanisms and Channels	<ul style="list-style-type: none"> Establish a complete product quality management mechanism and after-sales management mechanism; Conduct regular client satisfaction surveys; Strengthen client relationship management and maintenance, establish complaint communication channels, and maintain regular communication;
	External Investors/ Shareholders	Information Disclosure Modern Corporate Governance Investor Relations Management Risk and Compliance Management Performance Growth	<ul style="list-style-type: none"> High-quality, transparent information disclosure (annual report, ESG report, etc.); Develop a complete top-level design and management system to continuously promote corporate reform; Regularly hold performance briefings and general meeting of stockholders; Establish and improve the risk control and internal control system; Establish a smooth, complete and multi-channel investor communication mechanism; Information disclosure on official websites, official WeChat account and other platforms;

^aRefers to the downstream clients who purchase products of us.

Stakeholder	Demands and Expectations	How to Communicate and Respond
External Interested Parties	Industry Association	<ul style="list-style-type: none"> Actively organize/participate in industry summits, exchanges and seminars, etc.; Participate in the formulation of national/local/industry related standards; Carry out industry-university-research-application project cooperation and strengthen inter-industry cooperation and industrial chain assistance; Pay close attention to industry transformation and green development, and promote energy conservation, emission reduction and pollution and waste management; Strengthen technology research and development and innovation, and promote digitization and intellectualization; Actively respond to national strategies such as carbon peaking and carbon neutrality, high-quality development, green transformation, digital transformation, and rural revitalization;
	Partner ^s	<ul style="list-style-type: none"> Build a complete supplier screening, admission, review, and exit mechanism to strengthen supply chain management; Carry out cooperation and exchanges with suppliers and launch relevant training programs; Actively organize/participate in industry summits, exchanges and seminars, etc.; Carry out industry-university-research-application project cooperation and strengthen inter-industry cooperation and industrial chain assistance; Pay close attention to industry transformation and green development, and promote energy conservation, emission reduction and pollution and waste management; Strengthen technology research and development and innovation, and promote digitization and intellectualization; Develop a complete top-level design and management system to continuously promote corporate reform; High-quality, transparent information disclosure (annual report, ESG report, etc.); Information disclosure on official websites, official WeChat account and other platforms;
	Public Service Organizations, Community Organizations	<ul style="list-style-type: none"> Pay close attention to the maintenance of relationships with communities around domestic and overseas projects/constructions, maintain communication and exchanges, and actively participate in the development of the communities' social and economic environment; Assist rural revitalization through multiple channels such as industrial project assistance, cash donations, consumption assistance, technical and educational support, infrastructure construction, and living environment improvement; Pay close attention to vulnerable groups and public welfare and charity, organize various social activities including volunteer activities, and stay engaged with the communities and grassroots; Pay close attention to industry transformation and green development, and promote energy conservation, emission reduction and pollution and waste management; Establish a complete product quality management mechanism and after-sales management mechanism; High-quality, transparent information disclosure (annual report, ESG report, etc.); Information disclosure on official websites, official WeChat account and other platforms; Organize and carry out various environmental protection publicity and education themed activities and mine lot opening days;

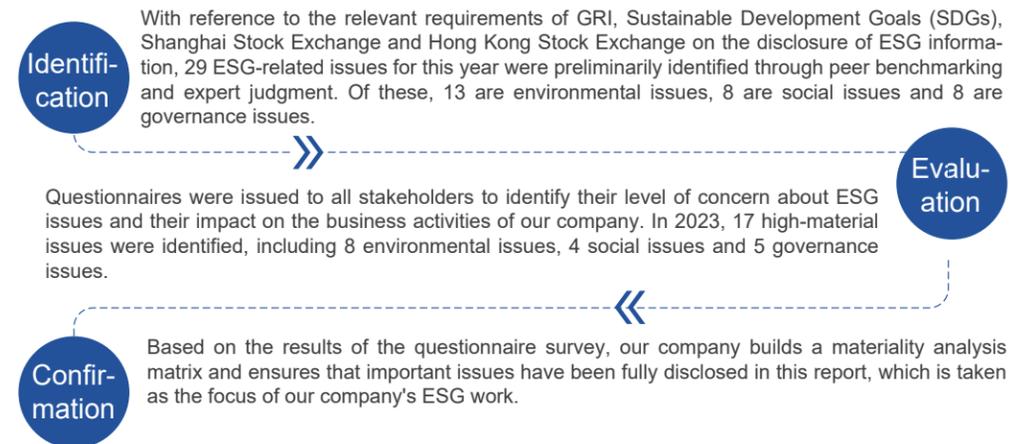
^sRefers to the interested parties who have signed strategic cooperation agreements with us, upstream suppliers whose products are purchased by us, third-party service consulting institutions, universities and scientific research institutions, etc.

Stakeholder	Demands and Expectations	How to Communicate and Respond
External Interested Parties	Media	<ul style="list-style-type: none"> Actively organize/participate in industry summits, exchanges and seminars, etc.; Pay close attention to industry transformation and green development, and promote energy conservation, emission reduction and pollution and waste management; High-quality, transparent information disclosure (annual report, ESG report, etc.); Information disclosure on official websites, official WeChat account and other platforms; Organize and carry out various environmental protection publicity and education themed activities; Public opinions monitoring and public responses;
	Government and regulatory authorities	<ul style="list-style-type: none"> Actively respond to national strategies such as carbon peaking and carbon neutrality, high-quality development, green transformation, digital transformation, and rural revitalization; Develop a complete top-level design and management system to continuously promote corporate reform; Establish and improve the risk control and internal control system; Pay close attention to industry transformation and green development, and promote energy conservation, emission reduction and pollution and waste management; High-quality, transparent information disclosure (annual report, ESG report, etc.); Information disclosure on official websites, official WeChat account and other platforms;

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:



After identification, our company's materiality analysis matrix for 2023 is shown as follows:



High Material Issues

- 1 Tailing Management
- 2 Modern Corporate Governance
- 3 Information Disclosure and Transparency
- 4 Business Ethics and Fair Competition
- 5 Energy Management
- 6 Investor Relations Management
- 7 Pollutants and Wastes Disposal
- 8 Respect to Human Rights and Equal Employment
- 9 Green Production and Green Mines
- 10 Product Quality and Safety
- 11 Air Quality Management
- 12 Ecological Restoration /Reclamation
- 13 Occupational Safety and Health
- 14 Employee Treatment and Training
- 15 Internal Control Compliance And Risk Management
- 16 Water Resources Management
- 17 Environmental Management System

Medium Material Issues

- 18 Climate Change and Greenhouse Gas Emissions
- 19 Biodiversity Protection
- 20 Supply Chain Management
- 21 Sustainable Strategy System
- 24 Client Relations and Satisfaction
- 22 Green Packaging and Supply Chain
- 23 Intellectual Property Rights Protection
- 29 Community Relations and Development
- 25 Technological Innovation and Digital Transformation

Low Material Issues

- 26 Public Charity and Rural Revitalization
- 27 Green Campaign
- 28 Green Office

02

Prioritize Green Development and Jointly Draw a Blueprint for Ecological Governance

Jiangxi Copper implemented new requirements for green development, expanded new patterns of green development, and fostered new advantages in green development, injected fresh momentum for green development into building a world-class enterprise with global core competitiveness and worked hard on multiple areas such as environmental management, climate change and greenhouse gas emission, energy management, green production, pollution prevention and control, resource utilization, ecological restoration, green procurement to promote the comprehensive green transformation and upgrading of the non-ferrous metals industry chain, supply chain, innovation chain and value chain.

- ✔ **Environmental Management System**
- ✔ **Response to Climate Change**
- ✔ **Energy Resource Management**
- ✔ **Pollution Prevention and Control**
- ✔ **Tailings Management**
- ✔ **Ecological Reclamation and Biodiversity**
- ✔ **Green Operation**



Environmental Management System

Environmental Protection Mechanism

In order to achieve the strategic goal of continuing to lead the development of China's copper industry and initially building a world-class enterprise with global core competitiveness, we have put into place a framework-based special guaran-tee mechanism for green production safety and low-carbon environmental protection guarantee in accordance with the Three-Year Scheme for Further Improvement Regarding High-Quality Development.

In terms of management system construction, we proposed to aim to improve the quality of the ecological environment and promote green development, prioritize institutional innovation, institutional supply, and pattern exploration to strengthen the promotion and operation of the management system featuring integration of three standards. In terms of business development and innovation, we proposed to develop comprehensive services such as wastewater prevention and control, waste gas prevention and control, comprehensive utilization of solid wastes, and ecological restoration of mines, vigorously build green mines and green factories, and create green design demonstrations for industrial products.

In terms of energy conservation and carbon reduction, we proposed to continue to carry out actions such as industrial carbon reduction, energy carbon reduction, technological decarbonization, institutional carbon control, ecological carbon sequestration, and low-carbon life style, benchmark against internationally advanced players in terms of comprehensive energy consumption for RMB 10,000 of output value and carbon emission intensity, promote the research and development and application of green and low-carbon technologies, and form a green and low-carbon development pattern.

Environmental Management System

We strictly abode by the *Environmental Protection Law of the People's Republic of China* and the national guidelines and policies on ecological and environmental protection, actively carried out ecological and environmental management based on the principle of putting protection first, prioritizing prevention, and pursuing comprehensive management and established and improved the environmental management system.

As of the end of 2023, we had obtained the qualification of ISO14001 Environmental Management System Certification.

2023

Total investment in ecological and environmental protection

545 million RMB



Environmental Management System Certification Status

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, continuously strengthen the supervision and management of environmental protection work.

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, is responsible for the supervision and management of the whole process of ecological environmental protection work of all production and operation units under its supervision. The subordinate production and operation units are responsible for the comprehensive and integrated management of the ecological environmental protection work of the unit in order to guarantee the legal compliance of the environment.

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 project construction

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.

In terms of management system

Environmental Monitoring and Inspection

In terms of environmental monitoring, we formulated a monitoring plan suitable for each production and operating unit in accordance with relevant requirements such as the *Measures for the Self-Monitoring and Information Disclosure by the Enterprises subject to Intensive Monitoring and Control of the State and Technical Guidelines for Self-monitoring of Pollutant Discharge Units* to strictly implement the pollutant online monitoring and management system and upload monitoring data to the supervision platform by adopting a combination of measures such as installing online monitoring devices and setting up environmental monitoring stations in mines, smelters and other key environmental monitoring units.

In terms of environmental inspections, we have always adhered to the principle of “treating both the symptoms and root causes, exercising thorough treatment, and eradicating future troubles”, and carried out regular environmental supervision and inspections within we. By establishing and improving the ledger for identifying, treating and rectifying potential hazards in environmental protection, we implemented closed-loop management for rectifying potential hazards, so as to ensure legal compliance throughout the entire production life cycle. In 2023, our production and operation units have carried out more than 100 environmental inspections of various types, and found more than 300 problems, all of which were rectified on time and in full, with a rectification completion rate of 100%.

2023

the online monitoring data compliance rate of all production and operation units reached

100%

rectification completion rate

100%



Subordinate Production Units Organize Environmental Inspections

Environmental Risk Emergency Response

In terms of environmental risk identification, we sorted out the important environmental factors and major hazard sources put under corporate control, strictly monitored and controlled potential environmental risks, and took effective measures to actively respond to them. At the same time, we conducted risk rating and prediction of the scope of influence and consequences of possible environmental events for each of our subordinate production and operating units, and stayed well prepared to respond to them based on their grading and classification.

In terms of environmental emergency management, in accordance with the *Emergency Management Measures for Environmental Emergencies*, each of our subordinate production and operating units prepared and filed environmental pollution emergency plans, formulated and improved sophisticated response mechanisms for sudden environmental incidents, and established an emergency rescue system for environmental incidents to protect personnel, environment, and property safety to the greatest extent, and reduce the impact of environmental accidents as much as possible. In 2023, we regularly organized and carried out more than 60 environmental emergency drills.

Environmental Performance Appraisal

In terms of performance appraisal, we followed the *Measures for the Assessment of Rewards and Punishments for Ecological Environmental Protection* issued by the controlling shareholder Jiangxi Copper Group, adopted a mechanism to link the performance of environmental protection duties with performance appraisal of relevant persons in charge, conducted ecological and environmental protection assessment through a combination of self-assessment and appraisal, and exercised corresponding rewards and punishments. We formulated clear-cut indicators for assessing environmental protection objectives, and included emissions qualification rate, detection-based up-to-standard rate, resource recycling, responsible pollution accidents, etc. into performance assessment to encourage various departments and subordinate production and operation units to implement environmental protection responsibilities.

Response to Climate Change

Carbon Emissions Management

Focusing on the 139 dual-carbon strategy, we effectively promoted emission reduction work of units at all levels by optimizing energy structure, promoting circular economy and green production, innovating low-carbon technologies, advancing ecological reclamation, and strengthening carbon emission management. In 2023, in order to further improve energy conservation and carbon reduction management, we formulated the *Measures for Implementation of Energy Conservation and Carbon Reduction Assessment in 2023* based on the production and operation goals and the energy conservation goals for the 14th Five-Year Plan period, formulated assessment indicators from the dimensions of total energy consumption, energy consumption intensity, energy utilization efficiency, the development of energy-conservation technological transformation projects and the implementation of energy efficiency improvement actions, to further mobilize the enthusiasm of energy and dual-carbon management work and continue to deepen the energy conservation and carbon reduction work. In 2023, our total greenhouse gas emissions reached 2.2877 million tons of carbon dioxide equivalent, a year-on-year decrease of 1.18%; of which the Scope I emissions were 263,100 tons of carbon dioxide equivalent, and Scope II emissions were 2.0246 million tons of carbon dioxide equivalent; the greenhouse gas emission intensity was 440 tons of carbon dioxide equivalent/RMB 100 million operating income.

In addition, we also actively participated in the researches and construction of carbon emission systems. In June 2023, our controlling shareholder Jiangxi Copper Group and the Energy Research Institute under the Jiangxi Academy of Sciences signed the Cooperation Agreement on Key Projects under the Key R&D Plan in the Social Development Field in 2023, based on which we were deeply involved in carbon footprint accounting of copper-based products and the research topic on carbon reduction potential of the entire industry chain. At the same time, we actively participated in the Strategic Research on Raw Materials Industrial Carbon Footprint and Evaluation System by academicians Weng Yuqing and Tu Hailing, and carried out research on the entire copper smelting process, carbon footprint capture research in the entire copper smelting process, and carbon emission evaluation standards and model system research in copper smelting, striving to be the leader in making the non-ferrous industry chain and supply chain low-carbon and green.

Green Production and Innovation

We adhered to the guidance of the five development concepts of innovation, coordination, eco-friendliness, openness and sharing, were committed to creating green benchmarks, cultivating green momentum, supplying green products, led and promoted high-quality development by upholding eco-friendliness, and strove to become China's advocate and practitioner in green mines and green factories. We put forward the goal of creating a Model for Green Development, to vigorously promote the construction of green mines and green factories, continuously innovate green products, and realize the transformation and upgrading of green development industries. As of the end of 2023, we had 3 national-level green mines⁶, 11 national-level green factories⁷, and 4 types of Green Design Products⁸ by the Ministry of Industry and Information Technology.

Yinshan Mining created a new modern green mines

Focusing on the vision of building a first-class open pit joint mining new mine in China, Yinshan Mining continued to increase investments in development and comprehensive utilization of mineral resources, innovative researches on mining and dressing technologies, energy-conservation and emission reduction technological transformation, mine environmental protection and restoration management, and construction of harmonious communities, aiming to build a new modern green mine with advanced technology, first-class management, beautiful ecological environment and harmonious communities.

- Mining area environment:** After the construction of the mine compound, Yinshan Mining restored vegetation to the temporarily occupied area, sowing grass seeds across the board, and planting shrubs sporadically; it also carried out vegetation restoration and ecological afforestation of the roads leading into the production area of the dressing plant and the mineral dressing industrial site. Greening; the main dam body of the tailings pond was laid with grass blanket and planted with local original vegetation. As a result, ecological reclamation and restoration was achieved for 19,500 square meters of the new tailings pond, acid water reservoir, and ore shaft area; the waste rock field was covered with a 500 mm thick hillside regolith and planted with pine, eucalyptus and other tree species to form a forest functional area on the man-made plain. As a result, about 54,000 square meters of the Maple Ridge tailings ponds and Bailing Bay refuse dump were ecologically reclaimed and restored.

- In terms of comprehensive utilization of resources:** Yinshan Mining is constructing an underground mining and dressing project with a capacity of 8,000 tons/day. This project adopts the mining method by cementing and filling tailings. Upon completion, 1.34 million tons of tailings can be filled annually.



Plant Area of Yinshan Mining

- In terms of energy conservation and emission reduction:** Yinshan Mining's comprehensive energy consumption for producing per ton of ore in 2023 stood at 2.883 kg of standard coal/ton, the power consumption for mineral dressing stood at 23 kWh/ton of ore, and the unit consumption of fresh water stood at 0.19 ton/ton of ore, which were all lower than the industry average.

By actively innovating and developing a series of green and low-carbon technologies and processes, we aimed to propose integrated solutions for efficient emission reduction. Key Technologies and Applications for Soil Heavy Metal Pollution Control and Collaborative Carbon Sequestration and Emission Reduction won the title of China's Top Ten Scientific and Technological Developments; Key Technologies and Applications for Natural Recovery of Heavy Metal Contaminated Soil and Enhanced Collaborative Carbon Sequestration and Emission Reduction won the First Prize for China Industry-University-Research Innovation Achievements for 2022. At present, some of our research achievements have been promoted and applied in factories, mines and domestic mines to help drive clean production and green transformation.

⁶Yinshan Mining, Wushan Copper Mine, Chengmenshan Copper Mine.

⁷Copper Foil Company, Guangzhou Copper Material, Guixi Smelter, Group Copper Material, Copper Industry Copper Material, Jiangxi Copper Longchang, Jiangxi Copper Taiyi, Qingyuan Jiangxi Copper, Shandong Humon Smelting, North China Copper Industry, and TJDWF Copper Industry; among them, North China Copper Industry, and TJDWF Copper Industry were newly added in 2023.

⁸Copper cathode, copper concentrate, copper wire billets and lead ingots for electrical engineering.



Vertical Ball Mill



Key Technologies for Collaborative Green Extraction of Rare and Precious Metals Associated with Copper Anode Mud

Green Technology	Achievement
New Technology for Comprehensive Recovery of Metal Molybdenum and Rhenium Associated with Copper Sulfide Ores and Industrialization	Efficient and comprehensive recovery of molybdenum and rhenium has been achieved.
Key Technologies for Collaborative Green Extraction Of Rare and Precious Metals Associated with Copper Anode Mud	Green, harmless, high-purification, and integrated extraction of rare and precious metals has been achieved.
Waste-Free Production Technology for Directly Producing Iron Concentrates with Acid Produced From High-Grade Sulfur Concentrates	It has solved the problem in the traditional process where low recovery rate of dressed sulfur and inability to process the removed fine mud, and achieved the technical indicators where iron grade of sulfur concentrate cinder is greater than 63% and sulfur content is less than 0.3%.
Technology for Ecological Restoration of Acidic Wastewater Sediment from Copper Sulphide Ore	It has not only solved the problem of nowhere to pile up sediment and its secondary pollution, but also solved the huge demands of mine reclamation for plant growth substrates and avoided the secondary ecological environment damage caused by earth borrowing, thereby achieving the dual objectives using wastes to treat wastes and saving huge amount of funds required for ecological reclamation.
Automation Technology for Specialized Copper Smelting Equipment	The first fully automatic tuyere puncher in the copper smelting industry.
Application of Porcelain Balls instead of Steel Balls as Grinding Media of the Vertical Mill	The copper recovery rate has increased by 1.6% when porcelain balls replaced steel balls. The power consumption is 35.5% lower when steel balls are applied.
Key Technologies and Applications for Soil Heavy Metal Pollution Control and Collaborative Carbon Sequestration and Emission Reduction	Developed a new technology of in-situ matrix improvement + direct vegetation with completely independent intellectual property rights, which fundamentally solved the problems of difficult survival, easy degradation, and high cost of ecological restoration of vegetation in mines. It was rated as one of the China's Top Ten Scientific and Technological Developments in Ecological Environment for 2022.
Key Technologies for Green and Efficient Utilization of High Concentration Arsenic Complex Gold Concentrates	It has broken through the technical bottleneck of the gold industry and completely solved the common problem of pollution caused by arsenic dispersion in the process of non-ferrous metal extraction. It has the characteristics of strong raw material adaptability, high metal recovery rate, and sound multi-element comprehensive recovery efficiency; the recovery rate of gold has reached 98.5%, that of silver has reached 98%, that of copper has reached 98%, and the productization rate of arsenic has reached 95%; it was selected as one of the Excellent Practice Cases on Green and Low-Carbon Development of Enterprises for 2022.
Energy-conservation Technology for Large Helix Angle Seamless Internal Thread Copper Pipe	It has improved China's precision copper pipe manufacturing technology and reached the international leading level; when applied to air conditioning systems, it could increase the cooling capacity by 2% and save electric energy by 5%, which improved the energy efficiency of air conditioners and reduced the usage of copper pipes in air conditioners, promoted the the overall industrial upgrading of the air conditioner and refrigeration industry in China. It has included in the National Guideline and Cases on Application of Industrial Energy Conservation Technologies.

Response to Climate Disasters

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.

Meanwhile, we vigorously promoted technological innovation in climate risk early warning and response to better prevent sudden climate disasters. The Accurate Prediction and Reinforcement Control Technology and Application for Rainfall-induced Mine Landslides innovatively developed by Dexing Copper Mine won the China Nonferrous Metal Industry Science Award Second Prize in the Technical Category.

1

Energy Resource Management

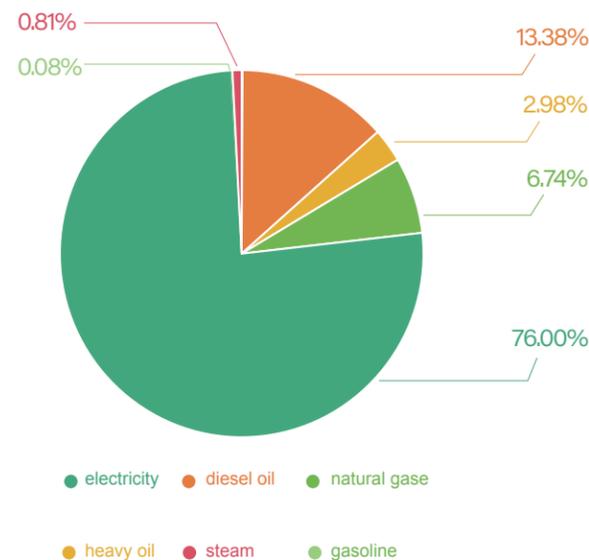
Energy Conservation and Consumption Reduction

We formulated the *Energy Management Measures of Jiangxi Copper Co., Ltd.*, established a leading group for energy conservation and energy use rights, made arrangements for the energy management work, and strengthened the organizational building for internal energy management. We conducted internal energy verification audits in accordance with relevant management regulations, and audited and certified energy management in accordance with the requirements of the ISO50001 system.

In 2023, our main energy structure included electricity (76.00%), diesel (13.38%), natural gas (6.74%), heavy oil (2.98%), steam (0.81%) and gasoline (0.08%), with the comprehensive energy consumption standing at 569,852.92 tons of standard coal, a year-on-year decline of 2.28%.



Energy Management System Certification



We continues to improve environmental protection, energy conservation and consumption reduction through a series of measures such as promoting cleaner production mode across the board, adopting environmentally friendly mining and smelting technologies and equipment, supporting energy-conservation technological transformation, and innovatively developing green clean technologies and processes.

- The Guixi Smelter carried out the renovation project for direct discharge and retarded cooling of system flash furnace slag, achieving the effect of reducing industrial energy consumption and saving 4,005.11 tons of standard coal annually.
- Guixi Smelter carried out a project to expand capacity and update oxygenerator to update a high-efficiency and energy-conservation oxygenerator to save electricity consumption in the production process, saving 7,081.86 tons of standard coal annually.
- The Guixi Smelter carried out a comprehensive transformation project for system optimization process and energy conservation and emission reduction. Through the optimization of energy conservation transformation, it saved 19,216.38 tons of standard coal annually.
- The Guixi Smelter carried out a technical transformation project to use natural gas as fuel to replace fuels such as heavy oil, liquefied petroleum gas, light diesel oil and coal. After the transformation, it saved 16,120 tons of standard coal annually.
- The Guixi Smelter made collaborative efforts to make technical breakthroughs in reducing steam consumption and promoted advanced electrolytic MVR evaporation technology and equipment which saves more than 80% of energy and more than 90% of condensed water than traditional evaporators, recovers and utilizes the latent heat from secondary steam, and improves the use ratio of steam, electricity and other forms of energy.
- The Dashan dressing plant of Dexing Copper Mine completed the substitution tests for permanent magnet motors of 12 CF19.5 dust removal fans, reducing power consumption by about 25%.
- The Yinshan Mining launched a breakthrough-making initiative to address challenges in terms of production organization, vehicle operation, refueling management, and road maintenance against the set benchmark for open pit mining. As a result, the unit diesel consumption of open-pit mining vehicles dropped by 89 kg/10,000 ton-kilometer compared with the benchmark value.
- The Processing Division has perfected the incentives for production-related off-peak electricity consumption and urged all business units to coordinate staggered shutdown and operation. The electricity consumption of the SCR4500 and SCR3000 main production lines has dropped by approximately 7.62% and 2.47% YoY, both reaching the best levels in history.

Use of Clean Energy

We actively promoted the low-carbon transformation of our own use of energy, took advantage of rooftops for photovoltaic power generation in the industrial park, built photovoltaic power generation projects in many mining and smelting units, guided each unit to apply new energy equipment, and increase the use of new energy equipment in mining, transportation, auxiliary production and other scenarios. In addition, in order to reduce carbon emissions and increase consumption of green power, the Copper Foil Company purchased and consumed 15.57 million kilowatt-hours of green power through the national green power trading platform in 2023, reducing carbon dioxide emissions by 8,880 tons.

