

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)



2023

環境、社會及
管治報告

Environmental, Social and Governance Report

Contents

目錄

關於本報告 1
About this report

01

概覽

Overview

行政總裁致辭 5
A Message from Our CEO

關於金川國際 9
About JCI

我們的可持續發展戰略 15
Our Sustainability Strategy

重要性及持份者參與 17
Materiality & Stakeholder
Engagement

02

氣候變化

Climate Change

亮點2023 25
2023 Highlights

氣候戰略 26
Climate Strategy

氣候風險及機遇 28
Climate Risks & Opportunities

氣候行動及能源管理 35
Climate Action & Energy
Management

03

環境管治

Environmental Stewardship

亮點2023 47
2023 Highlights

環境管理 48
Environmental Management

水資源管理 53
Water Resources Management

固體廢棄物及廢氣排
放物管理 60
Solid Waste & Air Emissions
Management

生物多樣性及土地利用 66
BIODIVERSITY & LAND-USE

尾礦管理 70
Tailings Management

04

社會影響

Social Impact

亮點2023 2023 Highlights	75
人權 Human Rights	76
賦能僱員 Empowered Workforce	82
職業健康及安全 Occupational Health & Safety	91
社區繁盛 Thriving Community	105

05

穩健管治

Sound Governance

亮點2023 2023 Highlights	121
企業管治 Corporate Governance	122
商業道德 Business Ethics	129
風險評估及管理 Risk Assessment & Management	135

06

經濟韌性

Economic Resilience

亮點2023 2023 Highlights	141
經濟表現 Economic Performance	142
產品責任 Product Responsibility	143
可持續供應鏈 Supply Chain Sustainability	151
附錄 Appendices	
可持續發展績效數據 Sustainability Performance Data	162
報告指標索引 Reporting Index	186
氣候風險釋義 Climate Risk Definition	193

關於本報告

ABOUT THIS REPORT

金川集團國際資源有限公司(以下簡稱「金川國際」、「本公司」或「我們」)自2013年起發佈年度環境、社會及管治報告,提供有關環境、社會及經濟事項的最新資訊以及營運狀況披露、風險評估,包括備受管理層、僱員、毗鄰社區等持份者密切關注的可持續發展視角。

Jinchuan Group International Resources Co. Ltd. (hereafter referred to as “JCI”, “the Company” or “We”) has published an annual Environmental, Social and Governance Report since 2013, providing updates on the environmental, social, and economic matters and disclosure of the operations status, risk assessment, including the sustainability perspective that are of greatest interest to our management, our employees, our neighbouring communities and our stakeholders.

► 報告組織邊界

Reporting Organizational Boundary

本報告的組織邊界涵蓋金川國際旗下經營及控制的所有實體。

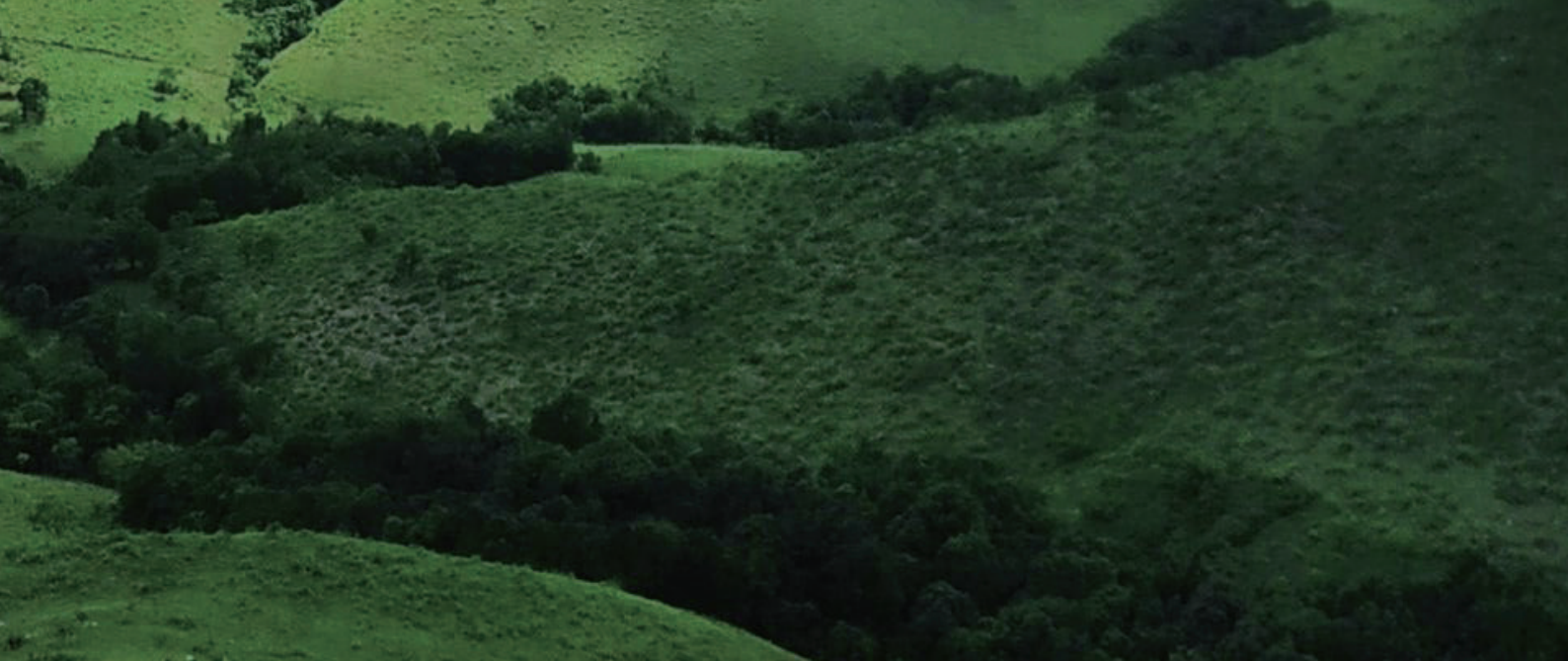
The organizational boundary of this report covers all the entities that are operated and controlled by JCI.

► 報告時間範圍

Reporting Time Frame

本報告的報告期為2023年1月1日至2023年12月31日,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。本報告每年度發佈一次,與我們的年度報告發佈一致。

The reporting period of this report is from 1 January 2023 to 31 December 2023. 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, in line with our annual report.



► 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、手冊及公開資料。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.

► 報告編製語言

Reporting Language

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，則以英文為準。

This report is compiled in both Chinese and English. Should there be any divergences between the two versions, the English version prevails.



▶ 報告編製依據

Reporting Principles

本報告乃按照下列主流原則、指南或標準編製：

This report is prepared in accordance with the following mainstream principles, guidance, or standards:



香港聯合證券交易所《主板上市規則》附錄C1《企業管治守則》及附錄C2《環境、社會及管治指引》

Corporate Governance Code (Appendix C1) and Environmental, Social and Governance Reporting Guide (Appendix C2) of the Listing Rules published by the Hong Kong Stock Exchange



國際可持續發展準則理事會 (ISSB) 發佈之《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



氣候相關財務信息披露工作組 (TCFD) 發布之《氣候相關財務信息披露工作組建議報告》

Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)



中國社會科學院《中國企業社會責任報告指南 (CASS-ESG 5.0)》

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0) published by the Chinese Academy of Social Sciences (CASS)

01

概覽

Overview

行政總裁致辭

A MESSAGE FROM OUR CEO



尊敬的持份者：

Dear stakeholders,

我很高興向您介紹我們本年度的環境、社會及管治報告。金川國際成功的基石之一，是我們對可持續發展的堅定承諾，這亦是支撐著我們於此複雜多變的國際形勢與市場環境中保持長期穩定發展的關鍵因素。過去數年間，在世界地緣政治形勢緊張、國際銅價與鈷價波動顯著的情況下，我們始終堅持穩中求進，在確保各類生產營運既定目標圓滿完成的同時，以實際行動推動公司與持份者共同且可持續的發展。

I am pleased to introduce our 2023 Environmental, Social and Governance Report. One of the cornerstones of JCI's success is our commitment to sustainability, which is the key factor underpinning our long-term stable development in this complicated and volatile international situation and market environment. Over the past few years, amidst the tense geopolitical situation worldwide and significant fluctuations in international copper and cobalt prices, we have always insisted on seeking progress while maintaining stability, and have taken practical actions to promote the joint and sustainable development of the Company and our stakeholders while ensuring that the targets set for our production and operations have been met satisfactorily.



郜天鵬 GAO Tianpeng

行政總裁 *Chief Executive Officer*



► 追求低碳發展

Pursuit of Low-Carbon Development

在全球氣候變化不利影響日益顯現的當下，推動發展綠色低碳轉型已成為企業策略不可或缺的一部分。我們深明開展氣候相關行動及加快能源轉型的重要性，於本年度首次參照氣候相關財務信息披露工作組之建議，探索氣候風險及機遇的識別及管理路徑，並明確我們的氣候戰略重點及溫室氣體減排策略。於營運層面，我們於剛果（金）及贊比亞開展業務，兩國絕大部分電力均來自水力發電，擁有顯著的低碳排放及環境友好之屬性；同時Ruashi礦場已將太陽能作為其供能來源之一，並應用光伏-儲能一體化設施以增強電力系統的靈活性。下一步，我們將繼續探索適用於金川國際的氣候變化應對策略，進一步推動能源結構綠色化轉型並減少整體碳足跡，以幫助公司實現更廣泛的淨零碳承諾。

At a time when the adverse impacts of global climate change are becoming increasingly apparent, the promotion of the development of green and low-carbon transformation has become an integral part of corporate strategy. We fully understand the importance of carrying out climate-related actions and accelerating energy transformation. This year, for the first time, we referred to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) to explore pathways for identifying and managing climate-related risks and opportunities, as well as clarifying our climate strategic priorities and greenhouse gas emission reduction strategies. At the operational level, we have operations in the Democratic Republic of the Congo and Zambia, where the vast majority of electricity is generated from hydroelectric power, with significant low carbon emissions and environmentally friendly attributes. Meanwhile, Ruashi Mine has adopted solar energy as one of its energy sources and is applying integrated photovoltaic-energy storage facilities to enhance the flexibility of the power system. As a next step, we will continue to explore climate change-related response strategies applicable to JCI and further promote the greening of our energy mix and the reduction of overall carbon footprint to support the Company's broader net-zero commitment.

► 安全與健康

Safety and Health

我們始終追求在職業健康與安全方面達到卓越，持續且全面地保護我們的僱員、承建商、毗鄰社區及環境，使其遠離危險。為了令每一位僱員在安全的職場中切實感受到身心健康，我們在隱患管控、安全防護、應急準備、職業健康等方面不斷提升管理能力及水平，著力健全安全管理機制，並輔以完善且有效的職業安全與健康培訓體系，力圖實現我們一貫追求的「零傷害」目標。2023年，金川國際全體營運礦場連續兩年錄得零宗因工死亡事故。未來，我們仍會將安全與健康管理工作納入所有業務決策及流程最首要的位置，讓每一位僱員得以安心、安全、健康、愉悅地工作與生活。

We always strive for excellence in occupational health and safety, consistently and comprehensively protecting our employees, contractors, neighbouring communities and the environment from hazards. In order to make each and every staff feel physically and mentally healthy in a safe workplace, we are constantly improving our management capabilities in the areas of hazard control, safety protection, emergency preparedness, occupational health, etc., striving to improve the safety management mechanism, and supplemented by a comprehensive and effective occupational health and safety training system, in an effort to realise the "Zero Harm" goal that we have been pursuing all the time. In 2023, all of JCI's operating mines recorded zero work-related fatalities for the second consecutive year. We will keep safety and health management at the forefront of all our business decisions and processes, so that each of our employees may work and live in comfort, safety, health and happiness.

► 高標準管治

High Standards of Governance

優良的管治在經濟發展與企業可持續增長中發揮著至關重要的作用。我們奉行高水平的企業管治標準，在強化董事會決議及董事會授權事項執行管理的同時，持續關注並提升董事會專業性、獨立性及多元化程度，以促進董事會組成與結構之健全發展並提升公司整體表現。此外，商業道德與風險管理亦是我們重點關注之議題，透過審視相關法律法規、整合內部管理規範、開展宣導培訓、明確獎懲機制等行動，我們期望在金川國際內部形成並長期延續一個廉潔、透明的企業文化，並以價值最大化的方式識別、管理及緩解風險，尤其在項目建設及日常營運的每個環節中納入對ESG風險的綜合考量，從而將ESG理念真正融入企業發展基因。

Good governance plays an essential role in economic development and sustainable business growth. We uphold high standards of corporate governance. While strengthening the execution and management of board resolutions and matters authorized by the board of directors, we continually look to improve the professionalism, independence and diversity of our board of directors, with a view to promoting the sound development of its composition and structure and enhancing the overall performance of our company. In addition, business ethics and risk management are also our key concerns. By reviewing relevant laws and regulations, consolidating internal management rules, launching publicity and training, and specifying reward and punishment mechanisms, we hope to form and sustain a clean and transparent corporate culture within JCI in the long term, and to identify, manage and mitigate risks in a value-maximising manner. In particular, we incorporate ESG risk considerations into every aspect of project construction and daily operations, thus truly integrating ESG concepts into our corporate development DNA.

► 經濟韌性

Economic Resilience

長期以來，我們致力於打造面向未來的韌性企業，以面對及駕馭變動且不可測的各類業務風險，化挑戰為機遇，打開增長新格局。於產品責任層面，我們的產品管理重點關注質量、技術、營銷以及交付之可靠性、及時性，並著重加強對客戶ESG訴求的全面回應，以滿足歐盟等地ESG新法規之要求。於供應鏈層面，我們深明構建負責任、高效、綠色、廉潔的供應鏈是我們可持續經營活動的核心事宜，且可透過積極的供應鏈管理降低風險、改進產品質量、實現環境目標，從而為自身及客戶創造商業價值。本年度報告中，我們重點披露了與避免衝突礦產及爭議採購相關的內容，以重申我們產品所用的材料來源皆無衝突礦產的承諾。

We have long been committed to building a future-proof business that is resilient to and able to navigate through volatile and unpredictable business risks, turning challenges into opportunities and opening up new horizons for growth. At the product responsibility level, our product management focuses on quality, technology, marketing and delivery reliability and timeliness, as well as strengthening our overall response to clients' ESG demands in order to meet the requirements of new ESG regulations in the European Union and elsewhere. At the supply chain level, we recognise that building a responsible, efficient, green and clean supply chain is at the heart of our sustainable operations and that we are able to create business value for ourselves and our clients by reducing risk, improving product quality and achieving environmental objectives through proactive supply chain management. We have highlighted disclosures in our ESG report related to the avoidance of conflict minerals and controversial procurement to reiterate our commitment to sourcing materials for our products from conflict-free minerals.

展望未來，雖然環球經濟增長緩慢與地緣政治局勢緊張短期內將繼續帶來不穩定性與不確定性因素，但是我們依舊堅信機遇與挑戰並存。為提升金川的國際影響力，我們正在重塑海外投資管理架構，加強香港作為礦業中心的地位，以監督我們所有現有的非洲業務，同時專注於我們的戰略擴張，以獲取更多資源，增加我們的金屬持有量。此外，為助力實現全球可持續發展目標，我們將持續專注於安全、負責任及合乎道德的營運，並將採取相關措施，建設綠色地球。

Looking forward, although slow global economic growth and geopolitical tensions will continue to bring instability and uncertainty in the short term, we still firmly believe that opportunities and challenges coexist. To accelerate Jinchuan's international presence, we are restructuring our overseas investments management hierarchy by strengthening Hong Kong as the mining hub to oversee all our existing African operations and, at the same, focus on our strategic expansion to acquire more resources added to our base metal holding. In addition, to contribute towards global sustainable development goals, we will continuously focus on operating safely, responsibly and ethically and will adopt relevant initiatives in turning green for the globe.

