

Jinchuan Group International Resources Co. Ltd
金川集團國際資源有限公司

(Incorporated in the Cayman Islands with limited liability)
(於開曼群島註冊成立之有限公司)
(Stock Code 股份代號: 2362)



Environmental, Social and
Governance Report

環境、社會及管治報告

2025

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關於本報告

ABOUT THIS REPORT

◆ 組織邊界

Reporting Organizational Boundary

本報告的組織邊界涵蓋金川集團國際資源有限公司（「金川國際」或者「公司」）旗下經營及控制的所有實體，與財務報告合併報表範圍一致。

The organisational boundary of this report covers all entities operated and controlled by Jinchuan Group International Resources Co. Ltd (JCI or the Company), consistent with the scope of the consolidated financial statements.

◆ 時間範圍

Reporting Time Frame

本報告的報告期為2025年1月1日至2025年12月31日（「報告期」），為令讀者有更全面的了解，其納入若干比較數據。內容包含對過往及未來的適當討論，以使本報告更具可比性及前瞻性。本報告每年度發布一次。

The reporting period of this report is from 1 January 2025 to 31 December 2025 ("Reporting Period"). Certain comparative figures are included to provide readers a more comprehensive understanding. Content included discussion about the past and also future, as appropriate, to make this report more comparable and forward-looking. This report is issued annually.

◀◆ 編製依據

Basis of Preparation

本報告乃參考下列主流原則、指南或標準編製：

This report is prepared with reference to the following mainstream principles, guidance, or standards:

- ▶ 《香港聯合交易所有限公司上市規則》之附錄C2《環境、社會及管治守則》（以下簡稱《環境、社會及管治報告守則》）
Environmental, Social and Governance Reporting Code (Appendix C2) of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Environmental, Social and Governance Reporting Code")
- ▶ 國際可持續發展準則理事會 (ISSB) 發布之《國際財務報告可持續披露準則第1號——可持續相關財務信息披露一般要求》及《國際財務報告可持續披露準則第2號——氣候相關披露》
IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures developed by the International Sustainability Standards Board (ISSB)
- ▶ 全球報告倡議組織 (GRI) 可持續發展報告標準2021版
Global Reporting Initiative (GRI) Sustainability Reporting Standards 2021
- ▶ 可持續會計準則委員會 (SASB) 金屬與採礦業標準
Sustainability Accounting Standards Board (SASB) Metals and Mining Industry Standard
- ▶ 聯合國可持續發展目標 (SDGs)
United Nations Sustainable Development Goals (SDGs)

◆ 匯報原則

Reporting Principles

本報告編製過程遵循《環境、社會及管治報告守則》刊載的「重要性」、「量化」、「平衡」及「一致性」匯報原則。

This report is prepared in alignment with the reporting principles of "materiality", "quantitative", "balance" and "consistency" as set out in the Environmental, Social and Governance Reporting Code.

- ▶ **重要性:** 我們遵循《環境、社會及管治報告守則》開展重要性評估工作，以識別報告期內對我們及持份者而言重要的議題，所識別出的重要性議題經我們董事會檢視后，成為本報告的披露重點。

Materiality: The Company followed the Environmental, Social and Governance Reporting Code to carry out a materiality assessment to identify the issues that were material to the Company and stakeholders during the Reporting Period, and the identified material issues were reviewed by the Board of Directors of the Company and became the focus of disclosure in this report.

- ▶ **量化:** 我們於本報告中提供了透過計算所得的相關數據及其所使用的標準、方法、假設及計算工具，以盡可能確保信息準確

Quantitative: The Company has provided in this report the relevant data obtained through calculations and the standards, methods, assumptions and calculation tools used to ensure, as far as possible, the accuracy of the information.

- ▶ **平衡:** 本報告內容反映客觀事實，對涉及我們正面、負面的信息均予以不偏不倚地披露，無不正當修改。

Balance: The contents of this report reflect objective facts and disclose both positive and negative information about the Company in an unbiased manner, without undue modification.

- ▶ **一致性:** 如無特殊說明，本報告中披露的數據均根據我們建立的統一信息收集流程、工作機制進行統計，以保證數據連年可比。

Consistency: Unless otherwise specified, the data disclosed in this report are compiled in accordance with the unified information collection process and working mechanism established by the Company to ensure that the data are comparable from year to year.

◆ 數據來源及聲明

Data Source and Statement

本報告所載數據均源自金川國際的內部統計數據及檔案資料，包括政策、程序、手冊及公開情報。除非另有指明，本報告所有貨幣均以美元列示。

The data in the report is obtained from JCI's internal statistics and documented materials including policies, procedures, handbooks, and information from the public domain. All currencies in this report are expressed in US\$ unless otherwise stated.

◀ 報告獲取及語言

Access to This Report and Language

本報告經由我們董事會審閱批准。本報告可於香港交易及結算所有限公司（以下簡稱「香港交易所」）網站及我們網站查閱及下載。本報告分別以中、英文兩種語言編製，如若兩種版本的內容有分歧，概以英文版為準。

This report has been deliberated and approved by the Board of Directors of the Company. This report is available for viewing and downloading on the website of The Hong Kong Exchanges and Clearing Limited (the "HKEX") and the Company's website. The report has been prepared in both Chinese and English versions. In case of any discrepancy between the two versions, the English version shall prevail.

◀ 獨立法證調查

Independent Forensic Investigation

於二零二五年三月二十八日，本公司股份因須集中就主要涉及對Ruashi Mine於過往數年的若干付款的指控的事項進行額外工作（須待進一步調查）（「指控」）導致延遲刊發截至二零二四年十二月三十一日止年度之全年業績而暫停買賣。截至二零二五年十二月三十一日止年度之環境、社會及管治報告亦延遲至今日刊發。

On 28 March 2025, dealing the shares of the Company was suspended as a result of delay in publication of annual results for the year ended 31 December 2024 due to additional works focused on matters primarily concerning an allegation on certain payments of Ruashi Mine over the past few years, which required further investigation (the "Allegation"). The publication of the Environmental, Social and Governance report for the year ended 31 December 2025 was also delayed till to-date.

於二零二五年四月十六日，獨立法證會計師已獲委任進行法證調查。

An independent forensic accountant was appointed on 16 April 2025 to conduct a forensic investigation.

截至本報告公佈之日（即二零二六年三月三十一日），本公司于日期為二零二六年三月十五日公告法證調查進展更新。

Up to the date of this report (i.e. 31 March 2026), progress of the independent forensic investigation was set out in the announcement of the Company dated 15 March 2026.

01

概覽

Overview



行政總裁致辭

CHIEF EXECUTIVE OFFICER'S MESSAGE



郜天鵬 Gao Tianpeng

行政總裁 *Chief Executive Officer*

尊敬的持份者：

Dear stakeholders,

時序更替，華章日新。站在2026年的新起點，回顧過去一年，全球地緣政治格局依然錯綜複雜，氣候變化帶來的極端天氣頻發，礦業市場波動加劇。在充滿不確定性的宏觀環境下，金川國際始終堅守可持續發展初心，將ESG理念深度融入企業戰略核心。我們在綠色行動、安全保障、社區共融及供應鏈韌性上取得了實質性突破，為構建更具韌性的未來奠定了堅實基礎。

As time progresses, new chapters unfold. Standing at the new starting point of 2026 and looking back at the past year, the global geopolitical landscape remained intricate and complex, extreme weather events driven by climate change occurred frequently, and volatility in the mining market intensified. Amidst a macroeconomic environment filled with uncertainties, JCI has consistently upheld its original aspiration for sustainable development, deeply integrating ESG concepts into the core of our corporate strategy. We have achieved substantive breakthroughs in green initiatives, safety assurance, community integration, and supply chain resilience, laying a solid foundation for building a more resilient future.

◀ 落實減碳行動

Implementing Carbon Reduction Actions

我們始終將應對氣候變化、推進低碳轉型作為可持續發展的核心任務，透過落地清晰氣候戰略、強化氣候風險管控，系統推進各項減碳行動落地實施，建立覆蓋範圍1、2及核心範圍3的碳盤查體系，完成全礦場氣候風險動態評估並制定對應應對方案；在能源管理方面，持續優化能源結構，大力推廣可再生能源應用，積極完善能源管理政策，推動價值鏈上下游協同降碳，強化全員節能減碳意識，將減碳目標與績效掛鉤，全方位、多層次推動溫室氣體減排，切實提升礦業營運與自然生態的協同發展能力，以紮實行動踐行低碳可持續承諾。

We have always regarded addressing climate change and promoting low-carbon transition as the core tasks of sustainable development. By implementing a clear climate strategy and strengthening climate risk control, we systematically promote the execution of various carbon reduction actions. We have established a carbon accounting system covering Scope 1, Scope 2, and core categories of Scope 3 emissions, completed dynamic assessments of climate risks across all mines, and formulated corresponding response plans; in terms of energy management, we continuously optimize the energy structure, vigorously promote the application of renewable energy, actively improve energy management policies, promote coordinated carbon reduction across the upstream and downstream value chain, strengthen the awareness of energy conservation and carbon reduction among all employees, and link carbon reduction targets with performance. We promote greenhouse gas emission reductions in an all-round and multi-level manner, effectively enhancing the coordinated development capability of mining operations and natural ecology, and fulfilling our commitment to low-carbon sustainability with solid actions.

◀ 構建零傷害生態

Building a Zero-Harm Ecosystem

我們始終將職業健康與安全置於經營發展的重要位置，恪守安全承諾，持續優化升級安全管理體系。我們持續完善安全管理架構，並結合智慧礦山建設，引入風險監測等智能安防技術，推動安全管理從「被動防控」向「主動預防」轉型。我們嚴格落實《集團零傷害政策》，堅持開展全崗位常態化安全培訓與員工健康檢查，連續三年實現零死亡事故，全方位保障僱員、承建商、社區居民等所有受礦場營運影響人士的健康與安全。

We invariably place occupational health and safety at an important position in our business development, strictly adhere to our safety commitments, and continuously optimize and upgrade our safety management system. We continue to improve our safety management structure and, in conjunction with smart mine construction, introduce intelligent security technologies such as risk monitoring, promoting the transition of safety management from "passive prevention and control" to "active prevention." We strictly implement the "Group Zero Harm Policy," persist in carrying out normalized safety training for all positions and employee health examinations, and have achieved zero fatal accidents for three consecutive years, comprehensively safeguarding the health and safety of employees, contractors, community residents, and all individuals affected by mine operations.

◀ 社區價值共享

Shared Community Value

在社區共建方面，我們堅持「價值共享」，持續投入資源支持業務所在社區的基礎設施建設，開展居民生活技能與職業技術培訓，提升當地居民的就業競爭力，同時提升本地員工僱用比例，促進深度本地化就業。透過建立長期的社區溝通渠道，讓社區居民參與礦場發展規劃的討論，確保企業發展與社區訴求同頻共振，深化與周邊社區的協同發展，以實際行動推動礦區與社區的和諧共生，讓企業發展成果惠及當地。

In terms of community co-construction, we adhere to "shared value," continuously investing resources to support infrastructure construction in communities where we operate. We conduct life skills and vocational technical training for residents to enhance local employment competitiveness, while increasing the employment ratio of local staff to promote deep localized employment. By establishing long-term community communication channels, we involve community residents in discussions on mine development planning, ensuring that corporate development resonates with community demands, deepening coordinated development with surrounding communities, and driving the harmonious coexistence of mining areas and communities through practical actions, so that the fruits of corporate development benefit the local area.

◀ 責任供應鏈

Responsible Supply Chain

我們努力建造一個「責任供應鏈」，董事會基於相關專業意見，于日期為二零二六年三月十五日的本公司公告所載的獨立法證調查進展更新以及本報告发布之日可获得的信息，董事会将改進其現有系統，搭建全流程溯源管理體系，實現採購環節的可追溯、可核查，打造可持續的供應鏈生態。我們持續精進產品質量與安全管控，及時回應客戶反饋與訴求，以高品質的產品與服務踐行企業責任，為持份者創造恆久共享的商業價值。我們將人權管理延伸至供應鏈環節，建立供應鏈人權管理標準，完善礦場安保人權管理體系，嚴格杜絕童工、強迫勞動，堅決反對各類歧視與騷擾行為，切實保障員工自由結社、集體談判等合法權益，推動上下游共同踐行負責任經營。

We strive to construct a "responsible supply chain". The Board, based on finding of the independent forensic investigation as set out in the announcement of the Company dated 15 March 2026 and the information available up to the date of this report, will enhance its existing system through, building a full-process traceability management system to achieve traceability and verifiability in the procurement process, creating a sustainable supply chain ecosystem. We continuously refine product quality and safety controls, promptly responding to customer feedback and demands, fulfilling corporate responsibilities with high-quality products and services, and creating enduring shared commercial value for stakeholders. We extend human rights management to the supply chain, establish supply chain human rights management standards, enhancing the human rights management system for mine security, strictly eliminate child labor and forced labor, resolutely oppose all forms of discrimination and harassment, effectively protect employees' legitimate rights to freedom of association and collective bargaining, and drive upstream and downstream partners to jointly practice responsible operations.

展望未來，金川國際將繼續緊扣聯合國可持續發展目標 (SDGs)，以「技術領先、環境友好、社會共融」為指引，將ESG作為企業高質量發展的強大引擎。我們深信，只有將企業命運與地球福祉、社會進步緊密相連，方能行穩致遠。

Looking ahead, JCI will continue to closely align with the United Nations Sustainable Development Goals (SDGs). Guided by "technological leadership, environmental friendliness, and social integration," we will leverage ESG as a powerful engine for the Company's high-quality development. We deeply believe that only by closely linking the fate of the enterprise with the well-being of the earth and the progress of society can we achieve steady and long-term success.

最後，本人謹向全體僱員之辛勤付出、其他董事之卓越領導、各位股東及持份者之鼎力支持，致以由衷謝忱。

Last but not least, I would like to express my sincere gratitude to all employees for their hard work, to the other members of the board for their excellent leadership, and to our shareholders and stakeholders for their steadfast support.

郜天鵬 Gao Tianpeng

行政總裁 *Chief Executive Officer*

31 March 2026

關於金川國際

ABOUT JCI

| 關於我們 About Us

金川國際於香港聯交所上市，其最終控股公司為金川集團股份有限公司（「金川集團」），為發展國際採礦和礦產資源業務的旗艦平台。金川國際的未來立足於明確定義的公司戰略，賦能我們躋身國際採礦業的龍頭企業行列。

◀ 我們的願景

Our Vision

我們的願景是矢志成為一家舉足輕重的頂級國際有色金屬礦業公司，專注於銅、鈷、鎳和其他有色金屬的開採和貿易。

◀ 我們的戰略

Our Strategy

我們的戰略是利用金川集團和香港資本市場的品牌效應、專業知識、經驗和財務資源，在全球投資和營運可持續、高質量、具有成本競爭力的礦山。重點圍繞金川集團鎳、銅、鈷傳統核心業務領域，在資源優勢和投資環境優越的地區開展併購合作。

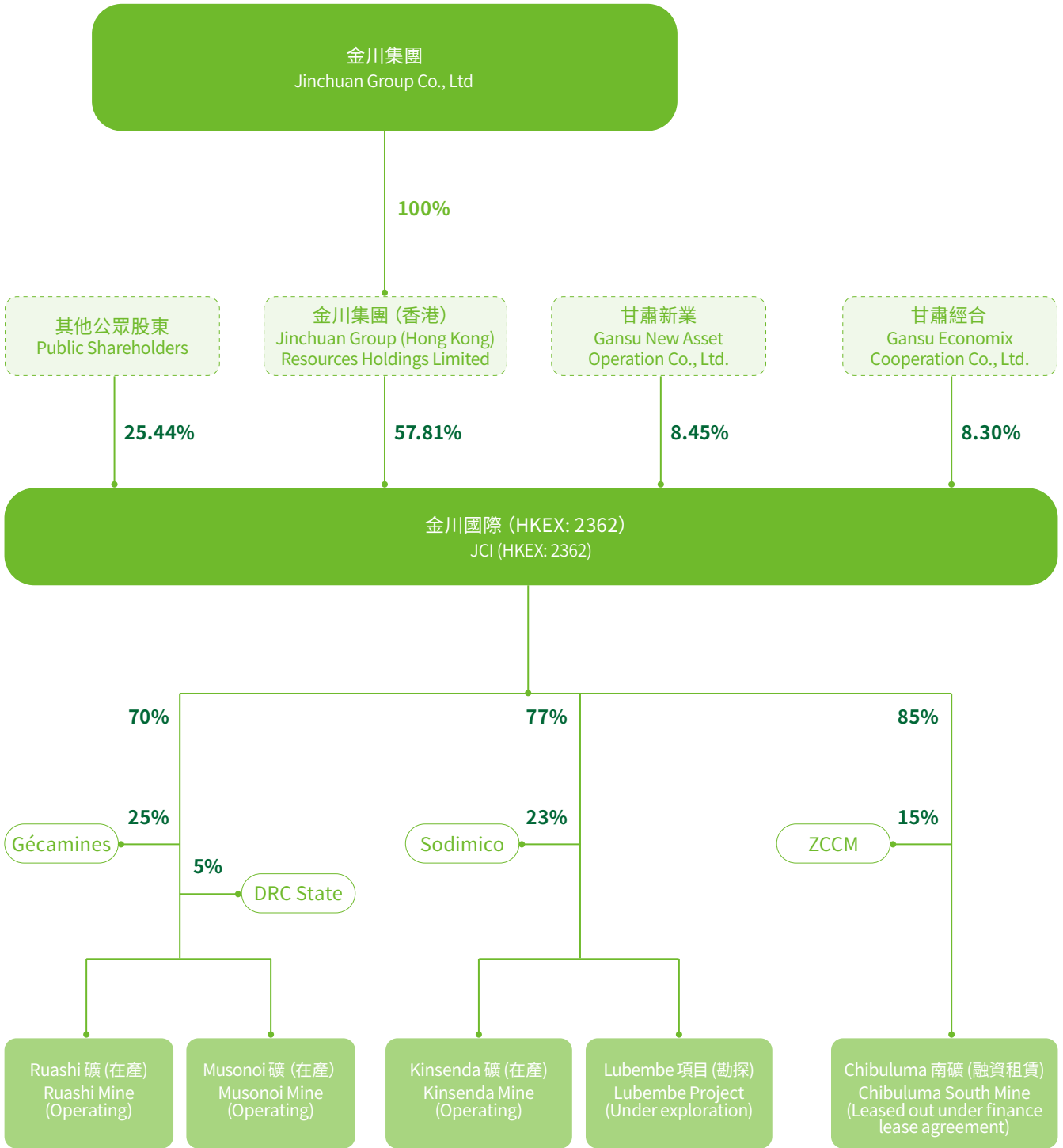
基於這一戰略，我們持續優化現有採礦和礦產業務，建設我們目前著力開發的新礦山，並透過併購探索增長機會。此外，我們將維持最高標準的健康、安全、環境保護及社區關係，並為我們的持份者、股東及僱員的長遠利益管理本公司。

JCI is listed on the Hong Kong Stock Exchange and its ultimate holding company is Jinchuan Group Co., Ltd. (JCG), serving as a flagship for the development of international mining and mineral resources operations. JCI's future is based upon a clearly defined corporate strategy which will enable the Company to become a leading company in the international mining industry.

Our vision is to become a major top-tier international non-ferrous metal mining company which focus in the mining and trading of copper, cobalt, nickel, and other non-ferrous metals.

Our strategy is to leverage the brand, expertise, experience, and financial resources of JCG and the Hong Kong capital market to invest in and operate sustainable, high-quality, cost-competitive mines around the world. Focusing mainly on JCG's traditional core business areas of nickel, copper, and cobalt, we will pursue acquisitions and cooperation in regions with attractive resources and favorable investment environments.

Consistent with this strategy, we are optimizing our existing mining and mineral operations, building new mines that we are currently developing, and examining growth opportunities through mergers and acquisitions. In addition, we will maintain the highest standards of health, safety, environmental protection, and community relations, and manage the Company for the long-term benefit of our stakeholders, shareholders and employees.



金川國際架構 (節選)[#]
JCI Structure (Extract)[#]

[#]股權比例為截至2025年12月31日止之數據
The equity ratio is based on the data as at 31 December 2025.

我們的業務 Our Business

◆ 概覽

Overview

我們的業務包括兩大業務板塊，即銅鈷礦開採及冶煉，以及礦產品及金屬產品貿易。就我們的業務地點而言，採礦業務位於剛果（金）和贊比亞，而貿易分部則設於中國香港，從剛果（金）採購礦產品及金屬產品。

我們於非洲的採礦業務面向長期合約客戶，銷售電解銅、銅精礦和氫氧化鈷。貿易業務主要自剛果（金）採購礦產品和金屬產品，並將產品銷往主要位於中國香港及中國內地的第三方客戶。

Our operations consist of two business segments, namely the mining and processing of copper and cobalt, and the trading of mineral and metal products. In terms of the location of our operations, our mining operations are based in the DRC and Zambia while our trading segment is based in Hong Kong and is purchasing mineral and metal products from the DRC.

Our mining operations in Africa sell copper cathode, copper concentrate and cobalt hydroxide to customers under long-term contracts, meanwhile, our trading operations primarily procure mineral and metal products from the DRC, and sell the products to third-party customers mainly based in Hong Kong SAR (China) and the Chinese Mainland.

◆ 採礦業務

Mining Operations

金川國際採礦業務包括三座營運礦場（Ruashi 礦場、Kinsenda 礦場及 Musonoi 礦場）、一個後期勘探項目（Lubembe 項目）及一個根據融資租賃協議出租的礦場（Chibuluma 南礦場（包括 Chifupu 礦床））。

JCI's mining operations include three operating mines (Ruashi Mine, Kinsenda Mine and Musonoi Mine), one advanced exploration project (Lubembe Project) and one mine leased out under finance lease agreement (Chibuluma South Mine (including Chifupu Deposit)).

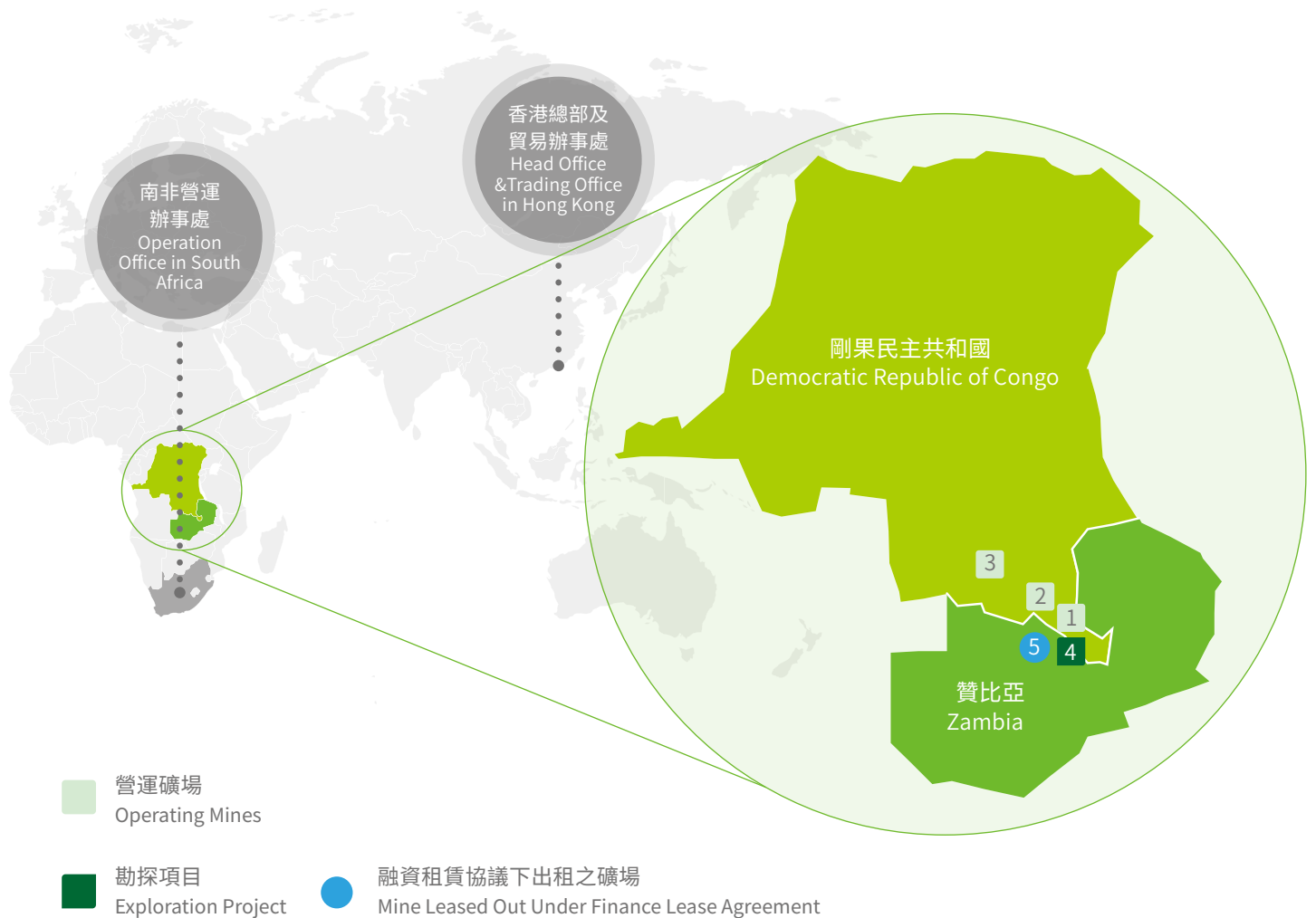
礦場或項目 Mines or Projects	產品 Products	資源量與儲量 [#] Reserves and Resources [#]
Ruashi 礦場 (在產) Ruashi Mine (Operating)	電解銅、氫氧化鈷及硫化 銅精礦 Copper cathode, cobalt hydroxide, and copper sulphide concentrate	資源量：441 千噸銅，59 千噸鈷 儲量：272 千噸銅，36 千噸鈷 Resources: 441 kilotonnes of copper, 59 kilotonnes of cobalt Reserves: 272 kilotonnes of copper, 36 kilotonnes of cobalt
Kinsenda 礦場 (在產) Kinsenda Mine (Operating)	銅精礦 Copper concentrate	資源量：668 千噸銅 儲量：225 千噸銅 Resources: 668 kilotonnes of copper Reserves: 225 kilotonnes of copper
Musonoi 礦場 (在產) Musonoi Mine (Operating)	電解銅及氫氧化鈷 Copper cathode and cobalt hydroxide	資源量：1,330 千噸銅，396 千噸鈷 儲量：654 千噸銅，200 千噸鈷 Resources: 1,330 kilotonnes of copper, 396 kilotonnes of cobalt Reserves: 654 kilotonnes of copper, 200 kilotonnes of cobalt
Lubembe 項目 ¹ (勘探中) Lubembe Project (Under exploration)	/	資源量：1,909 千噸銅 Resources: 1,909 kilotonnes of copper
Chibuluma 南礦場 (於融資租賃協議下出租) Chibuluma South Mine (Leased out under finance lease agreement)	/	資源量：33.80 千噸銅 儲量：1.00 千噸銅 Resources: 33.80 kilotonnes of copper Reserves: 1.00 kilotonnes of copper

於二零二五年十二月三十一日之數字 Figures as of 31 December 2025

1. 由於 Lubembe 項目仍處於勘探階段，因此尚未建立 ESG 管理機制或統計 ESG 績效表現。

Since the Lubembe project is still in the exploration stage, it has not yet established an ESG management mechanism or collected ESG data.

▼ 礦產品與金屬產品貿易
Trading of Mineral & Metal Products



◀ 礦產品與金屬產品貿易
Trading of Mineral & Metal Products

作為採礦和礦產領域業務擴張策略的一環，金川國際亦從事電解銅和氫氧化鈷等礦產品及金屬產品的國際貿易。

依託於剛果（金）及中國佈局的業務網，我們努力延伸在國際金屬及採礦市場的可及性和業務版圖。我們期望日後持續擴大我們的業務量，並在條件允許的情況下達成新產品和市場多元化。

As part of our strategy to expand our business in the mining and minerals sector, JCI also engages in international trading of selected mineral and metal products such as copper cathode and cobalt hydroxide.

Leveraging our established business networks in the DRC and China, we are actively expanding our reach and operations in global metals and mining markets. We aim to continuously grow our business volume while pursuing diversification into new products and markets when conditions permit.

◆ 業務發展

Business Development

金川國際持續探索全球礦產資源項目投資機遇，竭力發展壯大成為一流的國際礦業公司。

於開發我們在非洲的現有銅鈷礦時，我們希望藉助母公司金川集團在技術、資金、資源和全球營運網絡等方面的優勢。在優化現有營運和建設項目效率的同時，我們嚴格遵循我們技術先進、環境保護和社會和諧的核心原則，旨在為內外部持份者創造福祉。

JCI continuously explores global investment opportunities in mineral resources projects and strives to develop and grow into a first-tier international mining company.

In developing our existing copper and cobalt mines in Africa, we hope to leverage the strengths of our parent company, JCG, in terms of technology, capital, resources, and global operating network. While optimizing the efficiency of our existing operations and construction projects, we strictly follow the Company's core principles of advanced technology, environmental protection and social harmony for the benefit of our stakeholders.

◆ 會員資格及協會

Memberships and Associations

成員及行業協會的參與，可助力我們及時跟進公共政策、新業態及可持續發展趨勢、監管變化、持份者的關切以及行業最佳實踐的分享。截至報告期末，我們已加入剛果（金）企業聯合會、礦業協會、中資礦業企業協會等多個協會。

Involvement in member and industry associations keeps us abreast of public policy, new industry and sustainability trends, regulatory changes, stakeholder concerns, and the sharing of industry best practices. As of the end of the Reporting Period, we have participated in several associations, such as the Federation of Enterprises in the DRC, the Chamber of Mines, and the Association of Chinese-Funded Mining Enterprises, etc.

| 我們的榮譽 Our Honour

報告期內，我們獲得多家機構及媒體的認可及好評，並獲得多項榮譽獎項。

During the Reporting Period, we were recognised and commended by multiple institutions and media, and won multiple awards.

格隆匯金格獎·ESG 環境友好卓越企業
Gelonghui Golden Award · ESG Exemplary
Enterprise for Environmental Friendliness

格隆匯金格獎·年度投資價值獎
Gelonghui Golden Award · Annual
Investment Value Award

2025 香港商報上市公司卓越 ESG 價值榜·ESG 卓越報告披露企業
2025 Hong Kong Commercial ESG Value Rankings · Enterprise for
Outstanding ESG Report Disclosure

2025 「金鯤鵬」中國財經價值榜·最佳 ESG 先鋒實踐上市公司
2025 "Golden Kunpeng" China Financial Value Ranking · Best Listed
Company for Pioneering ESG Practices

路演中·最佳 ESG 獎
Roadshow China · Best ESG Award

路演中·最佳資本市場溝通獎
Roadshow China · Best Capital Market Communication Award

我們的可持續發展戰略

OUR SUSTAINABILITY STRATEGY

金川國際深知，企業之可持續發展離不開前瞻性戰略的引領與踐行。我們積極響應聯合國全球契約 (UNGC) 的號召，將可持續發展理念深植於企業基因之中，確立了以環境、社會及管治為核心的戰略框架。我們將持續以全球視野及責任擔當，推動企業與環境、社會的共生共榮，為全球可持續發展貢獻智慧及力量。

我們致力於以可持續方式經營業務，最大限度地提高礦產活動的社會、環境及經濟效益，並盡量減輕對環境的影響，同時與社區攜手建立起持份者信任。透過歷年ESG工作，我們完成了可持續發展重點領域內的多項策略評估，包括職業健康與安全、人權保障、環境管理，以及應對氣候變化等。由此，我們承諾在這些重點領域訂立雄心勃勃的可持續發展目標，力圖將可持續發展理念全面、有系統地納入企業策略的各個層面，最終形成多層次、一體化的可持續發展戰略體系。

JCI understands that the sustainable development of an enterprise hinges on the guidance and implementation of forward-thinking strategies. In active response to the United Nations Global Compact (UNGC), we have embedded sustainability into our corporate DNA, establishing a strategic framework centred on environmental, social, and governance principles. With a global perspective and a strong sense of responsibility, we remain committed to fostering mutual prosperity between our business, the environment, and society—contributing wisdom and strength to global sustainable development.

Our approach to sustainable development is applied across all of our operations. We are committed to conducting our operations sustainably, optimizing the social, environmental and economic benefits of mining activities while minimizing ecological impact, and building stakeholder trust through community collaboration. Through our ESG work over the years, we have completed multiple strategic assessments in sustainability focus areas, including occupational health and safety, protection of human rights, environmental management, and responding to climate change. As a result, we are committed to setting ambitious sustainability targets in these focus areas and aiming to integrate sustainability concepts holistically and systematically into all aspects of our corporate strategy, leading to a multi-layered and integrated sustainability strategy.

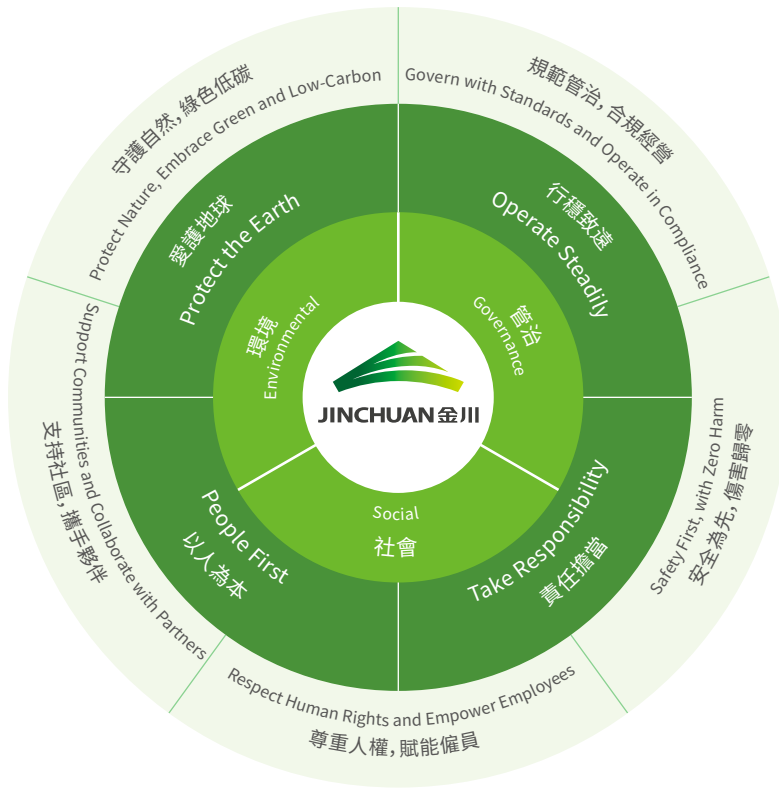
守護自然, 綠色低碳
Protect Nature,
Embrace Green and
Low-Carbon

最小化對環境的影響, 塑造更持續的生態。
Minimise environmental impact and build a more sustainable ecosystem.



支持社區, 攜手夥伴
Support Communities
and Collaborate with
Partners

基於高度社會責任感建構與屬地社群的關係, 促進夥伴互利共贏。
Foster relationships with local communities based on a strong sense of social responsibility and promote mutual benefits.



規範管治, 合規經營
Govern with Standards
and Operate in
Compliance

堅持依法治企, 推動誠信合規建設以持續優化企業管治。
Adhere to the rule of law and promote integrity and compliance to improve corporate governance.



安全為先, 傷害歸零
Safety First, with Zero
Harm

以安全為發展要義, 全力實現「零傷害」目標。
Strive to achieve the goal of zero harm with safety as the key to development.



尊重人權, 賦能僱員
Respect Human Rights and Empower Employees

創造多元、平等、包容且有活力的工作場所。
Foster diversity, equity, inclusion and dynamism in the workplace.

可持續發展戰略及目標
Sustainability Strategy and Targets

我們的可持續發展理念可適用於我們所有的營運, 且我們的願景及使命與聯合國全球契約 (UNGC) 的原則及可持續發展目標(SDGs)契合。隨著我們不斷推動將可持續發展目標融入業務策略、營運及企業文化, 我們已優先考慮與重要性議題最相關的可持續發展目標, 並將進一步就可持續發展目標作貼切籌劃。本年度, 我們依據重要性議題分析結果, 並衡量本公司之可持續發展戰略及目標, 聚焦6項SDGs, 將其作為實現可持續發展目標的重點方向。

Our sustainability philosophy applies to all our operations, and our vision and mission are closely aligned with the principles of the United Nations Global Compact (UNGC) and the Sustainable Development Goals (SDGs). As we continue to advance our efforts to integrate the SDGs into our business strategy, operations, and enterprise culture, we have prioritised the SDGs that are most relevant to our material topics and will conduct more pertinent mapping of the SDGs. This year, based on the analysis of our material topics and the Company's sustainable development strategy and objectives, we have focused on six SDGs and taken them as key priorities for achieving our sustainable development goals.



在業務營運中，我們始終將全體作業人員及毗鄰社區的安全與健康視為己任，致力減少環境污染，防範傳染病傳播，並努力將健康理念推廣至更多持份者。

In all business operations, we are steadfastly committed to protecting the health and safety of both our workforce and neighbouring communities. We actively minimise environmental pollution, mitigate infectious disease transmission risks, and promote health awareness among stakeholders.



我們高度重視水資源的合規管理及減耗減排，竭力避免水資源短缺、污染或生態破壞，強化水資源循環再利用，以全面履行對水體環境及周邊社區的責任。

We prioritise compliant water stewardship and consumption reduction, mitigating risks of scarcity, pollution and ecological harm. Through water recycling and reuse initiatives, we uphold our environmental and social obligations to local communities.



通過業務發展及履行財務責任，我們積極推動營運地區經濟增長，並為全體僱員提供充分且生產性就業，保護勞工合法權利，積極營造有保障的工作環境。

Through responsible business expansion and fiscal stewardship, we drive sustainable economic development in our operating regions. We ensure equitable access to productive employment opportunities for all workforce members while safeguarding labour rights and maintaining secure working conditions.



一貫以來，我們致力於自然資源的合理管理及高效利用，通過多種措施減少廢物排放，並推動生產技術的不斷創新，以促進更可持續的生產模式。

We remain steadfast in our commitment to the responsible management and efficient utilisation of natural resources. By implementing targeted initiatives, we actively minimise waste output whilst fostering technological innovation to develop more sustainable production methodologies.



氣候變化對企業生產經營的各環節產生廣泛的影響，為此我們持續支持全球氣候行動，藉由系統性思維推進應對氣候變化工作，以適應並減緩其對業務的影響。

Climate change significantly impacts all dimensions of our business. We therefore actively advance global climate initiatives, and employ systematic thinking to advance our climate change initiatives, aiming to adapt to and mitigate its impacts on our business.



作為全球企業公民，我們於各種交流平台與供應鏈及其他合作夥伴共商行業之關鍵議題，在營運中強化全球夥伴關係，攜手共促可持續發展願景。

As a global corporate citizen, we engage with supply chain partners and other stakeholders on key industry topics through multiple platforms, strengthening operational collaborations and jointly advancing sustainable development.

議題重要性評估

MATERIALITY ASSESSMENT

隨著企業發展及外部環境變化，金川國際透過系統嚴謹的評估，審慎識別我們在營運活動及業務關係中所涉及各項議題的重要性程度，並將其納入企業風險管理 (ERM) 流程，從而為戰略決策提供科學依據，確保我們有效應對內外部挑戰。

報告期內，我們根據香港聯交所《環境、社會及管治報告守則》以及全球報告倡議組織《GRI標準 2021》，遵循雙重重要性評估原則，從財務重要性、影響重要性兩個維度對議題進行重要性評估。在獨立外部ESG專家的協助下，我們針對內外部持份者開展了專項研究。本次調研採用在線匿名問卷形式，共回收有效問卷165份。為保障本報告的連續性及可讀性，我們同時參考了往年報告中各議題的重要性情況，並結合我們高管之建議，最終確定了20項可持續發展的重要議題，且經董事會審核透過。

With its own development and changes in the external environment, JCI has conducted a systematic and rigorous assessment to identify the materiality of various topics related to its operations and business relationships. These topics have been incorporated into the Enterprise Risk Management (ERM) process, thereby providing a scientific basis for strategic decisions and ensuring that the Company can effectively address both internal and external challenges.

During the Reporting Period, we conducted materiality assessments of issues based on the principles of double materiality, in accordance with the Environmental, Social, and Governance Reporting Code of the Hong Kong Stock Exchange and the GRI Standards 2021 of the Global Reporting Initiative. These assessments were carried out from two dimensions: financial materiality and impact materiality. We conducted dedicated research for internal and external stakeholders with the assistance of an independent external ESG expert. The research was conducted in the form of online anonymous questionnaires, and a total of 165 valid questionnaires were collected. To ensure the continuity and readability of the report, we have also referred to the materiality of the topics in previous years' reports. Considering recommendations from the Company's senior management, we have ultimately identified 20 key sustainability topics, which have been reviewed and approved by the Board of Directors.

▼ 重要性議題識別流程
Material Topics Identification Process



本年度，我們共識別出高重要性議題5項（即雙重重要性議題）、中重要性議題11項、低重要性議題4項，以此確立本報告核心披露內容。從本年度重要性議題分析結果來看，我們依舊重視「僱員安全與健康」「僱傭與勞工管理」等社會議題；同時我們亦深入關注環境利益，包括「尾礦管理」「廢棄物及危險物質」「排放物」等環境議題。

This year, we identified 5 issues of high materiality (i.e., double materiality issues), 11 issues of medium materiality, and 4 issues of low materiality, establishing the core disclosure content of this report. From the results of this year's materiality analysis, we continue to prioritize social issues such as "Occupational Safety and Health" and "Employment and Labor Management"; meanwhile, we also deeply focus on environmental interests, including environmental issues like "Tailings Management", "Waste and Hazardous Materials", and "Emissions".

高重要性議題 High Materiality Issues

僱員安全與健康 Employee Safety and Health

僱傭與勞工管理 Employment and Labor Management

尾礦管理 Tailings Management

廢棄物及危險物質 Waste and Hazardous Materials

排放物 Emissions

低重要性議題 Low-Materiality Topics

多元、平等與包容 Diversity, Equity, and Inclusion

生物多樣性與土地利用 Biodiversity and Land Use

原住民權利與文化遺產保護

Indigenous Peoples' Rights and Cultural Heritage Protection

氣候變化與碳排放 Climate Change and Carbon Emissions

排放物 Emissions

中重要性議題 Medium-Materiality Topics

合規風險管理 Compliance Risk Management

社區關係 Community Relations

商業道德 Business Ethics

負責任供應鏈 Responsible Supply Chain

能源使用 Energy Use

企業管治 Corporate Governance

水資源 Water

業務表現與財務責任

Business Performance and Financial Responsibility

環境管理 Environmental Management

產品責任 Product Responsibility

僱員發展與培訓 Employee Development and Training

▼ 金川國際2025年ESG議題雙重重要性矩陣
JCI 2025 ESG Topics Materiality Matrix





持份者參與

STAKEHOLDER ENGAGEMENT

長久以來，我們高度關注持份者的期望及訴求，深明持份者聲音對我們改善企業管治及營運的重要性。回顧年內，我們不斷完善持份者參與及溝通機制，積極傾聽各持份者對公司可持續發展的相關意見，在提高信息披露質量及透明度的同時，及時回應持份者的各類期望及訴求。

We have long been paying great attention to stakeholders' expectations and demands and deeply understand the importance of stakeholders' voices for us to strengthen corporate governance and operation. In retrospect, we have been improving stakeholders' engagement and communication mechanism and listening to each stakeholder's opinion of the corporate's sustainability this year. While we improve the disclosure quality and transparency, we also timely responded to different kinds of expectations and demands of stakeholders.

持份者 Stakeholders	期望及訴求 Expectations and demands	參與及回應 Engagement and responds
 <p>政府及監管機構 Government and regulatory institutions</p>	<ul style="list-style-type: none"> ● 依法合規 Law-abiding and compliant ● 依法納稅 Taxation in accordance with the law ● 經濟貢獻 Economic contribution ● 廉潔經營 Operation with integrity 	<ul style="list-style-type: none"> ● 政府會議 Governmental meetings ● 工作報告 Working reports ● 現場訪談 On-site interviews ● 實地調研 Field researches
 <p>股東及投資人 Shareholders and investors</p>	<ul style="list-style-type: none"> ● 穩健經營 Stable operation ● 風險管控 Risk management ● 保障權益 Safeguard interests ● 信息透明 Information transparency 	<ul style="list-style-type: none"> ● 股東大會 General meetings of shareholders ● 投資人交流會 Investor exchange meeting ● 現場訪談及調研 On-site interview and survey ● 電話會議及線上互動平台 Teleconference and online engagement platform

持份者 Stakeholders	期望及訴求 Expectations and demands	參與及回應 Engagement and responds
 <p>僱員 Employees</p>	<ul style="list-style-type: none"> ● 人權保障 Human rights protection ● 薪酬福利 Remuneration and welfare ● 平等權益及發展 Equal interests and development ● 職業健康及安全 Occupational health and safety 	<ul style="list-style-type: none"> ● 工會及僱員大會 Trade Union and Employee Assembly ● 會議及培訓 Meetings and trainings ● 日常溝通 Daily communication ● 僱員滿意度調查 Employee satisfaction investigation
 <p>業務夥伴 Partners</p>	<ul style="list-style-type: none"> ● 產品責任 Product responsibility ● 規範採購 Standardized procurement ● 商業道德 Business ethics ● 職業健康及安全 Occupational health and safety 	<ul style="list-style-type: none"> ● 工作會議 Working meetings ● 業務往來 Business transactions ● 現場訪談及調研 On-site interview and survey ● 行業活動交流 Industry networking and events
 <p>毗鄰社區 Neighboring communities</p>	<ul style="list-style-type: none"> ● 人權保障 Human rights protection ● 生態環境 Ecological environment ● 社區發展 Community development ● 推動就業 Employment promotion 	<ul style="list-style-type: none"> ● 社區會議 Community meetings ● 社區發展合作 Community development cooperation ● 生態環保協作 Ecological and environmental collaboration ● 投訴申訴機制 Complaint grievance mechanism

持份者 Stakeholders	期望及訴求 Expectations and demands	參與及回應 Engagement and responds
 <p>非營利組織、傳媒及公眾 Non-profit organizations, media, and publics</p>	<ul style="list-style-type: none"> ● 應對氣候變化 Tackling climate change ● 人權保障 Human rights protection ● 社區發展 Community development ● 商業道德 Business ethics 	<ul style="list-style-type: none"> ● 定期報告 Regular reports ● 公司官網 Company's official website ● 社交媒體平台 Social media platforms ● 現場訪談及調研 On-site interview and survey

持份者參與及溝通機制
Stakeholders' Engagement and Communication Mechanism



02

氣候變化

Climate Change

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 氣候變化與碳排放 Climate Change and Carbon Emissions
- 能源使用 Energy Use



JINCHUAN 金川

2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

Ruashi礦場22MW光伏電站全面投產，Musonoi礦場新增50MW光伏+ 100MWh儲能系統。

The 22MW photovoltaic power plant at the Ruashi mine became fully operational, and the Musonoi Mine added 50MW of photovoltaics + a 100MWh energy storage system.

完成全礦場氣候風險動態評估，針對風險制定應對方案，氣候風險抵禦能力顯著增強，未發生氣候相關重大營運中斷事件。

Completed dynamic climate risk assessments across all mines, formulated response plans for risks, significantly enhanced climate resilience, and experienced zero major climate-related operational disruption events.



各礦場環保總投入達**1,207,476**美元，比上年增長**8%**。

Total environmental protection investment across all mines reached US\$1,207,476, an increase of 8% over the previous year.

建立覆蓋範圍 1、2 及核心範圍 3 類別的碳盤查體系，實現碳排放數據精確化管理。

Established a carbon accounting system covering Scope 1, Scope 2, and core categories of Scope 3, achieving precise management of carbon emission data.

氣候管治

CLIMATE GOVERNANCE

金川國際於2025年持續建設氣候管治架構，藉此審視氣候變化對我們業務及營運之影響，並系統推進氣候變化風險治理、戰略規劃與信息披露等相關事務。我們現時擬訂之氣候變化管治架構職責分配如下：

JCI continued to enhance its climate governance framework in 2025 to review the impacts of climate change on our business and operations, and systematically advance climate change risk governance, strategic planning, and information disclosure. The allocation of responsibilities under our currently formulated climate change governance framework is as follows:

我們總部及各附屬公司正逐步完善節能減排激勵機制，逐步將應對氣候變化相關工作與管理及執行團隊之績效掛鉤，確保節能減排各項工作切實推進、落地執行。我們每年會針對各部門及各礦場制定KPI績效管理指標，要求各部門及各礦場對所屬績效目標開展過程管控、分析與持續改善，不斷提升整體氣候管治水平。

Our headquarters and subsidiaries are gradually improving energy-saving and emission-reduction incentive mechanisms, progressively linking climate change-related work to the performance of management and execution teams to ensure that various energy-saving and emission-reduction tasks are practically advanced and implemented. Annually, we formulate KPI performance management indicators for various departments and mines, requiring them to carry out process control, analysis, and continuous improvement against their assigned performance targets, thereby constantly elevating the overall climate governance level.



領導
Leadership

董事會
Board of Directors

- ▶ 公司從董事會層面監督氣候變化相關事宜，其職責包括：
The Company oversees climate change-related matters from the Board level. Its responsibilities include:
 - 指導公司的氣候相關戰略、目標、轉型計劃及工作方向
Guiding the Company's climate-related strategy, targets, transition plans, and direction of work.
 - 審議氣候變化風險清單，監督氣候變化風險管理工作
Reviewing the climate change risk inventory and overseeing climate change risk management work.
 - 定期對氣候目標進行檢討與審視，衡量其達成表現，以確保其科學性、合理性、時效性
Regularly reviewing and examining climate targets to measure performance against them, ensuring their scientific nature, rationality, and timeliness.
 - 未來將成立氣候變化應對工作小組，並計劃每年聽取其就氣候變化事宜的匯報
A Climate Change Taskforce will be established in the future, and planning to receive its annual reports on climate change matters.

管理
Management

氣候變化應對
工作小組
Climate Change
Taskforce

- ▶ 將成立的氣候變化應對工作小組由公司首席執行官領導，成員涵蓋各部門及子公司相關管理人員，其職責包括：
The proposed Climate Change Taskforce is led by the Company's Chief Executive Officer, with members encompassing relevant management personnel from various departments and subsidiaries. Its responsibilities include:
 - 協助董事會開展工作，每年至少一次向董事會匯報氣候變化事宜的工作進展
Assisting the Board in its work and reporting on the progress of climate change matters to the Board at least once a year.
 - 識別及評估氣候變化相關的具體風險與機遇，統籌協調各領域的氣候風險與機遇管理
Identifying and assessing specific risks and opportunities related to climate change, and coordinating climate risk and opportunity management across various fields.
 - 指導各部門及分子公司收集、分析及匯總氣候相關指標數據與信息
Guiding various departments, branches, and subsidiaries in collecting, analyzing, and aggregating climate-related metric data and information.
 - 跟蹤氣候變化領域的最新動態、管理趨勢及政策更新，向董事會提供氣候變化相關培訓資料，確保其具備監督氣候戰略實施的適當技能與勝任能力
Tracking the latest developments, management trends, and policy updates in the field of climate change, and providing climate change-related training materials to the Board to ensure it possesses appropriate skills and competence to oversee the implementation of climate strategy.

氣候戰略

CLIMATE STRATEGY

2023年，金川國際正式發布公司氣候戰略，作為我們應對氣候變化挑戰之行動指引，為可持續發展構建戰略框架。我們致力於控制營運場域之能源消耗與溫室氣體排放，並攜手合作夥伴共建綠色供應鏈，助力全產業鏈實現低碳轉型。為踐行上述承諾，我們將透過以下路徑，落實氣候戰略與溫室氣體減排目標。

In 2023, JCI officially released the Company's climate strategy as a guide for our actions to address climate change challenges, constructing a strategic framework for sustainable development. We are committed to controlling energy consumption and greenhouse gas emissions at operational sites, and joining hands with partners to build a green supply chain, assisting the entire industrial chain in achieving a low-carbon transition. To fulfill the above commitments, we will implement our climate strategy and greenhouse gas emission reduction targets through the following pathways.

◀ 健全氣候風險管理架構

Improve the climate risk management framework

我們致力於健全氣候風險管理架構，明確董事會及管理層在氣候變化治理方面的職責分工，並推動氣候變化成為董事會討論的重要治理議題，使之貫穿我們的策略討論、資產評估及投資決議中。

We are committed to improving the climate risk management framework, clarifying the division of responsibilities between the Board and management in climate change governance, and promoting climate change as an important governance topic discussed by the Board, integrating it throughout our strategic discussions, asset valuations, and investment decisions.

◀ 識別及評估與氣候相關的重要風險及機遇

Identify and assess material climate-related risks and opportunities

我們持續進行氣候相關風險的識別、評估及分析工作，確立對於公司業務及營運具有實質影響的氣候相關風險，以及評估各項風險與機遇對自身財務的影響，推動企業低碳轉型。

We continuously conduct the identification, assessment, and analysis of climate-related risks, establishing climate-related risks that have a substantive impact on the Company's business and operations, and evaluating the financial impacts of various risks and opportunities on ourselves to drive the enterprise's low-carbon transition.

◆ 減少自身營運所產生的溫室氣體排放

Reduce greenhouse gas emissions generated by our own operations

我們將最大限度地減少溫室氣體及關鍵業務營運所產生的排放，以轉型為低碳生產系統及業務。我們將持續透過優化採掘及生產流程而減少溫室氣體的排放，並以植樹造林、節能減排等形式抵消自身產生的溫室氣體排放量，從而推動淨零目標的實現。

We will minimize greenhouse gas emissions and emissions generated by key business operations as much as possible to transition to low-carbon production systems and businesses. We will continuously reduce greenhouse gas emissions by optimizing mining and production processes, and offset our own greenhouse gas emissions through afforestation, energy conservation, and emission reduction initiatives, thereby driving the realization of net-zero targets.

◆ 推動價值鏈上下游協同降碳

Promote coordinated carbon reduction across the upstream and downstream value chain

我們深明推動產業鏈上下游協同降碳亦是重要的減碳路徑之一。我們規劃在技術創新、標準制定、業務合作等方面推動價值鏈上下游協同降碳，有效支持全產業的減排進程。

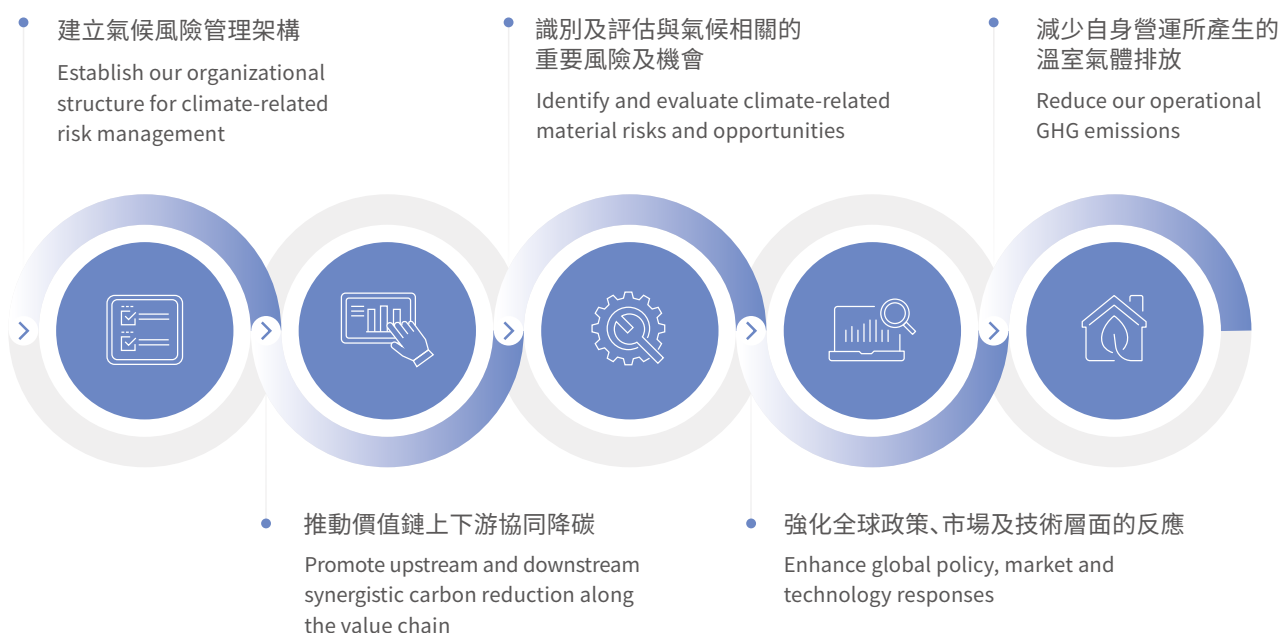
We deeply understand that promoting coordinated carbon reduction across the industrial value chain is also a critical emission reduction pathway. We plan to drive coordinated carbon reduction in technological innovation, standard setting, and business cooperation across the upstream and downstream value chain, effectively supporting the emission reduction process of the entire industry.

◆ 強化全球政策、市場及技術層面的反應

Strengthen responses at the global policy, market, and technological levels

我們將努力理解氣候變化所引致的最新影響，加強對於全球政策、市場及技術層面的反應，以期聯合持份者以共同實施各自的適應性行動，為全球氣候行動積極貢獻。

We will strive to understand the latest impacts induced by climate change, strengthen our responses to global policy, market, and technological developments, and aim to unite stakeholders to jointly implement adaptive actions, contributing proactively to global climate action.



氣候風險管理

CLIMATE RISK MANAGEMENT

氣候變化為當前時代面臨之重大挑戰。金川國際持續關注氣候變化對公司生產與營運各階段之影響，積極構建氣候風險與機遇之評估方法，審慎識別集團所面臨之氣候相關風險及機遇，並深入評估其對公司戰略、業務運作及財務表現之潛在影響，為推動集團綠色低碳轉型、落實可持續發展目標奠定堅實基礎。

Climate change is a major challenge of the current era. JCI continuously focuses on the impacts of climate change on all stages of the Company's production and operations, actively constructing methodologies for assessing climate risks and opportunities, prudently identifying the climate-related risks and opportunities faced by the Group, and deeply evaluating their potential impacts on the Company's strategy, business operations, and financial performance, laying a solid foundation for promoting the Group's green and low-carbon transition and implementing sustainable development goals.

我們已將氣候變化風險管理納入集團整體風險管理體系，透過「風險識別—風險評估—風險應對—監督與優化」之閉環流程，制定切實可行之風險管控與應對措施，並由籌備的氣候變化應對工作小組負責相關事宜之審視與執行監督。

We have integrated climate change risk management into the Group's overall risk management system. Through a closed-loop process of "Risk Identification — Risk Assessment — Risk Response — Supervision and Optimization," we formulate practical risk control and response measures, with the proposed Climate Change Taskforce responsible for reviewing and supervising the execution of related matters.

2023年，金川國際參照氣候相關財務信息披露工作組（TCFD）建議框架，並充分吸納持份者反饋，於當年環境、社會及管治（ESG）報告中完成集團層面氣候風險、機遇及相關指標的系統識別與全面評估。本年度，我們延續對氣候相關風險與機遇的跟蹤監測，並對2023年開展的氣候情景分析成果進行了專項複核。考慮到報告期內公司整體戰略、業務板塊及營運邊界未發生重大調整，董事會決定維持2023年確定的氣候風險與機遇分析結果不變，相關氣候情景分析的結論仍沿用。

In 2023, with reference to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations framework and fully absorbing stakeholder feedback, JCI completed a systematic identification and comprehensive assessment of climate risks, opportunities, and related metrics at the Group level in that year's Environmental, Social and Governance (ESG) report. This year, we continued to track and monitor climate-related risks and opportunities, and conducted a special review of the results of the climate scenario analysis carried out in 2023. Considering that there were no major adjustments to the Company's overall strategy, business segments, and operational boundaries during the Reporting Period, the Board decided to maintain the 2023 climate risk and opportunity analysis results unchanged, and the conclusions of the relevant climate scenario analysis will continue to be applied.

實體風險 Physical Risks

為識別我們可能面對的實體風險，我們參考政府間氣候變化專門委員會 (IPCC) 之兩類具代表性濃度路徑 (RCPs)，包括中等排放情景RCP4.5與高排放情景RCP8.5，並按不同情景下氣候災害的強度，對三類急性風險及四類慢性風險展開評估。同時，我們亦兼顧所屬行業特性與所在地區的氣候災害敏感性，從而更全面掌握未來實體風險狀況²。

於情景分析中，納入評估的急性風險包括：極端高溫、極端降水及滑坡；慢性風險則包括：乾燥趨勢、濕潤趨勢、氣溫上升趨勢及水資源短缺。該等風險將可能對礦場構成不同程度的財務影響，包括營運成本上升、營業收入下降、保險開支增加及資產損毀等。此外，由於我們現有營運礦場均位於剛果（金）及贊比亞內陸地區，熱帶氣旋及沿海洪水等不相關風險並未納入分析範圍。

情景分析結果顯示，於各分析情景下，金川國際在營運層面所面臨的實體風險主要屬中低至中等水平。

To identify the physical risks we may face, we referred to two Representative Concentration Pathways (RCPs) of the Intergovernmental Panel on Climate Change (IPCC), including the moderate emission scenario RCP4.5 and the high emission scenario RCP8.5. Based on the intensity of climate hazards under different scenarios, we evaluated three types of acute risks and four types of chronic risks. At the same time, we also took into account the characteristics of the industry and the sensitivity to climate hazards in the regions where we operate, thereby grasping the future physical risk landscape more comprehensively².

In the scenario analysis, the acute risks included in the assessment were: extreme heat, extreme precipitation, and landslides; chronic risks included: drying trends, wetting trends, rising temperature trends, and water scarcity. These risks could pose varying degrees of financial impacts on mines, including increased operating costs, decreased operating revenue, higher insurance expenditures, and asset damage, etc. Furthermore, as our existing operating mines are all located in inland areas of the DRC and Zambia, irrelevant risks such as tropical cyclones and coastal flooding were not included in the scope of analysis.

The scenario analysis results indicate that under the analyzed scenarios, the physical risks JCI faces at the operational level are generally at a low-to-medium to medium level.

於急性風險方面 Regarding acute risks

在RCP8.5情景下，我們面臨的極端高溫及極端降水風險呈現長期下降趨勢。
Under the RCP8.5 scenario, the risks of extreme heat and extreme precipitation we face show a long-term downward trend.

在RCP4.5情景下，極端降水風險同樣呈下降趨勢，惟極端高溫風險則可能進一步上升。
Under the RCP4.5 scenario, extreme precipitation risk also shows a downward trend, but extreme heat risk may rise further.

滑坡風險於基線階段屬低風險，未來我們將持續優化分析工具，以模擬相關情景風險，為強化應對策略提供支持。

Landslide risk is classified as low risk in the baseline phase. In the future, we will continuously optimize analytical tools to simulate relevant scenario risks to support the strengthening of response strategies.