- Yongping Copper Mine used the refuse dump to build a 20MWp photovoltaic power generation station with an annual power generation capacity of approximately 22 million kilowatt-hours, thereby saving approximately 2,703 tons of standard coal and reducing carbon dioxide emissions by approximately 12,800 tons annually.
- Nanchang Jiangtong Industrial Park used rooftops to build a 11MWp photovoltaic power generation station with the annual power generation capacity planned to be more than 11 million kilowatt-hours. It can save about 1,360 tons of standard coal and reduce carbon dioxide emissions by about 6,400 tons annually.
- Shandong Humon Smelting Co., Ltd. built a total of 60MWp of distributed photovoltaic power generation stations, with an annual power generation capacity of approximately 85 million kilowatt hours. It can save approximately 10,500 tons of standard coal and reduce carbon dioxide emissions by approximately 49,380 tons annually.
- Dexing Copper Mine added two new energy electric heavy-duty dump trucks and two new energy electric buses to expand the application of green transportation equipment in the daily production and operation of mines.
- The Chengmenshan Copper Mine put into use a new energy forklift for the first time in the mining site. Compared with traditional forklifts, it makes less noise and directly reduces carbon dioxide emissions to zero. It was the first step for the Mine has taken to promote clean energy substitution.

Water Resources and Water Draining

Water resources management is an important part of our sustainable development. At present, our main water sources are surface water, recycled water and municipal water. We were maximizing the utilization and recycling of water resources by adjusting the water use structure, innovating equipment and processes, applying water-saving technologies, and building a complete drainage system to minimize the external water sources required for operations.

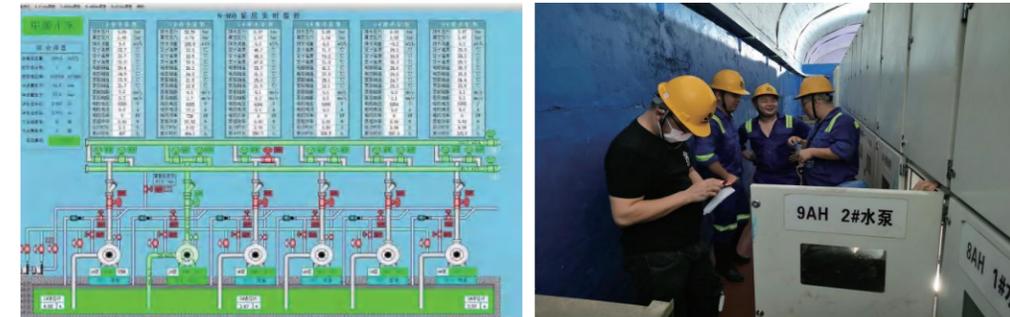
During the reporting period

total water consumption
95,979,8700 tons

industrial water reuse rate
95.77% no water intake or drainage violations were observed

Automation system of the underground water pump house in the Wushan Copper Mine ensured stable operation of the drainage system

The underground drainage pump room of Wushan Copper Mine has achieved stable operation of the equipment through the upgrade and transformation of the automated control system. The system can monitor the operating status of the water pump in real time through monitoring devices such as sensors, flow meters, and liquid level meters, including key parameters such as water level, flow rate, and pressure, and dynamically adjust the start and stop of the water pump according to the actual situation to avoid manual operation errors and delays, improve the stability and reliability of the drainage system. At the same time, the system can monitor the operating status and energy consumption of equipment in real time, provide data support for energy management and equipment maintenance, and help achieve energy conservation, emission reduction, and reduce operation and maintenance costs.



Renovation of the Automation System of Underground Water Pump Room in Wushan Copper Mine

The Chengmenshan Copper Mine Deepened the Utilization of Backwater and Created a Circulating Pipe Network

In strict accordance with the requirements of carbon emission reduction, the Chengmenshan Copper Mine has successively promoted the implementation of projects to renovate water supply pipeline network, water utilization pipeline network and front-end water pipelines, which has greatly improved the industrial water reuse rate. In 2023, aiming at water recycling in mining sites, the Chengmenshan Copper Mine vigorously promoted the implementation of the project for comprehensive backwater utilization at the plant front area. After the implementation of the project, the mining site of the Chengmenshan Copper Mine will have two daily water supply pipelines: one water supply pipeline is connected to the 5,000-ton water tank of the Chengmenshan Copper Mine dressing plant. The backwater from the water tank in the plant front area is mainly used to reduce dust at the mining area operation site; the other water supply pipeline is connected to a 1,000-ton water tank. The equipment cooling water stored in the water tank is mainly used for industrial site flushing and mining equipment cleaning.

Resource Recycling

We followed the concept of circular economy and recycled waste rock, waste water, waste gas, waste residue, etc. generated in the production process to tap the maximum value of resources, form waste residue copper beneficiation, tailings copper beneficiation, waste rock dump leaching for copper extraction, waste water copper extraction, flue gas acid production, waste heat power generation and multiple other sustainable development industrial chains for recycling three wastes, and promote efficient resource utilization, clean production, and waste recycling.

Comprehensive resource utilization and environmental protection equipment manufacturing project

The comprehensive resource utilization and environmental protection equipment manufacturing project of Tongxin Company mainly consists of three sub-projects: environmental protection equipment manufacturing, rigid landfill, and comprehensive resource utilization. Among them, the environmental protection equipment manufacturing sub-project mainly manufactures air dust removal equipment for the treatment of harmful smelting exhaust gas and indoor and outdoor air dust removal. After completion, it can ensure that dust removal and purification equipment of the company and other large state-owned enterprises in Jiangxi Province can be locally offered; the rigid landfill sub-project mainly disposes of hazardous wastes with no utilization value, achieving harmless disposal of hazardous wastes; the comprehensive resource utilization sub-project can recover valuable metals such as copper, lead, nickel, selenium, mercury and other valuable metals in the solid wastes produced by various smelting plants, thereby recycling solid wastes while disposing of them harmlessly. After the project is completed, it is expected to form a comprehensive recycling and utilization capacity of 50,000 tons/year of smelting solid wastes and a rigid landfill of 175,000 cubic meters.

The Dexing Copper Mine created a development pattern featuring comprehensive utilization of domestic large-scale copper mine resources

- **Utilization of low-grade ore:** Mixing low-grade copper ore into industrial ore and for mixed selection, thereby recovering hundreds of millions of tons of additional copper ore, which is equivalent to the geological reserves of an additional medium-sized copper mine, and maximizing economic benefits and utilization of mineral resources.
- **Copper extraction from wastewater:** Cooperating with the Canadian company BioTect Environmental Technologies Inc. to utilize the chemical sulfidation technology to recover copper from acidic wastewater, thus recovering more than 1,600 tons of copper annually.
- **Copper metal recovery from tailings:** Comprehensive recovery of valuable elements in tailings, dust-proof wastewater, ground flushing water and waste mines. More than 1,000 tons of copper metal could be recovered from tailings annually.
- **Boiler transformation:** Transforming boilers, calcinators and hot-air stoves from burning coal and oil to burning natural gas, which has greatly reduced pollutant emissions and achieved clean production.
- **Recycling of tail gas:** In the pyrite circular economy project and the molybdenum and rhenium comprehensive recovery project, making full use of the sulfur dioxide in the tail gas generated in the absorption process. The projects respectively have achieved the preparation of 500,000 tons/year of 100% industrial sulfuric acid and 3,500 tons/year of sodium sulfite, thereby increasing added value of the products while achieving emission reductions.
- **Power generation from waste heat:** In the pyrite circular economy project, the heat generated from roasting of boiling furnace was recycled to generate electricity. The annual power generation capacity could reach 90 million kilowatt hours.

Pollution Prevention and Control

Compliance-based Sewage Discharge

We adhered to the concept of putting prevention first and combining prevention and control and strictly followed the relevant laws, regulations and industry standards governing various types of pollution emissions, combined source management with process control, and fully ensured that pollutants were discharged up to standard. In 2023, all our production units have obtained pollutant discharge permits or registered pollutant discharge permits, and our total discharge of major pollutants was lower than the limit.

Guixi Smelter actively responded to new policies and carried out transformation projects to meet higher emission standards

According to the requirements of the *Opinions on Further Strengthening the Prevention and Control of Heavy Metal Pollution* by the Ministry of Ecology and Environment, enterprises in the lead, zinc and copper smelting industries in key areas (eight counties and districts) of Jiangxi Province implemented special emission limits for particulate matter and key heavy metal pollutants (lead, arsenic, cadmium, mercury, chromium) as laid out in the national emission standards starting from 2023. In response to the new policies, in order to ensure that the emissions of key heavy metals and particulate matters meet the *Emission Standards for Industrial Pollutants of Copper, Nickel and Cobalt*, in May 2023, Guixi Smelter formally submitted an application for upgrading wastewater and waste gas pollution control to higher standards to the Company after preliminary schematic studies, and actively carried out such renovation projects as ultra-low emission of flue gas desulfurization units and ultra-low emission of waste acid and wastewater. Among them, the Renovation Project for Ultra-low Emission of the Smelting I System Integrated Flue Gas Desulfurization Units has been approved to be granted an air pollution prevention and control fund of RMB 14 million included in the List of State-funded Projects.

Wastewater and Waste Gas Treatment

In terms of wastewater treatment, we and our subordinate production and operation units set up sewage outlets in strict accordance with laws, regulations and the requirements of the ecological and environmental protection authorities at all levels. During the production and construction process, we continued to put into place and refine sewage cleaning and diversion projects to reduce the amount of wastewater generated, continuously carried out water-saving process transformation, increased the reuse rate of industrial water, and reduced wastewater discharge. In 2023, our water pollution emission concentration was far lower than the national standards.

Our Wastewater Generation and Disposal

Indicator		Unit	2023 Annual Data
Sewage and wastewater output	COD	Ton	1,024.79
	Ammonia nitrogen		59.90
	Copper		0.55
	Zinc		2.62
	Lead		1.02
	Suspended solids		551.11
Sewage treatment capacity		10,000 tons	37,473.33

In terms of waste gas treatment, we clearly defined the waste gas generated by production activities in the production, emission and treatment links. In the production link, we continued to promote the control of air pollutants through fuel substitution, application of high-efficiency desulfurization and dust removal technology and equipment, and dust control; in the emission link, we sets up emission discharge outlets in accordance with laws, regulations and regulatory requirements; in the treatment link, we adopted the approach of centralized collection and treatment and other measures to strictly control the emission of dust and air pollutants. In 2023, our emission indicators of major atmospheric pollutants were far below the national standards.

Our Air Pollutant Emissions

Indicator		Unit	2023 Annual Data
Exhaust emission	Oxynitride	Ton	39.28
	Sulfur dioxide	Ton	774.51
	Particulate Matter (PM)	Ton	80.07

Disposal of General Solid Wastes

We adhered to the principles of reduction, recycling, and harmlessness in disposing of solid wastes, recycled usable solid wastes, and worked hard to classify and store temporarily unusable solid wastes and prevent them from leakage and transfer to ensure solid wastes were well disposed of and utilized.

Our Disposal of General Solid Wastes

Indicator		Unit	2023 Annual Data
General wastes	Waste rock	10,000 tons	11,568.51
	Tailings		5,347.53
	Others		165.57
Comprehensive utilization rate of general wastes	Waste rock	%	13.49%
	Tailings		20.46%
	Others		0%

Disposal of Hazardous Chemicals and Hazardous Wastes

In terms of management of hazardous chemicals, based on documents such as the *Catalog of Hazardous Chemicals* and the *Catalogue of Highly Poisonous Substances*, as well as the use, storage, loading and unloading, and transportation devices of hazardous chemicals that may be involved in production and operation, we actively carried out harmful factor analysis, identified and formulated a list of hazardous chemicals and a list of major hazard sources of hazardous chemicals for our subordinate production and business units, and continued to strengthen the identification and rectification of potential hazards and the construction of emergency management mechanisms.

In terms of management of hazardous wastes, we identified hazardous wastes according to the *National Catalog of Hazardous Wastes* and collected, stored, transferred and disposed of hazardous wastes legally and compliantly in accordance with the *Pollution Control Standards for Hazardous Waste Storage* and other requirements. We selected temporary or permanent storage locations based on the characteristics of hazardous wastes, and took measures to prevent their leakage, scattering, and loss; we transferred hazardous wastes to qualified units for disposal, and carry out storage, transfer, transportation, and took preventive and control measures during the processes of storage, transportation and comprehensive utilization to prevent secondary pollution. In 2023, we generated a total of 39,000 tons of hazardous wastes, all of which were effectively managed and controlled without observing any safety accidents.

Tailings Management

Mineral Resources 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 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.

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.

Tailings Management and Utilization

We have 5 mines in operation⁹. The tailings pulp flows automatically or transported to tailings ponds for storage after being pressurized. In 2023, our tailings output stood at 37.10 million cubic meters (52.88 million tons), and the storage volume stood at 32.29 million cubic meters (45.86 million tons). We had 8 tailings ponds in use, with a total tailings storage capacity of 2.141 billion cubic meters. All tailings ponds complied with the requirements of the *Pollution Control Standards for Storage and Disposal Sites of General Industrial Solid Wastes (GB18599-2001)* and the tailings storage facilities were subject to standardized management. As of the end of 2023, our tailings ponds stored 994 million cubic meters (1.413 billion tons) of tailings. We monitored all tailings ponds and formulated emergency plans. At the same time, in accordance with the principles of reduction, recycling, harmlessness and reuse in disposing of tailings, we launched the initiative to recycle tailings covering the cycle of resources-products-renewable resources-products.

⁹Dexing Copper Mine, Yongping Copper Mine, Wushan Copper Mine, Chengmenshan Copper Mine, Yinshan Mining.

Our Tailings Recycling

Indicator	Unit	2023 Annual Data
Total amount of tailings produced	10,000 tons	5,288
Total amount of tailings recovered	10,000 tons	1,749.13
Of which: tailings copper beneficiation	10,000 tons	0.128
Tailings sulfur beneficiation	10,000 tons	265
Tailings filling	10,000 tons	304
Building materials made from tailings:	10,000 tons	158
Tailings utilization	10,000 tons	1,022
Tailings recycling rate	%	33.08

The main achievements of recovering copper from tailings:

Dexing Copper Mine established a tailings recycling plant, using the tailings from Sizhou and Dashan dressing plants as dressed raw materials for regrinding and recleaning, boasting a processing capacity of 23,000 tons/day; the Mine selected and adopted the CGF-40 mechanically stirred coarse particle high-efficiency flotation machine which is in par with similar foreign flotation machines in terms of equipment performance and can recover about 1,000 tons of copper metal per year (the copper concentrate grade is greater than 15%).

The main achievements of recovering sulfur from tailings:

Our main mines have successively upgraded and renovated the flotation system, selected and adopted large-scale inflatable flotation machines to increase flotation time; at the same time, they have promoted low-alkalinity copper-sulfur differential flotation processes to improve efficiency. The sulfur recovery rate in tailings has increased from 44% to 61%, and 3.46 million tons of standard sulfur can be recovered every year. At present, the sulfur content in the tailings of Dexing Copper Mine, Yongping Copper Mine, and Chengmenshan Copper Mine has been reduced to less than 0.4%, which has reduced the degree of acidification of the tailings and provided prerequisites for high-value utilization of the tailings.

The main achievements of recovering scheelite from tailings:

Yongping Copper Mine adopted combined magnetic-gravity-flotation-gravity beneficiation process to recover scheelite resources from tailings. The project can recover 450 tons of tungsten concentrate (65% WO₃) every year.

Building materials made from tailings:

Tailings Chengmenshan Copper Mine are used as raw materials to produce building materials, achieving waste-free mining in the Mine. The Wantong Project has a designed processing capacity of 2.5 million tons per year, thus being capable of consuming all tailings.

Tailings filling:

Cemented filling of tailings refers to a production process in which the tailings pulp is graded by a whirlcone, and coarse sand and cement are mixed in a certain proportion to fill goafs under the shaft; Yongping Copper Mine utilizes 700,000 tons of tailings per year.

Full-size tailings were adopted for full-tailings paste filling, which can reduce the amount of tailings stored in the tailings ponds and extend the service life of tailings ponds; Wushan Copper Mine can utilize 1 million tons of tailings per year, and Yinshan Mining can utilize 1.34 million tons of tailings per year.

Tailings Comprehensive Utilization Project of Wantong Company

Established in 2018, Wantong Company is a wholly-owned subsidiary of Jiangxi Jiangtong Environmental Resources Technology Co., Ltd. (Jiangtong Environmental Resources¹⁰). It currently mainly makes comprehensive utilization of mine tailings from two aspects, namely, production of building materials products and the preparation of soil conditioners. In 2023, Wantong Company disposed of 2.62 million tons of tailings from Chengmenshan Copper Mine and sold 2.589 million tons of milltailings, including 1.3 million tons of fine tailings and 1.289 million tons of medium-coarse tailings.

¹⁰Jiangtong Environmental Resources is a wholly-owned subsidiary of Jiangxi Copper and the main platform of our environmental protection business sector.

The project of using tailings from Wantong Company to produce building materials products: Wantong Company has introduced new chemical gels and filling materials, and is incubating the Kunmao Project, Xintao Project and Kehuang Project for the production of hollow wallboards and water-resistance materials, ultra-fine mineral powder, etc., which can effectively increase the added value and sales volume of milltailings.

The project of using fine tailings from Wantong Company to prepare soil conditioners: existing conditions of cement plants and brick kilns around Wantong Company were made full use of, small experiments and industrial trials of using fine tailings from Wantong Company to prepare soil conditioners were completed. The soil conditioners can improve saline-alkali soil and heavy metal-polluted soil and increase crop yields. After the project is implemented, it can realize the transformation of solid wastes into fertilizer, and can enhance corporate image and influence while disposing of tailings at high added value.

Dexing Copper Mine explored new ways to combine tailings utilization with ecological restoration

In 2023, Dexing Copper Mine carried out directional exploration in development and utilization of tailings, and made breakthroughs in the research and development on preparation of ecological landscape ingredients from tailings and other products. It innovatively integrated products made from tailings into Yangtaowu refuse dump ecological restoration project, creating the Yangtaowu Ecological Restoration Innovation Demonstration Park. This project recycled solid wastes, deeply integrated tailings with ecological restoration and ecological landscape transformation, created an industrial and mining themed tourism attraction and led the transformation and upgrading of mines.



Dexing Copper Mine Created an Industrial and Mining Themed Tourism Attraction

Ecological Reclamation and Biodiversity

Ecological Restoration and Biodiversity

We strictly abode by relevant national laws and regulations on ecological environment protection, soil and water conservation, wildlife protection, nature reserves and other relevant laws and regulations, and did not conduct any exploration, mining and construction activities within the control scope of nature reserves, ecologically sensitive areas and ecological red lines, paid close attention to the ecological environment protection in mining areas and strengthened ecological environment management throughout the full life cycle of project construction.



Exercising Full Life Cycle Ecological Environment Management

To ensure the construction quality and longevity of 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 bristle-grass, photinia fraseri, ligustrun lucidum, etc., are mainly planted in the restoration area to fully ensure the biodiversity in the area. Since the issuance of the regulation, our company's acceptance of ecological restoration projects have strictly complied with the requirement. In 2023, we invested RMB 91 million in ecological restoration, and the total ecological restoration area reached 101.01 hectares.



Chengmenshan Copper Mine Used More Than 34,000 Golden-Leaf Privets to Create Chinese Characters Meaning "Lucid Waters and Lush Mountains Are Invaluable Assets"

When implementing ecological restoration projects, we adhered to the principle of combining environmental benefits, ecological benefits, social benefits, economic benefits and technological progress, and conscientiously implemented the national guidelines and policies on environmental protection. In October, the ecological restoration achievements of Yongping Copper Mine were included in the results of Jiangxi Province in promoting high-quality development of the Yangtze River Economic Belt and were displayed during General Secretary Xi Jinping's inspection to Jiujiang. The remediation achievements of Dexing Copper Mine were reported to the Ecological and Environmental Protection Supervision Office of CPC Central Committee as the only case by Jiangxi Province, and included in the 2023 Yangtze River Economic Zone warning film as a positive example. In addition, the ecological environment improvement achievements of Dexing Copper Mine, Yongping Copper Mine, and Guixi Smelter in recent years have all been adopted as positive examples of provincial-level rectification initiatives.



Egrets in the No.4 Deposit of the Dexing Copper Mine

Dexing Copper Mine has achieved remarkable results in ecological reclamation

Dexing Copper Mine cooperated with relevant units and successfully developed the new technology combining in situ matrix improvement and direct vegetation reclamation, successfully overcame multiple deficiencies of traditional reclamation technologies in the mining industry, suppressed acid production by regulating microflora, rebuilt the vegetation ecosystem, and gradually restored original landform. This technology has won the first prize of Guangdong Province Science and Technology Progress Award. At present, Dexing Copper Mine is promoting and applying the technology on a large scale. According to the mode of restoring a mining wasteland and creating a mine ecological attraction, the Mine have built areas such as Yangtaowu waste rock yard into unique mine ecological restoration themed parks with distinctive features. In 2023, the newly increased ecological restoration area of Dexing Copper Mine reached 790,000 square meters, the ecological reclamation project for the slope above 230 m in Yangtaowu, the 100-120m terrace on the outer slope of No. 4 tailings ponds, and the west side slope of the 500 refuse dump in the Fujiawu mining area won the title of first batch of high-quality non-ferrous metal industry projects in 2022 to 2023. Up to now, the ecological reclamation area of Dexing Copper Mine has reached more than 600 hectares, and more than 85% of the reclaimable waste land has been ecologically restored.



Comparison before and after Restoration of Yangtaowu Refuse Dump

Achievements of ecological restoration project of Taolin Company

Taolin Company is a national high-tech enterprise acquired by Jiangtong Environmental Resources that focuses on ecological restoration of heavy metal mines. Over the years, Taolin Company has been deeply involved in the field of ecological restoration of heavy metal acid mines, and has successfully implemented more than 50 mine ecological restoration projects covering an area of nearly 10 million square meters and spreading across Guangdong, Jiangxi, Anhui, Sichuan, Hunan and other provinces; it has won the First Prize of Guangdong Science and Technology Progress Award for 2019, the First Prize of the China Industry-University-Research Cooperation Innovation Achievements Award for 2022, and was rated as one of the China's Top Ten Scientific and Technological Developments in Ecological Environment for 2022; it has 11 authorized patents for invention, 17 utility model patents, and has obtained 3 application number patents for invention.

Land Management and Reclamation

We formulated the *Land Management Measures of Jiangxi Copper Co., Ltd.*, implement the principle of placing equal emphasis on management of land resources and land assets, gave full play to land assets and capital efficiency, and continuously improved our competence for comprehensive, unified and scientific land management.

In terms of land use planning and management, in 2023, we initially completed the establishment of a company-wide land asset management ledger more systematically grasp our land use situation, providing a fundamental basis for subsequent asset management, revitalization and utilization of ecological restoration. We and our subordinate units conscientiously carried out land maintenance and compliance-based use, and actively communicated with local competent authorities and were subject to no administrative penalties for illegal land use throughout the year.

In terms of land acquisition and compensation, we strictly complies with the requirements of the *Land Administration Law of the People's Republic of China*, the *Regulations on the Implementation of the Land Administration Law of the People's Republic of China*, the *Measures of Jiangxi Province on Implementation of the Land Administration Law of the People's Republic of China*, local government documents on expropriation compensation standards, development and utilization plans, etc. In 2023, our Yinshan Mining 5,000 tons/day Open-pit to Underground Mining Project adopted the vacation and construction land index for mining waste-land combined with the collective commercial construction land policy to address the issue of land acquisition and compensation. In terms of application for land approval, we have obtained the approval for a new construction plan totaling about 550 acres of land.

In terms of revitalizing existing land, we leased 203 acres of land in Dongtong Farm to obtain land rental income, and took this opportunity to further solve some of the historical land problems. By maintaining a good relationship with the local government, we supported the local government in purchasing and storing 300 square meters of Dongtong Farm for public welfare, demonstrating our social responsibilities.

In terms of land reclamation management, we carried out land reclamation work in accordance with laws and regulations for lands damaged by production and construction activities in accordance with the principle of whoever destroys it shall reclaim it, and actively fulfilled our land reclamation obligations and ecological restoration responsibilities. At present, we are carrying out land reclamation work mainly in two major ways: first, conventional ecological reforestation, that is, after mining land or industrial land is used, soil restoration is carried out on the bare surface to restore vegetation; second, vacate construction land index following land reclamation, that is, after complete using the mining land or industrial land, apply for an ecological restoration (increase or decrease linked) project to the relevant departments, implement it in accordance with the reclamation and restoration design standards and obtain acceptance approval, complete the annual land type change, and submit it to the Provincial Department of Natural Resources to apply for vacating the construction Land use index to realize environmental protection and land index replacement.

Green Operation

Green Office

We actively advocated the concept of green environmental protection. By posting green office posters and reminders, issuing energy conservation and environmental protection initiatives, and organizing relevant activities on environment-themed festivals such as Tree-planting Day and World Environment Day, we implemented the concept of saving resources and protecting the environment in the employees' daily life and work. In 2023, we carried out multiple rounds of office building inspections, aiming to further make energy conservation in office spaces a regular practice. In 2023, our office activities consumed 15,524 tons of water and 3,133,254 kilowatt hours of electricity.



Subordinate Production and Business Units Were Planting Trees

Green Office	Specific initiatives
Electricity management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Post water conservation slogans in washrooms and break rooms.
Paper management	<ul style="list-style-type: none"> The office process mainly adopts the online OA approval procedure to minimize the use of paper documents and promote paperless office.
Vehicle management	<ul style="list-style-type: none"> 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; Promoting the procurement of new energy vehicles, with a total of 141 official vehicles (including 4 new energy vehicles) as at the end of 2023.
Meal management	<ul style="list-style-type: none"> 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; Encourage the promotion of the "optical disc action" and organise the separation and management of food waste.