最後，本人藉此機會向我們的員工表示感謝，感謝他們的勤勉付出及作出的貢獻。我還要感謝其他董事的指導，並感謝股東及全體持份者的鼎力支持。

Last but not least, I would like to take this opportunity to express my appreciation to our staff for their diligence and contribution. My gratitude also goes to my fellow directors for their guidance, and our shareholders and stakeholders for their continued support.

郜天鵬 GAO Tianpeng

行政總裁 *Chief Executive Officer*

22/03/2024

關於金川國際

ABOUT JCI

關於我們 About Us

金川國際於香港聯合交易所有限公司上市，由金川集團控股，為發展國際採礦和礦產資源業務的旗艦。金川國際的未來立足於明確定義的公司戰略，賦能本公司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。

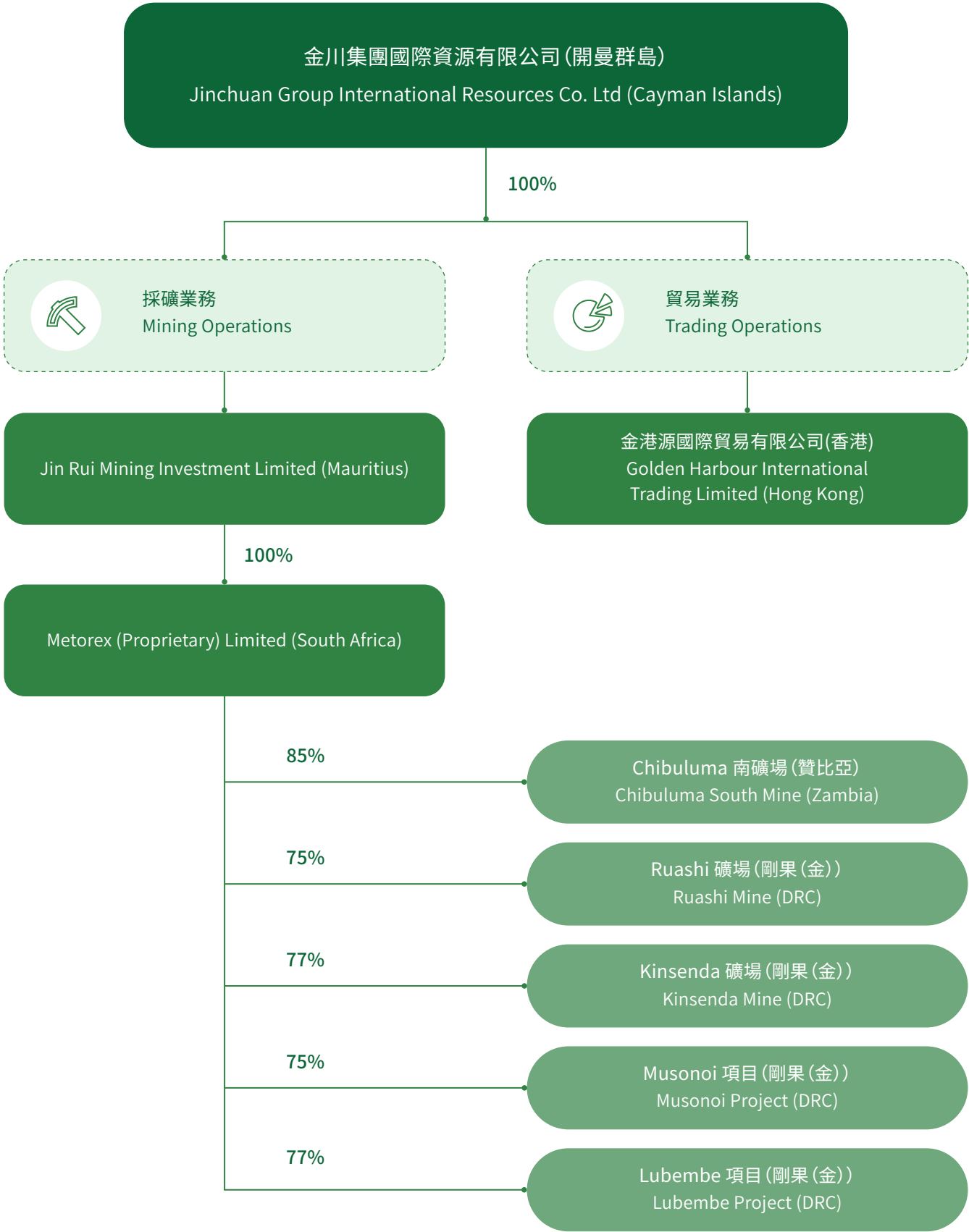
基於這一戰略，我們持續優化現有採礦和礦產業務，建設我們目前著力開發的新礦山，並通過併購探索增長機會。此外，我們將維持最高標準的健康、安全、環境保護和社區關係，並為我們的持份者、股東和僱員的長遠利益管理公司。

JCI's shares are listed on The Stock Exchange of Hong Kong Limited and is majority owned by JCG 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.



金川國際集團架構 (節錄)
JCI Goup Structure (Extract)

我們的業務 Our Business

► 概覽

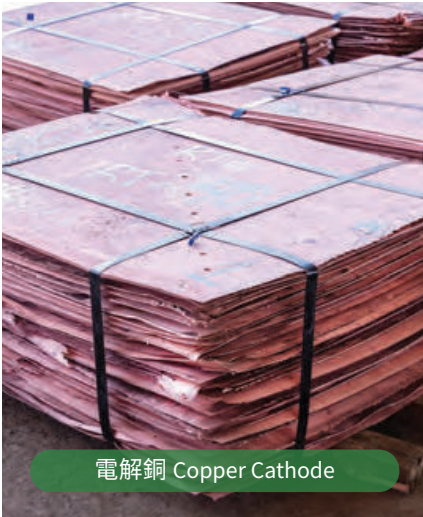
Overview

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，採礦業務位於南部非洲的剛果(金)和贊比亞，而貿易分部則駐於中國香港，積極自剛果(金)採購礦產品和金屬產品。

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瑞士、新加坡、中國香港和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 in Southern Africa while our trading segment is based in Hong Kong SAR (China) and is active 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, while our trading operations source mineral and metal products mainly from the DRC and sell the products to third-party customers mainly based in Switzerland, Singapore, Hong Kong SAR (China) and the Chinese Mainland.



採礦業務產品
Mining Operations' Products

► 採礦業務

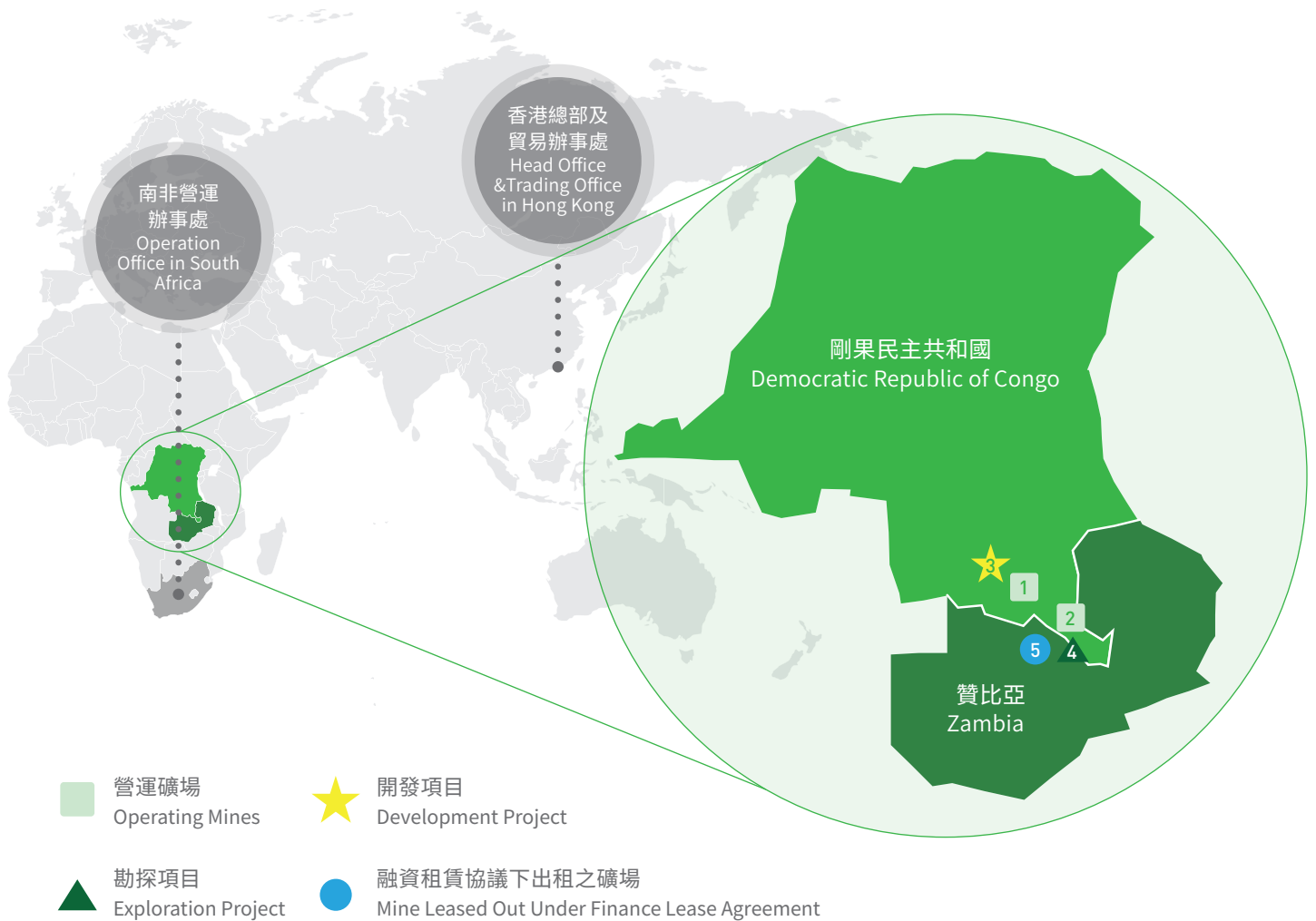
Mining Operations

金川國際於中非銅礦帶擁有兩座營運中的礦山，分別是位於剛果（金）上加丹加省的Ruashi銅鈷礦和Kinsenda銅礦。金川國際在剛果（金）盧阿拉巴省擁有一個在建項目（Musonoi項目）和一個在剛果（金）上加丹加省的勘探項目（Lubembe項目¹），為本公司未來的持續發展提供值得信賴的資源保障。金川國際亦為贊比亞Chibuluma南礦場的所有者，該礦場按融資租賃協議的方式營運。

JCI has two operating mines in Central African Copperbelt, namely, the Ruashi copper and cobalt mine and the Kinsenda copper mine in the Haut-Katanga province of the DRC. JCI has a project under construction in the Luaba province, the DRC (Musonoi Project) and an exploration project (Lubembe Project) in the Haut-Katanga province of the DRC, which serve as reliable resource protection for the Company’s continued developments in the future. JCI is also the owner of Chibuluma South Mine in Zambia which is operating under a finance lease agreement.

▼ 採礦業務地理位置

Geographic Locations of Mining Business



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

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、冰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，我們從這兩個國家覓得礦產品和金屬產品來源，並將其售予中國香港和中國內地的用戶。同時，其延伸了我們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致新產品和市場多元化。

► 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，我們嚴格遵循本公司技術先進、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。

► 會員資格及協會

Memberships and Associations

成員和行業協會的參與，助力我們及時跟進公共政策、新業態和可持續發展趨勢、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。

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, copper matte and cobalt hydroxide.

Leveraging on our network in the DRC and the PRC, we sourced mineral and metal products from these two countries and sell it to users in Hong Kong SAR (China) and the Chinese Mainland. Meanwhile, it extended our accessibility and presence in the international metals and mining market. We expect to continue to grow our business volume in the future and to diversify into new products and markets as conditions permit.

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 internal and external stakeholders.

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.



參與深化中國與非洲國家產業合作研討會
Attending the Seminar for Deepening the Industrial Cooperation of China and African Countries

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 recognized and commended by multiple institutions and medias, and won multiple awards.

榮譽獎項 Awards	頒發單位 Awarding Unit
2023年度品牌價值獎 2023 Annual Most Brand Value Award	格隆匯 Gelonghui
傑出上市公司大獎2023 ListCo Excellence Awards 2023	《AM730》、亞洲公關、《鳳凰網港股》等 am730, PR Asia, IFENG HK STOCKS, etc.
最佳能源與資源公司 Best Energy and Resources Company	智通財經 Zhitong Finance
最佳上市公司ESG信息披露獎 Best ESG Information Disclosure Award for Listed Company	香港國際ESG聯盟 Hong Kong International ESG Alliance
最具投資價值高質量發展上市公司 Best Investment Value Award for Listed Companies	中國證券金紫荊獎組委會 Organizing Committee of China Securities Golden Bauhinia Award

我們的可持續發展戰略

OUR SUSTAINABILITY STRATEGY

可持續發展戰略 Sustainability Strategy

我們致力於以可持續方式經營業務，最大限度地提高採礦與成礦活動的社會、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。

Our approach to sustainable development is applied across all of our operations. We are committed to operating the business in a sustainable manner by maximizing the social, environmental, and economic benefits of our mining and mineral activities, minimizing environmental impacts, and working with our communities to build our stakeholders' trust. 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 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



尊重人權，賦能員工
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



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



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

Minimise environmental impact and
build a more sustainable ecosystem



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

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

可持續發展目標重點 SDGs Focus

2015年, 聯合國制定17項可持續發展目標, 旨在於2030年前實現該等目標。各公司均應知悉其於實現可持續發展目標方面的責任, 以意識到本身的優先事項及優勢所在為啟程第一步。可持續發展是金川國際策略成功的基石, 我們將繼續為營運所在地區及社區的社會經濟增長作出積極貢獻。

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契合。隨着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。與環境、社會及管治議題有關的可持續發展目標詳情載於每一章節的章首頁。

In 2015, the United Nations created 17 Sustainable Development Goals (SDGs) and aimed to achieve them by 2030. Each company should be clear about its role in achieving the SDGs, starting with an awareness of where its priorities and strengths lie. Sustainability is the foundation for the success of JCI's strategy, and we continue to contribute to the socio-economic growth of the regions in which we operate and the communities in which we locate.

Our approach to sustainable development is applied across all of our operations. Our vision and mission are in line with the United Nations Global Compact (UNGC) Principles and SDGs. As we continue to advance our efforts to integrate the SDGs into our business strategy, operations, and enterprise culture, we have prioritized the SDGs that are most relevant to our material topics and will conduct more pertinent mapping of the SDGs. Details of the SDGs relating to our ESG topics identified are presented in the homepage of each chapter.

重要性及持份者參與

MATERIALITY & STAKEHOLDER ENGAGEMENT

金川國際始終高度重視持份者的關切及訴求。我們深明重要性評估有助於確定對金川國際有特殊影響以及與主要持份者的利益密切相關的範疇，持份者參與及溝通則有助於推動多元風險管理及業務價值創造，為我們的可持續發展奠定良好基礎。

JCI has always taken the concerns and requests of its stakeholders very seriously. We recognize that materiality assessments may help us identify areas that have a particular impact on JCI and that are of interest to our key stakeholders. Stakeholders' engagement and communication is favorable for promoting diverse risk management and business value creation and laying a solid foundation for our sustainability.