2. 實體風險分析框架模型源自妙盈科技氣候風險解決方案 (<https://www.miotech.com/zh-CN>)。
The physical risks analysis framework model is from MioTech Climate-related risks solutions.

於慢性風險方面 Regarding chronic risks

乾燥趨勢整體處於中至中高風險水平，並於中長期呈明顯上升趨勢，需持續重視。

The drying trend is generally at a medium to medium-high risk level and shows a clear upward trend in the medium to long term, demanding continued attention.

濕潤趨勢及氣溫上升趨勢於各情景下均有所上升，最高可達中等風險級別。

Both the wetting trend and rising temperature trend increase under all scenarios, potentially reaching up to a medium risk level.

與上述風險不同，水資源短缺風險於各情景下均呈下降趨勢，整體維持在中低水平。

Unlike the aforementioned risks, the risk of water scarcity shows a downward trend under all scenarios, generally remaining at a low-to-medium level.

▼ 金川國際各情景下的實體風險等級³
JCI's Physical Risks Levels under Different Scenarios³

風險類別 Risk types	風險名稱 Risk names	基線 Baseline	RCP4.5			RCP8.5		
			2030	2050	長期風險趨勢 Long-term risk trend	2030	2050	長期風險趨勢 Long-term risk trend
急性風險 Acute risks	極端高溫 Extreme heat	中 Medium	中 Medium	中 Medium	↑	中 Medium	中 Medium	↓
	極端降水 Extreme precipitation	中低 Low-medium	中低 Low-medium	中低 Low-medium	↓	中低 Low-medium	中低 Low-medium	↓
	滑坡 Landslide	低 Low	N/A ⁴					
慢性風險 Chronic risks	乾燥趨勢 Dry trend	中 Medium	中高 Medium-high	中高 Medium-high	↑	中高 Medium-high	中高 Medium-high	↑
	濕潤趨勢 Wet trend	中 Medium	中 Medium	中 Medium	↑	中 Medium	中 Medium	↑
	變暖趨勢 Warming trend	低 Low	中低 Low-medium	中 Medium	↑	中低 Low-medium	中 Medium	↑
	水短缺 Water scarcity	中低 Low-medium	中低 Low-medium	中低 Low-medium	↓	中低 Low-medium	中低 Low-medium	↓

3. 風險等級共劃分為：無風險、低風險、中低風險、中風險、中高風險、高風險。

The risks are classified into following levels: no risk, low risk, low-medium risk, medium risk, medium-high risk, and high risk.

4. N/A 表示該風險相關數據暫缺。

N/A indicates that data related to this risk is in absence for now.

基於急性風險敞口的分析結果，就極端高溫風險而言

Based on the analysis results of acute risk exposure, regarding extreme heat risk

在RCP4.5情景下，我們中短期內將有25%礦場處於相關風險敞口，該比例於長期更會上升至50%。

Under the RCP4.5 scenario, 25% of our mines will be exposed to this risk in the short-to-medium term, and this proportion will rise to 50% in the long term.

而在RCP8.5情景下，我們極端高溫風險敞口於中長期將降至0%。

Under the RCP8.5 scenario, our extreme heat risk exposure will decrease to 0% in the medium to long term.

基於慢性風險敞口的分析結果

Based on the analysis results of chronic risk exposure

在 RCP4.5 情景下，我們乾燥風險敞口自當前至長期均穩定維持在 50%；而在 RCP8.5 情景下，我們長期乾燥趨勢風險敞口將進一步攀升至 75%。

Under the RCP4.5 scenario, our drying risk exposure remains stable at 50% from the present to the long term; whereas under the RCP8.5 scenario, our long-term drying trend risk exposure will further climb to 75%.

在 RCP8.5 情景下，變暖趨勢風險敞口將由基線階段的 0%，於長期逐步上升至 25%，這意味著日後將有更多礦場需進一步提升相關風險應對能力，以有效防範變暖趨勢帶來的潛在影響。

Under the RCP8.5 scenario, the warming trend risk exposure will gradually rise from 0% in the baseline phase to 25% in the long term, implying that more mines will need to further enhance relevant risk response capabilities in the future to effectively mitigate the potential impacts brought by warming trends.

▼ 金川國際各情景下的實體風險敞口⁵
JCI's Exposure to Physical Risks under Different Scenarios⁵

風險類別 Risk types	風險名稱 Risk names	基線 Baseline	RCP4.5		RCP8.5	
			2030	2050	2030	2050
急性風險 Acute risks	極端高溫 Extreme heat	25%	25%	50%	0%	0%
	極端降水 Extreme precipitation	0%	0%	0%	0%	0%
	滑坡 Landslide	0%	N/A ⁶			
慢性風險 Chronic risks	乾燥趨勢 Dry trend	50%	50%	50%	50%	75%
	變暖趨勢 Warming trend	0%	0%	0%	0%	25%
	濕潤趨勢 Wet trend	0%	0%	0%	0%	0%
	水短缺 Water scarcity	0%	0%	0%	0%	0%

5. 實體風險敞口計算自金川國際旗下被評估為中高風險至高風險的礦場佔所有礦場的比重。

The exposure to physical risks is calculated based on the proportion of mines rated as medium-high risk to high risk to all mines under JCI.

6. N/A 表示該風險相關數據暫缺。

N/A indicates that data related to this risk is in absence for now.

兩種情景所呈現之差異趨勢顯示，我們須持續密切關注氣候變化趨勢，靈活調整極端風險之應對策略，持續強化風險管理與應對能力。

The differing trends presented by the two scenarios indicate that we must continue to closely monitor climate change trends, flexibly adjust response strategies for extreme risks, and continuously strengthen risk management and response capabilities.

建立災害識別與應急指揮機制，礦場層面設立防汛指揮部，統籌防汛規劃與應急處置。

Establish disaster identification and emergency command mechanisms; set up flood control headquarters at the mine level to coordinate flood control planning and emergency response.



購買財產一切險及業務中斷險，保障各類動產與不動產，對衝極端天氣造成之營運與資產損失。

Purchase property all-risks insurance and business interruption insurance to safeguard all types of movable and immovable properties, hedging against operational and asset losses caused by extreme weather.



礦場裝設雨水監測設施，雨季期間持續監測雨量數據，實現科學預警與決策。

Install rainfall monitoring facilities at mines and continuously monitor rainfall data during the rainy season to enable scientific early warning and decision-making.

針對極端降水風險，Ruashi礦場已於《緊急應變程序》中納入極端降雨專項應對措施，並透過建立大型排水溝、加固尾礦庫截洪溝，以及在尾礦設施與臨時堆放場周邊種植原生草皮等方式強化土壤穩定性，有效抵禦洪水威脅並降低雨水沖刷風險；Kinsenda礦場於斜坡道口增設排水渠、排水管與水泵並配備備用設備，同時透過專用管道將雨水導入水倉統一收集處置；Chibuluma南礦場則設置專用精礦棚防止雨季物料流失，並建立完善排水系統，將收集之雨水導入集水池再利用。

In response to extreme precipitation risks, the Ruashi Mine has incorporated specific countermeasures for extreme rainfall into its "Emergency Response Procedures." It has strengthened soil stability to effectively resist flood threats and reduce rainfall erosion risks by constructing large drainage ditches, reinforcing intercepting ditches at tailings facilities, and planting native turf around tailings facilities and temporary storage yards; the Kinsenda mine has added drainage channels, drainage pipes, and water pumps with backup equipment at the entrance of inclined shafts, while unifying the collection and disposal of rainwater into water storage tanks via dedicated pipelines; the Chibuluma South Mine has set up dedicated concentrate sheds to prevent material loss during the rainy season and established a comprehensive drainage system to channel collected rainwater into catch basins for reuse.

針對風險等級提升之乾燥趨勢與水資源短缺風險，公司積極推動節水措施與水資源循環利用，強化水資源管理效能。在RCP4.5情景下，極端高溫風險已上升至中風險等級，且變暖趨勢風險於兩類情景中均提升至中風險，為此各礦場將關注設備耐高溫改造，建立氣溫監測機制。至於滑坡風險，則按既定常規防控標準落實各項應對措施，確保礦場營運安全穩定。

In response to the elevated risk levels of drying trends and water scarcity, the Company actively promotes water-saving measures and water resource recycling to enhance water management effectiveness. Under the RCP4.5 scenario, extreme heat risk has risen to a medium risk level, and warming trend risk has increased to a medium risk in both scenarios. Therefore, all mines will focus on retrofitting equipment for high-temperature resistance and establish temperature monitoring mechanisms. As for landslide risk, response measures are implemented in accordance with established routine prevention and control standards to ensure safe and stable mine operations.

轉型風險 Transition Risks

在全球低碳經濟轉型的大趨勢下，金川國際不可避免地需回應來自政府及監管機構、同業廠商、價值鏈合作夥伴、社會大眾等多元持份者的期望與要求，這些外部訴求既可能對我們的商業模式創新、技術設備升級投資、品牌形象建構等核心領域帶來潛在挑戰，亦蘊含著戰略發展契機。

Under the macro trend of the global low-carbon economic transition, JCI inevitably needs to respond to the expectations and demands of diverse stakeholders, including governments and regulatory agencies, industry peers, value chain partners, and the general public. These external demands not only bring potential challenges to core areas such as business model innovation, technological equipment upgrade investments, and brand image construction, but also contain strategic development opportunities.

當前，集團面臨的氣候相關轉型風險已涵蓋政策法規變動、技術革新迭代、市場需求調整、企業聲譽維護等多個核心維度。對此，我們已初步完成各類轉型風險與潛在機遇的財務影響評估識別，將評估範圍拓展至本公司自身營運作業、上游相關活動、下游相關活動及客戶，並制定了對應的基礎應對策略。有關氣候變化應對行動及能源管理體系的詳細執行方案，敬請參閱本報告「氣候行動及能源管理」章節。

Currently, the climate-related transition risks faced by the Group encompass multiple core dimensions, including policy and regulatory changes, technological innovation and iteration, market demand adjustments, and corporate reputation maintenance. In response, we have preliminarily completed the financial impact identification and assessment of various transition risks and potential opportunities, extending the assessment scope to our own operational activities, upstream activities, downstream activities, and customers, and formulated corresponding foundational response strategies. For detailed implementation plans regarding climate change response actions and the energy management system, please refer to the "Climate Action and Energy Management" section of this report.

▼ 金川國際轉型風險識別、評估及應對措施
JCI Transition Risk Identification, Assessment, and Response Measures

類別 Category	轉型風險 Transition Risk	對公司業務及價值鏈的影響 Impact on the Company Business and Value Chain	潛在財務影響 Potential Financial Impact	轉型機遇 Transition Opportunity	潛在財務影響 Potential Financial Impact	應對措施 Response Measures
政策及法律 Policy and Legal	<ul style="list-style-type: none"> 溫室氣體減排政策壓力 Greenhouse gas emission reduction policy pressure 	<ul style="list-style-type: none"> 上游採購 Upstream procurement 生產營運 Production & operations 下游分銷 Downstream distribution 	<ul style="list-style-type: none"> 延遲轉型導致營運成本增加 Increased operating costs due to delayed transition 產能擴張受限 Constraints on capacity expansion 	<ul style="list-style-type: none"> 參與可再生能源倡議 Participate in renewable energy initiatives 參與碳交易市場 Participate in carbon trading markets 	<ul style="list-style-type: none"> 佈局可再生能源，降低能源成本，並減輕轉型壓力 Deploy renewable energy to lower energy costs and alleviate transition pressure 參與碳市場交易可能帶來碳信用收入 Participating in carbon market trading may generate carbon credit revenue 	<ul style="list-style-type: none"> 關注營運所在國的氣候政策及碳市場情況，進行政策預研儲備，及時把握低碳轉型機遇而順利擴大產能 Monitor climate policies and carbon market situations in countries of operation, conduct policy pre-research and preparation, promptly seize low-carbon transition opportunities to smoothly expand capacity.
技術 Technology	<ul style="list-style-type: none"> 能源管理水平滯後 Lagging energy management level 	<ul style="list-style-type: none"> 生產營運 Production & operations 	<ul style="list-style-type: none"> 節能降碳設備採購及運轉成本增加 Increased procurement and operating costs for energy-saving and carbon-reducing equipment 可再生能源及 / 或碳權採購費用增加 Increased procurement costs for renewable energy and/or carbon credits 	<ul style="list-style-type: none"> 改善能源管理水平 Improve energy management level 	<ul style="list-style-type: none"> 增強能源管理水平並降低中長期營運成本 Enhance energy management level and reduce medium- and long-term operating costs 促進能源結構優化及能源成本下降 Promote energy structure optimization and decrease energy costs 	<ul style="list-style-type: none"> 從多方面開展短、中、長期的能源管理優化行動，包括設定階段性目標、推進智能化升級、加強研發投資、進行持續跟進優化等 Implement short-, medium-, and long-term energy management optimization actions from multiple aspects, including setting phased targets, advancing intelligent upgrades, strengthening R&D investments, and conducting continuous follow-up and optimization.
	<ul style="list-style-type: none"> 低碳技術發展的不確定性 Uncertainty in low-carbon technology development 	<ul style="list-style-type: none"> 生產營運 Production & operations 	<ul style="list-style-type: none"> 投資低碳技術或因技術過時或非主流而遭受資金損失 Suffer financial losses from investing in low-carbon technologies that may become obsolete or non-mainstream 低碳技術發展或將誘發能源及原料價格波動，影響成本結構及產品定價 Low-carbon technology development may induce volatility in energy and raw material prices, impacting cost structure and product pricing 	<ul style="list-style-type: none"> 投資適宜的低碳技術 Invest in appropriate low-carbon technologies 	<ul style="list-style-type: none"> 提升能源利用效率並降低中長期營運成本 Improve energy utilization efficiency and reduce medium- and long-term operating costs 取得差異化技術競爭優勢，提升市場競爭力 Gain differentiated technological competitive advantages to enhance market competitiveness 	<ul style="list-style-type: none"> 分階段佈局節能及工藝優化的技術儲備及投資項目，例如，優先發展邊際效益較高的技術，以穩步降低能耗及碳成本 Phase the deployment of technology reserves and investment projects for energy conservation and process optimization, for example, prioritizing technologies with higher marginal benefits to steadily reduce energy consumption and carbon costs.

類別 Category	轉型風險 Transition Risk	對公司業務及價值鏈的影響 Impact on the Company Business and Value Chain	潛在財務影響 Potential Financial Impact	轉型機遇 Transition Opportunity	潛在財務影響 Potential Financial Impact	應對措施 Response Measures
市場 Market	<ul style="list-style-type: none"> 低碳產品市場需求增加 Increased market demand for low-carbon products 	<ul style="list-style-type: none"> 上游採購 Upstream procurement 生產營運 Production & operations 下游分銷 Downstream distribution 	<ul style="list-style-type: none"> 為滿足市場的低碳轉型需求而導致研發成本增加及生產流程轉型 Increased R&D costs and production process transition requirements to meet market demand for low-carbon transition 在低碳產品市場完全接受前或將面臨過渡期利潤及需求不穩定 May face unstable transition period profits and demand before low-carbon product markets are fully accepted 	<ul style="list-style-type: none"> 搶抓市場轉型先機 Seize the initiative in market transition 推動低碳產品開發 Promote low-carbon product development 	<ul style="list-style-type: none"> 新能源產業擴張將增加市場對於鈷、鎳等金屬原材料的需求，帶來盈利增長機遇 The expansion of the new energy industry will increase market demand for metal raw materials such as cobalt and nickel, bringing profit growth opportunities 低碳綠色項目降低企業融資成本 Low-carbon green projects lower corporate financing costs 	<ul style="list-style-type: none"> 跟蹤市場需求，利用技術儲備及行業優勢科學研判、靈活應對市場變化，抓住氣候轉型機遇 Track market demand, utilize technology reserves and industry advantages to scientifically evaluate and flexibly respond to market changes, seizing climate transition opportunities.
聲譽 Reputation	<ul style="list-style-type: none"> 企業聲譽衝擊 Corporate reputation shock 	<ul style="list-style-type: none"> 下游分銷 Downstream distribution 	<ul style="list-style-type: none"> 無法滿足持份者對於氣候信息披露的期待或回應不當，造成企業聲譽受損 Failure to meet stakeholder expectations for climate information disclosure or inappropriate responses resulting in damaged corporate reputation 	<ul style="list-style-type: none"> 企業聲譽提升 Enhancement of corporate reputation 	<ul style="list-style-type: none"> 增強持份者信任度，樹立良好的企業形象 Enhance stakeholder trust and establish a good corporate image 	<ul style="list-style-type: none"> 切實提高企業氣候及綠色發展相關信息披露的透明度 Effectively improve the transparency of corporate climate and green development-related information disclosure.



氣候指標及目標

CLIMATE METRICS AND TARGETS

為持續推動氣候戰略落地執行，我們將在董事會即將成立的氣候變化應對工作小組統籌領導下，積極面對並系統管理自身面臨的氣候相關風險與潛在機遇。我們將透過科學規劃的發展路徑、務實有效的執行舉措，有序鋪排並穩步推進各項氣候行動，全力應對氣候變化帶來的多元挑戰，為實現本世紀末全球氣溫相較工業化前水平升幅控制在 2°C 以內的目標貢獻企業力量。

To continuously drive the execution of the climate strategy, under the overall leadership of the Board and the proposed Climate Change Taskforce, we will actively face and systematically manage the climate-related risks and potential opportunities we confront. Through a scientifically planned development path and pragmatic, effective execution initiatives, we will logically schedule and steadily advance various climate actions. We are fully committed to addressing the diverse challenges brought by climate change, contributing corporate strength to achieving the goal of limiting the global temperature rise to well below 2°C above pre-industrial levels by the end of this century.

| 溫室氣體排放管理 Greenhouse Gas Emissions Management

金川國際各礦區的溫室氣體管理工作，均由各礦區所屬安全、健康、環境及社區 (SHEC) 部門負責統籌執行，並按既定週期向Metorex SHEC委員會提交管理情況匯報，確保管理全過程可追溯、可監督。

The greenhouse gas management work of JCI's various mining areas is coordinated and executed by the Safety, Health, Environment, and Community (SHEC) departments of each mining area. Reports on the management status are submitted to the Metorex SHEC Committee on an established cycle to ensure the entire management process is traceable and supervisable.



為達成溫室氣體排放量削減及碳排放密度降低的核心目標，我們一方面持續推進溫室氣體排放監管政策的優化完善，精進溫室氣體與碳足跡的核算標準及報告機制，持續提升相關績效表現；另一方面強化內部各部門間的溝通協同，明確各環節工作職責，確保工作問責機制落地執行、落到實處，保障溫室氣體管理各項工作有序推進。

長期以來，金川國際一直將履行溫室氣體排放管理的承諾，納入集團「零傷害」方針之中。我們承諾恪守各項應對氣候變化的國家及國際相關倡議，透過引入節能環保設備、擴大可再生能源應用規模、持續削減二氧化碳排放，並積極採用業界最佳實務與先進技術，全力降低生產與營運全流程的碳足跡。

此外，我們亦積極推動全體員工參與氣候變化相關能力建設與專業培訓，強化全員節能減碳意識，提升對氣候變化風險與應對策略的認知水平。透過自上而下統籌推動與自下而上廣泛參與相結合的模式，持續推動公司整體氣候行動落地實施與機制創新。

To achieve the core objectives of reducing greenhouse gas emission volumes and carbon emission intensity, on one hand, we continuously promote the optimization and improvement of greenhouse gas emission regulatory policies, refine greenhouse gas and carbon footprint accounting standards and reporting mechanisms, and consistently enhance relevant performance; on the other hand, we strengthen communication and synergy among internal departments, clarify work responsibilities across all links, ensure the implementation of the accountability mechanism, and guarantee the orderly advancement of all greenhouse gas management tasks.

For a long time, JCI has integrated its commitment to fulfilling greenhouse gas emission management into the Group's "Zero Harm" policy. We pledge to adhere to various national and international initiatives related to climate change. By introducing energy-saving and environmentally friendly equipment, expanding the application scale of renewable energy, continuously reducing carbon dioxide emissions, and actively adopting industry best practices and advanced technologies, we strive to reduce the carbon footprint throughout the entire production and operation process.

Additionally, we actively promote the participation of all employees in capacity building and professional training related to climate change to strengthen the awareness of energy conservation and carbon reduction among all staff and elevate their cognitive level regarding climate change risks and response strategies. Through a model that combines top-down coordinated promotion with bottom-up extensive participation, we continuously drive the implementation of the Company's overall climate actions and mechanism innovation.

本年度，我們依據《溫室氣體核算體系：企業價值鏈（範圍三）核算與報告標準（2011年）》的要求，進一步擴大範圍三盤查範圍，納入更多具關鍵性影響的類別，現行披露的範圍三排放類別包括：類別2資本貨物、類別6商務差旅、類別7僱員通勤、類別8上游租賃資產、類別9下游運輸與配送及類別13下游租賃資產。

This year, in accordance with the requirements of the "Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)", we further expanded the scope of our Scope 3 inventory to include more categories with critical impact. The currently disclosed Scope 3 emission categories include: Category 2 Capital Goods, Category 6 Business Travel, Category 7 Employee Commuting, Category 8 Upstream Leased Assets, Category 9 Downstream Transportation and Distribution, and Category 13 Downstream Leased Assets.

範圍3活動 Scope 3 Activity	排放系數來源 Emission Factor Source	核算範圍 Accounting Scope
類別2 資本貨物 Category 2 Capital Goods	英國環境、食品與農村事務部（DEFRA）《2021年溫室氣體報告：按SIC 2021行業分類之每英鎊支出碳排放換算係數》 UK Department for Environment, Food & Rural Affairs (DEFRA) "2021 Greenhouse Gas Reporting: Conversion Factors for Carbon Emissions per Pound Spent by SIC 2021 Industry Classification"	Kinsenda 礦場購置的長期資產（廠房、設備、車輛等）在製造與運輸過程中產生的排放 Emissions generated during the manufacturing and transportation of long-term assets (plant, equipment, vehicles, etc.) purchased by the Kinsenda Mine
類別6 商務差旅 Category 6 Business Travel	中國產品全生命周期溫室氣體排放系數集（2022） China Product Life Cycle Greenhouse Gas Emission Factor Dataset (2022)	本次核算範圍擴大至中國香港、Kinsenda 礦場、梅特瑞斯公司及 Musonoi 礦場僱員商務航空旅行的交通出行和住宿相關的排放 The accounting scope has been expanded this time to include emissions related to transportation and accommodation for business air travel by employees of Hong Kong, the Kinsenda Mine, the Metorex, and the Musonoi Mine
類別7 僱員通勤 Category 7 Employee Commuting	中國產品全生命周期溫室氣體排放系數集（2022） China Product Life Cycle Greenhouse Gas Emission Factor Dataset (2022)	與我們僱員往返於住所及工作地點的交通出行相關的排放 Emissions associated with transportation for employees commuting between their residences and workplaces
類別8 上游租賃資產 Category 8 Upstream Leased Assets	美國環境擴展投入產出模型（USEEIO） US Environmentally-Extended Input-Output Model (USEEIO)	與我們承租公司辦事處（中國香港、南非）之辦公室相關的排放 Emissions related to our leased corporate office spaces (Hong Kong, South Africa)
類別9 下游運輸與配送 Category 9 Downstream Transportation and Distribution	中國產品全生命周期溫室氣體排放系數集（2022） China Product Life Cycle Greenhouse Gas Emission Factor Dataset (2022)	Kinsenda 礦場和 Ruashi 礦場產品售出後，由第三方執行的運輸、倉儲與零售排放 Emissions from transportation, warehousing, and retail executed by third parties after the sale of products from the Kinsenda and Ruashi mines
類別13 下游租賃資產 Category 13 Downstream Leased Assets	美國環境擴展投入產出模型（USEEIO） US Environmentally-Extended Input-Output Model (USEEIO)	與我們將 Chibuluma 南礦場，包括奇富普（Chifupu）礦床及加工廠出租予一名獨立第三方相關的排放 Emissions related to our leasing of the Chibuluma South Mine, including the Chifupu deposit and processing plant, to an independent third party

▼ 溫室氣體排放績效

Greenhouse Gas Emissions Performance

指標 Metric	單位 Unit	2025	2024	2023
企業營運邊界內的排放 Emissions within Corporate Operational Boundaries				
範圍 1 Scope 1	公噸二氧化碳當量 Tonnes of CO ₂ e	45,645	31,373	48,740
範圍 2 Scope 2	公噸二氧化碳當量 Tonnes of CO ₂ e	3,341	1,081	988
範圍 1+ 範圍 2 Scope 1 + Scope 2	公噸二氧化碳當量 Tonnes of CO ₂ e	48,986	32,454	49,728
範圍 1+ 範圍 2 排放密度 Scope 1 + Scope 2 Emission Intensity	噸二氧化碳當量 / 噸銅產量 Tonnes of CO ₂ e / Tonne of copper production	1.07	0.51	0.80
企業價值鏈的排放 Emissions in the Corporate Value Chain				
類別 2 資本貨物 Category 2 Capital Goods	公噸二氧化碳當量 Tonnes of CO ₂ e	867	N/A	N/A
類別 6 商務差旅 Category 6 Business Travel	公噸二氧化碳當量 Tonnes of CO ₂ e	332	28	N/A
類別 7 僱員通勤 Category 7 Employee Com- muting	公噸二氧化碳當量 Tonnes of CO ₂ e	60	105	N/A
類別 8 上游租賃資產 Category 8 Upstream Leased Assets	公噸二氧化碳當量 Tonnes of CO ₂ e	149	75	N/A
類別 9 下游運輸與配送 Category 9 Downstream Transportation & Distribution	公噸二氧化碳當量 Tonnes of CO ₂ e	11,965	N/A	N/A
類別 13 下游租賃資產 Category 13 Downstream Leased Assets	公噸二氧化碳當量 Tonnes of CO ₂ e	735	1,199	N/A
範圍 3 排放總量 Total Scope 3 Emissions	公噸二氧化碳當量 Tonnes of CO ₂ e	14,109	1,407	N/A
範圍 1+ 範圍 2+ 範圍 3 Scope 1 + Scope 2 + Scope 3	公噸二氧化碳當量 Tonnes of CO ₂ e	63,096	33,861	N/A

能源使用與氣候行動

ENERGY USE AND CLIMATE ACTION

金屬礦產開採屬於高耗能產業，因此能源消耗管理已成為金川國際的核心工作之一，並驅動公司持續朝低碳營運模式轉型。我們深知，旗下各礦場均有責持續提升能源使用效率、降低對化石燃料的依賴，並盡可能擴大清潔能源、可再生能源及循環能源的應用比例，透過多元措施推動溫室氣體減排。值得一提的是，公司於剛果（金）與贊比亞的礦業營運，絕大部分電力均取自水力發電，具備明顯的低碳排放與環境友好優勢，可為礦場提供清潔、可再生且穩定可持續的電力保障。

Metal mining is an energy-intensive industry; therefore, energy consumption management has become one of JCI's core tasks, driving the Company's continuous transition towards a low-carbon operational model. We recognize that all affiliated mines have the responsibility to continuously improve energy efficiency, reduce reliance on fossil fuels, and maximize the proportion of clean energy, renewable energy, and circular energy applications to drive greenhouse gas reductions through diverse measures. It is worth noting that the vast majority of electricity for the Company's mining operations in the DRC and Zambia is sourced from hydroelectric power, possessing significant advantages in low carbon emissions and environmental friendliness, which can provide clean, renewable, and stable sustainable power security for mine operations.

| 能源管理政策 Energy Management Policy

金川國際持續完善能源管理體系，各礦場能源管理均遵循「節約優先、清潔替代、高效利用、全程管控」原則，建立能源消耗分級負責制，明確各部門能源管理職責，開展能源審計與漏洞排查，確保政策有效落地。旗下各礦區一向重視能源管理工作，據ISO 14001:2015相關規範要求，並結合實際營運狀況，持續優化能源管理體系。

JCI continuously refines its energy management system. Energy management at all mines adheres to the principles of "conservation first, clean substitution, efficient utilization, and full-process control". establish a tiered responsibility system for energy consumption, clarify the energy management responsibilities of each department, conduct energy audits and loophole troubleshooting, and ensure effective policy implementation. All mining areas have always prioritized energy management, and in accordance with the requirements of the ISO 14001:2015 standards and in combination with actual operational conditions, continuously optimize their energy management systems.

Ruashi礦場已制訂並推行《能源及用水管理指引》，藉以規範營運過程中的能源耗用流程，從而降低資源消耗及減輕對環境之不利影響。依據該指引，Ruashi礦場之環境管理負責人員須持續檢視現有能源系統與節能潛力，評估並分析能效表現，同時監控建築物與設備之運行及維護狀況，確保各項環保措施切實執行。另一方面，礦場亦向全體員工提出節能降耗之行動方案，推動各項節能措施有效落實。

Ruashi礦場亦建立專門系統，可自動編製每日、每月、每半年及每年之電力耗用報告，從而實時監控能源使用狀況。此外，礦場於《環境管理計劃》中亦明確承諾，將持續擴大可再生能源應用、削減二氧化碳排放，並積極導入業界最佳實務與先進技術，從政策及計劃層面強化能源管理與節能減排工作。

Kinsenda礦場制訂《能源統計與分析管理制度》，常態化開展能耗數據分析、對標與趨勢研判，對能耗異常情況及時預警、溯源並落實整改；同步制訂《供用電管理制度》，明確用電申請、負荷管控、停送電管理、功率因數調節及安全用電等要求。

Musonoi礦場制定《電費計量結算管理制度》及《高壓電氣設備安全操作規程》，規範電力使用與設備管理。

The Ruashi mine has formulated and implemented the "Energy and Water Management Guidelines" to regulate energy consumption processes during operations, thereby reducing resource consumption and mitigating adverse environmental impacts. According to the guidelines, the Ruashi Mine's environmental management personnel must continuously review existing energy systems and energy-saving potential, assess and analyze energy efficiency performance, and monitor the operation and maintenance status of buildings and equipment to ensure all environmental protection measures are effectively executed.

Meanwhile, the mine also proposes energy-saving and consumption-reduction action plans to all employees to promote the effective implementation of energy-saving measures. The Ruashi Mine has also established a dedicated system capable of automatically compiling daily, monthly, semi-annual, and annual electricity consumption reports for real-time monitoring of energy use. Furthermore, the mine has made clear commitments in its "Environmental Management Plan" to continue expanding renewable energy applications, reduce carbon dioxide emissions, and actively introduce industry best practices and advanced technologies to strengthen energy management and energy-saving and emission-reduction tasks from the policy and planning levels.

The Kinsenda Mine formulated the "Energy Statistics and Analysis Management System", regularly carries out energy consumption data analysis, benchmarking and trend research and judgment, promptly warns, traces the source and implements rectification for abnormal energy consumption; simultaneously formulates the "Power Supply and Consumption Management System", clarifying the requirements for power application, load control, power cut and restoration management, power factor adjustment and safe power use.

The Musonoi Mine has formulated the "Electricity Bill Metering and Settlement Management System" and "High-Voltage Electrical Equipment Safety Operation Procedures" to standardize electricity use and equipment management.

節能降耗行動 Energy Conservation and Consumption Reduction Actions

積極推動節能降耗工作，既是應對氣候變化風險、把握低碳發展機遇的重要舉措，亦是企業實現綠色轉型與高質量發展的關鍵路徑。金川國際旗下各礦場結合自身實際營運狀況，實施一系列務實高效的能源管理與節能減排措施，持續提升能源使用效益，力求實現節能降耗與企業可持續發展的有機統一。

Actively promoting energy conservation and consumption reduction is not only an important measure to respond to climate change risks and seize low-carbon development opportunities, but also a critical path for the enterprise to achieve green transition and high-quality development. Combining their own actual operational conditions, JCI's affiliated mines implement a series of pragmatic and efficient energy management and energy-saving measures to continuously enhance energy use efficiency, striving to achieve the organic unity of energy conservation, consumption reduction, and sustainable corporate development.

Ruashi 礦場 Ruashi Mine

2025年，Ruashi礦場延續了上一年度所訂立的能源使用效益目標，於報告期內將銅金屬產量單位電耗降低5%。

- 考慮SNEL、CEC外網供電與廠內柴發配套，降低外網頻繁斷電影響生產的風險；
- 安裝總經理辦公室太陽能供電系統，減少電網用電；
- 全廠更換 LED 照明設備，降低照明能耗。

In 2025, the Ruashi Mine continued the energy efficiency targets set in the previous year, reducing unit electricity consumption per tonne of copper metal produced by 5% during the Reporting Period.

- Considered the SNEL, CEC external grid power supply and internal diesel generation matching to reduce the risk of frequent external grid power outages affecting production;
- Installed a solar power supply system for the general manager's office to reduce grid electricity usage;
- Replaced LED lighting equipment throughout the plant to lower lighting energy consumption.

Kinsenda 礦場 Kinsenda Mine

2025年，Kinsenda礦場持續推動設施優化改造與生產流程改善，以減少不必要之電力消耗。

- 建設 435ml 主泵站，優化井下東西部排水系統，節約能耗約 1MW；
- 利用井下裂隙水供應生產用水，減少地表供水及排水能源負荷；
- 要求承包商更換技術先進、廢氣排放更低的無軌設備；
- 透過調整礦場生產作業，將掘進所產生之廢石就近回填至井下採空區，不再運送至地表廢石堆置場。

In 2025, the Kinsenda Mine continued to advance facility optimization and production process improvements to reduce unnecessary power consumption.

- Constructed the 435ml main pump station, optimizing the underground eastern and western drainage systems, saving approximately 1MW of energy consumption;
- Utilized underground fissure water to supply production water, reducing the energy load of surface water supply and drainage;
- Required contractors to replace trackless equipment with advanced technologies and lower exhaust emissions;
- By adjusting mine production operations, waste rock generated from tunneling was backfilled nearby into underground mined-out areas, rather than transported to surface waste rock dumps.

Musonoi 礦場 Musonoi Mine

Musonoi礦場重視節能減碳與資源高效運用，持續推動能耗優化，致力降低能源耗損與不必要浪費。

- 優化供電方案，增加市電申請量，減少柴油發電機使用；
- 加強施工現場能源管控，杜絕設備空轉、照明長開等浪費現象；
- 開展員工節能宣傳活動，強化節能意識。

The Musonoi Mine values energy conservation, carbon reduction, and efficient resource utilization, continuously promoting energy consumption optimization and striving to reduce energy loss and unnecessary waste.

- Optimized the power supply scheme, increased the application volume for municipal electricity, and reduced the use of diesel generators;
- Strengthened energy control at the construction site, eliminating waste such as equipment idling and lights left on indefinitely;
- Carried out employee energy-saving awareness activities to strengthen energy-saving consciousness.



Musonoi礦場員工節能宣傳活動
Energy Conservation Promotion Campaign for Musonoi Mine Staff

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場儘管目前由融資租賃承租方營運，金川國際作為合法擁有者，仍就能源管理等各項環境議題實施持續監督。該礦場營運均符合《贊比亞能源監管法》規範，並依據其制訂之《能源倡議指南》，持續強化節能降耗成效。

Although the Chibuluma South Mine is currently operated by a financial lease lessee, JCI, as the legal owner, continues to implement ongoing supervision over energy management and other environmental issues. The mine's operations comply with the Zambia "Energy Regulation Act" and, based on its formulated "Energy Initiative Guidelines," continuously enhance energy-saving and consumption-reduction effectiveness.

- 透過 MET 工廠及礦井控制室對設備運行進行持續在線監測，避免主要設備同時啟動；
- 安裝變頻驅動電機控制系統，減少多餘能源損耗；
- 每年開展內部能源消耗審計，根據結果優化能源管理策略。

- Continuously online monitored equipment operations through the MET plant and mine control room to prevent major equipment from starting simultaneously;
- Installed variable frequency drive motor control systems to reduce excess energy loss;
- Conducted internal energy consumption audits annually to optimize energy management strategies based on the results.

可再生能源使用 Renewable Energy Use

金川國際旗下各礦區均佈局於剛果（金）與贊比亞，兩國水力資源豐裕，水電佔當地總發電結構比重極高。我們各礦區主要透過與當地大型電力企業簽訂供電協議取得電力，絕大部分用電均來自水力發電，具備低碳排放、環境友善之綠色特質，為礦場營運提供清潔、可再生且穩定可持續的電力保障。

除充分運用水電資源外，各礦區亦積極探索及推廣其他可再生能源應用。目前正有序擴大太陽能運用場景，持續優化能源結構，推動整體能源供應體系邁向低碳綠色轉型。

JCI's affiliated mining areas are all located in the DRC and Zambia. Both countries have abundant hydroelectric resources, and hydropower accounts for an extremely high proportion of the local total power generation structure. Our mining areas primarily obtain electricity by signing power supply agreements with large local power companies. The vast majority of electricity consumption comes from hydropower, which features green characteristics of low carbon emissions and environmental friendliness, providing clean, renewable, and stable sustainable power security for mine operations.

In addition to fully utilizing hydropower resources, all mining areas also actively explore and promote the application of other renewable energies. Currently, we are systematically expanding solar energy application scenarios, continuously optimizing the energy structure, and driving the overall energy supply system towards a low-carbon green transition.

Ruashi 礦場 Ruashi Mine

- 22MW光伏電站於2025年全面投產，其中10MW於8月投用，12月完成剩餘12MW建設；
- 規劃在生活營地建設85.4kWp光伏+ 215kWh儲能項目，進一步提升可再生能源覆蓋範圍。
- A 22MW photovoltaic power plant became fully operational in 2025, with 10MW commissioned in August and the construction of the remaining 12MW completed in December.
- Planned to construct an 85.4kWp photovoltaic + 215kWh energy storage project in the residential camp to further expand renewable energy coverage.



Ruashi礦場太陽能安裝工程
Solar Energy Installation Works at Ruashi Mine

Kinsenda 礦場 Kinsenda Mine

- 持續推廣太陽能路燈應用，計劃積極研究及評估擴大太陽能發電應用之可行性，透過導入綠色能源優化能源結構，持續推動礦區節能減碳與可持續營運發展。
- Continuously promoted the application of solar streetlights and planned to actively research and evaluate the feasibility of expanding solar power generation applications. By introducing green energy to optimize the energy structure, it continuously promoted energy conservation, carbon reduction, and sustainable operational development in the mining area.

Musonoi 礦場 Musonoi Mine

- 2025 年新增 50MW 光伏發電及 100MWh 儲能系統，實現光伏電力與市電聯網供應。
- Added 50MW of photovoltaic power generation and a 100MWh energy storage system in 2025, achieving grid-connected supply of photovoltaic electricity and municipal electricity.



Musonoi 礦場光伏發電現場
Musonoi Mine Photovoltaic Power Generation Site

Chibuluma 南礦場 Chibuluma South Mine

- 礦場鼓勵融資租賃承租方使用可再生能源，從而減少碳排放，提升整體環境效益。
- The mine encourages the financial lease lessee to use renewable energy to reduce carbon emissions and enhance overall environmental benefits.

▼ 2023-2025年能源消耗總量
2023-2025 Total Energy Consumption

指標 Metric	單位 Unit	2025	2024	2023
電力 Electricity	千瓦時 kWh	170,214,012	264,377,500	242,544,120
蒸汽 Steam	公噸 Tonnes	65,969	121,290	158,168
液化石油氣 Liquefied Petroleum Gas (LPG)	公噸 Tonnes	0	600	0
柴油 Diesel	公噸 Tonnes	17,951	8,701	13,715
汽油 Gasoline	公噸 Tonnes	118	189	62

價值鏈氣候合作 Value Chain Climate Cooperation

氣候變化治理已超越單一企業邊界，成為貫穿整個產業價值鏈的重要議題。金川國際深刻認同，推動價值鏈氣候合作，是落實低碳轉型、強化氣候風險管理與實現可持續發展目標的關鍵環節。我們積極攜手供應商、合作方、客戶及社區夥伴，建立氣候相關溝通機制與協同行動框架，共同推廣節能減排實務、分享低碳技術與管理經驗，致力構建更具韌性、低碳高效且環境友好的產業生態，以協同力量推動全價值鏈氣候行動持續深化。

Climate change governance has transcended the boundaries of individual enterprises and has become a crucial issue running through the entire industry value chain. JCI deeply agrees that promoting value chain climate cooperation is a critical link in implementing a low-carbon transition, strengthening climate risk management, and achieving sustainable development goals. We actively join hands with suppliers, partners, customers, and community partners to establish climate-related communication mechanisms and coordinated action frameworks. Together, we promote energy-saving and emission-reduction practices, share low-carbon technologies and management experiences, and are dedicated to building a more resilient, low-carbon, efficient, and environmentally friendly industrial ecosystem, leveraging synergistic power to drive the continuous deepening of climate actions across the entire value chain.

本集團以建構綠色低碳、可持續發展的供應鏈體系為核心目標，督促供應商嚴守各營運所在地之環境相關法規，透過具體減廢與節能措施降低環境衝擊，推動資源循環利用與低碳轉型。在能源供應方面，集團優先選擇低污染、環保型燃料供應商合作，透過使用環保柴油等清潔能源，有效降低硫氧化物與粒狀污染物等廢氣排放，減輕營運對環境之影響。

此外，集團亦規範供應鏈於包裝、倉儲及運輸環節均須符合當地與國際環保標準，並持續評估供應商之產品品質、包裝安全性、化學品風險及環境潛在危害，確保整體供應鏈符合可持續發展要求。

報告期內，本集團持續強化綠色供應鏈管理，從源頭推動減碳措施，積極帶動整體產業鏈實現低碳轉型與可持續發展。

The Group takes building a green, low-carbon, and sustainably developing supply chain system as its core objective. We urge suppliers to strictly abide by environmental regulations in their locations of operation, reduce environmental impact through specific waste reduction and energy-saving measures, and promote resource recycling and low-carbon transition. In terms of energy supply, the Group prioritizes cooperation with low-pollution, environmentally friendly fuel suppliers. By using clean energy such as eco-friendly diesel, we effectively reduce exhaust emissions like sulfur oxides and particulate matter, mitigating the environmental impact of operations.

Furthermore, the Group regulates that the supply chain must comply with local and international environmental standards in packaging, warehousing, and transportation. We continuously evaluate suppliers' product quality, packaging safety, chemical risks, and potential environmental hazards to ensure the overall supply chain meets sustainable development requirements.

During the Reporting Period, the Group continued to strengthen green supply chain management, driving carbon reduction measures from the source, actively leading the entire industrial chain towards low-carbon transition and sustainable development.

- ▶ 在篩選供應商時，我們會考慮供應商是否為「零碳工廠」，會優先考慮透過安裝大量太陽能板、風力發電設備等利用清潔能源來滿足生產所需能源的供應商。

When screening suppliers, we consider whether the supplier is a "zero-carbon factory" and will prioritize suppliers that meet their production energy needs using clean energy through the installation of extensive solar panels, wind power generation equipment, etc.

- ▶ 我們推行綠色物流，優先海運並整合多供應商貨運，最大限度減少碳排放。

We implement green logistics, prioritizing sea freight and consolidating multi-supplier freight to minimize carbon emissions.

- ▶ 積極與供應商溝通，助力其低碳轉型，協助多家合供應商制定科學碳目標，落實減排措施。

Actively communicate with suppliers to assist their low-carbon transition, helping multiple partner suppliers establish science-based carbon targets and implement emission reduction measures.

03

環境管治

Environmental Stewardship

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 環境管理 Environmental Management
- 排放物 Emissions
- 廢棄物及危險物質 Waste and Hazardous Materials
- 水資源 Water Resources
- 生物多樣性與土地利用 Biodiversity and Land Use
- 尾礦管理 Tailings Management



JINCHUAN 金川

2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

0 起與安全及環境事項有關的重大違法行為

0 cases of major illegal acts relating to safety and environmental matters

0 起與取用水相關的重大事故

0 major accidents related to water intake and usage



0 起重大環境突發事件或有害廢棄物違規行為

0 major environmental emergency incidents or hazardous waste compliance violations

0 起尾礦設施安全事故

0 safety accidents at tailings facilities

環境管理

ENVIRONMENTAL MANAGEMENT

金川國際秉持可持續發展理念，以安全、健康、環境及社區關係的卓越管理作為業務發展的核心基石，並將此等理念全面融入企業營運各個環節。集團旗下所有礦場及項目均恪守高規格環境管理體系，恪守當地法規要求之餘，致力全面守護營運所在區域及周邊社區的生態環境。

JCI adheres to the concept of sustainable development, taking outstanding management of safety, health, environment, and community relations as the core cornerstone of business development, and comprehensively integrates these concepts into every aspect of corporate operations. All mines and projects under the Group abide by a high-standard environmental management system. Beyond strictly adhering to local regulatory requirements, we are committed to comprehensively protecting the ecological environment of our operational areas and surrounding communities.

| 依法合規 Legal Compliance

合規是金川國際營運的核心，我們嚴格遵守營運所在地區的环境相關法律法規，主要包括剛果（金）頒布的《礦業法》、《礦業條例》、《環境保護法》及《森林法》，以及贊比亞環境管理局（ZEMA）管轄的《環境管理法》等。

我們依據項目所在國家的法律法規推行環境影響評估工作，並嚴格恪守環境影響評估報告中的各項環境管理要求，於項目建設前期、建設階段、營運階段及關停階段，全過程落實環境管理相關措施，確保礦山項目在整個生命週期內，均切實履行環境保護責任。與此同時，我們定期向相關當局提交最新的環境影響研究報告、年度環境報告等法定審核所需文件，亦會定期邀請第三方專業機構，對集團營運相關的水質、空氣質量及土壤質量進行檢測與分析，藉此客觀評估我們各項環境管理措施的實際成效。

Compliance is the core of JCI's operations. We strictly comply with environment-related laws and regulations in our operating regions, mainly including the "Mining Code," "Mining Regulations," "Environmental Protection Law," and "Forestry Law" promulgated by the DRC, as well as the "Environmental Management Act" governed by the Zambia Environmental Management Agency (ZEMA).

We conduct Environmental Impact Assessments (EIA) in accordance with the laws and regulations of the countries where projects are located, and strictly abide by various environmental management requirements in the EIA reports. During the project pre-construction, construction, operation, and closure phases, we implement environmental management measures throughout the entire process to ensure that mining projects effectively fulfill environmental protection responsibilities over their entire lifecycle. Concurrently, we regularly submit statutory audit documents such as updated environmental impact study reports and annual environmental reports to relevant authorities. We also regularly invite third-party professional institutions to conduct testing and analysis of water quality, air quality, and soil quality related to the Group's operations, thereby objectively evaluating the actual effectiveness of our various environmental management measures.

| 規範管理 Standardized Management

金川國際以可持續發展理念為核心導向，在公司管治及營運各層面推行「零傷害」政策，積極排查並消除工作環境中潛在的環境及安全風險，並於政策制定與執行過程中廣泛徵詢外部利益相關者的意見，範圍涵蓋集團營運、供應商管理及合作夥伴往來等層面。我們鄭重承諾全力預防污染，透過妥善管控廢物、廢氣、噪音、粉塵及化學物質，保障全體僱員擁有適宜的工作環境，並在所有營運區域嚴格遵循減少、避免、再利用及回收的原則。此外，我們亦針對土地、能源、生物多樣性、空氣及水資源實施專門管控措施，確保礦區內的物料及自然資源得到妥善保護與合理利用。

集團旗下各礦場依據自身實際營運情況，分別建立與能源管理、用水管理、有害廢棄物管理、無害廢棄物管理、土壤污染防治及修復等相關的內部管理制度，並會根據各礦場出現的新問題及國際環境管理新常規適時作出優化調整，持續推進環境管理體系建設與制度完善工作。我們在各礦區設立安全、健康、環境及社區 (SHEC) 管理架構，將環境管理全面融入公司各部門管理實務，盡可能減少消耗性資源使用、推動廢棄物減量與回收，修復受損土壤（或土地）、保護環境生物多樣性，謹慎對待關鍵生態資源（尤其在影響未知及不確定的情況下），妥善管理工作場所及週邊地區的環境風險，嚴格遵守適用法律法規及組織承諾的其他環境相關要求，並嚴格依照ISO 14001標準要求，定期審核SHEC管理體系，確保其充分性與執行有效性。加強員工環境責任相關的訓練與教育，並與相關各方保持透明且具建設性的溝通。

JCI is guided by the core concept of sustainable development. We implement a "Zero Harm" policy at all levels of corporate governance and operations, actively identifying and eliminating potential environmental and safety risks in the work environment. During the formulation and execution of policies, we widely solicit opinions from external stakeholders, covering aspects such as Group operations, supplier management, and interactions with partners. We solemnly commit to doing our utmost to prevent pollution. By properly managing waste, exhaust gas, noise, dust, and chemical substances, we guarantee a suitable working environment for all employees, and strictly follow the principles of reducing, avoiding, reusing, and recycling in all operating areas. In addition, we implement specific control measures for land, energy, biodiversity, air, and water resources to ensure that materials and natural resources within the mining areas are properly protected and rationally utilized.

In accordance with their actual operational situations, all affiliated mines of the Group have respectively established internal management systems related to energy management, water use management, hazardous waste management, non-hazardous waste management, and soil pollution prevention and remediation. We make timely optimizations and adjustments based on new issues emerging at each mine and new international environmental management conventions, continuously advancing the construction of environmental management systems and the refinement of systems. We set up Safety, Health, Environment, and Community (SHEC) management structures at all mining areas, comprehensively integrating environmental management into the management practices of all company departments. We strive to minimize the use of consumable resources, promote waste reduction and recycling, remediate damaged soil (or land), protect environmental biodiversity, treat critical ecological resources with caution (especially under conditions of unknown and uncertain impacts), properly manage environmental risks in workplaces and surrounding areas, strictly comply with applicable laws and regulations and other environmental requirements committed by the organization, and strictly comply with ISO 14001 standard requirements. We conduct regular audits of the SHEC management system to ensure its adequacy and execution effectiveness. We strengthen employee training and education related to environmental responsibility and maintain transparent and constructive communication with relevant parties.

與此同時，我們透過應用各類流程、實務及技術，持續優化環境績效與污染預防的評估及提升工作，使用數字化管理系統「IsoMetrix」，對各類環境及風險事件實行統一管控，保障系統內各項管理程序與制度的嚴格落實，推動全體僱員切實履行環境保護責任，力求避免、減少或控制各類污染物的產生、排放與釋放，降低不利環境影響帶來的損失。

Simultaneously, by applying various processes, practices, and technologies, we continuously optimize the assessment and improvement of environmental performance and pollution prevention. We use the digital management system "IsoMetrix" to implement unified control over various environmental and risk events, ensuring the strict implementation of all management procedures and systems within the system, prompting all employees to earnestly fulfill environmental protection responsibilities. We strive to avoid, reduce, or control the generation, discharge, and release of various pollutants, thereby mitigating the losses caused by adverse environmental impacts.

▼ 各礦場環境管理制度類別一覽（節選）
Overview of Environmental Management System Categories at mines (Excerpt)

 <p>環境記錄 Environmental Records</p>	 <p>監視及測量 Monitoring and Measurement</p>
 <p>糾正預防措施 Corrective and Preventive Actions</p>	 <p>SHEC審計 SHEC Auditing</p>
 <p>水資源管理 Water Management</p>	 <p>土壤污染防治及修復 Soil Pollution Prevention and Remediation</p>
 <p>有害廢棄物管理 Hazardous Waste Management</p>	 <p>無害廢棄物管理 Non-Hazardous Waste Management</p>
 <p>粉塵水平 Dust Level</p>	 <p>噪音水平 Noise Level</p>
 <p>環境應急管理 Environmental Emergency Management</p>	 <p>廢水排放管理 Wastewater Discharge Management</p>

我們有序推進各礦場之環境管理體系認證工作，確保環境管理的科學性、規範性與有效性。Ruashi 礦場連續獲頒 ISO 14001:2015 認證；Kinsenda 礦場和 Musonoi 礦場之環境管理體系嚴格符合剛果（金）環境相關法律法規；Chibuluma 南礦場之環境管理體系則恪守贊比亞當地環境法律法規要求。

We systematically advance the certification of environmental management systems at each mine to ensure the scientific, standardized, and effective nature of environmental management. The Ruashi Mine has consecutively been awarded the ISO 14001:2015 certification; the Kinsenda Mine and Musonoi Mine's environmental management systems strictly comply with the DRC's environment-related laws and regulations; the Chibuluma South Mine's environmental management system strictly adheres to the requirements of local environmental laws and regulations in Zambia.

◀ 環境管理計劃

Environmental Management Plan

我們高度重視採礦作業對環境與社會帶來的影響，每年制訂完善的環境管理計劃，針對各礦區及項目的環境政策、環境目標與相關落實措施作出系統性規劃，確保礦山及項目運作符合國際標準規範。同時，各礦場會綜合考量所在地區的法規要求、重要環境因素、技術條件、財務與營運需求、持份者意見，以及現行環境政策，制訂、分配、監測並匯報對應的環境目標與指標，持續推動環境管理體系優化提升。

We place high importance on the environmental and social impacts caused by mining operations. Each year, we formulate comprehensive environmental management plans, systematically mapping out environmental policies, environmental targets, and relevant implementation measures for each mining area and project to ensure that mine and project operations comply with international standard specifications. Meanwhile, based on regulatory requirements in the operating region, significant environmental factors, technical conditions, financial and operational requirements, stakeholder opinions, and current environmental policies, each mine establishes, allocates, monitors, and reports corresponding environmental targets and metrics to continuously drive the optimization and elevation of the environmental management system.



Ruashi 礦場 Ruashi Mine

Ruashi 礦場已制訂多項涵蓋資源運用、能源管控、化學品管理及廢棄物處置等面向的管理目標，具體包括水平衡、採礦與工程環節用油平衡、廢油回收、耗電管控、塑膠回收、紙張採購管理、柴油耗用管控、尾礦處置、廢石搬運管控，以及硫酸、稀釋劑、硫磺、焦亞硫酸鈉 (SMBS)、石灰、氧化鎂等各類化學品耗用管控，並同步設立耗水量削減與能耗削減目標。

同時，礦場亦明確劃分各項目標之負責人及對應職責，並將各項目標細分為月度與年度等類別，確保環境目標實現精細化管理、有效監控與高效達成。以系統化推動資源高效運用與環境管理績效優化。

The Ruashi Mine has established multiple management targets covering aspects such as resource utilization, energy control, chemical management, and waste disposal. Specifically, these include water balance, oil balance in mining and engineering operations, waste oil recycling, power consumption control, plastic recycling, paper procurement management, diesel consumption control, tailings disposal, waste rock transport control, and consumption control of various chemicals including sulfuric acid, diluents, sulfur, sodium metabisulfite (SMBS), lime, and magnesium oxide. It has simultaneously set targets for reducing water consumption and energy consumption.

Furthermore, the Mine clearly assigns responsible persons and corresponding duties for each target, and sub-divides the targets into categories such as monthly and annual, to ensure refined management, effective monitoring, and efficient achievement of environmental goals, driving efficient resource utilization and environmental management performance optimization systematically.

Kinsenda 礦場 Kinsenda Mine

Kinsenda 礦場高度重視營運地區的環境及生態保護，圍繞污染防治及生態修復制定了年度目標及項目環境管理規劃，具體措施包括：在礦山周邊及現場開展植樹造林與幼苗移栽活動，強化粉塵排放管控以改善空氣質量，規範油類等危險廢物處置以保護土壤環境，同時優化整體廢棄物管理流程、強化環保宣傳，全方位推進生態環境保護工作。

The Kinsenda Mine highly values environmental and ecological protection in its operating regions. It has formulated annual targets and a project environmental management plan revolving around pollution prevention and ecological restoration. Specific measures include: conducting afforestation and seedling transplanting activities around the mine and on-site; strengthening dust emission controls to improve air quality; standardizing the disposal of hazardous waste such as oil to protect the soil environment; while simultaneously optimizing the overall waste management process and strengthening environmental protection publicity, comprehensively advancing ecological and environmental protection work.

Musonoi 礦場 Musonoi Mine

鑒於Musonoi 礦場在2025年仍處於數月的開發階段，今年為該礦設定的環境目標包括：監測礦井水與地表水水質；監測礦區的粉塵與氣體排放；以及透過植樹造林實現生態平衡，全力降低環境負面影響。

Given that Musonoi Mine is still in a several-month development phase in 2025, the environmental targets set for the mine this year include: monitoring the quality of mine water and surface water; monitoring dust and gas emissions in the mining area; and achieving ecological balance through afforestation to fully reduce adverse environmental impacts.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場嚴格遵循採礦許可證規定編製環境保護計劃，並於報告期內全面達成各項環境管理目標。礦場的主要環境管理成果包括：自主清理污水沉澱池，有效降低污染物排放量；透過停用並維修故障機具、優化作業流程等措施，減少碳氫化合物外洩或溢出；於廠區內實施循環用水，以地下水取用替代部分地表水取用，並在水處理廠針對生產用水進行處理，以提升水資源利用效率，降低廢水排放對環境造成的影響。

The Chibuluma South Mine strictly adheres to mining license regulations in compiling its environmental protection plan, and fully achieved all environmental management targets during the Reporting Period. The mine's primary environmental management achievements include: autonomously cleaning effluent settling ponds to effectively reduce pollutant discharges; stopping and repairing malfunctioning machinery and optimizing operational processes to reduce hydrocarbon leaks or spills; implementing water recycling within the plant area, substituting partial surface water intake with groundwater extraction, and treating production water at the water treatment plant to enhance water resource utilization efficiency and mitigate the environmental impact of wastewater discharge.

◆ 全生命周期環境影響評估

Life-Cycle Environmental Impact Assessment

我們旗下各礦場始終嚴格遵守當地法律法規與環境保護相關要求，持續規範開展環境影響評估與管控工作。堅持全生命周期環境管理理念，將生態保護、環境風險防控及生物多樣性保護系統性融入礦山項目規劃、建設、生產營運及閉坑復綠等全流程。透過科學化、精細化的環境管理舉措，我們致力於實現資源開發與生態環境協調發展，為地方社區留下可持續的綠色資產，推動礦業高質量發展與環境保護深度融合、和諧共生。

Our affiliated mines consistently and strictly comply with local laws and regulations and environmental protection requirements, continuously and standardly carrying out environmental impact assessments and control efforts. We uphold the concept of life-cycle environmental management, systematically integrating ecological protection, environmental risk prevention and control, and biodiversity conservation into the entire process, including mining project planning, construction, production and operations, and mine closure and re-vegetation. Through scientific and refined environmental management measures, we are committed to achieving coordinated development between resource extraction and the ecological environment, leaving a sustainable green legacy for local communities, and driving the deep integration and harmonious coexistence of high-quality mining development and environmental protection.

金川國際旗下各礦區均已建立統一的SHEC管理體系，要求各營運礦區以年度 / 雙年度為週期，定期執行環境及 SHEC 相關審計，並對環境衝擊進行年度評估，確保各項營運活動符合當地法令規範及集團管理標準。

All affiliated mining areas of JCI have established a unified SHEC management system, requiring each operating mining area to periodically execute environmental and SHEC-related audits on an annual/biennial cycle, and conduct annual assessments of environmental impacts, ensuring that all operational activities comply with local statutory regulations and Group management standards.

於執行面，各主要礦區審計範圍涵蓋環境合規性查核、排放監測、環境風險識別及管理措施有效性評估，並針對重點區域執行項目複核與追蹤查核，確保審計所發現的缺失完成改善並落實閉環管理。同時，各礦區持續推動空氣品質及其他關鍵環境指標的監測作業，定期彙整環境數據，作為評估營運活動對週邊環境潛在衝擊的依據。

In terms of execution, the audit scope for each major mining area covers environmental compliance checks, emission monitoring, environmental risk identification, and assessment of the effectiveness of management measures. Itemized reviews and follow-up checks are executed for key areas to ensure that deficiencies discovered during audits are rectified and closed-loop management is implemented. At the same time, each mining area continuously promotes the monitoring of air quality and other key environmental indicators, periodically aggregating environmental data to serve as a basis for assessing the potential impacts of operational activities on the surrounding environment.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場在其環境及社會影響評估中，全面審視各項採礦工程與核心營運支持活動可能對環境造成的正面及負面影響。礦場識別出主要涉險作業包括：地下鑽探與開採作業、礦石及廢石堆存、機械設備維修保養、燃料、潤滑油脂及液壓油處理等環節。相關營運支持單元所產生之影響主要體現為噪音與振動、員工及周邊居民健康風險、生產安全事故風險等方面。為減輕並消除各類負面環境影響，礦場已在《項目環境管理規劃》(PGEP) 中制訂專項緩解與修復方案，並負責各項措施的落實執行與持續監督，切實兼顧生產營運與環境保護責任。

In its environmental and social impact assessment, the Kinsenda Mine comprehensively reviewed the positive and negative environmental impacts that various mining engineering projects and core operational support activities may cause. The main risky operations identified by the mine include: underground drilling and extraction operations; ore and waste rock stockpiling; mechanical equipment maintenance; and the handling of fuel, lubricants, and hydraulic oil. The impacts generated by relevant operational support units are mainly manifested as noise and vibration, health risks to employees and surrounding residents, and production safety accident risks. To mitigate and eliminate various negative environmental impacts, the mine formulated specific mitigation and remediation plans in the "Project Environmental Management Plan" (PGEP), and is responsible for the implementation and continuous supervision of all measures, effectively balancing production operations with environmental protection responsibilities.

Musonoi 礦場 Musonoi Mine

Musonoi礦場環境部門每日及每週定期開展內部環境審計並計劃於2026年執行外部環境審計。

The Musonoi Mine environmental department conducts internal environmental audits regularly on a daily and weekly basis, and plans to execute external environmental audit in 2026.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場每年均委託具備專業資質的第三方機構，開展全礦區環境合規性監測與審計工作，並將相關監測及審計報告及時提交至ZEMA與礦業環境主管部門，為監督管理與問題整改提供依據。與此同時，礦場嚴格按照採礦許可證相關要求，制訂並落實年度環境管理計劃，持續降低採礦活動對環境造成的影響。

Each year, the Chibuluma South Mine entrusts third-party organizations with professional qualifications to carry out environmental compliance monitoring and audit work across the entire mining area, and promptly submits relevant monitoring and audit reports to ZEMA and the mining environmental competent authorities, providing a basis for supervision, management, and problem rectification. At the same time, the mine strictly adheres to the relevant requirements of the mining license to formulate and implement annual environmental management plans, continuously reducing the environmental impact of mining activities.

◀ 環境事件管理

Environmental Incident Management

我們建立了完善的環境事件調查與報告程序，對各類環境事件進行記錄、歸檔與分析，並針對問題根源制訂改善措施，總結經驗教訓，避免同類事件重複發生。同時，依據事件對生態系統的影響程度及公眾關注度實施分級管理，針對不同等級採取對應的調查流程與糾正措施。我們定期對環境事件記錄進行維護與管理，由環境經理負責審查，確保記錄真實、適用、相關且有效。

We have established a comprehensive environmental incident investigation and reporting procedure to record, file, and analyze various environmental incidents. We formulate improvement measures targeting the root causes, summarizing experiences and lessons to prevent the recurrence of similar incidents. Furthermore, we implement hierarchical management based on the incident's impact on the ecosystem and the level of public concern, applying corresponding investigation processes and corrective measures for different grades. We regularly maintain and manage environmental incident records, which are reviewed by the Environmental Manager to ensure the records are truthful, applicable, relevant, and effective.