Green Procurement

In 2023, we formulated and issued the *Green Procurement Guidelines for Materials Supply System of Jiangxi Copper (Trial)* to integrate concepts such as green environmental protection, resource conservation, and recycling into material supply work, prohibit the purchase of high-energy consumption and high-pollution equipment, and vigorously promote our green procurement of materials, equipment, spare parts and other supplies, and actively explore the establishment of a green procurement system. We set access review indicators in the assessment of suppliers' safety, environmental protection and green development levels, requiring suppliers and their products to meet certain levels of green environmental protection, energy conservation and consumption reduction. At the same time, we formulated the *Implementation Plan for Integrated Procurement of Energy-Conservation Motors* to integrate and scattered purchase plans for motors and transformers and other devices. We purchased 99 sets of high-efficiency energy-conservation motors and permanent magnet motors and 37 sets of energy-conservation transformers through-out the year, with a total purchase amount of approximately RMB 8 million, thereby having promoted the procurement and application of novel energy-conservation equipment and materials. In 2023, we actively promoted material recycling, with a total of 36,839 mineral processing agent packaging barrels recycled by suppliers, and worked with suppliers to build a green procurement supply chain.

Green Communication

We actively participated in inter-industry green exchange activities through multiple channels and forms, communicated and learned from relevant parties, and jointly promoted the green development of the industry; by participating in industry development conferences, we discussed effective paths for green transformation and high-quality development of the mining industry; by participating in industry exhibitions, we established and promoted our corporate image of promoting green development, shared the innovative achievements in green production, and worked to build a green supply and cooperation mode through active interaction with suppliers.

Participated in the 2023 Industrial Green Development Conference and Industrial Green Development Exhibition

In June 2023, eight of our subordinate units formed a delegation to participate in the Industrial Green Development Conference held by the Ministry of Industry and Information Technology in Guangzhou and the Industrial Green Development Exhibition held at the same time. We focused on the themes of green, low carbon and circular economy, and centering on the fields of green low-carbon, energy conservation and emission reduction, management system, comprehensive utilization of resources, environmental protection and pollution reduction, we intensively displayed advanced technologies, processes and products in our industrial green transformation.



We Were Participating in the Industrial Green Development Conference and Industrial Green Development Exhibition

Participated in the China International Mining Conference and Delivered a Keynote Speech

In October 2023, we participated in the 2023 (25th) China International Mining Conference organized by the Ministry of Natural Resources in Tianjin, and participated in the Green Mining and Sustainable Development-Mining Industry Innovation Development Summit Forum under the Carbon Peaking and Carbon Neutrality Goals, and delivered a keynote speech on Creating an Ecological Civilization Highland, Shaping an International Mining Model, and Moving Towards a World-Class Jiangxi Copper.



Our Representatives Was Delivering A Keynote Speech at the China International Mining Conference

Promoted green procurement and conducted green cooperation and exchanges with suppliers

In November 2023, we visited a supplier of a leading motor company for cooperation and exchanges, learned about the development of its green energy-conservation products, and held a seminar with the theme of eco-friendliness, environmental protection, low carbon, and development and had in-depth exchanges on strengthening cooperation on green energy-conservation products. The two parties reached consensus on green procurement concepts, green and low-carbon transformation and other fields, and would continue to explore ways to help enterprises reduce costs, increase efficiency, save energy and reduce emissions by strengthening green exchanges and exploring new cooperation opportunities, to achieve win-win development.



We Were Carrying out Green Communication and Cooperation with Suppliers

Green Training

We attach great importance to the cultivation of employees' green and low-carbon concepts and the improvement of their professional competence related to green production, continue to promote our high-quality development and high-level protection of the ecological environment, and further promote our green and compliant production and operation. In 2023, we and our subordinate units conducted more than 40 training programs related to improving environmental management capabilities, covering more than 2,300 people. In addition, more than 10 public welfare activities were launched, covering all employees.

Organized and conducted a company-level environmental management competencies improvement training course

In order to further provide our environmental management personnel with professional literacy and business capabilities, and strengthen the production operation site management and basic environmental management, we conducted a company-level environmental management competencies improvement training course from October 25 to 27, 2023. More than 90 people participated in the training program. Participants included the leader in charge, the environmental protection principal, environmental management business personnel, and personnel from relevant departments of the Office of the Company.



We Were Organizing Training Courses to Improve Environmental Management Competencies

Organized energy management training courses



We Were Organizing Energy Management Training Courses

In order to strengthen energy management responsibilities, increase capacity building on energy conservation management, enhance energy conservation awareness, and promote our energy conservation and carbon reduction work, from May 23 to 25, 2023, we invited experts from the Jiangxi Academy of Sciences and China Certification & Inspection Group to organize centralized training program on energy management. The training content mainly involved carbon dioxide emission accounting methods and non-ferrous metal industry energy-conservation technologies and equipment energy efficiency upgrading, energy management system construction and interpretation of laws, regulations and policies related to energy management, etc., more than 60 people participated in the training program.

Green Building

We continue to improve the greening level of existing office and commercial buildings, and promote energy-conservation renovation of existing buildings and energy-conservation design of new buildings. In 2023, our Shangrao Industrial Park, Nanchang Talent Apartment and other construction projects were designed and constructed in accordance with national standards such as the *Green Construction Evaluation Standards*. For example, in terms of energy conservation, we adopted control measures such as frequency conversion, zoning, timing, and induction; in terms of material conservation, we adopted high-strength building structures, reinforced concrete, etc., and actively practiced the application of green building technologies. On the basis of meeting the functions and ensuring comfort, we reduced building energy consumption and alleviated tensions in energy, water resources, material resources, etc.

03

Building a Solid Foundation and Improve Modern Corporate Governance

As the core mechanism for the long-term and stable development of enterprises, corporate governance is not only the cornerstone of achieving high-quality and sustainable development, but also plays a vital role in promoting the healthy operation of the economy, maintaining market order, and protecting the rights and interests of investors. For a long time, Jiangxi Copper has always stayed committed to improving corporate governance, and regards improving governance architecture, improving risk control systems, abiding by business ethics, strictly fulfilling information disclosure obligations and strengthening investor relations management as key measures to protecting the rights and interests of investors and other stakeholders, which can safeguard our long-term development.



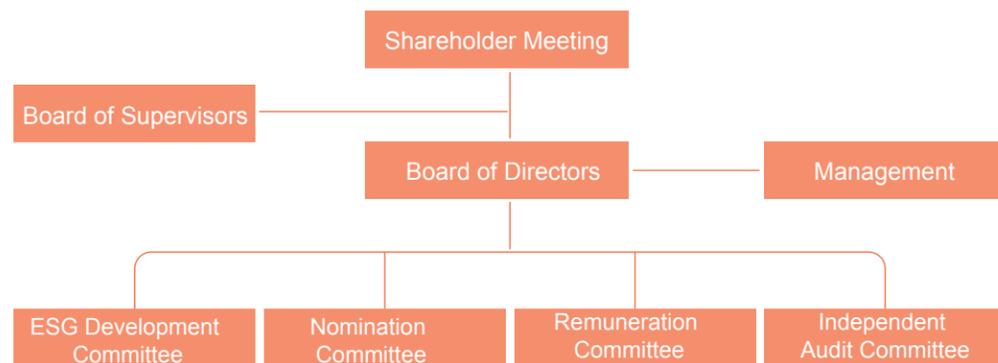
- ▾ Governance Structure
- ▾ Risk Management and Internal Control
- ▾ Business Ethics
- ▾ Investor Relations
- ▾ Intellectual Property Management
- ▾ Information Disclosure



Governance Structure

In order to promote the standardization and effectiveness of corporate governance, Jiangxi Copper strictly complies with the requirements of the *Company Law of the People's Republic of China*, *Securities Law of the People's Republic of China*, *Code of Corporate Governance for Listed Companies*, *Listing Rules of Shanghai Stock Exchange*, *Listing Rules of the Stock Exchange of Hong Kong Limited* and other relevant laws, regulations and normative documents, continues to improve the governance architecture of General Meeting of Shareholders, Board of Directors, Board of Supervisors and the Management, gives full play to the functions of the Board of Directors, special committees under the Board of Directors and Board of Supervisors, and continuously improve the effectiveness of corporate governance.

- As our supreme decision-making body, the Board of Directors is responsible for formulating our development strategy, decision-making on significant matters, operational supervision, information disclosure and regular review. The Board of Directors has an Independent Audit Committee, a Remuneration Committee, and a Nomination Committee, ESG Development Committee under it. Each committee has clear-cut rights and responsibilities and performs its duties to promote our steady development.
- We nominates and elects directors in accordance with the *Articles of Association of Jiangxi Copper Co., Ltd.*, and adopts a board diversity policy to gives overall considerations to factors such as age, gender, educational background, work experience, skills and knowledge of board members to ensure diversity and independence of board members. As of the end of 2023, we had 10 directors, including 6 executive directors and 4 independent non-executive directors. All director information has been published in our 2023 annual report.



Corporate Governance Structure Diagram

As of the end of 2023, we had held 2 general meetings of shareholders, with 6 proposals reviewed and approved; 8 meetings of the Board of Directors, with 22 proposals reviewed and approved; 7 special committee meetings, with 7 proposals reviewed and approved; 4 Board of Supervisors meetings, with 11 proposals reviewed and approved. All meetings were held in accordance with the requirements of the Articles of Association and Rules of Procedure.

Risk Management and Internal Control

Comprehensive Risk Management

We continue to improve our integrated risk control system and implement basic risk management processes in all aspects of corporate management and in the process business operations, including organizational systems, institutions, processes, etc. For risk management, to cultivate a sound risk management culture and promote the realization of comprehensive risk management. We formulate annual risk management and internal control management work plans every year, and carry out special or comprehensive risk identification and assessment work.

In 2023, we continued to promote and implement the risk standardization work, remove internal communication barriers in the integrated risk control system, and truly realized standardized, science-based and refined risk management, and provided strong support for building a world-class enterprise. Based on the completion of the pilot program last year, we further replicated and promoted it to 13 pilot units to form a risk standardization list with risk management and control points covering ESG factors.

At the same time, in terms of building a digital risk control system, we made flexible use of digital achievements and promoted company-wide use of the risk control information management platform, injecting risk control momentum to our digital transformation. Each subordinate unit has established a risk warning indicator database through the platform, and submitted indicator monitoring data on a timely basis, followed up on the progress of risk events and litigation cases through the platform, and reported a risk forestalling and defusing list.

Risk Management Structure

Our Board of Directors and its authorized agencies are the leading decision-making bodies for risk management and internal control. Our Board of Directors, institutions authorized by the Board of Directors, Risk Management Committee, Legal Affairs and Risk Control Department and other functional departments as well as subordinate units jointly constitute our organizational system for risk management and internal control, and perform the decision-making, execution and supervision and other responsibilities and authorities related to risk management and internal control respectively to put into place a scientific and effective mechanism for division of responsibilities and collaboration.

Risk Management Mechanism

We formulated the *Administrative Measures for Risk Management and Internal Control of Jiangxi Copper Co., Ltd. (2022 Edition)*, *Construction Plan for the Integrated Risk Control System of Jiangxi Copper Co., Ltd.* and *Trial Measures for the Administration of Risk Control Directors of Subordinate Units of Jiangxi Copper Co., Ltd.* and a series of internal systems related to risk management through which full-process risk management for risk identification, analysis, early warning and monitoring, tracking, assessment and accountability was put into place to realize a closed-loop risk management.

Risk identification	Based on the original risk framework, and in combination with business objectives and internal and external conditions, a comprehensive risk list was formed, and a three-level risk classification plus risk point description was adopted.
Risk analysis	We regularly analyzed and summarized our risk management situation and that of our subordinate units, issued risk management reports, and report regularly to our Legal Affairs and Risk Control Department; conducted self-evaluation on the effectiveness of internal control, issued an annual internal control self-evaluation report, and reported to our Legal Affairs and Risk Control Department. At the same time, according to the <i>Measures for the Administration of Access to High-Risk Businesses of Jiangxi Copper Co., Ltd. (2020 Edition)</i> , we required to conduct adequate market surveys and investigations on high-risk businesses and formulated corresponding risk prevention emergency measures and plans.
Risk early warning and monitoring	Our Risk Management Committee, Legal Affairs and Risk Control Department, and various functional departments and subordinate units constitute the organizational system for risk early warning, whose responsibilities include risk early warning and supervision authority and the division of risk management level.
Risk tracking	For risk events that require long-term tracking and handling, a regular reporting mechanism has been put into place, requiring all subordinate units to regularly report the latest results of relevant risk disposition; in 2023, we carried out an inspection on the operation of the integrated risk control system and required monthly reporting of progress in rectification of risk control problems and reporting of the rectification progress at the Risk Management Committee meeting.
Assessment and accountability	We conducted an evaluation on the performance of the risk control director, covering eight aspects including risk management system construction and improvement, risk identification, risk event reporting and handling. In 2023, we furthered clarified the assessment scope, content, and standards and implementation of assessment results based on the <i>2023 Annual Risk Performance Assessment Plan of Jiangxi Copper Co., Ltd.</i> and the <i>2023 Annual Performance Assessment Plan of Jiangxi Copper Co., Ltd. for the Senior Executives of its Subordinate Units Specifically in Charge of the Risk Control Work.</i>

Internal Control

Our internal control system is based on the *Basic Internal Control Norms for Enterprises* and its supporting guidelines, focuses on management and business processes, put into place and refined based on five basic elements. We achieve effective management of internal control by putting into place an internal control system, conducting regular internal control evaluations, implementing rectification of internal control defects, maintaining and optimizing the internal control system, and forming closed-loop management. At the same time, we prepared the Internal Control Manual to standardize the control over our key business processes and those of our subordinate units. It represents a core component of our integrated risk control system.

Compliance Management

We insisted on making compliance management requirements cover all business areas, all our departments, subordinate units and all employees, and run through the entire process of decision-making, execution and supervision. At the same time, we strengthened the supervision over employees' behaviors by launching various training programs. In 2023, we held a legal knowledge and compliance management training course covering compliance system construction, etc. A total of more than 113 people from our functional departments and subordinate units participated in the training program.

Business Ethics

We strictly abide by the *Interim Provisions on Banning Commercial Bribery*, *Anti-Unfair Competition Law of the People's Republic of China*, *Anti-Money Laundering Law of the People's Republic of China* and other relevant national laws and regulations, and have developed a series of internal systems based on our business and operational characteristics. We exercised stringent supervision over key risk areas such as the prevention of corruption and bribery, anti-unfair competition, anti-fraud and money laundering, and promoted the in-depth development of our business ethics while eliminating the above risks.

Fighting Against Corruption

We formulated the *Opinions on Implementation of the Integrated Supervision System of Jiangxi Copper*, *Implementation Measures for Integrity Risk Prevention and Management of Jiangxi Copper Co., Ltd.*, *Measures of Jiangxi Copper to Strengthen Supervision and Inspection of Leading Officials (Revised Version)*, *Interim Provisions of Jiangxi Copper Co., Ltd. on the Disqualification of Leaders from Official Duties* and a series of other systems on business ethics to regulate anti-corruption and anti-corruption related behaviors, prevent and control corruption from the source, and enhance the effectiveness of integrity construction and anti-corruption work. In 2023, we were not subject to external anti-corruption investigations or penalties.

Put into Place and Refine the Integrated Supervision System

Based on the *Opinions on Implementation of the Integrated Supervision System of Jiangxi Copper*, we put into place an integrated supervision system to strengthen the construction of six major discipline systems (political discipline, organizational discipline, integrity discipline, mass discipline, work discipline, life discipline) by giving full play to five types of supervisory roles: comprehensive supervision, dedicated supervision by the Discipline Inspection Commission (Office of the Supervisory Commissioner), functional supervision, daily supervision, and democratic supervision, made effective use of internal supervision results and the results external inspections, supervision of the Board of Supervisors, audit supervision, etc., to ensure connection of internal circulation and external circulation of the integrated supervision system. In 2023, we newly formulated the *Consultation System on the Integrated Supervision Work of Jiangxi Copper* and *Administrative Measures of Jiang Copper for Rectification Work Based on the Integrated Supervision (Trial)* to further improve the consultation and supervision mechanism for integrity construction and anti-corruption work, and put into place the closed-loop management mechanism featuring classification-base early warning of problems and deregistration following completion of rectification.

Convening the 2022 Annual Integrated Supervision Work and Overseas Corruption Management Leading Group Meeting



Integrated Supervision Work and Overseas
Corruption Management Leading Group Meeting

On February 7, 2023, we convened the 2022 Annual Integrated Supervision Work and Overseas Corruption Governance Leading Group Meeting, which summarized the overall progress of the integrated supervision system in the year, operational experience highlights and deficiencies, and studied and made arrangements for priorities of the integrated supervision system and the overseas corruption management in 2023.

Strengthen Integrity Risk Prevention

In response to various integrity risks, we implemented preventive measures through early prevention, mid-term monitoring and post-disposal. At the same time, we established a complete tip-off handling mechanism, put into place a tip-off email box, and had inspected units set up complaint mailboxes and telephone hotlines. Criticisms and suggestions made by social groups and the masses through petition letters, appeals, tip-offs, accusations, etc. were dealt with promptly in full, and a ledger was put into place and placed under the management of dedicated personnel.

Early prevention:	On the basis of identifying integrity risks, we implemented preventive measures against the four types of risks to enhance the initiative of managers to be honest and self-disciplined and the effectiveness of the supervision and control mechanism, and proactively prevent the occurrence of dishonest behaviors.
Mid-term monitoring	On the basis of early prevention measures, we monitored the behaviors of managers, operation of systems and mechanisms, and the process of power operation, and timely discovered emerging and tendentious problems so that corresponding post-processing measures can be taken.
Post-disposal:	In response to problems and deficiencies found in mid-term monitoring, depending on the severity of the situation, timely measures should be taken to deal with risks in accordance with the principle of hierarchical management, to timely correct mistakes and deviations in work, plug up loopholes, and preventing problems from evolving into violations of Party discipline or state law.

In terms of supplier integrity risk prevention, we formulated the *Measures for the Administration of Avoidance in Procurement of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd. (Trial)*, *Measures for the Administration of the Supply of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd. (2022 Edition)* and other internal systems to ensure fairness and impartiality in the procurement transaction process and results, and required suppliers to comply with the provisions of the Letter of Commitment on Integrity.

Create a Culture of Integrity

Taking the construction of the integrated supervision system as the enabler, we took solid steps to carry out a variety of integrity publicity and education and integrity culture creation activities for the Board of Directors and employees of various types and at all levels, continued to deepen the construction of work style, created a sound atmosphere featuring cleanliness and uprightness, and promoted the effective implementation of Jiangxi Copper's integrated supervision system. In 2023, we conducted in-depth study and publicity programs to strengthen employees' sense of responsibility by organizing special meetings, special actions, theme education programs, theme publicity and education month programs, integrity culture brand building and evaluation work, etc. At the same time, we made full use of self-media, bulletin boards and other channels to create a corporate culture of integrity and promoted anti-corruption work. In 2023, we carried out various types of integrity training programs for 2 times, covering 100% of our employees.

Carry out warning education activities:

Focusing on the theme of warning education activities, and in combination with the realities of our work on integrity, we formulated diversified collective learning and integrity education contents, and carried out collective learning, themed Party classes, symposiums, and nearby visits and study activities.

Carry out theme publicity and education month activities:

We organized the viewing of warning educational films, and continue to sound the alarm on integrity by using cases as lessons to clarify disciplines, enhance employees' awareness of integrity and self-discipline, and actively created a clean and honest atmosphere;

We carried out discipline and law knowledge tests to effectively enhance employees' awareness of discipline and law, make them consciously set an example of respecting and abiding by the law, and consciously work with integrity and perform their duties strictly;



Themed Activities to Visit the
Integrity Cultural Center

We carried out special supervision on festival discipline, resolutely maintained integrity during festivals, and jointly created a clean and upright festival atmosphere;

We carried out warning education on the professional integrity of young cadres, strengthened their awareness of integrity, and fastened the first button for young cadres to perform their duties with integrity.

Issue the Initiative for Upholding Integrity in Family:

We built a strong family-based defense line against corruption, effectively strengthened the construction of a culture of integrity and the inheritance of fine family traditions, and built a strong ideological dam of ensuring no desire to be corrupt.

Carry out the recommendation and evaluation of integrity culture brands

We evaluated the integrity culture brands created by subordinate units and promoted the construction of integrity culture brands.

Fair Competition

We always abide by relevant laws and regulations on anti-monopoly and anti-unfair competition, resolutely defend the principle of fair competition, continue to improve the internal supervision mechanism, strengthen training programs on legal awareness, promptly stop and correct any behavior that may violate laws and regulations, and commit ourselves to creating a sound environment for healthy development of the market economy. In 2023, we observed no legal proceedings against us in terms of unfair competition, antitrust, or antitrust practices.

Anti-money Laundering

We strictly abide by relevant national anti-money laundering laws and regulations, and continue to strengthen the monitoring and management of transactions, products and services by strengthening internal controls and taking relevant compliance measures to prevent money laundering activities conducted through our financial transactions and business operations. In 2023, we observed no major violations.

Pay Taxes According to Law

We strictly abide by tax-related laws and regulations, insist on operating with integrity and paying taxes in accordance with the law, providing a source of tax revenue for the places where we operate and contributing to the prosperity and development of the local social economy. For more information on corporate taxation, please refer to our 2023 annual report.

Investor Relations

Protect Shareholders' Rights and Interests

We strictly comply with the regulations and requirements of *Rules for the Shareholders' Meetings of Listed Companies* and *Guidelines on the Articles of Association of Listed Companies* by the China Securities Regulatory Commission to ensure that all shareholders, especially small and medium-sized shareholders, enjoy equal status and can fully exercise their rights. We convene and hold general meetings of shareholders in strict accordance with the relevant requirements of the China Securities Regulatory Commission, perform our duties to protect the rights and interests of shareholders, actively facilitate shareholders to participate in corporate governance, hire independent accountants to serve as scrutineers and lawyers to be present as witnesses, and conduct separate vote counting for small and medium-sized investors' investments to ensure that the legitimate rights and interests of all shareholders, especially small and medium shareholders, are not infringed upon.

Shareholder Returns

We attach great importance to building a good relationship with investors and fully consider offering reasonable returns to investors without affecting the cash flow required for our normal production, operation and development. Our profit distribution policy has maintained its consistency and stability. We always adhere to cash dividend distribution. In 2023, by distributing cash dividend of RMB 5 (including tax) for every 10 shares to all shareholders, we offered a total cash dividend of RMB 1,731,364,702.5, accounting for 28.89% of the net profits attributable to shareholders of the listed company in 2022.

Investor Participation

We attach great importance to communication with investors and regard investor relations management as the focus of our daily work. We actively conduct investor relations management in strict accordance with the *Investor Relations Management System of Jiangxi Copper Co., Ltd.* and has established a complete investor relations management system. In 2023, we actively carries out extensive and in-depth communication with investors through various methods, listened to investors' opinions, conveyed our messages to them, and maintained long-term trust relationship between investors and us.

We strengthened management in media tracking, investor questions clarification, institutional investor surveys, etc., and timely grasped the media's comments on us and investors' key concerns about us;

We strengthened timely communication with investors through the investor interactive relationship platform, investor hotline, company email, etc. we arranged for dedicated personnel to regularly maintain the above channels and platforms to ensure that investor feedback information can be transmitted to us in a timely manner and responded to investors' questions in a timely manner, accepted investors' opinions and suggestions, and ensured smooth communication with investors;

We strictly followed the internal rules and regulations to actively receive on-site surveys from institutional investors, and recorded the information of visiting investors in a timely manner.

As of the end of 2023, We held 1 annual performance briefing meeting; participated in 1 collective reception day for investors of listed companies in Jiangxi Province; organized and held 2 quarterly performance briefing meetings; participated in multiple strategic meetings organized by institutional investors, conducted extensive and in-depth exchanges with investors by adopting the one-to-one and one-on-many approach; received more than 20 domestic and foreign institutions and offer more than 40 receptions.

Intellectual Property Management

We continued to strengthen the management of registration and maintenance of trademark intellectual property rights, and safeguarded the legitimate rights and interests of our trademarks in accordance with the law. We formulated internal systems such as the *Measures for the Administration of Trademark Use of Jiangxi Copper Co., Ltd.* and *Notice on Issuing the Implementation Rules for Jiangxi Copper's Trademark Licensing* to actively strengthen trademark management and protect our legitimate rights and interests, and protect our brand image. In 2023, we resolutely cracked down on malicious registration and trademark attachment by carrying out trademark rights protection work; at the same time, we organized internal personnel and external legal consultants to conduct a legal physical examination on our trademarks, and proactively and efficiently handled trademark renewals to ensure the effective continuation of the brand; in addition, we continued to optimize the trademark licensing process and accelerated brand coverage efficiency. During the reporting period, we had no court verdict concluding that we had committed any major intellectual property violations.

As of the end of 2023, in terms of domestic trademarks, we held 9 registered trademarks alone, and we and our holding group Jiangxi Copper Group had a total of 15 registered trademarks; in terms of international trademarks, we obtained 3 Madrid trademark registration numbers, and the designated countries included the United Kingdom and European Union.

Information Disclosure

We always strictly abide by relevant regulatory and exchange regulations. In accordance with the *Information Disclosure Management System of Jiangxi Copper Co., Ltd.*, *System for Registration and Management of Insiders Who Have Access to Insider Information of Jiangxi Copper Co., Ltd.*, *Accountability System for Material Errors in Information Disclosure in the Annual Reports of Jiangxi Copper Co., Ltd.*, *Internal Management System of Jiangxi Copper Co., Ltd. on Information Disclosure Suspension and Exemption* and other internal systems to consolidate the foundation of information disclosure compliance management and facilitate us to operate in accordance with the laws and regulations. During the reporting period, our information disclosure work was carried out in accordance with the exchange and information disclosure management regulations. Our significant matters, related-party transactions, etc. were disclosed in accordance with the requirements of the exchange, and the A-share and H-share announcements were made consistent.

In 2023, we disclosed a total of 158 reports, including 4 regular reports, 154 temporary announcements, and 0 regulatory announcement. By A/H shares: we disclosed 77 A-share announcements and 81 H-share announcements.