重要性評估 Materiality Assessment

報告期內，我們根據GRI標準有關重要性分析的流程，在獨立外部ESG專家的協助下，繼續針對內部及外部持份者（包括我們的僱員、客戶、供應商、承建商、毗鄰社區等）進行了專門研究。本次調研以匿名問卷的形式進行，共回收有效問卷257份。結合金川國際高級管理人員對重要性評估結果的見解，我們確定了20項可持續發展的重大事宜。

During the reporting period, we conducted dedicated research for internal and external stakeholders (including our employees, customers, suppliers, contractors, and neighbouring communities, etc.) with the assistance of an independent external ESG expert in accordance with GRI Standard's process regarding materiality analysis. The research was conducted in the form of anonymous questionnaires, and a total of 257 valid questionnaires were collected. Combined with insights from JCI executives on the materiality assessment results, we identified 20 material topics for our sustainability.

▼ 重要性議題識別流程

Material Topics Identification Process

1

重要性議題
對標分析Material topics
benchmarking analysis

結合外部ESG專家專業知識、交易所要求(包括香港聯交所)、可持續發展框架(包括GRI及SASB)、評級機構建議、國內外可持續發展政策及倡議、同業優秀表現以及金川國際業務領域,確定重要性議題的全面清單

A comprehensive list of materiality topics is identified by combining the expertise of external ESG experts, exchange requirements (including HKEX), sustainability frameworks and standards (including GRI and SASB), rating agency recommendations, domestic and international sustainability policies and initiatives, peer performance and JCI's business areas.



2

重要性議題
細分篩選Material topics
segmentation selection

通過進一步分析及整合,細化重要性議題全面清單,篩選並確認本年度重要性議題庫中的20項議題,進而提升議題管理效率及水平

Refining the comprehensive list of important topics through further analysis and consolidation, and screening and confirming the 20 topics in this year's important topics pool to further enhance the efficiency and level of topic management.



3

持份者溝通
及參與Stakeholders communi-
cation and engagement

通過在線問卷調研的形式觸達不同持份者群體,以深入了解其對主要議題的看法及訴求;本年度問卷調研共涵蓋10類持份者群體,答卷者覆蓋全球4大洲、7個國家和地區

Reaching out to different stakeholder groups through an online questionnaire survey to better understand their views and aspirations on key topics. This year's questionnaire survey covered a total of 10 stakeholder groups with respondents from 7 countries and regions of 4 continents.



4

重要性議題
矩陣確認ESG materiality matrix
confirmation

根據調研結果,通過「對企業可持續發展的重要性」及「對持份者的重要性」兩個維度對20項議題進行優先級排序及重要性議題矩陣繪製,識別出5項具有高重要性的重要議題,並依此確認本年度報告的報告邊界及重點內容

On the basis of the survey results, the 20 topics are prioritised and a matrix of important topics is drawn up on the dimensions of "importance for business sustainability" and "importance for stakeholders", and 5 important topics of high importance are identified, based on which the boundaries and key contents of this year's report are confirmed.



本年度，我們的重要性議題與2022年相比進行了些許調整。首先，我們調整了重要性議題的命名方式，使其更為精簡及清晰；其次，我們將諸多緊密相關的小議題整合為新的大議題，提高議題管理的效率及範疇——包括將「突發環境事故預防與處理」並入「環境管理」，將「生產責任與安全」、「客戶服務及權益保障」、「創新與知識產權管理」、「行業引領」並入「產品責任」，將「合規」、「風險管理」並入「合規與風險管理」，將「國家與地方出資」、「盡責納稅」、「持份者溝通」並入「可持續業務增長與財務責任」等；最後，我們根據持份者的最新訴求將相關議題進行了細化或轉化處理，包括將原先「公益慈善及志願服務」調整為「原住民關係」，以進一步強化對原住民群體的關注。

This year, we made some adjustments to our material topics compared to 2022. Firstly, we adjusted the naming methods for material topics to make them more concise and clear. Secondly, we integrated many closely related small topics into new major ones to improve the efficiency and scope of topic management, which includes integrating "Emergency Environmental Accident Prevention and Treatment" into "Environmental Management", integrating "Production Responsibility and Safety", "Customer Service and Rights Protection", "Innovation and Intellectual Property Management", "Industry Leadership" into "Product Responsibility", and integrating "Compliance" and "Risk Management" into "Compliance and Risk Management", and integrate "National and Local Economic Contribution", "Responsible Taxation", and "Stakeholder Communication" into "Sustainable Business Growth and Financial Responsibility", etc. Finally, we have refined or transformed the relevant topics based on the latest demands of stakeholders, including adjusting the original "Public Charity and Volunteerism" to "Indigenous Peoples Relationships" to further strengthen our attention to indigenous groups.

高重要性議題 High-Materiality Topics

- 01 僱員安全與健康 Employee Safety and Health
- 02 僱傭與勞工管理 Employment and Labour Management
- 03 尾礦管理 Tailings Management
- 04 合規與風險管理 Compliance and Risk Management
- 05 產品責任 Product Responsibility

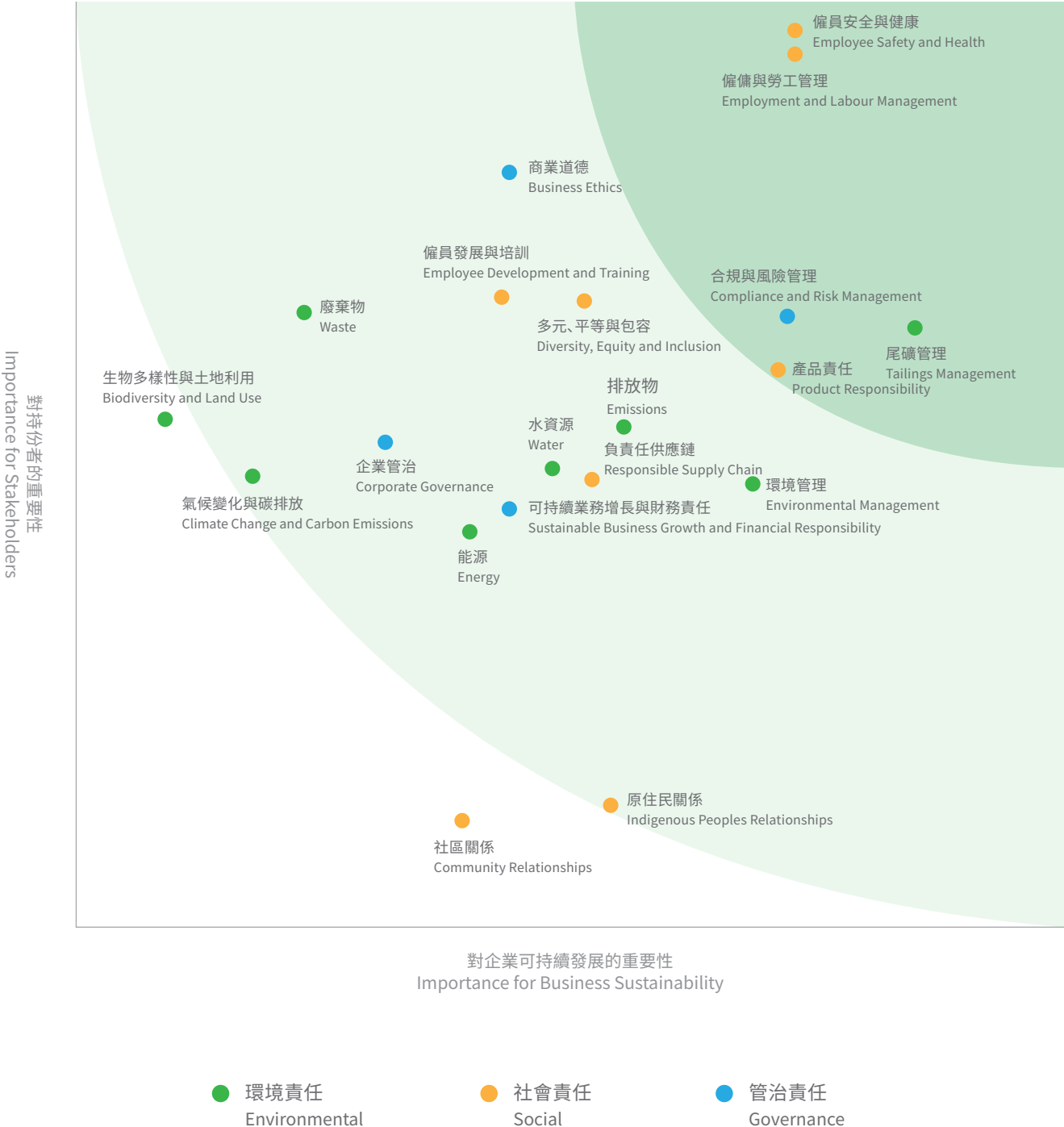
低重要性議題 Low-Materiality Topics

- 19 生物多樣性與土地利用 Biodiversity and Land Use
- 20 社區關係 Community Relationships

中重要性議題 Medium-Materiality Topics

- 06 商業道德 Business Ethics
- 07 多元、平等與包容 Diversity, Equity and Inclusion
- 08 環境管理 Environmental Management
- 09 僱員發展與培訓 Employee Development and Training
- 10 排放物 Emissions
- 11 負責任供應鏈 Responsible Supply Chain
- 12 水資源 Water
- 13 廢棄物 Waste
- 14 可持續業務增長與財務責任 Sustainable Business Growth and Financial Responsibility
- 15 企業管治 Corporate Governance
- 16 能源 Energy
- 17 氣候變化與碳排放 Climate Change and Carbon Emissions
- 18 原住民關係 Indigenous Peoples Relationships

▼ 2023年ESG重要性議題矩陣
ESG Materiality Matrix 2023



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。

Deeply understanding the importance of stakeholders' voices for us to strengthen corporate governance and operation, we have long been paying great attention to stakeholders' expectations and demands. In retrospect, we have been keep 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
 政府及監管機構 Government and supervision institutions	<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
 股東及投資人 Shareholders and investors	<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 Telephone conferences and online interactive platforms
 僱員 Employees	<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 Industrial activities and exchanges
 <p>毗鄰社區 Neighbouring communities</p>	<ul style="list-style-type: none"> ● 人權保障 Human rights protection ● 生態環境 Ecological environment protection ● 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 Collaboration on ecological protection ● 投訴申訴機制 Complaint grievance mechanism
 <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 The 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

02

氣候變化

Climate Change



全世界正處於應對氣候變化的關鍵時刻。根據科學理論推算，全球必須減少碳排放，方可把本世紀的暖化幅度維持於2°C以內。金川國際深明氣候變化已經或即將帶來一系列挑戰及機遇，加強氣候行動刻不容緩。本年度，我們首次按照金融穩定委員會 (FSB) 氣候相關財務信息披露工作組 (TCFD) 的建議，探索氣候風險及機遇的識別及管理路徑，並提高我們減緩及適應氣候變化工作的透明度，全力邁向淨零未來。

The world is seeing a pivotal moment of tackling climate change. According to the calculation based on scientific theory, the world shall deduct carbon emission to hold the increase in the global average temperature to below 2°C. JCI is aware that climate change has already or will bring a series of challenges and opportunities and that enhancing climate action is of top urgent. In this year, according to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) by Financial Stability Board (FSB), we explored the identification of climate-related risks and opportunities as well as management paths and increased the transparency of our action for climate change mitigation and adaptation for the first time, striving to the future of net-zero.

本章節所響應SDGs SDGs focus in this chapter



本章節所回應重大性議題 Material topics addressed in this chapter

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

亮點2023

2023 HIGHLIGHTS

2023年, 金川國際首次按照TCFD建議開展氣候信息披露, 以強化公司內部對氣候相關議題的管治。公司將致力在整個營運過程中有效管理氣候變化風險及機遇, 持續關注行業領先的氣候管治策略及能源管理模式, 從而適應及減緩氣候變化對業務的各類影響。報告期內, 我們積極開展並不斷完善氣候變化相關管理工作, 並取得如下成績:

In 2023, JCI commenced climate disclosure for the first time in accordance with the TCFD recommendations to strengthen the Company's internal governance on climate-related issues. The Company will advocate to effective management of climate-related risks and opportunities throughout its operations, with a continued focus on industry-leading climate-related governance strategies and energy management models to adapt to and mitigate the various impacts of climate change on its business. In the reporting period, we proactively carried out and kept improving management related to climate change, and made following achievements:

制定氣候戰略及溫室氣體減排承諾;

Formulated climate strategy and greenhouse gas (GHG) emission reduction commitment



針對 **3** 類急性風險及 **4** 類慢性風險進行情景分析

Conducted scenario analysis on 3 types of acute risks and 4 types of chronic risks



識別並評估 **4** 類轉型風險及機遇

Identified and assessed 4 types of transition risks and opportunities



礦場可再生能源使用量已達

29,653 千瓦時

Mine sites' use of renewable energy has reached 29,653 kWh



氣候戰略

CLIMATE STRATEGY

氣候變化是人類有史以來所面臨的最根本的挑戰之一。鑒於採掘業的性質屬能源密集型，應對氣候變化及加強能源管理一直為金川國際高度重視的重大事項。為積極響應《巴黎協定》提出的溫升目標及聯合國提出的「氣候行動」可持續發展目標，我們致力於控制營運場所的能源消耗及溫室氣體排放，並推動與合作夥伴共建綠色供應鏈，助力全產業鏈低碳發展。為此，我們計劃藉由下述路徑，來履行我們的氣候戰略及溫室氣體相關承諾。

Climate change is one of the most fundamental challenges ever to confront humanity. In light of the energy intensive nature of the extractive industry, tackling climate change and enhancing energy management have been substantial issues that are of high concern to JCI. In order to actively respond to the temperature goals proposed in Paris Agreement and United Nations Sustainable Development Goal 13 "Climate Action", we are committed to controlling energy consumption and GHG emissions in our operations, promoting the building of a green supply chain with our partners, and facilitating the low-carbon development of the whole industrial chain. To this purpose, we plan to fulfil our GHG emission related commitments in the following approaches.

► 建立氣候風險管理架構

Establish our organizational structure for climate-related risk management

我們計劃建立氣候風險管理架構，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定期討論的重要治理議題，使之貫穿公司的策略討論、資產評估及投資決議中。

We are planning to establish our organizational structure for climate-related risk management that clarifies the roles of the board and management in climate change governance. In the meantime, we are promoting climate change as a key governance issue that is regularly discussed by the Board of Directors and included in the Board strategy discussions, portfolio evaluations and investment resolutions.

► 識別及評估與氣候相關的重要風險及機遇

Identify and evaluate signposts for climate-related risks and opportunities

我們計劃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 intend to identify, assess and analyse climate-related risks with a view to ascertaining the climate-related risks that have material impacts on our business and operations, and assessing the impacts of the risks and opportunities on our finances in order to advance the low-carbon transformation of our business.

▶ 減少自身營運所產生的溫室氣體排放

Reduce our operational GHG emissions

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。我們計劃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 minimise GHG emissions from our key business operations in order to transition to a low-carbon production system. We are planning to reduce our GHG emissions by optimising our extraction and production processes, and to offset our own GHG emissions by planting trees and developing renewable energy sources - all of which will contribute to our net-zero goal.