在日常營運過程中，我們定期開展安全與環境審計，對員工行為及礦場運行情況進行監督檢查，並將識別出的環境不符合項記錄於IsoMetrix系統，確保問題及時閉環。針對各項環境問題與不符合項，我們制訂專項糾正計劃並在現場落實整改；對於重大環境問題，則通過專題會議研究確定最優解決方案。

During daily operations, we conduct regular safety and environmental audits to supervise and inspect employee behaviors and mine operations. Identified environmental non-conformities are recorded in the IsoMetrix system to ensure timely closed-loop resolution. We formulate specific corrective plans and implement on-site rectifications for various environmental issues and non-conformities; for major environmental issues, we determine the optimal solutions through thematic research meetings.

我們高度重視員工環境應急意識與能力培養，在入職培訓中納入環境風險識別、事件應對流程等內容，覆蓋各類潛在突發環境事件及標準處置程序。同時不定期開展環境應急演練，強化員工對應急流程的熟練程度與處置能力。每日作業前，礦場均會開展班前會，強化員工對環境管理要求及突發事件應對計劃的認知。Ruashi 礦場相關培訓均依據高環境風險崗位培訓矩陣開展。報告期內，共有632名員工接受環境培訓，環境風險與體系意識培訓已納入年度入職培訓體系。同時，對91名員工開展考核評估，確保其充分理解並嚴格執行各項環境管理程序。Kinsenda 礦場嚴格遵守礦業法規第五篇的相關規定，並持續執行剛果礦業法律所要求的各項環境技術義務。Musonoi 礦場已對員工開展現場動植物保護及土壤污染防治相關意識培訓。

We place high importance on cultivating employees' environmental emergency awareness and capabilities. Content such as environmental risk identification and incident response processes are incorporated into onboarding training, covering various potential environmental emergencies and standard disposal procedures. We also irregularly conduct environmental emergency drills to reinforce employees' proficiency and response capabilities regarding emergency procedures. Before daily operations, mines hold pre-shift meetings to strengthen employees' understanding of environmental management requirements and emergency response plans. Relevant training at the Ruashi Mine is conducted according to the high-environmental-risk position training matrix. During the Reporting Period, a total of 632 employees received environmental training, and environmental risk and system awareness training has been integrated into the annual onboarding training system. Concurrently, 91 employees underwent assessment and evaluation to ensure they fully understand and strictly execute various environmental management procedures. The Kinsenda Mine strictly complies with Title V of the Mining Code and continuously executes all environmental technical obligations required by the DRC mining law. The Musonoi Mine has conducted awareness training for employees on site regarding flora and fauna protection and soil pollution prevention.

報告期內，我們旗下所有礦場均未發生涉及安全與環境方面的重大違規違法行為，亦未產生任何涉及安全與環境方面的重大處罰或罰款事項。

During the Reporting Period, none of our affiliated mines experienced any major illegal or non-compliant behaviors related to safety and the environment, nor were there any significant penalties or fines in this respect.

排放物管理

EMISSIONS MANAGEMENT

礦山開採作業（包括井下開拓、爆破等）以及車輛通行與物料運輸等環節，均可能產生粉塵與廢氣。若未實施有效管控，將對區域空氣品質、生態環境、周邊社區及作業人員健康帶來不利影響。為此，我們旗下所有礦場均嚴格遵守當地相關廢氣排放之法律法規與標準要求，建立專項廢氣管控程序，對礦區內外廢氣排放實施全流程管理，並透過定期監測評估成效，持續優化管控措施。

Mining operations (including underground development, blasting, etc.), as well as processes such as vehicle traffic and material transportation, can generate dust and exhaust gases. If not effectively controlled, this will adversely affect regional air quality, the ecological environment, surrounding communities, and the health of operating personnel. Therefore, all our affiliated mines strictly comply with local laws, regulations, and standard requirements regarding exhaust gas emissions. We have established dedicated exhaust gas control procedures, implementing full-process management of exhaust gas emissions inside and outside the mining area, and continuously optimizing control measures by evaluating effectiveness through regular monitoring.



廢氣排放物識別
Exhaust Gas Emission
Identification

礦區的主要廢氣排放物包括採礦過程中產生的粉塵、煙霧，以及燃料燃燒產生的二氧化硫和氮氧化物。

The main exhaust gas emissions in the mining area include dust and smoke generated during the mining process, as well as sulfur dioxide and nitrogen oxides generated from fuel combustion.

粉塵評估點設置
Setting Dust
Assessment Points

根據礦產粉塵的來源，如礫石道路上的運輸活動、尾礦儲存設施、一級/二級破碎機、礦坑採礦活動等，設定相應的粉塵評估點。

Based on the sources of mine dust, such as transportation activities on gravel roads, tailings storage facilities, primary/secondary crushers, pit mining activities, etc., corresponding dust assessment points are established.

粉塵監測與評估
Dust Monitoring and
Assessment

依據各礦場制定的粉塵監測程序，定期對礦場粉塵水平進行監測及評估，監測頻率通常為每月一次。使用專業設備監測礦場及周圍區域的粉塵沉降水平，確保監測數據的準確性。

In accordance with the dust monitoring procedures formulated by each mine, regular monitoring and assessment of dust levels at the mine are conducted, typically on a monthly basis. Professional equipment is used to monitor dust deposition levels in the mine and surrounding areas to ensure the accuracy of monitoring data.

粉塵樣本分析
Dust Sample Analysis

每季度將粉塵樣本送往ISO/IEC認可的實驗室，進行化學成分、總體濃度及重金屬含量的檢測，以確認是否超標。

Quarterly, dust samples are sent to an ISO/IEC accredited laboratory for testing of chemical composition, total concentration, and heavy metal content to confirm whether standards are exceeded.

改進措施實施
Implementation
of Improvement
Measures

根據實驗室檢測結果，採取相應的改進措施，強化廢氣管理，確保粉塵排放符合環保標準。

Based on laboratory test results, corresponding improvement measures are taken to strengthen exhaust gas management, ensuring that dust emissions comply with environmental standards.

廢氣排放控制程序
Exhaust Gas Emission Control Procedures

Ruashi 礦場 Ruashi Mine

Ruashi 礦場根據剛果（金）礦業法規定，針對 2025 年廢氣排放及空氣質量設定了量化目標，包括要求在礦井內砷濃度不超過 0.5 mg/m^3 、一氧化碳濃度不超過 29 mg/m^3 等目標，以控制生產過程中的粉塵、煙霧及大氣污染物排放量，減少礦場活動對大氣環境的污染。報告期內（2025 年），Ruashi 礦場的二氧化硫排放總量為 68 公噸。

In accordance with the DRC Mining Code, the Ruashi Mine has set quantitative targets for exhaust gas emissions and air quality in 2025. This includes requiring that arsenic concentrations in the mine do not exceed 0.5 mg/m^3 , and carbon monoxide concentrations do not exceed 29 mg/m^3 , aiming to control the emission volumes of dust, smoke, and atmospheric pollutants during the production process and reduce the air pollution caused by mining activities. During the Reporting Period, the total sulfur dioxide emission of the Ruashi Mine was 68 tonnes.



Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場內車輛通行會對當地空氣品質造成影響，尤其在旱季粉塵問題較為明顯，同時伴隨車輛廢氣排放。車道周邊植被的光合作用亦受到可見的負面影響，但由於此類空氣污染影響範圍有限且呈局部性，對居住在 Kinsenda 地區的民眾健康不構成重大風險。

為減緩相關影響，礦區實施車輛限速管理，規定行駛速度介於 20 至 40 公里/小時；在旱季期間，由灑水車每日對道路進行灑水降塵作業。在監測方面，礦區已於周邊區域設置粉塵採樣裝置，採集樣本後送至實驗室進行分析。

Vehicle traffic within the Kinsenda Mine affects local air quality, with dust issues being particularly noticeable during the dry season, accompanied by vehicle exhaust emissions. The photosynthesis of vegetation along the roadways also suffers visible negative impacts. However, as the scope of such air pollution is limited and localized, it does not pose a major health risk to residents living in the Kinsenda area.

To mitigate relevant impacts, the mining area implements vehicle speed limits, stipulating driving speeds between 20 to 40 km/h; during the dry season, water sprinkling trucks conduct daily dust suppression operations on the roads. In terms of monitoring, the mining area has installed dust sampling devices in surrounding areas. Collected samples are sent to laboratories for analysis.

▼ Table 17: Dust measurements

Samples	Mine	Concentrator (Plant)	Farm	Store (APP)	New Office (Main Office)
Al(mg/kg)	168	279	257	309	297
As (mg/kg)	<0.001	<0.001	<0.001	<0.001	<0.001
Ca(mg/kg)	954	2894	902	39.31	573.4
Cd (mg/kg)	<0.001	0.014	0.018	0.274	0.089
Co (mg/kg)	19.75	41.08	62.17	63.14	24.72
Cr (mg/kg)	11,474	47.56	25.36	168.1	31.87
Cu (mg/kg)	32560	11157	9754	5625	12460
Fe (mg/kg)	12268	11560	29587	91181	18958
Mg (mg/kg)	1104	2726	1016	1958	1421.2
Mn (mg/kg)	197.1	171.0	135.9	1323	111.0
Na (mg/kg)	215.0	119.1	132.4	634.2	145.6
Ni (mg/kg)	198.2	10.11	12.96	14.98	11.20
Pb (mg/kg)	10.75	132.0	68.21	112.4	136.0
Se (mg/kg)	<0.001	<0.001	<0.001	<0.001	<0.001
Zn (mg/kg)	68.54	109.2	190.5	126.2	123.9

Musonoi 礦場 Musonoi Mine

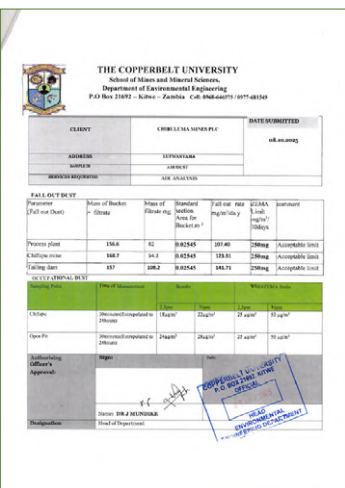
Musonoi礦場根據環境許可要求，定期開展廢氣及空氣品質監測工作。礦場重點關注區域內影響空氣品質的主要因素，包括採礦作業產生的粉塵、重型車輛於未鋪裝道路行駛產生的尾氣排放，以及礦區周邊土壤不穩定性與景觀退化等問題，並在營運過程中持續對相關大氣污染物進行處理與管控。

焙燒廠排放的煙氣經脫硫系統處理後，二氧化硫氣體可被完全回收並用於生產液體二氧化硫。Musonoi礦場組在制酸系統試運行前，已針對硫酸系統污染風險構建「源頭把關 — 過程控制 — 末端治理」全流程污染治理體系，通過工藝優化實現污染物減排，在全流程層面降低污染物排放，兼顧經濟效益與環境效益，實現綠色高效發展。

The Musonoi Mine conducts regular exhaust gas and air quality monitoring work according to environmental permit requirements. The mine focuses on key factors affecting air quality in the area, including dust from mining operations, exhaust emissions from heavy vehicles driving on unpaved roads, and issues like soil instability and landscape degradation around the mining area. Corresponding atmospheric pollutants are continuously treated and controlled during operations.

After the flue gas emitted from the roasting plant is treated by the desulfurization system, sulfur dioxide gas can be fully recycled and used to produce liquid sulfur dioxide (LSO₂). Before the trial run of the sulphuric acid production system, the Musonoi Mine team constructed a full-process pollution treatment system of "source control — process control — end-of-pipe treatment" specifically targeting the pollution risk of the sulfuric acid system. Through process optimization, it achieves pollutant emission reduction, decreasing pollutant discharges at the full-process level, balancing economic and environmental benefits, and achieving green and efficient development.

Chibuluma 南礦場 Chibuluma South Mine



Chibuluma南礦場每季度委託第三方專業機構進行礦山粉塵及廢氣採樣檢測與分析工作，監測指標涵蓋一氧化碳、氮氧化物、硫氧化物、硫化氫等各類污染物；檢測完成後編製空氣品質分析報告，並及時上報至ZEMA及礦山環境管理部門，確保礦場廢氣處理與排放全流程符合國家及地方相關法規標準要求。

The Chibuluma South Mine commissions third-party professional organizations quarterly to handle the sampling, testing, and analysis of mine dust and exhaust gas. The monitoring indicators cover various pollutants such as carbon monoxide, nitrogen oxides, sulfur oxides, and hydrogen sulfide. After the testing is completed, air quality analysis reports are compiled and promptly submitted to the ZEMA and mining environmental management departments to ensure the entire process of mine exhaust gas treatment and emission complies with national and local regulatory standards.

廢棄物管理

WASTE MANAGEMENT

礦石開採與選礦環節會產生大量固體採掘廢棄物，若管控不當易對區域生態環境、周邊社區及生產營運造成不利影響。金川國際恪守當地環保相關法規要求，將規範處置固廢納入核心環境管理體系，通過全流程嚴格管控措施，切實減少礦業活動對生態與社區的擾動，2025年全年未發生重大環境突發事件及有害廢棄物違規處置行為。

Ore mining and beneficiation stages generate a large volume of solid excavation waste. If managed improperly, it can easily cause adverse impacts on the regional ecological environment, surrounding communities, and production operations. JCI strictly adheres to local environmental laws and regulations, incorporating the standardized disposal of solid waste into its core environmental management system. Through strict full-process control measures, we effectively reduce the disturbance of mining activities on the ecology and communities. In 2025, no major environmental emergencies or illegal disposal of hazardous waste occurred throughout the year.

我們嚴格遵循項目所在國家及地區的環保相關法律法規，規範處置生產營運過程中產生的各類廢棄物，其中包括剛果（金）新《礦業法》及《礦業條例》等核心法規。旗下各礦場依據當地採礦規範與法規要求，結合自身實際營運情況，參照ISO 14001環境管理體系標準，分別制定有害廢棄物與無害廢棄物的專項管理程序。同時，將廢棄物管理責任層層落實至全體員工、合作供應商及承建商，由各部門負責人督導落實，確保管理程序有效執行；礦場環境部與安全部門定期開展例行檢查，對各環節合規性進行驗證與評估。

We strictly comply with the environmental protection laws and regulations of the countries and regions where our projects are located to properly dispose of various wastes generated during production and operations. This primarily includes the DRC's new "Mining Code" and "Mining Regulations," and other core regulations. Based on local mining norms and regulatory requirements, and combining their actual operational situations, each affiliated mine references the ISO 14001 environmental management system standards to formulate specific management procedures for hazardous and non-hazardous waste respectively. At the same time, waste management responsibilities are cascadingly assigned down to all employees, cooperative suppliers, and contractors, with department heads overseeing implementation to ensure the management procedures are effectively executed. The mine's environmental and safety departments conduct regular routine inspections to verify and evaluate the compliance of all processes.

我們生產營運中產生的固體廢棄物，主要為採礦、選礦環節所產生的廢石料、廢塑料、廢木材等，該類廢棄物普遍具備體積大、產量高的特點。對此，我們嚴格實施分類收集、規範存儲管理，並在全面符合環保相關標準要求的前提下，因地制宜採取科學合適的處置方式，對可回收利用的廢棄物推進資源化回收再利用，其餘則運至指定專用填埋場進行安全處置，最大限度降低固體廢棄物對環境的影響。針對廢油、廢油過濾器、廢棄電池、廢熒光管、墨盒、醫療廢棄物等有害廢棄物，我們制定了更為嚴格的專項管理程序，嚴防因收集、儲存、運輸及處置環節操作不當引發的意外洩漏、釋放問題，從而杜絕有害物質對土壤、水體及空氣造成污染。

The solid waste generated in our production and operations primarily consists of waste rock, waste plastics, waste wood, etc., produced during the mining and beneficiation processes. These wastes generally have the characteristics of large volume and high output. In response, we strictly implement classified collection and standardized storage management. On the premise of full compliance with relevant environmental standards, we adopt scientifically appropriate disposal methods tailored to local conditions, promoting resource recovery and recycling for recyclable wastes, while transporting the rest to designated dedicated landfills for safe disposal, minimizing the environmental impact of solid waste as much as possible. Regarding hazardous wastes such as waste oil, waste oil filters, discarded batteries, waste fluorescent tubes, ink cartridges, and medical waste, we have formulated even stricter specific management procedures. We strictly prevent accidental leaks and releases caused by improper operations during collection, storage, transportation, and disposal, thereby eliminating soil, water, and air pollution caused by hazardous substances.

無害廢棄物管理 Non-Hazardous Waste Management

<p>減少排放 Emission Reduction</p>	<ul style="list-style-type: none"> ▶ 設置年度廢棄物排放量化目標，嚴格實施廢棄物減排計劃對有價值的廢棄物進行回收再利用，或委託第三方機構進行回收 <p>Set quantitative annual waste emission targets and strictly implement waste reduction plans. Recycle valuable waste or entrust third-party organizations to conduct recycling.</p>
<p>隔離存放 Segregated Storage</p>	<ul style="list-style-type: none"> ▶ 對固體廢棄物採取嚴格的隔離措施，與危險廢棄物分開存放，在運輸過程中特別注意防止各類廢棄物混合，確保運輸安全 <p>Adopt strict segregation measures for solid waste, storing it separately from hazardous waste. Pay special attention to preventing the mixing of various wastes during transportation to ensure transportation safety.</p>
<p>合規處置 Compliant Disposal</p>	<ul style="list-style-type: none"> ● 明確禁止將焚燒作為廢棄物的處置方式 Explicitly prohibit incineration as a waste disposal method ● 固體廢棄物的處置必須在指定地點進行：已劃定回收專區，用於以下類別廢棄物的臨時處置：i) 金屬廢棄物 ii) 橡膠 / 橡膠製品 iii) 一般廢棄物（塑膠、木材、瓶罐、食物殘渣等） iv) 標示清晰之儲存區隔 <p>The disposal of solid waste must be carried out in designated locations: designated recycling areas have been delineated for the temporary disposal of the following categories of waste: i) Metal waste ii) Rubber / rubber products iii) General waste (plastics, wood, bottles/cans, food residues, etc.) iv) Clearly marked storage partitions.</p> <ul style="list-style-type: none"> ● 一般廢棄物可交由具備相應資質的第三方機構負責處置 <p>General waste can be handed over to third-party organizations with corresponding qualifications for disposal.</p>

Ruashi 礦場 Ruashi Mine

2025年，Ruashi礦場針對主要廢棄物訂立年度減量目標，有序推進廢棄物減量化實施計劃。

In 2025, the Ruashi Mine set annual reduction targets for major wastes and systematically advanced the implementation plan for waste reduction.

Kinsenda 礦場 Kinsenda Mine

在Kinsenda礦場廢棄物管理方面，以廢輪胎為例：過去，所有廢輪胎均被運至填埋場處置，當地居民會自行拾取並加工製成捆紮煤袋的繩索；如今，越來越多的廢輪胎被用於尾礦庫作業，鋪設成庫區台階並築建庫區邊界。

Regarding waste management at the Kinsenda Mine, taking waste tires as an example: in the past, all waste tires were transported to the landfill for disposal, where local residents would pick them up and process them into ropes for tying coal sacks; today, an increasing number of waste tires are used in tailings dam operations, laid out as dam steps and building reservoir boundaries.

Kinsenda礦場產生的所有金屬廢料均統一集中儲存，並運至穆索希開展回收再利用，2025年全年共完成131噸金屬廢料的轉運處置。

All scrap metal generated by Kinsenda Mine is uniformly stored centrally and transported to Musoshi for recycling and reuse. Throughout 2025, a total of 131 tonnes of scrap metal were transferred and disposed of.

Musonoi 礦場 Musonoi Mine

Musonoi礦場已建成一座永久性主體廢棄物填埋場，並於2025年正式投用，場內劃設有不同類別廢棄物的專用儲存區隔。

The Musonoi Mine has constructed a permanent main waste landfill, which officially commenced use in 2025. The site features dedicated storage partitions for different categories of waste.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場聘請具備相關許可證及合法授權的第三方機構，定期上門對礦場固體廢棄物進行統一收集處置。

The Chibuluma South Mine hires third-party organizations with relevant permits and legal authorizations to regularly collect and dispose of the mine's solid waste in a unified manner.

有害廢棄物管理 Hazardous Waste Management

存放與標識 Storage and Labeling

- ▶ 我們要求所有類別的危險廢棄物不得提供或出售予未持有危廢運輸或處理許可證的第三方機構及組織，亦不得隨意傾倒在任何未經許可的垃圾場；我們要求所有危險廢棄物應當儲存在指定的儲存地或設施中，進行分類存放與規範管理，並設置清晰醒目的警告標識，以防止誤觸或誤用導致安全事故。

We require that no categories of hazardous waste be provided or sold to third-party institutions or organizations that do not hold hazardous waste transportation or treatment licenses, nor should they be arbitrarily dumped in any unlicensed dump site. We require all hazardous waste to be stored in designated storage areas or facilities, managed through classification and standardization, and equipped with clear and conspicuous warning signs to prevent safety accidents caused by accidental contact or misuse.

應急準備 Emergency Preparedness

- ▶ 我們制定詳盡的危險廢棄物應急預案，要求各個危廢儲存地均配備消防應急裝備、洩漏工具包及急救設備，確保危廢洩漏事故的影響能夠得到及時有效的控制，避免人員傷亡或財產損失。

We formulate detailed emergency response plans for hazardous waste, requiring all hazardous waste storage sites to be equipped with firefighting emergency equipment, spill kits, and first aid equipment to ensure that the impacts of hazardous waste leakage accidents can be controlled promptly and effectively, preventing casualties or property losses.

人員管理 Personnel Management

- ▶ 我們嚴格限制未經授權的人員接觸危險廢棄物，並定期組織負責處理或運輸危廢的人員開展應急演練及培訓活動，以保障其具備充分的應急意識及技能；我們為危廢作業人員配備專門的防護裝備，最大限度地降低危廢可能造成的職業健康與安全風險。

We strictly restrict unauthorized personnel from accessing hazardous waste, and regularly organize emergency drills and training activities for personnel responsible for handling or transporting hazardous waste to ensure they possess sufficient emergency awareness and skills. We provide specialized protective equipment to hazardous waste operation personnel, maximizing the reduction of occupational health and safety risks that hazardous waste may pose.

有害廢棄物處置規範 Hazardous Waste Disposal Specifications

Ruashi 礦場 Ruashi Mine

Ruashi礦場現行有害廢棄物管控指標為：信息科技廢棄物每月不超過20千克、醫療廢棄物每月48千克、廢油每月不超過25,000升。2026年扣式電池（鹼性電池等）專項管理方案已完成制定，並將於該年度正式落地實施。為進一步推進有害廢棄物減量化，環保部門將於2026年向管理層提交兩項優化提案：其一，推廣使用液態噴墨，以塑料瓶替換墨盒，減少墨盒廢棄量；其二，在內部經營管理中盡可能推行電子簽章，降低墨盒及紙張耗材使用量。

The current hazardous waste control targets for the Ruashi Mine are: IT waste not exceeding 20 kg per month, medical waste 48 kg per month, and waste oil not exceeding 25,000 liters per month. The 2026 special management plan for button cells (alkaline batteries, etc.) has been formulated and will be officially implemented within that year. To further advance the reduction of hazardous waste, the environmental protection department will submit two optimization proposals to the management in 2026: first, promote the use of liquid inkjet and replace ink cartridges with plastic bottles to reduce cartridge waste; second, implement electronic signatures as much as possible in internal business management to reduce the consumption of ink cartridges and paper.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場廢油經統一收集後儲存於鐵桶中，隨後無償提供予特定合作方，由其運至場外進行回收再利用，或應用於建築領域，作為制磚原料使用。

Waste oil at the Kinsenda Mine is centrally collected and stored in iron drums, then provided free of charge to specific partners, who transport it off-site for recycling and reuse, or apply it in the construction sector as raw material for brickmaking.

Musonoi 礦場 Musonoi Mine

現階段，Musonoi礦場產生廢油量相對有限，相關廢油均存放於現場安全且防護完備之區域。

At the current stage, the volume of waste oil generated by the Musonoi Mine is relatively limited, and the relevant waste oil is stored in secure and well-protected areas on-site.

廢棄油品交由剛果（金）政府認證之企業進行回收處置。採礦活動產生之主要危險廢棄物為廢油與廢電池，各類廢棄物均經分類後，運送至指定填埋場實施處置。

The waste oil is handed over to enterprises certified by the DRC government for recycling and disposal. The main hazardous wastes generated by mining activities are waste oil and discarded batteries. All types of waste are classified and transported to designated landfills for disposal.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場委託具備合法許可及資質授權之第三方機構，定期前來礦場收集固體廢棄物及廢油等危險廢棄物。於化學品包裝等危險廢棄物處理作業期間，礦場嚴格要求作業人員穿戴完整個人防護裝備，並將危險廢棄物統一存放至指定核准區域，確保後續處置流程合規有序。

The Chibuluma South Mine entrusts third-party institutions with legal permits and qualifications to regularly visit the mine to collect solid waste and hazardous waste such as waste oil. During hazardous waste handling operations such as chemical packaging, the mine strictly requires operators to wear complete personal protective equipment and store hazardous waste uniformly in designated approved areas to ensure that subsequent disposal processes are compliant and orderly.

透過制度落實、環境監測與審計機制，公司持續追蹤有害廢棄物管理績效。報告期內，主要營運礦區均未發生重大有害廢棄物事故或重大環境違規事件，相關管理措施整體運作有效。

Through system implementation, environmental monitoring, and audit mechanisms, the Company continuously tracks hazardous waste management performance. During the Reporting Period, no major hazardous waste accidents or major environmental violations occurred in the main operating mining areas, and the relevant management measures operated effectively overall.

▼ 2023-2025年無害廢棄物處置及回收總量
2023-2025 Total Non-hazardous Waste Disposal and Recycling

指標 Indicator	單位 Unit	2025	2024	2023
無害廢棄物處置量 Non-hazardous waste disposal volume	公噸 Tonnes	146	157	156
已回收無害廢棄物量 Recycled non-hazardous waste volume	公噸 Tonnes	722	849	361

▼ 2023-2025年有害廢棄物總量
2023-2025 Total Hazardous Waste

指標 Indicator	單位 Unit	2025	2024	2023
廢油 Waste oil	升 Liters	92,160	111,540	78,800
醫療廢物總量 Total medical waste	公噸 Tonnes	1.9	2	2
廢棄催化劑總量 Total spent catalysts	公噸 Tonnes	0	80	37
硫渣總量 Total sulfur residue	公噸 Tonnes	8	30	48
IT 廢物 (墨盒) 總量 Total IT waste (ink cartridges)	公噸 Tonnes	1.32	0.63	0.45
廢棄電池總量 Total discarded batteries	公噸 Tonnes	0	0.1	0.00832

水資源管理

WATER RESOURCES MANAGEMENT

負責任的水資源管理是金川國際的重要議題。採礦活動涉及大量地下水處理，而選礦與冶煉工序亦需消耗龐大水資源，因此保障清潔、安全的水資源，對公司日常生產營運及周邊社區生活均至關重要。基於此，我們在營運全流程高度重視水資源管理，持續提升用水效率，致力減少對水資源環境的負面影響。

Responsible water resources management is a material issue for JCI. Mining activities involve the treatment of a large amount of groundwater, and beneficiation and smelting processes also consume massive water resources; therefore, ensuring clean and safe water resources is crucial to both the Company's daily production operations and the lives of surrounding communities. Based on this, we attach great importance to water resources management throughout the entire operational process, continuously improve water use efficiency, and strive to reduce adverse impacts on the water environment.

取用水管理 Water Intake and Usage Management

我們嚴格遵守項目所在地的法律法規，要求各礦場依據當地氣候、地質條件及採礦作業特性，制訂專屬的用水管理政策與措施，盡可能降低淡水消耗及非必要廢水排放。Metorex SHEC 委員會作為各礦場水資源管理的最高監督機構，為現場營運提供專業的安全與環境管理指導，並確保各項水資源管理措施有效落實。2025 年，金川國際於取水作業方面運作順利，並無出現任何與取水用水相關的重大事故。

We strictly comply with the laws and regulations of the jurisdictions where our projects are located, requiring each mine to formulate specific water management policies and measures based on local climate, geological conditions, and mining operational characteristics, to minimize freshwater consumption and unnecessary wastewater discharge. The Metorex SHEC Committee, serving as the highest supervisory body for water resources management at all mines, provides professional safety and environmental management guidance for on-site operations and ensures the effective implementation of all water resources management measures. In 2025, JCI operated smoothly in terms of water intake operations, and there were no major accidents related to water intake and usage.



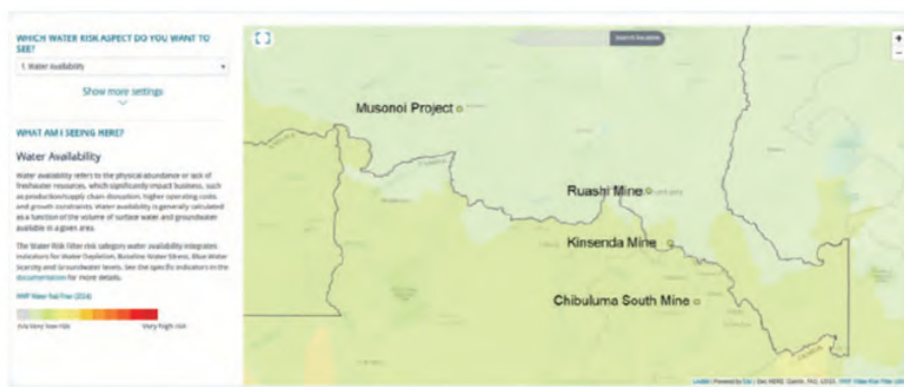
◆ 水資源風險識別
Water Resources Risk Identification

採礦作業涉及大量水資源的使用與處理，若未能有效識別及管理相關風險，可能導致水資源短缺、水體污染或生態破壞，從而對企業營運及周邊社區的可持續發展構成影響。因此，精準識別並妥善管理水資源風險，既能保障生產營運穩定，亦可維護生態平衡，助力實現可持續發展目標。

Mining operations involve the use and treatment of substantial water resources. If related risks are not effectively identified and managed, it may lead to water scarcity, water pollution, or ecological damage, thereby impacting corporate operations and the sustainable development of surrounding communities. Therefore, accurately identifying and appropriately managing water resources risks can safeguard the stability of production operations, maintain ecological balance, and help achieve sustainable development goals.

我們持續識別、管理及監控礦場營運過程中的水資源風險。2025 年，我們繼續採用世界自然基金會 (WWF) 水風險過濾器 (Water Risk Filter)，並依據 WWF 最新版水風險評估方法論⁷，評估各生產營運地點所處區域的水風險等級與水資源可用性狀況。評估結果顯示，我們現有兩個礦場及一個融資租賃項目所在地區的水資源可用性風險評分均低於 2 分，對應風險等級為「非常低」，反映有關區域不屬於水資源緊張地區。

We continuously identify, manage, and monitor water resources risks during mine operations. In 2025, we continued to use the World Wildlife Fund (WWF) Water Risk Filter, assessing the water risk levels and water resource availability in the regions where our production and operational sites are located based on the latest WWF water risk assessment methodology⁷. The assessment results indicate that the water resource availability risk scores for the regions of our three existing mines and one financial lease project are all below 2, corresponding to a 'very low' risk level, reflecting that the relevant areas do not fall under water-stressed regions.



WWF水風險過濾器評估結果
WWF Water Risk Filter Assessment Results

7. 水資源可用性是指淡水資源的實際豐富程度或缺乏程度，這對企業有重大影響，例如生產 / 供應鏈中斷、營運成本上升以及成長受限。水資源可用性通常是以特定區域的地表水及地下水可用量來計算。

Water resource availability refers to the actual abundance or scarcity of freshwater resources, which is of great importance to companies. Its impacts mainly include disruptions in production/supply chains, increased operational costs, and constrained growth. Water resource availability is generally calculated based on the volume of surface water and groundwater available in a certain region.

◀ 循環用水

Water Recycling

我們持續優化生產工藝、升級水處理設施，並引入先進的水資源管理技術，於生產過程中優先推動循環水利用與製程優化，減少對外部淡水資源的依賴，並透過沉澱、回收及再利用系統降低單位產量用水強度，逐步朝向節水型生產模式轉型。

We continuously optimize production processes, upgrade water treatment facilities, and introduce advanced water resources management technologies. We prioritize the promotion of water recycling and process optimization during production to reduce reliance on external freshwater resources. By employing sedimentation, recovery, and reuse systems, we lower the water consumption intensity per unit of yield and gradually transition toward a water-saving production model.

Ruashi 礦場

Ruashi Mine

報告期內，Ruashi 礦場積極開展水平衡分析，覆蓋礦石浸出、洗滌及回收等整個工藝流程的用水情況，從而全面掌握用水來源與去向，精準識別用水效率偏低環節，及時發現並整改潛在浪費。與此同時，Ruashi 礦場實行閉路循環水系統，透過建設雨水壩及尾礦壩收集雨水與尾礦水，並將其回用至生產工序，實現水資源閉環循環利用，以有效降低整體耗水量，並盡可能將水資源保留於礦區內部循環使用。

本礦區實際水資源儲備高於生產所需，多餘水資源會輸送至當地政府自來水機構 Regideso，用於滿足社區用水需求。

有關耗水量目標，報告期內並無更新。2025 年，Ruashi 礦場繼續設定每年減少 5% 總用水量的效率目標，並已於年內順利達成。未來，礦場將持續強化節水措施，進一步提升水資源循環及回用水平。

During the Reporting Period, the Ruashi Mine actively conducted water balance analyses covering water usage throughout the entire process flow, including ore leaching, washing, and recovery, thereby fully grasping the sources and destinations of water, accurately identifying links with low water efficiency, and promptly detecting and rectifying potential waste. Concurrently, the Ruashi Mine implemented a closed circuit for water. By constructing rainwater dams and tailings dams, it collects rainwater and tailings water and reuses them in production processes, achieving closed-circuit recycling of water resources to effectively reduce overall water consumption and retain water resources within the mine for internal recycling as much as possible.

The actual water resource reserves of this mining area exceed production needs, and surplus water resources are transported to the local government water authority, Regideso, to meet community water demands.

Regarding water consumption targets, there were no updates during the Reporting Period. In 2025, the Ruashi Mine continued to set an efficiency target of reducing total water consumption by 5% annually, which was successfully achieved during the year. In the future, the mine will continue to strengthen water-saving measures to further elevate the level of water resource recycling and reuse.

Kinsenda 礦場 Kinsenda Mine

Kinsenda 礦場於日常營運中強化節水管理，及時識別並處理跑冒滴漏問題，杜絕水資源浪費。本礦場供水狀況穩定，井下水源充足，可滿足生產加工及水循環利用需求，同時尾礦處理後的循環水亦可用於生產工序。

Kinsenda 礦場持續利用井下裂隙水作為生產用水，完善東部井下 335ml 及西部井下 360ml 供水系統建設，從而降低地表工業供水量，減輕井下排水壓力。與此同時，礦場在地表工程部設置沉澱水池，將井下排出水進行二次利用，用於井下及地表生產。此外，礦場亦建立雨水收集與管理機制，建設清水與污水分離溝渠，將廠區徑流水匯集至工藝水壩，經合規處理後排放至場外。

The Kinsenda Mine strengthened water-saving management in its daily operations, promptly identifying and handling leaks, drips, and spills to eliminate water waste. The mine has a stable water supply, with sufficient underground water sources to meet the needs of production processing and water recycling; meanwhile, the recycled water after tailings treatment can also be reused in production processes.

The Kinsenda Mine continued to utilize underground fissure water as production water and improved the construction of the underground 335ml eastern and 360ml western water supply systems, thereby reducing surface industrial water supply volume and alleviating underground drainage pressure. At the same time, the mine set up settling ponds at the surface engineering department for the secondary utilization of underground discharged water for underground and surface production. Additionally, the mine established a rainwater collection and management mechanism, constructing separation channels for clean water and sewage to collect surface runoff from the plant area into the process water dam, which is discharged off-site after compliant treatment.



Musonoi 礦場 Musonoi Mine

Musonoi礦場已建設並實施水管理系統，對特許礦區內的雨水進行統一收集與管控。礦場通過排水溝對未受污染的地表徑流雨水實施分流，並經廠區外圍主下水道匯集至廠區廢水蓄水池，經淨化處理後泵送回用至生產流程，實現雨水資源化利用。

在水源獲取方面，礦場採用礦井排水、地下水及雨水收集相結合的綜合取水模式，確保供水穩定，同時減少對當地生態環境及社區水源的影響。生產用水主要用於浮選工藝、設備冷卻及粉塵抑制等環節，並透過閉路水循環系統，對廢水實行源頭分質管理。為進一步強化水質處理與供水穩定性，礦場實施多項水資源設施優化工程：於井下 140ml、400ml 及 540ml 泵房水倉區域各增設二級沉澱池，並於地表修建 400ml 集水沉澱池，確保生產供水穩定及水質符合生產要求。

在廢水處理與回用方面，礦場運用物理及化學處理技術，實現廢水高比例回用，處理後的礦井水可用於生產、生態及生活用途。同時，礦場持續優化核心設備，提升用水效能，降低單位產品水耗。

礦場亦全面落實施工現場及其他作業區域的節水措施，杜絕水龍頭未關閉等浪費情況；車間及車庫產生的廢水及污染水透過閉環系統統一收集，並分離油脂成分後輸送至廢油儲罐妥善處置。

The Musonoi Mine has constructed and implemented a water management system to uniformly collect and control rainwater within the concession area. The mine diverts uncontaminated surface runoff rainwater through drainage ditches and collects it into the plant's wastewater reservoir via the main sewer around the plant. After purification treatment, it is pumped back for reuse in the production process, achieving the resource utilization of rainwater.

Regarding water sourcing, the mine adopts a comprehensive water intake model combining mine drainage, groundwater, and rainwater collection to ensure a stable water supply while reducing impacts on the local ecological environment and community water sources. Production water is primarily used in flotation processes, equipment cooling, and dust suppression. Through a closed-circuit water circulation system, wastewater is managed by source segregation and quality. To further strengthen water quality treatment and water supply stability, the mine implemented several water resources facility optimization projects: adding secondary settling ponds in the sump areas of the underground 140ml, 400ml, and 540ml pump rooms, and constructing a 400ml catchment settling pond on the surface, ensuring stable production water supply and water quality meeting production requirements.

In terms of wastewater treatment and reuse, the mine utilizes physical and chemical treatment technologies to achieve a high proportion of wastewater reuse. The treated mine drainage can be used for production, ecological, and domestic purposes. At the same time, the mine continuously optimizes core equipment to enhance water efficiency and reduce unit product water consumption.

The mine also comprehensively implements water-saving measures in construction sites and other operational areas to eliminate waste such as unclosed faucets; wastewater and contaminated water generated in workshops and garages are uniformly collected through a closed-loop system, and after separating grease components, they are transported to waste oil storage tanks for proper disposal.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma 南礦場為進一步推動水資源循環利用，並盡可能減少自鄰近 Kalulushi 溪流抽取工業用水，於報告期內制訂及推行綜合用水管理方案。該方案涵蓋三類水源：自 Chifupu 井下抽取並輸送至水庫的水、尾礦設施沉澱池經固液分離後的清水以及自鑽孔抽取並直接供應廠區的地下水。此外，礦場設有專用水處理廠，對上述三類水源進行統一處理，確保水質滿足生產及相關用途要求，顯著降低對周邊自然水體的依賴。

To further promote water resource recycling and minimize the extraction of industrial water from the adjacent Kalulushi stream as much as possible, the Chibuluma South Mine formulated and implemented a comprehensive water management plan during the Reporting Period. The plan covers three types of water sources: water extracted from the underground Chifupu mine and transported to the reservoir, clear water separated from solids in the settling ponds of tailings facilities, and groundwater extracted from boreholes and supplied directly to the plant. Furthermore, the mine has a dedicated water treatment plant that uniformly treats the aforementioned three types of water sources to ensure water quality meets production and related usage requirements, significantly reducing reliance on surrounding natural water bodies.

▼ 2023-2025年水消耗情況
2023-2025 Water Consumption Status

指標 Indicator	單位 Unit	2025	2024	2023
淡水耗量 Freshwater consumption	立方米 Cubic meters	5,703,751	2,393,519	2,513,030
耗水密度 Water consumption intensity	立方米 / 噸銅產量 Cubic meters/tonne of copper production	124	38	41

排水管理 Wastewater Discharge Management

工業廢水主要產生於採礦與選礦營運過程。我們於各礦場均對廢水污染物實施監測，監測指標主要包括酸鹼物質、油類、各類重金屬、氰化物及氟化物等。我們將廢水排放管理列為重點工作，優先對廢水進行妥善處理，最大程度實現廠區內循環再用，並確保外排廢水不會對環境造成重大不利影響。

Industrial wastewater is mainly generated during the mining and beneficiation operations. We monitor wastewater pollutants at all mines; monitoring indicators primarily include acidic/alkaline substances, oils, various heavy metals, cyanides, and fluorides. We list wastewater discharge management as a priority task, giving precedence to the proper treatment of wastewater, maximizing internal recycling and reuse within the plant area, and ensuring that external wastewater discharge does not cause major adverse environmental impacts.

◆ 水質監測與管理

Water Quality Monitoring and Management

我們充分意識到，礦場採礦活動可能釋放污染物，對地下水、河流水等水體造成不利影響，而污染物一旦滲入地下水層，更可能隨地下水流擴散至更廣區域。為妥善管理礦區周邊水資源，我們於營運層面制訂詳盡的水資源管理流程，並定期對可能受礦區影響的水體實施監測，全面掌握周邊環境水質狀況，評估水資源管理策略的實施成效，同時，我們持續針對水環境影響風險開展動態監測，並針對未來潛在水質風險進行預測評估，相關作業亦納入對當地利益相關方之潛在影響分析，確保各項風險可識別、可管控。

We are fully aware that mining activities may release pollutants, causing adverse impacts on water bodies such as groundwater and rivers, and once pollutants infiltrate groundwater aquifers, they may spread to a wider area with the groundwater flow. To properly manage water resources around the mining areas, we have formulated detailed water resources management processes at the operational level and regularly monitor water bodies that may be affected by the mining areas to fully grasp the water quality status of the surrounding environment and evaluate the implementation effectiveness of water resources management strategies. Concurrently, we continuously conduct dynamic monitoring of water environmental impact risks and conduct predictive assessments of future potential water quality risks. Relevant operations are also integrated into the potential impact analysis on local stakeholders to ensure all risks are identifiable and controllable.

Ruashi 礦場

Ruashi Mine

2025年，Ruashi礦場與盧本巴希大學實驗室開展合作，共同開展水質監測工作。雙方每季度採集地下水、河流水等水體樣本，進行系統的水質化驗與分析，重點檢測樣水中各類化學元素及化合物的濃度，核心監測參數包括pH值、導電率、溶解性固體總量，以及溶解態鈷、銅、錳、鋅、鐵、硫化物等；同時，檢測報告亦對化學需氧量（COD）、五日生化需氧量（BOD₅）、微生物含量，以及水體透明度、氣味、濁度等指標進行了嚴謹評估與分析，全面判斷採樣水體是否符合工業排放及衛生標準要求。

In 2025, the Ruashi Mine collaborated with the laboratory of the University of Lubumbashi to jointly conduct water quality monitoring. Both parties collect water samples from groundwater, rivers, and other water bodies quarterly for systematic water quality testing and analysis, focusing on detecting the concentrations of various chemical elements and compounds in the samples. Core monitoring parameters include pH value, electrical conductivity, total dissolved solids, and dissolved cobalt, copper, manganese, zinc, iron, sulfides, etc.. Additionally, the test reports stringently evaluate and analyze indicators such as chemical oxygen demand (COD), five-day biochemical oxygen demand (BOD₅), microbial content, as well as water transparency, odor, and turbidity, comprehensively judging whether the sampled water bodies meet industrial discharge and sanitary standard requirements.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場尾礦將礦漿輸送至尾礦庫 (TSF)，固體顆粒在庫內沉澱，上清液則經連接尾礦庫與迴水庫的收集系統及壓力管道進入迴水庫 (RWD)，並回用於選礦磨礦等生產工序，形成生產與尾礦庫之間的閉路循環。由於礦石磨礦粒度較細，尾礦顆粒極細，導致庫內水體長期較為渾濁。為此，礦場添加凝絮劑強化細顆粒沉澱，提升迴水庫水質澄清度，並計劃增設濃縮池進一步強化沉澱效果，確保回用於生產的水體高度澄清。

The Kinsenda Mine transports slurry to the Tailings Storage Facility (TSF), where solid particles settle in the reservoir, and the supernatant liquid enters the Return Water Dam (RWD) via a collection system and pressure pipelines connecting the TSF and RWD. This water is then reused in production processes such as beneficiation and grinding, forming a closed loop between production and the tailings dam. Due to the fine grinding size of the ore, the tailings particles are extremely fine, causing the water in the reservoir to remain turbid over long periods. To address this, the mine adds coagulants and flocculants to enhance the settlement of fine particles, improving the clarity of the water in the RWD, and plans to add thickeners to further enhance settlement effects, ensuring high clarity of the water reused for production.

礦場每月將迴水庫水樣送往 Robinson實驗室進行檢測分析，監測有害元素含量。為應對溢流風險，礦場已規劃建設溢流水庫 (Spillage Dam)，防止水體進入外部環境。此外，礦場亦在 Epoch 公司指導下，開展相關研究以確保水庫系統穩定有效運行。

The mine sends water samples from the RWD to the Robinson Laboratory monthly for testing and analysis to monitor the content of harmful elements. To mitigate overflow risks, the mine has planned the construction of a Spillage Dam to prevent water from entering the external environment. Furthermore, under the guidance of Epoch, the mine conducts relevant research to ensure the stable and effective operation of the reservoir system.

為應對潛在的酸性岩排水 (ARD) 問題，Kinsenda礦場設置專門的酸性岩廢水排放池。礦山採掘生產過程中排出的水呈弱酸性 (pH 值通常約 6.6)，礦場透過在水倉等關鍵區域添加生石灰進行中和處理，使水質呈弱鹼性 (pH 值通常約 7.8)，同時在富含銅離子的水池定期添加石灰粉，中和並沉澱銅離子，實現有價金屬回收，確保排放水符合當地環保要求。

To address potential Acid Rock Drainage (ARD) issues, the Kinsenda Mine has established a dedicated acid rock wastewater discharge pond. The water discharged during the mine extraction process is weakly acidic (pH typically around 6.6). By adding quicklime for neutralization treatment in key areas such as sumps, the mine adjusts the water quality to weakly alkaline (pH typically around 7.8). Simultaneously, lime powder is regularly added to pools rich in copper ions to neutralize and precipitate copper ions, realizing the recovery of valuable metals and ensuring that discharged water meets local environmental requirements.

Complete results													
SAMPLE ID	pH	TDS ppm	Conductivity µmS/cm	TSS ppm	Ca	Mg	S	K	Na	Cu	Zn	Pb	As
AVA1	7.82	24.82	151.3	<10	13.033	7.528	0.881	11.200	3.486	0.257	0.104	0.005	<0.001
ASA	7.82	20.36	142.6	38	13.340	7.103	0.854	11.360	3.182	0.216	0.021	0.014	<0.001
NAB	7.85	89.87	141.2	<10	12.838	7.268	0.263	11.340	3.257	0.224	0.118	0.014	<0.001

SAMPLE ID	Se	V	Cr	Ni	Sb	Mo	Fe	Al	Ba	Mn	Hg	U	B	Sr	Cd
AVA1	<0.001	0.001	<0.001	0.019	0.007	<0.001	0.134	0.010	<0.001	0.206	<0.001	<0.001	<0.001	0.138	<0.001
ASA	<0.001	<0.001	<0.001	0.022	0.007	<0.001	0.148	0.385	<0.001	0.000	<0.001	<0.001	<0.001	0.308	<0.001
NAB	<0.001	0.002	<0.001	<0.001	0.007	<0.001	0.080	0.168	<0.001	0.194	<0.001	<0.001	<0.001	0.368	<0.001

Best regards,
Laboratory Manager (RI Afrique, DRC)

END OF REPORT

Musonoi 礦場 Musonoi Mine

Musonoi礦場秉持科學嚴謹的管理理念，每季度採集水樣並送往大學相關專業實驗室開展水質檢測，採樣點覆蓋井下不同層位、鑽孔及地表區域。檢測報告經彙整後提交公司管理層，實驗室已向項目提交 2025 年度水質分析報告，待政府提出要求後將即時轉交。於目前採礦作業階段，相關活動並未對礦井水造成負面影響，水質分析結果亦未顯示任何異常。

礦場實施分類分質的排水管理措施，生產廢水與生活污水分別進入獨立處理系統。於礦場現階段開發過程中，所取用之水源經品質控制處理及澄清後，循環回用至廠區生產；礦井水則導入沉澱池進行預處理，再回用於工廠生產工序，以減少對新鮮水資源的依賴，提升水資源利用效率。生活污水收集至各設施附近的地下化糞池進行集中處理，以降低污染物排放。此外，車間及車庫產生的含油廢水或污水透過閉環系統收集，油類成分經分離裝置有效分離後輸送至廢油罐妥善處置，避免對環境造成污染。

The Musonoi Mine adheres to a scientific and rigorous management philosophy, collecting water samples quarterly and sending them to specialized university laboratories for water quality testing. The sampling points cover different underground levels, boreholes, and surface areas. The test reports are compiled and submitted to company management; the laboratory has submitted the 2025 annual water quality analysis report to the project, which will be promptly handed over to the government upon request. At the current stage of mining operations, related activities have not caused negative impacts on mine water, and water quality analysis results have not shown any anomalies.

The mine implements drainage management measures classified by source and quality, with production wastewater and domestic sewage entering independent treatment systems respectively. During the mine's current development phase, the water sourced is circulated back to the plant for production after quality control treatment and clarification; mine water is channeled into settling ponds for pre-treatment before being reused in factory production processes, reducing reliance on freshwater resources and enhancing water resource utilization efficiency. Domestic sewage is collected and centrally treated in underground septic tanks near the respective facilities to reduce pollutant discharge. Furthermore, oily wastewater or sewage generated in workshops and garages is collected through a closed-loop system, and after the oil components are effectively separated by separation devices, it is transported to waste oil tanks for proper disposal to avoid environmental pollution.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場設置一套完善的閉環水循環系統。當工廠產生的廢水排入TSF沉澱池時，廢水中的固體物質須於池內充分沉澱；經澄清處理後的清水隨即泵送至水處理廠進行進一步淨化，並於銅加工製程中實現循環利用。同時，從Chifupu井下排出的廢水亦泵送至地表水庫，再轉送至水處理廠處理，處理後的水將於採礦作業中重新使用或循環利用。

Chibuluma南礦場定期委託具專業資質的第三方機構採集水樣並開展廢水排放監測，相關監測結果均符合ZEMA標準要求，詳細水質分析報告同步提交至公司加工廠與環境管理部門，以便實時跟蹤、評估水質狀況，並持續優化工藝流程，確保廢水排放完全合規。

The Chibuluma South Mine has established a comprehensive closed-loop water circulation system. When wastewater generated by the plant is discharged into the settling pond of the TSF, solid matter in the wastewater must be fully settled in the pond; the clarified clean water is then pumped to the water treatment plant for further purification and recycled in the copper processing procedure. Concurrently, the wastewater discharged from underground Chifupu is also pumped to the surface reservoir, then transferred to the water treatment plant for treatment. The treated water will be reused or recycled in mining operations.

The Chibuluma South Mine regularly entrusts third-party institutions with professional qualifications to collect water samples and conduct wastewater discharge monitoring. All monitoring results meet ZEMA standards. Detailed water quality analysis reports are simultaneously submitted to the Chibuluma South Mine's processing plant and environmental management departments for real-time tracking and evaluation of water quality conditions, continuously optimizing process flows to ensure fully compliant wastewater discharge.



生物多樣性與土地利用

BIODIVERSITY AND LAND USE

生物多樣性及土地資源為生產經營活動提供至關重要的食物、燃料及淡水供應，同時亦有助緩解氣候變化帶來的影響。金川國際充分理解礦山開採活動可能對生態環境造成一定影響，因此高度重視生物多樣性保護及土地資源保育工作。為此，我們實施一系列相關措施，包括植樹造林、規範合法採伐、設立土壤污染事故應急程序等，致力加強礦區及周邊社區的環境保護與生態修復工作，盡最大可能降低生產活動對生物多樣性的風險及影響，推動自然和諧與商業活動可持續協調發展。

Biodiversity and land resources provide crucial food, fuel, and freshwater supplies for production and business activities, while also helping to mitigate the impacts of climate change. JCI fully understands that mining activities may cause certain impacts on the ecological environment, and therefore attaches great importance to biodiversity protection and land resource conservation. To this end, we implement a series of relevant measures, including afforestation, standardized legal logging, and the establishment of soil pollution emergency procedures, dedicating ourselves to strengthening environmental protection and ecological restoration in mining areas and surrounding communities. We make every effort to minimize the risks and impacts of production activities on biodiversity, promoting the sustainable and coordinated development of natural harmony and commercial activities.

| 生物多樣性 Biodiversity

生物多樣性與人類福祉息息相關，是人類生存及社會可持續發展的重要基礎。我們旗下各礦場每年均會因應當地實際情況，開展一系列生物多樣性保護行動，持續推動生態保護與復原計劃，致力提升礦區及周邊社區生態系統的穩定性與多樣性。

Biodiversity is closely linked to human well-being and forms a vital foundation for human survival and sustainable social development. Each year, our affiliated mines carry out a series of biodiversity protection actions tailored to actual local conditions, continuously advancing ecological protection and restoration plans, and striving to enhance the stability and diversity of ecosystems in the mining areas and surrounding communities.

金川國際嚴格遵守礦區所在國家與地區之法令規範，包括剛果（金）頒布的《礦業法》、《礦業條例》、《環境保護法》及《森林法》，以及ZEMA管轄的《環境管理法》等。於生產營運過程中，絕不於當地法律明定禁止作業區域內從事任何形式之採礦、建設或其他生產活動。公司於項目規劃與營運管理階段，充分納入生態保護要求，透過合規性審查與環境評估機制，確保各項生產活動均於合法合規區域內執行。同時，公司規劃於集團層面逐步建立相關規章制度，並配合未來業務發展狀況，研議於礦區及周邊區域劃設不同類型的自然保留區或生態保護區，以進一步強化當地生態系與生物多樣性的保護。

公司目前營運之礦區均未位於國家級或地區級自然保護區範圍內。例如，Kinsenda礦場轄下之三個採礦區域均不位於自然保護區範圍內，因此現階段未單獨制訂針對「禁止於自然保護區內營運」之專項制度文件。公司於計劃規劃及開發過程中，主要透過前期環境影響評估及土地合規審查機制，對礦區選址的合法性及生態敏感性進行審查，以確保計劃開發符合當地法令規章及土地管理要求。同時，公司正持續完善生物多樣性與生態保護相關管理體系。Ruashi礦場已提出建立相關政策文件之計劃，未來將於集團層級進一步明確自然保護區及其他生態敏感區域之風險識別與管理要求，並將相關原則納入環境管理體系，以強化對生物多樣性保護議題之制度化管埋。

JCI strictly complies with the statutory regulations of the countries and regions where the mining areas are located, including the "Mining Code", "Mining Regulations", "Environmental Protection Law", and "Forestry Law" promulgated by the DRC, as well as the "Environmental Management Act" governed by ZEMA. During production and operations, we never engage in any form of mining, construction, or other production activities within areas explicitly prohibited by local laws. The Company fully integrates ecological protection requirements during the project planning and operational management phases. Through compliance reviews and environmental assessment mechanisms, we ensure that all production activities are executed within legally compliant areas. At the same time, the Company plans to gradually establish relevant rules and systems at the Group level, and in line with future business development, consider delineating different types of nature reserves or ecological protection zones within and around the mining areas to further strengthen the protection of local ecosystems and biodiversity.

The mining areas currently operated by the Company are not located within national or regional nature reserves. For example, the three mining areas under the jurisdiction of the Kinsenda Mine are not situated within nature reserves; therefore, no specialized policy documents regarding "prohibition of operations within nature reserves" have been formulated independently at this stage. During the project planning and development process, the Company primarily reviews the legality and ecological sensitivity of the mine site selection through preliminary environmental impact assessments and land compliance review mechanisms to ensure project development meets local legal regulations and land management requirements. Concurrently, the Company is continuously refining management systems related to biodiversity and ecological protection. The Ruashi Mine has proposed a plan to establish relevant policy documents; in the future, the Group level will further clarify risk identification and management requirements for nature reserves and other ecologically sensitive areas, incorporating relevant principles into the environmental management system to strengthen the institutionalized management of biodiversity protection issues.

透過持續完善政策架構、加強生態風險識別及推動制度建立，公司將進一步強化對生態敏感區域的保護，確保礦業營運活動與自然生態環境達到更協調、可持續的發展。

By continuously improving the policy framework, enhancing ecological risk identification, and promoting the establishment of systems, the Company will further strengthen the protection of ecologically sensitive areas, ensuring a more coordinated and sustainable development between mining operational activities and the natural ecological environment.

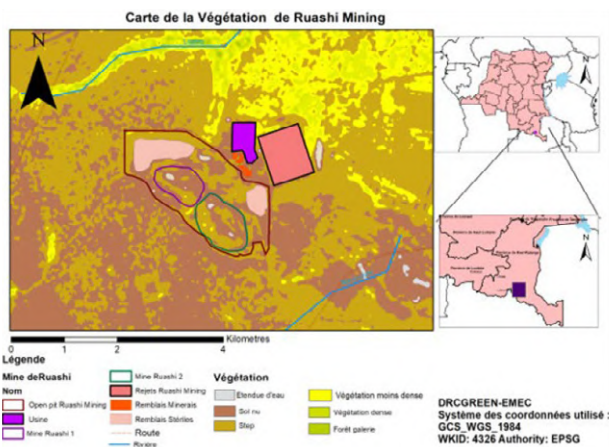
Ruashi 礦場 Ruashi Mine

Ruashi礦場將生態保護貫穿礦業營運全週期。自開採階段起至場地正式關閉後，礦場持續推進植被恢復計劃，目標在於修復至開採前的原生植被覆蓋狀態，或實現符合環保要求的可行土地替代用途；同時，嚴格保護特許權區域內的白蟻丘植被，以維護局部生態系統完整性與穩定性。

The Ruashi Mine integrates ecological protection throughout the entire lifecycle of mining operations. From the extraction phase until the formal closure of the site, the mine continuously advances vegetation restoration plans, aiming to restore the native vegetation cover to its pre-mining state or achieve viable alternative land uses that meet environmental requirements. At the same time, it strictly protects vegetation on termite mounds within the concession area to maintain the integrity and stability of the local ecosystem.

在敏感生態保護方面，礦場避免對沼澤等敏感區域造成任何不必要干擾，僅基於汛期排水需求開展必要的管道建設工程，不進行其他基礎設施開發；並建立常態化監測機制，持續跟蹤敏感區域的生態動態，確保其水文循環與生態功能始終保持穩定，切實履行環境保護的法定義務與可持續發展承諾。

In terms of sensitive ecological protection, the mine avoids any unnecessary disturbance to sensitive areas such as swamps, conducting only necessary pipeline construction projects based on flood season drainage needs, and undertaking no other infrastructure development. It has also established a normalized monitoring mechanism to continuously track the ecological dynamics of sensitive areas, ensuring their hydrological cycle and ecological functions remain stable, thereby practically fulfilling the statutory obligations of environmental protection and the commitment to sustainable development.



Ruashi礦場植被分佈地圖
Ruashi Mine Vegetation Distribution Map

Kinsenda 礦場

Kinsenda Mine

Kinsenda礦場制定完善的環境影響緩解與修復方案，並編製對應的環境管理計劃，全面落實各項緩解及修復措施，確保經營活動符合當地法規要求。

The Kinsenda Mine has formulated comprehensive environmental impact mitigation and restoration plans, and compiled corresponding environmental management plans to fully implement various mitigation and restoration measures, ensuring operational activities comply with local regulatory requirements.

礦場採用地下開採方式，最大程度減少對地表自然環境的干擾；如需進行必要的林木砍伐，均已向國家林業局提交申請並獲得批准，嚴格遵守可控砍伐要求。

The mine adopts underground mining methods to minimize disturbance to the surface natural environment to the greatest extent possible. If necessary tree felling is required, applications are submitted to the national forestry bureau and approval is obtained, strictly adhering to controlled felling requirements.

為守護生物多樣性，礦場採用閉環營運模式：水資源實施全流程循環利用，未向自然環境直接排放；地下水經礦井底部石灰注入處理後，方排放至地表自然環境，且對水體 pH 值實施常態化監測，杜絕污染風險。

To safeguard biodiversity, the mine adopts a closed-loop operational model: full-process recycling of water resources is implemented without direct discharge into the natural environment; groundwater is discharged to the surface natural environment only after lime neutralisation treatment at the bottom of the mine shaft, and routine monitoring of the water pH value is implemented to eliminate pollution risks.

此外，礦場對地下水等自然資源開展長期監測，確保營運過程中產生的廢棄物及各類污染物不進入自然生態系統；每年定期組織員工開展植樹造林活動，並向當地居民宣傳森林保護理念，呼籲停止亂砍濫伐等破壞生態的行為。礦場亦通過引進多種植物品種，進一步強化自然環境保護成效。

Additionally, the mine conducts long-term monitoring of natural resources such as groundwater to ensure that waste and various pollutants generated during operations do not enter the natural ecosystem. Annually, employees are regularly organized to participate in afforestation activities, and forest protection concepts are promoted to local residents, calling for an end to ecologically destructive behaviors such as illegal logging and indiscriminate felling. The mine further strengthens natural environmental protection outcomes by introducing various plant species.

Musonoi 礦場 Musonoi Mine

Musonoi礦場嚴格遵循剛果（金）相關法律規定，該等法律條款明確生物多樣性保護事務由礦業環境保護司（DPEM）負責監管，項目嚴格服從該政府機構的監管要求，築牢生物多樣性保護合規底線。

在具體執行層面，礦場堅決恪守法律禁令，決不在當地法律禁止的區域開展任何森林砍伐活動；同時，嚴格按照法律強制要求，逐步制定科學完備的植樹造林計劃，並有序推進落地實施，以積極行動履行生物多樣性保護的法定義務與可持續發展承諾。

The Musonoi Mine strictly complies with the relevant legal provisions of the DRC. These legal clauses explicitly state that biodiversity protection affairs are supervised by the Directorate for the Protection of the Mining Environment (DPEM), and the project strictly obeys the regulatory requirements of this government agency, building a solid compliance bottom line for biodiversity protection.

At the specific execution level, the mine resolutely abides by legal prohibitions and never conducts any deforestation activities in areas prohibited by local laws. Simultaneously, in strict accordance with mandatory legal requirements, it gradually formulates scientifically sound afforestation plans and methodically advances their implementation, fulfilling the statutory obligations of biodiversity protection and the commitment to sustainable development through proactive actions.



Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場嚴格遵循ZEMA關於生物多樣性保護的各項規管要求，在礦區範圍內堅持不擅自砍伐樹木，全力守護原生植被與生態平衡。

為進一步強化環境保護成效，礦場積極推進尾礦庫周邊的植被恢復工作，通過植被覆蓋幫助穩固尾礦壩體結構，有效預防土壤侵蝕及溝壑形成，降低生態風險；同時，建立油類污染防控機制，定期檢查撇油器運作狀態，確保廢水中的油類物質徹底分離，杜絕其進入自然生態環境造成污染。

項目嚴格履行環境信息披露義務，已向ZEMA提交雙年度環境報告。



Ruashi礦場植樹活動
Ruashi Mine Tree Planting Activity

The Chibuluma South Mine strictly adheres to various regulatory requirements regarding biodiversity protection from ZEMA. It insists on no unauthorized tree felling within the mining area, striving to protect native vegetation and ecological balance.

To further enhance environmental protection effectiveness, the mine actively promotes vegetation restoration work around the tailings dam. By utilizing vegetation cover to help stabilize the tailings dam structure, it effectively prevents soil erosion and gully formation, reducing ecological risks. Meanwhile, it has established an oil pollution prevention and control mechanism, regularly checking the operational status of oil skimmers to ensure oil substances in wastewater are completely separated, preventing them from entering the natural ecological environment and causing pollution.

The project strictly fulfills its environmental information disclosure obligations and has submitted a biennial environmental report to ZEMA.

生態應急處置 Ecological Emergency Response

我們嚴格遵循項目所在地採礦相關條例要求，在礦場日常營運體系中專門制定《應急準備與響應計劃》。該計劃針對火災、化學品洩漏、放射性同位素及生物危害擴散、酸類或其他腐蝕性試劑洩漏等各類潛在突發場景，分場景明確了標準化應急處置流程與專項防控措施，確保事故發生時能夠快速響應、有效控制影響範圍，最大限度降低對人員安全及生態環境的污染風險，築牢礦場安全環保營運防線。

We strictly adhere to the requirements of mining-related regulations in the project locations, specifically formulating an "Emergency Preparedness and Response Plan" within the daily operational system of the mines. Targeting various potential emergency scenarios such as fires, chemical spills, the spread of radioactive isotopes and biohazards, and the leakage of acids or other corrosive reagents, the plan specifies standardized emergency response procedures and dedicated prevention and control measures for each scenario. This ensures a rapid response and effective control of the impact scope when accidents occur, minimizing pollution risks to personnel safety and the ecological environment to the greatest extent, and fortifying the mine's safe and environmentally friendly operational defenses.

一般化學品洩漏 General chemical spills

- 立即確保洩漏區域附近所有人員的安全；
- 向負責安全管理的人員通報洩漏事件，啟動應急響應機制；
- 疏散洩漏點周邊的緊急區域，並嘗試控制洩漏；場地內戰略位置已配備洩漏應急箱 (spill kits)。
- Immediately ensure the safety of all personnel near the spill area;
- Notify personnel responsible for safety management about the spill event and activate the emergency response mechanism;
- Evacuate the immediate area around the spill point and attempt to contain the spill; spill kits have been equipped at strategic locations on-site.



放射性同位素及生物危害洩漏 Radioactive isotopes and biohazards spills

- 確保受影響區域內所有人員的安全，並迅速執行緊急疏散程序；
- 向負責安全管理的人員通報洩漏事件，啟動應急響應機制；
- 在洩漏區域周圍設置隔離區，防止非相關人員進入，降低污染擴散的風險；
- 等候經過專業訓練的人員進行去污與清理工作，確保洩漏事件得到安全且有效的處置；
- 對於可能已經接觸到放射性同位素或生物危害物質的人員，進行醫療評估及必要的治療；
- 在處理洩漏事件的同時，應實施環境監控措施，評估對生態環境的潛在影響，並採取適當的防範與補救措施，以減少對生態系統的損害。
- Ensure the safety of all personnel in the affected area and swiftly execute emergency evacuation procedures;
- Notify personnel responsible for safety management about the spill event and activate the emergency response mechanism;
- Set up an isolation zone around the spill area to prevent unauthorized personnel from entering, reducing the risk of pollution spread;
- Wait for professionally trained personnel to conduct decontamination and cleanup work to ensure the spill event is handled safely and effectively;
- Conduct medical assessments and necessary treatments for personnel who may have been exposed to radioactive isotopes or biohazardous substances;
- While handling the spill event, environmental monitoring measures should be implemented to assess potential impacts on the ecosystem, and appropriate preventive and remedial measures should be taken to mitigate damage to the ecosystem.

酸或其他腐蝕性試劑洩漏 Acid or other corrosive reagent spills

- 確定洩漏的嚴重程度與影響範圍，評估所需的資源與人員；
- 確保所有非必要人員從洩漏區域撤離，以降低潛在的受傷風險；
- 運用沙子或土壤設置隔離帶，防止洩漏物流入鄰近區域、排水溝、下水道等；
- 等待並由接受過專業訓練的人員進行洩漏物的中和、清理與處置；
- 在洩漏處理完畢後，對區域進行監測，確保無殘留的腐蝕性物質。
- Determine the severity and impact scope of the spill, and evaluate the required resources and personnel;
- Ensure all non-essential personnel are evacuated from the spill area to reduce potential injury risks;
- Use sand or soil to set up isolation barriers to prevent the spilled material from flowing into adjacent areas, drainage ditches, sewers, etc.;
- Wait for professionally trained personnel to neutralize, clean up, and dispose of the spilled material;
- After the spill has been handled, monitor the area to ensure no residual corrosive substances remain.

| 土壤保育 Soil Conservation

土壤作為生態系統的核心組成部分，是維護生物多樣性、保障植被生長及實現土地可持續利用的基礎。金川國際始終將土壤保育納入礦山全生命周期環境管理體系，嚴格遵循營運所在地環境法律法規，通過預防性保護、污染治理及生態修復等多元舉措，最大限度降低採礦活動對土壤環境的潛在影響，確保土壤功能的完整性與可持續性。各礦場嚴格遵守所在國家及地區關於土壤保護的法律法規，確保土壤保育工作合法合規開展。

Ruashi礦場已建立符合ISO 14001:2015標準之土壤污染防治與復原程序，明確制定總經理、廠務經理、部門主管、環境經理及物流／倉儲經理於外洩預防、處置與復原作業中的權責。該程序文件針對燃料與潤滑油之儲存及處置，以及燃料、潤滑油儲槽、輸送管線與燃料轉運區之維護作業，訂定規範性指引。

Soil, as a core component of the ecosystem, is the foundation for maintaining biodiversity, ensuring vegetation growth, and achieving sustainable land use. JCI has always integrated soil conservation into the mine's full life cycle environmental management system. Strictly complying with environmental laws and regulations in operating locations, we take multiple measures such as preventive protection, pollution treatment, and ecological restoration to minimize the potential impacts of mining activities on the soil environment and ensure the integrity and sustainability of soil functions. All mines strictly abide by laws and regulations regarding soil protection in their respective countries and regions, ensuring soil conservation work is carried out legally and compliantly.

The Ruashi Mine has established soil pollution prevention and remediation procedures compliant with the ISO 14001:2015 standard, clearly defining the rights and responsibilities of the General Manager, Plant Manager, Department Heads, Environmental Manager, and Logistics/Warehousing Manager in spill prevention, disposal, and remediation operations. The procedure document sets normative guidelines for the storage and disposal of fuels and lubricants, as well as the maintenance operations of fuel and lubricant storage tanks, transmission pipelines, and fuel transfer areas.



各礦場基於營運實際與土壤環境特點，建立了全流程土壤保護機制，從源頭杜絕土壤污染風險。

Ruashi礦場則將植樹造林作為土壤生態修復的核心舉措，2025年持續開展造林工作，通過種植當地適生樹種，改善土壤結構，提升土壤肥力與抗侵蝕能力。

Kinsenda礦場作為地下礦山，通過優化生產佈局與營運模式，減少地表佔用與擾動，每年開展植樹造林工作，以植被恢復強化土壤保育，全年種植香蕉苗等超過350株，其中礦區範圍內種植300株，場地其他區域種植50株，有效提升土壤有機質含量與穩定性，同時，Kinsenda礦場在油類排放較為集中的區域部署了專用容器，通過強化重點區域油污管控，防止油類物質泄漏造成土壤污染。

Chibuluma南礦場在車間設備維護過程中，要求技術人員常態化使用接油盤，有效收集設備維護時產生的油污，避免油類物質直接滲漏至土壤中。Chibuluma南礦場明確規定，一旦發生地面漏油事故，須立即對受污染的土壤進行細心鏟除，並將污染土壤運送至專門的土壤處理區進行集中處置，杜絕污染範圍進一步擴大。面對可能發生的土壤污染情形，各礦場建立了快速響應與規範治理流程，確保污染問題及時得到管控與修復。

為確保土壤保育措施的有效性，各礦場建立了常態化土壤監測與管理機制，定期跟蹤土壤環境質量變化。

Based on operational realities and soil environment characteristics, each mine has established full-process soil protection mechanisms to eliminate soil pollution risks at the source.

The Ruashi Mine takes afforestation as its core measure for soil ecological restoration. Continuing its afforestation work in 2025, it improves soil structure, enhances soil fertility, and increases erosion resistance by planting suitable local tree species.

As an underground mine, the Kinsenda Mine reduces surface occupation and disturbance by optimizing production layouts and operational models. It conducts afforestation work annually to strengthen soil conservation through vegetation restoration, planting over 350 banana seedlings throughout the year, including 300 within the mining area and 50 in other site areas, effectively enhancing soil organic matter content and stability. Concurrently, the Kinsenda mine has deployed dedicated containers in areas with concentrated oil emissions, preventing soil pollution caused by oil leaks through strengthened oil pollution control in key areas.

The Chibuluma South Mine requires technicians to use drip pans as a normalized practice during workshop equipment maintenance, effectively collecting oil stains generated during maintenance and preventing oil substances from directly seeping into the soil. The Chibuluma South Mine explicitly stipulates that in the event of a surface oil spill, the contaminated soil must be carefully excavated immediately and transported to a dedicated soil treatment area for centralized disposal, preventing the pollution scope from expanding further. Facing potential soil pollution scenarios, each mine has established rapid response and standardized governance processes to ensure pollution issues are promptly controlled and remediated.

To ensure the effectiveness of soil conservation measures, each mine has established normalized soil monitoring and management mechanisms to regularly track changes in soil environmental quality.

Ruashi 礦場 Ruashi Mine

Ruashi礦場已建立符合ISO 14001要求的土壤污染防治與復原管理體系，將土壤保護納入環境影響評估體系，透過定期開展內部及外部環境審計，持續優化土壤保育措施。

The Ruashi Mine has established a soil pollution prevention and remediation management system meeting ISO 14001 requirements. It integrates soil protection into the environmental impact assessment system and continuously optimizes soil conservation measures through regular internal and external environmental audits.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場已完成環境與社會影響評估 (EIES)，系統性識別礦區及周邊生態系統特徵、生物多樣性敏感區域與潛在影響路徑，並擬訂對應之緩解及補償措施。相關措施涵蓋生態復原規劃、土地擾動控制、植生復育及社區生態共同管理等面向，為礦區生態系統保護提供科學依據與行動架構。

The Kinsenda Mine has completed an Environmental and Social Impact Assessment (ESIA), systematically identifying the characteristics of the ecosystem, sensitive biodiversity areas, and potential impact pathways in and around the mining area, and formulating corresponding mitigation and compensation measures. These measures cover ecological restoration planning, land disturbance control, vegetation rehabilitation, and community ecological co-management, providing a scientific basis and action framework for the protection of the mining area's ecosystem.

Musonoi 礦場 Musonoi Mine

Musonoi礦場執行土壤風險評估，並於尾礦壩、沉澱池及污水處理區域鋪設防滲土工膜，避免酸性物質滲漏；針對廢油及與土壤接觸之化學物質實施全流程管控，採用專用容器回收並安全儲存，從源頭預防污染風險。

The Musonoi Mine executes soil risk assessments and lays impermeable geomembranes in tailings dams, settling ponds, and sewage treatment areas to prevent acidic substance seepage. It implements full-process control over waste oil and chemical substances contacting the soil, using dedicated containers for recycling and safe storage to prevent pollution risks from the source.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場每月按法定要求向贊比亞礦業部提交土壤分析報告，系統監測土壤環境質量狀況。與此同時，該礦場委託第三方機構開展土壤分析工作，確保土壤各項指標符合ZEMA的相關標準要求。

The Chibuluma South Mine submits soil analysis reports to the Zambian Ministry of Mines and Minerals Development monthly as legally required, systematically monitoring soil environmental quality conditions. Concurrently, the mine entrusts third-party organizations to conduct soil analysis work to ensure all soil indicators meet relevant ZEMA standards.

透過環境影響評估、生態復原項目執行、土壤污染預防與應急機制建立及第三方檢測等措施，公司於各營運單位建構涵蓋「識別－預防－監控－復原－報告」之生態保護全流程管理體系。

Through measures such as environmental impact assessments, execution of ecological restoration projects, establishment of soil pollution prevention and emergency mechanisms, and third-party testing, the Company has built a full-process ecological protection management system covering "identification — prevention — monitoring — restoration — reporting" across all operating units.

未來，公司將進一步強化生物多樣性量化指標管理與長期復原目標設定，探索生態系服務價值評估方法，並持續深化與科研機構之合作，以提升生態保護項目之科學性與透明度，不斷強化礦業營運與自然生態系之間的協同發展能力。

In the future, the Company will further strengthen the management of quantitative biodiversity indicators and the setting of long-term restoration goals, explore valuation methods for ecosystem services, and continuously deepen cooperation with scientific research institutions to enhance the scientific nature and transparency of ecological protection projects, constantly strengthening the synergistic development capabilities between mining operations and natural ecosystems.



尾礦管理

TAILINGS MANAGEMENT

尾礦管理為金川國際環境管治的核心議題之一，事關礦場營運安全、生態環境保護及周邊社區福祉。本公司始終堅持「安全優先、預防為主、全程管控、持續改進」的原則，嚴格遵循營運所在地法律法規及國際通行標準，建立覆蓋尾礦設施設計、建設、運行、監測及應急的全生命周期管理體系，確保自有營運和合作方尾礦儲存與處置的安全穩定及環境兼容。2025年，公司旗下各礦場進一步強化尾礦管理措施，優化風險防控機制，未發生任何與尾礦設施相關的安全事故及環境突發事件。

Tailings management is one of the core issues in JCI's environmental governance, relating to mine operational safety, ecological environmental protection, and the well-being of surrounding communities. The Company has always adhered to the principle of "safety first, prevention-oriented, full-process control, and continuous improvement". Strictly complying with the laws and regulations of the operating locations and internationally recognised standards, we have established a full life-cycle management system covering the design, construction, operation, monitoring, and emergency response of tailings facilities, ensuring the safety, stability, and environmental compatibility of tailings storage and disposal by our own operations and partners. In 2025, the Group's affiliated mines further strengthened tailings management measures and optimized risk prevention and control mechanisms. No safety accidents or environmental emergencies related to tailings facilities occurred.

公司持續完善尾礦管理相關政策與制度，以規範各礦場尾礦設施的日常營運、維護及風險管控流程。各礦場根據自身地質條件、尾礦特性及營運實際，制定專門的尾礦管理操作規程，明確各部門及崗位的管理職責，確保政策制度的有效落地。Kinsenda礦場的尾礦管理政策與制度以全球尾礦管理行業標準 (GISTM) 標準為核心依據，在尾礦諮詢公司的專業指導下執行，確保各環節管理符合國際標準要求。

The Company continuously refines policies and systems related to tailings management to regulate the daily operation, maintenance, and risk control processes of tailings facilities at each mine. Based on their own geological conditions, tailings characteristics, and operational realities, each mine formulates specific tailings management operational procedures, clarifying the management responsibilities of various departments and positions to ensure the effective implementation of policies and systems. The tailings management policies and systems of the Kinsenda Mine take the Global Industry Standard on Tailings Management (GISTM) standard as the core basis and are executed under the professional guidance of the tailings consulting firm, ensuring that all aspects of management comply with international standard requirements.

尾礦風險識別與監測 Tailings Risk Identification and Monitoring

各礦場建立常態化尾礦風險識別機制，定期開展尾礦庫風險評估，精準識別潛在風險因素，並針對性制定監測指標與管控措施，確保風險早發現、早處置。

Each mine establishes normalized tailings risk identification mechanisms, regularly conducts tailings dam risk assessments, accurately identifies potential risk factors, and formulates targeted monitoring indicators and control measures to ensure risks are discovered and handled early.

Ruashi 礦場 Ruashi Mine

Ruashi礦場2025年重點關注三大尾礦管理風險因素，分別為尾礦庫僅依賴單一排水塔運行、迴水壩沉積物堆積需清理、非法挖掘者破壞營運線路導致尾礦庫周邊侵蝕，並針對上述風險制定相應監測計劃。

In 2025, the Ruashi Mine focused on three major tailings management risk factors: the tailings facility relying solely on a single drainage tower for operation, sediment accumulation in the return water dam requiring clearing, and illegal diggers damaging operational pipelines leading to erosion around the tailings facility. It formulated corresponding monitoring plans for the above risks.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場2025年識別的尾礦管理主要風險因素包括自由超高不足、尾礦庫湖面控制不當、降雨超標及地形調查不及時等；

The primary tailings management risk factors identified by the Kinsenda Mine in 2025 included insufficient freeboard, improper control of the lake surface in the tailings facility, excessive rainfall, and untimely topographical surveys;

對應監測指標及頻率分別為：自由超高 ($\geq 1.5\text{m}$ ，每月監測)、湖面控制 (每月監測)、降雨量 ($< 100\text{ mm}$ ，每日監測)、全面測量 (每年監測)。

Corresponding monitoring indicators and frequencies are: freeboard ($\geq 1.5\text{m}$, monitored monthly), lake surface control (monitored monthly), rainfall ($< 100\text{ mm}$, monitored daily), and comprehensive surveying (monitored annually).

Figure 3-11 shows the total freeboard for the months of May 2024 to February 2025 satisfying the minimum required freeboard of 1.5 m.

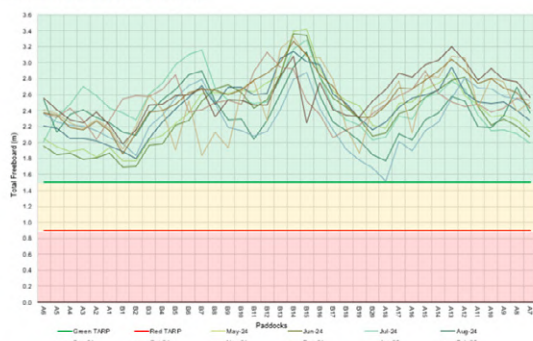


Figure 3-11: Total Freeboard for the period May 2024 to February 2025

Musonoi 礦場 Musonoi Mine

Musonoi礦場2025年識別的尾礦管理主要風險因素包括尾礦庫壩體滲透與潰壩風險、尾礦堆體邊坡失穩風險、極端天氣引發的漫壩風險及防滲系統老化破損風險；

對應監測指標為壩體滲流量 ($\leq 5\text{m}^3/\text{h}$)、壩體沉降量 (月均 $\leq 3\text{cm}$)、防滲膜完整性 (無破損點)、庫內水位 (低於設計警戒水位0.5m以上) 及降雨量 (實時監測)；

尾礦庫審查等級為一級，審查頻率為每半年1次專項審查+年度綜合審查 (極端天氣後額外增加專項核查)，審查重點包括壩體結構穩定性、防滲系統有效性、排水系統暢通性及監測數據真實性。

The primary tailings management risk factors identified by the Musonoi Mine in 2025 included the risk of dam seepage and failure at the tailings facility, slope instability of the tailings pile, the risk of dam overtopping triggered by extreme weather, and the aging and damage of the anti-seepage system;

Corresponding monitoring indicators are dam seepage flow ($\leq 5\text{m}^3/\text{h}$), dam settlement (monthly average $\leq 3\text{cm}$), geomembrane integrity (no damaged points), water level in the reservoir (more than 0.5m below the designed warning water level), and rainfall (real-time monitoring);

The review level for the tailings facility is Level 1, with a review frequency of one special review every half year plus a comprehensive annual review (with additional special verifications after extreme weather). Review focal points include the structural stability of the dam, the effectiveness of the anti-seepage system, the patency of the drainage system, and the authenticity of monitoring data.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場延續以往針對尾礦壩穩定性、滲漏情況等核心風險的常規監測機制，審查頻率與重點保持不變。

The Chibuluma South Mine continues its past routine monitoring mechanisms targeting core risks such as tailings dam stability and seepage conditions, with review frequencies and focus points remaining unchanged.

尾礦管理關鍵措施與實踐 Key Measures and Practices in Tailings Management

2025年，各礦場圍繞尾礦設施安全運行、尾礦處置優化等核心目標，實施一系列針對性管理措施，有效提升尾礦管理水平。

In 2025, centering on core goals such as the safe operation of tailings facilities and the optimization of tailings disposal, each mine implemented a series of targeted management measures, effectively elevating the level of tailings management.

Ruashi 礦場 Ruashi Mine

Ruashi礦場2025年重點開展尾礦庫周邊沖溝修復工作，並安裝柔性排水裝置，強化尾礦庫排水能力，有效應對降雨帶來的徑流風險；同時加強對非法挖掘行為的管控，防止其破壞尾礦庫周邊設施引發環境風險。Ruashi礦場於報告期內繼續委聘第三方機構進行安全審核，並撰寫年度審核報告及警戒報告，以識別尾礦設施的風險並提出優化建議。

In 2025, the Ruashi Mine focused on repairing gullies around the tailings facility and installing flexible drainage devices to strengthen the drainage capacity of the tailings facility, effectively responding to runoff risks caused by rainfall. Concurrently, it strengthened control over illegal digging activities to prevent them from damaging peripheral facilities of the tailings dam and triggering environmental risks. During the Reporting Period, the Ruashi Mine continued to engage a third-party organization to conduct safety audits and compile annual audit reports and alert reports to identify risks in tailings facilities and propose optimization recommendations.



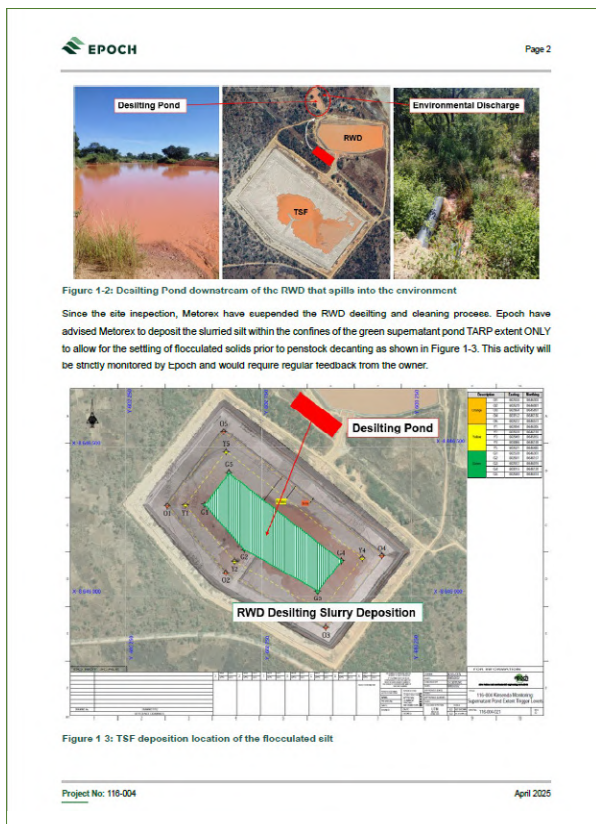
Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場在尾礦管理方面的核心亮點措施為選廠於2025年在尾礦壩內設計建造「排水泥壩」，有效實現對尾礦壩內湖面的精確控制，降低漫壩風險；同時加強尾礦設施的日常檢查與維護，確保各系統運行穩定。

The core highlight measure in tailings management at the Kinsenda Mine was the design and construction of a "drainage embankment" within the tailings dam by the processing plant in 2025, effectively achieving precise control over the lake surface inside the tailings dam and reducing the risk of overtopping. Concurrently, it strengthened routine inspections and maintenance of tailings facilities to ensure the stable operation of all systems.

Kinsenda礦場建立TSF，並委託第三方專業機構每六個月進行一次檢查，確保設施保持最佳運行狀態。

The Kinsenda Mine established a TSF and commissioned professional third-party organizations to conduct inspections every six months, ensuring the facility remains in optimal operating condition.



Kinsenda礦場在尾礦壩內設計建造「排水泥壩」
Kinsenda Mine designs and builds 'drainage mud dam'
within the tailings dam

第三方專業機構TSF檢查報告
Third-party professional organization TSF inspection report

Musonoi 礦場 Musonoi Mine

Musonoi礦場2025年實施的尾礦管理措施包括：嚴格水位管控，確保正常生產水位低於壩頂標高不少於2m，預留充足防洪庫容；強化巡檢值守，設立專職崗位巡檢人員實行24小時不間斷值守，重點排查土工膜破損、坝坡裂縫、滲漏等問題；嚴格控制人員進出，在庫區進入道路設置物理圍擋與警示標識，防止人為因素引發安全事故。

Tailings management measures implemented by the Musonoi Mine in 2025 included: strict water level control to ensure the normal production water level is no less than 2m below the dam crest elevation, reserving sufficient flood control capacity; strengthening inspection shifts by establishing dedicated personnel to carry out 24-hour uninterrupted duty, focusing on checking for geomembrane damage, dam slope cracks, seepage, and other issues; strictly controlling personnel access by setting up physical fences and warning signs on the access roads to the reservoir area to prevent human factors from triggering safety accidents.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場強化尾礦儲存設施的日常管理，由生產車間人員開展尾礦庫每日巡查，同時定期開展SHE審計工作，及時發現並整改尾礦管理過程中出現的問題，確保設施運行符合相關標準。

The Chibuluma South Mine strengthened the daily management of tailings storage facilities, with production workshop personnel conducting daily patrols of the tailings dam. Concurrently, it regularly carried out SHE audits to promptly discover and rectify problems emerging during the tailings management process, ensuring facility operations meet relevant standards.



▼ 2025年尾礦設施有關數據
Data Pertaining to Tailings Facilities for 2025

指標 Indicator	單位 Unit	2025	2024	2023
尾礦總重量 Total tailings weight	公噸 Tonnes	1,700,505	1,754,695	1,768,843
尾礦庫總數 Total number of tailings facilities	個 Number	4	4	3
活躍的尾礦庫數量 Number of active tailings facilities	個 Number	3	3	2
高風險尾礦庫數量 Number of high-risk tailings facilities	個 Number	0	0	0



04

供應鏈責任

Supply Chain Responsibility

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 產品責任 Product Responsibility
- 負責任供應鏈 Responsible Supply Chain



2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

0 起關於已售或已運送產品因安全與健康的理由而須召回之事件

0 instances of recall of sold or shipped products due to safety or health concerns

0 起關於洩露或侵犯消費者/客戶個人情況及私隱之投訴

0 complaints regarding the leakage or infringement of consumers' personal information and privacy



0 起關於衝突礦產負責任採購相關之輿情事件

0 public opinion incidents related to the responsible sourcing of conflict minerals

金川國際始終將責任理念深度融入礦場營運的全生命周期，在嚴格恪守法律法規的基礎上，以科技賦能驅動生產效率躍升，致力於提供安全、優質的產品。與此同時，公司積極構建可持續供應鏈體系，不斷夯實高質量發展根基，從而顯著增強企業經濟發展的韌性與活力，為行業綠色轉型與可持續發展貢獻力量。

JCI consistently integrates the concept of responsibility deeply into the entire lifecycle of mining operations. Building upon strict compliance with laws and regulations, we use technology enablement to drive leaps in production efficiency, committing to providing safe and high-quality products. Simultaneously, the Company actively builds a sustainable supply chain system, continually solidifying the foundation for high-quality development, thereby significantly enhancing the resilience and vitality of the enterprise's economic development, and contributing strength to the industry's green transition and sustainable development.

產品責任

PRODUCT RESPONSIBILITY

金川國際的產品主要面向全球貿易商及冶煉廠。我們矢志成為客戶優先選擇的負責任供應商，透過提供可持續產品、堅實的技術保障、專業的營銷支持以及準時可靠的交付服務，全方位賦能客戶價值。我們嚴格遵守營運地的法規要求，包括剛果（金）《商法典》、《礦業法》、《海關法》以及《戰略礦產出口新規（2025）》，確保所有產品出口流程均合法合規，且具備完整的安全追溯性。在營運合規方面，我們的礦石產品銷售結算嚴格對標國際行業慣例，產品質量均由雙方共同指定的第三方權威化驗機構判定，堅決杜絕任何虛誇質量或不道德採購行為。

JCI's products are mainly targeted at global traders and smelting plants. We are determined to become the preferred responsible supplier for our customers. By providing sustainable products, solid technical guarantees, professional marketing support, and punctual, reliable delivery services, we comprehensively empower customer value. We strictly comply with regulatory requirements in our operating locations, including the DRC's "OHADA Uniform Act on Commercial Law", "Mining Code", "Customs Code", and "New Regulations on the Export of Strategic Minerals (2025)", ensuring all product export processes are legally compliant and feature complete safety traceability. Regarding operational compliance, the sales settlement of our ore products strictly benchmarks against international industry conventions. Product quality is determined by authoritative third-party testing institutions jointly appointed by both parties, resolutely eliminating any exaggerated quality claims or unethical procurement behaviors.

報告期內，金川國際概無因安全、健康、質量問題導致的產品召回事件。

During the Reporting Period, JCI had no product recall incidents caused by safety, health, or quality issues.

產品質量管理 Product Quality Management

◆ 質量管理體系

Quality Management System

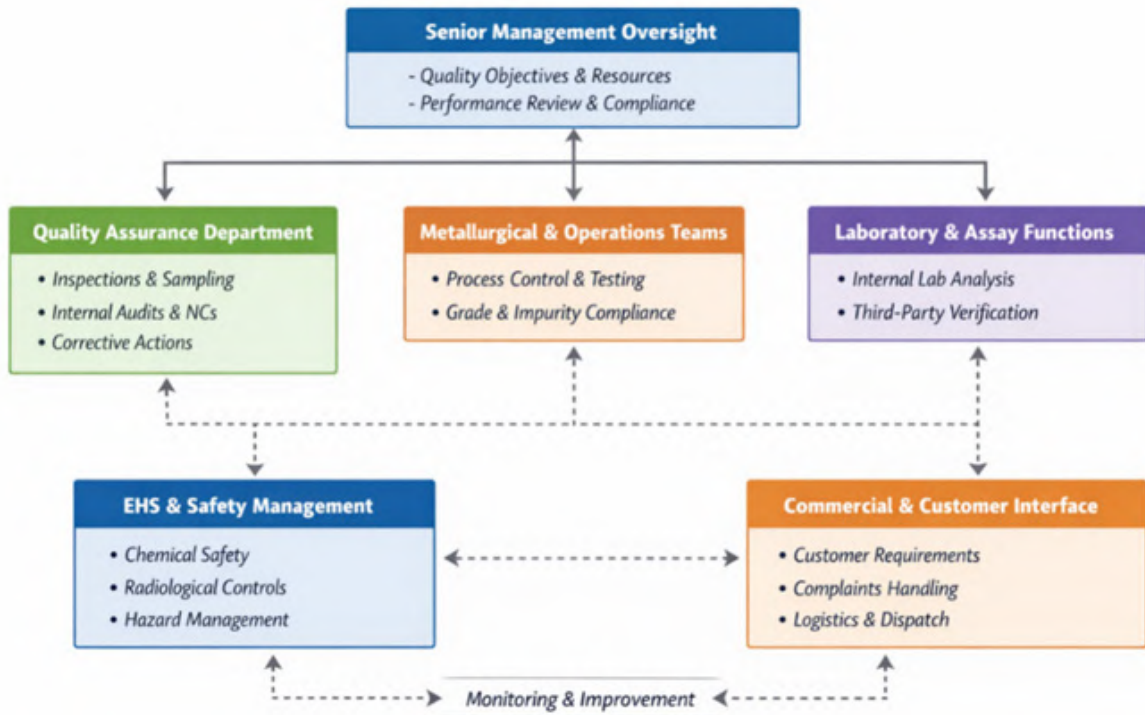
金川國際各在產礦場均嚴格貫徹ISO 9001:2015質量管理體系標準，全面踐行「以客戶為關注焦點、領導作用、全員積極參與、過程方法、改進、詢證決策、關係管理」的質量管理原則。透過持續強化產品質量管控與管理技術創新，我們致力於將卓越品質的產品交付給全球客戶，確保持續滿足客戶期望。

All producing mines of JCI strictly implement the ISO 9001:2015 quality management system standard, comprehensively practicing the quality management principles of "customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making, and relationship management". By continuously strengthening product quality control and management technology innovation, we are committed to delivering products of excellent quality to global customers, ensuring continuous satisfaction of customer expectations.

Ruashi 礦場 Ruashi Mine

Ruashi礦場建立了職責清晰的產品質量管理架構，包括管理層監督、質量管理部、生產營運及冶金技術團隊、實驗室及分析測試部門、商務及物流部門，並將質量監督工作融入營運、實驗室及商務各職能部門，保障產品可追溯性及客戶權益：

The Ruashi Mine has established a product quality management architecture with clear responsibilities, including Senior Management Oversight, Quality Assurance Department, Metallurgical and Operations Teams, Laboratory and Assay Functions, EHS and Safety Management, and Commercial & Customer Interface. Integrating quality supervision into the operational, laboratory, and commercial functional departments to ensure product traceability and customer rights and interests:



該產品質量管理架構與礦場的環境、健康與安全 (EHS) 管理體系及營運管理體系深度融合，確保化學品安全、輻射管控、物料搬運及危害管理工作與質量保障流程相銜接。

This product quality management architecture is deeply integrated with the mine's Environment, Health and Safety (EHS) management system and operations management system, ensuring chemical safety, radiation control, material handling, and hazard management tasks interface seamlessly with quality assurance processes.

Musonoi 礦場 Musonoi Mine

Musonoi礦場已為產品質量管理搭建清晰的組織架構，分為決策層（總經理/副總經理）、管理層（生產管理部）、執行層（各生產車間及質量化驗室）。決策層為質量議題的最高負責機構，負責制訂項目質量方針與質量目標、審批質量管理體系文件、審議重大質量事故調查報告，以及監督質量管理體系的有效運行。

The Musonoi Mine has built a clear organizational structure for product quality management, divided into the decision-making level (General Manager/Deputy General Manager), management level (Production Management Department), and execution level (various production workshops and the quality laboratory). The decision-making level is the highest responsible body for quality issues, responsible for formulating project quality policies and quality objectives, approving quality management system documents, reviewing major quality accident investigation reports, and supervising the effective operation of the quality management system.



◆ 質量管理流程

Quality Management Process

金川國際始終堅信，卓越品質是企業可持續發展的基石。我們以國際標準為綱，將質量管理融入生產營運的全價值鏈，確保產品的純度與穩定性，踐行對客戶、對社會責任的莊嚴承諾。

JCI firmly believes that excellent quality is the cornerstone of sustainable corporate development. Guided by international standards, we integrate quality management into the full value chain of production and operations, ensuring product purity and stability, and fulfilling our solemn commitment to customers and social responsibility.

常態化管理 Routine Management

- ▶ 各部門各工序做好不合格品的處理和跟蹤，隨時分析發生質量波動或質量事故之原因，做好各工序間的質量檢查和監督。
All departments and processes must handle and track non-conforming products, continuously analyse the causes of quality fluctuations or incidents, implement quality checks and ensure supervision between these processes.

建立關鍵質量控制點 Set Key Quality Control Points

- ▶ 各部門針對對產品質量有直接影響的關鍵部位建立關鍵質量控制點並實行動態管理，部門主管抽查執行情況，發現問題及時督促改進。
Each department should set key quality control points at critical parts that exert a direct impact on product quality and implement dynamic management. Department heads should conduct spot checks to ensure the implementation of these measures and promptly urge employees to improve when identifying issues.

成立工作組 Establish Working Groups

- ▶ 收到客戶產品質量異議後，各部門針對產品異常質量信息組織召開質量分析會，分析原因，並採取措施，及時進行整改，生產管理部對整改情況進行監督檢查並驗證整改效果。
When receiving complaints about product quality, relevant departments should organise quality analysis meetings to investigate the causes and take corrective actions to rectify the issues. The Production Management Department will supervise, inspect, and verify the effectiveness of the rectifications.

協商解決 Negotiated Solution

- ▶ 根據複查結果，與客戶協商解決，必要時外派人員赴現場；若不願協商或協商無果，按合同或標準約定，與用戶確定採樣方案和仲裁機構，進行質量鑒定。
Based on the results, we negotiate with the customer for a solution, and if necessary, we will dispatch personnel to the site. If the customer is unwilling to negotiate or no agreement is reached, we will discuss with the customer in accordance with the contract or standards to determine a sampling plan and arbitration institution for quality assessment.

各在產礦場的產品質量管理與反饋程序
Quality Management and Feedback Procedures for Each Operational Mine

Ruashi 礦場

Ruashi Mine

Ruashi礦場的質量保障工作全面融入採礦、生產加工、產品發貨全流程，各環節均明確職責並制訂作業標準，例如《銅生產製造工藝標準》等，其質量管理流程遵循三大核心環節：

- 對原材料、備件及耗材執行入廠檢驗；
Executing incoming inspections on raw materials, spare parts, and consumables;
- 在採礦、生產加工、物料搬運全流程執行過程檢驗；
Executing in-process inspections throughout mining, production processing, and material handling;
- 產品發貨、使用或交付客戶前執行最終檢驗。
Executing final inspections before products are dispatched, used, or delivered to customers.

Ruashi礦場建立了嚴格的產品質量檢定與反饋機制，確保所有產品持續符合合同規範、客戶要求及相關法規與行業標準。礦場依據核準的質量控制計劃及國際公認的抽樣、分析標準，在關鍵控制點開展抽樣工作；日常監測的核心質量指標包括金屬品位、元素組成、精礦水分含量、雜質含量，以及符合客戶和冶煉廠要求的物理指標。所有樣品均採用經校準驗證的方法進行分析，礦場委託經認證的實驗室對產品化驗結果進行獨立驗證，確保分析結果客觀、可重複。產品發貨前會執行最終檢驗，核實電解銅、電解鈷陰極板及精礦是否符合約定規格、包裝標籤要求及批次識別標準，僅合格產品可獲發貨授權，有效管控不合格物料，杜絕其流入供應鏈。

The Ruashi Mine's quality assurance work is fully integrated into the entire process of mining, production processing, and product dispatch. Clear responsibilities and operating standards are established for each link, such as the "Copper Production and Manufacturing Process Standards". Its quality management process follows three core stages:

The Ruashi Mine has established a rigorous product quality testing and feedback mechanism to ensure all products continuously conform to contract specifications, customer requirements, and relevant laws, regulations, and industry standards. Based on approved quality control plans and internationally recognized sampling and analytical standards, the mine conducts sampling at key control points. Core quality indicators monitored daily include metal grades, elemental composition, concentrate moisture content, impurity content, and physical indicators required by customers and smelters. All samples are analyzed using calibrated and validated methods. The mine commissions certified laboratories to independently verify product assay results, ensuring analysis results are objective and reproducible. Final inspections are executed prior to product dispatch to verify whether electrolytic copper, electrolytic cobalt cathodes, and concentrates meet agreed specifications, packaging label requirements, and batch identification standards. Only qualified products are authorized for dispatch, effectively controlling non-conforming materials and eliminating their entry into the supply chain.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場依據產品質量檢定標準作業程序，針對重點檢測銅品位及氧化率，並主要委託第三方專業機構進行第三方檢測。

According to the product quality testing standard operating procedures, the Kinsenda Mine focuses on testing copper grade and oxidation rate, and mainly entrusts third-party professional organizations to conduct third-party testing.

Musonoi 礦場 Musonoi Mine

Musonoi礦場于報告期內編制並下發《生產經營管理制度》及《質量化驗室管理制度》，明確規定了產品生產過程中的質量保障措施、產品質量的檢定流程及規範，以及發生質量異議時的產品處理流程等事項。

During the Reporting Period, the Musonoi Mine compiled and issued the "Production and Operation Management System" and the "Quality Laboratory Management System", explicitly stipulating quality assurance measures during product production, procedures and norms for product quality testing, and procedures for handling products when quality disputes occur.

各生產系統營運期間，針對關鍵工序及各質量控制點，實行每班次定時採集數據及檢測，有效監控當班工藝紀律執行情況，並根據分析結果即時優化調整工藝參數，實現對產品生產過程的有效監控，保障各工序產品質量。開展資源的精細化勘探與開採規劃，明確硫化礦石、銅鈷精礦等原料的主金屬及雜質元素含量；針對原料品位波動，及時調整工藝參數、收窄工藝參數控制區間，並建立統一數據庫，實現生產參數、質量數據的可視化管理，達成產品的全流程質量追溯。

During the operation of various production systems, data collection and testing are timed every shift for key processes and quality control points, effectively monitoring the execution of process discipline during the shift. Based on analysis results, process parameters are optimized and adjusted in real-time, achieving effective monitoring of the product production process and guaranteeing product quality in all processes. Fine exploration and mining planning of resources are carried out to clarify the content of primary metals and impurity elements in raw materials such as sulfide ores and copper-cobalt concentrate. In response to fluctuations in raw material grades, process parameters are adjusted promptly to narrow control intervals, and a unified database is established to achieve visualized management of production parameters and quality data, realizing full-process quality traceability of products.

◆ 產品安全管理

Product Safety Management

對於礦產品中天然存在的放射性元素，金川國際秉持透明且負責任的態度，對供應鏈環節實施常規化檢測，確保所有產品對客戶及環境的安全性。

Regarding naturally occurring radioactive elements in mineral products, JCI upholds a transparent and responsible attitude, implementing routine testing across the supply chain to ensure the safety of all products for customers and the environment.

Kinsenda 礦場 Kinsenda Mine

為符合放射性指標國際標準，Kinsenda礦場聘請具國際認證的第三方檢測機構對產品進行輻射檢測，並對輻射量偏高的產品採取堆存晾曬的方式降低輻射量。

To comply with international standards for radioactivity indicators, the Kinsenda Mine employs internationally certified third-party testing institutions to conduct radiation testing on products. For products with elevated radiation levels, the method of stockpiling and sun-drying is adopted to reduce radiation levels.

2025年，經檢測，產品平均放射性為0.17希沃特/小時，低於國際標準要求。

In 2025, through testing, the average radioactivity of the products was 0.17 Sieverts/hour, which is below international standard requirements.

Musonoi 礦場 Musonoi Mine

Musonoi礦場安全環境部每周對礦區放射性元素氡的含量進行檢測。

The safety and environment department of the Musonoi Mine tests the content of the radioactive element radon in the mining area on a weekly basis.

◆ 產品召回管理

Product Recall Management

金川國際視產品安全與客戶信賴為企業生命線，強化全鏈路追溯體系，構建了周全的產品召回管理機制。一旦發現潛在質量隱患或合規偏差，我們將立即啟動應急預案，透過跨部門協作迅速鎖定影響範圍，並以最透明、高效的方式執行回收或補救措施，最大限度保障客戶權益。

JCI views product safety and customer trust as the lifeline of the enterprise. Strengthening the full-chain traceability system, we have built a comprehensive product recall management mechanism. Once a potential quality hazard or compliance deviation is discovered, we will immediately activate an emergency plan, swiftly pinpointing the scope of impact through cross-departmental collaboration, and executing recall or remedial measures in the most transparent and efficient manner to maximize the protection of customer rights and interests.

Ruashi 礦場

Ruashi Mine

Ruashi礦場建立了規範的產品召回管理體系，包含以下核心內容：

The Ruashi Mine has established a standardized product recall management system containing the following core content:

- 明確召回觸發條件（重大不合格項、法規主管部門指令、安全風險）；
Clarifying conditions that trigger a recall (major non-conformities, regulatory authority directives, safety risks);
- 指定召回工作負責人及跨部門召回工作小組；
Designating a person in charge of recall work and a cross-departmental recall working group;
- 規範召回執行流程：相關方通知、產品識別、隔離、回收；
Standardizing the execution process of recalls: stakeholder notification, product identification, isolation, and retrieval;
- 建立與客戶、法規主管部門及內部相關部門的溝通機制；
Establishing communication mechanisms with customers, regulatory authorities, and internal relevant departments;
- 召回後開展根本原因分析、制訂糾正措施，並提交管理層審核。
Post-recall, conducting root cause analysis, formulating corrective measures, and submitting them to management for review.

當檢測到不合格品時，所有質量偏差或客戶投訴均會被正式記錄、調查，並開展根本原因分析，同時制訂並跟蹤糾正與預防措施的執行效果。管理層及營運工作審核會議會定期審閱質量績效數據、檢驗結果及客戶反饋趨勢，助力產品穩定性、工藝管控水平及客戶滿意度的持續提升。

When non-conforming products are detected, all quality deviations or customer complaints are formally recorded and investigated, and root cause analyses are conducted. Simultaneously, the execution effectiveness of corrective and preventive measures is formulated and tracked. Management and operational review meetings regularly review quality performance data, inspection results, and customer feedback trends to facilitate continuous improvement in product stability, process control levels, and customer satisfaction.

客戶關係管理 Customer Relationship Management

金川國際深知，穩健、互信的客戶關係是業務可持續發展的基石。我們建立了一套響應迅速、處理公正、閉環管理的客戶反饋體系，積極響應客戶需求，主動聆聽市場聲音，將客戶的反饋視為檢驗我們產品質量與服務水平的「試金石」。

JCI deeply understands that stable and mutually trusting customer relationships are the foundation of sustainable business development. We have established a customer feedback system characterized by rapid response, fair handling, and closed-loop management to actively respond to customer needs and proactively listen to market voices, treating customer feedback as a "touchstone" for testing our product quality and service levels.

◆ 投訴處理機制

Complaint Handling Mechanism

我們深信客戶的意見是推動業務營運的重要動力，為此，我們建立了嚴謹的客戶反饋及投訴處理機制，確保所有來自客戶的投訴及建議都能得到應有的重視、迅速的回應及妥善的跟進，並將其轉化為提升服務質素與產品競爭力的契機。

We firmly believe that customer opinions are a vital driving force for business operations. To this end, we have established a rigorous customer feedback and complaint handling mechanism to ensure that all complaints and suggestions from customers receive due attention, swift responses, and proper follow-ups, transforming them into opportunities to enhance service quality and product competitiveness.

Ruashi 礦場

Ruashi Mine

報告期內，Ruashi 礦場接獲一宗關於精礦品位差異的客戶投訴。礦場立即啟動質量管理體系調查，並委託國際認可的獨立第三方實驗室進行核查。經利益相關方共同審閱檢測結果，雙方依據行業慣例以化驗平均值作為最終結算標準，公平透明地解決了爭議。本次事件不涉及產品安全或合規問題，無需啟動召回程序；礦場已藉此優化抽樣及核對流程，進一步強化管控以防範類似情況。

During the Reporting Period, the Ruashi Mine received one customer complaint regarding concentrate grade discrepancies. An investigation was immediately launched under the quality management system, involving an internationally recognized independent third-party laboratory for verification. Following a joint review of the results, both parties reached a fair and transparent settlement based on the average assay value in accordance with industry practice. The incident involved no product safety or compliance issues, requiring no product recall. The mine has since optimized its sampling and verification protocols to strengthen internal controls.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場制訂了客戶投訴反饋流程：客戶投訴由商務部統一接報，登記投訴內容、客戶訴求及聯繫方式，並在12小時內分流至對應責任部門；責任部門需在3個工作日內完成核查，制訂處理方案並反饋至商務部；商務部將處理方案同步至客戶並推動落地，投訴處理完畢後，在2個工作日內回訪客戶確認滿意度，並留存完整處理記錄。

The Kinsenda Mine formulated a customer complaint feedback process: customer complaints are unified and received by the commercial department, which registers the content of the complaint, customer demands, and contact information, distributing them to the corresponding responsible departments within 12 hours. Responsible departments are required to complete verifications within 3 working days, formulate treatment plans, and provide feedback to the commercial department. The commercial department synchronizes the treatment plan with the customer and drives its implementation. After the complaint is resolved, it conducts a return visit to the customer within 2 working days to confirm satisfaction and retains a complete processing record.

Musonoi 礦場 Musonoi Mine

Musonoi礦場建立了完善的產品質量追蹤與投訴處理機制，確保每批貨物均附帶詳細檢測證書以便精準溯源。礦場設有專用溝通渠道，承諾在接獲異議後 24 小時內首次回應，並視投訴等級在 5 至 10 個工作日內完成調查。針對重大投訴，項目將啟動「糾正與預防措施」流程，並將所有處理記錄存檔，以實現服務質量的持續優化。

The Musonoi Mine has established a robust quality tracking and complaint handling mechanism, providing detailed test certificates for each batch to ensure precise traceability. Dedicated communication channels are available, with a commitment to an initial response within 24 hours and resolution within 5 to 10 working days depending on the complaint level. Major complaints trigger "Corrective and Preventive Actions" (CAPA), with all records archived to drive continuous service optimization.

◆ 客戶服務

Customer Service

在金川國際，我們深信卓越的客戶服務不僅是業務的橋樑，更是可持續發展價值的共同創造者。我們不僅關注投訴的解決，更關注客戶體驗的整體提升，將負責任原則融入客戶服務的每一個環節。

At JCI, we firmly believe that excellent customer service is not only a bridge for business but also a co-creator of sustainable development value. We focus not only on resolving complaints but also on the overall enhancement of customer experience, integrating responsible principles into every link of customer service.

Kinsenda 礦場 Kinsenda Mine

Kinsenda 礦場建立了覆蓋售前、售中及售後的完整服務體系，透過商務、選礦及物流部門的緊密協作，實現從質量核驗、報關出口到貨物交付的全流程管理。礦場確保每批次產品均經第三方質檢並即時同步物流進度；同時設有快速響應機制，承諾在接獲質量異議後 24 小時內聯動核查並提供解決方案，切實保障客戶權益。

報告期內，Kinsenda 礦場開展了客戶滿意度調研，調研方式主要為郵件溝通及現場交流，調研對象主要為銅精礦採購商，整體來看客戶滿意度較高。

The Kinsenda Mine has established a comprehensive service system covering pre-sales, in-sales, and post-sales stages. Through seamless collaboration among commercial, processing, and logistics departments, the mine ensures end-to-end management from quality verification and customs clearance to final delivery. All batches undergo third-party inspection with real-time logistics tracking; furthermore, a rapid response mechanism is in place to ensure that any quality objections are addressed within 24 hours through cross-departmental verification and solution-finding to safeguard customer interests.

During the Reporting Period, the Kinsenda Mine conducted a customer satisfaction survey. The survey methods primarily involved email communication and on-site exchanges, targeting copper concentrate purchasers. Overall, customer satisfaction was relatively high.

Musonoi 礦場 Musonoi Mine

Musonoi 礦場于報告期內開展了客戶滿意度調研，調研方式為透過電話及視頻會議與客戶進行深度溝通，直接瞭解客戶的需求、體驗及滿意度，並記錄相關信息。同時，透過電話、郵件等渠道主動收集各類客戶反饋，與客戶保持持續溝通，深入瞭解其對產品及服務的滿意程度，並積極吸納客戶的反饋意見與建議。

During the Reporting Period, the Musonoi Mine conducted a customer satisfaction survey. The survey method involved deep communication with customers via telephone and video conferences to directly understand their needs, experiences, and satisfaction levels, and recording the relevant information. At the same time, it proactively collected various customer feedback through channels such as phone and email, maintaining continuous communication with customers to deeply understand their satisfaction with products and services, and actively incorporating customer feedback and suggestions.

科技創新發展 Scientific and Technological Innovation Development

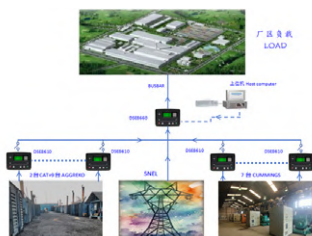
金川國際秉持創新驅動、科技引領的發展戰略，將技術突破與管理變革作為構築核心競爭力的基石。在礦區層面，我們因地制宜，針對各礦區的資源特性與開採條件，有針對性地開展產品開發與技術攻關，推動創新成果在生產一線落地轉化。在管理創新方面，我們依據《集團管理成果及爭取優惠政策評審獎勵辦法》，持續開展管理創新項目成果評審，鼓勵各業務單元在管理模式、工具方法與制度機制上大膽探索。透過構建開放、激勵與評價並重的創新機制，為企業高質量發展注入持久動能。與此同時，我們高度重視知識產權保護，透過系統化的專利佈局與成果管理，為技術創新提供堅實保障。

JCI adheres to a development strategy driven by innovation and led by technology, taking technological breakthroughs and management transformations as the cornerstone for building core competitiveness. At the mine level, we tailor our approach to local conditions. Based on the resource characteristics and mining conditions of each mining area, we conduct targeted product development and technical problem-solving, promoting the landing and transformation of innovative achievements on the production front line. In terms of management innovation, in accordance with the "Group Management Achievements and Favorable Policy Review and Reward Measures", we continuously review the outcomes of management innovation projects, encouraging various business units to boldly explore management models, tools, methodologies, and institutional mechanisms. By building an innovation mechanism that equally emphasizes openness, incentives, and evaluation, we inject lasting momentum into the enterprise's high-quality development. Simultaneously, we attach great importance to the protection of intellectual property rights. Through systematic patent layouts and achievement management, we provide a solid guarantee for technological innovation.

Ruashi 礦場 Ruashi Mine

報告期內，Ruashi礦場開展了一系列工藝技術、設備設施及生產控制創新改造工作：

礦場進行了全電網一體化控制技術改造，透過優化生產負載與電網供電功率的均衡控制、機組功率分配及均衡控制、通訊系統、自動減載系統等環節，使得系統運作更趨穩定，提供約生產所需總電量的60%，同時推高智能化、自動化控制水平，提升機組運行效率、降低維修故障發生率。



礦場針對磨機高壓潤滑系統跑冒滴漏、油液污染等問題實施技術優化與管理升級，透過更換高壓鋼絲軟管、標準液壓接頭，搭建「源頭控制 - 過程淨化 - 末端檢測」污染治理體系，配備在線濾油設備，建立油品定期檢測、濾油運維體系等措施，使得潤滑系統故障率降幅達70%，能耗降低30%。



此外，Ruashi礦場計劃興建並投產回轉焙燒項目，逐步探索優化焙燒產能及生產效率的生產組織模式，提升資源利用效率，並計劃建成智能光電分選設備，配套應用於現有硫化礦處理系統，將中低品位硫化銅礦富集為高品位。

During the Reporting Period, the Ruashi Mine carried out a series of innovative transformation works regarding process technologies, equipment facilities, and production control:

The mine underwent technological transformation for integrated control of the entire power grid. Through links such as balanced control optimizing production loads and grid power supply, allocation and balanced control of unit power, communication systems, and automatic load-shedding systems, the system operation became more stable, providing approximately 60% of the total electricity required for production. This simultaneously elevated intelligent and automated control levels, improved unit operating efficiency, and reduced the incidence of maintenance failures.

The mine implemented technological optimization and management upgrades targeting issues such as running, emitting, dripping, leaking, and oil contamination in the mill's high-pressure lubrication system. By replacing high-pressure steel wire hoses and standard hydraulic joints, it built a pollution control system of 'source control - process purification - end-of-pipe testing'. Equipping online oil filtering devices and establishing systems for regular oil testing and filter maintenance reduced the failure rate of the lubrication system by 70% and lowered energy consumption by 30%.

Furthermore, the Ruashi Mine plans to construct and commission a rotary roasting project, gradually exploring production organization models to optimize roasting capacity and efficiency, thereby enhancing resource utilization. It also plans to build intelligent photoelectric sorting equipment, applied in conjunction with the existing sulfide ore processing system to enrich low-to-medium grade sulfide copper ore to high grade.

Kinsenda 礦場 Kinsenda Mine

報告期內，Kinsenda礦場為進一步降低產品水分，啟動了《濃縮壓濾系統擴能改造項目》，並安裝一台臥式壓濾機，透過安裝壓濾機，精礦水分指標得到明顯改善。

Kinsenda礦場還與礦冶科技集團合作開展了《金森達選礦廠生產流程診斷與指標優化提升研究》項目，目前所有現場採集的樣品已送抵礦冶科技集團實驗室。

During the Reporting Period, to further reduce product moisture, the Kinsenda mine launched the "Thickening and Filter Press System Expansion and Transformation Project", installing a horizontal filter press. Through the installation of the filter press, the concentrate moisture indicator has significantly improved.

The Kinsenda Mine also collaborated with the BGRIMM Technology Group to conduct the "Kinsenda Processing Plant Production Flow Diagnosis and Indicator Optimization and Enhancement Research" project. Currently, all samples collected on-site have been sent to the BGRIMM Technology Group laboratory.



Musonoi 礦場 Musonoi Mine

報告期內，Musonoi礦場開展了焙燒爐上下料工藝系統的優化改進，提升了生產的連續性。透過縮短下料管、輔以壓縮空氣吹掃、研發自製收料小車等多項措施，有效改善物料流動性，實現焙砂輸送方向的人工可控，提升系統生產靈活性。質量化驗室透過改進礦石樣品分析方法，顯著提升分析工作的時效性，為生產環節及時提供可靠的分析數據。

Musonoi礦場還開展了焙砂浸出率實驗，透過多因素交叉實驗篩選出最佳焙燒溫度、浸出溫度及浸出時間，有效提升金屬回收率。透過優化電流密度、精準投加添加劑、嚴格控制陰陽極間距、定期撈取電積槽表面浮渣、強化極板管理與槽面操作等措施，顯著提升陰極銅產品品質。

此外，Musonoi礦場積極開展礦山數字化建設，全域所有關鍵崗位均已安裝視頻監控設備，並在關鍵工序及各質量控制點佈置壓力、流量傳感器，實現生產過程的全面感知與數據採集；搭建浮選智能加藥系統，實現參數的閉環控制。同時，礦場採用三維掃描儀採集井下掘進巷道及採空區的三維數據點，為地質報告編制及採礦設計提供可靠的三維數據模型。

During the Reporting Period, the Musonoi Mine optimized and improved the loading and unloading process system of the roaster, enhancing production continuity. Through multiple measures such as shortening the discharge pipe, assisted by compressed air purging, and developing a self-made receiving trolley, it effectively improved material fluidity, realized manual controllability in the direction of calcine transport, and enhanced system production flexibility. The quality laboratory significantly improved the timeliness of analysis work by upgrading the ore sample analysis method, promptly providing reliable analytical data for production links.

The Musonoi Mine also conducted experiments on the leaching rate of calcine, selecting the optimal roasting temperature, leaching temperature, and leaching time through multi-factor cross experiments, effectively enhancing metal recovery rates. By optimizing current density, accurately adding additives, strictly controlling the anode-cathode distance, regularly skimming floating dross from the surface of electrowinning cells, and strengthening electrode plate management and cell surface operations, it significantly improved the quality of cathode copper products.

Moreover, the Musonoi Mine actively advanced mine digitalization. Video monitoring equipment has been installed in all key positions region-wide, and pressure and flow sensors have been deployed in key processes and all quality control points to achieve comprehensive perception and data collection of the production process; an intelligent flotation reagent addition system was built to achieve closed-loop control of parameters. Concurrently, the mine utilizes 3D scanners to collect 3D data points of underground development drifts and mined-out areas, providing reliable 3D data models for geological report compilation and mining design.

為保護知識產權，Musonoi礦場組在研發新技術前，開展專利查新與侵權預警分析，避免研發方向與現有專利發生衝突；生產過程中，對核心工藝參數採用加密存儲，僅授權人員可查閱，杜絕涉密數據外泄。要求研發人員詳細記錄實驗數據、工藝改進過程、參數調整日誌等，形成完整的技術檔案，作為專利申請的核心佐證材料，避免因證據不足導致專利申請被駁回。同時，強化內部保密管控，定期開展知識產權保密培訓，提升員工保密意識。

2025年，Musonoi礦場已申請發明專利1項、實用新型專利1項。礦場針對焙燒爐節能改造等冶煉核心技術，申請了實用新型專利保護。

To protect intellectual property, the Musonoi Mine team conducts patent novelty searches and infringement warning analyses prior to researching and developing new technologies to avoid directional conflicts with existing patents. During production, core process parameters are stored using encryption, and can only be accessed by authorized personnel, strictly preventing the leakage of classified data. R&D personnel are required to record experimental data, process improvement procedures, and parameter adjustment logs in detail, forming complete technical files as core supporting materials for patent applications, avoiding application rejection due to insufficient evidence. Concurrently, internal confidentiality controls are strengthened, and regular intellectual property confidentiality training is conducted to elevate employees' confidentiality awareness.

In 2025, the Musonoi Mine applied for 1 invention patent and 1 utility model patent. Targeting core smelting technologies such as the energy-saving transformation of the roaster, the mine applied for utility model patent protection.

數據私隱及網絡安全 Data Privacy and Network Security

金川國際深信，穩定可靠的信息系統是構建安全、高效工作環境的重要基石。我們嚴格遵守營運地相關法律法規，包括剛果（金）《憲法》、《數碼法典》、《電信法》、《第20/017號電信/ICT法》及《刑法典》等，確保員工、承包商及當地社區的個人數據收集與處理工作合法、安全，並嚴格遵守上述法律義務。

JCI deeply believes that a stable and reliable information system is an important cornerstone for building a safe and efficient working environment. We strictly abide by relevant laws and regulations in our operating locations, including the DRC's "Constitution", "Digital Code", "Telecommunications Law", "Law No. 20/017 on Telecommunications / ICT", and "Penal Code", ensuring that the collection and processing of personal data of employees, contractors, and local communities are legal and safe, and strictly adhering to the aforementioned legal obligations.

我們制訂了《集團信息系統政策手冊》《集團信息及通訊科技設施管理政策》等內部管理政策，引導僱員正確使用ICT設施，杜絕信息濫用及誤用，抵禦網絡威脅。新員工入職時，必須閱讀並簽署本集團的信息科技（IT）政策。我們鼓勵僱員或其他持份者在獲悉任何濫用設施或違反本政策的情況時，及時通知ICT經理。我們每年均會開展內部及外部IT控制審計。

在技術防護方面，我們定期進行信息安全脆弱性分析，並透過定期升級計算機系統安全功能、加密互聯網線路、定時更換密碼、於防火牆及活動目錄中設置安全規則、伺服器安裝殺毒軟件、實施防病毒及補丁管理、活動目錄實施集中採購，以及強制執行、監控並驗證賬戶雙因素身份驗證（2FA），全方位防止客戶數據被濫用或洩露。我們在與客戶簽訂的所有合同中均設有保密條款。

儘管本集團已制定上述內部管理政策，以指引員工正確使用資訊及通訊科技設施，惟法證會計師認為文件保存規程仍有需要加強之處。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，本集團將採取補救措施，包括但不限於提高記錄歸檔的頻率，以及就申請查閱和存取已歸檔記錄建立書面審批程序。

We formulated internal management policies such as the "Group Information System Policy Manual" and the "Group Information and Communication Technology Facilities Management Policy", guiding employees on the correct use of ICT facilities, eliminating information abuse and misuse, and defending against cyber threats. Upon joining, new employees must read and sign the Group's Information Technology (IT) policy. We encourage employees or other stakeholders to promptly notify the ICT manager upon learning of any facility abuse or policy violations. We conduct internal and external IT control audits annually.