04

Putting People First by Attaching Importance to Safety and Development of Employees

We always regard talent cultivation and rights and interests of employees as our core strategy, ensure fairness and diversity in recruitment, improve caring and benefits for employees, build a complete employee training system and development mechanism, and create a safe and healthy working environment as well as a fair and just career development space.

Legal Employment

Fair Employment

Employee Care

Employee Training

Occupational Safety and Health



Legal Employment

In accordance with the *Labor Contract Law of the People's Republic of China* and the *Provisions of the People's Republic of China on the Prohibition of Using Child Labor*, We established a complete human resources management system and management system to standardize the management of recruitment and dismissal, salary and promotion, working hours and holidays, and protected the legitimate rights and interests of employ-ees. We explicitly prohibited the employment of child labor and bonded labor, and prohibited forced labor.

In the international market, we strictly abide by the relevant laws and regulations of the country or region where we operate, clearly express the employment conditions in the contracts with employees in a language that they understand, and ensure that all jobs are voluntarily done by them.

Fair Employment

We strictly abide by the *Labor Law of the People's Republic of China* and other laws and regulations in China and overseas operating locations, adhere to the principle of equal employment, and create a diverse and inclusive working environment. In accordance with relevant internal systems such as the *Management Measures of Jiangxi Copper Co., Ltd. for Labor Contracts* and *Management Measures for Human Resources Recruitment and Allocation of Jiangxi Copper Co., Ltd.*, we adhere to the principles of fairness and justice to select talents on demand. We treat employees fairly and are actively committed to promoting gender equality, protecting the rights and interests of female employees and ethnic minority employees, and eliminating all kinds of discrimination based on gender, ethnicity, age, religion, nationality, etc. In 2023, we continued to expand recruitment channels and improve recruitment efficiency by combining campus recruitment with social recruitment, online recruitment with offline recruitment, and industry-related colleges with comprehensive colleges. During the reporting period, we recruited a total of 1,164 employees, 725 of whom had a bachelor' s degree or above, including 267 outstanding university graduates¹¹. As of the end of 2023, we recruited a total of 667 outstanding graduates. We implemented the policy of cultivating outstanding students, provided outstanding graduates with outstanding student subsidies, and incorporated them into the training sequence of outstanding students. We also set up dual mentors in business and management to provide guidance and help outstanding students grow into independent business backbones as soon as possible. As a corporate research institute with distinctive characteristics and influence in the industry, Jiangxi Copper Research Institute introduced 80 PhDs and 42 masters in 2023, forming a R&D team composed of 181 PhDs and 157 masters. **As of the end of 2023, our total number of employees reached 26,066, of which local employees in Jiangxi Province accounted for 67.79% of the total number of employees; female employees accounted for 15.07%, representing an increase from the previous year; employees with disabilities (including disadvantaged employees) accounted for 1.28%; ethnic minority employees accounted for 1.58%; foreign employees accounted for 0.004%.**

Statistics of our employees

Categories	Number of people	Proportions
Gender	Male	22,138 84.93%
	Female	3,928 15.07%
Age	30 and under	5,224 20.04%
	Age 31-40	6,368 24.43%
	Age 41-50	6,316 24.23%
	Above 50	8,158 31.30%
Education	PhD	185 0.71%
	Master	846 3.25%
	Bachelor	5,777 22.16%
	College	5,537 21.24%
	Technical secondary school	1,685 6.46%
	Vocational school	2,719 10.43%
	High school	3,182 12.21%
	Junior high and below	6,135 23.54%
Total	26,066	100%

¹¹Refers to outstanding university graduates who meet the requirements of the *Administrative Measures for Outstanding University Graduates of Jiangxi Copper Corporation Limited*.

Employee turnover

Total turnover rate		2.08%
Gender	Male	1.68%
	Female	0.40%
Age	20 and under	0.06%
	Age 21-30	1.34%
	Age 31-40	0.53%
	Age 41-50	0.08%
	Age 51-60	0.07%
Education	PhD	0.11%
	Master	0.37%
	Bachelor	0.70%
	College	0.48%
	High school and below	0.41%

Employee Care

We actively fulfilled our social responsibilities, paid close attention to employee compensation and non-salary benefits, provided assistance to employees, and helped employees in need reduce their financial burden. We also organized a number of cultural and sports activities to enrich employees' lives and smoothed channels for employees to express their opinions.

Employee Benefits

We comply with laws and regulations such as the *Labor Law of the People's Republic of China* and provide all employees with competitive salaries within the industry. In accordance with the principle of adapting to market-oriented remuneration, linking to operation performance and labor productivity, we put into place and refined the normal employee income increase and decrease mechanism where employees' income fluctuates with our performance, and performance wages are allocated according to assessment results. During the reporting period, we further revised and improved the Remuneration Management Measures for Persons in Charge of Subordinate Units, adjusted the annual salary structure and proportion of directly managed cadres and the basis for calculating value dimension of business units, implemented the individual reward capping management, and standardized salary management procedures. **In 2023, our labor contract signing rate stood at 100%.**

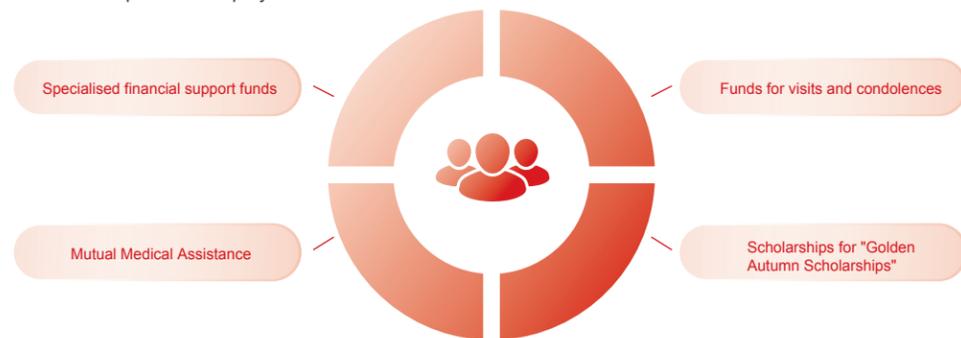
In accordance with the provisions of the *Social Insurance Law of the People's Republic of China*, we pay five social insurances and one housing fund for employees in accordance with the law, and fully implement the supplementary medical insurance covering our current and retired employees in accordance with the *Supplementary Medical Insurance Plan of Jiangxi Copper Corporation Limited* formulated by the controlling shareholder Jiangxi Copper Group. The Human Resources Department and various units actively coordinate with insurance agencies to expand reimbursement channels, optimize reimbursement processes, and reduce the financial burden on employees' families. In addition, we put into place an enterprise annuity system to protect and improve employees' benefits after their retirement. **In 2023, our social insurance coverage rate reached 100%.**

In accordance with the *Regulations on Paid Annual Leave for Employees and the Implementation Measures for Paid Annual Leave for Enterprise Employees*, we provide paid holidays to employees in accordance with laws and regulations, and regularly arrange for employee recreation and rehabilitation and health examinations. **The employee occupational health examination rate reached 100%.**



Employee Assistance

We revised the *Measures for Rendering Assistance and Caring of the Company* in 2023 to actively help employees improve their ability to withstand risks, improved the long-term mechanism for offering assistance and condolences, and formed a multi-channel assistance pattern that covered all employee groups in need. Specific measures included four aspects: First, we actively strove for RMB 174,800 of special assistance funds from the central and provincial finances for employees in need, provided condolences to 22 employees who had difficulties in getting registered for social insurance with a total of RMB 108,000, and serious illness assistance subsidies in the amount of RMB 23,900. Second, we paid visits to 427 employees in need and model workers throughout the year and offered condolence payments in the amount of RMB 1.3389 million. Third, we continued to give play to the role of medical mutual aid in providing guarantees. 222 employees received subsidies and condolences in the amount of RMB 676,900 from the medical mutual aid association, reducing the risk of employees becoming trapped due to illness. Fourth, we continued to implement the Golden Autumn Student Aid program and provided RMB 138,300 in student aid and scholarships to 48 employees' children.



We Were Paying Condolences Visits to Employees



We Were Paying Condolences Visits to Employees in Need

Care for Female Employees

Based on our actual situation and the characteristics of female employees, we have separately incorporated special protection contents such as protection during menstruation, pregnancy, confinement and lactation, labor hygiene, gynecological and breast disease health examinations for female employees into the Chapter of Protection of Rights and Interests of Female Employees in the *Collective Contract*. We regularly organize general gynecological examinations and screening of cervical cancer and breast cancer for female employees, provide female employees with a happiness insurance every year, handle happiness insurance claims settlement and condolences for female employees, and pay RMB 60 /month of sanitation fee as required, which has effectively enhanced the ability of female workers' families to withstand risks.

On major festivals such as Women's Day, we actively organized and carried out various cultural and sports activities that were well suited to female employees, and continuously enriched their spiritual and cultural life. A series of activities for female employees such as Being a Good Master-Competing for Excellence-Striving to Make New Achievements and Rose Book Scent-Fragrant Ganpo were a complete success. The Rose Book Scent reading activity achieved remarkable results, winning 3 national-level reading results and 12 provincial awards. In 2023, female employees of various grassroots trade unions carried out healthy psychology lectures to help single female employees in need, which improved the sense of happiness, gain and security of the masses of female employees.

In addition, a group of advanced female employee collectives and individuals have emerged, giving full play to the role of main force and half of the sky of industrial workers in the new era, contributing women's wisdom and strength to our high-quality development. In 2023, we successively awarded 12 groups, including the multi-element group of the Dexing Copper Mine Chemical Inspection Center Laboratory, the honorary title of Female Employee Pacesetter Post to Make Contribution for 2022, and awarded 17 comrades the honorary title of Female Employee Pacesetter to Make Contribution for 2022.



We and Our Subordinate Units Were Organizing Various March 8 Women's Day Activities

Cultural and Sports Activities

We continued to enrich the amateur cultural life of employees and created a positive and harmonious atmosphere through cultural and sports competitions, subsidies to subordinates, and the construction of brand-related cultural and sports projects. During the reporting period, our labor union held a total of 17 company-level cultural and sports competitions such as basketball, badminton, tennis, poker, and table tennis, with 1,676 employees participating in the competition; labor unions of 28 secondary units organized 329 cultural and sports activities, with 36,786 employees involved. We actively organized the masses of employees to participate in a series of activities such as Chinese Dream-Beauty of Labor Photography, animation, essay collection, publicity, line dancing, and walking, so that the value idea of Chinese Dream-Beauty of Labor can stay engaged with the grassroots, take roots among employees, and consolidate the ideological basis for striving in unity.



We and Our Subordinate Units Were Organizing Various Cultural and Sports Activities

Democratic Communication

From January 7th to 8th, 2023, we held the fifth meeting of the Fourth Workers' Congress and the fifth meeting of the fourth Trade Union Congress in Nanchang to ensure that employees have the right to know, participate, express opinions, and supervise. We implement employee diversification in the trade union. The proportion of front-line employees should not be less than 60%; the proportion of middle managers and above should not exceed 20%; representatives of female employees, young employees, and model workers (advanced workers) should account for a certain proportion.

Employee Training

We attach great importance to employee development and capacity building, and innovate the education and training system through internal training, university-enterprise cooperative training, independent evaluation of skilled talents, and internal exchanges of labor models to improve employees' professional skills. At the same time, we continue to improve the assessment system and carry out exchanges between employees with outstanding performance and training courses for underperforming employees to train and empower employees through the construction of HR basic platforms. In 2023, our 1+3 four-in-one position system won the Second Prize for National Management Innovation and the First Prize for Corporate Management Innovation for 2023.

In 2023, the second phase of the s-HR system was completed. Functions such as employee recruitment, daily job recommendation, tailored training programs, and intelligent inquiry were officially launched, and the functions of the sharing center were further improved and enhanced. Four units, Dexing Copper Mine, Guixi Smelter, Yinshan Mining and Wushan Copper Mine, have completed the HRbp pilot programs and conducted 36 HRbp empowerment training sessions for 1,282 people, laying a solid foundation for our human resource management transition towards the three-pillar mode.

Education and Training

During the reporting period, a total of 17,365 employees participated in training programs, with a total of 57,307 people trained, and a total of 1,405,080 training hours. Among them, there were 2,605 female employees, accounting for 15%, 14,760 male employees, accounting for 85%; 10 senior executives, accounting for 0.06%, 357 middle managers, accounting for 2.06%, and 16,998 grass-roots employees, accounting for 97.89%.

On the basis of the existing centralized education, job rotation training, and fixed-position training, we pioneered the upward secondment and downward dispatch mechanism for outstanding young talents to allow grassroots talents to stay in tune with the latest information and learn from management experience of the administrative organs, and make outstanding talents in the administrative organs well informed of the situation at the grassroots level, understand the actual production at the grassroots level, so that they could quickly grow into talents through the two-way training mechanism. The first batch of 33 personnel to be trained under the mechanism have all arrived at their posts and will study, work with the employees and be subject to the same assessment as well as rewards and punishment standards.

Carry out college-enterprise cooperation with Jiangxi Metallurgical Vocational Technical College

We carried out college-enterprise cooperation with Jiangxi Metallurgical Vocational Technical College, prepared syllabuses and designed courses based on copper foil process equipment, and selected 38 corporate tutors to lecture at the college and accepted 241 interns, allowing college students to familiarize themselves with the processes, experience corporate culture in advance and cultivate tailor-made talents with the skills needed by us in the future.

We held a marketing talents training courses under the Copper Merchant Plan

During the reporting period, we signed a training agreement with Guangdong University of Foreign Studies to organize the marketing talents training course under the Copper Merchant Plan. More than 50 professionals in procurement, sales, commodity futures and other positions from 12 subordinate units participated in the 27-day training sessions conducted in two phases. The training

program included 35 courses, 43 times of pre-class experience sharing, 5 case studies, 3 business visits and 1 red-themed seminar. After the training program was completed, we conducted a unified assessment on the trainees, and 10 trainees were staged outstanding performance during the assessment. This training program has effectively improved the personal qualities and professional competencies of employees.



Organized Marketing Talents Training Courses under the Copper Merchant Plan

Jiangxi Province Copper Industry Craftsman College was officially established

In 2023, relying on the original employee education and training resources and strength, we further deepened the implementation of the employee quality improvement project, innovated methods, created conditions, and established the Jiangxi Province Copper Industry Craftsman Academy to help employees make achievements by studying and working hard based on their positions. We upgraded the original online training system to the Jiangxi Province Copper Industry Online Craftsman Academy for the New Era, bringing many practical experiences such as craftsman classes, learning competitions, online exams, and achievement displays to employees. At present, the system contains more than 50,000 test questions for 42 professions in the fields of mining, smelting, and processing, and is equipped with incentive measures to encourage advancement to more senior courses. It attracts more than 300,000 people for online learning every year.

Employee Appraisal

We continue to strengthen daily supervision and special inspections, requiring all units to improve the standardization of performance assessment through public issuance of assessment plans, extensive solicitation of opinions on assessment indicators, and timely disclosure of assessment results, and subject employees to incentives and restrictions in accordance with the principles of imposing forced distribution and ensuring effective performance assessment for top talents and those who underperform. In 2023, we revised the 2023 Annual Performance Appraisal Plan for Office Staff and to further encourage to be subject to normal assessments, so as to widen the gap, and effectively give play the role of models in leading the way and promoting work in all areas by drawing upon the experience gained on key points.

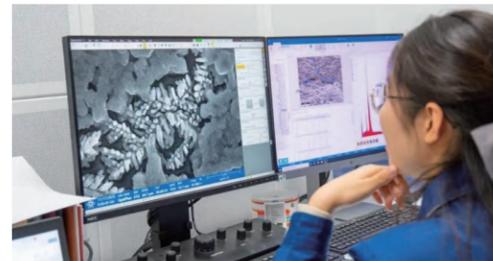
Skills Training

We carry out a variety of skill competitions to promote learning through competitions and encourage excellence through competitions, creating a strong atmosphere of competing against each other to stand out. In 2023, our labor union organized 13 major production units and carried out a labor competition with the theme of working hard to achieve great results, unite and strive to build new achievements. Through various forms of daily labor competitions and assessment of the completion of core production indicators of relevant units, the winning units in the competition were rewarded to help advance our Three-Year Action for Further Improvement regarding high-quality development.

Awards at Provincial Level or Above

China Bronze Cup Comprehensive Management Skills Competition for Shift Team Leaders	First prize for group, 5 contestants all won individual first prize
Non-ferrous Metal Industry Human Resources Management Skills Competition	first prize and 1 second prize
The Second National Industrial and Information Technology Skills Competition Jiangxi Qualifiers	Second prize
The Second National Industrial Economic Application Innovation Vocational Skills Competition	Second prize
Jiangxi Province Revitalization Cup Copper Industry Skills Competition	Top 6 in 4 professions
Jiangxi Province Tiangong Cup Nonferrous Metal Industry Skills Competition	Top 3 in 3 professions

In addition, we actively standardize the independent evaluation of skilled talents and conduct cross-investigation pilot programs during the interview and written examination stages to further improve the quality of evaluation. At present, evaluation resources for 74 professions have been made available, of which evaluation resources for 9 professions were put into place in 2023. We will continue to improve the evaluation standards, training materials, and question bank contents, explore the ways to optimize the evaluation and assessment modes, and pilot unified written examinations, unified practical operations, and unified defense for general professions and evaluate skill level according to scoring and ranking.



Jiangxi Copper Research Institute's First Scanning Electron Microscope Skills Training and Competition For Female Employees

Honors and Incentives

We held a conference in 2023 to solemnly commend 3 groups and 23 individuals who have won honors at the provincial level or above. Yan Xin from Guixi Smelter was awarded the National May 1st Labor Medal, Liu Jufang from the Processing Division was awarded the National Women's Contribution Model, Kanglimei from Jiangxi Copper Copper Foil was awarded the title of National May 1st Women's Model, and the Finished Product Second Shift Team of Guixi Smelter Central Laboratory was awarded the National March 8th Red Flag Group. The Ganpo Model Worker Craftsmen Promotional Group has offered training sessions for five times and interacted with 856 new recruits of Jiangxi Copper. We relied on the Jiangxi Copper E Family to widely publicize the advanced deeds of model workers and launched a series of video broadcasts themed on Model Workers Have Something to Talk About.

In 2023, we continued to step up its efforts in building innovation studios for model workers (craftsmen), and actively worked hard on fostering cross-field, cross-unit, and cross-profession innovation studio alliances. In the year, one studio joined the National Model Worker And Craftsman Innovation Studio Alliance for the Mechanical, Metallurgical and Building Materials Industries, one studio was upgraded to the Jiangxi Province Model Worker and Craftsman Talent Innovation Studio, two people were awarded the title of Ganpo Craftsmen, two model worker innovation studios were awarded the title of National Demonstration Innovation Studio in the Mechanical, Metallurgical and Building Materials Industries, and two people were awarded the title of National Craftsmen in the Mechanical, Metallurgical and Building Materials Industries. Company-level model worker (craftsman) innovation studios have 237 members and 161 pairs of mentors and apprentices. They implemented 234 projects to make technical breakthroughs, carried out various special training programs, trained 8,559 people, and obtained 67 patent authorizations for the year.

Occupational Safety and Health

We saw that the our primary responsibilities for production safety were fulfilled, stepped up efforts to ensure assignment of equal responsibilities to Party committees and governments, charging officials with work safety responsibilities in addition to their prescribed duties, exercise of joint management and accountability for dereliction of duty, broke down the production safety goals and tasks set at the beginning of the year, and promoted implementation of tasks by working hard to see that responsibilities were fulfilled, strengthening risk prevention and control and carrying out regular supervision and inspections. **In 2023, our production safety goals were achieved well, with 0 work-related death, 4 work-related injuries, an average monthly injury rate of 0.018‰ per thousand people, and a dust compliance rate of over 85%.**

Production Safety Management Mechanism

In accordance with the requirements of relevant laws and regulations, we strictly performed our responsibilities for production safety management and occupational disease prevention and control, and formulated and improved production safety and occupational health management systems and operating procedures. In order to ensure the smooth development of our production safety work, we insisted on holding safety committee meetings, quarterly safety and environmental protection work meetings and special production safety meetings every quarter, summarizing work in a timely manner, analyzing deficiencies, making careful arrangements, and promoting the implementation of various tasks.



Production Safety Management Mechanism

In 2023, we strictly carried out internal audits on the occupational health and safety management system, deployed professional internal auditors from relevant departments and units, evaluated the operation effect of the occupational health and safety management system of units in the province, to find deficiencies, and propose improvement measures and improve the level of production safety through continuous optimization of the management system.



Occupational Health and Safety Management System Certification

Occupational Health Management

When the labor contract is signed, we proactively inform employees of occupational hazards and their consequences that may occur during work, occupational disease protection measures, etc.; during production and operation, we continue to improve working environment by implementing measures such as ventilation and dust removal, and replacing harmful substances with low-harm and harmless substances, and providing employees with labor protection supplies and appliances that meet national standards or industry standards and are needed to ensure safe production and prevent and control occupational diseases.

At the same time, we continue to strengthen occupational health management and occupational disease identification to protect the health of employees. For employees engaged in operations exposed to occupational disease hazards, occupational health examinations are organized before, during and after work according to regulations, and the results of the examinations are truthfully informed to employees. Each of our subordinate units will entrust qualified units to carry out occupational disease hazard factor detection and occupational health examinations every year. Based on the results of occupational health examinations, we will improve employee occupational health files and do a good job in preventing and controlling occupational diseases. In the past few years, we saw no newly increased occupational patients.

Management Measures on Production Safety

In terms of safety self-examination, we strictly require our subordinate units to conduct compliance self-examinations against laws, regulations, standards, specifications and related requirements, promptly rectify existing problems and major potential hazards, and formulate rectification plans for those that cannot be rectified at the moment to actively promote their rectification and report to local regulators and us; if there are non-compliances with existing laws and regulations, illegal activities shall be eliminated in a timely manner, and for laws, regulations and norms that are about to be promulgated, we shall be fully aware of them and try to avoid non-compliance. We require each unit to carry out a bottom-up re-identification and re-evaluation of safety risks from shift teams to the factories/mines every year, with the focus placed on identifying safety risks of dangerous areas and operations that can easily lead to safety accidents, and conducting evaluation on identified safety risks, continuously improving the three-level security risk list, formulating corresponding control measures, and regularly checking the implementation of control measures to ensure that each risk is managed, monitored, and held accountable.

In terms of safety drills, we established an emergency drill promotion leading group to promote unscripted emergency drills in an orderly manner. In 2023, we focused on the actual production situation, and strictly conducted a total of 219 unscripted drills at company, factory/mine, workshop, and workshop section and shift team levels in response to accident scenarios hard to be simulated, with 4,354 participants, resulting in having effectively improved the emergency response and escape capabilities of all employees.



We Were Conducting Safety Emergency Drills

In terms of safety inspections, we adopted a daily + special approach and carried out various safety supervision inspections at a high frequency. A total of 4 comprehensive inspections and 8 special inspections were carried out throughout the year, which effectively ensured that our safe production situation continued to be stable. Our efforts included strengthening comprehensive inspections and taking solid steps to carry out production safety inspections during the national Two Sessions and during flood season, Mid-Autumn Festival and National Day; highlighting safety supervision during key periods. To this end, the inspection team adopted the four-Nos two-direct approach (No notice, no greeting, no report, no reception, go directly to the grass-roots, go directly to the scene) to carry out inspections on mines and smelters and processing units during holidays; strengthening special inspections. Active steps were taken to carry out special inspections on safety training programs, hazardous chemicals, open-air slopes and underground roofs, items involving hazards and explosions and fire protection, and outsourced construction units of projects under construction. In 2023, we conducted safety inspections and found a total of 396 potential accident hazards of various types and offered 26 recommendations. All the identified problems have been rectified within the time limit, and the rectification completion rate was 100%.

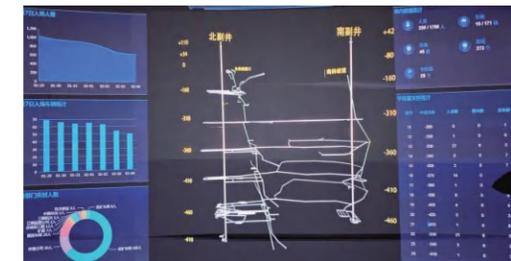


We Were Conducting Safety Inspections

In terms of safety technology transformation, we encourage subordinate units to continuously improve the safety of the production and working environment through intelligent system construction, efficient equipment substitution, and independent technology research, and achieve good results.

Wushan Copper Mine improved work safety through technical equipment upgrades

- **Promoting mechanized equipment for underground mining:** It solved the problems of low one-time blasting success rate, hanging roof after blasting, and misfires (or duds), thereby improving the efficiency and safety of well formation.
- **Upgrading and transforming the underground safety and hazard avoidance system:** signal base stations were deployed in key areas underground. By receiving the signals from locator cards carried by underground workers, we can obtain information such as personnel location, quantity, and historical activity trajectories, so that the management can keep track of the distribution of underground personnel at any time. Underground personnel can communicate with the surface through WeChat voice, video and other network call functions, and by deploying digital high-definition cameras, video monitoring of key areas underground has been achieved, providing a strong guarantee for underground production safety. Gas sensors were deployed in key areas underground to receive underground gas monitoring signals to facilitate the management to keep track of the underground air quality and ensure the respiratory health and safety of underground workers. Mine permissible type fixed-line telephone was deployed in the underground area, through which underground workers can directly communicate with the surface production safety dispatching and command center to achieve two-way communication.



Underground Hazard Avoidance System Platform

Yinshan Mining carried out technical researches to conduct safety risk management and control

- **Research on tailings transportation leakage detection system:** Intelligent and information-based monitoring of leakage in tailings transportation pipelines has been realized, leakage points in tailings transportation pipelines can be discovered in time, and leakage alarms can be issued in the central control room. It can detect hole leakage which is $\geq 20\text{mm}$, the alarm response time is $< 60\text{s}$, and the positioning error of leakage detection is less than 45 meters.
- **Research on online monitoring and early warning technology for paste filling pipeline transportation of Yinshan Mine:** An underground pipeline transportation risk accident early warning system has been established. Through real-time monitoring of the pressure and flow of the slurry in the filling pipeline, the function of dynamic and real-time acquisition of multipoint pulsating pressure of the filling slurry pipeline transportation system in the entire mining area can be realized to quickly and accurately determine the high-pressure position, which can realize real-time early warning of risks, reduce the incidence of pipeline transportation risk accidents, and improve the stability and reliability of the Yinshan Mine pipeline transportation system.