▶ 推動價值鏈上下游協同降碳

Promote upstream and downstream synergistic carbon reduction along the 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。

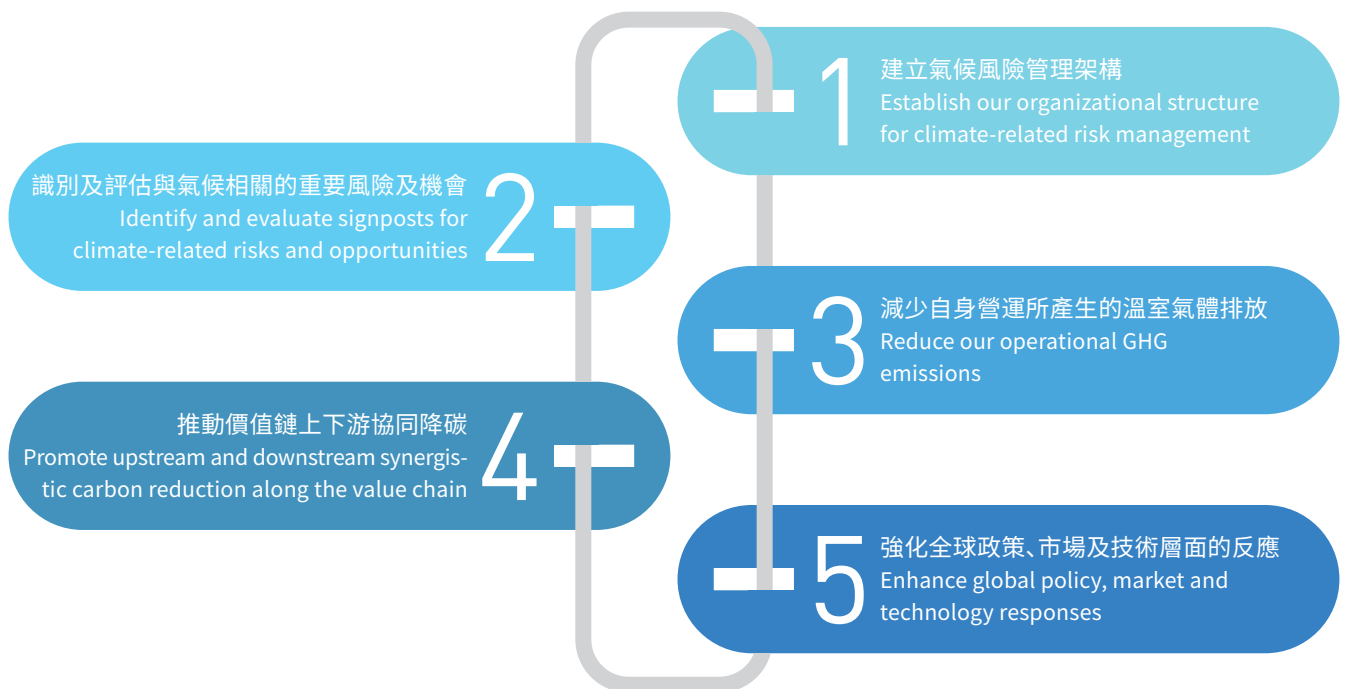
We are fully aware that promoting synergistic carbon reduction along the value chain is a vital pathway for carbon reduction. We aim to promote upstream and downstream synergistic carbon reduction through technological innovation, standard setting, business collaboration, etc., so as to effectively support the emission reduction process across the entire industry.

▶ 強化全球政策、市場及技術層面的反應

Enhance global policy, market and technology responses

我們將努力理解氣候變化所引致的最新影響，加強全球政策、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 of climate change and strengthen responses at the global policy, market, and technological level, aiming to facilitate collaboration with stakeholders to jointly practice our respective adaptive actions and make a positive contribution to global climate action.



氣候戰略重點及溫室氣體減排路徑

Climate Strategy Priorities and GHG Emission Reduction Pathways

氣候風險及機遇

CLIMATE RISKS & OPPORTUNITIES

氣候變化是我們時代的主要挑戰之一。我們始終高度關注氣候變化等因素對公司生產營運的影響，並參照TCFD建議框架，積極探尋氣候風險及機遇的評估模式及管理策略，為推動公司綠色低碳轉型、實現可持續發展目標奠定穩固的基礎。報告期內，我們與外部專業機構合作，運用氣候模型等風險分析工具，對公司在不同情景下所面臨的實體風險及轉型風險作出識別及評估。

Climate change is one of the major challenges of our times. We always pay great attention to the impact of climate change and other factors on the Company's production and operation. With reference to TCFD recommendations, we also proactively explore assessment models and management strategy for climate-related risks and opportunities, to lay a solid foundation for promoting the Company's transit to a greener and lower-carbon economy and realizing sustainability targets. During the reporting period, we identified and assessed physical risks and transition risks that the Company could encounter under different scenarios under cooperation with external professional institutions and using risk analysis tools such as climate models.

實體風險 Physical Risks

「實體風險」指即時及長期極端氣候事件為企業所帶來的財務損失風險。為識別公司可能面臨的中期及長期實體風險，我們參考了政府間氣候變化專門委員會 (Intergovernmental Panel on Climate Change, IPCC) 的兩類代表性濃度路徑 (Representative Concentration Pathways, RCPs)，即中間情景RCP4.5及高排放情景RCP8.5，並依據情景下氣候災害的強度水平，針對3類急性風險及4類慢性風險進行了評估。同時，我們亦考慮了公司所屬行業特性及地區氣候災害敏感性，以更全面地了解未來的實體風險水平²。

Physical risk refers to the risk of financial loss to the company brought by acute and chronic extreme climate events. In order to recognize the medium- and long-term physical risks that the Company may encounter, we refer to two types of Representative Concentration Pathways (RCPs) from Intergovernmental Panel on Climate Change (IPCC), namely the Intermediate Scenario RCP4.5 and the High Emissions Scenario RCP8.5, and focus on three types of acute risks and four types of chronic risks in accordance with the intensity level of the climate hazards under the scenarios. At the same time, we also took characteristics of industry of the Company and the sensitivity of the region to climate disasters into consideration to have a more comprehensive understanding of physical risks in the future².

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.

在情景分析中，被納入分析範疇的急性風險分別為：極端高溫、極端降水、滑坡；慢性風險分別為：乾燥趨勢、濕潤趨勢、變暖趨勢、水短缺。以上風險可能在不同程度上為礦場帶來營運成本上升、營運收入減少、保險支出增加、資產損傷等層面的財務影響。此外，由於我們的營運礦場均位於剛果（金）及贊比亞的內陸地區，熱帶氣旋及沿海洪水等非相關風險未被納入分析範疇。

情景分析的結果顯示：各分析情景下，金川國際於營運層面所面臨的實體風險以中低等級及中等級為主。

在急性風險方面，公司所面臨的極端高溫及極端降水風險在RCP8.5中呈現出長期下降的趨勢；極端降水風險在RCP4.5中亦呈現出類似的下降趨勢，而極端高溫風險在RCP4.5中則可能進一步上升。公司的滑坡風險在當期的基線水平為低風險，未來我們將進一步完善分析工具，以模擬滑坡的情景風險水平，為優化應對策略提供依據。

在慢性風險方面，公司所面臨的乾燥趨勢風險整體為中至中高風險，且中長期上升趨勢明顯，需在未來加以更多關注。公司的濕潤趨勢及變暖趨勢風險水平在各個分析情景中亦有所上升，最高將升至中風險等級。有別於以上數類慢性風險，公司的水短缺風險水平於未來情景中將有所下降，並整體維持在中低等級。

In scenario analysis, following acute risks are included in the analysis scope: extreme heat, extreme precipitation, and landslide; included chronic risks are: dry trend, wet trend, warming trend, and water scarcity. The above risks may cause higher operation cost, lower operation revenue, higher insurance expenditure, asset damage and other financial impacts. In addition, as our mines are in inland areas in the DRC and Zambia, tropical cyclone and coastal flooding are irrelevant and thus not included in the analysis.

The result of scenario analysis indicates that in all analyzed scenarios, physical risks faced by JCI are mainly at low-medium level or medium level.

In terms of acute risks, extreme heat and extreme precipitation risks encountered by the Company presents a long-term decline trend in RCP8.5; in RCP4.5, while extreme precipitation also reflects an alike decline trend, extreme heat may rise. The landslide risk of the Company is at a low level in the baseline scenario. We will further improve analysis tools to simulate landslide scenario risk level to support the optimization of response strategy.

In terms of chronic risks, dry trend risk encountered by the Company overall is at medium to medium-high risk level, and has an obvious rise trend in medium- and long-term, which requires more attentions in the future. Wet trend and warming trend risks of the Company both reflect rising trend in scenario analysis, reaching at medium risk level at most. Different from the said chronic risks, water scarcity risk of the Company will decline in future scenarios and overall maintained at low-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 Scenarios

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	↓

基於實體風險敞口的分析結果，就極端高溫風險而言，在RCP4.5中，公司於中短期將有25%的礦場暴露於該風險之下，且該比重將於長期增至50%；在RCP8.5中，公司的極端高溫風險敞口則將於中長期降至0%。兩種情景下的不同趨勢表明公司需要密切關注氣候變化的情況，以靈活調整針對極端高溫風險的應對策略。

就乾燥趨勢而言，在RCP4.5中，公司的該風險敞口於當期至長期均維持在50%；在RCP8.5中，公司的長期風險敞口則將升至75%。此外，公司的變暖趨勢風險敞口亦呈現出類似趨勢，在RCP8.5中，公司的風險敞口將由基線的0%於長期內增至25%，表明有更多礦場需要加強相應的風險應對能力。

Based on the analysis result of physical risks exposure, regarding extreme heat risks, in RCP4.5, 25% mines of the Company will be exposed to this risk over the short to medium term, the proportion of which will grow to 50% in a long-term. In RCP8.5, the extreme heat risk exposure of the Company will decline to 0% over the medium to long term. The different trend in the two different scenarios indicates that the Company should pay a close attention to climate change status to make flexible adjustments to extreme heat risk response strategy.

Regarding the dry trend, in RCP4.5, the Company's exposure to this risk is maintained at 50% at the current period and over a long term; in RCP8.5, the Company's long-term exposure to this risk will rise to 75%. In addition, the Company's exposure to warming trend risks also reflects a similar trend, which is that in RCP8.5, the Company's exposure to this risk will increase from 0% of the baseline to 25% in the long term, indicating that more mines should enhance their risk response capability.

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.

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

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%
	濕潤趨勢 Wet trend	0%	0%	0%	0%	25%
	變暖趨勢 Warming trend	0%	0%	0%	0%	0%
	水短缺 Water scarcity	0%	0%	0%	0%	0%

就我們於情景分析中所識別出的影響較大的風險，金川國際已採取一系列風險應對策略。例如，針對極端降水及其次生災害，我們建立了危害識別及應急指揮流程，於Kinsenda礦場亦建立了專門的防汛指揮部，為防汛規劃及應急工作負責。未來，我們將持續密切關注氣候變化情況，並將相應的氣候策略加以完善及優化，不斷增強我們的氣候風險抵禦水平。

As to the risks with significant impact identified in our scenario analysis, JCI has taken a series of risk response strategies. For example, as to extreme precipitation and its secondary hazards, we have established a hazard identification and emergency command process, as well as a dedicated Flood Control Center at Kinsenda Mine, responsible for flood control planning and emergency works. In the future, we will continue to pay close attention to climate change and refine and optimize our climate strategy in order to enhance our climate-related risk resistance.

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.



多措並舉，抵禦氣候變化實體風險

Multi-pronged Approaches to Counteract Climate Change-related Physical Risks

作為一家高度關注可持續發展的企業，我們期望通過識別氣候變化所帶來的風險及機遇，及時採取適當的應對措施以適應或減緩氣候變化對企業營運及業務的影響。我們的業務位於熱帶氣候地區，夏季降雨量大且可能會因氣候變化的影響而加劇。鑒於此，各礦場正積極探索合理有效的管理策略，並逐步採取一定的應對行動以抵禦氣候風險。

當前，我們的氣候風險應對行動主要集中於抵禦極端降水及其次生災害層面。在政策管理方面，Ruashi礦場的《緊急應變程序》已包含了針對極端降雨情況的應對措施；在實際行動方面，Ruashi礦場已在礦區周圍建造大型溝渠以抵禦礦區外可能發生的洪水災害，並於尾礦設施周圍大規模種植本地草皮以增強土壤穩定性，從而在大雨期間有效減緩水流，降低沖刷風險。

同時，各礦場均已安裝雨水監測設施，且於雨季期間每日收集並監測雨量數據，通過科學決策減輕雨災損失。此外，Chibuluma南礦場配備了專用精礦棚以妥善存放物料，切實防止雨季期間雨水衝刷而導致的物料損失；且該礦場擁有良好的排水系統，可將所有收集到的雨水引導至集水池中以作他用。

As a company highly concerned about sustainable development, we expect to identify the risks and opportunities brought about by climate change, and take timely and appropriate measures to adapt to or mitigate the impact of climate change on our operations and business. Our operations are located in tropical climatic regions where summer rainfall is high and may be exacerbated by the effects of climate change. In view of this, our mines are actively exploring reasonable and effective management strategies and are gradually taking certain actions to counteract climate-related risks.

Currently, our response actions to climate-related risks mainly focus on resisting extreme precipitation and its secondary disasters. In terms of policy management, Ruashi Mine's Emergency Response Procedure has included measures responding to extreme precipitation, and in terms of practice, Ruashi Mine has built large-scale ditches and channels to resist flood disaster that may happen out of the mineral area, and planted local turf around the tailings facilities to enhance the land stability, effectively slowing down water flow during heavy rain and reducing the risk of scouring.

Meanwhile, rainfall monitoring facilities have been installed at all mines, and rainfall data will be collected and monitored on a daily basis during the rainy season to minimize rainfall losses through scientific decision-making. Moreover, Chibuluma South Mine is equipped with dedicated concentrate shed for proper material storage, effectively preventing material loss caused by rainwater erosion during the rainy season. With the excellent drainage system, Chibuluma South Mine may direct all collected rainwater to catch basins for other uses.

轉型風險 Transition Risks


「轉型風險」指低碳經濟趨勢為企業所帶來的廣泛之政策、法律、技術及市場變化的風險。公司在邁向低碳經濟的過程中，將不可避免地面臨來自政府及監管機構、同業企業、價值鏈夥伴、社會公眾等持份者的多元化期望或要求，為企業商業模式、技術設備投資、品牌形象建設等方面帶來諸多潛在風險或潛在機遇。

Transition risk refers to the wide-ranging policy, legal, technological and market changes brought about by the trend towards a low-carbon economy. In the process of moving towards a low-carbon economy, the Company will inevitably face diversified expectations or requirements from stakeholders such as government and regulatory authorities, peer enterprises, value chain partners, and the public, which will bring about many potential risks or opportunities in terms of business model, investment in technology and equipment, and brand image building.

當前，金川國際所面臨的氣候相關轉型風險主要源自政策、法律、技術、市場、聲譽等多個維度。我們現已初步識別各轉型風險或機遇的潛在財務影響，並闡明簡要的應對措施。有關氣候行動及能源管理更詳盡內容，請參見「氣候行動及能源管理」一節。

Currently, climate-related transition risks faced by JCI are mainly from policy, legal, market, and reputation aspects. We have primarily identified potential financial impacts of transition risks and opportunities and stated brief response measures. For more details of climate action and energy management, please refer to the section of “Climate Action & Energy Management”.