In terms of technical protection, we regularly conduct information security vulnerability analyses. We comprehensively prevent customer data from being abused or leaked by regularly upgrading computer system security functions, encrypting internet lines, periodically changing passwords, setting security rules in firewalls and Active Directory, installing antivirus software on servers, implementing antivirus and patch management, centralizing procurement implementation for Active Directory, as well as enforcing, monitoring, and verifying two-factor authentication (2FA) for accounts. We include confidentiality clauses in all contracts signed with customers.

Notwithstanding the Group has the abovementioned internal management policy guiding employees on the correct use of ICT facilities, the document retention protocol is identified by the forensic accountant that needs to enhance. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, remedial measures will be adopted, such as but not limited to, the frequency in archiving records and a documented approval process for requesting and accessing the archived records.

Ruashi 礦場 Ruashi Mine

報告期內，Ruashi礦場已確保所有電腦設備均接入 WSUS伺服器並完成更新反饋，並為所有電腦安裝反病毒代理程式。

During the Reporting Period, the Ruashi Mine ensured all computer equipment was connected to the WSUS server and completed update feedback. It installed antivirus agents on all computers and executed data backup work.

發生信息安全事件時，Ruashi礦場制訂了如下處置流程：

When an information security incident occurs, the Ruashi Mine formulated the following handling procedure:

- 分析事件成因及其對服務的影響；
Analyze the causes of the incident and its impact on services;
- 向用戶通報事件情況及其對服務的影響；
Notify users about the incident and its impact on services;
- 將事件上報至相關服務部門並推進解決；
Escalate the incident to relevant service departments and advance resolution;
- 針對該事件落實必要的安全防護措施；
Implement necessary security protection measures targeting the incident;
- 與用戶保持溝通是維護系統運行、保障系統安全的核心工作。
Maintaining communication with users is the core task in maintaining system operations and safeguarding system security.

Kinsenda 礦場 Kinsenda Mine

報告期內，Kinsenda礦場完成了防火牆安全系統升級；每周對檢測到的病毒及惡意軟件進行分析，並制訂解決方案。礦場定期向終端用戶發送有關數據安全及操作守則的電郵提醒，定期提醒用戶將數據備份至雲端，以及向終端用戶發送網絡安全防範提示。

During the Reporting Period, the Kinsenda Mine completed a firewall security system upgrade; weekly analyzed detected viruses and malware, and formulated solutions. The mine regularly sends email reminders to end-users regarding data security and operating codes, regularly reminds users to back up data to the cloud, and sends network security prevention tips to end-users.

Musonoi 礦場 Musonoi Mine

Musonoi礦場採用雲端冗餘架構，所有數據均同步至國際數據中心。此外，每位員工均配有個人雲帳戶，可同步本地電腦存儲數據。一旦電腦遺失或損壞，員工能夠快速恢復設備內數據。依託網路即可實現近乎零延遲的平均數據恢復時長（MTR）。以上各項保障設施均已在歷次審計中核驗確認無誤。

The Musonoi Mine adopts cloud redundant architecture, and all data is synchronized to international data centers. In addition, each employee is equipped with a personal cloud account to synchronize data stored on local computers. In case of loss or damage of computers, employees can quickly restore data stored in devices. Relying on the network, it can achieve nearly zero-latency Mean Time to Restore (MTR). All the above safeguard measures have been verified and confirmed correct in all previous audits.

負責任供應鏈

RESPONSIBLE SUPPLY CHAIN

我們深明，企業的社會責任已不僅限於自身營運，更延伸至整個供應鏈的每一個環節，建立負責任、高效、綠色、廉潔的供應鏈是我們可持續發展之重要保障。因此，我們秉持合規、公允、可持續的負責任採購原則，持續完善供應鏈管理全流程並融入可持續發展理念，積極攜手供應鏈合作夥伴，努力實現多方共贏。此外，公司所有礦權均獲當地礦業主管部門官方認證，承諾絕不涉及衝突礦產。

We deeply understand that corporate social responsibility is no longer limited to our own operations but extends to every link in the entire supply chain. Establishing a responsible, efficient, green, and clean supply chain is a crucial guarantee for our sustainable development. Therefore, we uphold responsible procurement principles of compliance, fairness, and sustainability. We continuously perfect the entire supply chain management process, integrating sustainable development concepts, actively joining hands with supply chain partners, and striving to achieve multi-party win-win outcomes. Additionally, all company mining rights have been officially certified by local mining authorities, pledging absolute non-involvement with conflict minerals.

| 供應商管理體系 Supplier Management System

為規範我們供應鏈管理，提升供應鏈韌性及安全水平，我們根據礦區營運地及公司主要經營地點相關法律法規制訂並貫徹執行《集團供應鏈管理製度》《集團道德準則及人權政策》《集團審批框架》《集團供應鏈主要數據標準程序》《集團招標委員會職權範圍指南》等。我們的供應商行為準則涵蓋人權、環境商業道德等各個維度，包括強制勞工、童工、工作條件、職業健康及安全、歧視及騷擾、結社自由及集體談判權、溫室氣體排放及能源消耗、污染預防及廢物管理、資源效益、反貪污及避免利益衝突、反不正當競爭等，我們致力於通過有效管理減少供應鏈相關風險。

To standardize our supply chain management, and enhance supply chain resilience and safety levels, we formulated and thoroughly execute policies according to relevant laws and regulations of the mine operating locations and the Company's principal place of business. These include the "Group Supply Chain Management System", "Group Code of Ethics and Human Rights Policy", "Group Approval Framework", "Group Supply Chain Master Data Standard Procedure", "Group Tender Committee Terms of Reference Guidelines", etc.. Our supplier code of conduct covers various dimensions such as human rights and environmental business ethics, including forced labor, child labor, working conditions, occupational health and safety, discrimination and harassment, freedom of association and right to collective bargaining, greenhouse gas emissions and energy consumption, pollution prevention and waste management, resource efficiency, anti-corruption and conflict of interest avoidance, anti-unfair competition, etc.. We are committed to reducing supply chain-related risks through effective management.

此外，承建商必須嚴格遵守我們的社區政策、環境政策、健康安全計劃、零傷害政策及商業行為準則等規章制度。在入職及遵守礦山規則程序上，我們對承建商與全體僱員標準一致。承建商應充份了解與彼等將執行的工作相關之礦山規則及程序，並接受相關培訓。我們亦為採購人員及內部利益相關方提供ESG專項培訓，幫助其熟悉並在採購過程中實施ESG管理。

Furthermore, contractors must strictly comply with our rules and regulations, such as community policies, environmental policies, health and safety plans, zero-harm policies, and business conduct codes. In terms of onboarding and compliance with mine rules and procedures, we maintain consistent standards for both contractors and all employees. Contractors should fully understand the mine rules and procedures relevant to the work they will perform and undergo associated training. We also provide dedicated ESG training for procurement personnel and internal stakeholders to help them become familiar with and implement ESG management during the procurement process.

◆ 供應商准入 Supplier Onboarding

供應商准入是負責任供應鏈管理的首要環節，在選擇供應商時，我們會優先考慮已獲得第三方質量管理體系合規證書、擁有良好信用評級、不存在治理風險、業務關聯度較高，並且在僱員安全、環境保護及社區影響方面表現卓越的合作夥伴，我們會要求供應商填寫環境危害程度調查表，將環境危害程度納入供應商綜合評價體系，優先選擇環境危害程度較低的供應商。儘管 Metorex 集團已制定供應鏈管理政策，以指引員工有關供應商准入事宜，惟供應商准入程序被識別為尚不夠全面，仍有待加強。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，將採取補救措施。

Supplier onboarding is the primary link in responsible supply chain management. When selecting suppliers, we prioritize partners that have obtained third-party quality management system compliance certificates, possess good credit ratings, lack governance risks, have a high degree of business relevance, and exhibit outstanding performance in employee safety, environmental protection, and community impacts. We require suppliers to fill out an environmental hazard level questionnaire, incorporating the environmental hazard level into the supplier comprehensive evaluation system, and prioritizing suppliers with lower environmental hazard levels. Notwithstanding the Metorex Group has the supply chain management policy guiding employees on supplier onboarding, the onboarding protocol is identified as not comprehensive that needs to enhance. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, remedial measures will be adopted.

Ruashi 礦場 Ruashi Mine

Ruashi礦場已在所有合約中加入環境條款，且《重大環境因素管理程序》亦載有綠色採購相關指引。

The Ruashi Mine has added environmental clauses to all contracts, and the "Significant Environmental Factors Management Procedure" also contains green procurement guidelines.

Musonoi 礦場 Musonoi Mine

Musonoi礦場制訂了《供應商管理制度》，對供應商選擇、日常管理、評價、淘汰及申訴處理各方面進行了詳細規定。在篩選供應商時，礦場會優先考慮獲得第三方環保認證（如 ISO 14001 環境管理體系認證、綠色礦山認證）的企業。同時，供應商必須遵守國家礦產資源開發利用、生態環境保護等相關法規，並具備合法的採礦許可證，確保供應鏈源頭在合規性上達到基本環保門檻。此外，礦場對供應商的嚴重侵犯人權行為（如酷刑、強制勞動、最惡劣形式的童工、戰爭罪等）持「零容忍」態度，一旦發現立即終止合作。Musonoi 礦場會從基本資質、生產技術、產品質量、交付服務及 ESG 績效表現等多個維度，對申請合作的供應商進行系統化的准入評價與審核。

The Musonoi Mine formulated the "Supplier Management System", detailing regulations on supplier selection, daily management, evaluation, elimination, and appeal handling. When screening suppliers, the mine prioritizes enterprises that have obtained third-party environmental certifications (such as ISO 14001 Environmental Management System Certification, Green Mine Certification). Concurrently, suppliers must abide by national regulations on the development and utilization of mineral resources and ecological environmental protection, and possess legal mining licenses, ensuring the source of the supply chain meets basic environmental thresholds in terms of compliance. Furthermore, the mine maintains a "zero tolerance" attitude towards severe human rights violations by suppliers (such as torture, forced labor, worst forms of child labor, war crimes, etc.); once discovered, cooperation is immediately terminated. Musonoi Mine conducts systematic admission evaluations and audits of applying suppliers from multiple dimensions, including basic qualifications, production technology, product quality, delivery services, and ESG performance.

◆ 供應商管理及複核

Supplier Management and Review

供應商管理及複核是確保供應鏈持續符合可持續發展標準的關鍵環節。我們建立供應商評估體系，對供應商的產品質量、勞工權益（包括但不限於平等就業機會、非歧視、公正薪酬、合法權益、人身安全及福利保障）、環境與社區影響等關鍵指標進行定期或不定期評估。針對表現不合格的供應商，我們制定了供應商整改計劃，與供應商共同制訂改進方案，確保供應鏈的持續優化。

Supplier management and review are crucial links in ensuring the supply chain continuously meets sustainable development standards. We have established a supplier evaluation system to conduct regular or irregular assessments on key indicators such as suppliers' product quality, labor rights (including but not limited to equal employment opportunities, non-discrimination, fair remuneration, legal rights, personal safety, and welfare guarantees), environmental, and community impacts. For underperforming suppliers, we formulate supplier rectification plans, jointly establishing improvement schemes with them to ensure continuous optimization of the supply chain.

我們致力於透過持續的溝通與合作，鼓勵供應商不斷提升自身的可持續發展能力，從而構建一個更加穩健、負責任的供應鏈生態系統。

We are committed to encouraging them to continuously enhance their own sustainability capabilities through ongoing communication and cooperation., thereby building a more robust and responsible supply chain ecosystem.

儘管 Metorex 集團已制定相關政策，以指引員工進行供應商評估，惟該等評估的文件記錄被識別為並不完整，仍有待加強。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，將採取補救措施。

Notwithstanding the Metorex Group has the policy guiding employees on supplier evaluation, the documentation of the evaluation is identified as not complete that needs to enhance. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, remedial measures will be adopted.

Kinsenda 礦場 Kinsenda Mine

報告期內，Kinsenda礦場已開展供應商審核評估，製作了供應商考核評分表，評估體系共設立 6 個核心維度、11 項具體指標，採用百分制量化評分並明確各指標權重，具體覆蓋：詢價回應、制度遵循、供貨質量、交貨能力、售後服務、誠信經營六大模塊，形成了結構化的供應商綜合評估框架。

During the Reporting Period, the Kinsenda Mine conducted supplier audit evaluations and created a supplier assessment scorecard. The evaluation system established 6 core dimensions and 11 specific indicators, adopting a 100-point quantitative scoring system with clarified weights for each indicator. It specifically covers six major modules: inquiry response, system compliance, supply quality, delivery capability, after-sales service, and integrity in operations, forming a structured comprehensive supplier evaluation framework.

Musonoi 礦場 Musonoi Mine

Musonoi礦場建立了嚴格的供應商准入及資質審核制度，對供應商實行分級（如 A、B、C 類）分類管理；定期對供應商的產品質量、交貨期、價格、售後服務等進行評價考核，建立供應商評價檔案，並持續推動供應商獲取國際通用的管理體系認證。

2025年，Musonoi礦場共35家供應商通過了ISO 14001環境管理體系認證；14家供應商獲得ISO 45001職業健康安全管理体系認證；52家供應商通過了ISO 9001質量管理體系認證。

The Musonoi Mine established a strict supplier onboarding and qualification review system, implementing classified and graded (e.g., A, B, C classes) management for suppliers. It regularly evaluates and assesses suppliers' product quality, delivery lead times, pricing, after-sales service, etc., establishes supplier evaluation files, and continuously pushes suppliers to obtain internationally recognized management system certifications.

In 2025, a total of 35 suppliers for the Musonoi Mine passed ISO 14001 environmental management system certification; 14 suppliers obtained ISO 45001 occupational health and safety management system certification; 52 suppliers passed ISO 9001 quality management system certification.

◆ 供應商廉潔管理

Supplier Integrity Management

金川國際制訂了《集團供應鏈管理制度》，各礦區持續強化供應鏈合規、誠信與透明化管理，防範經營及法律風險。我們要求供應商堅守公平競爭原則，遵循相關反壟斷法律法規，不得從事壟斷行為或操縱市場價位，杜絕價格歧視、串通投標等違法行為，共同營造公開透明、公平公正的商業環境。同時，我們要求相關僱員每年提交利益衝突書面聲明，嚴禁僱員收受供應商金錢、禮品以換取信息或好處，違者將立即受到相應的紀律處分，從而有效防範和打擊供應鏈中的不當行為。

JCI formulated the "Group Supply Chain Management System". Various mining areas continuously strengthen supply chain compliance, integrity, and transparent management, preventing operational and legal risks. We require suppliers to adhere to fair competition principles, follow relevant anti-monopoly laws and regulations, refrain from monopolistic behavior or market price manipulation, and eliminate illegal acts such as price discrimination and bid rigging, jointly fostering an open, transparent, fair, and just business environment. Simultaneously, we require relevant employees to submit written declarations of conflict of interest annually. Employees are strictly forbidden from accepting money or gifts from suppliers in exchange for information or favors. Violators will be immediately subjected to corresponding disciplinary actions, effectively preventing and combating misconduct in the supply chain.

儘管 Metorex 集團已制定相關政策，以指引員工識別潛在利益衝突，惟有關程序被識別為未有被嚴格遵守，仍有待加強。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，將採取補救措施。

Notwithstanding the Metorex Group has the policy guiding employees on identification of potential conflicts of interest, such protocol is identified as not having been adhered to strictly that needs to enhance. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, remedial measures will be adopted.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場將廉潔採購的要求深度融入採購申請、供應商准入、報價審核、招標實施、合同授予、收貨付款全流程。同時聯動集團審批架構、招標管理指引等相關文件，構建「制度定標+流程固化+分級審批」的全鏈條閉環管控體系，以硬性規則壓縮違規空間，確保廉潔要求逐層落實。該體系覆蓋所有參與供應鏈業務的內部員工（包括採購、物流、庫存管理、財務等相關崗位）及外部合作供應商，為礦場廉潔合規營運築牢制度根基。

The Kinsenda Mine deeply integrates the requirements of integrity procurement into the entire process covering procurement requisitions, supplier onboarding, quote review, tender implementation, contract award, and receipt/payment. Additionally, by linking documents such as the Group's approval framework and tender management guidelines, it builds a full-chain closed-loop control system characterized by "system target setting + process solidification + tiered approval". Using hard rules to compress the space for violations, it ensures integrity requirements are implemented at every level. This system covers all internal employees involved in supply chain business (including procurement, logistics, inventory management, finance, and other relevant positions) as well as external cooperative suppliers, laying a solid institutional foundation for the clean and compliant operation of the mine.

Musonoi 礦場 Musonoi Mine

Musonoi礦場制訂了《供應商商業道德政策》，要求供應商恪守誠信及透明的原則，遵守所有相關法例、規章及商業道德守則；杜絕任何形式的貪污及賄賂行為；堅守公平競爭原則，不得從事壟斷行為或操縱市場價格等，確保供應商在業務運作中遵守道德規範及行為守則，促進誠信、公平及透明的商業環境。

The Musonoi Mine formulated the "Supplier Business Ethics Policy", requiring suppliers to uphold principles of integrity and transparency, comply with all relevant laws, regulations, and business ethics codes; eliminate all forms of corruption and bribery; adhere to fair competition principles, and not engage in monopolistic behavior or manipulate market prices, ensuring suppliers observe ethical norms and codes of conduct in their business operations, thereby promoting a business environment of integrity, fairness, and transparency.

◆ 供應鏈溝通與賦能

Supply Chain Communication and Empowerment

金川國際深信，供應鏈的韌性與可持續性不僅依賴於嚴格的管理與監督，更離不開與供應商之間開放、透明的溝通與協作。我們致力於與供應商建立長期互信的夥伴關係，透過建立雙向、開放、多樣、直接的溝通渠道，以及並明確申訴渠道，及時共享信息與需求，並透過技術交流與培訓，助力供應商提升能力。透過與供應商的緊密合作，我們能夠共同應對市場變化，提升供應鏈的整體競爭力，實現互利共贏，為企業的長期發展注入新的活力。

JCI deeply believes that supply chain resilience and sustainability rely not only on strict management and supervision but also on open and transparent communication and collaboration with suppliers. We are committed to establishing long-term, mutually trusting partnerships with suppliers. By establishing two-way, open, diverse, and direct communication channels, and defining clear grievance channels, we promptly share information and needs, and help suppliers enhance their capabilities through technical exchanges and training. Through close cooperation with suppliers, we can jointly respond to market changes, enhance the overall competitiveness of the supply chain, achieve mutual benefit and win-win results, and inject new vitality into the long-term development of the enterprise.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦產與客戶建立了每年一至兩次的常態化ESG對接溝通機制，將單向的業務合作升級為雙向價值共創的可持續合作夥伴關係。每次對接均聚焦ESG全維度，精準對接雙方ESG建設的痛點與進展，實現經驗互鑑、優勢互補。溝通過程中，Kinsenda礦場分享自身在綠色營運、供應鏈責任治理等方面的實踐經驗，同時主動借鑑客戶在行業合規標準、利益相關方關懷等領域的先進做法，形成「實踐輸出—經驗吸收—優化迭代」的閉環。針對共性難題，雙方聯合探討解決方案，為彼此的ESG發展路徑優化提供精準指引，在行業中樹立起利益相關方協同共建的ESG實踐典範。

The Kinsenda Mine has established normalized ESG engagement and communication mechanisms with customers once or twice a year, upgrading unilateral business cooperation to a bilateral value-co-creating sustainable partnership. Each engagement focuses on full dimensions of ESG, precisely aligning with the pain points and progress of both parties' ESG construction, achieving mutual learning of experiences and complementing each other's advantages. During communication, the Kinsenda mine shares its practical experiences in green operations, supply chain responsibility governance, etc., while proactively learning from advanced customer practices in industry compliance standards, stakeholder care, and other domains, forming a closed loop of "practice output — experience absorption — optimized iteration". Targeting common difficulties, both parties jointly explore solutions, providing precise guidance for optimizing each other's ESG development paths, and establishing an exemplary ESG practice of stakeholder collaborative construction in the industry.

Musonoi 礦場 Musonoi Mine

Musonoi礦場建立了開放、直接且及時的溝通渠道，包括電郵、電話等線上溝通，以及實地走訪、邀請對方到項目現場進行面對面溝通，始終保持雙向溝通，及時共享信息與需求，確保雙方清晰了解彼此的期望與要求。當採購方與供應商出現分歧或衝突時，及時溝通協商，尋求解決方案。處理衝突時，秉持公正、平等、尊重的態度。

The Musonoi Mine has established open, direct, and timely communication channels, including online communication such as email and phone, as well as field visits and inviting counterparts to the project site for face-to-face communication. We always maintain two-way communication, promptly sharing information and needs, to ensure both parties clearly understand each other's expectations and requirements. When differences or conflicts arise between the purchaser and suppliers, we communicate and negotiate in a timely manner to seek solutions. When handling conflicts, we uphold an attitude of fairness, equality, and respect.

衝突礦產及爭議採購 Conflict Minerals and Controversial Sourcing

金川國際堅定奉行負責任採購政策，為維持礦石品位及產量之可持續性，Ruashi礦場從第三方礦石供應商採購部分原料，並著重推進負責任的原料採購管理，尤其針對來自衝突或高風險地區的礦石供應鏈。依據《經合組織負責任的礦產供應鏈盡職調查指南》以及剛果（金）政府頒布的最新礦業法律法規，Ruashi礦場制訂並有效執行《第三方礦石管理政策》，識別及評估礦產供應鏈風險，完善管理體系，加強供應鏈優化能力建設，確保供應鏈合規且安全。我們承諾第三方礦石不來自以下不合規之供應商：

JCI firmly pursues a responsible sourcing policy. To sustain ore grades and production volumes, the Ruashi Mine procures a portion of raw materials from third-party ore suppliers, emphasizing the advancement of responsible raw material sourcing management, especially regarding ore supply chains originating from conflict or high-risk areas. In accordance with the "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas" and the latest mining laws and regulations promulgated by the DRC government, the Ruashi Mine formulated and effectively executed the "Third-Party Ore Management Policy". We identify and assess mineral supply chain risks, perfect management systems, and strengthen capacity building for supply chain optimization to ensure the supply chain is compliant and secure. We pledge that third-party ore does not come from non-compliant suppliers involved in the following:



採礦過程中可能涉及的任何其他非法問題
Any other illegal issues that may be involved in the mining process



未將健康及安全風險管理納入其營運
Failure to integrate health and safety risk management into their operations



忽視健康及安全
Disregard for health and safety



強迫勞工
Forced labor



未擁有合法有效的開採許可證
Failure to possess valid and legal mining licenses



侵犯人權
Human rights violations



贊助衝突
Sponsorship of conflicts



使用童工
Use of child labor

報告期內，並不存在衝突礦產及爭議採購事件。

During the Reporting Period, there were no incidents involving conflict minerals or controversial sourcing.



Musonoi 礦場 Musonoi Mine

Musonoi礦場明確承諾遵守經濟合作與發展組織 (OECD) 及責任礦產倡議 (RMI) 等國際公約和行業倡議，絕不採購或使用來自衝突地區的衝突礦產，同時計劃未來邀請外部第三方機構參與產品相關認證，確保產品未使用衝突礦產，體現Musonoi礦場對更高標準透明度與客觀性的追求。

此外，Musonoi礦場已制訂清晰的供應商RBA認證覆蓋目標——於2028年前，實現佔採購開支95%的供應商取得RBA驗證審計計劃 (VAP) 認可或「優秀工廠」認證。截至2025年的數據顯示，在此進程中已取得顯著進展，當年佔Musonoi礦場採購開支60%的供應商已取得VAP認可，為實現目標奠定堅實基礎。

The Musonoi Mine explicitly pledges to comply with international conventions and industry initiatives such as the Organisation for Economic Co-operation and Development (OECD) and the Responsible Minerals Initiative (RMI), and never to source or use conflict minerals originating from conflict areas. At the same time, it plans to invite external third-party institutions to participate in product-related certifications in the future, ensuring products do not use conflict minerals, reflecting Musonoi Mine's pursuit of higher standards of transparency and objectivity.

In addition, the Musonoi Mine has formulated clear supplier RBA certification coverage targets—by 2028, ensuring that suppliers accounting for 95% of procurement expenditures achieve RBA Validated Assessment Program (VAP) recognition or "Excellent Factory" certification. Data up to 2025 indicates significant progress in this endeavor; in that year, suppliers accounting for 60% of Musonoi Mine's procurement expenditures had achieved VAP recognition, laying a solid foundation for achieving the target.

本地採購 Local Procurement

金川國際積極推動採購本地化策略，我們嚴格遵循剛果（金）《私營部門分包活動規範法》，構建並不斷優化科學合理的本地採購決策與流程體系，力求為營運區域的商業活動創造正向價值。在選擇供應商時，我們優先考慮本地採購，透過優先採購當地產品和服務，降低物流成本、縮短供應週期，同時創造就業機會，為當地經濟注入活力。

JCI actively promotes a localization procurement strategy. We strictly comply with the DRC's "Law on Subcontracting in the Private Sector", building and continuously optimizing a scientific and rational localized procurement decision-making and process system, striving to create positive value for commercial activities in our operating regions. When selecting suppliers, we prioritize local procurement. By preferentially procuring local products and services, we reduce logistics costs and lead times, while creating job opportunities to revitalize the local economy.

Kinsenda 礦場 Kinsenda Mine

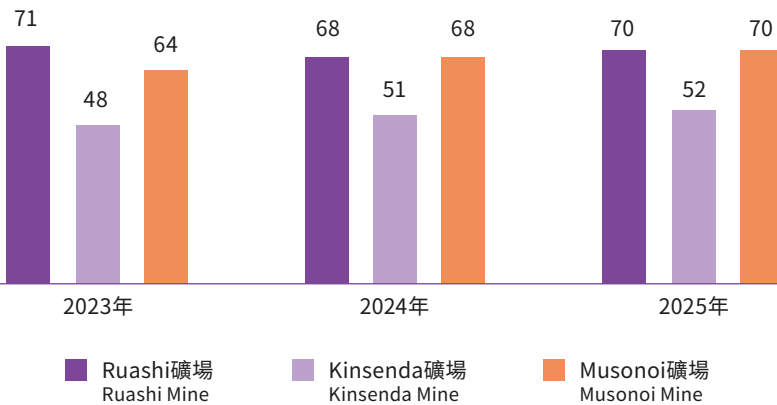
Kinsenda礦場確立了本地化採購優先原則：在產品/服務質量達標、價格合理且交貨周期匹配的前提下，優先選擇當地供應商開展合作。該原則主要適用於砂石料、水泥、鋼材等基建耗材，辦公用品、勞保用品、清潔用品等通用物資，透過聚焦就近供應，既減少跨區域採購的物流成本與時間耗損，又提升物資供應效率，同時助力當地經濟協同發展。

The Kinsenda Mine has established the principle of prioritizing localized procurement: under the premises of meeting product/service quality standards, reasonable pricing, and matching delivery cycles, priority is given to selecting local suppliers for cooperation. This principle primarily applies to infrastructure consumables such as sand, gravel, cement, and steel, as well as general materials like office supplies, labor protection gear, and cleaning supplies. By focusing on nearby supply, it not only reduces logistics costs and time loss of cross-regional procurement but also improves material supply efficiency, while simultaneously supporting the synergistic development of the local economy.

Musonoi 礦場 Musonoi Mine

Musonoi礦場同樣制訂了清晰的可持續採購政策，當中包含本地採購比例的支持目標：對生產物料實施重點本地化採購，既保障物資的時效性，又將自身發展融入本地經濟體系，構建利益共享、風險共擔的發展共同體。

The Musonoi Mine also formulated a clear sustainable procurement policy containing a support target for local procurement proportions: implementing focused localized procurement for production materials. This ensures the timeliness of materials and integrates our own development into the local economic system, building a development community of shared interests and shared risks.



近三年關鍵績效：東道國本地採購率 (%)
2023-2025 Local Procurement Rates in the Host Countries(Unit: %)

05

僱員管理

Employee Management

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 僱傭與勞工管理 Employment and Labor Management
- 多元、平等與包容 Diversity, Equity, and Inclusion
- 僱員發展與培訓 Employee Development and Training
- 僱員安全與健康 Occupational Safety and Health



2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

0 起童工使用或強迫勞動事件

0 incidents of child or forced labour

0 起營運地罷工或停工事件

0 incidents of strikes or lockouts at any of our mining operations



0 起因工死亡事件，每百萬工時 死亡頻率0

0 work-related fatalities, maintaining a fatality frequency of 0 per million working hours

Ruashi礦場取得ISO 45001職業 健康與安全管理體系認證

Ruashi Mine obtained ISO 45001 Occupational Health and Safety Management System Certification

金川國際深明，僱員是企業可持續發展的根基。面對跨地域營運環境下的法規差異、文化多元、安保風險與健康風險，我們始終秉持負責任的經營理念，透過制度化管理、分層責任落實、持續培訓與溝通關懷，打造安全、健康、公平且包容的工作場所，確保每位員工都能在平等與尊重的氛圍中發揮所長。

JCI deeply understands that employees are the foundation of sustainable corporate development. Facing regulatory differences, cultural diversity, security risks, and health risks in cross-regional operating environments, we always uphold a responsible operational philosophy. Through institutionalized management, tiered responsibility implementation, continuous training, and communicative care, we forge a safe, healthy, fair, and inclusive workplace, ensuring every employee can fully utilize their strengths in an atmosphere of equality and respect.

勞工人權

LABOR AND HUMAN RIGHTS

金川國際恪守聯合國《世界人權宣言》和國際勞工組織相關基本公約，嚴格遵守各營運所在地的法律法規。金川國際制訂了《集團道德規範和人權制度》等政策文件，從企業倫理、僱員權利保護及供應鏈管理等方面對人權議題提出總體要求，明確企業在人權保護方面的基本原則與行為規範。

JCI adheres strictly to the UN "Universal Declaration of Human Rights" and relevant fundamental conventions of the International Labour Organization, strictly complying with the laws and regulations of all operating locations. JCI has formulated policy documents such as the "Group Code of Ethics and Human Rights System" to set overall requirements for human rights issues from the perspectives of corporate ethics, protection of employee rights, and supply chain management, clarifying the enterprise's basic principles and behavioral norms in human rights protection.

為進一步明確公司在人權保護方面的原則與承諾，金川國際已制訂並發布《人權政策聲明》，適用於公司旗下所有經營及控制實體，並涵蓋僱員、承建商及其他參與公司業務活動的第三方，並定期識別及評估影響業務及供應商管理各流程的潛在人權風險。我們承諾向員工支付基本生活工資、避免超時工作、支付帶薪年假薪酬，此外，我們在所有營運點均設有礦工工會，以切實維護員工的合法權益。

To further clarify the Company's principles and commitments in human rights protection, JCI formulated and published the "Human Rights Policy Statement", applicable to all operating and controlling entities under the Company, covering employees, contractors, and other third parties participating in the Company's business activities. We regularly identify and assess potential human rights risks affecting business and supplier management processes. We are committed to paying employees a basic living wage, avoiding forced overtime, and paying for paid annual leave. Furthermore, we have established miners' unions at all operating sites to practically safeguard the legitimate rights and interests of employees.



杜絕童工及強迫勞動 Elimination of Child and Forced Labour

金川國際嚴格遵守業務所在地中國香港、南非、剛果（金）及贊比亞的法律法規，包括剛果（金）《憲法》《勞工法（2002年第015/2002號）》《礦業法（2002年第007/2002號）》《兒童保護法（2009年1月10日第 09/001 號）》《部長法令（2008年 8月8日第12/CAB.MIN/TPSI/045/08號）》《關於最低就業年齡的第138號公約》及《關於最惡劣形式童工的第182號公約》、贊比亞2019年第3號《就業法》等。各營運點設立了嚴格的招聘年齡限制，明令禁止僱用任何年齡低於18歲的人員，所有僱員在獲錄用及加入本企業時均須出示身份證件並完成背景調查。該要求同樣適用於承建商，我們承諾不與使用童工的供應商、承建商或其他第三方合作。各礦場已透過職位職責和內部管理機制對相關政策落實情況進行日常監督，並在日常人力資源管理、僱員溝通及職業健康安全管理過程中，透過內部管理流程對潛在人權風險進行持續識別與管理。

報告期內，我們的作業現場概無發生童工及強迫勞動情形。

JCI strictly complies with the laws and regulations of its business locations in Hong Kong (China), South Africa, the DRC, and Zambia, including the DRC's "Constitution", "Labor Code (Law No. 015/2002)", "Mining Code (Law No. 007/2002)", "Child Protection Act (Law No. 09/001 of January 10, 2009)", "Ministerial Decree (No. 12/CAB.MIN/TPSI/045/08 of August 8, 2008)", "Minimum Age Convention, 1973 (No. 138)", "Worst Forms of Child Labour Convention, 1999 (No. 182)", and Zambia's "Employment Code Act No. 3 of 2019". All operating sites have established strict recruitment age limits, explicitly prohibiting the employment of anyone under the age of 18. All employees must present identification documents and undergo background checks upon being hired and joining the enterprise. This requirement equally applies to contractors; we pledge not to cooperate with suppliers, contractors, or other third parties that use child labor. All mines implement daily supervision over the implementation of relevant policies through job responsibilities and internal management mechanisms, and continuously identify and manage potential human rights risks through internal management processes during daily human resource management, employee communication, and occupational health and safety management.

During the Reporting Period, there were no instances of child labor or forced labor at our operational sites.

Ruashi 礦場

Ruashi Mine

Ruashi礦場已制訂《人權聲明政策》《童工及現代奴役政策及程序》，禁止礦場僱用童工，並禁止對所有人（包括承辦商營運中的相關人員）實施非人道對待。政策規定，一旦發現童工及現代奴役情形時，人力資源管理部應立即編製報告並告知；將兒童調離異常情況；探查定位問題所在，特別是確定其是否為最惡劣形式的童工或現代奴役，並採取適切的糾正措施。礦場為最惡劣形式的童工及受現代奴役僱員提供諮詢渠道及申訴機制，並將對違反政策內容的僱員採取嚴厲的紀律處分。

在招聘過程中，Ruashi礦場要求候選人提供身份證明文件。若發現童工違規情況，會立即將童工帶離工作場所，隨後開展調查，瞭解事件發生原因，以避免日後再次出現類似情況。審計建議進一步跟進此類個案，為相關兒童提供支援，例如協助其接受培訓、掌握技能，使其在一定程度上能夠獨立生活。

The Ruashi Mine formulated the "Human Rights Statement Policy" and "Child Labor and Modern Slavery Policy and Procedures", prohibiting the employment of child labor at the mine and forbidding inhuman treatment of any person (including relevant personnel in contractor operations). The policy stipulates that upon discovering situations of child labor or modern slavery, the Human Resources Management Department must immediately compile a report and provide notification; remove the child from the abnormal situation; investigate and locate the problem, particularly determining whether it constitutes the worst forms of child labor or modern slavery, and take appropriate corrective measures. The mine provides consultation channels and grievance mechanisms for employees subjected to the worst forms of child labor and modern slavery, and will take severe disciplinary actions against employees who violate the policy.

During the recruitment process, the Ruashi Mine requires candidates to provide identity documents. If child labor violations are found, the child will be removed from the workplace immediately, followed by an investigation to understand the cause of the incident to prevent similar occurrences in the future. Audits recommend further follow-up on such cases, providing support for the affected children, such as assisting them in receiving training and acquiring skills so that they can live independently to a certain extent.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場要求職位申請人提交身份證複印件及剛果（金）國家就業辦公室頒發的求職證。其後在筆試、面試及體檢環節進行嚴格審核，直至簽訂僱傭合同。

此外，Kinsenda礦場以問答形式講解人權基礎知識，讓全體員工瞭解人權內容，並鼓勵員工遵守，推動Kinsenda礦場形成尊重人權的氛圍。

The Kinsenda Mine requires job applicants to submit a copy of their ID card and a job seeker's card issued by the National Employment Office of the DRC. Subsequently, strict reviews are conducted during written tests, interviews, and medical examinations until the employment contract is signed.

In addition, the Kinsenda Mine explains basic human rights knowledge in a Q&A format, allowing all employees to understand human rights content, encouraging employees to comply, and fostering an atmosphere of respecting human rights at the Kinsenda Mine.

Musonoi 礦場 Musonoi Mine

Musonoi礦場制訂了《中方安全官崗位制度》，明確由相關崗位人員對項目營運過程中的安全、合規及僱員權益保護情況進行監督，加強對相關責任主體執行情況的日常管理。

The Musonoi Mine formulated the "Position System for Chinese Safety Officers", explicitly designating relevant position personnel to supervise safety, compliance, and employee rights protection during project operations, strengthening daily management of implementation by relevant responsible entities.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場所在贊比亞當地的相關機構已開展多項工作，向礦區社區的父母、監護人普及童工的危害及其影響，從根源上減少因家庭貧困等因素導致兒童參與採礦工作的情況。

Relevant institutions in the local area of Zambia where the Chibuluma South Mine is located have carried out various initiatives to popularize the hazards and impacts of child labor among parents and guardians in the mining communities, reducing instances of children participating in mining work due to family poverty and other factors from the root.

在僱員人權保護培訓方面，金川國際在部分礦場開展與人權及衝突防範相關的培訓活動，提升安保人員及相關僱員在實際工作中的合規意識與風險識別能力。例如，在Ruashi礦場，人權及安保相關培訓亦已納入僱員培訓體系。礦區針對安保人員及相關執勤人員開展專項培訓，內容涵蓋執法行為規範、衝突情景管理及人員安全保護等方面，降低潛在暴力衝突風險並強化僱員的人權保護意識。2025年，Ruashi礦場開展《騷擾、童工、申訴和現代奴役》有關培訓課程，共計254人參加。在Musonoi礦場，我們定期對安保人員及礦警開展安全與安保相關培訓，透過強化執勤規範、衝突預防及行為規範管理，提升現場安保人員在人權保護及衝突管理方面的專業能力。

未來，我們將持續完善培訓體系，在集團及各營運單位層面逐步推動更系統化的人權保護培訓機制，進一步擴大培訓覆蓋範圍，並加強培訓記錄與績效數據的系統化管理，持續對標國際人權管理的最佳實踐。

Regarding employee human rights protection training, JCI conducts training activities related to human rights and conflict prevention at some mines to enhance the compliance awareness and risk identification capabilities of security personnel and related employees in actual work. For example, at the Ruashi Mine, human rights and security-related training has also been incorporated into the employee training system. The mining area conducts special training for security personnel and related duty personnel, covering law enforcement behavior standards, conflict scenario management, and personnel safety protection, mitigating potential risks of violent conflicts and reinforcing employees' human rights protection awareness. In 2025, the Ruashi Mine conducted training courses related to "Harassment, Child Labor, Grievances, and Modern Slavery", with a total of 254 participants. At the Musonoi Mine, we regularly conduct safety and security-related training for security personnel and mine police. By reinforcing duty norms, conflict prevention, and behavioral standard management, we elevate the professional competence of on-site security personnel in human rights protection and conflict management.

In the future, we will continuously improve the training system, progressively driving a more systematic human rights protection training mechanism at the Group and all operating unit levels, further expanding training coverage, strengthening the systematic management of training records and performance data, and continuously benchmarking against international best practices in human rights management.

反歧視及反騷擾 Anti-Discrimination and Anti-Harassment

為營造和諧共融的工作環境，確保每一位同事都獲得應有的尊重，我們及全體員工的一切行為，均應遵循相互尊重的原則。我們堅決不容許組織內出現任何形式的霸凌、騷擾、歧視，以及其他可能被視為具威脅性或貶損他人尊嚴的行為，攜手共建彼此尊重的職場文化。

To cultivate a harmonious and inclusive work environment and ensure every colleague receives due respect, all behaviors of ourselves and all employees must follow the principle of mutual respect. We resolutely do not tolerate any form of bullying, harassment, discrimination, or other behaviors that might be deemed threatening or degrading to others' dignity within the organization, working together to build a workplace culture of mutual respect.

金川國際制訂了《企業性騷擾政策》，旨在預防工作場所中任何形式的性騷擾，保障僱員於職場中的人身安全及尊嚴，且該政策適用於所有長期、定期及臨時僱員。我們致力於嚴肅處理所有性騷擾事件，並對該等被發現有此行徑的人採取適當的行為。同時，企業僱員亦可將根據《反欺詐、不當行為及舉報政策》開展舉報行動，以保障僱員能夠安心舉報任何他們懷疑的不當行為，而不必擔心遭到任何形式的報復。

JCI formulated the "Corporate Sexual Harassment Policy", aiming to prevent any form of sexual harassment in the workplace and safeguard employees' personal safety and dignity at work. This policy applies to all permanent, fixed-term, and temporary employees. We are committed to taking all incidents of sexual harassment seriously and adopting appropriate actions against those found to engage in such conduct. Concurrently, corporate employees may also initiate whistleblowing actions according to the "Anti-Fraud, Misconduct and Whistleblowing Policy", ensuring employees can safely report any suspected misconduct without fear of facing any form of retaliation.

報告期內，我們的採礦營運地均未發生歧視及騷擾案件。

During the Reporting Period, no cases of discrimination or harassment occurred at our mining operation locations.

Ruashi 礦場

Ruashi Mine

Ruashi礦場制訂了《性騷擾和欺凌政策與程序》《多元、共融及平等政策》，並於報告期內開展了《騷擾、童工、申訴和現代奴役》有關培訓課程。

The Ruashi Mine formulated the "Sexual Harassment and Bullying Policy and Procedure" and the "Diversity, Inclusion and Equality Policy", and conducted training courses on "Harassment, Child Labor, Grievances and Modern Slavery" during the Reporting Period.

Kinsenda 礦場

Kinsenda Mine

Kinsenda礦場承諾反對任何形式歧視，倡導工作尊嚴，禁止基於性別、出身、宗教、社會地位、殘障情況或工會隸屬關係的不平等待遇或騷擾。礦場在企業細則中明確規定，僱員舉報歧視或騷擾行為的權利受到嚴格保護，實施歧視或騷擾行為的僱員將受到懲罰，任何僱員均不得遭受任何形式的性騷擾，包括帶有性含義或暗示的言語或行為。任何僱員、求職者或在職培訓生均不得因遭受或拒絕接受歧視或騷擾行為，或因就此類行為作證或舉報此類行為，而受到直接或間接的處罰、解僱或歧視性措施，特別是在薪酬、培訓、重新定級、分配、職業晉升、調動或續簽合同方面。任何實施歧視或騷擾行為的僱員都將受到紀律處分。

The Kinsenda Mine commits to opposing any form of discrimination, advocates dignity at work, and prohibits unequal treatment or harassment based on gender, origin, religion, social status, disability, or union affiliation. The mine's corporate bylaws explicitly stipulate that employees' right to report discrimination or harassment is strictly protected, and employees who commit acts of discrimination or harassment will be punished. No employee shall suffer any form of sexual harassment, including words or actions with sexual connotations or implications. No employee, job applicant, or on-the-job trainee shall be subjected to direct or indirect penalties, dismissal, or discriminatory measures—especially regarding remuneration, training, reclassification, assignment, career promotion, transfer, or contract renewal—due to suffering or refusing to accept acts of discrimination or harassment, or testifying about or reporting such acts. Any employee who commits acts of discrimination or harassment will be subject to disciplinary action.

結社自由及集體談判 Freedom of Association and Collective Bargaining

我們積極聆聽員工對共同關注議題的意見、信息與想法。本企業的員工關係政策及相關程序，均嚴格遵循營運所在地的法規，旨在有效管理勞資關係，促進企業、管理層、員工及工會之間的良好互動，確保員工待遇體現公正、公平、平等、合理與一致的原則。

我們承認並維護僱員結社自由及集體談判的權利，僱員有權選擇加入或不加入工會，無需擔心受到干擾或報復。我們與工會保持積極的合作關係，定期與員工代表協商工作條件。截至報告期末，Ruashi礦場、Kinsenda礦場、Musonoi礦場已根據當地法律法規建立工會，Chibuluma南礦場的融資承租人亦已為該礦場建立工會組織。工會定期推選僱員代表，了解並回應僱員的期望及訴求。

報告期內，我們的採礦營運地均未發生因罷工導致的停工事件。

We actively listen to employees' opinions, information, and ideas on issues of mutual concern. The enterprise's employee relations policies and related procedures strictly abide by the regulations of the operating locations, aiming to effectively manage labor-management relations, promote good interactions among the enterprise, management, employees, and trade unions, and ensure employee treatment reflects principles of justice, fairness, equality, reasonableness, and consistency.

We recognize and uphold employees' right to freedom of association and collective bargaining; employees have the right to choose whether or not to join a trade union without fear of interference or retaliation. We maintain active cooperative relationships with trade unions and regularly consult with employee representatives on working conditions. As of the end of the Reporting Period, the Ruashi Mine, Kinsenda Mine, and Musonoi Mine had established trade unions in accordance with local laws and regulations; the financial lessee of the Chibuluma South Mine had also established a union organization for the mine. Trade unions regularly elect employee representatives to understand and respond to employees' expectations and demands.

During the Reporting Period, no work stoppage events caused by strikes occurred at any of our mining operation locations.

Ruashi 礦場

Ruashi Mine

Ruashi礦場制訂了結社自由政策，為員工表達意見提供框架，使員工能就共同關心的事項與僱主進行談判，並就分歧意見尋求解決方案，以維護良好的員工關係。礦場亦與員工簽訂集體協議。

The Ruashi Mine formulated a freedom of association policy, providing a framework for employees to express their opinions, enabling them to negotiate with the employer on matters of mutual concern and seek solutions for differences of opinion, thereby maintaining good employee relations. The mine has also signed collective agreements with employees.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場確保員工依法享有結社自由，可自願成立或加入工會，不受任何干擾，並保障員工免於因工會身份遭受歧視。此外，礦場保障員工的集體談判權及罷工權，相關行為須遵循法定程序。礦場已與員工簽訂集體協議，涵蓋員工職業發展、薪金、獎金及各項津貼、一般工作條件等內容。

The Kinsenda Mine ensures employees enjoy freedom of association according to the law, allowing them to voluntarily establish or join trade unions without any interference, and protecting employees from discrimination based on their union status. Furthermore, the mine safeguards employees' rights to collective bargaining and strike; relevant actions must follow statutory procedures. The mine has signed a collective agreement with employees covering career development, salaries, bonuses, various allowances, general working conditions, etc..

Musonoi 礦場 Musonoi Mine

Musonoi礦場與員工簽訂了集體協議，涵蓋就業條件改善、工會權利義務、工會使命、會議日程等內容。

The Musonoi Mine signed a collective agreement with employees covering improvement of employment conditions, union rights and obligations, union missions, meeting agendas, etc..

| 安保人權管理 Security Human Rights Management

我們在人權理念的指導下，貫徹執行安保工作的每一個環節，致力為員工、社區及其他持份者提供安全可靠的營運環境。在整個營運過程中，我們嚴格遵循國際人權標準，確保所有持份者的生命財產安全、個人自由及基本權利均獲得保障。金川國際制訂並發布《衝突與暴力管理政策聲明》，明確了在安保管理及潛在衝突應對方面的基本原則和管理方向，強調在保障僱員、承包商、社區居民及公司資產安全的同時，優先採取預防性和非暴力方式處理安全風險。

Guided by human rights concepts, we implement every aspect of security work, dedicating ourselves to providing a safe and reliable operating environment for employees, communities, and other stakeholders. Throughout operations, we strictly comply with international human rights standards to ensure the safety of life and property, personal freedoms, and basic rights of all stakeholders are safeguarded. JCI formulated and published the "Conflict and Violence Management Policy Statement", clarifying basic principles and management directions in security management and potential conflict responses, emphasizing that while safeguarding the security of employees, contractors, community residents, and company assets, priority is given to preventive and non-violent means for handling security risks.

我們以Metorex SHEC委員會作為最高管理機構，嚴格遵守國家、地區及行業相關的安保與人權管理法規，對營運地地安保風險進行評估，在營運過程中持續強化對安全風險及潛在衝突事件的預防管理，開展公共安保協作和私營安保管理，竭力規避任何暴力衝突事件。同時，我們在各礦區對第三方安保人員開展行為規範管理與監督工作，促進安保服務在合法、合規及審慎的原則下開展。

我們將衝突預防、人權保護及負責任安保原則納入日常營運管理，並為持續完善安保管理體系、加強風險識別及與社區等利益相關方的溝通奠定制度基礎，進一步推動公司在營運安全與人權保護之間實現平衡。我們在礦區安全管理、社區互動及安保服務管理過程中，堅持合法、審慎及負責任的管理原則，要求所有參與礦區安全維護的人員在執行職責時遵循基本的職業道德規範和行為準則，維護僱員、社區及其他利益相關方的安全與尊重。

With the Metorex SHEC Committee as our highest management body, we strictly comply with national, regional, and industry-related security and human rights management regulations. We assess security risks at operational sites, continuously strengthening preventive management against security risks and potential conflicts during operations, conducting public security collaboration and private security management, and striving to avoid any violent conflict incidents. Simultaneously, we conduct behavioral standard management and supervision of third-party security personnel at all mining areas, promoting the execution of security services under legal, compliant, and prudent principles.

We integrate conflict prevention, human rights protection, and responsible security principles into daily operational management, laying an institutional foundation for continuously perfecting the security management system, enhancing risk identification, and communicating with stakeholders such as the community, thereby further driving the Company to achieve a balance between operational security and human rights protection. During mine security management, community interactions, and security service management, we adhere to legal, prudent, and responsible management principles, requiring all personnel participating in mine security maintenance to follow basic professional ethics and behavioral norms when performing their duties, safeguarding the safety and respect of employees, communities, and other stakeholders.

Ruashi 礦場

Ruashi Mine

Ruashi礦場周邊環境複雜，附近失業居民常試圖非法入侵以獲取礦石，導致安全風險較高，衝突時有發生。同時，該地區存在非法武裝團體活動，進一步加劇了安全威脅。為應對這些挑戰，礦場採取了一系列安保人權管理措施：

- 政策培訓：遵循自願安全及人權原則，制訂安保人權管理政策，確保所有安保人員（包括第三方安保及武裝警察）接受相關培訓，並安排OPJ（司法警官）監督政策執行。報告期內，共計255名安保人員接受培訓。

The environment surrounding the Ruashi Mine is complex; unemployed local residents often attempt to trespass to obtain ore, leading to high security risks and frequent conflicts. Simultaneously, activities by illegal armed groups in the area further exacerbate security threats. To respond to these challenges, the mine has adopted a series of security human rights management measures:

- Policy Training: Following voluntary security and human rights principles, formulating security human rights management policies, ensuring all security personnel (including third-party security and armed police) receive relevant training, and arranging OPJs (Judicial Police Officers) to supervise policy implementation. During the Reporting Period, a total of 255 security personnel received training.



- 社區與社會工作: 設立社會部門, 專門負責處理與當地社區的關係, 解決土地糾紛等問題; 每年制訂社會工作計劃, 按照採礦法的要求, 為周邊社區提供支持及福利, 且相關信息透過官方渠道公開; 同時明確反對侵犯人權的行為, 定期向當地檢察官及政府部門報告相關情況。
 - 安保措施: 部署了CCTV監控系統, 用於實時監控礦區周邊情況, 以便及時發現並報告潛在威脅; 礦區周圍設有圍欄, 儘管圍欄常遭到破壞, 但Ruashi礦場持續修復並加強門禁系統, 依法驅逐或逮捕非法入侵者。
 - 衝突管理: 每年的11月、12月通常是非法入侵事件的高峰期, 透過安保人員之及時干預, 有效降低了入侵頻率; 對於非法武裝團體的活動, 我們採取積極的應對措施, 並與政府合作打擊非法行為。
- Community and Social Work: Established a social department specifically responsible for handling relationships with local communities and resolving issues such as land disputes; formulating annual social work plans to provide support and welfare for surrounding communities as required by the Mining Code, with relevant information disclosed through official channels; explicitly opposing human rights violations and regularly reporting such situations to local prosecutors and government departments.
 - Security Measures: Deployed a CCTV surveillance system for real-time monitoring of the mine perimeter to promptly detect and report potential threats; fences surround the mining area, and although often damaged, the Ruashi Mine continuously repairs them, strengthens access control systems, and expels or arrests trespassers according to the law.
 - Conflict Management: November and December of each year are typically peak periods for trespassing incidents; timely intervention by security personnel has effectively reduced intrusion frequencies; we adopt proactive response measures against the activities of illegal armed groups and cooperate with the government to crack down on illegal behavior.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場參照已在勞工督察局正式備案的《紀律程序及處罰標準》，對任何經查實、破壞良好工作環境的衝突或暴力行為，予以嚴厲處罰。礦場的安保人員（尤其工業警衛）均由公司安排參加培訓，取得司法警察及司法警察督察資格，可在現場作為警方輔助人員開展日常工作。在此資格體系下，安保人員均接受過嚴格的人權相關培訓，並承擔人權宣傳工作。

Kinsenda礦場于報告期內編制了《安保風險防範方案》，成立了安保工作領導小組，從全員及重點崗位分層分頻開展當地風險認知、法規習俗、安全技能與應急處置培訓，同時推進營地及生產區物理防護設施、視頻監控等技術防護設備建設，聯合當地安保公司、當地警方並依托中國駐剛果（金）大使館搭建多維安保力量體系。此外，礦產定期組織反恐防暴、防綁架等針對性應急演練，落實人員出行、外來人員管理、24小時區域巡查及安全信息收集、分析預警、上報存檔等日常安保管理工作。

With reference to the "Disciplinary Procedures and Penalty Standards" officially filed with the Labor Inspectorate, the Kinsenda Mine strictly penalizes any verified conflict or violent behavior that disrupts a good working environment. The mine's security personnel (especially industrial guards) are all arranged by Kinsenda Mine to attend training to obtain judicial police and judicial police inspector qualifications, allowing them to carry out daily work on-site as police auxiliaries. Under this qualification system, all security personnel have received rigorous human rights-related training and undertake human rights promotion tasks.

During the Reporting Period, the Kinsenda Mine compiled the "Security Risk Prevention Plan", established a security work leading group, and conducted training on local risk awareness, regulations and customs, safety skills, and emergency response across all staff and key positions in a tiered and multi-frequency manner. Simultaneously, it advanced the construction of physical protection facilities and technical protection equipment like video surveillance in camps and production areas, uniting local security companies and local police, and relying on the Chinese Embassy in the DRC to build a multi-dimensional security force system. Furthermore, the mine regularly organizes targeted emergency drills for anti-terrorism, anti-riot, and anti-kidnapping, implementing daily security management tasks such as personnel travel, external personnel management, 24-hour area patrols, and security information collection, analysis, early warning, reporting, and archiving, comprehensively protecting the property and safety of overseas personnel and fortifying corporate risk defenses.

Musonoi 礦場 Musonoi Mine

Musonoi礦場與員工簽訂了集體協議，涵蓋就業條件改善、工會權利義務、工會使命、會議日程等內容。

The Musonoi Mine formulated the "Security Management Regulations", explicitly stipulating the duties, daily behavioral norms, and safety management requirements for mine security personnel to regulate their conduct while performing duties within the mining area.

人才招聘與保留

TALENT RECRUITMENT AND RETENTION

金川國際嚴格遵守所有業務所在的國家及地區的勞動法律法規。在剛果（金）及贊比亞，各礦場遵循當地勞工守則、部長法令及集體協議。我們制訂了《集團招聘及甄選政策》，規範了由職位啟動、招聘、篩選、評估、背景審查至簽訂合同的完整招聘流程，確保招聘流程公平、標準、透明。

JCI strictly abides by the labor laws and regulations of all countries and regions where it operates. In the DRC and Zambia, all mines follow local labor codes, ministerial decrees, and collective agreements. We formulated the "Group Recruitment and Selection Policy", standardizing the complete recruitment process from job initiation, recruitment, screening, evaluation, and background checks to contract signing, ensuring the recruitment process is fair, standard, and transparent.

此外，我們就員工工作時間、休息時段、平等機會、薪酬福利、離職、工作條件及職業資格等方面作出了明確規定。我們致力於提供優質就業職位、公平報酬與福利、多元化健康福利及廣闊的發展空間，從多方面持續吸引及挽留優秀人才。

Moreover, we have made explicit provisions regarding employees' working hours, rest periods, equal opportunity, remuneration and benefits, resignation, working conditions, and occupational qualifications. We strive to provide high-quality employment positions, fair remuneration and benefits, diverse health and wellness benefits, and broad developmental space, continuously attracting and retaining excellent talent from multiple dimensions.

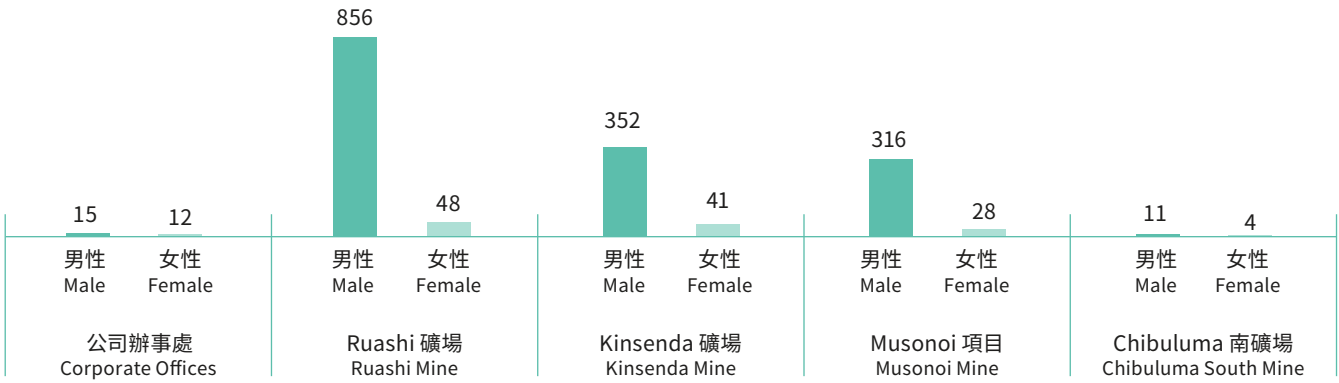
| 招聘管理 Recruitment Management

金川國際深明，持續優化招聘流程，積極推動員工多元化與本地化建設，致力構建公平、公正、公開的招聘體系。我們高度重視員工權益保障，反對任何形式的就業歧視，並透過完善的入職引導，協助新員工快速融入企業文化，為公司的長遠穩健發展奠定堅實的人才基礎。

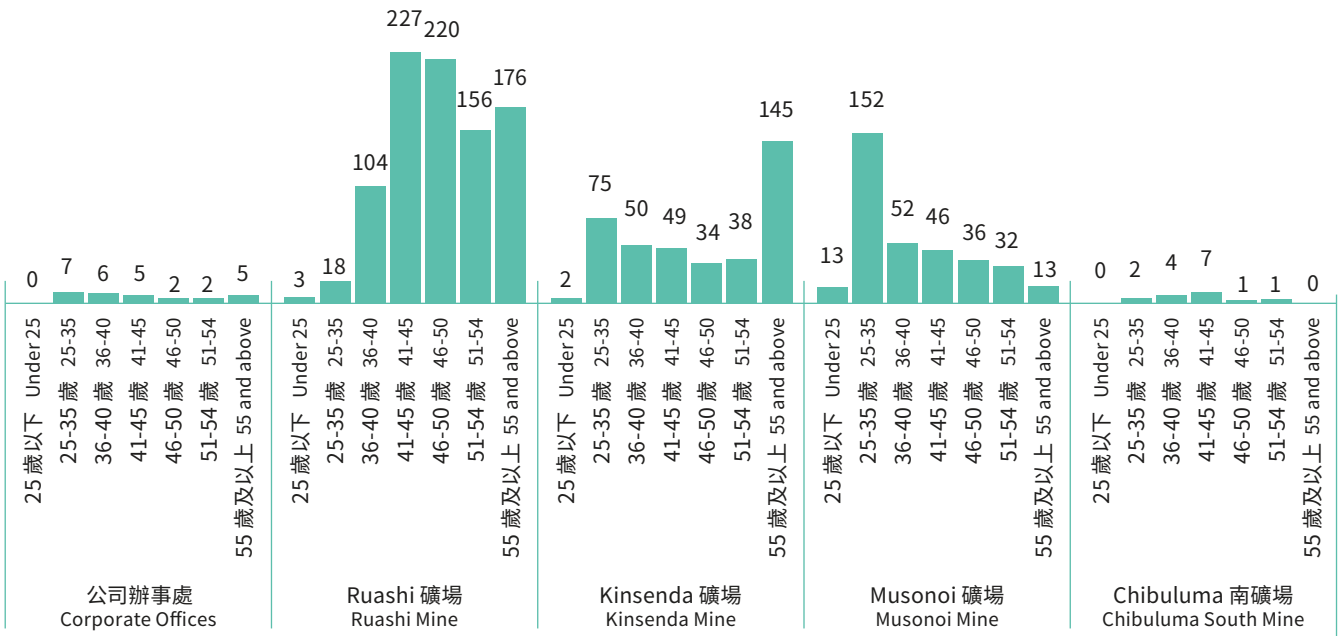
JCI deeply understands that continuously optimizing recruitment processes and actively promoting employee diversity and localization are dedicated to building a fair, just, and open recruitment system. We highly value the protection of employee rights, oppose any form of employment discrimination, and assist new employees in quickly integrating into corporate culture through comprehensive onboarding inductions, laying a solid talent foundation for the Company's long-term steady development.

截至報告期末，金川國際全球僱用1,683名長期僱員，包含我們於中國香港、剛果（金）、贊比亞及南非之營運礦場及公司辦事處。

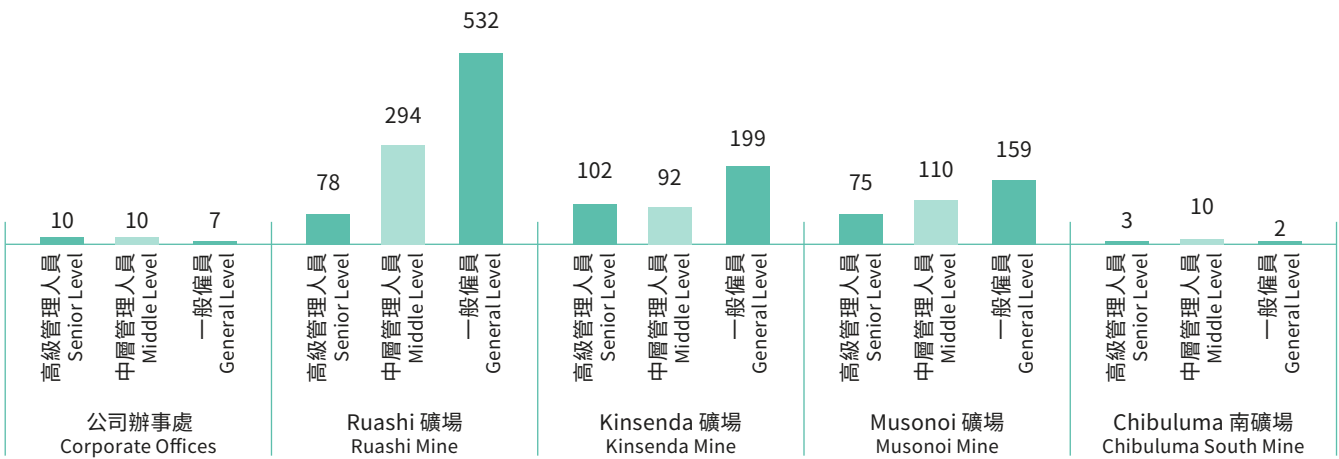
As of the end of the Reporting Period, JCI employed 1,683 permanent employees globally, encompassing our operating mines and corporate offices in Hong Kong (China), the DRC, Zambia, and South Africa.