Educational Training on Production Safety

In 2023, we adopted the the approach of engaging experts + lecturing + having first-hand experience to pay close attention to the safety education of key personnel such as the main persons in charge, production safety management personnel, and front-line safety officers, and launched the safety seminars by our internal experts for the first time to strengthen sharing and exchange of experience. At the same time, we actively organized fire protection knowledge and emergency operation training programs, and safety management training courses, and organized trainees to go to the National Production Safety Emergency Rescue (Ruijin) Experience Center to carry out hands-on safety training programs. Through virtual reality (VR), human-machine interactive and practical drills, we allowed the trainees to master safety knowledge and learn emergency skills through the lively teaching activities.



We Were Carrying out Various Forms of Publicity and Training Programs on Production Safety

05

Innovating and Keeping Forging Ahead by Pursuing Excellence in Practice and Operation

Jiangxi Copper benchmarks itself against world-class enterprise, positions itself as the chain chief of the industry, and sets the goals of providing excellent products, building outstanding brand, leading innovations, and modernizing governance. Facing the need to facilitate business and sustainable developments, we continue to pay attention to the checks and balances between various departments, enterprises and stakeholders, and integrates the concept of long-term development into the implementation of rights and responsibilities, mechanism construction, accumulation of scientific and technological innovations, external interaction and other actions, to continue to empower key production links in the non-ferrous metals industry where we operate, and promote the construction of a system demonstration that combines technology, development and collaborative green governance.



- ▶ **Quality Control**
- ▶ **Technological Innovation**
- ▶ **Rights and Interests of Clients**
- ▶ **Digital Transformation**
- ▶ **Supply Chain Management**
- ▶ **Industry Participation**

Quality Control

We mainly engage in mining, processing, production, trade and transportation of non-ferrous metals and dissipated metal products. The quality of our products and services is crucial to national strategies and the global economy. In order to vigorously promote the construction of a world-class enterprise and implement the arrangements as laid out in the *Outline for Building a Quality Power*, we adhere to the quality concept that quality comes from placing emphasis on details, extensively apply the thinking of full life-cycle quality management and control, benchmark against the world's leading international product quality management system and support quality service needs throughout the product life cycle from the perspective of system construction, management processes, progress tracking, compliance and supervision.

Quality Management System and System Construction

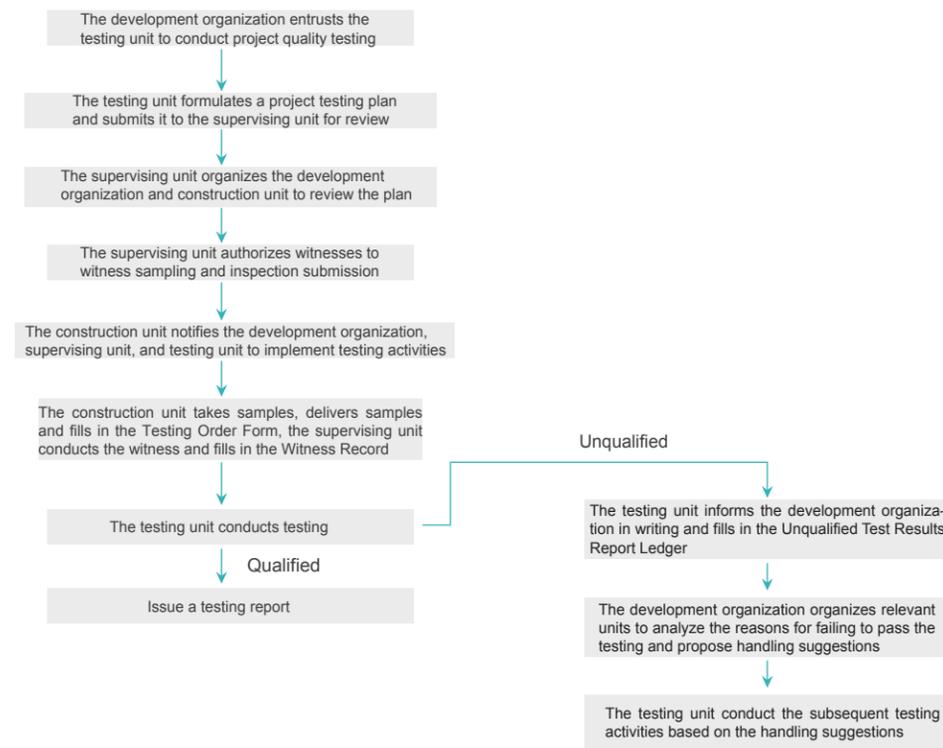
We have put into place an integrated quality management system and strictly abide by the *Product Quality Law of the People's Republic of China*, the *Consumer Rights and Interests Protection Law of the People's Republic of China* and all applicable standards and laws and regulations in the current industry within the institutional framework. Based on relevant requirements, we and secondary units published a series of product quality review specification documents, covering quality requirements under the concept of the full life cycle of production, services, and engineering construction links of various products. During the reporting period, our mineral product qualification rate was 100%.

Brand quality strategy

We continued to promote the establishment and improvement of Jiangxi Copper's brand identification system, strengthen quality management, and ensure the coordinated development of product quality and our brand strategic planning. At the end of 2023, our Guixi Smelter brand cathode copper and industrial sulfuric acid passed the Jiangxi Province famous brand product re-evaluation, and currently have obtained a total of 13 Jiangxi Province famous brand product certifications.

Construction project quality management

In order to further ensure and improve our project quality and clarify a complete set of quality management systems, means and methods for conducting systematic management activities, we formulated and issued the *Operation Instructions on Construction Projects (Construction Process)* which made detailed records and reviews based on our operation experience on construction projects to promote the inheritance, operability and standardization of our advanced experience.



Flow Chart for Project Quality Inspection

Integrated Quality Management System

In 2023, we continued to deepen the two priorities of consolidating the foundation and improved the actions for the integrated quality management system.

- Consolidating the foundation** Consolidate the basic management results and ensure strict quality management;
- Fostering more development momentum** Implement quantitative and graded evaluation of the system, management system certification and other work to improve testing qualifications and promote the transformation of our integrated management system from a compliance-based one to a performance-based one.



Quality Management System Certification



Measurement Management System Certification

Project Quality Spot Check Management

In order to implement the guiding principles as laid out in of our Two Sessions and promote high-quality project construction, we carried out an engineering project supervision and spot check plan based on the status of the development organization's projects under construction and the progress of key projects and issued the *2023 Annual Construction Project Supervision and Spot Inspection Plan of the Engineering Management Department of the Company*.

During the reporting period, we conducted in-depth on-site inspections of the physical quality of the general projects out of the projects under construction and the project quality behavior of participating units and formed a total of 20 quality management spot check opinions. In addition, we carried out key spot checks on projects placed under special supervision such as Yinzhushan Mining Development project, Copper Foil Phase IV project, Wushan Copper Mine Phase III Expansion project, Jiangxi Copper Shangrao Industrial Park project and other projects, and formed 24 spot check opinions. According to such opinions, the development organizations all completed rectifications on time and provided written replies. In 2023, the overall quality of projects under construction was well put under control, and we observed no quality accidents or substandard projects.

Project Quality Supervision and Management Actions

In 2023, with the focus placed on strengthening supervision and management measures, empowering digital means and improving non-ferrous quality supervision functions, we released the *Measures for the Administration of Supervision over Quality of Construction Project (Trial)* and *Construction Site Video Networking Solution*, and resumed the functional unit of the general non-ferrous project quality supervision station - Jiangxi Copper Quality Supervision Station, thus effectively solving long-term difficulties and deficiencies in industrial project construction procedures and supervision links.

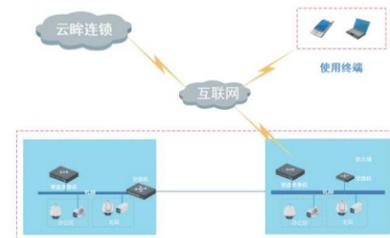
- **The functional unit of the general nonferrous project quality supervision station- Jiangxi Copper Quality Supervision Station was resumed**, and reauthorized and approved by the general nonferrous project quality station. A total of 11 project quality supervision registration procedures were accepted throughout the year, and engineering quality grade of 5 unit projects placed under quality supervision of the station in previous years was verified, all being qualified and above.
- **Administrative Measures for Quality Supervision of Construction Projects of Jiangxi Copper Co., Ltd. (Trial)** It is clearly stated in the Administrative Measures that the Jiangxi Copper Quality Supervision Station and our Engineering Management Department will work together, and the specific quality supervision and management work will be organized and implemented by the Engineering Quality Management Section of the Engineering Management Department. Jiangxi Copper Quality Supervision Station implements the station manager responsibility system. The general manager of the Engineering Management Department concurrently serves as the station manager and presides over overall work; the manager of the Engineering Quality Management Section of the Engineering Management Department concurrently serves as the deputy station manager and is responsible for organizing and arranging quality supervision and spot checks.

Standard Documents Related to Supervision and Management

- Construction Project Quality Supervision and Management Flow Chart
- Annual Construction Project Quality Supervision and Spot Check Plan
- Construction Project Quality Supervision and Spot Check Records
- Construction Project Quality Supervision Registration Form
- Construction Project Quality Assurance System Review Form
- Application Form for Verifying Quality Grade of Unit Projects
- Unit Project Quality Grade Verification Form
- Construction Project Quality Supervision Report
- Construction Project Quality Lifetime Responsibility System Signature Form (Development Organization)
- Construction Project Quality Lifetime Responsibility System Signature Form (Supervising Unit)
- Construction Project Quality Lifelong Responsibility System Signature Form (Construction Unit)

Jiangxi Copper Construction Site Video Networking Solution

In March 2023, we promoted video networking at the construction site to achieve on-site remote monitoring of the Wushan Copper Mine Phase III Expansion Project and the Jiangxi Jiangtong Yinzhushan Lead-Zinc-Silver Mine Project. By authorizing and adding point positions, we could centrally manage projects under construction in secondary units, shorten the distance between management and practical work, improve our management efficiency while deepening exchanges and mutual assistance between units.



Construction Site Video Networking Solution Illustration

Overall Improvement Quality Management Capabilities

In order to deepen employees' management requirements and understanding of product and service quality, we conducted extensive publicity programs of various forms to enhance the quality awareness of all employees; we vigorously promoted quality training programs. Quality Month themed activities and QC group activities to drive employees to consciously take solid steps to carry out healthy and effective quality management actions.

Training programs on quality management: In 2023, we organized the special training program on Quality, Measurement, Energy Review Skills and Improvement Courses to improve the auditing competence of internal auditors in our integrated management system and provide excellent technical talents for ensuring our high-quality and sustainable development. In addition, we held 5 training sessions related to quality and system operation, with nearly 300 participants; we carried out engineering cost training programs, organized 23 participating units, and trained more than 90 people; we invited experts from the general nonferrous project station and professional engineering testing units in the province, etc., to conduct project quality management training programs for project site managers and persons in charge.

Guidance on quality management thinking: We issued the *Full Life-Cycle Quality Control* mind map to guide all units to strengthen product quality traceability management and prevention management. We also guided all copper processing enterprises to attach importance to the application of quality management tools and form a QC-style quarterly summary on quality work.



Full Life-Cycle Quality Control Mind Map

Quality Management Activities:

We organized Guixi Smelter, Dexing Copper Mine, Yongping Mine and the Processing Division to participate in the Non-ferrous Metal Industry QC Group Achievements Press Conference. Among them, Dexing Copper Mine won the honor of National Excellent Quality Management Team for Reducing the Grade of Tailings in 160m3 Flotation Operation and presented the achievement at the Second Global Pursuit of Excellence Conference of China.



We organized teams to participate in the QC Group Activity Achievements Competition organized by Jiangxi Quality Association, and all achievements won awards.

The 2023 Quality Month activity was launched with the theme of enhancing quality awareness and promoting high-quality development. We and our secondary units conscientiously organized learning activities and formulated action plans.

Participate in the national quality management knowledge quiz

We organized employees to participate in the National Online Quality Management Knowledge Quiz, with a total of 6,991 people participating in the online event.

Copper rod quality competition

We and our secondary units were organized to carry out the copper rod quality competition, and it was planned to continue to improve our quality management, technological innovation and services by building a competition platform.

Guixi Smelter launched the Operator Skills Competition

Guixi Smelter organized the production workshop to launch an operator skills competition. The competition was conducted by integrating theoretical examination and field operation. The theoretical examination selected topics from workshop-level documents such as workshop production operation documents, emergency response plans, and process specifications. The field operation part adopted a combination of on-site practical operation and visual inspection, including visual inspection of indicators, on-site operation and fault diagnosis and processing, etc. The competition provided a platform for process controllers to present themselves and jointly make progress, and created a sound atmosphere of competing against each other to stand out.



Guixi Smelter Was Holding the Operator Skills Competition

Copper Foil Company launched the campaign to make rational suggestions on improving quality and exhibit works

Through in-depth exploration of rational suggestions on improving quality, perfecting equipment, optimizing processes and other aspects, we fully stimulated subjective initiative and creativity of grassroots employees. A total of 71 rational suggestions were collected during this campaign, and 11 corresponding works were exhibited at the same time.



Eliminate Manual Mistakes and Adopt Improvement Suggestions: The Copper Foil Company Switched from Handwritten Label with Marker to Machine-Printed Unified Label

Dexing Copper Mine focused on internal auditing on the quality management system and promoted continuous improvement of the system

Dexing Copper Mine conducted an internal audit on the integrated operation management in September. In terms of quality management, starting from the document system, a full-process audit was conducted to see whether the on-site operations were strictly in accordance with the standard operations to ensure implementation in strict accordance with the provisions of documents. In addition, problems discovered were seriously rectified to ensure steady progress of quality management amid stability. According to the internal audit, there were a total of 18 non-conformance items, no serious non-conformance items, 85 observation items, and 19 problem lists, totaling 122 items. In this internal audit, a comprehensive review of the standard compliance of product quality in the production process was conducted, weak links were supervised and corrected to ensure that product quality fully met standards, and to strengthen product quality awareness among all employees.

Dexing Copper Mine shared the learning case of Making High-quality Products a Sharp Weapon for Market Expansion

By analyzing typical cases, it described how Dexing Copper Mine Industrial Company adopted the client-centric approach, promoted continuous improvement of product quality, and provided owners with better products and services. At present, high-quality products have become a sharp weapon for Dexing Industrial Company to continuously consolidate and expand the market.



Pipeline Quality Inspection of Dexing Copper Mine Industrial Company

Rights and Interests of Clients

We uphold the business philosophy of creating value together with clients, insist on meeting client needs with high transparency management, and protect client rights and interests with complete systems and timely communication.

Client Rights and Interests Protection and Transparency

Based on the *Consumer Rights and Interests Protection Law of the People's Republic of China* and the development characteristics of the industry, we follow high-level business ethics, respect the laws and regulations of the place where we operate and our clients are located, and continue to improve the protection of client rights and interests and normative management documents.

Humanization-based client management system: By benchmarking against high-level demands, we implemented after-sales rights and responsibilities layer by layer, and proactively responded to feedback on product quality. We ensure the long-term operation and insights of multi-chain client groups, and effectively deepened the connection between Jiangxi Copper and its clients.

- **Client profiling:** We have established detailed and accurate client files and client management mechanisms, carried out client evaluation and client credit management, and ensured timely and efficient actions when providing clients with services such as order guidance, product consultation and maintenance, brand promotion, and recording of opinions and suggestions.
- **Confidentiality of client information:** In order to safeguard clients' right to information security, right to be respected, right of fair trade and other basic rights, we strictly abide by relevant confidentiality regulations in the entire consulting service process, implement grading-based confidentiality management of client files and materials, and strengthen privacy protection for them.
- **Client communication:** Through multiple measures such as irregular visits, symposiums, and annual client appreciation meetings, we maintain good and close client and product relationships to ensure that client demands and their demands for protection of rights and interests are fully communicated, and positive feedback is effectively penetrated.

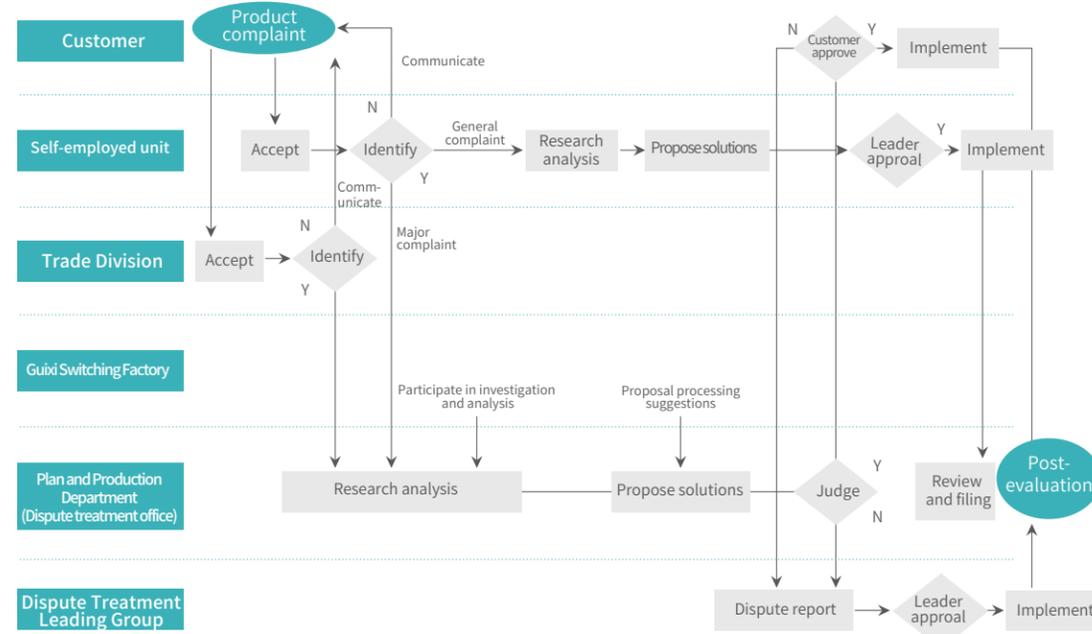
After-sales and Complaint Management Mechanism

Our product after-sales services feature clear-cut division of rights and responsibilities, complete after-sales management and complaint feedback mechanism and annual client satisfaction surveys, so that clients can receive full-process protection starting from product delivery. In 2023, we observed no material product quality complaints.

After-sales Management Processes and Actions

After-sales management	Specific measures
Goods receipt by client	<ul style="list-style-type: none"> • Clarify the clients' receipt of goods, obtain relevant certificates for the transfer of goods rights, and ensure that the exchange and transfer of goods are well documented • The sales business departments respond within 24 hours after receiving client objections and communicate subsequent processing opinions.
Settlement reconciliation	<ul style="list-style-type: none"> • After completing the settlement, submit the settlement documents to the Finance Department for invoicing, and deliver the invoice to the client in the same month • Actively handle and make adjustments to any product orders with objections
After-sales consultation	<ul style="list-style-type: none"> • Record opinions and suggestions from the client and make subsequent improvements • Patiently accept client inquiries, including technical performance, instructions for use, complaint handling, etc. for products • Continuously improve consulting professionalism and response speed
Product usage tracking	<ul style="list-style-type: none"> • The sales business departments track clients' usage of products and learn about clients' personalized needs for product quality and services. • Clearly inform clients of defective products and work out the solution to address objections together with the clients.
Client objection and complaint handling	<ul style="list-style-type: none"> • Keep records of clients' opinions on the product in all aspects • Strengthen communication with clients 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 department and make improvements • The result of the complaint handling opinion is return, exchange or sale at a reduced price, etc.
Division of liabilities for complaint handling result	<ul style="list-style-type: none"> • After a complaint is handled, the sales business departments shall work with our Planning and Production Department to conduct cause analysis and assign liabilities.
Goods return and exchange	<ul style="list-style-type: none"> • Return and exchange defective goods
Mark-down sale and compensation	<ul style="list-style-type: none"> • Exercise mark-down sale for downgraded goods • Compensate clients for damages to machinery and equipment, product quality problems, etc. caused by the use of our products.
Supervision and assessment	<ul style="list-style-type: none"> • The sales business departments shall provide filing instructions to the Risk Management Department regarding order abnormalities caused by return of goods, mark down and compensation. • Based on the complaint handling results and client feedback, the Planning and Production Department shall urge the production units to make corresponding rectifications

Product complaint and feedback management process: In order to further standardize the client complaint handling procedures, in the *Management Measures for the Handling of Measurement Quality Complaints of Jiangxi Copper Products*, a closed-loop management process covering seven links ranging from Complaint Acceptance, Complaint Identification, Investigation and Analysis, to Proposal, Review, Implementation and Evaluation of the handling scheme has been set up.



Product Measurement Quality Complaint Handling Process

Client Satisfaction Survey

In 2023, we entrusted the Jiangxi Provincial Quality Association to conduct a client satisfaction evaluation and form a report on our clients using letters, faxes, emails and telephone questionnaires. The survey topics covered client expectations, satisfaction, loyalty, perceived quality, perceived value, complaint rate, service quality characteristics, dissatisfaction, improvement points analysis and other aspects.

Evaluation Topic	Scoring for 2023	Scoring for 2022
Corporate/Brand Image Index	94.13	-1.27
Quality Expectation Index	91.47	+0.67
Perceived Product Quality	95.31	+0.22
Perceived Service Quality	94.62	-1.02
Perceived Value Evaluation	90.45	-
Client Satisfaction	93.50	+0.13
Client Loyalty	93.57	-1.71
Client Complaint Rate	11.19%	-1.08%



2023 Annual Client Satisfaction Evaluation Report (Cathode Copper, Silver, Sulfuric Acid, Copper Sulfate, Copper Rod)

Client Risk Management

In order to establish a mutually beneficial and win-win development environment and improve client quality management and risk resilience at our client level, we issued a series of supporting system documents such as the *Client Credit Management Measures (2020 Edition)* and *Client Classification Grade and Rating Score Corresponding Table*. We conducted in-depth client credit investigations and credit evaluations in all respects, strengthened processes such as credit extension approval, early warning and collection, and set up two management and control approaches, namely strategic operation and strategic category-based implementation to ensure risk response at the client level.

Client credit rating: four categories: high-quality clients, sound clients, general clients and bad-actor clients in six grades: AA, A, BB, B, C and D.

Supply Chain Management

As an important cornerstone of our high-quality development, the supply chain is our companion in face of the global economic changes of a magnitude not seen in a century, a strategic partner for mutual benefit and win-win results, and the key to jointly promoting even better environmental and social development.

System Specifications for Supply Chain Management

We followed full-process normative documents including but not limited to bidding and tendering management, supplier expert review management, e-commerce platform mall management, emergency supply of materials against principal risks, and localization management in the operation management and trade procurement links, totaling 29 system specifications. In 2023, we newly revised the *Interim Measures for Open Bidding Procurement of the Materials and Equipment Company (Trial)* to make adaptation-based adjustment to the four system clauses to strictly manage the list of pre-selected suppliers; we newly issued the *Interim Measures for Accountability for Business Operations and Investments in Violation of Regulations*, and implemented purchase and sales management and responsibility identification in the trading and procurement links from the internal control level to purify the market environment from the inside out.

Supply Chain Resilience Management

We innovated the unit-consumption contracting supplier cooperation mode and deepened supply chain resilience management through a rolling mode featuring regular evaluation, screening and elimination. In 2023, we introduced 69 production-oriented suppliers and eliminated 80 suppliers. As a result, we obviously had more high-quality suppliers and put into place a more reasonable supplier structure; at the same time, 770 out of the 1,089 qualified suppliers were production-oriented suppliers, accounting for 71%.

Emergency Supply of Important Supplies

We had the *Measures for the Administration of Emergency Supply of Materials against Principal Risks (Trial)* in place, followed the three major principles of prevention first, rapid response, and unified leadership; we had three major emergency supply segments: business, management, and supplier management and a clear-cut list of supplies category; in terms of emergency plans, we stepped up efforts to sort out and regularly updated the Catalog of Supplies against Principal Risks.

Leading the Way in Innovating Procurement Modes

We innovated the unit-consumption contracting procurement mode and formulated the *Promotion Plan for Unit Consumption Contracting*. Therefore, under such procurement mode, service life and total annual consumption of purchased supplies were taken as important basis for signing contracts or agreements, and settlements were made in accordance with agreements in the form of binding set parameters. This could effectively avoid price wars in the market and guide suppliers and the overall industry supply chain environment to move towards high-quality development.

In 2023, we added a total of 76 new unit-consumption contracting projects, with an average annual benefits of more than RMB 22 million generated; during this period, we invited suppliers to go to the production site for certification to enhance their willingness and confidence in contracting, promote in-depth cooperation between supply and demand parties, and achieve a win-win situation for both parties; at the same time, in order to solve the challenges faced by each unit in the practice process, we held the Exchange Meeting on Deepening Unit Consumption Contracting to further explore experiences and practices, exchange opinions and suggestions, and explore more possibilities for advancing new procurement modes based on unit consumption contracting on a regular basis.

Access, Evaluation, Screening and Withdrawal Regarding Supply Chain

In 2023, we formed a healthy and stable supplier ecosystem through full-process mechanisms such as annual evaluation, screening and classified management of suppliers, and smoothing of exit channels, and made demonstrations on sustainability to the supply chain in the industry based on the evaluation standards of environmental and social co-construction, driving the supply chain in the industry to move towards high-quality development.

• Six Principles for Supplier Access

Since 2022, we have added a number of environmental protection evaluation requirements to the six major principles for selection of suppliers, including but not limited to the new evaluation requirements for suppliers' safety, environmental protection and green development levels, product energy conservation and consumption reduction levels; in the survey on production-oriented suppliers, in addition to the necessary qualifications, research and development, quality management, research and development and other conventional data, suppliers also need to make special explanations on energy conservation, emission reduction, recycling of green resources, as well as the promotion of the application of new materials and new technology equipment.