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

類別 Types	轉型風險 Transition risks	潛在財務影響 ↓ Potential negative financial impacts	轉型機遇 Transition opportunity	潛在財務影響 ↑ Potential positive financial impacts	應對措施 Response measures
 政策及法律 Policy and law	<ul style="list-style-type: none"> 溫室氣體減排政策壓力 Pressure from GHG emission reduction policy 	<ul style="list-style-type: none"> 延遲轉型導致營運成本增加 Delayed transition results in increase of operational cost 產能擴張受限 Productivity expansion is limited 	<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 market 	<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, reduce energy cost, and mitigate transition pressure 參與碳市場交易可能帶來碳信用收入 Participate in carbon trading market may bring carbon credit income 	<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 Focus on climate policies and carbon market status in the jurisdiction in which we operate, conduct policies research and reserves in advance, and timely grasp low-carbon transition opportunities to expand productivity smoothly

 <p>技術 Technology</p>	<ul style="list-style-type: none"> • 能源管理水平滯後 Lagged energy management level 	<ul style="list-style-type: none"> • 節能降碳設備採購及運轉成本增加 Purchasing cost and operation cost of energy saving and carbon reduction equipment are increased • 可再生能源及/或碳權採購費用增加 Expenditure for purchasing renewable energy and/or carbon credit is increased. 	<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 lower the operation cost over the medium to long term. • 促進能源結構優化及能源成本下降 Promote the optimization of energy structure and lower energy cost 	<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 Launch short-, medium- and long-term energy management optimisation actions on various fronts, including setting milestones, promoting intelligent upgrading, strengthening R&D investment, and carrying out continuous follow-up optimisation, etc.
	<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"> • 投資低碳技術或因技術過時或非主流而遭受資金損失 Suffering financial loss due to investing in low-carbon technology or outdated or non-mainstream technology • 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 Development of low-carbon technology may trigger fluctuations in energy and raw material prices, affecting 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 technology 	<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 lower medium- and long-term operation cost • 取得差異化技術競爭優勢，提升市場競爭力 Obtain differentiated technological competitive advantage and strengthen 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 Phased deployment of technology reserves and investment projects for energy saving and techniques optimization, such as prioritizing the development of technology with high marginal benefits to stably reduce energy consumption and carbon costs
 <p>市場 Market</p>	<ul style="list-style-type: none"> • 低碳產品市場需求增加 Demand from low-carbon product market is increased. 	<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 Increase in R&D cost and production process transition for meeting the market demand in 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 The profits and demand in the transitional period may be unstable before the low-carbon products are fully accepted by the market 	<ul style="list-style-type: none"> • 搶抓市場轉型先機 Grasp the opportunity of market transition • 推動低碳產品開發 Promote the development of low-carbon products 	<ul style="list-style-type: none"> • 新能源產業擴張將增加市場對於銅、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 the market's demand for metal raw materials such as cooper, cobalt and nickel, bringing opportunities for making more profit • 低碳綠色項目降低企業融資成本 Low carbon and green projects reduce financing costs for enterprises 	<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 Tracking market demand, utilizing technological reserves and industry advantages to scientifically analyze and flexibly respond to market changes, and seizing opportunities for climate-related transition

 <p>聲譽 Reputation</p>	<ul style="list-style-type: none"> 企業聲譽衝擊 Impact on corporate reputation 	<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 Being unable to meet stakeholders' expectations to climate-related disclosure or inadequate response could result in damage to corporate reputation 	<ul style="list-style-type: none"> 企業聲譽提升 Corporate reputation being improved 	<ul style="list-style-type: none"> 增強持份者信任度, 樹立良好的企業形象 Enhance the trust of stakeholders 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 disclosure of information related to climate and green development
--	---	---	--	--	--

氣候行動及能源管理

CLIMATE ACTION & ENERGY MANAGEMENT

為持續推進氣候戰略落地落實, 正視並管理公司所面臨的氣候風險及機遇, 我們正在通過科學合理的發展路徑、行之有效的的方法舉措, 有序規劃並扎實開展氣候行動, 以有效應對氣候變化帶來的種種挑戰, 並為本世紀末全球氣溫較工業化前水平升高值控制於2°C以內貢獻力量。

To continuously promote the implementation of our climate strategy and to address and manage the climate-related risks and opportunities facing the Company, we are planning and implementing climate action in an orderly manner through scientific and reasonable development paths and effective methods and measures, so as to effectively respond to the various challenges brought about by climate change and to contribute to the efforts to contain the increase in global temperature to within 2°C above the pre-industrial level by the end of this century.

溫室氣體排放及管理 Greenhouse Gas Emissions & Management

金川國際礦區的溫室氣體管理由各自的SHE部門負責。為最終實現降低溫室氣體排放及降低碳排放密度的目標，我們逐步完善控制溫室氣體排放的監督管理政策，並計劃優化溫室氣體核算的工作機制，加強內部各部門之間的溝通協調，將工作問責制落實到位。在碳足跡管理及報告方面，報告期內，我們聘請了獨立第三方機構對金川國際礦區的碳足跡進行測算，相關測算結果將於2024年初出爐，各礦區未來的溫室氣體管理計劃亦將隨之優化。

報告期內，金川國際仍將遵守溫室氣體排放策略的承諾納入零損害政策中。我們承諾遵守所有關於減緩氣候變化的國家及/或國際倡議，通過引進能源友好型設備、增加對可再生能源的使用、減少二氧化碳排放以及採納任何其他最佳常規或技術，力圖減少生產及營運過程中的碳足跡。此外，我們亦鼓勵全體僱員參與應對氣候變化相關能力建設培訓，強化全員節能降碳意識，提高關於氣候變化影響的認知及應對水平。

GHG management at JCI's mining sites is undertaken by the respective SHE Departments. To eventually reach the target of lower GHG emissions and lower carbon emission intensity, we gradually improve the supervision and management policy of controlling GHG emissions, and plan to optimize the working mechanism of GHG accounting, strengthen the communication and coordination among internal departments, and put the work accountability system into place. Regarding the carbon footprint management and reporting, in the reporting period, we engaged an independent third-party organization to measure the carbon footprint of the JCI mine sites. The results of the relevant measurements will be available in early 2024, and the future GHG management plans of each mine site will be optimized accordingly.

In the reporting period, JCI continued to integrate the commitment to comply with GHG emissions strategy into Zero Harm Policy. JCI is committed to comply with all national and/or international initiatives on climate change mitigation by introducing energy friendly equipment, increasing the use of renewable energy, reducing carbon dioxide emissions, and adopting any other best practices or technologies, to strive to minimize our carbon footprint in production and operational process. In addition, we encourage all employees to participate in capacity building training on climate change to enhance their awareness of energy saving and carbon reduction, as well as to raise their level of awareness of and response to the impacts of climate change.

我們的表現 - 2021-2023年溫室氣體排放總量
Our Performance - Total GHG Emissions 2021-2023

	單位 Unit	2023	2022	2021
範圍1 Scope 1	每噸二氧化碳當量 tCO ₂ -e	48,740	22,770	21,725
範圍2 Scope 2	每噸二氧化碳當量 tCO ₂ -e	988	1,080	1,026
範圍1+範圍2 Scope 1+Scope 2	每噸二氧化碳當量 tCO ₂ -e	49,728	23,850	22,751
溫室氣體排放密度 GHG Emissions Intensity	每噸二氧化碳當量/噸銅產量 tCO ₂ -e / t Cu produced	0.80	0.40	0.37

○ 我們的表現 - 2023年按營運地劃分的溫室氣體排放量
Our Performance - GHG Emissions, by Operation 2023

	單位 Unit	公司辦事處 Corporate Offices	Ruashi礦場 Ruashi Mine	Kinsenda礦場 Kinsenda Mine	Musonoi項目 Musonoi Project	Chibuluma南礦場 Chibuluma South Mine	合計 TOTAL
範圍1 Scope 1	每噸二氧化碳當量 tCO ₂ -e	0	32,572	10,018	6,150	N/A ⁷	48,740
範圍2 Scope 2	每噸二氧化碳當量 tCO ₂ -e	43	523	370	52	N/A ⁷	988

能源管理 Energy Management

金屬礦開採屬能源密集型行業，因此管理能源消耗已成為金川國際的重要任務，並推動我們向低碳營運逐步轉型。我們深明，所有礦場均有義務不斷努力提高能源效率，減少對化石燃料的依賴，最大限度地使用清潔、可再生及/或可回收能源，多措並舉減少溫室氣體排放。值得注意的是，我們於剛果(金)及贊比亞開展業務，絕大部分電力來自水力發電，擁有顯著的低碳排放及環境友好特性，能夠為礦場提供清潔、可再生及可持續的電力供應。

Metal mining is an energy intensive industry, which has led to managing energy consumption being an essential task for JCI and has driven our transition to low-carbon operations. We are fully aware that all mine sites are obligated to make continuous efforts to improve energy efficiency and reduce reliance on fossil fuels, using clean, renewable and/or recycled energy to the greatest extent possible, and adopting multiple measures to reduce GHG emissions. It is worth noting that the DRC and Zambia, where we operate, generate most of their power from hydroelectricity, which has significant low-carbon emission and environmentally friendly characteristics, and could provide clean, renewable, and sustainable power supply to mining sites.



7. 自2021年4月1日起，Chibuluma南礦場已根據融資租賃協議出租予一名獨立第三方。
Chibuluma South Mine has been leased out to an independent third party under a finance lease agreement since 1 April 2021.

▶ 能源管理政策

Energy Management Policy

金川國際各礦區一貫重視能源管理，致力於提升能源使用效率，持續優化能源管理體系。基於 ISO 14001:2005 有關要求及礦場實際情況，Ruashi 礦場制定並遵循《能源及用水管理指引》，旨在規範營運端能源消耗的流程，以減少消耗及對環境的負面影響。根據指引，一方面，Ruashi 礦場環保負責人負責持續審查現有能源系統及節約機會、檢查並分析能效等級、建築物及設備的運行及維護方式，以及整體環境保護；另一方面，Ruashi 礦場將向全體僱員提出降低能耗的行動建議，並推動節能行動的有效實施。此外，Ruashi 礦場亦開發有可編製每日、月度、半年度及年度電力報告的系統，實時監測能源消耗情況。

Always valuing energy management, JCI's mining sites are committed to improving energy efficiency and continuously optimizing energy management system. Based on the relevant requirements of ISO 14001:2005 and actual situations at the mining site, Ruashi Mine formulated and abides by Guideline for Process Plant Energy & Water Management, which aims to standardize energy consumption procedures in operation to decrease the consumption and negative impact on environment. According to the Guideline, on the one hand, Ruashi Mine's environmental protection manager is responsible for continuously reviewing the existing energy system and conservation opportunities, reviewing and analyzing energy efficiency ratings, building and equipment operation and maintenance practices, and overall environmental protection. On the other hand, Ruashi Mine proposed action suggestion to all employees to reduce energy consumption, and promoted effective measures for energy saving. In addition, Ruashi Mine has developed a system for preparing daily, monthly, semi-annual, and annual power reports, which will facilitate real-time monitoring of energy consumption.



減少能耗的行動規則

Action rules for
reducing energy
consumption

基於分析結果，Ruashi 礦場在以下能源使用領域制定節能規則：

Based on analysis results, Ruashi Mine formulates energy-saving rules in following energy using aspects:

- 室內及室外照明
Indoor and outdoor lighting
- 辦公設備
Office equipment
- 計算機及電子(操作)設備
Computer and electronical devices
- 空調
Air conditioner
- 製冷、供暖及通風設備
Cooling, heating and ventilation facilities
- 雜項設備
Other equipment



節能行動的實施途徑

Implementation paths
for energy saving
initiatives

為確保有效使用能源、促進能源節約，Ruashi礦場規定了多項能源消耗規則：
To promote effective energy use and energy conservation, Ruashi Mine stipulated multiple energy consumption rules:

- 盡量選用能效更高、壽命更長的燈管，針對性淘汰落後燈具，且按需關閉不常用區域的所有燈光
Choose lighting tubes of higher energy efficiency and with longer usage time, replace lagged lighting equipment, and turn off all lights in areas that are not often used.
- 關閉不在使用中的電腦、打印機及複印機，並在工作日結束時關閉/斷開連接
Turn off computers, printers, and photocopier that are not in use and turn off/switch off connection at the end of working days.
- 建議所有個人電腦使用電源管理選項，設置電腦在無人值守時進入待機模式的時間，盡量節約能源
Suggest all personal computers to use battery management, setting the PC enters into energy saving mode when no one's using to save energy as much as possible.
- 將空調設定在最為節能降耗的溫度，且根據占用率及當地情況，盡量使用更節能的分體式空調機或中央空調以取代室內窗式空調
Set the AC at the most energy-saving temperature, and use split type air conditioning or central air conditioner, which are more energy saving, replacing indoor window air conditioner.
- 在進入和/或取用物品時，應有意識地注意打開冰箱門的時間，杜絕長時間開門而浪費電力能源
When entering and/or taking objects, one should pay attention to the time that the refrigerator is opened to avoid long-time opening, which wastes electricity.

Ruashi礦場節能規則及途徑 (綠色營運)
Ruashi Mine's Energy Saving Rules and Approaches (Green Operation)

▶ 節能降耗行動

Energy Saving and
Consumption
Reduction Action

積極落實節能降耗行動是應對氣候變化、促進低碳轉型的重要途徑。金川國際各礦區根據自身實際情況，實施了一系列具體且有效的能源管理及節能降耗措施，在提升能源營運效益的同時，推動節能降耗與經營發展的雙贏。

Actively implementing energy-saving and consumption reduction action is an important way to tackle climate change and promote low-carbon transition. According to the actual situation, JCI's mining sites have implemented a series of specific and effective energy management and energy-saving measures respectively, improving energy efficiency and also promoting a win-win situation of energy saving and business development.

Ruashi礦場

Ruashi Mine

2023年，Ruashi礦場所訂立的能源使用效益目標為5%，即於報告期內將銅金屬產量單位電耗降低5%，且該目標已於年內順利實現。在生產供電系統，Ruashi礦場採用2MW高壓無縫切換儲能SPS系統應用於15KV線路切換，實現無擾動切換，在避免頻繁停電對設備造成損壞的同時，有效減少能源浪費；在礦山區域，Ruashi礦場重新規劃15KV礦區供電新線路，升級現有礦坑區域供電線路，降低線路負荷並提升線路保障能力。此外，Ruashi礦場亦正在升級照明系統，逐步淘汰高耗能的白熾燈，轉而採用更為節能高效的LED燈具及太陽能照明設備，提升能效水平。

The energy efficiency target that Ruashi Mine set for 2023 was 5%, i.e. to lower unit electricity consumption of copper production by 5% in the reporting period, which has been achieved in this year. In production power supply system, Ruashi Mine used the technology for seamlessly transforming 2MW high-voltage to SPS system for energy storage in the 15KV line switching, realizing a disturb-free switching, which avoids frequent electricity failure to cause damage to equipment, and effectively reduce energy waste. At the mine, Ruashi Mine re-planned power supply lines for 15KV line, upgraded electricity supply lines in the existing mineral pits area, to lower line load and enhance line support capability. In addition, Ruashi Mine is also upgrading its lighting system, gradually phasing out high energy-consuming incandescent lamps in favor of more energy-efficient LED lamps and solar-powered lighting equipment to improve energy efficiency.

Kinsenda礦場

Kinsenda Mine

2023年，Kinsenda礦場持續推廣減少使用電氣設備及降低尖峰用電等措施，降低電能消耗。在減少使用電器設備方面，Kinsenda礦場採取修建巷道排水溝的方式，利用巷道內的高差而通過重力勢能收集各硐室的積水——既能有效減少水泵的使用，亦可通過建造各級通風井來減少風扇的使用。在降低尖峰用電方面，Kinsenda礦場計劃對井下高功率設備安裝軟啟動器，以降低啟動電流。此外，Kinsenda礦場亦已逐步將井下的普通照明設備替換為低能耗的LED燈具，節約用電消耗。

In 2023, Kinsenda Mine continuously promoted measures to reduce electricity consumption, mainly including reducing the use of electrical equipment and lowering peak electricity consumption. In terms of using electrical equipment less, Kinsenda Mine built drainage ditches and collected accumulated water in each chamber through gravitational potential energy caused by height differences in the ditches, which can not only effectively reduce the use of water pump, but also reduce the use of fans by building ventilation shafts at all levels. Regarding using electricity less in peak hours, Kinsenda Mine planned to install soft starter to high-power equipment to lower starting current. Moreover, Kinsenda Mine also gradually replaced common lighting equipment under shafts with LED lamps that is of lower energy consumption to save energy consumption.