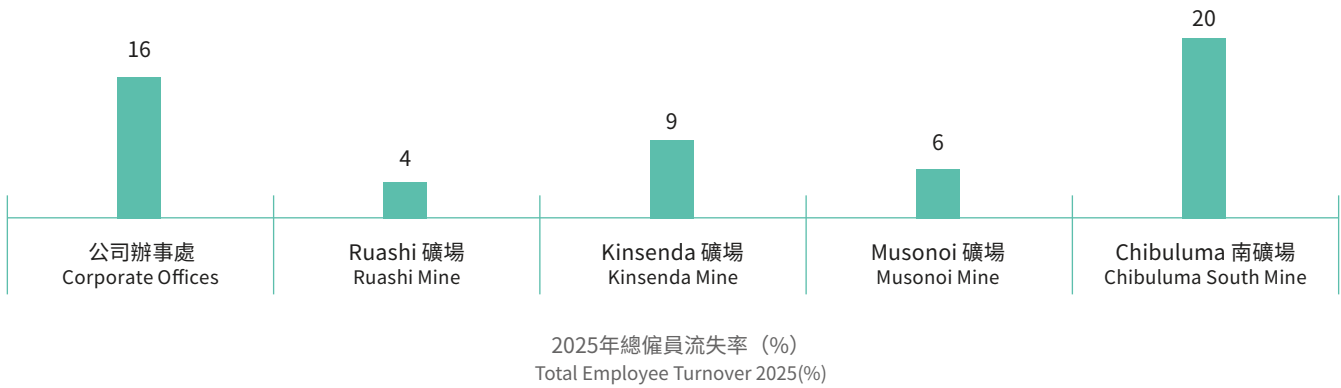
2025年按性別劃分的長期僱員
Total Workforce by Gender in 2025



2025年按年齡組別劃分的長期僱員
Total Workforce by Age Group in 2025



2025年按僱員類別劃分的長期僱員
Total Workforce by Employee Category in 2025



Ruashi 礦場 Ruashi Mine

報告期內，Ruashi礦場制訂了《人事管理程序》，規定了在招聘環節中，確保僱主避免招聘腐敗行為，不得向候選人索取任何形式的饋贈（包括實物形式）。此外，Ruashi礦場的僱傭合同中須列明，不得向員工索取金錢或進行腐敗行為。

During the Reporting Period, the Ruashi mine formulated "Personnel Management Procedures", stipulating that during the recruitment phase, employers are guaranteed to avoid corrupt recruitment practices and must not solicit any form of gifts (including in-kind) from candidates. Additionally, employment contracts at the Ruashi Mine must specify that soliciting money or engaging in corrupt behavior toward employees is prohibited.

Musonoi 礦場 Musonoi Mine

Musonoi礦場為所有新員工組織安全入職培訓，提供詳細的崗位職責說明，並說明試用期內的公司績效預期，試用期結束後，每月實施績效評估以保持員工的積極性與工作動力。

The Musonoi Mine organizes safety induction training for all new employees, provides detailed job descriptions, and explains Musonoi's performance expectations during the probationary period. After probation, monthly performance evaluations are implemented to maintain employee enthusiasm and motivation.

Chibuluma 南礦場 Chibuluma South Mine

報告期內，Chibuluma南礦場與Bencon退休金及福利計劃簽訂諒解備忘錄，鼓勵員工參與退休金供款，以此提升員工留任率。

During the Reporting Period, the Chibuluma South Mine signed a Memorandum of Understanding with the Bencon Pension and Benefits Scheme, encouraging employees to participate in pension contributions, thereby enhancing employee retention rates.

多元共融 Diversity and Inclusion

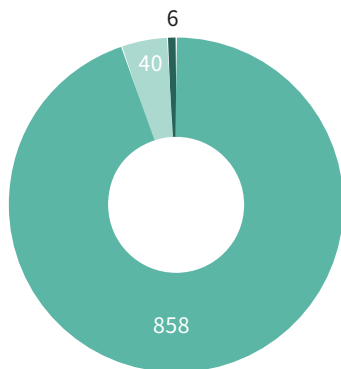
我們積極推動多元化與本地化僱傭政策，致力於吸納多元優秀人才。我們尊重員工的國籍、種族、性別、宗教信仰及文化背景，致力為每一位員工創造公平公正的發展機會。我們在海外礦業營運過程中高度重視促進當地就業，將本地僱用視為支持社區經濟發展、增強社會穩定性及構建良好社區關係的重要方式。集團鼓勵各礦區優先從項目所在地社區招聘僱員，並透過制度化的人力資源管理流程保障招聘過程的公平與透明。我們亦透過僱員激勵與發展機制提升本地僱員的參與度與歸屬感。

我們持續監測各礦區的僱員構成情況，並對本地僱用比例進行統計與分析。截至報告期末，Ruashi礦場、Kinsenda礦場、Musonoi礦場及Chibuluma南礦場的當地就業率分別為95%、88%、63%及60%。整體而言，各礦場僱員隊伍中本地僱員佔比較高，在滿足營運需要的同時有效帶動了當地就業機會的增加。

We actively promote diversity and localization employment policies, striving to attract diverse top talent. We respect employees' nationality, race, gender, religious beliefs, and cultural backgrounds, dedicating ourselves to creating fair and just developmental opportunities for every employee. During overseas mining operations, we attach high importance to promoting local employment, viewing local hiring as a vital means to support community economic development, enhance social stability, and build good community relations. The Group encourages all mining areas to prioritize recruiting employees from communities where projects are located, and safeguards the fairness and transparency of the recruitment process through institutionalized human resource management procedures. We also elevate local employees' engagement and sense of belonging through employee incentive and development mechanisms.

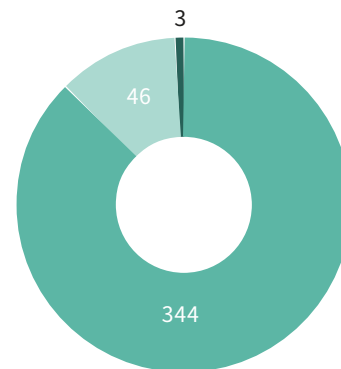
We continuously monitor the employee composition across all mining areas and conduct statistics and analysis on the local employment ratio. As of the end of the Reporting Period, the local employment rates for the Ruashi Mine, Kinsenda mine, Musonoi Mine, and Chibuluma South Mine were 95%, 88%, 63%, and 60%, respectively. Overall, local employees account for a high proportion of the workforce at all mines, effectively driving the increase of local employment opportunities while satisfying operational needs.

▼ Ruashi礦場按國籍劃分的勞工總數
Total Workforce 2025 by Nationality at Ruashi Mine



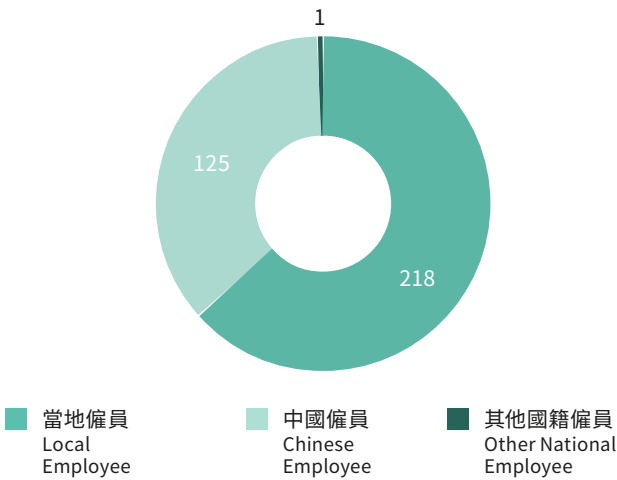
■ 當地僱員 Local Employee
■ 中國僱員 Chinese Employee
■ 其他國籍僱員 Other National Employee

▼ Kinsenda礦場按國籍劃分的勞工總數
Total Workforce 2025 by Nationality at Kinsenda Mine

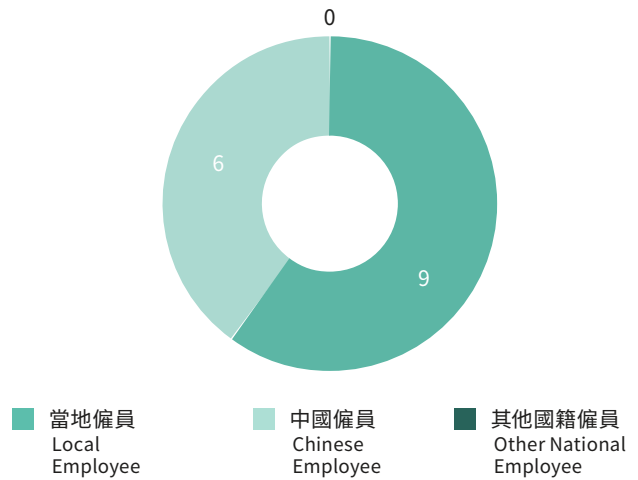


■ 當地僱員 Local Employee
■ 中國僱員 Chinese Employee
■ 其他國籍僱員 Other National Employee

▼ Musonoi礦場按國籍劃分的勞工總數
Total Workforce 2025 by Nationality at Musonoi Mine



▼ Chibuluma南礦場按國籍劃分的勞工總數
Total Workforce 2025 by Nationality at Chibuluma South Mine



未來，我們計劃在現有實踐基礎上進一步完善集團層面的本地僱用政策框架，明確優先本地招聘原則，並持續跟進和披露各礦區本地僱用比例，進一步強化公司在促進社區就業和推動地方經濟發展方面的責任與承諾。

In the future, based on existing practices, we plan to further perfect the local employment policy framework at the Group level, clarifying the principle of prioritizing local recruitment, and continuously track and disclose the local employment ratios of all mining areas, further strengthening the Company's responsibilities and commitments in promoting community employment and driving local economic development.

Ruashi 礦場 Ruashi Mine

Ruashi礦場透過《人事管理程序》對僱員招聘、崗位管理、績效評估及職業發展等進行系統規範，並在僱員管理過程中優先考慮具備崗位能力的本地勞動力。

The Ruashi Mine systematically standardizes employee recruitment, position management, performance evaluation, and career development through the "Personnel Management Procedures", and prioritizes a capable local workforce in the employee management process.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場堅持優先聘用受礦場營運直接影響的本地社區居民。對於無特殊技能要求的崗位，礦場與本地社區領袖簽訂協議，確保60%的候選人來自本地社區；即便對於部分有技能要求的崗位，只要條件允許，礦場也會為本地社區候選人提供就業機會，並安排在職培訓。

The Kinsenda Mine adheres to prioritizing the hiring of local community residents directly affected by mining operations. For positions with no special skill requirements, the mine signs agreements with local community leaders to ensure 60% of candidates come from local communities; even for certain skilled positions, whenever conditions permit, the mine provides employment opportunities to local community candidates and arranges on-the-job training.

Musonoi 礦場 Musonoi Mine

Musonoi礦場致力于与周边社区合作并招募临时工，通过在职培训计划逐步将其融入公司体系。

The Musonoi Mine is committed to cooperating with surrounding communities and recruiting temporary workers, gradually integrating them into Musonoi Mine's system through on-the-job training programs.

公平薪酬及福利待遇 Fair Remuneration and Welfare Benefits

我們秉持公平共融的僱傭策略，為員工提供具行業競爭力的薪酬福利方案。透過持續檢討與優化薪酬福利機制，我們致力於吸引優秀人才加入，並激勵員工與企業共同成長，支持公司的長遠發展。

We uphold a fair and inclusive employment strategy, providing employees with industry-competitive remuneration and benefits packages. By continuously reviewing and optimizing remuneration and benefits mechanisms, we strive to attract outstanding talent and incentivize employees to grow alongside the enterprise, supporting the Company's long-term development.

◆ 公平薪酬 Fair Remuneration

我們深信，僱員是企業競爭優勢的核心所在。我們嚴格遵循中國香港、剛果（金）、贊比亞及南非的相關就業及勞工法例，確保所有員工享有平等的就業機會，並尊重公平及平等工資權利，確保工資不低於基本生活成本基準。2025年，剛果（金）更新了最低工資標準，所在地礦場及時跟進並調整工資水平，確保合規。我們每年監測市場動向，透過與不同營運地目標勞工市場、礦業市場及競爭者對比，保持薪酬合理性及競爭優勢，從而幫助我們的僱員實現體面生活。此外，我們時刻對員工工時進行監控，確保支付加班薪酬。必要時，我們將參與由第三方進行的臨時薪酬調查。

We firmly believe that employees are the core of a company's competitive advantage. We strictly comply with relevant employment and labor laws in Hong Kong (China), the DRC, Zambia, and South Africa, ensuring all employees enjoy equal employment opportunities, respecting rights to fair and equal wages, and ensuring wages are not below basic living cost benchmarks. In 2025, the DRC updated its minimum wage standards, and the local mines promptly followed up and adjusted wage levels to ensure compliance. We monitor market trends annually, maintaining remuneration rationality and competitive advantage by comparing with target labor markets, mining markets, and competitors in various operating locations, thereby helping our employees achieve a decent life. Additionally, we constantly monitor employee working hours to ensure the payment of overtime wages. When necessary, we will participate in ad-hoc remuneration surveys conducted by third parties.

我們設置了績效管理指導委員會，並制訂了《集團就業條件政策》《集團獎勵與表彰制度》《集團工作評估政策》《集團職位剖析政策》《集團僱員表彰政策》及《集團管理成果及爭取優惠政策評審獎勵辦法》等一系列員工薪酬制度，保障員工的薪酬福利與其崗位職責及創造的價值相匹配。

在基於績效的差異化激勵薪酬結構方面，金川國際已在集團制度框架及各營運礦區實踐中建立與僱員績效掛鈎的薪酬與激勵機制，鼓勵僱員提升工作表現並推動企業整體營運績效的持續改善。我們設立績效管理指導委員會，並引入第三方Paterson職位評估體系，根據崗位複雜度及工作產出確定崗位價值，從而形成與崗位責任和績效表現相匹配的薪酬結構。同時，我們定期評估員工績效，根據僱員績效目標達成情況提供績效獎金，並定期透過市場薪酬對標與薪酬調查，確保薪酬水平具備市場競爭力，以吸引、激勵並保留優秀人才。

各營運單位結合生產營運特點建立了多元化的績效激勵機制。例如，Ruashi礦場為僱員設置短期績效激勵，包括與季度銅或鈷產量目標掛鈎的產量獎金以及面向資深僱員的年度績效獎金（記分卡機制）；Kinsenda礦場除提供具有市場競爭力的基本薪金外，還設置年度獎金、季度生產獎金及優秀僱員獎勵等多類激勵措施；Musonoi礦場為僱員提供季度獎金、年度績效獎金（記分卡形式）、第十三个月薪酬以及優秀僱員獎勵等激勵安排；Chibuluma南礦場亦設有優秀僱員獎金及年度績效獎金，並透過年度薪酬調整機制激勵僱員持續提升績效表現。

We set up a Performance Management Steering Committee and formulated a series of employee remuneration systems, including the "Group Employment Conditions Policy", "Group Reward and Recognition System", "Group Job Evaluation Policy", "Group Job Profiling Policy", "Group Employee Recognition Policy", and "Group Management Achievements and Favorable Policy Review and Reward Measures", ensuring employees' remuneration and benefits match their job responsibilities and the value they create.

Regarding the variable performance-based component of compensation, JCI has established remuneration and incentive mechanisms linked to employee performance within the Group's institutional framework and the practices of operating mining areas, encouraging employees to improve work performance and drive continuous improvement in overall corporate operational performance. We established the Performance Management Steering Committee and introduced the third-party Paterson job evaluation system to determine job value based on position complexity and work output, thereby forming a remuneration structure matching job responsibilities and performance. Concurrently, we regularly assess employee performance, providing performance bonuses based on the achievement of employee performance goals, and ensuring remuneration levels remain market-competitive through regular market remuneration benchmarking and surveys to attract, motivate, and retain top talent.

Various operating units have established diversified performance incentive mechanisms in combination with production and operational characteristics. For example, the Ruashi Mine set up short-term performance incentives for employees, including production bonuses linked to quarterly copper or cobalt production targets, as well as annual performance bonuses (scorecard mechanism) for senior employees; the Kinsenda Mine, in addition to offering market-competitive basic salaries, provides various incentive measures such as annual bonuses, quarterly production bonuses, and outstanding employee awards; the Musonoi Mine provides employees with incentive arrangements like quarterly bonuses, annual performance bonuses (scorecard format), a thirteenth-month salary, and outstanding employee awards; the Chibuluma South Mine also features outstanding employee bonuses and annual performance bonuses, motivating employees to continuously elevate their performance through an annual salary adjustment mechanism.

金川國際已在多個礦區建立了與生產目標和個人績效相結合的激勵薪酬機制，並透過獎金、績效評估及僱員表彰等方式推動僱員績效提升。未來，我們將持續完善集團層面的績效薪酬管理框架，並進一步加強對績效激勵機制覆蓋範圍及實施情況的披露。

JCI has established incentive remuneration mechanisms combining production targets and personal performance across multiple mining areas, and drives employee performance enhancement through bonuses, performance evaluations, and employee recognition. In the future, we will continuously perfect the performance remuneration management framework at the Group level and further strengthen the disclosure regarding the coverage and implementation of performance incentive mechanisms.

◆ 福利待遇

Welfare Benefits

在非薪酬福利方面，金川國際持續為全體僱員提供多元化的福利與保障措施，覆蓋生活、健康、家庭、住房及退休關懷等多個領域，提升僱員福祉並增強僱員對企業的歸屬感與穩定性。

In terms of non-compensation benefits, JCI continuously provides all employees with diversified welfare and safeguard measures covering multiple areas such as livelihood, health, family, housing, and retirement care, enhancing employee well-being and strengthening their sense of belonging and stability towards the enterprise.

例如，在家庭與生育支持方面，我們提供帶薪家庭責任假、育兒假、家庭津貼，並為僱員學齡子女支付學費；在生活保障方面，我們為僱員提供生活津貼、每月玉米麵粉補助及免費午餐等生活支持；在健康保障方面，我們為僱員及其家屬提供醫療補貼及衛生津貼，提升僱員及家庭成員的健康保障水平。此外，我們還設置風險津貼、安全津貼、設備津貼、井下作業津貼及叢林津貼等生產保障類補貼，補償特定崗位的工作環境風險。

For example, in family and maternity support, we offer paid family responsibility leave, parental leave, family allowances, and pay tuition fees for employees' school-age children; in livelihood support, we offer livelihood allowances, monthly corn flour subsidies, free lunches, and other living support; in health protection, we provide medical subsidies and hygiene allowances for employees and their families to elevate their health protection levels. Furthermore, we provide various production support allowances, including risk allowances, safety allowances, equipment allowances, underground work allowances, and jungle allowances, to compensate for the operational environment risks associated with specific positions.

在僱員生活支持方面，我們提供住房津貼、安置津貼以及土地分配等居住保障，同時為僱員提供燃油補貼、車輛租賃及車輛維護等出行支持。在僱員關懷方面，我們設立婚假及結婚祝賀安排，並在宗教節日及聖誕節等節日期間為僱員提供節日慰問。此外，我們為僱員提供帶薪年假，並鼓勵僱員在工作之餘與家人團聚。針對僱員長期保障需求，我們亦提供退休關懷及殯葬補助等福利安排，在僱員職業生涯不同階段提供持續支持。

In terms of employee living support, we provide housing allowances, relocation allowances, and land allocation as residential guarantees, while providing travel support such as fuel allowances, vehicle leasing, and vehicle maintenance. In terms of employee care, we offer marriage leave and marriage congratulation arrangements, and provide festive greetings to employees during religious holidays and Christmas. Furthermore, we provide paid annual leave and encourage employees to reunite with their families outside of work. Addressing the long-term security needs of employees, we also provide welfare arrangements such as retirement care and funeral subsidies, offering continuous support at different stages of an employee's career.

員工溝通與關懷 Employee Communication and Care

我們深知良好的溝通與關懷是凝聚團隊向心力的基石。我們秉持「以人為本」的管理理念，致力構建開放、透明、雙向的溝通渠道，確保員工的意見得到充分聆聽與重視，同時，透過豐富的團隊建設及文體活動，營造溫暖和諧的工作氛圍，讓員工感受到歸屬感。

We deeply understand that good communication and care are the cornerstones for consolidating team cohesion. Adhering to a "people-oriented" management philosophy, we are committed to building open, transparent, and two-way communication channels to ensure that employees' opinions are fully listened to and valued. At the same time, through rich team building and cultural and sports activities, we create a warm and harmonious working atmosphere, allowing employees to feel a sense of belonging.

◀ 員工溝通 Employee Communication

我們高度重視與員工的溝通，建立開放透明的溝通渠道，積極透過多元化的平台收集員工的意見與反饋。此外，我們開展年度員工滿意度調查，覆蓋全體在職員工，透過調研員工工作滿意度、價值認同感、幸福感、壓力水平等要素，更深入地瞭解員工的訴求。

We attach great importance to communication with employees, establishing open and transparent communication channels, and actively collecting employee opinions and feedback through diversified platforms. In addition, we conduct an annual employee satisfaction survey covering all active employees. By investigating factors such as employee job satisfaction, value recognition, happiness, and stress levels, we gain a deeper understanding of employees' demands.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場定期召開座談會，促進本地員工與中方員工的交流，增進彼此情誼，同步工作進展。

The Kinsenda Mine regularly holds symposiums to promote communication between local and Chinese employees, enhance mutual friendship, and synchronize work progress.



Musonoi 礦場 Musonoi Mine

Musonoi礦場構建了一套覆蓋全面、閉環運行的立體化員工溝通體系，以「安全透明、雙向可達、閉環管理」為原則，整合了高管現場對話、主題座談會等直接渠道，到匿名意見箱等安全保障渠道，並依托數字化平台與常態會議確保信息同步。其核心運行機制強調對所有反饋的快速響應、透明行動與結果反饋，形成從問題提出到解決驗證的完整管理閉環，最終將每一位員工的個體聲音轉化為驅動安全改進、管理優化與團隊融合的集體行動力。

報告期內，Musonoi礦場系統性地開展了員工滿意度與敬業度調查，圍繞礦業營運的關鍵領域設計，主要包括：對安全規程、培訓有效性、管理層安全承諾的認同度及心理安全氛圍、薪酬與發展體系、薪酬福利的公平性與競爭力、職業路徑的清晰度、以及團隊環境與歸屬感、團隊協作質量與長期留任意願。調查實現了全員覆蓋，同時涵蓋生產礦區與辦公區域所有工作點位，確保取樣全面、結果具代表性。調查數據經系統分析後，已形成專項報告用於識別管理優勢與改進方向。

The Musonoi Mine has built a three-dimensional employee communication system featuring comprehensive coverage and closed-loop operation. Based on the principles of "safe and transparent, two-way accessible, and closed-loop management," it integrates direct channels such as on-site dialogues with senior executives and thematic symposiums, to security-guaranteed channels like anonymous suggestion boxes, and relies on digital platforms and regular meetings to ensure information synchronization. Its core operational mechanism emphasizes rapid response, transparent action, and result feedback for all inputs, forming a complete management closed loop from issue raising to resolution verification, ultimately transforming the individual voice of every employee into collective driving force for safety improvement, management optimization, and team integration.

During the Reporting Period, the Musonoi Mine systematically conducted an employee satisfaction and engagement survey designed around key areas of mining operations, mainly including: recognition of safety protocols, training effectiveness, and management safety commitments; psychological safety atmosphere; remuneration and development systems; fairness and competitiveness of remuneration and benefits; clarity of career paths; team environment and sense of belonging; team collaboration quality; and long-term retention willingness. The survey achieved full staff coverage, encompassing all work locations in the production mining area and office areas, ensuring comprehensive sampling and representative results. After systematic analysis of the survey data, special reports have been formed to identify management strengths and areas for improvement.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場實行開放式溝通政策，鼓勵員工無需畏懼報復或負面影響，直接向各級管理層、主管暢述想法、提出疑問、反饋關切或投訴問題。

The Chibuluma South Mine implements an open-door communication policy, encouraging employees to directly express their thoughts, raise questions, feedback concerns, or lodge complaints to all levels of management and supervisors without fear of retaliation or negative consequences.

◆ 員工關懷
Employee Care

我們亦十分重視員工的業餘生活，組織各類休閒活動與運動賽事，鼓勵員工參與文體項目，在培養個人興趣、鍛鍊體魄的同時，有效舒緩工作壓力，營造健康平衡、溫馨融洽的工作氛圍。

We also attach great importance to employees' spare-time lives, organizing various leisure activities and sports events, and encouraging employees to participate in cultural and sports programs. While cultivating personal interests and building up their physique, this effectively relieves work stress and creates a healthy, balanced, warm, and harmonious working atmosphere.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場與剛果（金）公眾假期開展戶外活動，增強團隊凝聚力。

The Kinsenda Mine organizes outdoor activities on public holidays in the DRC to enhance team cohesion.

Musonoi 礦場 Musonoi Mine

報告期內，Musonoi礦場圍繞四大核心維度開展員工關懷活動：在文化融合與團隊建設維度，透過組織中外員工共慶傳統節日、宣傳文化知識及發放特色禮包，有效構建了跨文化團隊的共同精神紐帶；在身心健康與幸福感提升維度，常態化開展趣味文體活動，主動管理員工心理狀態與工作生活平衡；在家庭支持與後勤保障維度，創新設立「駐外人員服務中心」，系統解決員工家庭後方實際困難，從根本上緩解海外履職的核心痛點；在福利關愛與情感連接維度，以節日禮包等物質載體持續傳遞組織溫度。

During the Reporting Period, the Musonoi Mine carried out employee care activities revolving around four core dimensions: In the dimension of cultural integration and team building, by organizing Chinese and foreign employees to celebrate traditional festivals together, promoting cultural knowledge, and distributing special gift packages, it effectively built a common spiritual bond for the cross-cultural team; in the dimension of physical and mental health and well-being enhancement, it normalized fun cultural and sports activities, actively managing employees' psychological state and work-life balance; in the dimension of family support and logistical assurance, it innovatively established the "Expatriate Service Center" to systematically resolve practical difficulties for employees' families back home, fundamentally alleviating the core pain points of working overseas; in the dimension of welfare care and emotional connection, it continuously conveyed organizational warmth through material carriers such as holiday gift packages.



Musonoi礦場春節活動
Musonoi Mine Spring Festival Activity



Musonoi礦場端午節活動
Musonoi Mine Dragon Boat Festival Activity



Musonoi礦場中秋節活動
Musonoi Mine Mid-Autumn Festival Activity



Musonoi礦場籃球友誼賽
Musonoi Mine Friendly Basketball Match

發展與培訓

DEVELOPMENT AND TRAINING

僱員的持續成長是企業成功的核心要素。我們積極推動員工的專業發展，透過培訓計劃，協助他們不斷提升技能與視野，為團隊注入創新動力。

The continuous growth of employees is a core element of corporate success. We actively promote the professional development of employees, assisting them in continuously upgrading their skills and broadening their horizons through training programs, thereby injecting innovative momentum into the team.

我們制訂了《集團培訓及發展政策》，覆蓋所有全職及兼職員工，指引所有礦場根據組織需要及營運要求制訂並執行培訓及發展計劃。我們致力提供豐富的資源與機會，協助員工掌握高效營運所需的專業技能，確保他們能安全、有效地完成各項工作。同時，《集團助學制度》體現了我們對員工持續進修的堅定支持。我們為員工提供參加各類教育、培訓及發展項目的機會，更設有進修假。全體僱員均可申請學習援助，在財政及其他層面獲得適切支援。

We have formulated the "Group Training and Development Policy", which covers all full-time and part-time employees, guiding all mines to formulate and execute training and development plans according to organizational needs and operational requirements. We are committed to providing abundant resources and opportunities to help employees master the professional skills required for efficient operations, ensuring they can complete various tasks safely and effectively. At the same time, the "Group Education Assistance System" reflects our firm support for employees' continuous further education. We offer employees opportunities to participate in various education, training, and development programs, and have also set up study leave. All employees can apply for learning assistance to receive appropriate support at the financial and other levels.

僱員發展 Employee Development

在晉升機制上，我們設有正式的選拔及繼任程序，讓表現卓越的員工能獲得持續發展的機會。在整個選拔過程中，我們不僅會審視同事過往的工作表現及出勤記錄，更會綜合考量崗位所需的基本資格、專業技能，以及相關的職業發展路徑，從而進行深入分析與比較，務求以擇優原則，選拔出最合適的人才。

In terms of the promotion mechanism, we have formal selection and succession procedures, enabling employees with outstanding performance to obtain opportunities for continuous development. Throughout the selection process, we not only review colleagues' past work performance and attendance records but also comprehensively consider the basic qualifications and professional skills required for the position, as well as relevant career development paths. Through in-depth analysis and comparison, we strive to select the most suitable talent based on the principle of meritocracy.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場的晉升政策明確了員工可透過以下情況獲得晉升：

- 順利完成更高職責及複雜度的工作任務後，其所任崗位調級。
- 從低級崗位晉升，填補高級崗位空缺。

審核員工晉升資格的標準須公平公正，並嚴格遵守所有僱傭政策要求，做好相關記錄；員工晉升評審不受年齡、性別、種族、膚色、原籍、殘障情況影響。

The Kinsenda Mine's promotion policy explicitly states that employees can be promoted under the following circumstances:

- Upon successful completion of work tasks with higher responsibilities and complexity, the position held is upgraded.
- Promotion from a lower-level position to fill a vacancy in a higher-level position.

The criteria for reviewing employee promotion qualifications must be fair and just, strictly complying with all employment policy requirements, and well-documented; employee promotion assessments are not affected by age, gender, race, color, origin, or disability status.

Musonoi 礦場 Musonoi Mine

Musonoi礦場規定所有晉升均須滿足晉升政策規定的最低資格期限及其他要求。常規晉升僅在出現空缺且遵循適當招聘流程（含內部及外部招聘）時予以考慮。晉升至更高職級的資格服務年限，將依據在較低職級連續任職時間確定。直線經理須依據員工績效遴選晉升候選人。

此外，Musonoi礦場為新員工提供人力資源部與業務部門的聯合培訓，並針對關鍵崗位制訂「繼任計劃」，確保退休員工的技能向新員工順利轉移。礦場為新員工開展入職培訓，設定績效目標，並在試用期結束後實施月度績效評估。

The Musonoi Mine stipulates that all promotions must meet the minimum qualification period and other requirements prescribed in the promotion policy. Routine promotions are only considered when a vacancy arises and appropriate recruitment procedures (including internal and external recruitment) are followed. The qualifying years of service for promotion to a higher rank will be determined based on continuous service time in the lower rank. Line managers must select promotion candidates based on employee performance.

Furthermore, the Musonoi Mine provides joint training by the Human Resources Department and business departments for new employees, and formulates "succession plans" for key positions to ensure the smooth transfer of skills from retiring employees to new employees. The mine team conducts onboarding training for new employees, sets performance goals, and implements monthly performance evaluations after the end of the probationary period.

僱員培訓 Employee Training

為營造持續學習文化，我們持續推進多項員工培訓計劃，包括安全培訓、技能培訓、領導力發展培訓、文化教育培訓、數字化轉型培訓等，覆蓋全體全職及兼職員工，旨在提升其技術能力、生產效率及安全標準，確保員工具備專業技術能力，並拓寬知識面。我們亦鼓勵僱員繼續深造，支持員工的自我提升。

To foster a continuous learning culture, we continually advance various employee training programs, including safety training, skills training, leadership development training, cultural education training, and digital transformation training, covering all full-time and part-time employees. These aim to enhance their technical capabilities, production efficiency, and safety standards, ensuring employees possess professional technical abilities and broaden their knowledge base. We also encourage employees to pursue further studies and support their self-improvement.

Ruashi 礦場

Ruashi Mine

Ruashi礦場的培訓計劃圍繞以下核心重點：

- 透過標準作業程序培訓提高績效及安全性，每位員工每項程序的培訓時數不少於1小時。
- 確保針對所有法規更新開展培訓，以實現完全守法合規。
- 續期所有認證證書。

Ruashi礦場要求所有礦業員工休年假返回後，均需到培訓部門參加安全、環境及公司治理入職培訓。所有主管級以下員工每年均需接受標準作業程序培訓及評估，以確保完全合規，從而減少事故發生、提高生產力。

2025年，Ruashi礦場共開展了351次標準操作程序培訓，222次技能培訓，涵蓋銅碎料管理、破碎電路操作、電積槽清潔和電積廠房啟動與關閉等領域，培訓次數相比去年增加26%。此外，報告期內，Ruashi礦場7名鉗工及助理鉗工參加高級液壓技術培訓，其中2名順利透過認證，成績超過75%。

The training program at the Ruashi Mine revolves around the following core focuses:

- Improve performance and safety through Standard Operating Procedure (SOP) training, with no less than 1 hour of training per procedure per employee.
- Ensure training is conducted for all regulatory updates to achieve full legal compliance.
- Renew all certification certificates.

The Ruashi Mine requires all mining employees returning from annual leave to attend safety, environmental, and corporate governance induction training at the training department. All employees below the supervisory level must undergo SOP training and assessment annually to ensure full compliance, thereby reducing accidents and increasing productivity.

In 2025, the Ruashi Mine conducted a total of 351 SOP training sessions and 222 skills training sessions, covering areas such as copper scrap management, crushing circuit operation, electrowinning cell cleaning, and electrowinning plant startup and shutdown. The number of training sessions increased by 26% compared to last year. Additionally, during the Reporting Period, 7 fitters and assistant fitters from the Ruashi Mine participated in advanced hydraulic technology training, of which 2 successfully passed the certification, scoring over 75%.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場建立了結構化的員工培訓體系，覆蓋員工就業全階段：

- 所有新員工、承辦商人員及實習生進入礦場前，均須參加強制性入職培訓，內容包括安全規則、危害識別、應急處置、環境保護、公司政策及基本崗位職責。
- 為生產人員、技術人員及維護人員提供技能知識培訓，重點提升崗位專業能力（如設備操作、維護、新技術應用等），並定期開展復訓。
- 為所有員工及承辦商人員定期開展安全合規培訓，確保其遵守職業健康、安全。

The Kinsenda Mine has established a structured employee training system covering all stages of employment:

- All new employees, contractor personnel, and interns must participate in mandatory induction training before entering the mine. Contents include safety rules, hazard identification, emergency response, environmental protection, company policies, and basic job responsibilities.
- Provide skill and knowledge training for production, technical, and maintenance personnel, focusing on enhancing professional post capabilities (e.g., equipment operation, maintenance, application of new technologies), and regularly conduct refresher training.
- Regularly conduct safety compliance training for all employees and contractor personnel to ensure they comply with occupational health and safety.

Musonoi 礦場 Musonoi Mine

2025年，Musonoi礦場為員工提供了以下培訓課程：公司及人力資源入職培訓、選礦廠入職培訓、紀律處分程序培訓、良好稅務治理與稅務創新整合培訓、冶廠入職培訓、績效管理流程、試用期監控流程及焙燒工藝入職培訓等。

In 2025, the Musonoi Mine provided employees with the following training courses: company and HR induction training, processing plant induction training, disciplinary procedure training, good tax governance and tax innovation integration training, smelter induction training, performance management process, probation monitoring process, and roasting process induction training, etc.



Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場為所有加入礦場的新員工提供入職培訓，幫助員工熟悉崗位職責、公司行為守則及各項政策。

2025年，Chibuluma南礦場有2名員工參加贊比亞特許會計師協會的培訓，3名員工參加國際財務報告準則 (IFRS) 更新培訓，2名員工參加Payspace電子薪資系統 (ESS) 培訓。

The Chibuluma South Mine provides onboarding training for all new employees joining the mine to help them familiarize themselves with job responsibilities, the Company Code of Conduct, and various policies.

In 2025, 2 employees from the Chibuluma South Mine participated in training by the Zambia Institute of Chartered Accountants, 3 employees participated in International Financial Reporting Standards (IFRS) update training, and 2 employees participated in Payspace Electronic Salary System (ESS) training.



職業安全與健康

OCCUPATIONAL SAFETY AND HEALTH

金川國際始終致力於營造安全、健康的工作環境，保障員工的安全與健康。鑒於礦場作業涉及多項高風險活動，包括鑽探、爆破、高空及地下作業、高壓電操作、化學品使用及重型機械操作等，確保員工、承包商、訪客、周邊社區及其他可能受礦場營運影響人士的健康與安全，是我們最重要的責任。

JCI is consistently committed to creating a safe and healthy working environment and protecting the safety and health of employees. Given that mine operations involve multiple high-risk activities, including drilling, blasting, working at heights and underground, high-voltage electrical operations, chemical usage, and heavy machinery operations, ensuring the health and safety of employees, contractors, visitors, surrounding communities, and other persons who may be affected by mine operations is our most important responsibility.

我們的礦場嚴格遵循所在國家、地區及地方的相關安全法規、法定義務及其他適用規範進行營運，例如剛果（金）《礦業法》《礦業條例》，以及贊比亞《職業健康與安全法》。此外，我們制訂並推行《集團零傷害政策》，覆蓋全體在職員工和承包商，並於本報告期內進行了更新，適用於所有採礦業務。我們承諾持續改進職業安全與健康管理體系，不斷提升公司職安健管理的整體水平。為進一步強化安全管理，我們還制訂了《集團傷亡事故處理辦法》，確保事故發生時能得到妥善處理且嚴格控制信息傳播，將未來發生傷亡事故的風險可能性降至最低。

Our mines strictly operate in accordance with relevant safety laws, statutory obligations, and other applicable standards of the countries, regions, and localities where they are located, such as the DRC's "Mining Code" and "Mining Regulations," and Zambia's "Occupational Health and Safety Act". Furthermore, we formulated and implemented the "Group Zero Harm Policy," covering all active employees and contractors, which was updated during this Reporting Period and applies to all mining operations. We are committed to continuously improving the occupational safety and health management system to constantly elevate the Company's overall OSH management level. To further strengthen safety management, we also formulated the "Group Casualty Accident Handling Measures," ensuring accidents are properly handled when they occur, strictly controlling information dissemination, and minimizing the risk probability of future casualty accidents.

過去三年，我們在所有營運單位中均未發生員工及承包商死亡事故，每百萬工時死亡頻率保持為零，體現了我們在重大安全風險管理方面取得的階段性成效。

Over the past three years, no employee or contractor fatalities have occurred across all our operating units, and the fatality frequency per million working hours has remained at zero, reflecting the phased achievements we have made in major safety risk management.

| 安全管控 Safety Control

我們透過系統化的風險識別與科學評估機制，主動識別並全面排查作業現場的安全隱患，並針對潛在風險採取預防性管控措施，有效防範各類事故發生。同時，我們期望全體員工及承建商秉持安全責任感，為自己、同事乃至所在社區的安全負責，攜手營造安全生產文化。

Through systematic risk identification and scientific assessment mechanisms, we proactively identify and comprehensively investigate safety hazards at operating sites, and adopt preventive control measures against potential risks to effectively prevent various accidents. Simultaneously, we expect all employees and contractors to uphold a sense of safety responsibility, taking responsibility for the safety of themselves, their colleagues, and even the communities where they are located, joining hands to foster a culture of safe production.

◀ 安全管理架構 Safety Management Architecture

Metorex SHEC委員會作為我們最高的安全管理機構，負責為礦場提供安全指導、監測及監督。我們於所有礦場均組建了安全管理團隊，包括一名安全經理及若干名安全員，其中安全經理負責日常安全管理工作，提供指導及監測；管理IsoMetrix系統，並編製每周、每月及每季度報告。安全員負責協助執行日常檢查、爆炸物管理、緊急情況等工作。全體礦場總經理的薪酬均與健康及安全績效掛鉤。

The Metorex SHEC Committee, acting as our highest safety management body, is responsible for providing safety guidance, monitoring, and supervision for the mines. We have formed safety management teams at all mines, comprising one safety manager and several safety officers. The safety manager is responsible for daily safety management work, providing guidance and monitoring; managing the IsoMetrix system, and compiling weekly, monthly, and quarterly reports. Safety officers assist in executing daily inspections, explosives management, emergencies, and other tasks. The remuneration of all mine general managers is linked to health and safety performance.

各礦場定期召開安全會議及講座。報告期內，Ruashi礦場設置了涵蓋安全指導委員會、部門安全委員會及部門的安全會議架構，並每月及每季度對目標進行測量及報告。Kinsenda礦場組織每日部門會議，並每月開展安全、健康及職場美化委員會會議，定期管理安全指標。Musonoi礦場要求承建商自行開展安全工具箱會議，並每日向礦場提交會議證明。礦場每周召開一次綜合安全會議，召集礦區所有承建商的安全負責人參與。Chibuluma南礦場每日開展進行「工具箱安全談話」，旨在向僱員提供有關危險及安全過程的信息。

All mines regularly hold safety meetings and lectures. During the Reporting Period, the Ruashi Mine established a safety meeting structure encompassing the safety steering committee, departmental safety committees, and departmental safety meetings, and measured and reported targets monthly and quarterly. The Kinsenda Mine organizes daily departmental meetings, holds monthly safety, health, and workplace beautification committee meetings, and regularly manages safety indicators. The Musonoi Mine requires contractors to conduct their own safety toolbox meetings and submit meeting proofs to the mine daily. The mine convenes a comprehensive safety meeting once a week, gathering the safety heads of all contractors in the mining area to participate. The Chibuluma South Mine conducts daily "toolbox safety talks" aimed at providing employees with information regarding hazards and safe procedures.

報告期內，集團持續推進職業健康與安全管理體系的規範化建設。其中，Ruashi礦場已取得ISO 45001 職業健康與安全管理體系認證，標誌著我們在建立符合國際標準的安全管理體系方面取得重要進展。與此同時，集團正積極推動其他礦區開展體系對標與認證準備工作。Kinsenda礦場按照集團統一的健康與安全管理框架開展管理實踐，遵循Metorex集團的健康與安全管理體系標準實施日常風險控制與監督。Musonoi礦場計劃於2026年啟動ISO 45001外部認證工作，並預計於2027年完成包括EHS管理體系在內的全面認證。相關準備工作已獲內部立項批准，正推進制度完善、人員培訓及內部審計等前期工作。

During the Reporting Period, the Group continued to advance the standardized construction of the occupational health and safety management system. Among them, the Ruashi Mine obtained the ISO 45001 Occupational Health and Safety Management System Certification, marking significant progress in establishing a safety management system compliant with international standards. Meanwhile, the Group is actively driving other mining areas to conduct system benchmarking and certification preparation work. The Kinsenda Mine carried out management practices according to the Group's unified health and safety management framework, adhering to the Metorex Group's health and safety management system standards to implement daily risk control and supervision. The Musonoi Mine plans to initiate ISO 45001 external certification work in 2026 and expects to complete comprehensive certification, including the EHS management system in 2027. Relevant preparatory work has received internal project approval, and preliminary tasks such as system improvement, personnel training, and internal audits are being advanced.

◀ 安全風險評估
Safety Risk Assessment

安全風險評估是企業識別與管理潛在安全威脅的關鍵環節。我們根據識別出的潛在風險制訂有效的預防與應對策略，保障員工、資產及營運的安全與穩定。我們所有礦場均積極開展安全風險評估，致力為員工打造安全、可靠的工作環境。

Safety risk assessment is a critical link for enterprises to identify and manage potential safety threats. We formulate effective prevention and response strategies based on identified potential risks to guarantee the safety and stability of employees, assets, and operations. All our mines actively conduct safety risk assessments, dedicating themselves to creating a safe and reliable working environment for employees.



礦場藉助數字系統IsoMetrix進行安全風險管理

The Mine Utilises the Digital System IsoMetrix for Safety Risk Management

各礦場定期進行安全檢查、審計、現場巡查及作業觀察，建立健全的職業健康與安全管理體系，並將發現的各類問題統一錄入IsoMetrix系統。該系統基於國際標準化組織 (ISO) 制訂的「計劃、執行、檢查、行動」管理框架設計，用於記錄風險評估全過程，明確責任歸屬，並跟進整改進度。完成現場整改後，相應風險問題即在系統中關閉，形成閉環管理。

Each mine regularly conducts safety inspections, audits, on-site patrols, and task observations to establish a sound occupational health and safety management system, and uniformly enters various identified issues into the IsoMetrix system. This system is designed based on the "Plan-Do-Check-Act" management framework established by the International Organization for Standardization (ISO), used to record the entire risk assessment process, clarify responsibilities, and track rectification progress. After on-site rectification is completed, the corresponding risk issue is closed in the system, forming closed-loop management.

報告期內，Ruashi礦場、Kinsenda礦場、Musonoi礦場及Chibuluma南礦場均接受了第三方專業機構開展的環境、健康與安全 (EHS) 專項審查。該審查圍繞營運風險管理、機械設備安全、事故報告與調查、應急響應準備、職業健康風險識別等關鍵領域進行系統性差距分析，並重點評估各礦區管理實踐與 ISO 45001 職業健康與安全管理體系要求之間的符合程度，提出針對性的改進建議。

During the Reporting Period, the Ruashi Mine, Kinsenda Mine, Musonoi Mine, and Chibuluma South Mine all underwent special Environment, Health, and Safety (EHS) reviews conducted by third-party professional institutions. The review conducted systematic gap analyses around key areas such as operational risk management, mechanical equipment safety, incident reporting and investigation, emergency response preparedness, and occupational health risk identification. It focused on evaluating the compliance level between the management practices of each mining area and the ISO 45001 occupational health and safety management system requirements, putting forward targeted improvement suggestions.

Ruashi 礦場 Ruashi Mine

2025年，Ruashi礦場共有25人參加危害識別、風險評估及風險控制培訓。

In 2025, a total of 25 people from the Ruashi Mine participated in hazard identification, risk assessment, and risk control training.

Musonoi 礦場 Musonoi Mine

報告期內，Musonoi礦場完成了IsoMetrix風險管理流程，並改進日常安全檢查體系——每日安全任務指導/工作危害分析或微型風險評估 (DSTI)，包含當天任務清單、任務相關的具體危害清單以及針對這些危害的預防性安全措施清單。

Musonoi礦場嚴格落實隱患排查治理機制，全年共進行12次綜合性安全大檢查，合共發現233項隱患；所有隱患均已編製通報並下發，監督責任單位按期完成整改核銷。全年共進行72次日常安全檢查，查處隱患及問題413項，現已全部完成整改核銷。各業務部門按照「管行業必須管安全、管業務必須管安全、管生產經營必須管安全」的要求，嚴格落實「崗位每班檢查、班組每日檢查、部門每周檢查」的三級隱患排查治理機制，排查整治安全生產的不足與短板。全年共組織124次專業化檢查，現場查處697項隱患，目前所有隱患均已全部完成整改核銷。

During the Reporting Period, the Musonoi Mine completed the IsoMetrix risk management process and improved its daily safety inspection system—Daily Safety Task Instruction / Job Hazard Analysis or Mini Risk Assessment (DSTI), which includes a daily task list, a specific hazard list related to the tasks, and a list of preventive safety measures targeting those hazards.

In addition, the Musonoi Mine strictly implements the hidden danger screening and governance mechanism. Throughout the year, it conducted 12 comprehensive major safety inspections, discovering a total of 233 hidden dangers; bulletins have been compiled and issued for all hidden dangers, supervising responsible units to complete rectification and cancellation on schedule. A total of 72 routine safety inspections were conducted throughout the year, identifying and handling 413 hidden dangers and issues, all of which have now been completely rectified and canceled. In accordance with the requirement of "managing safety when managing industry, business, and production operations," all business departments strictly implement the three-tier hidden danger screening and governance mechanism of "per-shift inspection by post, daily inspection by team, and weekly inspection by department" to screen out and rectify deficiencies and shortcomings in safe production. Throughout the year, 124 specialized inspections were organized, identifying 697 hidden dangers on-site, all of which have currently completed rectification and cancellation.

◆ 安全管理計劃

Safety Management Plan

透過年度安全計劃制訂、專項風險整治行動及事故復盤機制，我們持續推動健康與安全績效改進。各礦場設有自身的職業安全與健康管理文件，適用於所有僱員及承建商。在具體實施層面，各營運單位結合自身風險特徵制訂針對性安全管理計劃。

Through the formulation of annual safety plans, special risk rectification actions, and incident review mechanisms, we continuously drive improvements in health and safety performance. Each mine has its own occupational safety and health management documents applicable to all employees and contractors. At the specific implementation level, each operating unit formulates targeted safety management plans combined with its own risk characteristics.

Ruashi 礦場 Ruashi Mine

Ruashi礦場制訂了《2025安全管理計劃》，圍繞高風險作業控制、行為安全管理及事故預防開展專項工作，降低工傷發生率並提升現場安全管理水平。

The Ruashi Mine formulated the "2025 Safety Management Plan," carrying out special work revolving around high-risk operation control, behavioral safety management, and accident prevention, to reduce the incidence of work injuries and elevate the level of on-site safety management.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場制訂了《安全生產規則》，在健康與安全報告框架下，持續跟進安全績效數據，並透過制訂安全生產規則，重點聚焦消除致命及嚴重事故風險。

The Kinsenda Mine formulated the "Safe Production Rules." Under the health and safety reporting framework, it continuously tracks safety performance data and, through formulating safe production rules, focuses heavily on eliminating risks of fatal and severe accidents.

Musonoi 礦場 Musonoi Mine

Musonoi礦場于本報告期內更新了員工職業健康安全政策與管理體系，包括《承辦商安全管理條例》《地面爆破設備倉庫安全管理條例》《系統事故專項應急救援方案》等。透過專項健康與安全報告及事故管理辦法，強化施工與建設階段風險控制，確保項目推進過程中安全績效持續改善。

During this Reporting Period, the Musonoi Mine updated the employee occupational health and safety policies and management systems, including the "Contractor Safety Management Regulations," "Surface Explosives Equipment Warehouse Safety Management Regulations," and "System Incident Special Emergency Rescue Plan." Through special health and safety reports and incident management measures, it strengthens risk control during the construction and building phases, ensuring continuous improvement in safety performance throughout the project advancement process.

Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場嚴格遵循集團《SHEC政策》，透過風險排查、僱員培訓及應急演練等方式推動零傷害目標落地。

The Chibuluma South Mine strictly follows the Group's "SHEC Policy," driving the implementation of the zero-harm goal through risk screening, employee training, and emergency drills.

◆ 安全防護
Safety Protection

為確保所有員工在工作環境中執行任務時獲得充分保障，我們將免費提供適用之防護服裝及個人防護裝備 (PPE)，包括安全帽、眼部及面部防護具、聽力防護具、手部防護裝備、安全鞋、連身式及兩件式工作服、呼吸防護器、防墜落裝置、電擊防護設備，以及焊接、研磨、切割作業專用防護具與醫療防護裝備等，並嚴格規定員工必須正確使用，以確保各類作業環境中的安全要求。同時，員工對安全防護措施的遵守情況亦將納入績效考核範圍，如發現有濫用或未依規定佩戴個人防護裝備的情況，將依據相關管理辦法予以適當處分。

To ensure all employees are fully protected when performing tasks in the working environment, we will provide applicable protective clothing and personal protective equipment (PPE) free of charge, including hard hats, eye and face protection, hearing protection, hand protection equipment, safety shoes, one-piece and two-piece coveralls, respirators, fall protection devices, electrical shock protection equipment, as well as specialized protective gear and medical protective equipment for welding, grinding, and cutting operations. We strictly require employees to use them correctly to ensure safety requirements in various working environments. At the same time, employees' compliance with safety protection measures will also be included in the scope of performance appraisals. If cases of abuse or failure to wear PPE as required are found, appropriate disciplinary actions will be taken in accordance with relevant management measures.

Ruashi 礦場 Ruashi Mine

Ruashi礦場制訂了《個人防護裝備 (PPE) 有效性政策》，為所有人員 (包括承建商、供應商及訪客) 提供有效的防護衣物及裝備，明確作業流程，確保員工能安全執行礦場營運相關的危險作業。

The Ruashi Mine formulated the "Personal Protective Equipment (PPE) Effectiveness Policy," providing effective protective clothing and equipment to all personnel (including contractors, suppliers, and visitors), clarifying operational procedures, and ensuring employees can safely execute hazardous operations related to mine operations.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場針對員工下井作業搭乘車輛安全性較低的問題，聯合兩家井下承辦商採購多台礦用載人車輛，用於將員工從地面送至井下作業現場。此外，礦場與兩家採礦承辦商採購大量安全背夾並發放給所有下井員工，要求下井人員必須穿戴，進一步提升員工個人防護能力。

Addressing the low safety of vehicles ridden by employees for underground operations, the Kinsenda Mine united with two underground contractors to purchase multiple mine personnel carriers to transport employees from the surface to underground operation sites. In addition, the mine and two mining contractors purchased a large number of safety harnesses and distributed them to all employees going underground, requiring underground personnel to wear them, further enhancing employees' personal protection capabilities.



◆ 安全培訓 Safety Training

為回應各礦場的培訓需要，我們的安全培訓專責部門將因應實際情況，制訂針對性的職業安全與衛生培訓計劃，並透過定期檢討與持續優化，確保培訓成效得以落實。所有新入職員工及長期休假後復職的人員，必須在正式上崗前完成入職培訓、安全生產規章制度培訓，以及班前危害識別與風險評估培訓。相關培訓內容涵蓋安全流程、標準作業程序及應急處理流程等，旨在全面提升員工的安全意識與作業技能。

In response to the training needs of each mine, our dedicated safety training departments will formulate targeted occupational safety and health training plans according to actual situations, and ensure training effectiveness is implemented through regular reviews and continuous optimization. All newly hired employees and personnel returning from long-term leave must complete induction training, safe production rules and regulations training, and pre-shift hazard identification and risk assessment training before officially taking up their posts. Relevant training contents cover safety procedures, standard operating procedures, and emergency handling processes, aiming to comprehensively enhance employees' safety awareness and operational skills.

Ruashi 礦場 Ruashi Mine

報告期內，Ruashi礦場溶劑萃取 (SX) 車間的 56 名員工均接受了消防培訓，以預防銅生產過程中可能出現的問題。此外，分配至電解 (EW)、溶劑萃取 (SX) 及酸廠的維護員工均接受了工作許可相關培訓。

2025年，共有636人參加了安全入職培訓；681人參加了安全生產規章制度培訓。

During the Reporting Period, all 56 employees in the Solvent Extraction (SX) workshop of the Ruashi Mine received fire safety training to prevent potential issues during copper production. Furthermore, maintenance employees assigned to the Electrowinning (EW), Solvent Extraction (SX), and acid plants all received training related to work permits.

In 2025, a total of 636 people participated in safety induction training; 681 people participated in safe production rules and regulations training.

Musonoi 礦場 Musonoi Mine

Musonoi礦場全年共開展新員工三級安全教育培訓597人，外來參觀、檢查入井安全交底96人；井下無軌設備操作人員消防培訓73人；地表選冶化工廠區消防安全培訓32人。每月按期舉辦Musonoi礦場專題安全培訓活動，全年共完成危險源識別及隱患排查治理培訓、企業安全生產標準化、員工安全素養與安全意識提升等專題培訓活動18次，其中一線班組長及工程技術人員共168人參與。



Throughout the year, the Musonoi Mine conducted tertiary safety education and training for 597 new employees, and underground safety briefings for 96 external visitors and inspectors; fire safety training for 73 underground trackless equipment operators; and fire safety training for 32 personnel in the surface beneficiation, smelting, and chemical plant area. The Musonoi Mine held thematic safety training activities on schedule every month. Throughout the year, 18 specialized training sessions were conducted, covering topics such as Hazard Identification and Risk Assessment (HIRA), enterprise safety standardization, and the enhancement of employees' safety literacy and awareness. A total of 168 frontline team leaders and engineering technical personnel participated in these programs.

◆ 應急準備

Emergency Preparedness

我們致力於保障所有人員的安全，尤其在發生工作場所或其周邊緊急事件時，能作出及時有效的應對。為此，我們已制訂了《消防安全管理政策》等相關應急管理政策，所有礦場均已制訂應急預案，涵蓋災難管理、應急撤離、應急預警系統、急救措施、洩漏管理、消防及救援，以及讓員工熟悉各類緊急警報、疏散路線、緊急出口及集合區等重要信息，以應對潛在的緊急狀況或危機。為確保應急程序得以有效執行，各礦場每年均會舉辦正式的危機管理培訓及應急演練，以持續提升應變能力及防範意識。

We are committed to safeguarding the safety of all personnel, especially making timely and effective responses when emergencies occur in or around the workplace. To this end, we have formulated relevant emergency management policies such as the "Fire Safety Management Policy." All mines have formulated emergency plans covering disaster management, emergency evacuation, emergency warning systems, first aid measures, spill management, firefighting, and rescue, as well as familiarizing employees with important information such as various emergency alarms, evacuation routes, emergency exits, and assembly areas to respond to potential emergencies or crises. To ensure emergency procedures can be effectively executed, all mines hold formal crisis management training and emergency drills annually to continuously enhance response capabilities and preventive awareness.

Ruashi 礦場 Ruashi Mine

Ruashi礦場于報告期內舉行了一次消防演練，模擬場景為酸廠內二氧化硫洩漏，警報響起後，所有員工均前往廠內指定的應急集合點，救護車模擬傷員送往現場診所。由各部門主管、現場主管或其授權代表監察員工的回應表現，並評估建築物相關設施狀況。



During the Reporting Period, the Ruashi Mine held a fire drill simulating a sulfur dioxide leak in the acid plant. After the alarm sounded, all employees headed to designated emergency assembly points within the plant, and an ambulance simulated transporting the injured to the on-site clinic. Department heads, site supervisors, or their authorized representatives monitored employees' response performance and assessed the condition of building-related facilities.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場于報告期內編制了《重大經營風險事件及外部突發風險事件應急預案》《突發風險應急處置預案》及《突發風險中方員工緊急撤離應急預案》，成立專屬應急指揮體系並劃分各層級職責；完成境外多類風險識別評級，制訂四級應急響應標準與啟動條件，規範預警、接報、響應全流程，制訂具體處置措施，配套通信、治安等多項應急保障；建立規範信息報告機制，完善後期處置與日常防控措施，並定時開展應急演練優化預案，全方位保障境外人員財產安全，筑牢企業風險防線。

During the Reporting Period, the Kinsenda Mine compiled the "Emergency Plan for Major Operational Risk Events and External Sudden Risk Events," "Emergency Response Plan for Sudden Risks," and "Emergency Evacuation Plan for Chinese Employees in Sudden Risks." It established an exclusive emergency command system and divided responsibilities across levels; completed identification and rating for multiple types of overseas risks, formulated four-level emergency response standards and activation conditions, standardized the full process of early warning, reporting, and response, formulated specific disposal measures, and supported multiple emergency guarantees such as communication and security; established standardized information reporting mechanisms, perfected post-disposal and daily prevention and control measures, and regularly conducted emergency drills to optimize plans, comprehensively safeguarding the property and safety of overseas personnel and building a solid corporate risk defense line.

Musonoi 礦場 Musonoi Mine

為保障安全生產，提升施工人員應對突發事故的應急處置能力，Musonoi礦場根據各類專項應急救援預案，編製完成《穆松尼項目礦井火災事故應急演練工作方案》《穆松尼項目礦井突水事故應急演練工作方案》《穆松尼項目礦井反風實驗方案》，並按年度計劃安排順利組織完成了應急演練工作Musonoi礦場還協同承包商在現場開展了各類消防演練。

To guarantee safe production and enhance construction personnel's emergency handling capabilities for sudden accidents, the Musonoi Mine compiled the "Musonoi Mine Fire Accident Emergency Drill Work Plan," "Musonoi Mine Water Inrush Accident Emergency Drill Work Plan," and "Musonoi Mine Reversed Ventilation Experiment Plan" based on various special emergency rescue plans, and successfully organized and completed emergency drill work according to the annual plan schedule. The Musonoi Mine also collaborated with contractors to carry out various fire drills on-site.



◆ 安全目標
Safety Goals

我們將「零傷害」列為集團層面的長期職業健康與安全願景，並透過量化指標體系將該目標逐步轉化為可衡量、可跟進的績效管理目標。集團健康與安全績效指標適用於所有營運單位，並涵蓋公司僱員及合約工，確保所有參與公司營運活動的人員均納入統一的安全管理標準。

We list "Zero Harm" as the long-term occupational health and safety vision at the Group level, and progressively translate this goal into measurable and trackable performance management targets through a quantitative indicator system. Group health and safety performance indicators apply to all operating units and encompass company employees and contract workers, ensuring all personnel participating in the Company's operational activities are integrated into unified safety management standards.

以「零傷害」為最終目標，我們致力在所有營運活動中實現以下長期安全績效願景：

With "Zero Harm" as the ultimate goal, we are committed to achieving the following long-term safety performance visions across all operational activities:



杜絕任何與工作相關的死亡事故
Eliminate any work-related fatal accidents



持續保持低水平的安全事故發生率
Continuously maintain a low incidence rate of safety accidents



持續減少因工傷導致的工作日損失
Continuously reduce days lost due to work injuries



建立涵蓋僱員及合約工的統一健康與安全管理體系，持續提升風險預防能力與安全文化水平
Establish a unified health and safety management system covering employees and contract workers, and continuously enhance risk prevention capabilities and safety culture levels

在保持良好安全績效的基礎上，我們制訂分階段健康與安全績效改進目標，並透過年度安全管理計劃持續跟進與評估：

Building upon maintaining good safety performance, we formulate phased health and safety performance improvement goals and continuously track and assess them through the annual safety management plan:

第一階段（短期：1-2年） Phase 1 (Short-term: 1-2 years)

- 持續保持死亡事故數目為零（適用於僱員及合約工）
Continuously maintain zero fatal accidents (applicable to employees and contract workers)
- 持續保持每百萬工時死亡頻率為零
Continuously maintain a fatality frequency of zero per million working hours
- 將因工傷造成的損失工作日數較基準年度降低 15%
Reduce the number of days lost due to work injuries by 15% compared to the baseline year

第二階段（中期：3-5年） Phase 2 (Medium-term: 3-5 years)

- 持續保持零死亡事故及零每百萬工時死亡頻率
Continuously maintain zero fatal accidents and zero fatality frequency per million working hours
- 將因工傷造成的損失工作日數較基準年度降低 30%
Reduce the number of days lost due to work injuries by 30% compared to the baseline year

第三階段（長期目標） Phase 3 (Long-term goals)

- 在所有礦區營運中持續實現零死亡事故
Continuously achieve zero fatal accidents across all mining operations
- 透過持續改進風險識別、事故預防及安全文化建設，逐步將因工傷損失工作日數降低至行業領先水平，並持續向國際礦業行業最佳實踐看齊。
Through continuous improvement in risk identification, accident prevention, and safety culture building, gradually reduce the number of days lost due to work injuries to industry-leading levels, and continuously benchmark against international mining industry best practices.