• Evaluation and Category-based Management of Suppliers

In 2023, we successfully held the Jiangxi Copper A+, Excellent Supplier Title Awarding and Deepening Cooperation Symposium. We not only further deepened the strategic cooperative relationship with suppliers but also shared development opportunities with suppliers and worked together with them to ensure the safety of the material supply chain. In 2023, following the annual supplier evaluation, a total of 45 suppliers were rated as A+ (a total of 446 suppliers were rated A or above), of which 27 suppliers were rated as excellent suppliers.

Excellent Supplier Title Awarding and Deepening Cooperation Symposium

On the afternoon of June 27, in order to commend the suppliers for their strong support in ensuring the supply of materials and further deepen and strengthen the cooperation between the upstream and downstream of the supply chain, we held the Jiangxi Copper A+, Excellent Supplier Title Awarding and Deepening Cooperation Symposium at the Jinling Hotel in Nanchang. The Symposium was themed on openness and sharing and working together to create a better future for the copper industry; 122 representatives from 45 suppliers were invited to attend the conference, the largest number of participants in history. This meeting would help promote closer cooperation between us and our suppliers in aspects such as digital upgrading, localization promotion, collaborative promotion of procurement and sales, and material quality improvement, and strengthen the strategic partnership of fusion to jointly promote the healthy and stable development of the industrial chain and supply chain.



Background Image of Supplier Title Awarding Conference



Group Photo at the Supplier Title Awarding Conference

• Supplier Withdrawal Management

In 2023, we further unblocked the exit channels for suppliers, which were mainly divided into two categories: annual supplier evaluation and conversion from a temporary supplier to a qualified one. During the reporting period, a total of 80 suppliers were disqualified due to lack of strength and other reasons, 131 suppliers were frozen due to no conducting any business for five years, and a total of 16 suppliers were downgraded due to failure to fulfill quotation commitments or abnormal operations. Among them, 55 suppliers were removed due to annual evaluation (accounting for 61%), and 131 suppliers were frozen (no business transaction for five years); 25 suppliers were removed due to failure to pass the review for conversion from a temporary supplier to a qualified one (accounting for 39%); it was worth noting that based on the principle of prioritizing safety, environmental protection and energy conservation newly added in 2022, for the first time a company was eliminated in the review for conversion from a temporary supplier to a qualified one due to insufficient environmental protection capabilities and failure to meet the green development requirements.

Communications and Exchanges with Suppliers

In order to better listen to the voices of suppliers, we conducted supplier satisfaction surveys and made follow-up phone calls on an annual basis to collect opinions and suggestions from suppliers and used them to improve related management work. In 2023, a total of 475 suppliers responded to the satisfaction survey form, in which we received sound evaluation on both the overall procurement work of the Material Equipment Company and the specific performance of the relevant salesmen in the daily procurement process. Most suppliers were familiar with Jiangxi Copper's procurement e-commerce platform, but some suppliers did not. At the same time, more opinions and suggestions put forward by suppliers focused on strengthening training programs on the use of the platform. For this reason, we planned to focus on training suppliers on the use of Jiangxi Copper's procurement e-commerce platform in the next year as an effective response. We participated in the China International Import Expo for the six consecutive years and conducted in-depth exchanges with suppliers. We supported and participated in the China International Import Expo for six consecutive years, and has been listed as an important purchaser by the CIIE Bureau for three consecutive years. During the Expo, Deputy General Manager Liu Fangyun led a team to visit the booths of cooperative suppliers Caterpillar, Michelin Group and other exhibitors, had in-depth exchanges with them on green energy-conservation products, recycling, remanufacturing and other issues, and signed the 2024 Tire Importing Agreement with Michelin on behalf of Jiangxi Copper.



Deputy General Manager Liu Fangyun Led a Team to Participate in the 6th China International Import Expo

Responsible Supply Chain Management

In 2022, to respond to the detailed documents on gold supply chain management requirements in the RGGV9 version released by London Bullion Market Association (LBMA), we released the *Management Measures for Due Diligence of Gold and Silver Supply Chain of Jiangxi Copper* and established the LBMA Due Diligence Gold and Silver Supply Chain Compliance Group. In 2023, we immediately carried out relevant due diligence and released the third-party independent audit report on the *Responsible Gold and Silver Guidelines Compliance Report (2022)*.

From the perspective of risk identification and assessment design in establishing and refining a gold and silver supply chain management system and implementation of risk management strategies, the compliance report carried out a responsive overview of implementation of 11 questions in 5 steps concerning supply chain due diligence as set out in the third-party independent audit report on supply chain due diligence and was recognized as fully complying with the forced labor compliance requirements of LBMA RGG, LBMA RSG and LBMA.



Responsible Gold and Silver Guidelines Compliance Report of Jiangxi Copper Co., Ltd. (2022)

Support for Local Suppliers

Local Technological Breakthroughs and Support

Vigorously carrying out independent innovation and accelerating localization are the responsibilities of enterprises to support economic development. In 2023, we followed the guidance of the *Management Measures for Localization of Materials, Equipment and Spare Parts of Jiangxi Copper Co., Ltd.* and focused on project establishment on one hand and on consolidating achievements on the other hand, with localization substitution rate reaching 94%.

27 localization projects, including the electric wheel control cabinet initiated by our secondary unit Dexing Copper Mine and the 5# oxygen generator motor applied by Guixi Smelter, have successfully passed the project approval, 17 of which have entered the development stage and are expected to bring benefits of approximately RMB 26 million. At the same time, we reviewed the 321 localization projects that were not completed in the early stage. 83 projects such as Guixi Smelter anode acid protection cooler and Dexing Copper Mine truck dispatching system have passed the final review, and another batch of important equipment and spare parts have been localized and are expected to bring economic benefits of more than RMB 68 million.

We injected capital to support Haian Company in making R&D breakthroughs, achieving both supply chain resilience and economic benefits.

Haian Company is the largest giant tire R&D and manufacturer in China. Its products and technologies have broken the long-term monopoly of the three giants, Michelin of France, Goodyear of the United States, and Ishibashi of Japan, and effectively ensured the supply security of the giant tires required for the electric wheels of Dexing Copper Mine.



Deputy General Manager Liu Fangyun and His Delegation Visited Haian Company

We and Haian Group Were Holding the 2023 Annual Tire Exchange Meeting

Support for Local Suppliers

During the reporting period, we had a total of 1,267 domestic and overseas suppliers, of which local suppliers (including those in Hong Kong, Macao and Taiwan) accounted for 98.73%, a further increase compared with that in 2022; we had a total of 353 local suppliers (in Jiangxi Province), accounting for 27.86%, and the purchase amount accounted for 56.87%.

Technological Innovation

In 2023, we will thoroughly implement the deployment of important tasks for scientific and technological innovation, take the initiative to assume the mission of chain leader, and vigorously promote innovative development with complete technical implementation plans, guidance and incentives for achievement transformation, industry-university-research linkage, and industry exchanges.

Scientific and Technological Innovation Development Plan

In 2023, we took the lead among enterprises in Jiangxi Province to launch the *Implementation Plan for Creating the Sources of Original Technologies* and made overall planning for building a high-level scientific and technological talent team, creating a high-level scientific and technological innovation platform, creating a high-quality academic exchange and scientific and technological information platform, and strengthening R&D on core technologies, and identified five major focus areas (new technology areas for mining, dressing and smelting, green and low-carbon areas, digital intelligence empowerment areas, and new materials areas, high-end equipment manufacturing areas) oriented towards major national needs, technological frontiers in the industry, and our development strategies, 34 key research directions, and clarified the roadmap for making breakthroughs in original technologies for the next ten years, and continuously improved the capabilities to ensure demand-driven R&D, source-based supply, resource allocation, transformation and application of original technologies.

Building Scientific and Technological Innovation Capabilities

• Institutional Guarantee

In order to ensure and stimulate scientific and technological innovation capabilities, we newly issued the *Measures for the Administration of Scientific and Technological Innovation Expert Database (Trial)* to select experts with good conduct, excellent skills and recognized by the masses to establish our scientific and technological innovation expert database, and give full play to the decision-making consulting role of experts in scientific and technological innovation work; we revised the *Measures for the Administration of Scientific Research Supporting Projects* to clarify the division of responsibilities and management process, promote the construction and implementation of supporting projects for scientific research, and made adaptive improvements and adjustments based on scientific and technological innovation practices; we issue the *Measures for Special Assessment on Scientific and Technological Innovations in 2023*, strengthened the assessment mechanism, and set more clear-cut orientation for achievement transformation, thus resulting in significant improvement in efficiency of scientific and technological innovation management of each unit.

• Construction of National Laboratories

In 2023, we strengthened the strategy of strengthening the enterprise by cooperating with large research institutions and prestigious universities, actively gathered first-class scientific and technological innovation resources, created a high-end exchange and cooperation platform, and launch two national-level innovation platform divisions.

We established the Jiangxi Copper Branch of the National Key Laboratory on Intelligent Optimization and Manufacturing of Mining and Metallurgical Processes with the BGRIMM Technology Group, and the Jiangxi Copper Branch of the National Key Laboratory on Preparation and Processing of Non-ferrous Metal Materials jointly with China GRINM Group Corporation Limited and carried out scientific research cooperation projects such as Research and Application of Wushan Copper Mine Efficient Mining Method for Remote Control of Mine Production and Research and Development of Tin-Phosphorus Bronze Strips for Low Residual Stress High-Performance Vapor Plate. With such efforts, we further focused on major scientific research directions and provided strong support for our serving the national innovation strategy.



The Signing and Unveiling Ceremony of the Jiangxi Copper Branch of the National Key Laboratory On May 12

• Intellectual Property Management

We formulated the *Management Measures for Patent of Jiangxi Copper Co., Ltd. (Trial)* to provide detailed regulations and standardized management of patent applications, patent awards, patent maintenance, patent statistics and other work. As of the end of 2023, we held a total of 1,372 patents, including 209 newly authorized patents, out of which 35 were authorized invention patents. The number of patent authorizations has increased significantly for three consecutive years (a year-on-year increase of 18.40% over 2022).

Technological Innovation and Transformation

• Annual Scientific Research Projects

In 2023, we focused on scientific research in five areas: new technologies for mining, dressing and metallurgy, eco-friendliness, digital intelligence empowerment, new material research and development, and high-end equipment manufacturing. A total of 69 new scientific research projects have been registered, including 30 new scientific research projects in the area of new technologies for mining, dressing and metallurgy, 22 new scientific research projects in the area of new materials, 7 new scientific research projects in the area of digital intelligence empowerment, 6 new scientific research projects in the area of eco-friendliness, and 4 new scientific research projects in the area of high-end equipment manufacturing; During the same period, there were 125 scientific research projects in progress, including 87 first-level research projects and 38 second-level research projects.

Description of Part of the Scientific Research Projects

The Yongping Copper Mine Intelligent Ventilation System Development and Application project, based on the development and research of the mine ventilation system wind flow monitoring system, intelligent perception and analysis decision-making system, and mine ventilation intelligent control system, constructed the Yongping Copper Mine intelligent ventilation system by integrating the three systems, achieving real-time diagnosis of the mine ventilation effect, intelligent mine ventilation safety management, intelligent mine disaster prevention and control, and intelligent mine ventilation and energy conservation.

In the Equipment Optimization, Process Test Research and Industrial Test to Improve Copper Recovery Rate Based on the Short Process of 680 Cubic Meter Flotation Machine project, a 680m³ flotation machine was applied to replace four 130m³ flotation machines for scavenging at the Sizhou dressing plant to carry out short-process industry test and determined the process conditions and reagent regime suitable for the 680m³ flotation operation. During the test period, the copper recovery rate in the first stage was 0.92 percentage points higher than recovery rate roughing copper in the second stage during the same period.

The Research on Anode Passivation and Floating Anode Sludge Control Technology in Ultra-Low Arsenic Copper Anode Sludge Electrolysis project developed a new electrolysis technology that can effectively suppress anode passivation and the problem of floating anode sludge at a current density of 305A/m². Anode copper quality meets the GB/T467-2010 standard, the grade A copper qualification rate is greater than 95%, the unit electricity consumption is about 326kwh/tCu, the average current efficiency is 95.2%, and the lowest residual anode rate is 13.1%.

The Key Technology Research on Copper Rods for Niobium-Titanium Alloy Superconducting Wire Base Materials project developed the copper rods for niobium-titanium alloy superconducting wire base materials. The torsional reverse fracture is greater than 31, the tensile strength is $\geq 235\text{MPa}$, and the elongation is $\geq 42\%$. It can be used as a substitute for imported copper rods.

The tungsten-rhenium alloy plate prepared in the Research and Development of Tungsten-Rhenium Alloy Plate for Nuclear Use project has a unit weight of more than 4kg, a purity of more than 99.996%, a density of 99.26%, a grain size of about 40 μm , and a structure and composition similar to that of foreign tungsten-rhenium alloy.

• Transformation of Scientific Research Achievements

In 2023, we registered a total of 56 new scientific and technological achievement transformation projects. Among them, 4 provincial and ministerial science and technology awards were won in terms of technology and application, and 2 Excellent Product Awards of the China International High-tech Achievements Fair in terms of high-tech product manufacturing were won; 1 scientific and technological achievement was publicly transferred through the technology trading market; in terms of technology-enabled product manufacturing, two Excellent Product Awards of the China International High-tech Achievements Fair were won.

• Incentives for Transformation of Scientific and Technological Achievements

In order to promote the transformation of scientific and technological achievements into real productivity and fully mobilize our enthusiasm and initiative to conduct scientific and technological innovation and promote the transformation of scientific and technological achievements, we have put into place a series of scientific and technological policies such as the *Management Measures on Promoting the Transformation of Scientific and Technological Achievements of Jiangxi Copper Co., Ltd.* and *Measures for the Administration of Incentives for Innovations and Benefits Creation* which rewarded and incentivized those who have made outstanding contributions in the research, development and transformation of scientific and technological achievements. Rewards for the transformation of scientific and technological achievements were distributed according to the size of the contribution, with an emphasis on front-line personnel in scientific research. In 2023, based on the *Notice on Scientific and Technological Achievements Transformation Projects* issued by the Group, we provided rewards and incentives for 65 scientific and technological achievements that were transformed and generated economic benefits in 2022. The reward amount for scientific and technological personnel was RMB 20.8257 million.

At the same time, we introduced a pilot product trial sales reward system, which provides 30% of the annual total pilot product sales - annual pilot product direct costs to the R&D team to encourage R&D personnel to actively explore the market.

Awards for Transformation of Scientific Research Achievements

The Nonferrous Metallurgical Efficient Transformation Precision Control and Intelligent Automation System project that we participated in passed the selection defense and has been nominated for the National Award by the China Nonferrous Metals Association. Copper Smelting Material Flow Collaborative Optimization and Intelligent Monitoring Key Technologies and Applications and R&D and Industrial Application of Complete Key Technologies for Manufacturing high-strength and Low-Profile Electronic Copper Foil for 5G won the first prize of Jiangxi Provincial Science and Technology Award. Key Technologies and Industrialization of High-Value Low-Quality Mining and Metallurgical Solid Waste Cementitious Materials and Disaster-Causing Mechanism of Large-scale Loose Accumulation Body in Mines and Multi-source Information Intelligent Collaborative Early Warning Control Technology won the second prize of Jiangxi Provincial Science and Technology Award.



Copper Smelting Material Flow Collaborative Optimization and Intelligent Monitoring Key Technologies and Applications

R&D and Industrial Application of Complete Key Technologies for Manufacturing high-strength and Low-Profile Electronic Copper Foil for 5G

Key Technologies and Industrialization of High-Value Low-Quality Mining and Metallurgical Solid Waste Cementitious Materials

Disaster-Causing Mechanism of Large-scale Loose Accumulation Body in Mines and Multi-source Information Intelligent Collaborative Early Warning Control Technology

Copper Smelting Material Flow Collaborative Optimization and Intelligent Monitoring Key Technologies and Applications is a phased achievement of digital transformation for which Jiangxi Copper won the first prize of the Jiangxi Province Science and Technology Progress Award as the first completion unit.

This project has obtained a total of 7 software copyrights, 11 invention patents, and formed 2 national and industry standards. This project has made breakthroughs in the key technologies of collaborative optimization and intelligent monitoring of copper smelting material flow, and achieved many innovative results such as collaborative optimization of material flow, information perception of key parameters, and optimization of complex mineral source ingredients. It also developed automatic plate transfer and automatic stripping of the initial pole piece, tailings intelligent transfer and other material flow intelligent equipment and systems, forming a large-scale material flow automated circulation system for copper smelting production, greatly improving the material flow efficiency, and providing guarantee for green and efficient production of copper smelting.

Market Application of Technological Achievements

Equipment optimization, process test research and industrial test to improve copper recovery rate based on the short process of 680 cubic meters flotation machine

By configuring proprietary technologies such as flotation foam imagers, sinking tank detection devices, and fault diagnosis, this project formed a short-process flotation intelligent optimization control system suitable for Sizhou mineral processing plants. After conversion and application, the copper recovery rate in one section increased by 1.06 percentage points, the annual economic benefit can be increased by more than RMB 4.7 million.



Research and development of oxygen-free copper rods for new energy vehicles

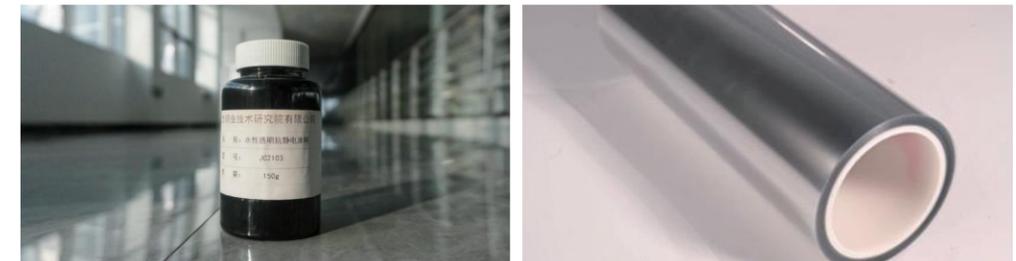
New energy vehicle drive motor flat wires are mainly made of $\Phi 8.0$ mm pure copper rod blanks through multi-pass drawing. They are the development direction of drive motors in the future. While it has many advantages, there are also problems that are difficult to solve with key technologies such as design difficulty, process manufacturing difficulty, and professional manufacturing equipment. The most critical raw materials have become barriers to the industrialization of flat wire motors and have also become the keystone of my country's flat wire motor technology. Stuck neck problem is also the main reason why it has not yet achieved large-scale application in China.



Through independent efforts to make technical breakthroughs, this project is based on the up-drawing continuous casting method. By optimizing the continuous casting process to control the oxygen content and selecting the appropriate processing technology, the rod blanks of the upward continuous casting are further processed for secondary processing to obtain high-performance new energy vehicle flat plates. The wire uses $\Phi 8.0$ mm copper rod blank. This scientific and technological achievement has been transformed and applied in Jiangxi Copper Company. The two production lines are at full capacity, with a monthly production capacity of 900 tons and a cumulative sales volume of more than 5,000 tons.

Research and development of single-walled carbon nanotube water-based antistatic coatings

The self-developed single-walled carbon nanotube water-based antistatic coating uses single-walled carbon nanotubes as the conductive agent, uses special high-efficiency dispersion technology, is evenly dispersed in the water phase, and is compounded with various water-based resins to form a water-based functional coating, does not contain any organic solvents, no VOC emissions, stable surface resistance, no attenuation, high light transmittance, performance indicators have passed third-party verification tests, and can be flexibly designed according to client construction process conditions and usage conditions to meet many aspects needs. This technology has been industrialized in Jiangxi Jiangtong Carbon Nano Material Co., Ltd., and the carbon nanotube water-based antistatic coating produced has been sold externally.



Research and development of H1Z2Z2-K irradiation cross-linked photovoltaic cable

The independently developed photovoltaic cable uses irradiation cross-linking technology, which has significant energy conservation and carbon reduction effects. It has passed the test report issued by Shanghai Intelligent Service and Technology Co., Ltd., and has obtained TUV certification and PCCC certification, and has independent intellectual property rights.

Photovoltaic cable products have been successfully used in the Dunhuang photovoltaic project in Gansu, the photovoltaic project in Liangzhou District of Wuwei, and the Jishui photovoltaic project. The products are operating in good condition and are highly recognized by clients. They have a good market foundation, with an annual output value of more than RMB12 million, and an increase in economic benefits of more than RMB 1.4 million.



Industry-university-research Cooperation

In 2023, we gave full play to the independent innovation capabilities of its full-time R&D team with 13 leading scientists and 181 Ph.D.s as the core, continued to deepen industry-university-research cooperation with universities and institutes, and carried out scientific research around our development strategy. For the first time, our affiliated research institutes independently undertook the provincial major scientific and technological research and development project on key technologies and equipment for ultra-stable foam separation and elimination of strategic metal flotation, and was approved of a special fund of RMB 10 million.

Signed a strategic cooperation agreement with Nanchang University

On December 26, after nearly four months of high-frequency communication and in-depth exchanges, we and Nanchang University formally signed a strategic cooperation agreement. Xia Wenyong, Vice Governor of Jiangxi Province, attended and witnessed the signing. At the ceremony, the two parties signed relevant cooperation agreements such as scholarships for outstanding students, cooperation in scientific research projects, and open sharing of instruments and equipment, and jointly unveiled the Nanchang University-Jiangxi Copper Group Employment Base and Internship Base. In the future, the two parties will thoroughly implement the 1269 action plan for the modernization of the province's key industrial chains and carry out comprehensive cooperation around talent training, platform construction, transformation of technological achievements, and sharing of scientific research facilities.

Launching the Scientist Forum

We invited well-known scholars such as Sun Wei, Dean of the Graduate School of Central South University, Professor Li Zhou, Dean of the Institute of Materials, and Yang Xiacong, Chief Expert of the BGRIMM Technology Group, to hold seminars on the topics of clean and efficient development and utilization of extra-large copper and molybdenum resources, high-performance copper alloys, underground Five lectures including Scientist Forum on metal mining technology.



Scientist Forum Lecture

Digital Transformation

We follow the strategic plan of Digital Jiangxi Copper Top-level Design, comprehensively promote the construction of large systems, large platforms, and big data, adhere to the four uniformity principles of unified concept, unified architecture, unified data, and unified management and control, and stay committed to being value-orientated and problem-orientated, implement the 118N path, promote the in-depth and continuous implementation of digital transformation construction in the non-ferrous industry, implement new management modes such as Four Uniformity, realize the coordinated development of digital empowerment and management innovation, and build a provincial-ministerial level, and national level enterprise benchmark in all respects for the entire industry chain.

Digital Development Framework

118N path: Building a unified industrial Internet platform architecture, a unified data standard system, and eight digital transformation sectors (open-pit mines, underground mines, copper smelting, lead-zinc smelting, copper processing, industrial parks, Jiangxi Copper Cloud, and data governance), and N intelligent innovation ecosystems.

The new management model featuring Four Uniformity: All operating rooms are centralized, all operating positions are taken by robots, all equipment operation and maintenance are remote, and all services are offered online.

Digital Promotion of Management System

• Digital Working Group

We established a leading group for the Digital Jiangxi Copper Top-Level Design work, which has completed the design and review of the *Digital Jiangxi Copper Top-Level Design* to high standard in 2022. In 2023, it further guided the digital transformation of each unit based on the top-level design plan.

• Digital Management of System Documents

We 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 and procurement implementation management of digital projects to ensure the orderly advancement of our digital projects. In order to orderly promote the drafting and research of internal digital project construction management regulations, we took the lead in formulating the *Management Regulations of Jiangxi Copper Co., Ltd. on "Digital Jiangxi Copper" Project Construction (Draft)*. At the assessment level, we formulated the *Measures of Jiangxi Copper for Assessing Digital Projects* and organized our subordinate units in the province to complete the collection of various indicators and assessment opinions for the entire life cycle of the digital projects.

Annual Achievements in Digital Work

• **Build a big data platform:** Benchmarking against benchmark products in the industry and put application pilot programs first. We carried out multi-model research on production indicator predictions, sorted out the data center implementation methodologies and unified implementation process standards, and realized the four major functions of data collection, storage, use and management; we standardized data governance by themes and data tiering, built a data cockpit in the business field, providing decision-making basis for relevant enterprises, and maximizing the value of data.

• **Construction of Jiangxi Copper Industrial Internet Platform:** In 2022 and 2023, it was selected into the Provincial Industrial Development Special Project of the Jiangxi Provincial Department of Industry and Information Technology for two consecutive years, won the third prize in the R&D Design of the first state-owned enterprise digital scene innovation professional competition, and was included in the provincial industry Internet platforms focus on cultivating platforms. Jiangxi Copper's industrial Internet platform relies on its capabilities and advantages such as ubiquitous connections, factor aggregation, and data analysis applications to promote in-depth changes in all factors, the entire industry chain, and the entire value chain of the manufacturing industry.

- **Build Jiangxi Copper Cloud Platform:** With the headquarter cloud platform as the core, it fully takes into account the management capabilities of the second-level factory and mine cloud and the third-level edge cloud; in combined with the standardized construction of factory and mine cloud and edge cloud platforms, it forms cloud platform data sharing and realizes the cloud-based edge-to-cloud collaborative deployment of the Group system and helps create values through the deep integration of informatization and digitization.
- **Build digital mining platforms, digital twin platforms, etc.:** Focusing on the 'ore flow' exploration, mining, beneficiation, smelting, and processing, we implemented production upgrades and trans-formations based on intelligent manufacturing in all links, processes, and scenarios, promote full coverage of intelligent manufacturing for us and our core enterprises, and continued to rely on intelligence for improving productivity.