Kinsenda礦場巷道排水溝
Drainage Ditch at Kinsenda Mine

Musonoi項目

Musonoi Project

Musonoi項目於報告期內仍處於建設階段，因此尚未設定能效目標。在能源管理方面，Musonoi項目在日常項目過程中注重節能降耗及避免能源浪費，並建議全體僱員在不使用時主動關閉營地住宿區及行政辦公室的照明設備，進一步強化僱員節能環保意識。

Musonoi Project was still in the construction phase during the reporting period and therefore no energy efficiency targets have been set. In terms of energy management, Musonoi Project emphasized on saving energy and avoiding energy wastage during the daily project process, and suggested all employees to switch off the lighting equipment in the camp's accommodation area and administrative offices when they are not in use, so as to further strengthen the employees' awareness of energy saving and environmental protection.

Chibuluma南礦場

Chibuluma South Mine

就Chibuluma南礦場而言，雖然該礦場目前由融資租賃承租方營運，但金川國際作為該礦場的合法所有者仍對其能源管理進行密切監督。Chibuluma南礦場所有業務均符合《贊比亞能源監管法》規定，並致力於持續提高節能降耗能力。根據Chibuluma南礦場制定的《能源倡議指南》，一方面，礦場僱員應避免主要設備的同時啟動，需注意各類機器設備的錯峰操作，並通過工廠及礦井控制室進行持續在線監測；另一方面，礦場需每年進行內部能源消耗審計，按照審計結果制定並實施相應的能源管理策略及行動，強化能源管控並推動能源利用效率提升。

For Chibuluma South Mine, although the mine is now operated by the finance lessee, JCI, as the legal owner of the mine, maintained close oversight of its energy management. Chibuluma South Mine comply with Energy Regulation Act of Zambia in all its business and is committed to continuously improve energy saving and consumption deduction capability. According to Energy Efficiency Initiatives formulated by Chibuluma South Mine, on the one hand, employees shall avoid major equipment to be started at the same time, pay attention to the staggered operation of various machines and equipment, and keep carrying out online monitoring through the factory and mine shafts control room. On the other hand, the Mine shall conduct internal audit of energy consumption annually, and formulate and implement corresponding energy management strategy and action based on auditing results, to strengthen energy control and promote the improvement of energy efficiency.

► 可再生能源使用

Use of Renewable Energy

金川國際各礦區均分佈於剛果(金)及贊比亞,兩國水力資源豐沛,水電在其總發電量中佔據了極高比例。鑒於各礦區主要通過與當地大型電力公司⁸簽署協議以獲取電力,各礦場的絕大部分電力供應均來自水力發電,具備低碳排放、環境友好的綠色特性,基本保證了礦場電力供應的清潔、可再生及可持續性。

JCI's mines are all in the DRC and Zambia. Both countries have abundant hydraulic resources, and hydropower accounts for a very high proportion of their total power generation. Given that each mine mainly obtains electricity through signing agreements with local large power companies⁸, the vast majority of electricity in each mine is supplied by hydroelectric power generation, with green characterizes of being low carbon emissions and environmentally friendly, basically ensuring the clean, renewable and sustainable power supply in the mines.

在廣泛利用水電資源之外,金川國際各礦區亦積極探索並部署其他形式的可再生能源。現階段,各礦區正逐步擴大太陽能的應用範圍,推動能源結構的綠色轉型。Ruashi礦場於報告期內將太陽能作為供能來源之一,且可再生能源使用量已達29,653千瓦時。Ruashi礦場現已採用60KW 100KWH光伏-儲能一體化系統應用於實驗室及全廠SCADA控制系統供電(60KW光伏發電,100KWH儲存電能),保證實驗室設備及全廠SCADA控制系統的穩定運行,並計劃將光伏應用推廣至礦區內的其他建築,以減少其他來源的電力需求。

In addition to make use of hydropower, JCI's mines also proactively explore other forms of renewable energy. At current stage, we are gradually expanding the application of solar energy to promote the green transition of energy structure. In the reporting period, Ruashi Mine has taken solar energy as one of resources for energy supply, and the usage of renewable energy has reached 29,653 kWh. Ruashi Mine has adopted 60KW 100KWH PV-Storage integrated system for providing power to laboratories and SCADA control system of the whole factory (60KW for photovoltaic power generation, and 100KWH for electricity storage), to guarantee the stable operation of laboratories and SCADA control system of the whole factory. We also plan to adapt PV to other buildings in the mining area to reduce the power demand from other resources.

此外,Kinsenda礦場正在研究及討論地面營地及部分地面設備太陽能供電解決方案的可行性,並計劃利用太陽能為礦區內的部分設備供電,降低礦山能耗成本;Musonoi項目期望在項目建設完畢后立即部署可再生能源,持續優化礦區的能源結構。

Besides, Kinsenda Mine is researching and discussing the feasibility for solar energy to supply power to the ground camp and some ground equipment and planning to use solar energy to supply power for some equipment in the Mine to lower the energy consumption cost. Musonoi Project expects to deploy renewable energy right after its construction is completed to keep optimizing the energy structure of the Mine.

8. 包括剛果(金)國家電力公司(La Société Nationale d'Electricité, SNEL),以及贊比亞銅帶能源公司(Copperbelt Energy Corporation Plc, CEC)等。
Mainly include La Société Nationale d'Electricité, SNEL in the DRC, and Copperbelt Energy Corporation Plc, CEC in Zambia.



Ruashi礦場光伏-儲能一體化系統
Ruashi Mine PV-Storage Integrated System



Kinsenda礦場太陽能路燈
Kinsenda Mine Solar Streetlights

○ 我們的表現 - 2021-2023年能源消耗總量
Our Performance - Total Energy Consumption 2021-2023

	單位 Unit	2023	2022	2021
電力 Electricity	千瓦時 kWh	242,544,120	259,742,223	233,112,051
蒸汽 Steam	噸 Tonne	158,168	145,626	163,753
液化石油氣 LPG	噸 Tonne	0	9.83	10.48
柴油 Diesel	噸 Tonne	13,715	9,048	5,118
汽油 Petrol	噸 Tonne	62.60	22.86	15.05



JINCHUAN 金川

03

環境管治

Environmental Stewardship

金川國際充份認識到任何形式的生產活動都將對所在地的生態環境帶來一定程度的影響。我們始終以嚴苛的環境管治標準來營運我們的礦場，高度重視並保護礦場及周圍社區的淡水、空氣、土壤、森林等自然資源，推動生產營運與生態保護相互協調、相互促進，竭力為我們的持份者創造長遠價值。

JCI is fully aware that any form of production would affect the local ecological environment to some extent. We have always been operating our mines with rigorous environmental management standards, and we highly value fresh water, air, land, forests and other natural resources at mines and in surrounding communities. We are committed to promoting the harmonization and mutual enhancement of production operations and ecological protection, and strive to create long-term value for our stakeholders.

本章節所響應SDGs SDGs focus in this chapter



本章節所回應重大性議題 Material topics addressed in this chapter

- 環境管理 Environmental Management
- 水資源 Water
- 廢棄物 Waste
- 排放物 Emissions
- 生物多樣性與土地利用 Biodiversity and Land Use
- 尾礦管理 Tailings Management

亮點2023

2023 HIGHLIGHTS

金川國際致力於長期的環境保護，始終堅持生態友好方針，以充份展示對生態環境的責任。我們在環境管治的方方面面著眼長遠，包括以對環境負責及具有成本效益的方式於各營運地使用水資源、妥善處理各類廢棄物，以及注重生態保護工作。報告期內，我們進一步強化全生命周期的環境管治，並取得如下成績：

JCI is committed to long-term environmental protection and always follows the principle of ecological friendly to fully demonstrate its responsibility for the ecological environment. We are far-sighted in all aspects of environmental stewardship, including using water resources and properly treat various types of wastes at each mining site in an environmentally responsible and cost-effective manner, and focusing on ecological protection. During the reporting period, we further strengthened environmental stewardship throughout the life cycle and made the following achievements:

0 起與安全及環境事項有關的重大違法事件

0 material violations of laws related to safety and environmental matters



0 宗與取用水相關的重大事故

0 material incidents related to water usage



0 起重大環境突發事件或有害廢棄物違規事件

0 environmental emergencies or hazardous waste violations that is material



0 宗尾礦設施安全事故

0 safety incidents related to tailing facilities



環保開支較上一年度增長近

29%

Nearly 29% increase in expenditure on environmental protection compared to the last year



環境管理

ENVIRONMENTAL MANAGEMENT

金川國際秉承可持續發展理念，並致力於安全、健康、環境及社區關係的有效管理，此乃我們業務不可分割的一部分。我們所有的礦場及項目均遵守嚴格的環境管理體系，並在遵守當地法律要求的同時，全面保護我們營運所在地的環境及周邊社區。

JCI believes in sustainable development and is committed to the effective management of safety, health, environment, and community relations as an integral part of our business. All of our sites and projects adhere to a strict environmental management system that comprehensively protects the environment and surrounding communities in which we operate while complying with local legal requirements.

| 依法合規 Law-abiding and Compliant

金川國際嚴格遵守我們營運所在地區的环境相關法律法規，主要包括剛果(金)頒佈的《礦業法》(二零零二年，經二零一八年三月九日第18/001號法律修訂)、《礦業條例》、二零一一年第11/009號《環境保護法》及二零零二年第011/2002號《森林法》，以及贊比亞環境管理局(「ZEMA」)管轄的《環境管理法》(二零一一年第12號法)等。

我們按照項目所在國的法律法規進行環境影響評價，並按照環評報告規定的環境管理要求，在項目建設前期、建設階段、營運階段及關停階段開展環境管理工作，確保礦場項目在整個生命週期均踐行環境保護責任。此外，我們會定期向有關當局提交最新的環境影響研究報告、年度環境報告等法律規定的審核報告，並定期邀請第三方專業機構對我們的水質、空氣質量進行檢測及分析，以評估我們環境管理措施的有效性。

JCI strictly abides by the environment-related laws and regulations in the jurisdiction where we operate, which primarily include the Mining Code (2002, amended by Law No. 18/001 dated 9 March 2018), the Mining Regulations, the Environmental Protection Act Law No. 11/009 of 2011 and the Forest Code Law No. 011/2002 of 2002 as promulgated in the DRC, and the Environmental Management Act, 12 of 2011 administered by the Zambian Environmental Management Agency (ZEMA).

We conduct environmental impact assessment (EIA) in accordance with the laws and regulations of the country where the project is located, and carry out environmental management work during the pre-construction, construction, operation, and closure phases of the project according to the environmental management requirements stipulated in the EIA report to ensure that environmental protection is carried out throughout the life cycle of the mine projects. Besides, we regularly submit revised environmental impact studies, annual environmental reports, and audit reports as required by law to the relevant authorities, and regularly invites third-party professional institution to examine and analyze our water quality and air quality to assess the effectiveness of our environmental management measures.

| 規範管理 Standardized Management

金川國際秉承可持續發展理念，在公司及營運層面建立了零傷害政策。其中，我們承諾盡力預防污染，通過管理廢物、廢氣、噪音、粉塵及化學物，保證我們的僱員擁有一個適宜工作的環境，並於任何地方均遵循減少、避免、再用及回收的原則；我們還將通過對土地、能源、生物多樣性、空氣、水進行特殊處理，確保物料及自然資源得以妥善保存於礦區之中。

金川國際各礦場將根據自身實際情況，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，並適時根據各礦場出現的新情況及國際環境新常規作出調整，積極推進環境管理體系建設及制度完善。我們於礦區確立了安全、健康、環境及社區(「SHEC」)架構，並依照ISO 14001之要求，定期審查SHEC管理體系，以確保其充份性及有效性。我們還通過數字化管理系統(IsoMetrix)對環境及風險事件進行統一管理，保證系統內各項管理程序及制度的嚴格落實，督促全體僱員履行環境保護責任。

Following the sustainable development concept, JCI established Zero Harm Policy for operation. In this policy, we promise to do our best to prevent pollution, guarantee our employees a comfortable working environment through management of waste, air, noise, dust, and chemicals, and follow the principle of reducing, avoiding, re-use and recycling everywhere. We will also conduct special treatment to land, energy, bio-diversity, air, and water to ensure materials and natural resources are well preserved in mineral area.

Each mine of JCI, based on the actual situation, established internal systems related to energy management, water usage management, hazardous waste management, non-hazardous waste management, and soil pollution prevention and remediation, and made timely adjustment based on the new situations emerged in each mine and new regulations in the international community, to promote the establishment and improvement of environmental management system. We established a structure of Safe, Health, Environment and Community (SHEC) at mining sites and following the requirement of ISO 14001, regularly audit SHEC management system to ensure its sufficiency and effectiveness. We also conduct unified management to environment and risk incidents via the digital management system “IsoMetrix” to ensure the rigorous implementation of all management procedures and mechanisms in the system and urge all employees to fulfill their environmental protection responsibility.



環境目標 Environmental Targets

各礦場根據所在地區的法律及其他要求、重要環境因素、技術、財務及營運需求、利益相關方的意見以及現有環境政策，制定、分配、監測及報告對應的環境目標及指標，以確保環境管理體系的持續改進。

Each mine formulates, distributes, monitors, and reports corresponding environmental targets and indicators following the laws and other regulations of areas where the mine is located, material environmental factors, technology, finance and operational demands, stakeholders' opinions and existing environmental policies, to ensure the continuous improvement of environmental management system.



環境記錄 Environmental Records

我們會對環境相關措施及事件進行記錄，並對記錄實施維護管理，環境經理負責確保定期對記錄進行審查，以確保其適用性、相關性、實用性及有效性。

We will record environment-related measures and incidents, and maintain and manage the records. Environmental manager is responsible for regularly examine the records to ensure that they are adaptable, relevant, practical, and effective.



環境事件 Environmental Incidents

我們制定有專門的環境事件調查與報告程序，並保存及分析所報告事件的記錄，採取積極措施，吸取經驗與教訓，避免因相同或類似原因再次發生某類事件；同時，我們根據環境事件對生態系統功能損害程度及公眾的關注程度，劃分環境事件的不同等級，再採取不同的調查方式及糾正措施。

We formulate special environmental incidents investigation and reporting procedure to preserve and analyze the record of reported incident. We take active measures and learn experiences and lessons to avoid the happening of certain type of incident due to the same or similar cause. Meanwhile, based on the damage extent of the environmental incident to ecological system function and the extent of public concern, we divide the environmental incident into different levels, and adopt different investigation method and rectification measures.



修正程序 Rectification Procedures

日常營運中的環境不符合項會被記錄於IsoMetrix中，我們會針對這些環境不符合項制定正式的糾正計劃，採取適當的補救措施，且對於嚴重的環境事件，我們會召開會議以尋求更準確的解決方案。

The environmental non-conformity in daily operation will be recorded in IsoMetrix. We will formulate official rectification plan for these environmental non-conformities, adopt appropriate remedies and for severe environmental incidents, we will convene a meeting seeking more accurate solutions.