我們透過定期安全會議、管理層審查及事故調查程序持續跟進上述健康與安全績效指標，並將相關指標納入營運管理評估體系。各礦區按周期編制健康與安全報告，用於評估目標達成情況並識別改進空間。透過建立明確的量化指標與階段性改進路徑，我們持續推動「零傷害」理念由長期願景轉化為可執行、可衡量的安全管理實踐，並不斷提升集團整體職業健康與安全管理水平。

We continuously track the aforementioned health and safety performance indicators through regular safety meetings, management reviews, and accident investigation procedures, and incorporate relevant indicators into the operational management assessment system. Each mining area compiles health and safety reports on a cycle to evaluate target achievement and identify areas for improvement. By establishing clear quantitative indicators and phased improvement paths, we continuously drive the transformation of the "Zero Harm" concept from a long-term vision into executable and measurable safety management practices, and constantly elevate the overall occupational health and safety management level of the Group.

職業健康 Occupational Health

我們致力於營造安全健康的工作環境，積極降低職業危害相關風險，以有效預防員工罹患職業病。我們關注員工心理健康、作業環境狀況，以及化學性、生物性或物理性危害等因素，並針對可能引發急性或慢性職業疾病等問題採取相應防控措施。

We are committed to creating a safe and healthy working environment and actively reducing occupational hazard-related risks to effectively prevent employees from contracting occupational diseases. We focus on employees' mental health, workplace environmental conditions, and chemical, biological, or physical hazard factors, and adopt corresponding prevention and control measures against problems that may cause acute or chronic occupational diseases.

◀ 危險化學品管理 Hazardous Chemicals Management

我們嚴格遵循危險化學品相關的國際管理規範與適用的法律法規，並根據實際業務營運情況及法規要求，持續更新相關管理措施。在危險化學品的管理過程中，我們明確界定各環節職責，全面規範化學品的採購、運輸、儲存、使用及廢棄處理流程，以持續提升日常安全管理水準。各礦場分別制訂了內部規範，明確訂定化學品及試劑的安全處理、儲存管理及廢棄處置方式，並要求所有相關人員充分掌握化學品特性及潛在風險，以有效降低危害風險，防範其對人員、設施或環境造成不良影響。

We strictly adhere to international management norms and applicable laws and regulations related to hazardous chemicals, and continuously update relevant management measures based on actual business operations and regulatory requirements. During the management process of hazardous chemicals, we clearly define responsibilities in each link, comprehensively standardize the procurement, transportation, storage, usage, and waste disposal processes of chemicals to continuously improve the level of daily safety management. All mines have formulated internal specifications respectively, explicitly setting safe handling, storage management, and waste disposal methods for chemicals and reagents. We require all relevant personnel to fully grasp the properties and potential risks of chemicals to effectively reduce hazard risks and prevent adverse impacts on personnel, facilities, or the environment.

Ruashi 礦場

Ruashi Mine

Ruashi 礦場對生產及實驗等環節使用的危險化學品實施全面管控，建立詳盡清單並依據《全球化學品統一分類和標籤制度》(GHS) 維護物質安全資料表 (MSDS)。礦場制訂了標準化處理程序，確保化學品從搬運、儲存至處置全過程符合國際慣例與法規要求，並將相關安全信息及應急措施落實傳達至員工、承包商及救援團隊，全力保障作業環境安全。Ruashi 礦場對作業環境內的危險化學品搬運及儲存執行嚴格管控，具體措施包括：

- 設立專用且標識清晰的化學品儲存區，並配置二次防護圍堤；
Establishing dedicated and clearly marked chemical storage areas, equipped with secondary containment bunds;
- 對不相容化學品進行分區儲存；
Implementing segregated storage for incompatible chemicals;
- 採用可控的配給系統，減少泄漏及人員接觸風險；
Employing controlled dispensing systems to reduce the risk of leaks and personnel exposure;
- 依據 GHS 要求設置清晰的危害標識及警示標牌。
Setting clear hazard markings and warning signs according to GHS requirements.

礦場制訂了標準作業程序，明確危險化學品的安全操作方法、轉運方式，以及發生泄漏、溢散或意外接觸時的應急處置措施。凡接觸或在危險化學品周圍作業的員工及承包商，均會定期接受化學品危害、MSDS 解讀、安全作業程序及應急處置的培訓。2025年，Ruashi礦場共有120人參加了物質安全資料表培訓。

The Ruashi Mine implements comprehensive controls over hazardous chemicals used in production and laboratory operations, maintaining a detailed inventory and Material Safety Data Sheets (MSDS) in accordance with the Globally Harmonized System (GHS). Standardized handling procedures have been established to ensure that the entire lifecycle of chemicals—from handling and storage to disposal—complies with international practices and regulatory requirements. Safety information and emergency protocols are systematically communicated to employees, contractors, and response teams to ensure a secure working environment. The Ruashi Mine executes strict control over the handling and storage of hazardous chemicals in the working environment. Specific measures include:

The mine formulated standard operating procedures clarifying safe operating methods and transfer methods for hazardous chemicals, as well as emergency disposal measures in the event of leaks, spills, or accidental contact. All employees and contractors who contact or work around hazardous chemicals regularly receive training on chemical hazards, MSDS interpretation, safe operating procedures, and emergency disposal. In 2025, a total of 120 people from the Ruashi Mine participated in Material Safety Data Sheet training.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場的危險化學品主要為選廠生產所用藥劑，礦場制訂了《化學品與試劑管理》，針對生產過程中使用的氫硫化鈉和正丙基黃原酸鈉，制訂了相應的配製作業規程，規範運輸、儲存和操作規範。礦場在選廠設立專用化學藥劑倉庫，並配備滅火器、消防栓等消防設施，確保藥劑倉庫的安全營運。

Hazardous chemicals at the Kinsenda Mine are mainly reagents used in processing plant production. The mine formulated "Chemical and Reagent Management." Targeting sodium hydrosulfide and sodium n-propyl xanthate used in the production process, it formulated corresponding preparation operating procedures, standardizing transportation, storage, and operational norms. The mine established a dedicated chemical reagent warehouse in the processing plant, equipped with fire extinguishers, fire hydrants, and other firefighting facilities to ensure the safe operation of the reagent warehouse.

Musonoi 礦場 Musonoi Mine

Musonoi礦場對危化品作業實施全方位安全管控，嚴格執行崗位操作規程並為員工配備專業防護用品，重點防範強酸鹼腐蝕及可燃氣體爆炸風險。礦場對氫氧化鈉、濃硫酸等高風險區域開展專業化隱患排查，同步優化設備本體與管理流程；針對氫氧化鈷等產品，項目實施儲存區准入管理並完善現場供水設施，要求員工嚴格執行班後清潔，從源頭杜絕職業中毒風險，切實保障員工職業健康與安全。

The Musonoi Mine implements comprehensive safety controls over hazardous chemical operations, strictly enforcing operating procedures and providing specialized PPE to mitigate risks from acid/alkali corrosion and flammable gas explosions. The project conducts specialized hazard screenings for high-risk areas involving sodium hydrosulfide and sulfuric acid to optimize both equipment and management processes. For products such as cobalt hydroxide, it enforces access control in storage areas and provides upgraded hygiene facilities to ensure strict post-work cleaning, effectively eliminating poisoning risks and safeguarding occupational health and safety.

◀ 傳染病管理

Infectious Disease Management

我們所有的礦場均位於瘧疾易發地區，對員工健康構成持續的健康風險。為有效預防瘧疾，各礦場已實施一系列防控措施，包括但不限於為員工提供驅蟲劑及蚊帳、定期在工作區域噴灑滅蚊藥物，以及開展瘧疾防治培訓等，以降低當地瘧疾感染的風險。

All our mines are located in malaria-prone areas, posing a continuous health risk to employees. To effectively prevent malaria, all mines have implemented a series of prevention and control measures, including but not limited to providing mosquito repellent and mosquito nets for employees, regularly spraying mosquito-killing chemicals in work areas, and conducting malaria prevention and control training, to reduce the local risk of malaria infection.

Ruashi 礦場 Ruashi Mine

Ruashi礦場參考剛果（金）《勞工法》《公共衛生法》、世界衛生組織《國際衛生條例》以及ISO 45001等法規及標準制訂了標準作業程序，預防、檢測、管理及應對礦業各項營運中的傳染病，以保護員工、承辦商、訪客及周邊社區免受傳染病威脅。Ruashi 礦場的職業健康部門透過日常諮詢、入職體檢、定期體檢以及員工離礦超過3周後的復工體檢，每日、每周及每月開展傳染病防控工作，涵蓋瘧疾、艾滋病、霍亂、肺結核、呼吸系統疾病及手部衛生相關疾病，一旦發生疫情立即通報。

With reference to the DRC "Labor Code," "Public Health Act," the World Health Organization's "International Health Regulations," and ISO 45001 regulations and standards, the Ruashi Mine formulated standard operating procedures to prevent, detect, manage, and respond to infectious diseases across various mining operations, protecting employees, contractors, visitors, and surrounding communities from infectious disease threats. The occupational health department of the Ruashi Mine conducts infectious disease prevention and control work daily, weekly, and monthly through routine consultations, pre-employment medical examinations, regular medical examinations, and return-to-work medical examinations for employees away from the mine for more than 3 weeks. This covers malaria, HIV/AIDS, cholera, tuberculosis, respiratory diseases, and hand hygiene-related diseases. Once an outbreak occurs, it is notified immediately.

Kinsenda 礦場 Kinsenda Mine

Kinsenda礦場定期向作業人員（尤其礦山及選廠作業人員）發放口罩、消毒液等個人防護用品，預防傳染病發生。

The Kinsenda Mine regularly distributes personal protective equipment such as masks and disinfectants to operating personnel (especially mining and processing plant operating personnel) to prevent the occurrence of infectious diseases.

Musonoi 礦場 Musonoi Mine

Musonoi礦場透過每周在行政區域噴灑殺蟲劑，為營地居民配備蚊帳，在裸露部位使用驅蚊噴霧，並穿着長袖襯衫和長褲，堅持使用肥皂或消毒噴霧洗手等防護措施，致力於實現零瘧疾病例及其他傳染病目標。

By spraying insecticides in administrative areas weekly, equipping camp residents with mosquito nets, using mosquito repellent sprays on exposed skin areas, wearing long-sleeved shirts and trousers, and insisting on using soap or disinfectant spray to wash hands, the Musonoi Mine is committed to achieving the goal of zero malaria cases and other infectious diseases.

◆ 健康及疲勞管理

Health and Fatigue Management

我們重視僱員的健康福祉，制訂的健康保障方案已納入各礦區安全管理政策。我們盡力保障僱員擁有足夠的休息時間，避免過度疲勞對工作安全及效率的不利影響。例如，Musonoi 礦場要求夜班作業團隊須嚴格遵守疲勞管理休息制度，每夜總工作時長上限為 12 小時（18:30 至次日 7:30）。

We value the health and well-being of our employees. The health assurance programs formulated have been incorporated into the safety management policies of all mining areas. We do our utmost to guarantee that employees have sufficient rest time, avoiding the adverse impacts of excessive fatigue on work safety and efficiency. For example, the Musonoi Mine requires night shift operation teams to strictly comply with the fatigue management rest system, with a maximum total working time of 12 hours per night (from 18:30 to 7:30 the next day).



職業健康保障項目
Occupational Health Assurance Programs

06

社會責任

Social Responsibility

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 社區關係 Community Relationships
- 原住民權利與文化遺產保護 Indigenous Rights and Cultural Heritage Protection



JINCHUAN 金川

2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

社區投資達153萬美元

Community investments reached US\$1.53 million

0 起侵犯原住民人權及侵犯文化遺產權利事件

0 incidents violating indigenous human rights and cultural heritage rights



Ruashi礦場獲得 AWIMA (礦業界女性發展協會) 頒發的2025年度獎項, 表彰本礦場在相關領域的優良實踐與積極的領導力

Ruashi Mine received the 2025 Annual Award from AWIMA (Association of Women in Mining in Africa), recognizing the mine's excellent practices and positive leadership in related fields

金川國際高度重視並尊重營運所在地的社區文化、傳統習俗、信仰體系, 以及社區居民與土地之間的深厚連結。我們致力於將可能產生的負面社會影響降至最低, 並以積極負責的態度妥善處理社區提出的合理訴求, 同時充分尊重社區居民以符合在地文化的方式參與及互動的權利。

JCI attaches great importance to and respects the community cultures, traditional customs, and belief systems of its operating locations, as well as the deep connection between community residents and the land. We are committed to minimizing potential negative social impacts and handling reasonable demands raised by communities with a proactive and responsible attitude. Simultaneously, we fully respect the rights of community residents to participate and interact in ways that align with local culture.

我們嚴格遵循營運所在地國家及地方相關法律法規, 並恪守《世界人權宣言》《聯合國工商業與人權指導原則》《聯合國土著人民權利宣言》及《聯合國全球契約》等國際公約與指導原則。透過建立科學化的社區管理體系, 我們常態化舉辦社區交流活動, 支持當地基礎設施建設, 提升社區居民生活技能, 持續為社區的繁榮與可持續發展貢獻力量。

We strictly comply with relevant national and local laws and regulations in our operating locations, and abide by international conventions and guiding principles such as the "Universal Declaration of Human Rights," the "UN Guiding Principles on Business and Human Rights," the "UN Declaration on the Rights of Indigenous Peoples," and the "UN Global Compact." By establishing a scientific community management system, we regularly hold community exchange activities, support local infrastructure construction, enhance community residents' life skills, and continuously contribute strength to the prosperity and sustainable development of the community.

社區參與與投資

COMMUNITY ENGAGEMENT AND INVESTMENT

金川國際致力於不斷減少潛在的負面社會影響，並為當地社區創造更多機遇與福祉。我們高度重視社區管理，將其視為企業重點工作及「零傷害」價值觀之重要部分，制訂了社區政策與社區福祉可持續計劃，堅決履行以下承諾：

JCI is committed to continuously reducing potential negative social impacts and creating more opportunities and well-being for local communities. We attach great importance to community management, treating it as a key corporate task and a vital part of the "Zero Harm" values. We have formulated community policies and sustainable community welfare plans, firmly fulfilling the following commitments:

 <p>監測、管控社會經濟影響，持續優化社區發展與投資計劃； Monitor and control socio-economic impacts, and continuously optimize community development and investment plans;</p>	 <p>制訂保障社區可持續福利之方案； Formulate programs to guarantee sustainable community welfare;</p>
 <p>維護僱員、承建商、供應商及所在社區人員之人權； Safeguard the human rights of employees, contractors, suppliers, and personnel in host communities;</p>	 <p>認可並尊重原住民文化、遺產與傳統權利，助力其文化遺產相關工作； Recognize and respect indigenous culture, heritage, and traditional rights, and assist with cultural heritage-related work;</p>
 <p>建立並維護與受影響方、營運關注者之持份者關係； Establish and maintain stakeholder relationships with affected parties and operation observers;</p>	 <p>管理僱員、承建商、當地社區之公共衛生風險。 Manage public health risks for employees, contractors, and local communities.</p>

我們已建立社區關係管理相關政策，並在集團層面制訂《集團社區政策》，明確公司在所有營運所在地支持社區發展的原則與管理要求，識別所有可能受到業務影響的社區及利益相關方，並對社區溝通機制及社區發展項目進行記錄與管理，並設立了申訴機制。我們在部分礦場所在地持續開展社區發展與社會項目，重點覆蓋教育、醫療健康、基礎設施建設及社區經濟發展等領域。

We have established policies related to community relations management, and formulated the "Group Community Policy" at the Group level, clarifying the Company's principles and management requirements for supporting community development in all operating locations. We identify all communities and stakeholders that may be affected by the business, record and manage community communication mechanisms and community development projects, and have set up grievance mechanisms. We continuously carry out community development and social projects in the locations of some mines, focusing on covering fields such as education, healthcare, infrastructure construction, and community economic development.

社區參與與交流 Community Engagement and Communication

金川國際主動與受業務影響或涉及業務權益的各方建立並維繫良好關係。我們攜手利益相關方，共同推行以減少業務負面影響、提升價值創造機會為核心的社區參與策略。

JCI proactively establishes and maintains good relationships with all parties affected by the business or involved in business rights and interests. Joining hands with stakeholders, we jointly implement a community engagement strategy centered on reducing the negative impacts of the business and enhancing value creation opportunities.

報告期內，金川國際各礦區未收到任何周邊社區的重大投訴或社區問題，亦無重大未決社區投訴事項。

During the Reporting Period, none of JCI's mining areas received any major complaints or community issues from surrounding communities, nor were there any major pending community complaint matters.

◆ 社區溝通

Community Communication

我們透過暢通的溝通平台，確保社區居民能夠充分表達意見、積極參與協商，全面融入項目開發與營運的各個階段，從而推動項目穩步實施。

Through unimpeded communication platforms, we ensure that community residents can fully express their opinions, actively participate in consultations, and comprehensively integrate into all stages of project development and operations, thereby driving the steady implementation of projects.

Ruashi 礦場

Ruashi Mine

Ruashi礦場設立了社會事務辦公室，負責對接當地社區及非政府組織，與持份者開展公開透明的互動，助力業務拓展。礦場每季均與社區舉行社區大會，就社區項目的意見反饋及推進進展進行溝通。

The Ruashi Mine set up a Social Affairs Office responsible for interfacing with local communities and non-governmental organizations, conducting open and transparent interactions with stakeholders to aid business expansion. The mine holds a community assembly with the community every quarter to communicate feedback and progress on community projects.

Kinsenda 礦場 Kinsenda Mine

報告期內，Kinsenda礦場舉行了多場會議，包括農業合作社業務評估會、當地勞動力招聘工作評估會、社區項目進度評估會，並於會後組織實地考察；此外亦召開了多次日常工作會議，進一步鞏固合作關係。

During the Reporting Period, the Kinsenda Mine held multiple meetings, including business evaluation meetings for agricultural cooperatives, local workforce recruitment evaluation meetings, and community project progress evaluation meetings, organizing field visits after the meetings. Additionally, multiple routine working meetings were convened to further consolidate cooperative relationships.



Musonoi 礦場 Musonoi Mine

2025 年，Musonoi礦場在原有社區聯絡服務的基礎上，增設了傳訊辦事處，同時負責收集社區發布或媒體傳播的緊急信息，以應對網絡信息日益普及的形勢。該辦事處與當地社區保持全天候聯繫，收集與採礦活動對社區造成影響相關的緊急信息及預警信息。Musonoi礦場亦開設了線上討論群組，專門向社區通報採礦活動的時間安排、日程表，以及所有直接影響社區的作業事宜。

In 2025, on top of its original community liaison services, the Musonoi Mine added a Communications Office, which is also responsible for collecting emergency information released by the community or disseminated by the media, in response to the increasingly popular trend of network information. This office maintains round-the-clock contact with local communities, collecting emergency information and early warning information related to the impacts of mining activities on the community. The Musonoi Mine also launched online discussion groups specifically to inform the community about the timelines and schedules of mining activities, as well as all operational matters that directly impact the community.



Chibuluma 南礦場 Chibuluma South Mine

Chibuluma南礦場設立了專責的社區及社會服務辦事處，亦已梳理出與採礦業務相關的持份者名單，並透過電郵、電話及面對面會議與交流的方式與其溝通。我們的社區及社會服務辦事處實行開門政策，受理書面及口頭申訴。辦事處會對口頭申訴進行記錄，並在3個工作日內給予回覆。礦場會應邀出席當地政府及其他持份者安排的會議，在合適的場合介紹公司經營狀況。同時，礦場是贊比亞礦業商會的成員，並透過該商會與贊比亞礦業界的其他礦企及主要持份者進一步溝通。

The Chibuluma South Mine established a dedicated Community and Social Services Office. It has also compiled a list of stakeholders related to the mining business and communicates with them via email, phone, and face-to-face meetings and exchanges. Our Community and Social Services Office implements an open-door policy, accepting written and verbal grievances. The office records verbal grievances and replies within 3 working days. The mine attends meetings arranged by the local government and other stakeholders upon invitation, introducing the Chibuluma South Mine's operating status on appropriate occasions. Concurrently, the mine is a member of the Zambia Chamber of Mines and further communicates with other mining enterprises and major stakeholders in the Zambian mining industry through this chamber.

◀ 社區影響評估

Community Impact Assessment

我們高度重視礦業開發活動對當地社區可能產生的社會影響，並透過制度化的環境與社區管理機制，在新項目開發及營運過程中持續開展社區溝通與影響識別工作，促進企業營運與當地社區的協調發展。根據我們《社區政策聲明》，在開展新項目或重大擴建活動前，我們將結合項目實際情況開展社會與環境影響評估，對項目可能對當地社區、原居民群體、生計方式及區域社會經濟發展的影響進行系統性識別與評估。

We highly value the social impacts that mining development activities may have on local communities. Through an institutionalized environment and community management mechanism, we continuously conduct community communication and impact identification during new project development and operations, promoting the coordinated development of corporate operations and local communities. According to our "Community Policy Statement," before commencing new projects or major expansion activities, we will conduct social and environmental impact assessments based on actual project conditions. We systematically identify and evaluate the potential impacts of the project on local communities, indigenous groups, livelihoods, and regional socio-economic development.

在評估過程中，我們遵循透明、參與和尊重的原則，透過社區溝通會議、利益相關方交流及申訴渠道等方式，與受影響社區及相關利益方開展溝通，充分聽取各方意見和關切，並將評估結果作為項目規劃與決策的重要參考。對於可能涉及原居民社區的項目，我們依據自由、事先和知情同意（FPIC）原則推進相關評估與溝通程序，在未獲得明確同意的情况下，不推進對其產生重大不利影響的新項目。

During the assessment process, we follow the principles of transparency, participation, and respect. Through community communication meetings, stakeholder exchanges, and grievance channels, we communicate with affected communities and relevant stakeholders, fully listening to all parties' opinions and concerns, and taking the assessment results as an important reference for project planning and decision-making. For projects that may involve indigenous communities, we advance relevant assessment and communication procedures according to the principle of Free, Prior and Informed Consent (FPIC), and will not advance new projects that generate significant adverse impacts on them without obtaining explicit consent.

金川國際亦發布《集團社區政策》，明確企業在營運過程中需與當地社區保持持續溝通與互動，關注社區需求並推動社區發展項目。根據該政策框架，我們在各營運地區持續開展社區參與及公益項目。透過在項目規劃階段開展社區影響評估並持續開展利益相關方溝通，金川國際致力於識別和管理潛在社會風險，推動企業發展與社區長期福祉之間的協調共贏。

JCI has also issued its Group Community Policy, which clarifies that the Company shall maintain continuous communication and engagement with local communities in the course of its operations, address community needs and drive community development initiatives. Under the framework of this policy, we have been consistently rolling out community engagement and public welfare programmes across all our operating regions. By conducting community impact assessments during the project planning phase and carrying out ongoing stakeholder communication, JCI is committed to identifying and managing potential social risks, and facilitating a coordinated win-win outcome between the Company's development and the long-term well-being of communities.



社區投資 Community Investment

支援社區發展是金川國際履行社會責任的核心體現。我們積極參與社區活動，與居民建立緊密合作，攜手推動在地進步。透過組織技能培訓，我們協助居民改善生計；優先聘用當地勞工，促進就業機會；同時，我們持續投入基礎設施建設，穩步提升交通、農業、教育、醫療健康、環境與社區安全等方面的條件，全方位助力社區實現可持續發展。

Supporting community development is the core manifestation of JCI's fulfillment of social responsibility. We actively participate in community activities, establish close cooperation with residents, and join hands to promote local progress. By organizing skills training, we assist residents in improving their livelihoods; we prioritize hiring local labor to promote employment opportunities. Concurrently, we continuously invest in infrastructure construction, steadily improving conditions in transportation, agriculture, education, healthcare, environment, and community safety, comprehensively helping communities achieve sustainable development.

Ruashi 礦場

Ruashi Mine



• 社區建設 Community Construction:

2025年，Ruashi礦場於市轄區興建一座宴會廳，可容納 400 人同時使用，該項目已移交予政府管理。

In 2025, the Ruashi Mine built a banquet hall in the municipal district capable of accommodating 400 people simultaneously; the project has been handed over to government management.



• 社區健康 Community Health:

Ruashi礦場於Luano地區興建一所現代化診所，配備相關醫療設備，並為項目範圍築建防護圍牆。

The Ruashi Mine built a modern clinic in the Luano area, equipped with relevant medical equipment, and built a protective wall for the project area.

• 社區生計 Community Livelihood:

此外，Ruashi礦場資助社區內 400 名婦女，於Hodari天主教學校參與廚藝、美妝及裁縫技能培訓。

Additionally, the Ruashi Mine sponsored 400 women in the community to participate in culinary, beauty, and tailoring skills training at the Hodari Catholic School.

• 文化教育 Culture and Education:

Ruashi礦場為500名社區青年開辦多領域技能培訓，涵蓋廚藝、機械維修、電工等範疇，培訓為期 6 個月，由Hodari天主教學校、青年中心、貧困者聖母堂聯合提供教學。

The Ruashi Mine launched multi-field skills training for 500 community youths, covering areas such as culinary arts, mechanical maintenance, and electrical work. The training lasted for 6 months and was jointly taught by the Hodari Catholic School, the Youth Center, and the Our Lady of the Poor Parish.

Kinsenda 礦場 Kinsenda Mine

• 社區教育 Community Education:

2025 年，Kinsenda礦場為5所學校採購辦公器材；為新建的技術學校招標製作300張課桌椅，並採購技術培訓設備，該學校已於 2025-2026 學年開學；營運職業培訓社會中心，共招收38名學徒及185名兒童；中心設7個班級、配備7名教師，承擔教師及管理員的薪酬、兒童的校服及學習用品、培訓設備費用，並為學員提供早、午餐等。

In 2025, the Kinsenda Mine procured office equipment for 5 schools; tendered and manufactured 300 desks and chairs for the newly built technical school, and procured technical training equipment. The school opened for the 2025-2026 academic year. It operated a vocational training social center, enrolling a total of 38 apprentices and 185 children. The center set up 7 classes, staffed with 7 teachers, bearing the salaries of teachers and administrators, school uniforms and school supplies for children, training equipment costs, and providing breakfast and lunch for students.

• 社區健康 Community Health:

礦場於當地社區內設立綜合門診醫院，為周邊居民提供醫療服務。此外，礦場會配合剛果（金）政府的防疫公告，針對傳染病、季節性疾病（愛滋病、霍亂、瘧疾等）開展疫苗接種及預防宣傳活動，亦為受採礦活動影響的周邊村莊供應飲用水。

The mine set up a comprehensive outpatient hospital within the local community to provide medical services for surrounding residents. Furthermore, the mine cooperated with the DRC government's pandemic prevention announcements to conduct vaccination and preventive publicity activities targeting infectious diseases and seasonal diseases (HIV/AIDS, cholera, malaria, etc.), and also supplied drinking water to surrounding villages affected by mining activities.

• 社區生計 Community Livelihood:

在農業與養殖方面，礦場於Kalulu等村莊興建4座家禽飼養場並配備繁育物資，同時扶助農業合作社開展125公頃玉米種植，提供技術輸出與能力建設支援，並促進園藝產業發展；在基礎設施方面，興建了Lwina（15x6米）及Kamfwitshi兩座橋樑以強化交通聯通，並於社區安裝262盞路燈，切實改善居民生活條件。

• 支持就業 Supporting Employment:

礦場營運的社區中心招收的38名學徒均為當地社區婦女，礦場為其提供裁剪縫紉培訓及創業指導，協助其開展創業活動；在農業合作社體系內，礦場引導當地社區婦女參與農業種植，並為其提供創業支援。



The mine constructed four poultry farms with breeding equipment in villages such as Kalulu, supported cooperatives in cultivating 125 hectares of corn through technical output and capacity building, and promoted local horticulture; in infrastructure, we constructed the Lwina (15x6m) and Kamfwitshi bridges to enhance regional connectivity and installed 262 streetlights, significantly improving local living conditions.

All 38 apprentices enrolled in the community center operated by the mine are women from the local community. The mine provides them with tailoring and sewing training and entrepreneurial guidance, assisting them in launching entrepreneurial activities. Within the agricultural cooperative system, the mine guides local community women to participate in agricultural planting and provides them with entrepreneurial support.



• 改善環境 Improving the Environment:

礦場種植400株香蕉樹；旱季期間於6月、8月、10月各採集10個粉塵樣本，完成相關檢測報告；水源水儲存於大型水庫，經加氯消毒處理後供應社區；生產廢水及地下水添加絮凝劑處理後，迴流至生產環節重複利用。

The mine planted 400 banana trees; collected 10 dust samples each in June, August, and October during the dry season, completing relevant test reports; source water is stored in a large reservoir and supplied to the community after chlorination and disinfection treatment; production wastewater and groundwater are treated with added flocculants and returned to the production loop for reuse.

• 文體活動 Cultural and Sports Activities:

礦場為兒童舉辦聖尼古拉斯節慶祝活動；為受採礦活動影響的4個村莊的學童舉辦2025年夏令營，並派發書包、筆記本、鋼筆、鉛筆、畫板、彩色鉛筆等學習用品；資助當地社區空手道俱樂部參加2025年當地及省級錦標賽；資助當地足球錦標賽，Kinsenda-Kitotwe社區的青年參與了該賽事。

The mine held St. Nicholas Day celebrations for children; held a 2025 summer camp for school children in the 4 villages affected by mining activities, distributing school supplies such as backpacks, notebooks, pens, pencils, drawing boards, and colored pencils; sponsored the local community karate club to participate in the 2025 local and provincial championships; sponsored local football championships, with youths from the Kinsenda-Kitotwe community participating in the event.



• 健康普及 Health Popularization:

礦場邀請省級農業部專家，在農村發展領域的專業顧問機構CDEG的協調下，為社區居民開展農業支援及創業相關技能培訓；同時開展健康安全知識普及活動，包括疫苗接種、傳染病及季節性疾病（愛滋病、霍亂、瘧疾等）預防宣講等。

The mine invited experts from the provincial Ministry of Agriculture, coordinated by CDEG, a professional consultancy in rural development, to conduct skills training related to agricultural support and entrepreneurship for community residents. It also carried out health and safety knowledge popularization activities, including publicity on vaccinations and the prevention of infectious and seasonal diseases (HIV/AIDS, cholera, malaria, etc.).



Musonoi 礦場 Musonoi Mine

• 支持就業 Supporting Employment:

2025年，Musonoi礦場為當地CLD及CDQ社區的居民開展培訓課程，旨在培養他們成為社區資產管理與社區發展的核心工匠及管理人員。

In 2025, the Musonoi Mine launched training courses for residents of the local CLD and CDQ communities, aiming to cultivate them as core artisans and managers for community asset management and community development.



• 社區生計 Community Livelihood:

礦場推行了飲用水供應項目，計劃為社區開鑿 12 口深井；制訂了社區供電計劃，為社區提供電力資源，讓居民能持續使用電力。

The mine implemented a drinking water supply project, planning to drill 12 deep wells for the community; formulated a community power supply plan to provide power resources for the community, allowing residents sustained use of electricity.



礦場為當地提供農業生產資料及農用設備，同時支持社區開展家禽及小型禽畜養殖業。

The mine provided local agricultural production materials and farming equipment, while supporting the community to develop poultry and small livestock farming.



• 改善環境 Improving the Environment:

作為環境管理的一環，礦場向社區提供各類工具及農用設備，協助社區開展環境清潔工作，並優化對外排廢物的管理。

As part of environmental management, the mine provided various tools and farming equipment to the community to assist in community cleaning work and optimize the management of outward waste discharge.



• 文體活動 Cultural and Sports Activities:

礦場透過社區及社會服務部推行多項體育活動支持措施，支持礦場內部足球隊，同時透過社會援助，為社區舉辦其他對外文化活動。

Through the Community and Social Services Department, the mine implemented multiple sports activity support measures, backing the mine's internal football team, while also holding other external cultural activities for the community through social assistance.



原住民權利與文化遺產保護

INDIGENOUS RIGHTS AND CULTURAL HERITAGE PROTECTION

我們高度重視原住民關係，堅定踐行《聯合國原住民權利宣言》，尊重其文化傳承與傳統權利。同時，透過《集團社會政策》，我們規範了全球營運項目的社區管理標準，致力於維護當地社區人權，尊重土著人民的文化、遺產及傳統權利，促進文化多元共融。

We attach great importance to indigenous relations, firmly practice the "UN Declaration on the Rights of Indigenous Peoples," and respect their cultural heritage and traditional rights. Concurrently, through the "Group Social Policy," we standardize community management standards for global operating projects, dedicating ourselves to safeguarding local community human rights, respecting the culture, heritage, and traditional rights of indigenous peoples, and promoting cultural diversity and inclusion.

| 原住民權利與文化遺產保護 Indigenous Rights and Cultural Heritage Protection

金川國際高度重視原住民關係，尊重其文化傳承與傳統權利，並積極協助原住民文化遺產的識別、記錄、管理與保護。在採礦作業中，我們嚴格遵循國際金融公司 (IFC) 績效標準第8號，致力於全方位保護文化資產。我們會在新建項目前進行閉坑方案的可行性研究，透過嚴謹的前期評估與項目優化設計，我們優先採取避讓策略，竭力避免對原住民傳統領土及具歷史意義的文化遺產造成干擾或破壞。我們會在閉坑前事先進行社會影響評估，若影響不可避免，我們將與原住民社區展開充分協商，嚴格落實「自由、事先及知情同意」(FPIC) 原則，並制訂周詳的保護或修復方案，以最大限度減緩不利影響。此外，我們持續推動社區發展項目，改善當地經濟與文化生態，賦能區域可持續發展。

JCI attaches great importance to indigenous relations, respects their cultural heritage and traditional rights, and actively assists in the identification, recording, management, and protection of indigenous cultural heritage. In mining operations, we strictly adhere to International Finance Corporation (IFC) Performance Standard 8, committing to the comprehensive protection of cultural assets. Before launching new projects, we conduct feasibility studies for closure plans. Through rigorous preliminary assessments and optimized project design, we prioritize avoidance strategies, doing our utmost to avoid disturbing or damaging indigenous traditional territories and historically significant cultural heritage. We conduct social impact assessments prior to mine closure. If impacts are unavoidable, we engage in full consultations with indigenous communities, strictly implement the principle of "Free, Prior and Informed Consent" (FPIC), and formulate comprehensive protection or restoration plans to mitigate adverse impacts to the maximum extent. Furthermore, we continually promote community development projects to improve local economic and cultural ecologies, empowering regional sustainable development.

Musonoi礦場制訂了傳統生活方式保護政策，承諾避免在徵地、移民搬遷過程中對傳統文化場所、宗教聖地及歷史遺蹟造成破壞。

Chibuluma南礦場與所在社區有著獨特而重要的關係，其中包括贊比亞憲法建立並得到其確認的首長領地、社區及村莊。為此，Chibuluma南礦場制訂了《與外部持份者接觸的程序》。這些外部持份者包括居住在現址的住民（無論是否擁有產權）、與土地有特殊關係或擁有特定土地資源及文化權利的土著或部落人民以及受項目影響或確定需要重新安置的土地或資產的人員等。該程序不僅為原住民提供了自由表達觀點的機會，還有助於企業了解原住民的關切及訴求，以將相關信息納入企業決策過程。

報告期內，我們未發現任何涉及侵犯原住民人權的事件，亦無任何涉及侵犯文化遺產權利的事件。

The Musonoi Mine formulated a traditional lifestyle protection policy, pledging to avoid damaging traditional cultural sites, religious sacred sites, and historical relics during the land acquisition and resettlement process.

The Chibuluma South mine has a unique and important relationship with its host communities, including chiefdoms, communities, and villages established and recognized by the Zambian Constitution. To this end, the Chibuluma South mine formulated the "Procedure for Engaging with External Stakeholders." These external stakeholders include residents living on the current site (regardless of property ownership), indigenous or tribal peoples with a special relationship to the land or possessing specific land resources and cultural rights, and persons whose land or assets are affected by the project or who are determined to require resettlement. This procedure not only provides indigenous people with opportunities to freely express their views but also helps the enterprise understand indigenous concerns and demands to integrate relevant information into the corporate decision-making process.

During the Reporting Period, we did not discover any incidents involving the violation of indigenous human rights, nor were there any incidents involving the violation of cultural heritage rights.



| 手工及小規模開採礦 Artisanal and Small-Scale Mining

在礦場及項目所在地，我們密切關注手工和小規模開採（ASM）的發展現狀。我們充分認可ASM作為當地社區關鍵經濟支柱的重要地位，但也深刻認知到非法採礦所引發的嚴峻挑戰，包括有毒化學品濫用、生態環境破壞、勞動防護缺失以及人權侵害等問題。為此，金川國際積極踐行企業社會責任，攜手政府與多方利益相關者，共同推動ASM從業者的正規化轉型，在消除安全與環境隱患的同時，切實保障當地居民的可持續生計。

針對社區居民就業結構單一、技能匹配度低的問題，報告期內，Kinsenda礦場推行「技能提升與轉崗儲備計劃」。結合礦山現有崗位需求，開展電工、機械維修、安全管理等職業技能培訓，優先錄用社區居民就業，幫助其積累行業經驗。例如，2025年礦山地表勘探工程啟動施工時，現場招聘鉆探作業人員均優先考慮社區居民，既培養其操作技能、提升當前生活質量，也為其後續就業拓寬渠道。

In the locations of our mines and projects, we closely monitor the development status of Artisanal and Small-Scale Mining (ASM). We fully recognize the critical position of ASM as a key economic pillar for local communities, but we also deeply recognize the severe challenges triggered by illegal mining, including the abuse of toxic chemicals, ecological environment destruction, lack of labor protection, and human rights violations. To this end, JCI actively fulfills corporate social responsibilities, joining hands with the government and multiple stakeholders to jointly promote the formalization and transition of ASM practitioners. While eliminating safety and environmental hazards, we practically safeguard the sustainable livelihoods of local residents.

Targeting the issues of a monolithic employment structure and low skill matching among community residents, the Kinsenda Mine implemented the "Skill Enhancement and Job Transfer Reserve Plan" during the Reporting Period. Combining the current job demands of the mine, it carried out vocational skills training such as electrical work, mechanical maintenance, and safety management, giving priority to hiring community residents to help them accumulate industry experience. For example, when the mine's surface exploration engineering construction commenced in 2025, on-site recruitment for drilling operators gave priority to community residents. This not only cultivated their operational skills and improved their current quality of life but also broadened channels for their subsequent employment.

我們致力於在營運所在地構建可持續的社區生態系統，透過優化經濟環境、升級基礎設施以及提供專業技術培訓與教育資源，為當地居民開拓多元化的發展機遇。我們旨在從源頭上消除非法採礦的誘因，切實緩解無序開採對採礦者、社區、企業及員工在環境保護、作業安全及人權保障等方面帶來的負面衝擊，推動行業良性發展。

We are committed to building a sustainable community ecosystem in our operating locations. By optimizing the economic environment, upgrading infrastructure, and providing professional technical training and educational resources, we open up diversified development opportunities for local residents. We aim to eliminate the incentives for illegal mining from the source, practically mitigating the negative impacts of disorderly mining on miners, communities, enterprises, and employees in terms of environmental protection, occupational safety, and human rights protection, thereby driving the healthy development of the industry.



07

穩健管治

Sound Governance

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重要性議題
Material topics addressed in this chapter

- 業務表現與財務責任 Business Performance and Financial Responsibility
- 企業管治 corporate Governance
- 合規風險管理 Compliance Risk Management
- 商業道德 Business Ethics



JINCHUAN 金川

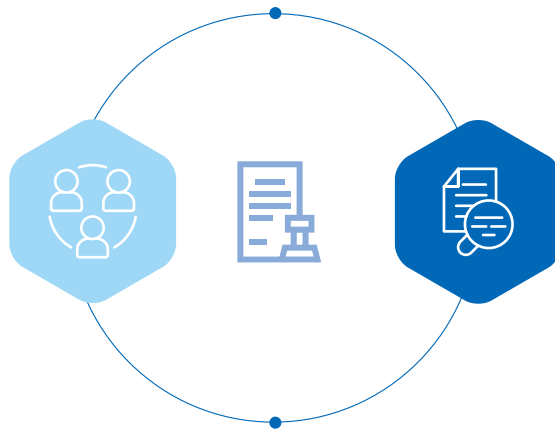


2025 亮點績效

2025 HIGHLIGHT PERFORMANCE

非執行董事及獨立董事佔董事會
成員總數的**67%**

Non-executive directors and
independent non-executive
directors account for 67% of the total
board members



20次定期或不定期廉潔從業檢查

20 integrity checked were conducted
on a regular or irregular basis

我們致力於為股東及其他持份者創造可持續價值，並將致力持續完善風險管理體系，矢志維持高標準的商業道德操守。報告期內，我們繼續優化內部監控及全面風險管理，進一步鞏固商業道德建設。

We are dedicated to generating sustainable value for shareholders and other stakeholders. We are dedicated to continually enhancing our risk management system and upholding high standards of business ethics. During the Reporting Period, we optimised our internal controls and comprehensive risk management, further enhancing our business ethics.

財務責任

FINANCIAL RESPONSIBILITY

為助力全球能源轉型，金川國際將加快資源優勢向經濟社會貢獻轉化，加大銅、鈷等優勢礦種的研發投入與技術突破，以先進生產工藝助力降本減排增效。我們依法向營運所在地政府繳納足額稅款、採礦權使用費等費用，提高當地政府收入，造福當地民生福祉。

To support the global energy transformation, JCI is committed to leveraging its resource strengths to make positive economic and social impacts. The Company will increase R&D investment and expedite technological breakthroughs for advantageous mineral species such as copper and cobalt, using advanced production processes to help reduce costs, cut emissions, and enhance efficiency. Additionally, we adhere to all legal regulations by paying taxes, royalties on mining rights, and other relevant fees to the governments of the areas in which we operate. By doing so, we increase local government revenue and enhance the welfare of the local population.

企業管治

CORPORATE GOVERNANCE

金川國際始終認為，良好的企業管治是公司穩健發展的核心保障。我們致力建立良好的企業管治常規及程序，並於各層面強化監督與風險管理。我們不斷提升管治水平，確保各項決策充分考慮我們及持份者的長期利益，從而實現可持續增長與價值創造。

JCI believes that sound corporate governance is the core safeguard for a company's steady development. We are committed to establishing good corporate governance practices and procedures, and to enhancing oversight and risk management at all levels. We continuously elevate our governance standards. This ensures that all decisions fully consider the long-term interests of the Company and its stakeholders, thereby achieving sustainable growth and value creation.

董事會及董事委員會 The Board and the Committee

金川國際董事會負責我們業務事項、策略及管理，且致力於高水平企業管治慣例，此乃提升可持續股東價值及履行我們對股東及其他持份者的責任及義務的關鍵，並確保我們具備足夠且恰當的管治體系來監管其發展及不斷改善環境、經濟及社會表現。截至報告期末，我們董事會由六名董事組成，包括兩名執行董事、一名非執行董事及三名獨立非執行董事。我們將持續評估董事會結構，以確保健全的企業管治。

The Board is responsible for JCI's business affairs, strategy, and management, and is committed to high standards of corporate governance practices, which are considered to be pivotal in enhancing sustainable shareholder value and meeting the Company's accountability and responsibilities to shareholders and other stakeholders, and to ensure that the Company has adequate governance systems in place to monitor its development and continuously improve its environmental, economic, and social performance. As of the end of the Reporting Period, our Company's Board of Directors is composed of six directors, including two executive directors, one non-executive director, and three independent non-executive directors. We will continue to assess the Board's structure to ensure sound corporate governance.



金川國際董事會管治職能
JCI Board's Corporate Governance Functions

於董事會管轄下，我們設立了四個董事委員會，分別為審核委員會、薪酬及提名委員會、風險管理委員會、戰略及投資委員會。各董事委員會均有特定之書面職權範圍，監管我們事務的若干特定範疇，並已登載於我們網站及香港聯交所網站。所有董事委員會均須向董事會報告彼等之決策或推薦意見。

Under the Board, we have established four Board committees, namely, the Audit Committee, the Remuneration and Nomination Committee, the Risk Management Committee, and the Strategy and Investment Committee. Each Board committee oversees certain particular aspects of the Company's affairs in accordance with clearly defined written terms of reference. These terms of reference have been posted on the Company's website and the HKEX website. All Board committees are required to report their decisions or recommendations to the Board.

審核委員會 Audit Committee



- 審核委員會由三名獨立非執行董事組成，彼等均具備相關之會計及財務管理專業知識、行業知識以及法律及業務經驗，以履行彼等職責。

The Audit Committee is composed of three independent non-executive directors, who all have the relevant accounting and financial management expertise, industrial knowledge, legal and business experience to discharge their duties.

- 審核委員會之主要職責包括審閱本集團之財務申報過程、內部監控及風險管理系統的效用、監察審核程序及履行董事會可能不時指派之其他職責。

The primary duties include reviewing the Group's financial reporting, ensuring the effectiveness of internal control and risk management systems, overseeing the audit process, and performing other duties assigned by the Board of Directors from time to time.

薪酬及提名委員會 Remuneration and Nomination Committee



- 薪酬及提名委員會由一名執行董事及兩名獨立非執行董事組成。

Remuneration and Nomination Committee comprises one executive director and two independent non-executive directors.

- 薪酬及提名委員會之職責包括薪酬及提名。薪酬職能旨在檢討及制定有關全體董事及本集團高級管理層薪酬架構之政策，並向董事會提出建議以供其考慮。提名職能旨在帶領董事會的委任程序以及就此物色及提名人選以作委任。

It is responsible for the management of remuneration and nomination. It aims to review and make policies regarding the remuneration structures for all directors and the Group's senior management, and to give advice to the Board of Directors for its consideration. It also plays a leading role in the appointment of the Board by identifying and nominating candidates for appointment.

風險管理委員會 Risk Management Committee



- 風險管理委員會由兩名執行董事以及兩名獨立非執行董事組成。

Risk Management Committee comprises two executive directors and two independent non-executive directors.

- 風險管理委員會之職能為監督本集團之風險管理活動及向董事會提供有關風險策略及監控措施之建議，以減低因市場波動及其他外在因素而產生之整體風險。

The function of Risk Management Committee is to oversee the Group's risk management activities and provide recommendations to the Board on risk strategy and control measures to mitigate the overall risk that arises from market fluctuation and other external factors.

戰略及投資委員會 Strategy and Investment Committee



- 戰略及投資委員會由兩名執行董事組成。

Strategy and Investment Committee comprises two executive directors.

- 戰略及投資委員會之職能為制定本集團之長遠策略發展及向董事會提供有關收購及出售投資項目之推薦建議，以及監督本公司之海外資產並就可持續性地管理海外資產及提高回報向董事會提供意見及推薦建議。

The function of Strategy and Investment Committee is to formulate the long-term strategic development strategy of the Group and provide recommendations to the Board on the acquisition and disposal of investments, as well as to oversee the Company's overseas assets and provide advice and recommendations to the Board on managing overseas assets in a sustainable manner and yielding better returns.

姓名 Name	職位 Position	性別 Gender	審核委員會 Audit Committee	薪酬及提名委員會 Remuneration and Nomination Committee	風險管理委員會 Risk Management Committee	戰略及投資委員會 Strategy and Investment Committee
程永紅(董事會主席) CHENG Yonghong (Chairman of the Board)	執行董事 Executive Director	男 Male		●	●	●
郜天鵬(行政總裁) GAO Tianpeng (Chief Executive Officer)	執行董事 Executive Director	男 Male			●	●
王樺忠 WANG Qiangzhong	非執行董事 Non-Executive Director	男 Male				
嚴元浩 YEN Yuen Ho, Tony	獨立非執行董事 Independent Non-Executive Director	男 Male	●	●	●	
潘昭國 POON Chiu Kwok	獨立非執行董事 Independent Non-Executive Director	男 Male	●	●	●	
韓瑞霞 HAN Ruixia	獨立非執行董事 Independent Non-Executive Director	女 Female	●			

● 委員會主席
Chairman of the Committee

● 委員會成員
Committee Member

金川國際董事會成員角色與分工
Roles and Division of Labour Among JCI Board

報告期內，我們董事會及各董事委員會按照其職權範圍、權力及責任開展各項工作，確保公司業務之監管及策略執行符合最佳治理標準。董事會及各董事委員會根據既定職責範圍，不定期召開會議，審議並監督相關業務及營運情況，促進我們長期可持續發展及持份者利益之實現。報告期內，我們共舉行15次董事會會議、5次審核委員會會議、1次薪酬及提名委員會會議及1次股東周年大會。

During the Reporting Period, the Board of Directors and the respective board committees of the Company conducted their work within the scope of their authority, powers, and responsibilities, ensuring that the oversight and implementation of the Company's business operations adhere to the highest standards of governance. The Board and committees convened meetings periodically to review and oversee relevant business and operational matters in accordance with their defined duties. This promoted the long-term sustainable development of the Company and the realisation of stakeholder interests. A total of fifteen Board meetings, five Audit Committee meetings, one Remuneration and Nomination Committee and one Annual General Meeting were held during the Reporting Period.

董事會獨立性 Board Independence

董事會獨立性對企業決策透明度及有效性至關重要。一位獨立的董事會能夠更客觀地監督管理層，從而有效減少利益衝突，並提升決策質量與透明度。截至報告期末，我們董事會中非執行董事及獨立非執行董事佔董事會成員總數的67%。

此外，獨立非執行董事在我們治理結構中亦扮演著關鍵角色。我們認為全體獨立非執行董事均為獨立人士，彼等獨立於管理層，概無擁有我們任何業務或財務權益，亦與其他董事無任何關係。我們認為彼等不受可潛在干擾彼等行使其獨立判斷能力之任何關係影響，這確保了彼等能夠在決策過程中保持客觀及公正。

為進一步強化董事會之獨立性及其功能，提升決策透明度及效率，我們亦採取了以下措施，確保監督機制之高效運作，推動公司治理結構的完善及持續改進。

The board independence is crucial for the transparency and effectiveness of corporate decision-making. An independent director board can objectively supervise management, thus effectively avoiding conflicts of interest and enhancing the quality and transparency of decisions. As of the end of the Reporting Period, non-executive directors and independent non-executive directors constitute 67% of the total Board members.

Additionally, independent non-executive directors play a crucial role in the Company's governance structure. We consider all independent non-executive directors to be independent individuals, free from management influence, with no ownership of any business or financial interests in the Company, and no relationships with other directors. We believe that they are not influenced by any relationships that could potentially interfere with their ability to exercise independent judgment, which ensures that they can maintain objectivity and impartiality in the decision-making process.

To further strengthen the independence of the Board and its functions, and to enhance the transparency and efficiency of decision-making, we have also implemented the following measures to ensure the efficient operation of the supervisory mechanism and promote the ongoing improvement and continuous refinement of the Company's governance structure.

<p>董事選舉及評估 Election and Evaluation of Directors</p>	<p>在選擇和推薦董事候選人時，薪酬及提名委員會將嚴格評估候選人是否符合上市規則對獨立性的要求。 In selecting and recommending candidates for directorships, the Remuneration and Nomination Committee will strictly consider whether the candidates meet the independence requirements of the Listing Rules.</p>
<p>定期召開獨立會議 Regular Independent Meetings</p>	<p>主席至少每年召開一次只有獨立非執行董事參加的會議，以確保彼等能夠在沒有其他董事參與的情況下自由討論並表達意見。 The chairman convenes a meeting at least once a year with independent non-executive directors, ensuring they have the opportunity to freely discuss and express their views without the presence of other directors.</p>
<p>專業意見取得 Access to Professional Advice</p>	<p>董事會被授權尋求獨立的專業意見，以確保董事在履行職責時能夠獲得準確及相關的專業建議，增強其決策質量。 The Board is authorised to seek independent professional advice to ensure that directors receive accurate and relevant professional advice in carrying out their duties and to enhance the quality of their decisions.</p>

董事會多元化 Board Diversity

我們明白並深信董事會成員多元化對提升公司表現及素質裨益良多。多元化的董事會成員構成可為董事會帶來廣泛的業務及專業經驗，同時確保決策過程中考慮到不同觀點，從而支持我們實現策略目標。因此，為達致可持續及均衡的發展，董事會已根據企業管治守則及董事會提名政策落實了董事會成員多元化政策。我們在設定董事會成員組合及甄選董事人選時，會從多角度考慮董事會成員之多元化，包括但不限於性別、年齡、文化及教育背景、種族、專業經驗、技能、知識及服務任期等。

We recognise and embraces the benefits of having a diverse Board to enhance the quality of its performance. Diverse board composition ensures a wide range of business and professional experiences on the Board, which allows the decision-making process to include different perspectives and supports the achievement of the Company's strategic objectives. Therefore, to achieve sustainable and balanced development, the Board has implemented a board diversity policy in accordance with the CG Code and the Board's nomination policy. In designing the Board's composition and selecting Directors, we will consider the Board diversity in elements including but not limited to, gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge, and length of service.

◆ 性別多元化 Gender Diversity

截至報告期末，女性董事在我們董事會中的比例為17%。我們將繼續促進女性領導力的發展，以此增強董事會的靈活性，並為企業決策過程注入更多元化的思考視角。此外，我們亦在制訂《勞動力多元化政策》，以推動實現提名委員會的性別多元化。

As of the end of the Reporting Period, the proportion of female directors on the Board was 17%. We will continue to promote women's leadership, which will enhance the flexibility of the Board and bring more diversified thinking to corporate decision-making. In addition, we are also formulating the Workforce Diversity Policy to promote gender diversity in the Nomination Committee.

◆ 專業背景多元化 Diversity of Professional Background

我們的執行董事及非執行董事來自不同背景，並具備相關經驗及專業知識的深度以監管公司的業務。現有董事會成員包括來自商界、學術界及專業界別的代表，具備履行職責所需的合理專業構架、知識、技能及素質，擁有採礦、金融、法律、會計、工程等多元化的專業背景。這樣的均衡組合確保了我們能夠締造可持續增值，有效保障股東權益。

Our executive and non-executive directors have diverse backgrounds, each possessing the depth of relevant experience and expertise needed to oversee the Company's businesses. Currently, the Board comprises representatives from the business, academic, and professional sectors, with an appropriate professional structure, knowledge, skills, and qualities required for the performance of their duties, and with diversified professional backgrounds in mining, finance, law, accounting, and engineering. Such a balanced portfolio ensures that the Company can create sustainable value growth and effectively safeguard shareholders' interests.

◆ 年齡結構多元化

Diversity of Age Structure

我們高度重視董事會年齡結構的多元化，認為不同年齡層的董事能夠為公司帶來豐富的經驗及多元的視角。年齡的多元化有助於平衡資深智慧與創新思維，從而提升決策質量及應對未來挑戰的能力。於選任董事時，我們將年齡結構的多樣性納入考慮範圍，確保董事會能夠綜合各方經驗與視野，以推動我們的可持續發展。

We place great emphasis on the diversification of the Board's age structure, believing that directors from different age groups can bring rich experiences and diverse perspectives to the Company. The diversity in age helps balance seasoned wisdom with innovative thinking, thereby enhancing decision-making quality and the ability to address future challenges. In appointing directors, we consider the diversity of age structure, ensuring that the Board can synthesize various experiences and viewpoints to promote the sustainable development of the Company.

| 專業培訓及發展 Professional Training and Development

為確保董事能夠有效履行其職責，並充分了解我們之策略方向、業務營運及發展事宜，我們積極提供持續專業發展機會。報告期內，我們為董事安排了多項專業發展活動，包括內部簡報會、提供專門守則資料及鼓勵董事參與相關培訓課程等，旨在加強董事對我們行為守則、業務運作及相關上市規則與其他適用監管規定的理解。我們特別關注向董事傳遞最新監管發展與良好企業治理實踐（包括ESG相關訊息）的知識，以確保我們之治理架構及運作符合最高標準。所有董事均已參與上述專業發展活動，並向公司提交了截至報告期末之培訓記錄。

上述行動展示了我們對提升董事會整體效能及專業知識之持續承諾，並確保了每位董事能夠在深入理解當前業務營運及監管環境的基礎上，對董事會及公司作出具洞察力之貢獻。

We provide continuous professional development opportunities for our Directors to ensure that they can perform their duties effectively and fully understand the Company's strategic direction, business operations, and development matters. During the Reporting Period, we have arranged a series of professional development activities for the Directors, including internal briefings, the provision of specialised compliance information, and encouragement to participate in relevant training courses. These activities were aimed at enhancing Directors' understanding of the Company's Code of Conduct and business activities, as well as relevant Listing Rules and other regulatory requirements. We place particular emphasis on conveying the latest regulatory developments and good corporate governance practices, including ESG-related information, to the Directors. This ensures that the Company's governance framework and operations meet the highest standards. All directors have participated in the aforementioned professional development activities and submitted their training records to the Company by the end of the Reporting Period.

The above efforts exemplify our ongoing commitment to improving the overall effectiveness and expertise of the Board. This commitment ensure that each Director can contribute insightfully to the Board and the Company with a deep understanding of current business operations and the regulatory environments.

商業道德

BUSINESS ETHICS

金川國際致力於促進誠信、公平與責任感的業務營運，要求在進行任何商業交易及/或建立商業關係時保持專業、誠實及正直的態度，並堅決禁止任何可能損害公司誠信及聲譽的行為。金川國際持續完善集團及礦區層面的政策體系、監督機制與培訓活動，促進誠信、透明及合規的業務營運。金川國際已建立系統化的商業道德與反貪污治理框架，我們自2016年起實施《道德行為準則和人權政策》（「道德守則」），適用於全球各地的金川國際僱員（無論其地點或角色如何），要求彼等遵守道德規範，保持高尚的職業操守，遵守及實施我們的標準及價值觀，以確保我們的業務活動符合社會、法律及監管要求，增強我們與持份者及其他應守則之間的信任。針對法證會計師發現的內控問題，我們將持續關注獨立法證調查結果，並聯合內控顧問，通過培訓及採取補救措施等方式完善道德守則及其他內控守則的落地執行。

JCI is committed to promoting business operations with integrity, fairness, and responsibility. We require a professional, honest, and upright attitude when conducting any commercial transactions and/or establishing business relationships, and resolutely prohibit any behavior that may damage the Company's integrity and reputation. JCI continuously refines the policy system, supervisory mechanisms, and training activities at the Group and mine levels to promote integrity, transparency, and compliance in business operations. At the Group level, JCI has established a systematic business ethics and anti-corruption governance framework. Since 2016, we have implemented the "Code of Ethical Conduct and Human Rights Policy" ("Code of Ethics"), applying to all JCI employees globally (regardless of their location or role), requiring them to abide by ethical codes, maintain noble professional integrity, and comply with and implement our standards and values to ensure our business activities meet social, legal, and regulatory requirements, enhancing the trust between us and our stakeholders. In response to the internal control issues identified by the forensic accountant, we will keep tracking the independent forensic investigation results and collaborate with the internal control consultant to strengthen the implementation of the Code of Ethics and other internal control policies through training and other remedial measures.

於踐行該等價值觀中，金川國際要求其董事、經理及僱員遵守商業守則並受其約束，堅持以下標準及原則：

In practicing these values, JCI requires its directors, managers, and employees to abide by and be bound by the business code, upholding the following standards and principles:

尊重所有僱員的人權和尊嚴，接受不同的文化，宗教，種族，性別和性取向

Respect the human rights and dignity of all employees, and accept different cultures, religions, races, genders, and sexual orientations

確保所有商業交易的公平與誠信，包括以道德的方式處理個人和職業關係之間實際或明顯的利益衝突

Ensure fairness and integrity in all commercial transactions, including handling actual or apparent conflicts of interest between personal and professional relationships in an ethical manner

在與其他經理、董事和/或僱員、顧問、供應商、客戶、股東和其他持份者打交道時，誠實行事

Act honestly when dealing with other managers, directors and/or employees, consultants, suppliers, customers, shareholders, and other stakeholders

遵守所有適用法律和所有適用的政府機構規章制度

Comply with all applicable laws and all applicable rules and regulations of government agencies

遵守公司審批架構和公司風險管理架構

Comply with the Company's approval framework and the Company's risk management framework

認識到利益衝突的產生，以公司道德規範要求進行處理

Recognize the emergence of conflicts of interest and handle them according to the requirements of the Company's code of ethics

不得將公司信息用於除指定用途以外的任何目的，並在公司任期結束後仍對其保密

Must not use company information for any purpose other than its intended use, and keep it confidential even after the end of tenure with the Company

避免從事可能與公司利益衝突或可能導致公司遭受損失或損害的做法或追求私人利益

Avoid engaging in practices or pursuing private interests that may conflict with the Company's interests or may cause the Company to suffer losses or damages

金川國際對道德規範保持嚴格要求，任何違反道德準則的行為都將面臨紀律處分甚至終止僱傭關係，對於犯罪行為我們將依法追究。

JCI maintains strict requirements on ethical codes. Any behavior violating the code of ethics will face disciplinary action or even termination of the employment relationship; for criminal acts, we will pursue legal liability according to the law.

我們已建立供應商商業道德管理要求，並透過供應鏈管理政策規範供應商及承包商的商業行為標準。在營運層面，各礦場亦會結合實際營運情況制訂反貪污及商業行為管理措施，例如透過建立反賄賂制度、強化對外支付審批、規範僱員與供應商的往來行為，以及採用多供應商詢價、公開開標及多級審批等採購管理機制，降低採購及業務合作中的貪污風險；同時透過透明的財務管理及資金管理機制，提升營運的合規性。為加強反貪污風險管理，我們於各營運點開展反貪污風險評估，並定期組織廉潔從業檢查。與此同時，我們設立舉報及申訴機制，保障舉報人的合法權益，並由獨立的內部團隊負責調查及跟進相關事宜，確保問題能得到公正、獨立的處理。

在僱員培訓方面，我們持續開展商業道德及合規相關培訓，部分礦區亦將商業行為規範納入日常管理培訓的內容。整體而言，我們已於部分營運單位開展商業道德培訓，但培訓體系在不同礦區之間仍存在一定差異，尚需進一步提升系統性與覆蓋範圍。

金川國際已建立商業道德與反貪污政策體系，並於礦區層面落實多項內部控制及風險管理措施。未來，我們將持續完善相關制度的執行與監督機制，並進一步統一培訓管理與實踐標準，藉以不斷提升整體的商業道德治理水平。

We have established supplier business ethics management requirements and standardized the business conduct standards for suppliers and contractors through supply chain management policies. At the operational level, each mine also formulates anti-corruption and business conduct management measures combined with actual operational conditions. For example, by establishing an anti-bribery system, strengthening external payment approvals, standardizing the interaction behaviors between employees and suppliers, and adopting procurement management mechanisms such as multi-supplier inquiries, public bid openings, and multi-level approvals, we reduce corruption risks in procurement and business cooperation; simultaneously, through transparent financial management and capital management mechanisms, we elevate operational compliance. To strengthen anti-corruption risk management, we conduct anti-corruption risk assessments at all operating sites and regularly organize integrity-in-practice inspections. Concurrently, we have set up whistleblowing and grievance mechanisms to protect the legitimate rights and interests of whistleblowers, and an independent internal team is responsible for investigating and following up on related matters to ensure issues can be handled fairly and independently.

Regarding employee training, we continuously conduct training related to business ethics and compliance. Some mining areas have also incorporated business conduct codes into the content of routine management training. Overall, we have carried out business ethics training in some operating units, but the training system still varies to a certain extent among different mining areas, requiring further improvement in systematicity and coverage.