Digital Application Cases

Dexing Copper Mine 5G + Full-Process Driverless Mining Ore Railway Transportation won the third prize in the First State-Owned Enterprise Digital Scenario Innovation Professional Competition

In order to improve the operating efficiency of the raw ore railway transportation section, reduce the number of people in difficult positions, improve the working environment for employees, and reduce system operating costs, Dexing Copper Mine implemented the intelligent transformation of the mining railway transportation system based on the automatic operation and automatic loading and unloading technology of the unmanned electric locomotive system, implemented the province' s first unmanned driving application for electric locomotives based on 5G network in the entire process of ore loading, transporting and unloading, making Asia' s largest open-pit non-ferrous metal mine' s 750mm narrow-gauge railway and 30T large-load electric locomotives being driverless. As a result, it ensured better safety with fewer people on the mine production site and essentially solved the safety problems in the mine production and transportation links.



Awards List

Centralized Control Center for Autonomous Driving

Dexing Copper Mine Technology application and innovation at the digital level:

5G+ edge computing technology: Deploy 5G+ MEC core network edge computing servers to meet the low-latency and large-bandwidth requirements for driverless electric locomotives.

Intelligent management and control technology: The automatic loading and unloading system is seamlessly integrated with the information collection and closing system to realize automatic switching of switches and autonomous coordination of unmanned electric locomotive driving.

Precise positioning technology: The redundant operation of radio frequency beacons and high-precision encoders realizes the real-time precise positioning of electric locomotives. The redundant operation of high-precision laser radar and grating technology realizes the precise positioning and alignment of locomotives and the accurate detection of material levels.

AI+vision technology: The tracking ball machine tracks moving objects and people, and uses AI analysis technology to automatically generate alarms for behaviors that trigger rules.

Big data technology: Use a comprehensive data management platform to conduct modeling and analysis on production safety, operation and maintenance costs, and equipment health to ensure improved production efficiency, process safety, stable equipment operation, and reduced production costs.



Driverless Transportation

Intelligent Mining

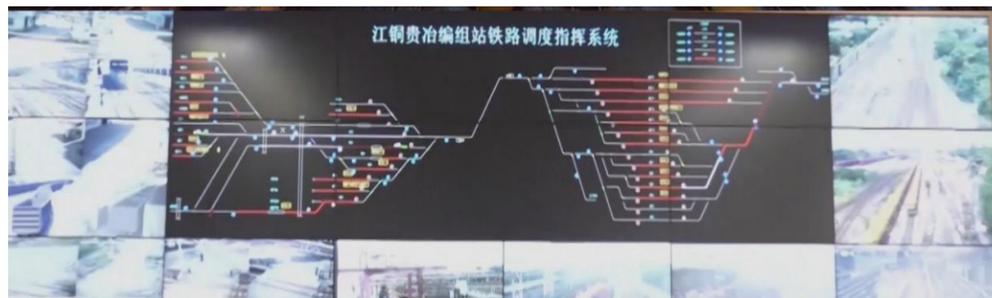
Intelligent Unloading

Guixi Smelter 5G+Copper Smelting Smart Factory won the third prize in the 6th Blooming Cup 5G Application Collection National Competition sponsored by the Ministry of Industry and Information Technology

Guixi Smelter is currently the world's largest single copper smelting plant, with an annual output of 1.02 million tons of cathode copper. After more than 40 years of development, Guixi Smelter's multiple technical and economic indicators rank among the best in the world, and its management technology level is in the leading position in the industry. In 2023, Guixi Smelter cooperated with Jiangxi Mobile to provide applications of interconnected information systems, compete intelligent equipment, unmanned technology and robots, 5G, cloud platform, big data, AI and other advanced technologies placed under overall planning, and construction of intelligent decision-making projects based on big data platform based on the existing automation and intelligent system conditions, and in combination with the pain points in production, so as to achieve accurate control, control costs, improve efficiency and quality and enhance our core competitiveness and expand profit margins with high-grade and high-quality products.



In terms of specific digital technology scenario applications, it includes but is not limited to: 5G+ intelligent railway transportation dispatching, 5G+ drone escort, 5G+ unattended weighing room, 5G+ drone-based safety and environment monitoring under specific working conditions, 5G+ AGV intelligent handling, 5G+ intelligent infrared inspection robots, 5G+AI quality inspection, 5G+driving intelligent collaboration system. Among them, 5G+ drone-based safety and environment monitoring under specific working conditions can realize automatic sampling of wastewater emissions, wireless monitoring of atmospheric exhaust data, and early warning and monitoring of pollutant emission indicators; 5G+AI quality inspection runs through the entire electrolysis production process to achieve intelligent operations, which is also an the first AI quality inspection pilot project in the industry.



5G+ Intelligent Railway Transportation Scheduling



5G+ Tailings Unmanned Driving



5G+ Driving Intelligent Collaborative Dispatching

Chengmenshan Copper Mine Mining 5G + Smart Mining won the first prize in the 4th China Industrial Internet Competition and the 1st State-owned Enterprise Digital Scenario Innovation Professional Competition

Chengmenshan Copper Mine actively responds to the Jiangxi Provincial Government's dual No. 1 Project goals, takes the integration of digital technology and the real economy as the guidance, makes overall arrangements for digital transformation of mines based on the industrial Internet architecture and in accordance with Digital Jiangxi Copper Top-level Design to create 5G+ smart mining, and promote the construction of mining industrial brain.

The project uses advanced technologies such as big data, Internet of Things, and artificial intelligence to create a digital production scheduling platform, a mining vehicle networking platform, a three-dimensional visualization platform, and six intelligent systems (4G/5G communication system, unattended system, wireless point patrol inspection system, intelligent slope monitoring system, intelligent vision system, AR training system), improves the whole process of mining equipment/terminal data collection and access, data integration and application, data drive and closed loop with ore flow as the main line, and realized the full-process intelligent mining and AI+ management and control, promote the transformation of open-pit mining from being driven by traditional factors to being driven by data and intelligence.



After the acceptance of the results in 2023, the technical and economic indicators have increased significantly. The qualification rate of selected copper grade increased by 0.61%, the qualification rate of selected sulfur grade increased by 5.21%, the copper recovery rate increased by 0.53%, the sulfur recovery rate increased by 0.88%, the unit efficiency of mining trucks increased by 3.84%, and the unit consumption of mining and stripping diesel oil was reduced by 5.32%. It has been selected into the recommended catalogs of many national ministries and commissions and local governments, and has great influence and demonstration effect in the cultivation of mining digital transformation scenarios.



Mining Vehicle Networking Platform

Intelligent Driving System

4G/5G Private Network

Digital Information Security and Protection

Computer Room Construction

At present, our computer room equipment consists of 6 two-way servers as a computing and storage integration platform, and as a cloud platform computing resource pool and storage resource pool; the distributed storage network, management network and business network all use 10G access, and the core switch to the export equipment 10 Gigabit interconnection can be used to fully meet the network requirements of computing and storage resource pools.

Data Security and Protection

We followed the data information security management requirements, and in order to ensure the smooth progress of production and improve the ability to deal with network security emergencies, we refined and detailed the handling and response process, and facilitated Internet communication, dispatching, and processing work to be carried out quickly, efficiently and orderly. In combination with the joint-stock company's network security emergency plan system, we further improved the specific plan for emergency drills to meet the needs of Internet communication emergency response and system recovery in case of emergencies.

At the same time, in accordance with the principle of whoever is in charge is responsible, whoever operates is responsible, and whoever uses it is responsible, we implemented data security management and network risk investigation work into professional operation and maintenance departments, effectively saw that entity responsibilities for network security were fulfilled, and promptly carried out system security reinforcement, closed unnecessary ports, eliminated weak passwords, continuously updated virus and feature libraries, continuously strengthened security monitoring, and stayed well prepared for emergency response. The main measures are as follows:

- **First**, sort out the list of Internet information system assets and be targeted;
- **Second**, use a combination of external network and internal network scanning to ensure that no loopholes are missed;
- **Third**, conduct an in-depth analysis of the scan report and promptly and actively rectify any problems;
- **Fourth**, verify the port information of the Internet firewall and external network application systems one by one. Commonly used ports are closed on a daily basis to strictly prevent intrusions from external network threat sources;
- **Fifth**, check the password complexity, replacement time, permission switch-on and switch-off status of the account password setting of the application system users, and reject the existence of weak password;
- **Sixth**, the test environment was built on the intranet, and no private development was found in the test environment, and no codes unrelated to the online functions were released;
- **Seventh**, the security of the vulnerabilities scanned by the intranet and arsing out of failure to upgrade the database was strengthened. The database could not be directly accessed from the external network, and the IP addresses for business interaction between the external network and the internal network were strictly controlled.

Training and Exchange for Digital Jiangxi Copper

Digital Transformation (Planning) Preparation And Practical Training Courses

We organized digital transformation (planning) preparation and practical training courses, and invited a number of internal and external experts to provide special tutoring for all trainees to jointly discuss the pain points and difficulties encountered in the digital transformation process, and offer advice and suggestions on build a digital Jiangxi Copper.



Digital Transformation (Planning) Preparation and Practical Training Courses

On-site Promotion Meeting on Building a Digital Jiangxi Copper

We organized an on-site promotion meeting for the construction of Digital Jiangxi Copper in 2023. Zhou Shaobing, deputy secretary of the Party committee, vice chairman, and general manager, delivered a speech. Representatives of four units reported and summarized the results of digital construction, and visited part of the digital scenes of Dexing Copper Mine on site. Participants of each unit discussed the construction direction of Digital Jiangxi Copper.



On-site Promotion Meeting on Building a Digital Jiangxi Copper

Network and Information Security Training Courses

We organized and held the 2023 network and information security training courses. At the meeting, the trainees jointly studied national policy documents on network security, summarized the annual network security work of relevant departments and arranged follow-up work; representatives of each unit shared experiences related to network and information security construction; Deputy General Manager Liao Xingeng reviewed the achievements of each unit, commended the achievements and put forward requirements for the subsequent tasks in promoting our network and information security construction.



Network And Information Security Training Courses

Jiangxi Province Copper Industry Digital Transformation Advanced Training Course

We organized the 2023 Jiangxi Provincial Copper Industry Digital Transformation Advanced Training Course. Liao Xingeng, member of our Party committee and Deputy General Manager, delivered the opening speech. Shen Zhengchang, academician of the Chinese Academy of Engineering, Chen Jinqiao, deputy director of the Jiangxi Provincial Department of Science and Technology, and Wang Liguang, professor and doctoral supervisor of Central South University, experts, scholars, technology masters and senior practitioners from digital transformation research institutes, industry-related universities, government departments and first-line enterprises gave lectures and shared on topics such as digital transformation and intelligent procurement.



Organized and Convened the 2023 Jiangxi Province Copper Industry Digital Transformation Advanced Training Course

Enterprise Digital Transformation Project Implementation and Assessment Training Course

We organized the 2023 training course on the implementation and assessment of digital transformation projects for Jiangxi Copper's affiliated enterprises. This training course included interpretation of the assessment system, introduction of backbone network and data center solutions, development of national non-ferrous metal intelligent manufacturing standards, and on-site teaching in Jiangxi Cable Intelligent Factory. It aimed to systematically carry out digital construction and management of Jiangxi Copper and assist its affiliated enterprises to keep abreast of the latest developments in advanced digital intelligence technologies in the industry, deepen our understanding of the innovative applications of digital intelligence empowerment, and improve our own theoretical practical and scientific management levels.



Organized and held the 2023 Digital Transformation Project Implementation and Assessment Training Course For Jiangxi Copper's Subordinate Units

Industry Participation

We upheld the business philosophy of cooperation and exchanges as well as mutual benefits and win-win outcome, and under the guidance of high-quality development of a world-class enterprise, we actively participated in various exchanges and seminars in the industry in 2023, deepened communication, promoted integration through exchanges, built consensus through exchanges to explore the way to create a new mode featuring sustainable development, mutual assistance and coexistence which will ensure prosperity of the industry.

Development of Industry Standards

In 2023, we further deepened the Special Action for Making Breakthroughs in Standards Setting and presided over or participated in the formulation of 7 national standards and 6 industry standards. At the same time, 4 new national standards and 28 industry standards were approved for project establishment, among which we outperformed our peers in setting standards in emerging fields such as intelligent manufacturing.

Participation in Industry Summit Forums and Exchange Conferences

Online Exchange Meeting between German Mining Enterprise Delegation and Jiangxi Mining Enterprises

On November 30, we participated in the 2023 Online Exchange Meeting for German Mining Enterprise Delegations and Jiangxi Provincial Mining Enterprises jointly organized by the Jiangxi Provincial Department of Commerce and AHK Greater China. Guo Shengxiang, Deputy General Manager of our Planning and Production Department, shared and exchanged ideas on the theme of Exchanges on Efficient and Sustainable Development of Mines. The content included but was not limited to our mine mining process, equipment and technology, sustainable development industry chain, green and low-cost carbon development, advancement of smart mining work, etc.

China Rare and Precious Metals Industry Science and Technology Innovation and Development Conference

From December 15 to 17, the 2023 China Rare and Precious Metals Industry Science and Technology Innovation and Development Conference was held in Yantai, Shandong Province. Deputy General Manager Tu Dongyang led a team to attend the conference, and the Research Institute, Guixi Smelter and other relevant units participated in the conference.

The Conference focused on exchanges and discussions on technological innovation achievements related to the rare and precious metal industry, as well as current hot spots, focuses and difficult issues of concern in the industry. At the conference, Dr. Wang Quanyong, a researcher at Jiangxi Copper Research Institute, gave an academic report titled Research on Tailings Used to Prepare High-Strength and Corrosion-Resistant Functional Plates.



Deputy General Manager Tu Dongyang Led a Team to Participate in the 2023 China Rare and Precious Metals Industry Science and Technology Innovation and Development Conference

Jiangxi International Mobile Internet of Things Expo

We organized a delegation to participate in the 2023 Jiangxi International Mobile Internet of Things Expo. Xia Wenyong, Vice Governor of Jiangxi Province, visited the site for offering guidance and expressed his appreciation for Jiangxi Copper's new achievements in smart construction projects such as the intelligentization of the copper industry and the application of big data. Liao Xingeng, member of our Party committee and Deputy General Manager, accompanied him during the visit.

At this Expo, we unwaveringly focused on the target requirements of being a pioneer, striving for excellence, and doing a good job, proactively adapted to the new trend of digital economic development, and followed the guidance of the strategic goal of digital transformation and development to create a digital Jiangxi Copper, focused on displaying new achievements that have been made in smart factories, smart mines and other fields.



We participated in the 2023 Jiangxi International Mobile Internet of Things Expo

China (Nanchang) Digital Economy and New Infrastructure Industry Development Conference and Expo

We organized a delegation to participate in the 2023 China (Nanchang) Digital Economy and New Infrastructure Industry Development Conference and Expo. Wan Guangming, deputy secretary of the Nanchang Municipal Party Committee and Mayor, and Xiao Yun, Party Committee member and director of the Provincial State-owned Assets Supervision and Administration Commission, visited the Jiangxi Copper Exhibition Hall after attending the opening ceremony of the conference. Liao Xingeng, member of our Party committee and Deputy General Manager, accompanied the visit. The Jiangxi Copper Exhibition Hall for this exhibition mainly displayed the top-level design concept of Digital Jiangxi Copper and some of the achievements scored by three representative units, including Dexing Copper Mine, Guixi Smelter and Chengmenshan Copper Mine.



We participated in the 2023 China (Nanchang) Digital Economy and New Infrastructure Industry Development Conference and Expo

06

Caring about the Well-being of the People in Communities with Responsibility on Our Shoulders

We unremittably pursue respecting and protecting human rights, uphold the concept of fulfilling social responsibilities and being an excellent corporate citizen, adhere to positioning ourselves as a service-oriented and responsible enterprise, strictly abide by corporate social and moral responsibilities, and have formed a path to community co-construction and assistance to people's livelihood with characteristic of the times, national characteristics and world-class standards. By anchoring the fundamentals of economic development, we vigorously promoted the healthy development of human rights course, integrated people's livelihood and well-being into the protection of vulnerable groups, support for community services, and tolerance of cultural differences, we also gathered internal resources, and conducted a series of sustainable investments which pay equal attention to excellent operating environment and support in offering quality resources.



- ▶ Human Rights Protection
- ▶ Rural Revitalization and Community Relations
- ▶ Public Charity
- ▶ Fulfilling Responsibilities Overseas

1 NO POVERTY 	2 ZERO HUNGER 	4 QUALITY EDUCATION 	3 GOOD HEALTH AND WELL-BEING 	5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES
16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 			

Human Rights Protection

We adhere to the principle of equality, and actively safeguard the Universal Declaration of Human Rights and National Human Rights Action Plan (2021-2025) based on local needs of domestic and foreign projects.

In China, we shoulder our corporate responsibilities to assist rural revitalization, attach great importance to economic development and rights and interests protection in communities, and pay attention to the psychological and educational needs of rural left-behind children and the elderly against the backdrop of the development of urbanization. We actively use local infrastructure construction and local industry revitalization as the media to provide high-quality life scenes, balance regional development, and provide everyone with equal life guarantee.

When operating overseas, we take compliance with local laws as the basis and regard respect for local culture as a requirement, actively promote exchanges and integration between our resident employees, local employees and communities, and use overseas project development as an opportunity to drive local infrastructure construction and economic development.

Rural Revitalization and Community Relations

Rural Revitalization

In 2023, we further strengthened targeted assistance in the construction of grassroots Party organizations in Yaoqian Village to strengthen management, promote development through industry to build an industrial comprehensive breeding base, and carried out consumption-based assistance, local employment and other measures to achieve the win-win goal of making village collectives and farmers get rich. During the reporting period, we invested RMB 1.41 million in targeted assistance to Yaoqian Village and RMB 4.5 million to Nanban Village in Guxiandu Town, Poyang County. The total annual investment reached RMB 5.91 million. The purchase of products for poverty alleviation totaled RMB 4.8825 million.



Full View of Fuyaoqian Village

• System and Team Building

We established a Leading Group for Targeted Support in 2021, and has given full play to the Leading Group's role in taking the lead in overall planning and coordination. As a result, we have made progress in sparing no efforts to promote rural revitalization. With the support of documents such as the *Circular on Establishing the Leading Group for Targeted Assistance for Rural Revitalization, Management Measures for Assisting Rural Rejuvenation of Jiangxi Copper, Work Plan for Rural Revitalization of Yaoqian Village, Dongshang Town, Jinggangshan City (2021~2023)* and *Work System for Stationing Cadres in Poor Villages to Boost Poverty Alleviation* issued by the controlling shareholder Jiangxi Copper Group, we safeguarded our efforts for promoting rural revitalization and building a firewall to preventing returning to poverty.

Strengthen Internal Management of Rural Revitalization Work

We conducted a category-based review of tasks such as assistance through industrial development and employment, project facility construction, freedom from two worries and three guarantees, drinking water safety, and rectification of problems, and regularly checked for gaps and unreasonable arrangements in the ledger to ensure the integrity and authenticity of the information in the ledger and to feel the pulse and guiding the way for precise assistance.

• Support Rural Specialty Industries According to Local Conditions

In 2023, we invested a total of RMB 1.41 million in targeted support to Yaoqian Village to develop characteristic industries, construct infrastructure, and create a beautiful countryside. Since 2021, we invested a total of RMB 4.5 million; a total of RMB 4.5 million has been invested in infrastructure construction and other projects for paired assistance in Nanban Village, Guxiandu Town, Poyang County. Multiple measures have been taken simultaneously to support the development of characteristic industries and infrastructure construction in Fuyao-qian Village.



Targeted Support to Develop Characteristic Industries and Infrastructure

Industrial revitalization: More than additional 100 acres of white lotus have been planted, and the whole village has planted 200 acres of white lotus, 150 acres of oil-tea camellia, 150 boxes of bees under the cooperative mode, and 160 acres of cole-rice and rapeseed rape under the crop rotation mode. At the same time, the resource endowments of Yaoqian Village has been gathered and integrated to actively explore the diversified industrial development model. A 300-acre multi-industry comprehensive planting and breeding base covering beef cattle breeding, native chicken breeding, plum planting, alpine corn planting and watermelon planting was created in Aoxia production brigade of the Village.

Employment support: Priority was given to local villagers to make them participate in the management and maintenance of the industrial base and product processing and packaging., RMB 250,000 of labor wages were paid for the year.

Consumption-based assistance: We supported the sales of agricultural products. In 2023, we purchased more than 6,500 kilograms of white lotus, more than 2,500 kilograms of honey, and more than 1,000 kilograms of camellia oil. The village's collective income exceeded the one million mark for the first time, an increase of nearly 7 times compared with that in 2021.

• Community Co-construction

Have Deep Understanding of the Real Needs of Rural Development

We carried out more than 20 regular household visits throughout the year to learn about the villagers' pressing concerns in a timely manner; we implemented local policies to benefit the people, assisted 4 families with the disabled to sign up for doctor visits; and we helped 2 residents solve the accommodation problem in dilapidated houses.

Company leaders and leaders in charge of specific divisions visited Yaoqian Village, Dongshang Township, Jinggangshan City several times to investigate and guide rural revitalization work. They have expressed concerns and condolences to local villagers and personnel stationed in the village, and learned in detail about the key points, highlights, and difficulties in the assistance work, and put forward specific requirements and pointed out the direction of development on basing on the brand characteristics and advantages, serving villagers with heart and soul, especially caring for left-behind children.



Company Leaders and Leaders in Charge of Specific Divisions Went to Yaoqian Village, Dongshang Township, Jinggangshan City for Survey and Guidance

Fully Implementing Actions to Build a Beautiful Countryside and Creating Residential-Friendly Community Life Scenarios

Guided by the needs of the masses, we improved the functional area of the Party Mass Service Center and built multi-functional courts, fitness squares, rural stages and other places. Based on this, we carried out various cultural activities and created a strong rural cultural atmosphere. Focusing on improving human settlements for the two Demonstration Sites, we upgraded village linking road, installed a batch of high-pole lights, built a river guardrail, thus having effectively improved the production and living conditions of the villagers.

Protecting the Future and Taking Actions to Care for Left-behind Children

With the Children's Harbor Activity Room as a carrier, we built outdoor playgrounds, children's outdoor practice bases, etc., and were committed to creating a warm harbor for children. In 2023, we organized a donation event to realize exclusive micro-wishes for 31 left-behind children in the village; we carried out more than 60 academic tutoring, self-care education and other activities every weekend, benefiting more than 500 left-behind children.

Fulfilling Corporate Responsibility by Handling Potential Safety Hazards in Public Rental Housings in Dongtong Community and Renovating Them

In 2023, we organized and coordinated the work to identify the current status of public rental housing in Dongtong Community and handle the potential hazards. There are a total of 256 public rental housing buildings in the jurisdiction, which were built around 2000; there are 282 bungalows, most of which were built in the 1960s-80s. As they were built long ago, they were exposed to potential safety hazards such as leaking roofs and falling ceilings, aging power lines, and blocked fire escapes.

Upholding the safety concept of putting people and life first, we vigorously handled potential safety hazards in the public rental housing to ensure that tenants can live in a safe and comfortable environment. After many in-depth on-site surveys, a special research report was formed to propose specific safety hazard rectification measures for the public rental housing. The controlling shareholder Jiangxi Copper Group rendered full support and approved the rectification and repair funds in the amount of RMB 1.009 million. The acceptance inspection for the project to address potential safety hazards of the public rental housing and renovate it has been organized during the reporting period.

In December, we further conducted safety inspections on longspan public buildings, and arranged for a rectification plan for 2024 in response to the aging and serious corrosion of the roofs of the basketball gym and badminton gym.



Before and after Renovation of No.01 House in Houshan District

Public Charity

In 2023, we continued to stay committed to the service-oriented corporate actions and gather people's hearts by improving welfare.

Conveying Love and Care to the Employees

- We provided assistance and condolences to employees with heart and soul, and thoroughly implemented the brand project of providing warmth, coolness, and student grants. Throughout the year, we visited and expressed condolences to employees in need, senior leaders, model workers, front-line employees, and family members of overseas project personnel 186 times, and granted a total of RMB 415,200 in condolence payments.
- A total of RMB 72,000 was awarded to the children of employees who staged outstanding performance in the college entrance examination.
- More than RMB 6 million was allocated to encourage labor unions in various units to carry out activities with the theme of benefiting employees' life to enhance their sense of gain.
- We put into place the treatment for model workers and recreation and rehabilitation arrangements for employees, organized 6 national model workers to have physical examinations, and arranged for 8 model workers and 2,674 employees to participate in recreation and rehabilitation activities.
- 311 members of the Medical Mutual Aid Association received RMB 683,400 in subsidies and condolence payments. RMB 3.1984 million in claims and relief funds was paid under the mutual aid guarantee program, benefiting 1,049 employees, with a claim settlement rate as high as 79%, thus effectively reducing the burden on the families of injured workers.

Conveying Love and Care to the Society

In 2023, we participated in Jiangxi Province's One-day Charity Donation event and donated RMB 1.7 million to the Provincial Charity Federation. In December, we won the Most Caring Donation Enterprise Award out of the third Ganpo Charity Award in Jiangxi Province.



Most Caring Donation Enterprise Award out of the Third Jiangxi Province Ganpo Charity Award

Fulfilling Responsibilities Overseas

We attached great importance to community relations and construction demands of international mining areas where we operate, adhere to using projects as a channel for cooperation and development, and actively promote local environmental protection, hygienic, educational and economic development as well as construction of roads and bridges, sports and infrastructure facilities. In addition, during the project planning stage, we also had local communities, stakeholders and special interest groups participate in scheme and public consultation meetings to fully consider the negative impact of project construction on the community and actively take mitigation measures to eliminate the impact.

As of the end of 2023, we promoted education in local communities, complemented local health and hygiene needs, established a reclamation fund to improve the local environment, contributed funds for fulfilling social responsibilities and obligations for local economic construction and infrastructure, dredged ditches in rural areas to prevent and control flood disasters, invited locally recruited employees to Jiangxi Copper's large mines for skills training. At present, in all overseas projects, we have established friendly and mutually beneficial cooperation relationships with localities. Since we have not started production, and therefore were currently free from risks related to production.