Ruashi礦場ISO 14001:2015認證
Ruashi Mine ISO 14001:2015 Certification

報告期內，Ruashi礦場的環境管理體系符合國際標準ISO 14001:2015認證；Kinsenda礦場的環境管理體系符合剛果（金）的環境法律法規，剛果（金）環境署（ACE）正在辦理證書手續，且礦場已啟動ISO 14001的認證進程；Musonoi項目仍在建設中，並已將ISO認證納入2024年環境規劃中。Ruashi礦場、Kinsenda礦場、Musonoi項目及Chibuluma南礦場於報告期內並無任何與安全及環境事項有關的重大違法行為，亦無面臨任何重大罰款。

In the reporting period, Ruashi Mine’s environmental management system was certified by the international standard ISO 14001:2015. Kinsenda Mine’s environmental management system met the environmental laws and regulations in the DRC, and its certificate is under process by the L’ Agence Congolaise de l’ Environnement (ACE) of the DRC. Meanwhile, Kinsenda Mine has started the certification process of ISO 14001. Musonoi Project is under construction and has included ISO certification into the 2024 environmental plan. During the reporting period, Ruashi Mine, Kinsenda Mine, Musonoi Project and Chibuluma South Mine did not have any material violations of laws related to safety and environmental matters, nor were they subject to any material fines.

○ 金川國際環境管理制度類別一覽（部分）⁹
Summary of JCI Environmental Management System Categories (Part)

 環境記錄 Environmental Records	 監視及測量 Monitoring And Measurement
 糾正預防措施 Corrective Preventative Action	 SHEC審計 SHEC Auditing
 地下水 Ground Water	 土壤污染防治及修復 Soil Pollution Prevention and Remediation
 有害廢棄物管理 Hazardous Waste Management	 無害廢棄物管理 Non-Hazardous Waste Management
 灰塵管理 Dust Level	 噪音水平 Noise Level

.....

9. 由於各礦場環境管理制度及程序的名稱各異，此處僅展示制度類別而未展示其具體名稱。
As different mines named their environmental management systems and procedures differently, hereby only shows the categories of systems, but not their specific names.



Musonoi項目在巡檢中發現液壓油溢出事件並進行及時妥善處置

Musonoi Project Discovered Hydraulic Oil Spillage during Inspection and Responded Appropriately and Promptly

2023年8月，Musonoi項目人員在日常巡檢中發現地面有少許液壓油溢出，這將會對地下水及土壤造成污染。相關人員立即對現場進行了檢查及拍攝，判定了事件等級，並根據應對程序開展事故調查及採取補救措施，且將其記錄於IsoMetrix系統之中。

In August 2023, personnel at Musonoi Project discovered a small amount of hydraulic oil spillage on the ground, which would cause soil and groundwater pollution. Relevant personnel inspected and filmed the site immediately, determined the incident level, and following corresponding procedures, conducted accident investigation, adopted remedies, and recorded it in the IsoMetrix system.

等級一
LEVEL 1

環境事件等級
Environmental incident level

▶ 事故調查原因

Preliminary incident investigation:

- 缺乏適當維護；
Lack of appropriate maintenance.
- 在維修無軌移動機器時，缺少滴水盤/托盤。
Lack of drop / drip trays / tray pans when servicing the trackless mobile machines that could collect during the time of maintenance.

▶ 糾正措施

Corrective and/or preventative actions

- 受污染的土壤必須與能夠吸收出油的乾沙混合，並進行妥善處理；
Polluted soil must be mixed with dry sands that could absorb oil spillage, and be properly handled;
- 受污染的地下水必須排放、吸收或收集以便清除；
Polluted ground water must be drained, absorbed, or collected to be cleared away;
- 在維修無軌機器時，使用機器下方的滴油盤，隨時收集泄漏的油；
Use drop trays underneath of the machine when maintaining trackless machines to collect spilled oil;
- 必須在使用機器之前進行預啟動。
The machine must be pre-started before using.

環境事件即時報告

Flash Report of an Environmental Incidents

水資源管理

WATER RESOURCES MANAGEMENT

負責任的水資源管理是金川國際的一項重要議題，因採礦涉及大量地下水的處理，同時選礦及冶煉過程需要使用大量的水。擁有清潔而安全的水資源對金川國際的日常生產經營及周圍社區的生活至關重要。鑒於此，我們於營運過程中尤為重視水資源管理，並不斷提高水資源利用效率，盡量降低對水資源的負面影響。

Responsible water resources management is an essential topic of JCI, as mining involve the treatment of large volume of underground water while concentration and refining require the use of huge amount of water for refining processes. Having clean and safe water resources is of great importance to JCI's daily production and neighbouring communities' lives. In view of this, we greatly value water resources management in operation, constantly improve water usage efficiency, and try to lower negative impact on water resources as much as possible.

| 取用水管理 Water Usage Management

我們嚴格遵守項目所在地的法律法規要求，並要求每個礦場根據每一礦址的氣候及地質條件以及採礦過程的特點等因素制定單獨的用水管理政策及舉措，以確保盡量減少淡水消耗及不必要的廢水排放。2023年，金川國際在求取水源方面並未遇到難處，且並未發生與取用水相關的重大事故。

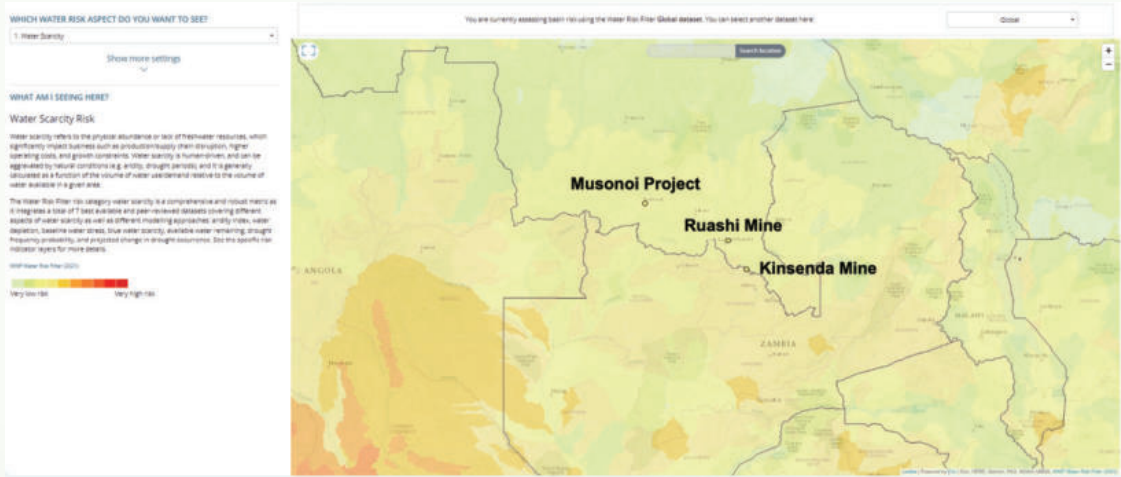
Strictly abiding by local laws and regulations of the jurisdiction in which our mines locate, we require each mine to develop separate water management policies and initiatives based on factors such as the climatic and geological conditions of each site and the characteristics of the mining process to ensure that freshwater consumption and unnecessary wastewater discharge are minimized. In 2023, JCI did not encounter any problem in seeking water resources, and did not have any material accidents related to water use.



運用WWF水風險過濾器，識別並評估營運地水資源稀缺性
Using WWF water risk filters to identify and evaluate the water scarcity at operational sites

金川國際持續識別、管理及監控礦場營運過程中的水資源風險。報告期內，我們採用世界自然基金會(「WWF」)水風險過濾器(Water Risk Filter)，識別本公司各生產營運據點所處區域的水風險指標等級。評估結果顯示，我們目前營運的三個礦場所處位置的水資源稀缺性分數均低於3分，不屬於水資源壓力地區。

JCI continues to identify, manage, and monitor water risks during mining operations. During the reporting period, we used the Water Risk Filter of World Wildlife Fund (WWF) to identify the water risk indicator levels in the regions where our Company's production and operation sites are located. The evaluation results show that three mining sites that we currently operate are all in areas where the water scarcity scores are below 3 points, which does not belong to areas under water resources pressure.



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

此外，礦場的採礦活動可能會污染到地下水¹⁰。考慮到礦場現場可能釋放污染物，且這些污染物或將滲透至地下水層，含水層內的水流將會把污染物擴散到更廣的區域。為妥善管理地下水資源，我們在營運層面制定了一套詳盡的地下水管理流程，並定期對礦區的地下水進行檢測，以全面了解礦區周邊環境的地下水質量，並評估我們地下水管理策略的成效。

Besides, mining activities at mining sites may cause ground water pollution. Given that the mining sites may produce pollutants, which may penetrate to the ground water layer, and be spread to a wider area by the water-flows in aquifer, to manage ground water resources, we formulated a set of detailed Ground Water Management Procedures for operation. We also conduct regular inspections to ground water to comprehensively understand the quality of ground water in the surrounding area of the mining sites and evaluate the effectiveness of our ground water management strategies.



地下水管理步驟及內容
Ground Water Management Steps and Contents

10.地下水是指位於地表下的水，使沙子和礫石和岩層的空隙和裂縫飽和。

Groundwater, also called subsurface water, is water located beneath the ground surface which saturates the pores and fractures of sand, gravel, and rock formations.

Ruashi礦場

Ruashi Mine

Ruashi礦場的水回收自回水壩及雨水壩，以供工廠使用。礦區直接經排水井向當地自來水公司供應地下水，而後經該公司處理分配給當地社區日常使用。礦區的用水管理根據二零二二年發佈的《能源及用水管理指引》進行，由環境部門負責人負責規劃、實施及監測用水管理工作。同時，我們在礦區現場開展節水行動，例如安裝節水裝置、將水壓降至45psi等，並針對全員組織節約水資源意識培訓。Ruashi礦場未來將持續優化水資源再循環及再利用舉措。

Water at Ruashi Mine is recycled from the return water dams as well as from the stormwater dam for use in the plant. The mine site supplies groundwater directly from dewatering boreholes to a local water utility, which then treats the water and distributes it to the local community for daily use. Water management at the mine site is carried out based on the Guideline for Energy & Water Management issued in 2022, with the environmental unit manager responsible for planning, implementing, and monitoring water management work. At the same time, we also conduct water conservation actions at mine sites, such as installing water saving facilities and lower the water pressure to 45psi, etc. We also carry out training for all employees to strengthen their awareness of saving water resource. Ruashi Mine will continue to optimise water recycling and reuse initiatives in the future.

Kinsenda礦場

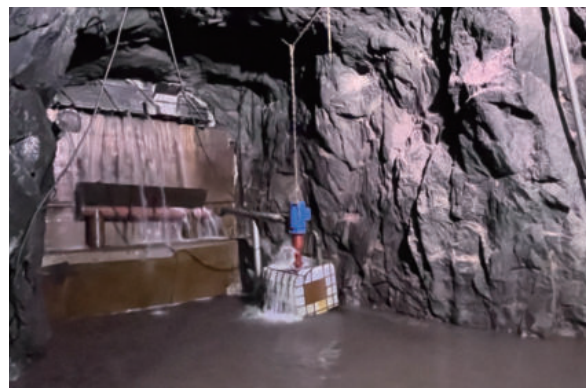
Kinsenda Mine

Kinsenda礦場的主要水源為地下排水。2023年，Kinsenda礦場建設了地表排水蓄水池，將井下排出的水進行循環利用，用於礦區消防系統及井下供水系統。Kinsenda礦場在井下利用岩石裂隙水，建設了井下360ml、410ml分段供水系統，達到了節約地表工業用水及減少井下排水之目的。

Kinsenda Mine's major water source is underground drainage. In 2023, Kinsenda Mine built a surface drainage reservoir to recycle the water discharged from the well and use it for fire protection system and underground water supply system. Kinsenda Mine makes use of rock fissure water underground and has constructed 360ml and 410ml segmented water supply systems, achieving the goal of saving surface industrial water consumption and reducing underground drainage.



Kinsenda礦場地表蓄水池
Surface Drainage Reservoir at Kinsenda Mine



Kinsenda礦場410ml分段供水系統
410ml Segmented Water Supply System at Kinsenda Mine

Musonoi項目

Musonoi Project

Musonoi項目目前正處於施工階段，其用水來自鑽孔及地下開發排水。報告期內，Musonoi項目已建成一個集水池，用於收集井下排出的清水，並將這些水用於回填。

Musonoi Project is now under construction, and its water is from boreholes and underground development drainage. In the reporting period, Musonoi Project has built a water sump for collecting water from underground and used such water for backfilling.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場目前由融資租賃承租方營運，但金川國際作為該礦場的合法所有者仍對其排水循環進行密切監督。Chibuluma南礦場廠房90%以上的耗水乃循環回收自尾礦壩，其餘10%的用水則來自採礦作業抽出的地下水，其被輸送至選礦廠用於礦石清洗。

Chibuluma South Mine is now operated by the finance lessee, but JCI, as the legal owner of this mine, maintained close supervision on the water discharge cycle of the mine. Over 90% of the water consumed at Chibuluma South Mine plant is recycled from the tailings dam while the remaining 10% of the water is from underground water pumped out by the mining operations, which is transported to the concentrator plant for ore washing.

我們的表現 - 2021-2023年總用水量
Our Performance - Total Water Usage 2021-2023

	單位 Unit	2023	2022	2021
淡水耗量 Freshwater Consumption	立方米 m ³	2,513,030	2,877,876	2,214,754
耗水密度 Water Intensity	立方米/噸銅產量 m ³ /t Cu produced	40.53	48.42	36.15

排水管理 Water Discharge Management

工業廢水主要產生自採礦及選礦的營運過程。我們在每個礦場均會對廢水污染物進行監測，主要污染物包括酸性污染物、堿性污染物、油類污染物、各類重金屬、氰化物、氟化物等。我們將廢水排放管理視為重點任務之一，並優先將廢水進行適當處理，盡量在工廠中循環利用，向外排放的廢水則保證其不對環境造成重大影響。

Industrial wastewater is mainly generated from the operational process of mining and beneficiation. Pollutants from wastewater are monitored at each of our mine sites, which mainly includes acidic pollutants, alkaline pollutants, oil pollutants, various heavy metals, cyanide, fluoride, etc. We see waste water discharge management as one of the key tasks, prioritize the proper treatment of wastewater, and try our best to recycle and re-use the wastewater in the factory. Should the wastewater need to be discharged externally, we ensure that such water do not cause material impact on the environment.

Ruashi礦場

Ruashi Mine

Ruashi礦場持續對排水採取閉環管理措施。報告期內，Ruashi礦場進行了一項關於過程水及回收大壩減少污染物的研究，後續將根據研究結果進一步評估及優化廢水治理方案。

Ruashi Mine continues to conduct closed-loop management on water discharge. In the reporting period, Ruashi Mine conducted research on reducing pollutants in process water and return water dam and will further evaluate and optimize wastewater treatment plan subsequently based on the research result.

Kinsenda礦場

Kinsenda Mine

報告期內，Kinsenda礦場通過安裝液位計檢測雨水池水位，避免廠區雨水池不外溢；及時調整尾礦壩排水井圈，增加尾礦回水用量，確保尾礦回水池不外溢；每月定期對雨水池、回水池水質進行檢測。同時，Kinsenda礦場井下排水通過建設多級沉澱池、水倉機械化清泥等方式有效降低排水泥沙量，並通過添加銅離子中和劑降低銅離子含量。目前，Kinsenda礦場井下排出的水均為清水，銅離子及泥沙含量較低。

During the reporting period, Kinsenda Mine installed a liquid level meter to detect the water level in the rainwater tank, so as to prevent the rainwater tank in the factory area from overflowing. The Mine also timely adjusted the drainage rings of the tailings dam, increase the usage of tailings return water, and ensure that the tailings dam return pool does not overflow. In addition, The Mine regularly inspected the quality of water in rainwater tank and return tanks every month. Meanwhile, the underground drainage of Kinsenda Mine effectively reduced the amount of sediment discharged through the construction of multi-stage sedimentation tanks and mechanized mud cleaning in water tanks, and reduced the copper ion content by adding copper ion neutralizers. At present, the water discharged underground from Kinsenda Mine is clean water, with low copper ion and sediment content.