JCI has established a business ethics and anti-corruption policy system, and implemented multiple internal control and risk management measures at the mine level. In the future, we will continuously perfect the execution and supervisory mechanisms of relevant systems, and further unify training management and practical standards to continuously elevate the overall level of business ethics governance.

| 反腐敗及反賄賂 Anti-Corruption and Anti-Bribery

我們致力於營造廉潔、透明的企業文化，要求所有董事、僱員、供應商及承建商嚴格遵守我們政策及標準，堅決抵制任何形式的賄賂與腐敗行為，並要求僱員在面對此類行為時採取積極措施。我們密切監督全公司反賄賂及反腐敗政策的執行情況，並依據《聯合國全球契約原則》《聯合國反腐敗公約》等國際標準，制訂反賄賂及反腐敗政策，涵蓋防止賄賂及貪污、收受禮品、慈善捐款或贊助、違規處理程序、舉報人保護等相關守則，規範全體僱員的誠信與道德行為。我們支持匿名舉報，並提供舉報渠道使用的培訓。針對收到的舉報，我們承諾對其詳情嚴格保密，並及時確認專責處理舉報機制的部門及人員開展調查，結束後披露舉報違規事項的調查流程。

We foster a clean and transparent corporate culture by mandating strict compliance with the Company's policies and standards for all Directors, employees, suppliers, and contractors. We strictly prohibit any form of bribery and corruption, and we expect our employees to take proactive measures when encountering such behaviour. We closely monitor the company-wide policies regarding anti-bribery and anti-corruption. These policies are developed in accordance with international standards, such as the UNGC Principles and the United Nations Convention against Corruption, benchmarking against the most stringent ethical business standards and regulating the integrity and ethical conduct of all our employees.

僱員不得直接或間接給予、接受任何形式的賄賂或回扣，無論是在商業交易中還是與第三方的往來中。若發現相關行為必須立即向直線經理報告並終止交易。

Employees are prohibited from engaging in any form of bribery or kickbacks, either directly or indirectly, whether in commercial transactions or dealings with third parties. Employees who become aware of such behaviour must report it immediately to their line manager and such transaction should be terminated immediately.

僱員必須避免個人利益與公司利益發生衝突。不得利用公司資源或信息為個人謀利，亦不得從事可能損害公司利益的活動。

Employees must avoid conflicts between personal and the Company's interests. They must refrain from using the Company's resources or information to gain personal benefits or engage in activities that may harm the Company's interests.



未經允許，僱員不得向供應商、顧問、客戶、競爭對手或其他業務夥伴透露公司機密信息。

Without permission, employees are prohibited from disclosing the Company's confidential information to suppliers, consultants, customers, competitors, or other business partners.

僱員不得基於內幕信息進行股票交易，亦不得鼓勵或勸阻他人進行此類交易。

Employees should not engage in stock trading based on insider information, nor encourage or discourage others from doing so.

公司不會容忍對舉報者的任何形式的打擊報復，並鼓勵僱員積極報告任何不道德行為。

The Company will not tolerate any form of retaliation against whistleblowers and encourages employees to report any unethical behaviour.

「道德守則」中反腐敗及反賄賂的主要內容

The Main Elements of Anti-Corruption and Anti-Bribery in the Code of Ethics

我們亦為旗下所有礦場制訂了專門的反腐敗及反賄賂相關規定，不斷加強內控自查，建立評價機制。我們對所有營運點均進行了反腐敗風險評估，並於報告期內指導並督促開展了20次針對各礦場的廉潔從業檢查。

We have established specific anti-corruption and anti-bribery regulations for all our mining sites, continuously strengthening internal controls and self-inspections, and establishing evaluation mechanisms. Anti-corruption risk assessments have been conducted for all operational sites, and during the reporting period, we guided and urged the conduct of 20 integrity inspection across various mining sites.

Ruashi 礦場

Ruashi Mine

- 礦場制定了一套全面的反腐敗合規計劃，包括對所有對外付款的授權及記錄保存的詳細政策及程序。
- 強化對疏通費用的監督管理，堅決不鼓勵任何形式的疏通費。要求對所有此類支付都必須經過嚴格的內部審查及/或當地法律程序的批准，並在公司賬簿中妥善記錄。

2025 年，Ruashi 礦場共 259 人參加商業行為守則及企業管治守則的培訓

- Ruashi Mine has put in place a comprehensive anti-corruption compliance programme, which contains detailed policies and procedures for the authorisation and record keeping of all the payments made to external parties.
- It aims to strengthen the oversight and management of facilitation payments and strongly discourages facilitation payments of any kind. It also requires that all facilitation payments must be reviewed and approved in accordance with Ruashi Mine policies and/or local procedures and must be properly recorded Ruashi Mine's books.

In 2025, a total of 259 employees at Ruashi Mine attended training on the Code of Business Conduct and Corporate Governance Code.

Kinsenda 礦場

Kinsenda Mine

- 礦場要求僱員實現礦山與供應商之間的公平交易，不帶偏見地平等對待所有供應商。
- 要求僱員認真、誠實地履行職責，並以公司的最大利益為重，不得以職務之便謀取私利。
- 嚴禁任何僱員接受供應商的金錢或禮品以換取任何信息或好處，違者將立即受到紀律處分。

- It requires employees to ensure fair dealings between the mine and suppliers and treat all suppliers equally without any bias.
- Employees should carry out their duties diligently and honestly, prioritise Kinsenda Mine's best interests, and refrain from using their position to gain personal benefits.
- Employees are strictly prohibited to accept money or gifts from suppliers in exchange for information or benefits. If so, the employees will face immediate disciplinary action.

Musonoi 礦場 Musonoi Mine

- 礦場要求避免任何形式的腐敗和賄賂行爲。
 - 建立了透明的財務報告機制，確保資金和資源的正當使用。
 - 要求供應商開展業務時必須遵守最高的道德行爲標準，全面遵守適用的法律、法規和行業標準。
 - 要求供應商遵循誠信和透明原則，不得提供虛假或誤導性信息，亦不得隱瞞相關重要事實。
- The mine prohibits any form of corruption and bribery.
 - It has established a transparent financial reporting mechanism to ensure the proper use of funds and resources.
 - Suppliers are required to comply with the highest ethical standards in their business as well as applicable laws, regulations, and industry standards.
 - Suppliers should follow the principle of integrity and transparency. They should not provide false or misleading information or conceal relevant important facts.

Chibuluma 南礦場 Chibuluma South Mine

礦場明確要求多個供應商參與詢價，必要時公開開標，通過透明的流程減少腐敗和賄賂的空間。

- The mine explicitly requires that there should be multiple suppliers participating in price inquiries and, if necessary, an opening bid should be made to reduce opportunities for corruption and bribery through transparent processes.
- 要求採購決策經過多級審批，防止個人濫用職權進行不正當交易。
 - 對緊急採購和非工作時間採購進行了嚴格限制，防止濫用緊急採購名義進行的不正當交易。
- Procurement decisions must be made after multi-level approvals to prevent individuals from abusing their power for unfair transactions.
 - There are strict limits to urgent and after-hours procurement to prevent unfair transactions under the guise of these needs.

反不當競爭 Anti-Unfair Competition

我們堅持嚴格遵循《中華人民共和國合同法》《中華人民共和國反壟斷法》《中華人民共和國反不正當競爭法》等營運所在地適用的法律法規，致力於以公平誠信的方式開展競爭。我們堅決禁止任何形式的壟斷行為、價格操縱或市場操縱，所有商業交易均基於質量、服務、價格及可用性進行，確保交易的透明性及合法性。

為維護公平誠信的競爭環境，我們對潛在的不正當競爭行為進行專項調查並採取相應措施，且定期對子公司的項目進行審查，並根據項目的重要程度設定了不同的檢查頻率。近三年，我們未收到任何關於不正當競爭的訴訟，這反映了我們在促進公平競爭方面的堅定立場及有效行動。

We are committed to engaging in fair and honest competition in strict compliance with the Contract Law of the People's Republic of China, the Anti-Monopoly Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China, and other applicable laws and regulations. We firmly prohibit any form of monopolistic behaviour, price manipulation, or market manipulation. All commercial transactions are based on quality, service, price, and availability, ensuring transparency and legality in our dealings.

In order to ensure the establishment of a fair and honest competitive environment, we conduct special investigations into potential unfair competition practices and take corresponding measures. Moreover, we regularly review the projects of our subsidiaries and adjust inspection frequencies based on project significance. Over the last three years, we have not been subject to any lawsuits related to unfair competition, which underscores our firm stance and effective actions in promoting fair competition.

申訴舉報及舉報人保護 Complaint Reporting and Whistleblower Protection

我們鼓勵內外部相關人員對任何可能發生的違反商業道德原則的實踐予以舉報，以便我們及時發現並處理問題，從而優化我們的業務方式。我們建立了完善的申訴與舉報機制，並配備了舉報人保護制度，確保任何不當行為能夠及時得到妥善處理。

We encourage both internal and external personnel to report any practices that may violate commercial ethical principles, so that we can promptly identify and address issues, thereby optimising our business practices. We have established comprehensive grievance and reporting mechanisms, together with a whistleblower protection system, to ensure that any improper conduct can be properly addressed.

◆ 申訴與舉報機制

Grievance and Reporting Mechanisms

下圖揭示了我們完善的申訴與舉報機制，旨在確保所有申訴與舉報信息皆能得到及時、公正的處理，並依法保護舉報人的權益。申訴與舉報的處理由專門的跟進小組負責，該小組由三位成員組成，包括審核委員會代表(由董事會審核委員會委員輪值出任)、我們風控總監以及我們法務總監。

The diagram illustrates our comprehensive grievance and reporting mechanisms, which are designed to ensure that all grievances and reports are handled promptly and fairly, and to legally protect the rights of whistleblowers. The handling of grievances and reports is overseen by a dedicated follow-up team, comprising three members: a representative from the Audit Committee (rotating among the Board's Audit Committee members), the Company's Chief Risk Officer, and General Legal Counsel Director.



申訴與舉報機制

儘管本集團已建立申訴和舉報機制，但該機制仍有完善空間。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，將採取相應的改進措施。

Notwithstanding the Group has put in place a grievance and reporting mechanism, such mechanism can be further enhanced. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, enhancement measures will be adopted.

◀ 舉報人保護 Whistleblower Protection

我們建立健全舉報者保護制度，支持內外部人員對不合規營運事件進行監督舉報，以進一步強化風險管理。我們的《反欺詐、不當行為及舉報政策》闡明了我們在保護舉報人合法權益方面的立場，明確規定所有作出如實恰當投訴之人士將獲得保護及公平對待。我們鼓勵實名舉報，並將盡力確保舉報者的身份保密，同時亦接受匿名舉報。對於所有的舉報，我們都會秉持著認真負責的態度進行處理。

We have developed a comprehensive whistleblower protection policy that encourages both internal and external individuals to supervise and report operational irregularities to further strengthen our risk management. Our Anti-Fraud, Misconduct, and Whistleblowing Policy sets out the Company's stance on safeguarding the legitimate rights of whistleblowers. It clearly stipulates that persons making genuine and appropriate complaints under this policy are assured of protection and fair treatment. We encourage real-name reporting and will make every effort to ensure the confidentiality of the reporter's identity. We also accept anonymous reports. All reports will be handled with a serious and responsible attitude.

此外，即使舉報人指出的疑慮最終無法得到證實，我們亦將確保僱員不會遭受不公平解僱、傷害或不當的紀律處分，並對舉報者的關注表示重視及感激。若其他僱員或第三方對根據該政策提出舉報的人士進行報復或威脅報復，或有人因別有用心或為謀私利而惡意作出失實舉報，我們保留向任何人（包括僱員或第三方）採取適當行動的權利，僱員更可能面對包括被解僱在內的紀律處分。

Moreover, even if the concerns raised by the reporter turned out to be unsubstantiated, our Company will ensure that employees are not unfairly dismissed, victimized or unwarranted disciplined. We express our appreciation for the reporter's concerns. The Company reserves the right to take appropriate actions against anyone (employees or third parties) who initiates or, threatens to initiate retaliation against those who have raised concerns under this policy, or who makes a false report maliciously with an ulterior motive or for personal gain. In particular, employees may face disciplinary action, including dismissal where appropriate.

風險管理

RISK MANAGEMENT

金川國際深明建立並維護一個有效而健全的內部監控及風險管理系統的重要性。為此，我們制訂並實施《風險管理政策》以及董事會審計委員會和薪酬與提名委員會職權範圍文件等，支持風險管理、內部控制及監督機制的有效運行。

JCI recognises the significance of establishing and maintaining an effective and robust internal control and risk management system. To this end, we have formulated and implemented the "Risk Management Policy" alongside the Terms of Reference (TOR) for the Audit Committee and the Remuneration and Nomination Committee. These documents are designed to support the effective operation of our risk management, internal control, and oversight mechanisms.

董事會履行評估、監督及檢討該系統的責任，確保其能夠應對不斷變化的商業環境及潛在風險。管理層則負責自上而下確立公司的業務基調，確保全體僱員理解並積極參與風險管理工作。此外，我們的管理團隊專注於設計、運作及實施適宜的內部監控及風險管理體系，並在項目建設及日常業務運作的每一環節中，綜合考量ESG風險，以確保全面的風險應對策略。

Our Board evaluates, oversees, and reviews the system to ensure it responds to the evolving business environment and potential risks. Moreover, the management assumes responsibility for setting the Company's "tone at the top", ensuring all employees comprehend and are engaged in risk management. Furthermore, our management team concentrates on developing, operating, and implementing suitable internal control and risk management systems. ESG risks are comprehensively considered at every stage of project construction and daily business operations to ensure a holistic risk response strategy.

風險管理框架 Risk Management Framework

我們致力於以價值最大化為導向，有效識別、管理及緩解風險，並將風險考量納入決策過程。通過企業風險管理計劃，我們致力於確保管理層充分掌握我們面臨的風險狀況，並促進不同職能間就主要風險進行討論及信息共享，從而推動明智的戰略決策制訂，以及強化有效風險緩解措施的落實。基於此，我們建立了一個自上而下的風險管理架構，確保各層級之間的協調與責任清晰。

We adhere to a value-maximizing approach to effectively identify, manage and mitigate risks and incorporate risk considerations into the decision-making process. Through our Enterprise Risk Management (ERM) programme, we are committed to ensuring that management maintains full visibility of the Company's risk exposure, while fostering cross-functional discussions and information sharing on key risks. This enables informed strategic decision-making and strengthens the implementation of effective risk mitigation measures. Based on this, we have established a top-down, risk management framework to ensure clear coordination and accountability across all levels.



董事會 Board of Directors

承擔建立、維持及檢討本集團風險管理及內部監控系統有效健全之責任，制定持續反饋風險管理及內部監控的系統及程序。

The Board takes its responsibility to establish, maintain and review the effectiveness of the Group's risk management and internal control systems, and establish systems and procedures for continuous feedback on risk management and internal control.



行政總裁 Chief Executive Officer

就本公司表現及所實施之董事會策略及政策（包括有關風險管理及內部監控之政策），向董事會負責。

The CEO is accountable to the Board for the Company's performance and the implementation of the Board's strategies and policies, including policies on risk management and internal control.



風控總監 Chief Risk Officer

評估上期風險管理工作表現並就此召開會議，與風險責任人檢討內部監控之充分性及成效，包括但不限於檢討是否有任何跡象顯示有關監控正逐漸失效或存在重大缺陷。風控總監向行政總裁負責。

The Chief Risk Officer assesses and liaises with the risk owners at each scheduled meeting, the results of their activities during the preceding period pertaining to the adequacy and effectiveness of internal control, including but not limited to, any indication of failings or material weaknesses in those controls. The Chief Risk Officer is accountable to the CEO.



風險管理委員會 Risk Management Committee

透過風控總監執行，監察本集團各個主要業務層面之日常風險。

Through the works of the Chief Risk Officer, the Committee oversees the day-to-day risks of the major activities across the Group.



各業務單位 Business Units

作為風險責任人，負責識別、評價、監察及減輕自身面對之風險並每月向風控總監匯報。

As the risk owners, the business units identify, evaluate, monitor and mitigate their own risks and report to Chief Risk Officer on a monthly basis.



風險管理主要流程
Key Steps in the Risk Management Process

在日常營運過程中，我們的僱員及承建商在識別及管理風險中發揮了基础性作用，他們參與風險管理計劃及措施的主導及實施，對於控制、減少及消除風險十分重要。我們不斷完善風險管理流程，培養風險意識文化，致力於：

Our employees and contractors play a fundamental role in the identification and management of risks during daily operations. Their active participation in the ownership and implementation of risk management programmes and initiatives is indispensable for controlling, reducing, and eliminating risks. We continuously improve our risk management processes and foster a culture of risk awareness, and are dedicated to:

- 1 維持及提高對資產及潛在盈利的管理
Maintain and enhance management of assets and potential profitability

- 2 積極預測及回應業務環境變動
Proactively anticipate and respond to changes in the business environment

- 3 打造及維持安全與健康的工作環境
Establish and sustain a safe and healthy working environment

- 4 保護及提高我們的僱員及營運所在社區的健康、安全及福祉
Protect and improve the health, safety, and well-being of our employees and host communities

- 5 與所有持份者培養積極關係，以便環境需求及關注獲妥當解決
Foster positive relationships with all stakeholders to properly address environmental needs and concerns

內部監控 Internal Control

我們高度重視內部監控及風險管理體系的建設及完善，深明此乃保障公司健康穩定發展、提升企業價值之關鍵。為此，我們於報告期內持續加強並優化我們的內部監控及風險管理機制，確保其貼合我們的營運特點及戰略需求。

目前，我們已將內部審計職能外判予獨立外部顧問，該顧問負責運用風險為本的方法，對位於非洲及香港的主要營運實體及業務單位進行營運、財務及合規監控的內部監控檢討。年內，該獨立外部顧問按照審核委員會批准的內部審核計劃，開展了內部監控檢討工作。待法證會計師進行的獨立法證調查及內部控制顧問進行的內部控制檢討完成後，將採取補救／加強措施。公司將在切實可行情況下盡快另行公佈進一步詳情。

為確保我們的內部監控及風險管理系統始終符合不斷變化的商業及監管需求，我們每年均會對該系統的成效進行全面檢討。檢討範圍涵蓋所有重大監控領域，包括財務、營運及合規監控，同時涉及多項風險管理職能，並根據需要進行必要的系統更新。我們已評估該系統持續監察的範圍及質量，確保其適應不斷變化的商業環境。

We attach great importance to the establishment and improvement of our internal control and risk management system, and are fully aware that it is key to safeguarding the healthy and stable development of the Company and enhancing its corporate value. Therefore, we have continuously fortified and optimised our internal control and risk management mechanisms throughout the Reporting Period, aligning them with the unique operational characteristics and strategic requirements of the Company.

Currently, our internal audit function has been outsourced to an independent external consultant who employs a risk-based approach to conduct internal control reviews on operations, finances, and compliance monitoring of our primary operating entities and business units located in Africa and Hong Kong SAR. During the year, the independent external consultant conducted internal control reviews in accordance with the internal audit plan approved by the Audit Committee. Subject to the completion of the independent forensic investigation conducted by the forensic accountant and the internal control review conducted by the internal control consultant, remedial/enhancement measures will be adopted. Further details will be announced by the Company as soon as practicable.

To ensure that our internal control and risk management systems consistently meet evolving business and regulatory requirements, a comprehensive review of the system's effectiveness is conducted annually. The review covered all material monitoring areas, including financial, operational, and compliance control, as well as various risk management functions, with any necessary system updates to be implemented. We have assessed the scope and quality of the system's ongoing surveillance to ensure its adaptability to the evolving business environment.

此外，董事會亦對資源配置進行了審查，確認了我們會計及財務申報部門僱員的資歷、經驗及其培訓計劃與預算的充足性。這些措施確保了我們在各層面上的風險管理及內部監控系統能夠高效運作，從而保障我們的長期穩健發展。

The Board has also reviewed resource allocation, confirming the adequacy of the qualifications, experience, training programmes, and budgets of our accounting and financial reporting staff. These measures ensure the efficient operation of our risk management and internal control systems at all levels, safeguarding our long-term sustainable development.

| 內幕消息管理 Inside Information Management

我們的行為守則對所有僱員均有約束力，明確規定在內幕消息獲得妥當批准並可披露之前，必須嚴格保密相關信息。此外，我們堅決禁止任何僱員利用職務之便謀取個人利益。為確保內部程序的有效性，我們持續檢討內幕消息的處理及發放流程，並定期評估內部監控系統的運行效果。

Our Code of Conduct binds all employees and outlines the obligation for preserving the confidentiality of inside information until its lawful disclosure, as well as prohibiting the use of inside information for personal benefit. To ensure the effectiveness of internal procedures, we continuously review the handling and dissemination processes of insider information and regularly assess the performance of our internal control systems.

為進一步強化治理體系，我們亦制訂並實施多項相關制度文件，包括《反欺詐政策》《內幕信息披露政策》《風險管理政策》以及董事會審計委員會和薪酬與提名委員會職權範圍文件等，並根據需要對行為守則及相關內部程序進行更新，確保其始終符合最新的監管要求及業務發展需求。

To further strengthen our governance framework, we have formulated and implemented a series of policy documents, including the Anti-Fraud Policy, Inside Information Disclosure Policy, and Risk Management Policy, as well as the Terms of Reference (TOR) for the Audit Committee and the Remuneration and Nomination Committee. We also update our Code of Conduct and relevant internal procedures as necessary to ensure continuous alignment with the latest regulatory requirements and business development needs.

報告期內，我們內部未有收到經證實的任何洗錢及內幕交易案件報告。

During the Reporting Period, no confirmed cases of money laundering or insider trading were reported within the Group.

附錄 - 可持續發展績效數據

Appendices - Sustainability Performance Data

環境 ENVIRONMENT

▼ 溫室氣體排放 GHG Emissions ⁸							
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021	
• 企業營運界內的排放 Emissions within JCI's Operational Boundary							
溫室氣體排放總量 (範圍 1 及範圍 2) Total GHG Emissions (Scope 1 and Scope 2)	噸二氧化碳當量 Tonne CO ₂ -e	48,986	32,454	49,728	23,850	22,751	
溫室氣體排放密度 GHG Emissions Intensity	噸二氧化碳當量 / 噸銅產量 Tonne CO ₂ -e/Tonne Cu Produced	1.07	0.51	0.8	0.4	0.37	
直接溫室氣體排放 (範圍 1) Direct GHG Emissions (Scope 1)	噸二氧化碳當量 Tonne CO ₂ -e	45,645	31,373	48,740	22,770	21,725	
電力產生的間接溫室氣體排放 (範圍 2) Electricity indirect GHG emissions (Scope 2)	噸二氧化碳當量 Tonne CO ₂ -e	3,341	1,081	988	1,080	1,026	
• 企業價值鏈的排放 Emissions from the JCI Value Chain							
溫室氣體排放總量 (範圍 1、範圍 2 及範圍 3) Total GHG Emissions (Scope 1, Scope 2 and Scope 3)	噸二氧化碳當量 Tonne CO ₂ -e	63,096	33,861	N/A	N/A	N/A	
其他間接溫室氣體排放 (範圍 3) Other indirect GHG emissions (Scope 3)	噸二氧化碳當量 Tonne CO ₂ -e	14,109	1,407	N/A	N/A	N/A	
• 按營運地劃分的溫室氣體排放量 Total GHG Emissions by Operation							
公司辦事處 Corporate Offices	範圍 1 Scope 1	噸二氧化碳當量 Tonne CO ₂ -e	0	0	0	4	2
	範圍 2 Scope 2	噸二氧化碳當量 Tonne CO ₂ -e	75	50	43	124	121

8. 為與金川國際之企業碳足跡報告保持一致 (該報告披露金川國際連續幾年的碳足跡)，溫室氣體排放係數主要基於已發布國家數據及參考制定企業碳足跡報告之專業第三方機構提供的來源，包括以下層次來源：

- (1) 歐洲生命週期數據系統 (ELCD) 報告的排放係數；
- (2) 符合 ELCD 標準數據庫中報告的排放係數；
- (3) 國際或國家 (政府制定) 出版刊物中報告的排放係數；
- (4) 已刊發的國家及國際行業準則中的排放係數。

In order to be consistent with JCI's Corporate Carbon Footprint Report, which discloses JCI's carbon footprint for consecutive years, GHG emission factors are based primarily on published country-specific data and referenced to sources provided by professional third-party organizations that produce the Corporate Carbon Footprint Report, including the following hierarchy of sources:

- (1) Emission factors reported in the European Life Cycle Data System (ELCD);
- (2) Emission factors reported in ELCD-compliant databases;
- (3) Emission factors reported in international or national (government-produced) publications;
- (4) Emission factors reported in published national and international industry guidelines.

Ruashi	範圍 1 Scope 1	噸二氧化碳當量 Tonne CO ₂ -e	35,077	11,609	32,572	15,836	10,214
	範圍 2 Scope 2	噸二氧化碳當量 Tonne CO ₂ -e	2,871	551	523	580	562
Kinsenda	範圍 1 Scope 1	噸二氧化碳當量 Tonne CO ₂ -e	5,568	10,918	10,018	6,745	9,418
	範圍 2 Scope 2	噸二氧化碳當量 Tonne CO ₂ -e	330	387	370	340	327
Musonoi	範圍 1 Scope 1	噸二氧化碳當量 Tonne CO ₂ -e	5,000	8,846	6,150	145	2,091
	範圍 2 Scope 2	噸二氧化碳當量 Tonne CO ₂ -e	65	93	52	22	16

▼ 能源消耗 Energy Consumption

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
電力消耗總量 Total Electricity Consumption	千瓦時 kWh	170,214,012	264,377,500	242,544,120	259,742,223	233,112,051
蒸汽消耗總量 Total Steam Consumption	噸 Tonne	65,969	121,290	158,168	145,626	163,753
液化石油氣消耗總量 Total LPG Consumption	噸 Tonne	0	600	0	10	10
柴油消耗總量 Total Diesel Consumption	噸 Tonne	17,951	8,701	13,715	9,048	5,118
汽油消耗總量 Total Petrol Consumption	噸 Tonne	118	189	62	23	15

• 按營運地劃分的能源消耗 Energy Consumption by Operation

公司辦事處 Corporate Offices	電力 Electricity	千瓦時 kWh	125,804	76,272	63,451	60,513	59,931
Ruashi	電力 Electricity	千瓦時 kWh	71,019,000	141,252,780	134,092,000	159,381,000	151,756,000
	蒸汽 Steam	噸 Tonne	65,969	121,290	158,168	145,626	163,753
	柴油 Diesel	噸 Tonne	8,309	3,279	9,201	4,606	2,277

Kinsenda	電力 Electricity	千瓦時 kWh	103,630,408	99,156,504	94,955,900	86,748,550	77,144,000
	柴油 Diesel	噸 Tonne	3,535	3,035	2,786	2,977	2,358
	汽油 Petrol	噸 Tonne	67	57	52	16	13
Musonoi	電力 Electricity	千瓦時 kWh	66,457,800	23,891,944	13,432,769	13,552,160	4,152,120
	液化石油氣 LPG	噸 Tonne	0	600	0	10	10
	柴油 Diesel	噸 Tonne	6,107	2,387	1,728	1,466	483
	汽油 Petrol	噸 Tonne	51	132	117	3	N/A

▼ 水消耗 Water Consumption

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
淡水消耗總量 Total Freshwater Consumption	立方米 m ³	5,703,751	2,393,519	2,513,030	2,877,876	2,214,754
金川國際耗水密度 Water Intensity of JCI	立方米 / 噸銅產量 m ³ / Tonne Cu Produced	124	38	41	48	36

• 按營運地劃分的水消耗 Water Consumption by Operation

Ruashi	淡水耗量 Freshwater Consumption	立方米 m ³	2,518,711	2,086,459	2,205,030	2,571,276	1,925,674
	耗水密度 Water Intensity	立方米 / 噸銅產量 m ³ / Tonne Cu Produced	232	63	69	145	132
	循環水耗量 Recycled Water Consumption	立方米 m ³	1,435,812	1,036,017	1,839,938	1,830,634	2,436,066
	循環用水佔淡水耗量比例 Recycled Water as percentage of Total Freshwater consumed	%	57	50	83	71	127
Kinsenda	淡水耗量 Freshwater Consumption	立方米 m ³	310,000	298,560	300,000	306,600	289,080
	耗水密度 Water Intensity	立方米 / 噸銅產量 m ³ / Tonne Cu Produced	10	10	10	11	10
	循環水耗量 Recycled Water Consumption	立方米 m ³	175,000	149,280	150,000	N/A	N/A

Kinsenda	循環用水佔淡水耗量比例 Recycled Water as percentage of Total Freshwater Consumed	%	56	50	50	N/A	N/A
	淡水取量 Freshwater Withdrawal	立方米 m ³	4,000,000	4,098,900	N/A	N/A	N/A
Musonoi	淡水耗量 Freshwater Consumption	立方米 m ³	2,875,040	8,500	8,000	N/A	N/A
	耗水密度 Water Intensity	立方米 / 噸銅產量 m ³ / Tonne Cu Produced	N/A	N/A	N/A	N/A	N/A
	循環水耗量 Recycled Water Consumption	立方米 m ³	2,866,040	N/A	N/A	N/A	N/A
	循環用水佔淡水耗量比例 Recycled Water as percentage of Total Freshwater Consumed	%	99.6870	N/A	N/A	N/A	N/A
	淡水取量 Freshwater Withdrawal	立方米 m ³	14,866,040	N/A	N/A	N/A	N/A

▼ 無害物處置及回收 Non-hazardous Waste Disposal and Recycling

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
無害物處置總量 Total Non-hazardous Waste Disposal	噸 Tonne	146	157	156	137	121
無害物回收總量 Total Non-hazardous Waste Recycling	噸 Tonne	722	849	361	638	601

• 按營運地劃分的無害物處置及回收 Non-hazardous Waste Disposal and Recycling by Operation

Ruashi	處置 Disposal	噸 Tonne	56	66	70	50	43
	回收 Recycling	噸 Tonne	67	119	106	58	68
Kinsenda	處置 Disposal	噸 Tonne	66	71	67	70	66
	回收 Recycling	噸 Tonne	655	730	255	580	533
Musonoi	處置 Disposal	噸 Tonne	25	21	20	18	12
	回收 Recycling	噸 Tonne	0	0	0	0	0

▼ 有害廢物 Hazardous Waste							
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021	
廢油總量 Total Waste Oil	升 Litre	92,160	111,540	78,800	43,360	41,440	
醫療廢物總量 Total Medical Waste	噸 Tonne	1.9	2	2	2	0.37	
廢棄催化劑總量 Total Spent Catalyst	噸 Tonne	0	80	37	66	6	
硫渣總量 Total Sulphur Ash	噸 Tonne	8	30	48	52	53	
IT 廢物 (墨盒) 總量 Total IT Waste (Cartridges)	噸 Tonne	1.32	0.63	0.45	0.26	0.22	
廢棄電池總量 Total Waste Batteries	噸 Tonne	0	0.1	0.00832	N/A	N/A	
• 按營運地劃分的有害物量 Hazardous Waste Quantity by Operation							
Ruashi	廢油 Waste Oil	升 Litre	49,260	88,440	52,400	21,360	21,180
	醫療廢物 Medical Waste	噸 Tonne	0.3	0.3	0.24	0.31	0.37
	廢棄催化劑 Spent Catalyst	噸 Tonne	0	8	0	37	66
	硫渣 Sulphur Ash	噸 Tonne	8	30	48	52	53
	IT 廢物 (墨盒) IT Waste (Cartridges)	噸 Tonne	0.12	0.13	0.18	0.26	0.22
	廢棄電池 Waste Batteries	噸 Tonne	0	0	0.00832	0	0
Kinsenda	廢油 Waste Oil	升 Litre	21,500	21,000	22,000	22,000	20,220
	醫療廢物 Medical Waste	噸 Tonne	1.6	N/A	N/A	N/A	N/A
	IT 廢物 (墨盒) IT Waste (Cartridges)	噸 Tonne	0.2	N/A	N/A	N/A	N/A
Musonoi	廢油 Waste Oil	升 Litre	21,400	2,100	4,400	N/A	N/A
	醫療廢物 Medical Waste	噸 Tonne	0	2	2	2	0
	IT 廢物 (墨盒) IT Waste (Cartridges)	噸 Tonne	1	0.5	0.27	N/A	N/A

▼ 氣體排放 Air Emissions						
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
二氧化硫排放總量 Total Sulfur Dioxide (SO ₂) Emissions	噸 Tonne	68	122	137	134	144
顆粒物 (PM10) 排放量 particulate matter	mg/m ³	0.07	N/A	N/A	N/A	N/A
鉛排放量 Pb Emissions	mg/Nm ³	6.25	N/A	N/A	N/A	N/A
硫酸霧排放量 Sulfuric acid mist	ppm	0.30	N/A	N/A	N/A	N/A
IT 廢物 (墨盒) 總量 Total IT Waste (Cartridges)	噸 Tonne	1.32	0.63	0.45	0.26	0.22

▼ 尾礦設施 Tailings Storage Facilities						
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
尾礦庫總數 Total Number of Tailings Storage Facilities	噸 Tonne	1,700,505	1,754,695	1,768,843	N/A	N/A
活躍的尾礦庫數量 Total Number of Active Tailings Storage Facilities	個 Number	4	4	3	N/A	N/A
高風險尾礦庫數量 Total Number of Tailings Storage Facilities at Risks	個 Number	3	3	2	N/A	N/A
尾礦庫總數 Total Number of Tailings Storage Facilities	個 Number	0	0	0	N/A	N/A

• 按營運地劃分的尾礦設施 Tailings Storage Facilities by Operation							
Ruashi	尾礦重量 Weight of Tailings	噸 Tonne	658,750	1,029,000	1,114,148	N/A	N/A
	尾礦庫數量 Number of Tailings Storage Facilities	個 Number	1	1	1	N/A	N/A
	活躍的尾礦庫數量 Number of Active Tailings Storage Facilities	個 Number	1	1	1	N/A	N/A
	高風險尾礦庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	0	0	N/A	N/A
Kinsenda	尾礦重量 Weight of Tailings	噸 Tonne	747,377	639,921	654,695	N/A	N/A
	尾礦庫數量 Number of Tailings Storage Facilities	個 Number	1	1	1	N/A	N/A
	活躍的尾礦庫數量 Number of Active Tailings Storage Facilities	個 Number	1	1	1	N/A	N/A

Kinsenda	高風險尾礦庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	0	0	N/A	N/A
	尾確重量 Weight of Tailings	噸 Tonne	294,378	85,774	0	N/A	N/A
Musonoi	尾確庫數量 Number of Tailings Storage Facilities	個 Number	2	2	1	N/A	N/A
	活躍的尾確庫數量 Number of Active Tailings Storage Facilities	個 Number	1	1	0	N/A	N/A
	高風險尾確庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	0	0	N/A	N/A

▼ 包裝袋消耗 Packaging Bag Consumption

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
一立方米的包裝袋總耗量 Total Consumption of 1m3 Packaging Bags	個 Number	78,712	54,547	82,360	151,300	64,439

• 按營運地劃分的包裝袋消耗量 Packaging Bag Consumption by Operation

Ruashi	個 Number	45,515	22,727	15,990	45,620	31,600
Kinsenda	個 Number	32,382	31,780	66,370	105,680	32,839
Musonoi	個 Number	815	40	N/A	N/A	N/A

▼ 環保開支 Environment Expenditure

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
環保開支總額 Total Environment Expenditure	美元 US\$	1,207,476	1,120,913	1,443,260	1,123,116	620,010

• 按營運地劃分的環保開支 Environment Expenditure by Operation

Ruashi	美元 US\$	569,676	562,020	961,196	1,123,116	620,010
Kinsenda	美元 US\$	155,000	N/A	N/A	N/A	N/A
Musonoi	美元 US\$	482,800	558,893	482,064	N/A	N/A

社會 SOCIAL

▼ 勞工 Workforce							
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021	
勞工總數 Total Workforce							
公司辦事處 Corporate Offices	/	27	28	35	36	28	
Ruashi	/	904	937	963	993	1,005	
Kinsenda	/	393	416	447	419	449	
Musonoi	/	344	274	287	138	80	
Chibuluma	/	15	13	12	12	13	
全職僱員總數 Total Number of Employees							
	/	1,683	1,668	1,744	1,598	1,575	
• 按性別劃分的勞工總數 Total Workforce by Age Group							
公司辦事處 Corporate Offices	男性 Male	/	15	13	20	21	16
	女性 Female	/	12	15	15	15	12
Ruashi	男性 Male	/	856	887	911	939	950
	女性 Female	/	48	50	52	54	55
Kinsenda	男性 Male	/	352	373	405	380	409
	女性 Female	/	41	43	42	39	40
Musonoi	男性 Male	/	316	247	253	121	71
	女性 Female	/	28	27	34	17	9
Chibuluma	男性 Male	/	11	10	10	10	11
	女性 Female	/	4	3	2	2	2

• 按僱傭類型劃分的勞工總數 Total Workforce by Employment Type

公司辦事處 Corporate Offices	全職 Full Time	/	27	28	35	36	28
	合同工 Contractor	/	0	0	0	0	1
Ruashi	全職 Full Time	/	904	937	963	993	1,005
	合同工 Contractor	/	0	667	1,184	1,408	1,336
Kinsenda	全職 Full Time	/	393	416	447	419	449
	合同工 Contractor	/	1,334	1,188	1,197	1,271	1,068
Musonoi	全職 Full Time	/	344	274	287	138	80
	合同工 Contractor	/	1,601	1,340	1,357	1,371	336
Chibuluma	全職 Full Time	/	15	13	12	12	13
	合同工 Contractor	/	0	0	0	0	0

• 按年齡組別劃分的勞工總數 Total Workforce by Age Group

公司辦事處	25 歲以下 Under 25	/	0	0	0	1	0
	25-35 歲 25-35	/	7	6	8	8	9
	36-40 歲 36-40	/	6	6	5	7	3
	41-45 歲 41-45	/	5	8	8	8	9
	46-50 歲 46-50	/	2	1	4	4	5
	51-54 歲 51-54	/	2	4	6	6	1
	55 歲及以上 55 and above	/	5	3	4	2	1
Ruashi	25 歲以下 Under 25	/	3	1	0	1	2

Ruashi	25-35 歲 25-35	/	18	24	37	64	97
	36-40 歲 36-40	/	104	143	176	201	222
	41-45 歲 41-45	/	227	235	259	260	258
	46-50 歲 46-50	/	220	226	215	214	198
	51-54 歲 51-54	/	156	134	120	102	100
	55 歲及以上 55 and above	/	176	174	156	151	128
Kinsenda	25 歲以下 Under 25	/	2	1	3	2	5
	25-35 歲 25-35	/	75	78	86	82	72
	36-40 歲 36-40	/	50	48	50	49	52
	41-45 歲 41-45	/	49	48	43	33	34
	46-50 歲 46-50	/	34	35	47	38	39
	51-54 歲 51-54	/	38	46	44	53	56
	55 歲及以上 55 and above	/	145	160	174	162	191
Musonoi	25 歲以下 Under 25	/	13	25	25	12	8
	25-35 歲 25-35	/	152	109	109	52	23
	36-40 歲 36-40	/	52	45	46	19	14
	41-45 歲 41-45	/	46	35	39	16	12
	46-50 歲 46-50	/	36	27	30	19	8
	51-54 歲 51-54	/	32	26	26	16	10
	55 歲及以上 55 and above	/	13	7	12	4	5

Chibuluma	25 歲以下 Under 25	/	0	0	0	0	0
	25-35 歲 25-35	/	2	2	2	2	2
	36-40 歲 36-40	/	4	2	1	2	2
	41-45 歲 41-45	/	7	7	7	7	7
	46-50 歲 46-50	/	1	1	1	1	1
	51-54 歲 51-54	/	1	1	1	0	1
	55 歲及以上 55 and above	/	0	0	0	0	0
• 按僱員類別劃分的勞工總數 Total Workforce by Employee Category							
公司辦事處 Corporate Offices	高級管理人員 Senior Level	/	10	9	12	12	N/A
	中層管理人員 Middle Level	/	10	10	13	14	N/A
	一般僱員 General Level	/	7	9	10	10	N/A
Ruashi	高級管理人員 Senior Level	/	78	77	85	74	N/A
	中層管理人員 Middle Level	/	294	306	202	335	N/A
	一般僱員 General Level	/	532	554	676	584	N/A
Kinsenda	高級管理人員 Senior Level	/	102	101	106	100	N/A
	中層管理人員 Middle Level	/	92	97	99	104	N/A
	一般僱員 General Level	/	199	218	242	215	N/A
Musonoi	高級管理人員 Senior Level	/	75	28	13	8	N/A
	中層管理人員 Middle Level	/	110	50	60	15	N/A
	一般僱員 General Level	/	159	196	214	115	N/A

Chibuluma	高級管理人員 Senior Level	/	3	3	3	3	N/A
	中層管理人員 Middle Level	/	10	8	7	6	N/A
	一般僱員 General Level	/	2	2	2	3	N/A
• 按國籍劃分的勞工總數 Total Workforce by Nationality							
公司辦事處 Corporate Offices	當地僱員 Local Employee	/	20	15	16	20	N/A
	中國僱員 Chinese	/	7	13	16	13	N/A
	其他國籍僱員 Other Nationality	/	0	0	3	3	N/A
	當地就業率 Local Employment Rate	%	74	54	46	56	N/A
Ruashi	當地僱員 Local Employee	/	858	888	911	942	N/A
	中國僱員 Chinese	/	40	39	40	39	N/A
	其他國籍僱員 Other Nationality	/	6	10	12	12	N/A
	當地就業率 Local Employment Rate	%	95	95	95	95	N/A
Kinsenda	當地僱員 Local Employee	/	344	368	400	374	N/A
	中國僱員 Chinese	/	46	45	45	42	N/A
	其他國籍僱員 Other Nationality	/	3	3	2	3	N/A
	當地就業率 Local Employment Rate	%	88	88	89	89	N/A
Musonoi	當地僱員 Local Employee	/	218	168	165	57	N/A
	中國僱員 Chinese	/	125	105	119	81	N/A
	其他國籍僱員 Other Nationality	/	1	1	3	0	N/A
	當地就業率 Local Employment Rate	%	63	61	57	41	N/A

Chibuluma	當地僱員 Local Employee	/	9	8	7	8	N/A
	中國僱員 Chinese	/	6	5	5	4	N/A
	其他國籍僱員 Other Nationality	/	0	0	0	0	N/A
	當地就業率 Local Employment Rate	%	60	62	58	67	N/A

▼ 僱員流失 Employee Turnover

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
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• 總僱員流失率 Total Employee Turnover

公司辦事處 Corporate Offices	%	16	10	8	8	32
Ruashi	%	4	4	3	1	2
Kinsenda	%	9	10	5	8	7
Musonoi	%	6	16	3	15	4
Chibuluma	%	20	19	8	88	54

• 按性別劃分的總僱員流失率 Total Employee Turnover by Gender

公司辦事處 Corporate Offices	男性 Male	%	6	13	13	12	16
	女性 Female	%	25	6	0	0	45
Ruashi	男性 Male	%	4	4	3	1	2
	女性 Female	%	6	4	6	0	0
Kinsenda	男性 Male	%	9	11	5	9	8
	女性 Female	%	5	5	0	5	2
Musonoi	男性 Male	%	6	16	3	14	N/A
	女性 Female	%	13	21	9	59	0

Chibuluma	男性 Male	%	21	N/A	N/A	N/A	N/A
	女性 Female	%	17	N/A	N/A	N/A	N/A
• 按年齡組別劃分的總員流失率 Total Employee Turnover by Age Group							
公司辦事處 Corporate Offices	25 歲以下 Under 25	%	0	0	0	0	0
	25-35 歲 25-35	%	11	0	13	11	18
	36-40 歲 36-40	%	29	13	0	0	0
	41-45 歲 41-45	%	13	0	17	0	25
	46-50 歲 46-50	%	100	67	0	20	29
	51-54 歲 51-54	%	0	0	0	14	83
	55 歲及以上 55 and above	%	0	0	0	0	50
Ruashi	25 歲以下 Under 25	%	0	0	0	0	0
	25-35 歲 25-35	%	15	5	6	0	2
	36-40 歲 36-40	%	1	3	1	1	1
	41-45 歲 41-45	%	3	3	3	1	2
	46-50 歲 46-50	%	3	1	1	1	0
	51-54 歲 51-54	%	2	4	2	2	2
	55 歲及以上 55 and above	%	8	8	11	3	5
Kinsenda	25 歲以下 Under 25	%	0	0	0	0	0
	25-35 歲 25-35	%	3	5	3	8	8
	36-40 歲 36-40	%	2	8	0	6	9

Kinsenda	41-45 歲 41-45	%	4	2	5	8	8
	46-50 歲 46-50	%	3	5	2	3	5
	51-54 歲 51-54	%	3	4	2	4	5
	55 歲及以上 55 and above	%	18	17	8	12	8
Musonoi	25 歲以下 Under 25	%	0	4	4	8	0
	25-35 歲 25-35	%	7	20	2	17	8
	36-40 歲 36-40	%	7	12	2	0	0
	41-45 歲 41-45	%	9	17	5	16	8
	46-50 歲 46-50	%	3	6	3	10	0
	51-54 歲 51-54	%	0	14	4	27	0
	55 歲及以上 55 and above	%	43	67	17	33	0
Chibuluma	25 歲以下 Under 25	%	0	0	0	0	0
	25-35 歲 25-35	%	0	0	0	0	33
	36-40 歲 36-40	%	0	50	50	0	75
	41-45 歲 41-45	%	25	20	0	0	13
	46-50 歲 46-50	%	100	0	0	0	75
	51-54 歲 51-54	%	0	0	0	100	67
	55 歲及以上 55 and above	%	0	0	0	0	100

▼ 按僱員類別及性別劃分的培訓情況 Training by Employee Category and Gender							
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021	
受訓僱員總數 Total Number of Employee Trained	/	1,421	1,238	1,371	1,047	N/A	
受訓僱員百分比 % of Employee Trained	%	84	74	79	66	N/A	
• 按僱員類別劃分的受訓僱員百分比 Percentage of Trained Employees by Employee Category							
公司辦事處 Corporate Offices	高級管理人員 Senior Level	%	30	33	0	50	N/A
	中層管理人員 Middle Level	%	10	0	0	7	N/A
	一般僱員 General Level	%	14	0	20	80	N/A
Ruashi	高級管理人員 Senior Level	%	81	87	55	92	N/A
	中層管理人員 Middle Level	%	60	61	76	79	N/A
	一般僱員 General Level	%	100	100	86	69	N/A
Kinsenda	高級管理人員 Senior Level	%	27	44	23	39	N/A
	中層管理人員 Middle Level	%	60	80	51	72	N/A
	一般僱員 General Level	%	80	63	93	68	N/A
Musonoi	高級管理人員 Senior Level	%	13	100	100	100	N/A
	中層管理人員 Middle Level	%	55	100	100	100	N/A
	一般僱員 General Level	%	72	100	100	11	N/A
Chibuluma	高級管理人員 Senior Level	%	33	33	0	33	N/A
	中層管理人員 Middle Level	%	20	25	29	33	N/A
	一般僱員 General Level	%	0	0	0	0	N/A

• 按性別劃分的受訓僱員百分比 Percentage of Trained Employees by Gender

公司辦事處 Corporate Offices	男性 Male	%	27	15	10	48	N/A
	女性 Female	%	0	7	0	33	N/A
Ruashi	男性 Male	%	93	94	81	74	N/A
	女性 Female	%	90	86	79	65	N/A
Kinsenda	男性 Male	%	75	61	69	60	N/A
	女性 Female	%	51	77	48	79	N/A
Musonoi	男性 Male	%	55	100	100	20	N/A
	女性 Female	%	43	100	100	71	N/A
Chibuluma	男性 Male	%	9	20	20	20	N/A
	女性 Female	%	50	33	0	50	N/A

▼ 按僱員類別及性別劃分的培訓時數 Training Hours by Employee Category and Gender

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
培訓總時 ⁹ Total Training Hours	小時 Hours	8,852	10,322	2,378,739	17,006	N/A
每名僱員平均培訓時數 Average Training Hours per Employee	小時 Hours	5	6	1,364	16	N/A

• 按僱員類別劃分的平均培訓時數 Average Training Hours By Employee Category

公司辦事處 Corporate Offices	高級管理人員 Senior Level	小時 Hours	5	5	0	39	N/A
	中層管理人員 Middle Level	小時 Hours	1	0	0	40	N/A
	一般僱員 General Level	小時 Hours	1	0	2	28	N/A

9. 2023 年數據包含了礦場開展的每日健康與安全培訓，故與往年數據差異較大。

Data for 2023 includes daily health and safety training carried out at the mine and therefore differs significantly from previous years' data.

Ruashi	高級管理人員 Senior Level	小時 Hours	4	9	7	29	N/A
	中層管理人員 Middle Level	小時 Hours	4	7	5	151	N/A
	一般僱員 General Level	小時 Hours	10	12	7	15	N/A
Kinsenda	高級管理人員 Senior Level	小時 Hours	1	1	1	10	N/A
	中層管理人員 Middle Level	小時 Hours	2	2	3	11	N/A
	一般僱員 General Level	小時 Hours	6	1	2	11	N/A
Musonoi	高級管理人員 Senior Level	小時 Hours	1	0	66	44	N/A
	中層管理人員 Middle Level	小時 Hours	1	0	56	40	N/A
	一般僱員 General Level	小時 Hours	2	1	11,062	40	N/A
Chibuluma	高級管理人員 Senior Level	小時 Hours	12	5	0	12	N/A
	中層管理人員 Middle Level	小時 Hours	2	4	7	12	N/A
	一般僱員 General Level	小時 Hours	0	0	0	0	N/A

• 按性別劃分的平均培訓時數 Average Training Hours by Gender

公司辦事處 Corporate Offices	男性 Male	小時 Hours	3	2	1	32	N/A
	女性 Female	小時 Hours	1	1	0	34	N/A
Ruashi	男性 Male	小時 Hours	8	10	7	17	N/A
	女性 Female	小時 Hours	4	8	5	18	N/A
Kinsenda	男性 Male	小時 Hours	4	1	2	11	N/A
	女性 Female	小時 Hours	1	2	3	12	N/A

Musonoi	男性 Male	小時 Hours	1	1	8,248	58	N/A
	女性 Female	小時 Hours	1	1	8,372	6	N/A
Chibuluma	男性 Male	小時 Hours	1	0	5	12	N/A
	女性 Female	小時 Hours	9	1	0	12	N/A

▼ 健康與安全 Health and Safety							
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021	
• 死亡事故數目 Number of Fatalities							
Ruashi	宗 Number	0	0	0	0	0	
Kinsenda	宗 Number	0	0	0	0	2	
Musonoi	宗 Number	0	0	0	0	0	
Chibuluma	宗 Number	0	0	0	0	0	
• 每百萬工時死亡頻率 Fatality Frequency Rate per Million-man Hours Worked							
Ruashi	/	0	0	0	0	0	
Kinsenda	/	0	0	0	0	0.83	
Musonoi	/	0	0	0	0	0	
Chibuluma	/	0	0	0	0	0	
• 因工傷損失工作日數 Number of Lost Days Due to Work Injury							
Ruashi	天数 Days	0	20	0	79	1	
Kinsenda	天数 Days	0	0	0	0	N/A	
Musonoi	天数 Days	0	0	0	0	2	
Chibuluma	天数 Days	0	0	4	3	5	

▼ 按地理區域劃分的供應商數量 Number of Suppliers by Geographical Region						
披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
• Ruashi						
剛果(金) The DRC	/	275	209	161	187	173
南非 South Africa	/	52	56	38	48	49
中國 The PRC	/	21	17	7	6	8
贊比亞 Zambia	/	23	11	10	15	11
毛里求斯 Mauritius	/	5	3	2	2	2
阿拉伯聯合酋長國 United Arab Emirates	/	2	2	2	2	2
德國 Germany	/	2	2	1	2	2
英國 United Kingdom	/	2	2	1	1	1
莫桑比克 Mozambique	/	1	1	1	1	N/A
澳大利亞 Australia	/	1	1	1	N/A	1
坦桑尼亞 Tanzania	/	2	1	N/A	2	N/A
葡萄牙 Portugal	/	1	1	N/A	1	N/A
新加坡 Singapore	/	1	1	N/A	1	N/A
瑞士 Switzerland	/	1	1	N/A	1	N/A
印度 India	/	1	1	N/A	N/A	N/A
芬蘭 Finland	/	1	N/A	1	1	N/A
美國 United States of America	/	1	N/A	1	1	N/A
供應商總數 Total Number of Suppliers	/	392	309	226	271	250

• Kinsenda							
剛果 (金) The DRC	/	253	337	301	268	244	
南非 South Africa	/	127	176	172	163	148	
贊比亞 Zambia	/	61	101	94	89	83	
中國 The PRC	/	34	27	22	19	15	
英國 United Kingdom	/	3	5	5	4	4	
毛里求斯 Mauritius	/	3	4	3	3	2	
荷蘭 Netherlands	/	2	3	3	3	3	
澳大利亞 Australia	/	0	2	2	2	1	
印度 India	/	0	2	2	2	N/A	
德國 Germany	/	1	1	1	1	1	
瑞典 Sweden	/	0	1	1	1	1	
瑞士 Switzerland	/	1	1	1	1	1	
西班牙 Spain	/	0	1	1	1	N/A	
比利時 Belgium	/	1	N/A	1	1	1	
加拿大 Canada	/	1	1	N/A	N/A	N/A	
其他 Other	/	2	N/A	N/A	N/A	N/A	
供應商總數 Total Number of Suppliers	/	489	662	609	558	504	

• Musonoi						
剛果(金) The DRC	/	226	180	89	122	6
中國 The PRC	/	63	54	24	18	24
南非 South Africa	/	21	21	17	16	N/A
贊比亞 Zambia	/	6	4	4	3	1
英國 United Kingdom	/	2	2	2	2	N/A
法國 France	/	1	1	1	1	N/A
毛里求斯 Mauritius	/	2	2	1	N/A	N/A
加拿大 Canada	/	1	1	1	N/A	N/A
其他 Other	/	1	1	N/A	N/A	N/A
供應商總數 Total Number of Suppliers	/	323	266	139	162	31

▼ 2025 年與供應商管理有關的其他數據 Other Data Related to Supplier Management in 2025						
披露事項 Disclosure Item	單位 Unit	2025 Ruashi	2025 Kinsenda	2025 Musonoi	2025 Chibuluma	
於 2025 年簽署供應商行為準則的供應商比例 Percentage of suppliers who signed supplier code of conduct in 2025	%	89	100	80	0	
簽署包含環境及勞工要求條款的供應商佔供應商總數百分比 Percentage of total suppliers signing clauses that include environmental and labour requirements	%	82	100	50	0	
已開展社會影響評估的供應商數量 Number of suppliers that have conducted social impact assessments	個 Number	0	1	128	0	
已開展環境影響評估的供應商數量 Number of suppliers that have conducted environmental impact assessments	個 Number	3	1	163	1	
經確定為具有實際及 / 或潛在重大負面社會影響的供應商數量 Number of suppliers identified as having actual and/or potential significant adverse social impacts	個 Number	0	0	0	N/A	

經確定為具有實際及 / 或潛在重大負面環境影響的供應商數量 Number of suppliers identified as having actual and/or potential significant adverse environmental impacts	個 Number	0	0	0	N/A
新供應商總數 Total new suppliers	個 Number	25	63	57	N/A
使用環境標準評估新供應商的百分比 Percentage of new suppliers using environmental evaluation criteria	%	35	100	85	N/A
使用社會標準評估新供應商的百分比 Percentage of new suppliers using social evaluation criteria	%	12	100	60	N/A
公司內部通過可持續採購培訓的採購員比例 Percentage of in-house purchasing specialists who have passed sustainable procurement training	%	100	100	80	N/A

▼ 於社區投資所動用的資源 Resources Contributed to Community Investment

披露事項 Disclosure Item	單位 Unit	2025	2024	2023	2022	2021
健康 Health	千美元 US\$' 000	250	180	203	680	200
教育 Education	千美元 US\$' 000	29	207	214	33	105
農業及生態保護 Agriculture and Ecological Protection	千美元 US\$' 000	163	976	731	347	470
體育及休閒 Sport and Recreation	千美元 US\$' 000	28	20	31	2	8
社區建設及幫扶 Community Construction and Assistance	千美元 US\$' 000	1,034	1,839	1,716	961	1,464
企業社會責任及關係 Corporate Social Responsibility and Relations	千美元 US\$' 000	33	121	195	147	68
社區投資總額 Total Community Investment	千美元 US\$' 000	1,537	3,343	3,090	2,172	2,315

管治 GOVERNANCE

▼ 於社區投資所動用的資源 Resources Contributed to Community Investment

• 按職位劃分的董事會成員 Board of Directors by Position

披露事項 Disclosure Item	單位 Unit	執行董事 Executive Director	非執行董事 Non-executive Director	獨立非執行董事 Independent Non-executive Director	總數 Total
董事人數 Number of Directors	/	2	1	3	6
佔比 Percentage	%	33	17	50	100

• 按性別劃分的董事會成員 Board of Directors by Gender

披露事項 Disclosure Item	單位 Unit	男性董事 Male Director	女性董事 Female Director	總數 Total
董事人數 Number of Directors	/	5	1	6
佔比 Percentage	%	83	17	100

附錄 - 報告指標索引

Appendices - Reporting Index

HKEX ESG 索引表 HKEX ESG INDEX

▼ 環境 ENVIRONMENT			
索引 Index	編號 Indicator No.	指標 Subject Areas, Aspects, General Disclosure and KPIs	頁碼 Pages
	一般披露 General Disclosure	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的：(a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 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.	58-60, 68-69, 73-76
層面 A1: 排放物 Aspect A1: Emissions	A1.1	排放物種類及相關排放數據。 The types of emissions and respective emissions data.	234
	A1.2	已刪除 Repealed	
	A1.3	所產生有害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	233
	A1.4	所產生無害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Total non - hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	232
	A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。 Description of emissions target(s) set and steps taken to achieve them.	70-72

層面 A1: 排放物 Aspect A1: Emissions	A1.6	<p>描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。</p> <p>Description of how hazardous and non - hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.</p>	74-78
	一般披露 General Disclosure	<p>有效使用資源（包括能源、水及其他原材料）的政策。</p> <p>Policies on the efficient use of resources, including energy, water and other raw materials.</p>	46-47, 79
層面 A2: 資源使用 Aspect A2: Use of Resources	A2.1	<p>按類型劃分的直接及／或間接能源（如電、氣或油）總耗量（以千個千瓦時計算）及密度（如以每產量單位、每項設施計算）。</p> <p>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).</p>	230-231
	A2.2	<p>總耗水量及密度（如以每產量單位、每項設施計算）。</p> <p>Water consumption in total and intensity (e.g. per unit of production volume, per facility).</p>	231-232
	A2.3	<p>描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。</p> <p>Description of energy use efficiency target(s) set and steps taken to achieve them.</p>	48-53
	A2.4	<p>描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。</p> <p>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.</p>	80-84
	A2.5	<p>製成品所用包裝材料的總量（以噸計算）及（如適用）每生產單位佔量。</p> <p>Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.</p>	235
層面 A3: 環境及天然資源 Aspect A3: The Environment and Natural Resources	一般披露 General Disclosure	<p>減低發行人對環境及天然資源造成重大影響的政策。</p> <p>Policies on minimising the issuer's significant impacts on the environment and natural resources.</p>	58-60, 89-90, 94-95
	A3.1	<p>描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。</p> <p>Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.</p>	61-67, 91-94, 96-99

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	B2.2	因工傷損失工作日數。 Lost days due to work injury.	247
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	一般披露 Development and Training	有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。 Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	165-169

層面 B3: 發展與培訓 Aspect B3: Development and Training	B3.1	按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	244-245
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層面 B4: 勞工準則 Aspect B4: Labour Standards	一般披露 General Disclosure	有關防止童工或強制勞工的：(A) 政策；及 (B) 遵守對發行人有重大影響的相關法律及規例的資料。 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.	142-143
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Appendices - Climate Risk Definition

金川國際情景分析採用國際公開、權威的氣候數據進行底層建模，其實體風險有關釋義、數據來源等詳細信息如下表所示。

JCI Scenario Analysis uses internationally recognised and authoritative climate data for the underlying modeling. The detailed information on physical risks, such as interpretation and data sources, is shown in the table below.

風險類別 Risk Type	風險名稱 Risk Name	評估指標及其定義 Assessment Indicator and Its definition	覆蓋維度 Coverage	分辨率 Resolution	數據來源 Data Source
急性 Acute	極端高溫 Extreme Heat	熱浪強度：某地夏季氣溫超過該地正常水平的事件的頻次及持續時間 Heat intensity: the frequency and duration of events in which the summer temperatures at a given location exceed the normal level.	全球 Global	25km	<ul style="list-style-type: none"> 第六次國際耦合模式比較計劃 (CMIP6) Coupled Model Intercomparison Project Phase 6 (CMIP6) 美國國家航空航天局 (NASA) National Aeronautics and Space Administration (NASA)
急性 Acute	極端降水 Extreme Precipitation	暴雨強度：某地某時間段內降水量持續時間 超過該地正常水平的事件的頻次及 Heavy rainfall intensity: the frequency and duration of events in which precipitation exceeds the normal level at a given location for a given time period.	全球 Global	25km	<ul style="list-style-type: none"> 第六次國際耦合模式比較計劃 (CMIP6) Coupled Model Intercomparison Project Phase 6 (CMIP6) 美國國家航空航天局 (NASA) National Aeronautics and Space Administration (NASA)
急性 Acute	滑坡 Landslides	滑坡頻率：某地某年發生滑坡災害的頻次 Landslide frequency: the frequency of landslides in an area in a given year.	全球 Global	1km	<ul style="list-style-type: none"> 世界銀行全球減災與恢復基金 (GFDRR) Global Facility for Disaster Reduction and Recovery (GFDRR)
慢性 Chronic	乾燥趨勢 Dry Trend	乾燥天數：以某時間段內的持續未降水天數來衡量特定地點的乾燥趨勢 Drying days: the number of days without continuous precipitation in a given time period.	全球 Global	25km	<ul style="list-style-type: none"> 第六次國際耦合模式比較計劃 (CMIP6) Coupled Model Intercomparison Project Phase 6 (CMIP6) 美國國家航空航天局 (NASA) National Aeronautics and Space Administration (NASA)

慢性 Chronic	濕潤趨勢 Wet Trend	降水天數：以某時間段內的持續降水天數來衡量特定地點的濕潤趨勢 Precipitation days: the number of consecutive precipitation days in a given time period.	全球 Global	25km	<ul style="list-style-type: none"> 第六次國際耦合模式比較計劃 (CMIP6) Coupled Model Intercomparison Project Phase 6 (CMIP6) 美國國家航空航天局 (NASA) National Aeronautics and Space Administration (NASA)
慢性 Chronic	變暖趨勢 Warming Trend	變暖天數：某地某時間段內氣溫持續高於歷史同期水平的天數 Warm spell duration index: the number of days when the temperature consistently exceed the historical level for the same period.	全球 Global	25km	<ul style="list-style-type: none"> 第六次國際耦合模式比較計劃 (CMIP6) Coupled Model Intercomparison Project Phase 6 (CMIP6) 美國國家航空航天局 (NASA) National Aeronautics and Space Administration (NASA)
慢性 Chronic	水短缺 Water Scarcity	徑流深度：在某時間段內地表水及地下水徑流的深度 Depth of runoff: the depth of surface and groundwater runoff during a given period of time.	全球 Global	10km	<ul style="list-style-type: none"> 世界資源研究所 (WRI) World Resources Institute (WRI)

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