Peru Lumina Project

Our community work in 2023 mainly includes but is not limited to:

- Continued to hire 17 teachers to support education work in communities;
- Continued to employ 2 midwives to assist local health work;
- Supported free local health clinics and donated medicines.

Kazakhstan Bakuta Tungsten Mine Project

Since signing the mining contract, we have attached great importance to cooperation with local governments and communities where the project is located, actively participated in community construction and local public welfare undertakings, and have been committed to building harmonious, mutual trust and friendly government-enterprise and community relations. At present, we have established a good image in the locality, and our relations with regional governments and communities are kept stable and continuously improving.

- We paid a total of 837.59 million tenge in the funds for fulfilling social responsibilities and obligations for local economic construction and infrastructure;
- We set up a reclamation fund to help communities improve the local environment, and a total of 102.62 million tenge in reclamation fees has been paid;
- On April 12, 2020, 228,800 medical masks, with a total value of approximately RMB 700,000, were donated by Jiangxi Copper, Hong Kong Jiixin International Resources Investment Limited, Jetsu Tungsten and other companies to support public health in Kazakhstan;



Donate Medical Masks

- We sponsored the Alata Investment International Business Forum for the Almaty State Government, providing sponsorship funds of RMB 1.5 million;
- We provided RMB 100,000 in funding for the Yingbek Kazakh District Government's New Year's Eve charity gift to orphans, disabled people and children from low-income families in the district;
- We twice purchased farming machinery worth RMB 2 million for local communities, and donated teaching aid materials worth RMB 450,000 to middle schools and kindergartens in local communities to improve local agricultural production conditions and teaching course;



Farming Machinery and Equipment Donation

- In order to promote local employment, we recruited 12 local university graduates and sent them to large mines owned by Jiangxi Copper in China for skills training. Before the local project is completed, we will continue to recruit about 300 local employees to participate in production and operation;
- At the invitation of the Inbek Kazakh District Government of Almaty Prefecture, we dispatched excavators to help dredge ditches in the rural areas of Sogent to prevent natural disasters such as flooding caused by the melting of surrounding snow mountains.



On Boarding Training for Newly Recruited College Graduates



Dredging Ditches

Thinking about
Today with the Future

Appendix I: Annual ESG Performance Overview

Economic Performance

Financial Indicators

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Operating income	100,000,000 RMB	5,218.93	4,799.38	4,427.68	3,185.63
Total profit	100,000,000 RMB	83.80	74.92	73.01	33.36
Net profit attributable to parent	100,000,000 RMB	65.05	59.94	56.36	23.20
Total assets at the end of the period	100,000,000 RMB	1,681.51	1,673.31	1,610.35	1,408.82
Total amount of dividends	100,000,000 RMB	20.78	17.31	17.31	3.46

Business Indicators

Products	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Cathode copper	10,000 tons	209.73	183.94	178.22	164.07
Gold	Ton	112.64	88.80	71.66	78.59
Silver	Ton	1,351.54	1,232.72	1,123.71	1,126.39
Sulfuric acid	10,000 tons	595.79	541.64	530.11	511.83
Copper processing products	10,000 tons	181.79	176.74	165.17	147.13
Copper in self-produced copper concentrate	10,000 tons	20.20	20.44	20.23	20.86

Scientific and Technological Innovation

Indicators	Unit	2023 Data	2022 Data
Number of patents	Piece	1,372	1,163
Including: number of invention patents	Piece	132	125
Number of newly authorized patents	Piece	209	181
Including: Number of newly authorized invention patents	Piece	35	27
Investment in scientific and technological research and development	100,000,000 RMB	54.42	50.83
Total amount of incentives for transformation of scientific and technological achievements	10,000 RMB	2,082.57	/

Information of Suppliers

Indicators	2023 Data		2022 Data	
	Quantity (number)	Proportion (%)	Quantity (number)	Proportion (%)
Number of suppliers in Jiangxi Province	353	27.86%	344	27.72%
Number of suppliers from other provinces	895	70.64%	878	70.75%
Number of suppliers from Hong Kong, Macao and Taiwan	3	0.24%	3	0.24%
Number of overseas suppliers	16	1.26%	16	1.29%
Total	1,267	100%	1,241	100%

Information of Procurement

Indicators	Unit	2023 Data
Percentage of procurement expenditure by suppliers in Jiangxi Province	%	56.87%
Percentage of procurement expenditure by domestic suppliers	%	95.78%
Localisation substitution rate	%	94.00%

Management Performance

Information of the Board of Directors, the Board of Supervisors and the General Meeting of Shareholders

Indicators	Unit	2023 Data	2022 Data
Board of Directors			
Total number of people	Person	10	11
Internal executive director	Person	4	5
External director	Person	2	2
Independent non-executive director	Person	4	4
Female director	Person	0	0
Proportion of independent non-executive director	%	40%	36.36%
Meetings of the Board of Directors, the Board of Supervisors and the General Meeting of Shareholders			
Total number of times	Session	14	24
Number of the Meeting of the Board of Directors	Session	8	13
Number of the Meeting of the Board of Supervisors	Session	4	8
Number of the General Meeting of Shareholders	Session	2	3

Information of Disclosure

Indicators	Unit	2023 Data	2022 Data
Total disclosure report	Copy	158	203
Including: Periodic announcement	Copy	4	4
Interim announcement	Copy	154	199
Regulatory announcement	Copy	0	0

Information of Other Governance Statistics

Indicators	Unit	2023 Data	2022 Data
Number of investor exchange activities conducted	Round	40+	35
Number of internal and external training sessions on corporate governance	Round	17	18
Total number of stakeholder complaints and reports	Round	0	0

Environmental Performance

Environmental Performance

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Total investment in environmental protection	100,000,000 RMB	5.45	12.20	7.86	3.29
Total investment in ecological restoration	100,000,000 RMB	0.91	3.20	2.86	0.94
Total area of ecological restoration	Hectares	101.01	272.00	234.68	59.19

Greenhouse Gas Emissions

Indicators	Unit	2023 Emissions	2022 Emissions ¹²	2021 Emissions	2020 Emissions
Greenhouse gas emissions (Scope I)	10,000 tons of CO2 equivalent	26.31	27.22	28.81	28.23
Greenhouse gas emissions (Scope II)	10,000 tons of CO2 equivalent	202.46	204.29	188.16	192.20
Total greenhouse gas emissions	10,000 tons of CO2 equivalent	228.77	231.51	216.97	220.43
Greenhouse gas emission density	10,000 tons of CO2 equivalent/100,000,000 RMB operating income	0.044	0.048	0.049	0.069

¹²Change in measurement methodology: The Company has been committed to energy conservation and emission reduction, and its greenhouse gas emissions have been reduced year by year in recent years. In order to facilitate carbon trading, from 2022 onwards, the Company adopts the national grid average emission factor of 0.581tco2/MWh for carbon emission accounting.

Energy Structure and Consumption

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Comprehensive energy consumption	tce	569,852.92	583,156.11	582,964.68	589,282.27
Comprehensive energy consumption density	tce/10,000 RMB operating income	0.011	0.012	0.013	0.018

Indicators	Unit	2023 Data	2022 Data
Direct energy	Gasoline	tce	469.20
	Diesel	tce	76,259.73
	Natural gas	tce	38,404.57
	Heavy oil	tce	17,006.25
Indirect energy	Purchased electricity	tce	433,073.01
	Purchased steam	tce	4,640.16

Water Resources and Wastewater Discharge

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Water resources	Total water consumption	10,000 tons	95,979.87	83,634.33	77,691.70
	Total water intensity	10,000 tons/100,000,000 RMB operating income	18.39	17.43	17.55
	Reuse rate of industrial water	%	95.77%	94.90%	95.86%
Sewage and wastewater production and wastewater	Total wastewater discharge	10,000 tons	5,311.17	4,048.20	5,392.37
	COD	Ton	1,024.79	1,011.00	1,054.09
	Ammonia, Nitrogen	Ton	59.90	56.20	58.08
	Copper	Ton	0.55	1.53	1.02
	Zinc	Ton	2.62	1.68	2.61
	Lead	Ton	1.02	1.34	1.58
	Suspended solids discharge	Ton	551.11	561.58	262.34
	Wastewater treatment capacity	10,000 tons	37,473.33	/	/

Atmospheric Emissions

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Exhaust emissions	Sulfur dioxide	Ton	774.51	1,239.00	1,458.51
	Particulate matter	Ton	88.07	181.57	196.67
	Nitrogen oxide	Ton	39.28	/	/

Waste Disposal

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
General waste	10,000 tons	8.14	7.20	7.00	
Hazardous waste	10,000 tons	3.90	3.95	4.13	

Tailings Disposal

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Production of tailings	Ton	5,288.00	5,442.44	5,454.66	
Overall utilization of tailings	Ton	1,749.13	925.21	829.24	
Tailings recycling rate	%	33.08%	17.00%	15.20%	

Social Performance

Employment

Indicators	2023 Data		2022 Data		
	Number of people (person)	Proportions (%)	Number of people (person)	Proportions (%)	
Total number of people	26,066	100%	25,051	100%	
Gender	Male	22,138	84.93%	21,224	84.72%
	Female	3,928	15.07%	3,827	15.28%
Age	30 and under	5,524	20.04%	4,205	16.79%
	Age 31-40	6,368	24.43%	5,669	22.63%
	Age 41-50	6,316	24.23%	6,648	26.54%
	Above 50	8,158	31.30%	8,529	34.05%
Education	PhD	185	0.71%	106	0.42%
	Master	846	3.25%	638	2.55%
	Bachelor	5,777	22.16%	4,701	18.77%
	College	5,537	21.24%	4,887	19.51%
	Technical secondary school	1,685	6.46%	1,582	6.32%
	Vocational school	2,719	10.43%	2,745	10.96%
	High school	3,182	12.21%	3,404	13.59%
	Junior high and below	6,135	23.54%	6,988	27.90%
Regions	Jiangxi	17,644	67.69%	16,660	66.50%
	Beijing	5	0.02%	6	0.02%
	Sichuan	50	0.19%	50	0.20%
	Tianjin	193	0.74%	337	1.35%
	Guangdong	715	2.74%	525	2.10%
	Shanghai	163	0.63%	244	0.97%
	Shandong	7,287	27.96%	7,182	28.67%
	Hong Kong	9	0.03%	47	0.19%
	Management personnel	4,389	16.84%	4,022	16.06%
	Engineering and technical personnel	3,249	13.16%	3,138	12.53%
Category	Production operator	16,110	61.80%	15,755	62.89%
	Service operator	1,796	6.89%	1,710	6.83%
	Off-duty personnel	342	1.31%	426	1.70%

Indicators	Unit	2023 Data	2022 Data
Employment rate of local staff	%	67.79%	66.50%
Proportion of female employees	%	15.07%	15.28%
Proportion of employees with disabilities (disadvantaged employees)	%	1.28%	0.97%
Proportion of ethnic minority employees	%	1.58%	1.61%
Proportion of foreign employees	%	0.004%	0.004%

Employee Turnover

Indicators		Unit	2023 Data	2022 Data	
Employee turnover rate	Total turnover rate	%	2.08%	5.98%	
	Gender	Male	%	1.68%	4.73%
		Female	%	0.40%	1.25%
	Age	20 and under	%	0.06%	0.08%
		Age 21-30	%	1.34%	0.93%
		Age 31-40	%	0.53%	0.94%
		Age 41-50	%	0.08%	0.81%
		Age 51-60	%	0.07%	3.22%
	Education	PhD	%	0.11%	0.02%
		Master	%	0.37%	0.20%
		Bachelor	%	0.70%	1.01%
		College	%	0.48%	0.83%
		High school and below	%	0.41%	3.91%
	Regions	Within Jiangxi Province	%	1.04%	5.39%
		Outside Jiangxi Province	%	1.04%	0.58%
Employee turnover ¹³		person	4,095	2,391	

Employee's Rights and Interests

Indicators	Unit	2023 Data	2022 Data
Signing rate of labor contract	%	100%	100%
Social security coverage rate	%	100%	100%
Occupational health examination rate of employees	%	100%	100%
Basic salary of employees	100,000,000 RMB	11.62	7.27
Employee allowance	100,000,000 RMB	2.21	1.66
Executive remuneration	100,000,000 RMB	0.13	/

Staff Training

Indicators	Unit	2023 Data	2022 Data
Total number of persons covered by training	person	17,365	19,364
Total number of training sessions covered	Person-sessions	57,307	56,553
Total hours of training	Hour	1,405,080	1,438,566
Training hours per capita	Hour/person	80.91	74.29
Total investment in vocational training	10,000 RMB	2,221	1,632

Production Safety

Indicators	Unit	2023 Data	2022 Data	2021 Data	2020 Data
Number of work-related deaths	Person	0	1	1	1
Work-related deaths rate	%	0%	0.004%	0.004%	0.004%
1,000,000 man-hours accident rate	%	0.56%	0.20%	0.22%	0.38%
Total investment in production safety	100,000,000 RMB	5.42	6.30	4.52	3.92

¹³ The statistics are for additions plus reductions, excluding retirements and deaths.

Information of Rural Revitalisation and Public Charities

Indicators	Unit	2023 Data
Number of employees in difficulty visits	Person	136
Difficulty employee benefits	10,000 RMB	22.48
Poverty alleviation funds (rural revitalisation assistance) inputs	10,000 RMB	591
Pro-poor product procurement	10,000 RMB	488.25
Charitable donations	10,000 RMB	170

Appendix II: Index Table

Environmental, Social and Governance Reporting Guide published by HKEX

Contents		Corresponding Section in this Report
Mandatory Disclosure Requirements		
Governance Structure	A statement from the board containing the following elements: (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	Sustainable Development Strategy Response to SDGs ESG Governance
Reporting Principles	A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report: Materiality: 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. Quantitative: 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. Consistency: 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 this Report
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About this Report
"Comply or explain" Provisions		
Subject Areas, Aspects, General Disclosures and KPIs		
A. Environmental		
Aspect A1: Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. Note: Air emissions include NO _x , SO _x , and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Hazardous wastes are those defined by national regulations.	Response to Climate Change Pollution Prevention and Control Green Operation Environmental Management System

Aspect A1: Emissions	KPI A1.1	The types of emissions and respective emissions data.	Response to Climate Change Pollution Prevention and Control Annual ESG Performance Overview
	KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	
	KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	
	KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	
	KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	
	KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.		Energy Resource Management Tailings Management Green Operation
	KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Energy Resource Management Tailings Management Annual ESG Performance Overview
	KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	
	KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	
	KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.		
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impacts on the environment and natural resources.		Environmental Management System Ecological Reclamation and Biodiversity Annual ESG Performance Overview
	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 System Ecological Reclamation and Biodiversity Annual ESG Performance Overview
Aspect A4: Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.		Response to Climate Change Green Operation
	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.	Response to Climate Change Annual ESG Performance Overview
B. Social			
Aspect B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.		Legal Employment Fair Employment Employee Care
	KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Fair Employment Annual ESG Performance Overview
	KPI B1.2	Employee turnover rate by gender, age group and geographical region.	

Aspect B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.		Occupational Safety and Health
	KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Occupational Safety and Health Annual ESG Performance Overview
	KPI B2.2	Lost days due to work injury.	
	KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	
Aspect B3: Development and Training	General Disclosure 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.		Employee Training
	KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Employee Training Annual ESG Performance Overview
	KPI B3.2	The average training hours completed per employee by gender and employee category.	
Aspect B4: Labour Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.		Legal Employment Fair Employment Employee Care Human Rights Protection
	KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Legal Employment Fair Employment Employee Care Human Rights Protection Annual ESG Performance Overview
	KPI B4.2	Description of steps taken to eliminate such practices when discovered.	
	General Disclosure Policies on managing environmental and social risks of the supply chain.		Supply Chain Management
Aspect B5: Supply Chain Management	KPI B5.1	Number of suppliers by geographical region.	Supply Chain Management Annual ESG Performance Overview
	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.	
	KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	
	KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	
	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.		
Aspect B6: Product Responsibility	KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Quality Control Rights and Interests of Clients Annual ESG Performance Overview
	KPI B6.2	Number of products and service related complaints received and how they are dealt with.	

Aspect B6: Product Responsibility	KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Quality Control Rights and Interests of Clients Annual ESG Performance Overview
	KPI B6.4	Description of quality assurance process and recall procedures.	
	KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	
Aspect B7: Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.		Business Ethics
	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.	Business Ethics Annual ESG Performance Overview
	KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	
	KPI B7.3	Description of anti-corruption training provided to directors and staff.	
Aspect B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.		Human Rights Protection Rural Revitalization and Community Relations Public Charity Fulfilling Responsibilities Overseas
	KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Rural Revitalization and Community Relations Public Charity Fulfilling Responsibilities Overseas Annual ESG Performance Overview
	KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	

Sustainable Development Reporting Standards 2021 published by Global Reporting Initiative

Disclosure No.	Contents	Corresponding Section in this Report
GRI 2: General Disclosures 2021		
The Organization And Its Reporting Practices		
2-1	Organizational details	About Jiangxi Copper
2-2	Entities included in the organization's sustainability reporting	About this Report
2-3	Reporting period, frequency and contact point	
2-4	Restatements of information	
2-5	External assurance	/
Activities And Workers		
2-6	Activities, value chain and other business relationships	About Jiangxi Copper
2-7	Employees	Communication with Stakeholders Legal Employment Fair Employment Employee Care Employee Training
2-8	Workers who are not employees	Communication with Stakeholders Supply Chain Management
Governance		
2-9	Governance structure and composition	Governance Structure
2-10	Nomination and selection of the highest governance body	
2-11	Chair of the highest governance body	
2-12	Role of the highest governance body in overseeing the management of impacts	
2-13	Delegation of responsibility for managing impacts	ESG Governance
2-14	Role of the highest governance body in sustainability reporting	
2-15	Conflicts of interest	Communication with Stakeholders
2-16	Communication of critical concerns	
2-17	Collective knowledge of the highest governance body	Governance Structure
2-18	Evaluation of the performance of the highest governance body	
2-19	Remuneration policies	Employee Care
2-20	Process to determine remuneration	
2-21	Annual total compensation ratio	Annual ESG Performance Overview
Strategy, Policies And Practices		
2-22	Statement on sustainable development strategy	Sustainable Development Strategy
2-23	Policy commitments	Full Report
2-24	Embedding policy commitments	
2-25	Processes to remediate negative impacts	Communication with Stakeholders Fulfilling Responsibilities Overseas
2-26	Mechanisms for seeking advice and raising concerns	Communication with Stakeholders
2-27	Compliance with laws and regulations	Full Report
2-28	Membership associations	About Jiangxi Copper
Stakeholder Engagement		
2-29	Approach to stakeholder engagement	Communication with Stakeholders Analysis of Material Issues
2-30	Collective bargaining agreements	Communication with Stakeholders Employee Care

Disclosure No.	Contents	Corresponding Section in this Report
GRI 3: Material Topics 2021		
3-1	Process to determine material topics	Analysis of Material Issues
3-2	List of material topics	
3-3	Management of material topics	
• GRI 201: Economic Performance 2016		
G201-1	Direct economic value generated and distributed	Annual ESG Performance Overview
G201-2	Financial implications and other risks and opportunities due to climate change	ESG Governance Response to Climate Change
G201-3	Defined benefit plan obligations and other retirement plans	Employee Care
G201-4	Financial assistance received from government	/
• GRI 202: Market Presence 2016		
G202-1	Ratios of standard entry level wage by gender compared to local minimum wage	/
G202-2	Proportion of senior management hired from the local community	/
• GRI 203: Indirect Economic Impacts 2016		
G203-1	Infrastructure investments and services supported	Rural Revitalization and Community Relations Public Charity Fulfilling Responsibilities Overseas
G203-2	Significant indirect economic impacts	Annual ESG Performance Overview
• GRI 204: Procurement Practices 2016		
G204-1	Proportion of spending on local suppliers	Supply Chain Management Annual ESG Performance Overview
• GRI 205: Anti-corruption 2016		
G205-1	Operations assessed for risks related to corruption	Business Ethics
G205-2	Communication and training about anti-corruption policies and procedures	
G205-3	Confirmed incidents of corruption and actions taken	
• GRI 206: Anti-competitive Behavior 2016		
G206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Business Ethics
• GRI 207: Tax 2019		
G207-1	Approach to tax	Business Ethics
G207-2	Tax governance, control, and risk management	Business Ethics Risk Management and Internal Control
G207-3	Stakeholder engagement and management of concerns related to tax	Business Ethics
G207-4	Country-by-country reporting	/
• GRI 301: Materials 2016		
G301-1	Materials used by weight or volume	Tailings Management Annual ESG Performance Overview
G301-2	Recycled input materials used	
G301-3	Reclaimed products and their packaging materials	
• GRI 302: Energy 2016		
G302-1	Energy consumption within the organization	Energy Resource Management Green Operation Annual ESG Performance Overview
G302-2	Energy consumption outside of the organization	
G302-3	Energy intensity	
G302-4	Reduction of energy consumption	
G302-5	Reductions in energy requirements of products and services	

• GRI 303: Water and Effluents 2018		
G303-1	Interactions with water as a shared resource	Energy Resource Management Pollution Prevention and Control Annual ESG Performance Overview
G303-2	Management of water discharge-related impacts	
G303-3	Water withdrawal	
G303-4	Water discharge	
G303-5	Water consumption	
• GRI 304: Biodiversity 2016		
G304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Ecological Reclamation and Biodiversity Annual ESG Performance Overview
G304-2	Significant impacts of activities, products and services on biodiversity	
G304-3	Habitats protected or restored	
G304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	/
• GRI 305: Emissions 2016		
G305-1	Direct (Scope 1) GHG emissions	Response to Climate Change Annual ESG Performance Overview
G305-2	Energy indirect (Scope 2) GHG emissions	
G305-3	Other indirect (Scope 3) GHG emissions	/
G305-4	GHG emissions intensity	Response to Climate Change Annual ESG Performance Overview
G305-5	Reduction of GHG emissions	
G305-6	Emissions of ozone-depleting substances (ODS)	/
G305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Pollution Prevention and Control Annual ESG Performance Overview
• GRI 306: Waste 2020		
G306-1	Waste generation and significant waste-related impacts	Pollution Prevention and Control Tailings Management Annual ESG Performance Overview
G306-2	Management of significant waste-related impacts	
G306-3	Waste generated	
G306-4	Waste diverted from disposal	
G306-5	Waste directed to disposal	
• GRI 308: Supplier Environmental Assessment 2016		
G308-1	New suppliers that were screened using environmental criteria	Supply Chain Management Annual ESG Performance Overview
G308-2	Negative environmental impacts in the supply chain and actions taken	
• GRI 401: Employment 2016		
G401-1	New employee hires and employee turnover	Fair Employment Annual ESG Performance Overview
G401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee Care Annual ESG Performance Overview
G401-3	Parental leave	Employee Care
• GRI 402: Labor/Management Relations 2016		
G402-1	Minimum notice periods regarding operational changes	/
• GRI 403: Occupational Health and Safety 2018		
G403-1	Occupational health and safety management system	Occupational Health Management Annual ESG Performance Overview
G403-2	Hazard identification, risk assessment, and incident investigation	
G403-3	Occupational health services	
G403-4	Worker participation, consultation, and communication on occupational health and safety	
G403-5	Worker training on occupational health and safety	
G403-6	Promotion of worker health	
G403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
G403-8	Workers covered by an occupational health and safety management system	
G403-9	Work-related injuries	
G403-10	Work-related ill health	

• GRI 404: Training and Education 2016		
G404-1	Average hours of training per year per employee	Employee Training Annual ESG Performance Overview
G404-2	Programs for upgrading employee skills and transition assistance programs	
G404-3	Percentage of employees receiving regular performance and career development reviews	
• GRI 405: Diversity and Equal Opportunity 2016		
G405-1	Diversity of governance bodies and employees	Fair Employment Annual ESG Performance Overview
G405-2	Ratio of basic salary and remuneration of women to men	
• GRI 406: Non-discrimination 2016		
G406-1	Incidents of discrimination and corrective actions taken	Fair Employment
• GRI 407: Freedom of Association and Collective Bargaining 2016		
G407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Fair Employment Human Rights Protection
• GRI 408: Child Labor 2016		
G408-1	Operations and suppliers at significant risk for incidents of child labor	Fair Employment Human Rights Protection
• GRI 409: Forced or Compulsory Labor 2016		
G409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Fair Employment Human Rights Protection
• GRI 410: Security Practices 2016		
G411-1	Security personnel trained in human rights policies or procedures	/
• GRI 411: Rights of Indigenous Peoples 2016		
G411-1	Incidents of violations involving rights of indigenous peoples	Human Rights Protection Fulfilling Responsibilities Overseas
• GRI 413: Local Communities 2016		
G413-1	Operations with local community engagement, impact assessments, and development programs	Rural Revitalization and Community Relations Fulfilling Responsibilities Overseas Annual ESG Performance Overview
G413-2	Operations with significant actual and potential negative impacts on local communities	
• GRI 414: Supplier Social Assessment 2016		
G414-1	New suppliers that were screened using social criteria	Supply Chain Management Annual ESG Performance Overview
G414-2	Negative social impacts in the supply chain and actions taken	
• GRI 415: Public Policy 2016		
G415-1	Political contributions	/
• GRI 416: Customer Health and Safety 2016		
G416-1	Assessment of the health and safety impacts of product and service categories	Quality Control Rights and Interests of Clients
G416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	
• GRI 417: Marketing and Labeling 2016		
G417-1	Requirements for product and service information and labeling	Quality Control Rights and Interests of Clients
G417-2	Incidents of non-compliance concerning product and service information and labeling	
G417-3	Incidents of non-compliance concerning marketing communications	
• GRI 418: Customer Privacy 2016		
G418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Rights and Interests of Clients

Appendix III: Feedback Form

Thank you for reading the Jiangxi Copper Co., Ltd. Environmental, Social and Governance Report in 2023. 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.

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

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

- Government/regulators Industry associations Investors/shareholders Customers Staff
 Suppliers Partners Community Media 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. Your assessment of the layout and design style of this report:

- Not good Average Good Very good

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

- No General Yes

9. Do you consider the report is well structured:

- No General Yes

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

- No General Yes

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

- No General Yes

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