Kinsenda礦場水倉機械化清泥
Mechanized Mud Cleaning in Water Tanks at Kinsenda Mine

Musonoi項目

Musonoi Project

報告期內，Musonoi項目已經取得排放許可。每三個月，Musonoi項目會將地下礦井不同層位及地表不同水坑中採集的水樣送往實驗室進行化驗，以確保排入河流的水質符合相關規定。

During the reporting period, Musonoi Project has obtained discharge authorization. Musonoi Project will send water samples collected from different layers of underground mine and different sump located to the surface to the laboratory for testing to ensure that the water quality discharged into the river meets relevant regulations.

Chibuluma南礦場

Chibuluma South Mine

我們對Chibuluma南礦場承租人產生的廢水採取監測舉措，並編製有《水質監測方案評估》。此外，礦場亦委聘第三方公司定期編製《水質分析報告》，對原水、處理水、排入環境的水、食堂水等進行污染物含量檢測，旨在防止水污染物超標排放。

We conduct monitoring initiatives for wastewater generated by Chibuluma South Mine's lessee and has prepared the Water Quality Monitoring Program Assessment. In addition, the mine site has commissioned a third-party company to prepare the Water Analysis Report regularly, including testing the pollutant content of raw water, treated water, water discharge to the environment, and canteen water, which aims to prevent the discharge of water pollutants exceeding the standard.

固體廢棄物及 廢氣排放物管理

SOLID WASTE & AIR EMISSIONS MANAGEMENT

礦石開採及選礦過程中會產生大量採掘廢棄物（大部分為固體廢棄物）及廢氣排放物，若管理不當可能對當地環境、當地社區及正常生產營運造成負面影響。金川國際環境政策的底線是符合當地法律的合規要求，我們通過一系列嚴苛的管理措施，負責任地處理固體廢棄物及廢氣排放物，降低對周圍社區及生態環境的干擾。2023年，我們沒有重大環境突發事件或有害廢棄物違規行為發生。

Ore mining and ore processing processes generate a large amount of mining wastes (mostly solid wastes) and emissions, which if not properly managed may adversely affect the local environment, local communities and normal production operations. The bottom line of our environmental policy is to meet the compliance requirements of local laws. Taking a series of rigorous management measures, we handle solid waste and air emissions in a responsible way to minimize the disturbance of solid waste and air pollutants to surrounding communities and environment. In 2023, we had no environmental emergencies or hazardous waste violations that is material.

固體廢棄物及有害廢棄物 Solid Waste and Hazardous Waste

我們嚴格遵守項目所在地的相關國家環保法律法規處理生產營運中產生的廢棄物，如剛果（金）新《礦業法》及《礦業條例》。各礦場根據當地採礦規範及採礦法規條件，結合自身營運實際情況，參照 ISO 14001 相關要求制定相應的有害廢棄物及無害廢棄物管理程序。我們將責任落實到每位僱員、供應商及承建商，部門負責人將確保廢棄物管理程序的有效執行，環境部門及安全部門將開展例行檢查以衡量合規程序。

We handle the waste generated in production and operation strictly following the local environmental protection laws and regulations of the country where our mines operated, such as the new Mining Code and Mining Regulations in the DRC. Each mine site formulates corresponding hazardous waste and non-hazardous waste management procedures following local mining standards, laws and regulations, combining their own situation, and referring to related requirements of ISO 14001. We delegate responsibilities to each employee, supplier, and contractor. The department manager will ensure the effective implementation of waste management procedures, and environmental department and safety department will conduct routine inspections to measure the compliance procedures.

一般來說，礦場產生的固體廢棄物主要為採礦、選礦過程中產生的廢棄石料等無害廢棄物及廢油、廢棄電池等有害廢棄物。針對一般廢棄物，我們採取嚴格的隔離措施，將其與危險廢棄物分開存放，且在運輸過程中特別注意防止各類廢棄物混合，以保障運輸的安全性。一般廢棄物的處置必須嚴格按照規定，在指定的地點進行，或交由具備相應資質的第三方機構來負責；同時，我們明確禁止將焚燒作為廢棄物的處置方式，以確保環保規範得到嚴格遵守。

對於廢油、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管理程序，以防止因處理、儲存、運輸或處置不當而導致意外洩漏或釋放，避免對土壤、水或空氣造成污染。

Generally, the solid wastes generated by the mines are mainly non-hazardous wastes such as waste rocks from the mining and beneficiation processes, and hazardous wastes such as waste oil and waste batteries. As to general wastes, we adopt strict segregation measures, storing them separately from hazardous waste. And we pay special attention to transportation process to prevent the mix of different kinds of waste, to ensure the safety of the transportation. In handling general wastes, the relevant rules must be strictly followed, and such handling should be conducted in specified spots or taken by qualified third-party institutions. At the same time, we clearly forbid to take burning waste as a way of handling waste, to make sure the environmental protection regulations are strictly followed.

As to hazardous waste such as waste oil, waste oil filters, waste batteries, waste fluorescent tubes, ink cartridges, and medical waste, we formulated more rigorous management procedures to prevent accidental leakage or release due to inappropriate handling, storage, transportation, or disposal, and to avoid pollution to soil, water, or air.

所有類別的危險廢棄物應儲存在指定的儲存地或設施中，並設置警告標志、消防裝備、洩漏工具包及急救設備，限制未經授權的人員接觸

All types of hazardous waste should be stored in defined storage place or facility, and set warning signs, fire equipment, leakage tool bag, and first-aid equipment, and non-licensed personnel's contact with such waste should be limited.

所有類別的危險廢棄物不得提供或出售給沒有危險廢物運輸或回收許可證的第三方，不得隨意傾倒在任務未許可的垃圾場

All types of hazardous waste shall not be provided or sold to third parties that are not licensed for hazardous waste transportation or recycling, not could it be randomly dumped at garbage plant that are not license for relevant tasks.



廢棄物的保存及處置必須嚴格記錄，並提交至礦場年度環境報告

The preservation and disposal of hazardous waste shall be recorded rigorously and submitted to the annual environmental report of the mine.

處理或運輸相關廢棄物的人員需要配備防護裝備，接受相關培訓，並了解應急準備計劃，以保證安全

Personnels who handle or transport relevant wastes shall be equipped with protective equipment, accept related trainings, and know emergency repairation plan to ensure safety.

Ruashi礦場

Ruashi Mine

Ruashi礦場產生的無害廢棄物按照無害廢棄物管理程序進行管理，以確保以環保方式進行處置。Ruashi礦場對廢棄金屬及塑料進行回收，廢油及墨盒則交由第三方資質機構進行回收處理，且目前正在制定廢舊電池的回收計劃，預計於2024年起正式實施。

Non-hazardous waste generated on Ruashi Mine is managed following non-hazardous waste management procedures to ensure that it is disposed of in an environmentally sound manner. Ruashi Mine recycles waste metal and plastics and engage qualified third party to recycle and handle waste oil and ink cartridges. Ruashi Mine is now formulating the waste battery recycling plan, which is expected to be implemented since 2024.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場的廢棄物管理系統完全符合剛果(金)有關廢棄物管理的法律法規。礦場產生的廢棄物儲存在通風良好區域，並安裝有氣體淨化器。礦場產生的金屬廢料被儲存並轉移至Musonoi項目礦場進行統一回收。

Kinsenda Mine's waste management system is fully compliant with the DRC laws and regulations related to waste management. The waste generated at the mine site is stored in a well-ventilated area where the gas purifiers are installed. Waste metals generated at mine site are stored and transported to Musonoi Project for unified recycling.

Musonoi項目

Musonoi Project

Musonoi項目於報告期內仍處於建設階段，管理層正在制定礦場的廢棄物管理政策。目前，礦區已經建成一處臨時廢棄物堆場用於廢棄物儲存，部分危險廢棄物則採取統一的收集方法，即先將其放入專用廢物箱中，再運輸至臨時的安全垃圾填埋場進行存放。

As Musonoi Project was under construction in the reporting period, management was developing a waste management policy for the mine. At present, the mine site has constructed a temporary waste dump for waste storage. Some hazardous waste is handled through unified collection method, i.e. being put in the special waste box first, and then transported to temporary safety landfill for storage.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場具備廢棄物安全環保管理及處置方法指引，以供承租人遵守。該指引的依據為下列既定原則：從開採階段至廢棄階段，廢棄物生產者負責確保所有廢棄物自產生至最終處置均受到管理；以及源頭隔離，廢棄物在產生地點即進行隔離，確保不會發生有害廢棄物污染無害廢棄物的情況。

Chibuluma South Mine has guidelines for safe and environmentally friendly methods of waste management and disposal in place for lessee to comply with. The guidelines are based on the following established principles: cradle-to-grave, where the waste generator is responsible for ensuring that all waste is managed from generation to final disposal; and source segregation, where waste is separated at the point of generation to ensure that contamination of non-hazardous waste by hazardous waste does not occur.

我們的表現 - 2021-2023 無害廢棄物處置及回收總量
Our Performance - Total Non-hazardous Waste Disposal and Recycling 2021-2023

	單位 Unit	2023	2022	2021
無害廢棄物處置 Non-hazardous Waste Disposal	噸 Tonne	156	137.40	121.02
已回收無害廢棄物 Non-hazardous Waste Recycled	噸 Tonne	360.75	637.80	600.82

我們的表現 - 2021-2023 有害廢棄物總量
Our Performance - Total Hazardous Waste 2021-2023

	單位 Unit	2023	2022	2021
廢油 Waste Oil	升 Litre	78,800	43,360	41,440
醫療廢物 Medical Waste	噸 Tonne	2.24	1.86	0.37
廢棄催化劑 Spent Catalyst	噸 Tonne	0	37.20	66
硫渣 Sulphur Ash	噸 Tonne	48	52	53
IT廢棄物(墨盒) IT Waste (Cartridges)	噸 Tonne	0.45	0.26	0.22
廢棄電池 Waste Batteries	噸 Tonne	0.00832	N/A	N/A

廢氣排放 Air Emissions

礦山的開採作業、如井下開拓、爆破等，以及車輛通行、運輸過程等均會產生大量粉塵，未妥善治理廢氣排放將會對空氣質量、生態環境，以及周邊社區及生產活動中的人員造成不良影響。礦區的主要廢氣排放物乃採礦過程產生的粉塵、煙霧以及燃料燃燒產生的二氧化硫及氮氧化物。金川國際所有項目均嚴格遵循所在國家或地區的廢氣排放法規及標準，並在營運層面制定相應的控制程序以管理礦場內外的廢氣排放，且定期展開監測以評估及調整管控策略。

The mining operations, such as underground development, blasting, as well as vehicle traffic and transportation processes, will generate a large amount of dust. Improper handling of air emissions will have negative impacts on air quality, ecological environment, neighbouring communities, and personnel in production activities. The main air emissions from the mine site are dust and fumes from the mining process and sulfur dioxide and nitrogen oxides from fuel combustion. All JCI mines strictly comply with the air emissions regulations and standards of the country or region where the mines locate, and develop corresponding control procedures at the operational level to manage the air emissions inside and outside the mine site. Monitoring is conducted regularly to evaluate and adjust control strategies.

根據各礦場制定的粉塵監測程序，我們會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）。我們依據礦產的粉塵來源，例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，並採用專業設備，監測礦場及礦場周圍區域的粉塵沉降水平。同時，我們於每季度會將粉塵樣本送往ISO/IEC認可的實驗室，以確定粉塵中的化學成分、總體濃度及重金屬含量等是否超標，並採取相應的改進措施以強化廢氣管理。

According to the dust monitoring procedures formulated by each mine site, we regularly monitoring and evaluate dust level at mine sites (the monitoring frequency usually is every month). Based on the dust sources, such as the transportation on gravel roads, tailing storage facilities, Primary/secondary crushers, mining activities in mine pits, etc., we set corresponding dust evaluation points and use professional equipment to monitor the dust settling level at the mine site and in neighbouring areas. At the same time, we send dust samples to ISO/IEC- accredited laboratory every quarter to determine the chemical compositions, overall concentration, and whether the content of heavy metal exceeds the standard. We will take corresponding improvement measures to enhance air management.

 Ruashi礦場的主要廢氣排放物類型及排放限值
Major Air Emission Types and Emission Limit Values at Ruashi Mine

類別 Type	單位 Unit	限值 Limit Value
一氧化碳 (CO) Carbon monoxide	毫克/立方米 mg/m ³	29.00
硫化氫 (H ₂ S) Hydrogen sulfide	毫克/立方米 mg/m ³	14.00
二氧化氮 (NO ₂) Nitrogen dioxide	毫克/立方米 mg/m ³	6.00
二氧化硫 (SO ₂) Sulfur dioxide	毫克/立方米 mg/m ³	5.00
固體顆粒物 Solid particles	毫克/立方米 mg/m ³	10.00

Ruashi礦場

Ruashi Mine

Ruashi礦場基於剛果(金)礦業法規定而訂立廢氣排放物指標，並制定監測時間表來動態監測空氣質量及廢氣濃度(主要包括二氧化硫、一氧化碳、硫化氫等)；報告期內，Ruashi礦場的二氧化硫排放量為137.3噸。

Ruashi Mine set air emissions indicators following the Mining Code of the DRC, and formulated monitoring schedule to dynamically monitor the air quality and air concentration (mainly include sulfur dioxide, carbon monoxide, and hydrogen sulfide). During the reporting period, Ruashi Mine emitted 137.3 tonnes of sulfur dioxide.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場按照當地法律法規例行監測廢氣排放；車輛通行對Kinsenda礦場的空氣質量產生了明顯的負面影響，這一點在旱季尤為突出，因此我們規定現場車輛的最高行駛速度限定為20公里/每小時，並在周邊安裝了集塵裝置以更準確地評估污染水平。

Kinsenda Mine conducted routing monitoring on air emission following local laws and regulations. The vehicle's passing caused obvious negative impact on the air quality of Kinsenda Mine, which is particularly prominent in dry season. Thus, we stipulated the maximum driving speed at this mine site to be 20km/h, and installed dust collection equipment to evaluate the pollution level more accurately.

Musonoi項目

Musonoi Project

Musonoi項目依據許可要求，定期進行廢氣及空氣質量監測；Musonoi項目所在區域的空氣質量受到多種因素影響，其中包括採礦作業產生的粉塵、重型車輛在未鋪裝道路上行駛時排放的尾氣，以及與土壤環境相關的問題，如礦區周邊土壤的不穩定性及景觀的退化；此外，Musonoi項目毗鄰其他採礦地帶、工業區與及人口稠密中心，其農業活動、手工業作業（如磚塊製造及木炭焚燒）及垃圾焚燒等行爲，亦對空氣質量產生了累積性影響。

Following the local laws and regulations., Musonoi Project conduct regular waste gas and air quality monitoring. The air quality of the region where Musonoi Project locates is affected by multiple factors, including dust generated from mining operation, exhaust emissions from heavy vehicles driving on unpaved roads, and soil-related problems such as the unstable land in the neighbouring area of the mine site and the degrading of landscape. Besides, Musonoi Project is adjacent to other mining area, industrial areas, and people-concentrated center, where the agricultural activities, handicraft works(such as brick making and charcoal burning), garbage incineration and other behaviors also have an accumulative impact on air quality.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場並未設立冶煉廠，因此排放的有害氣體相對有限，同時為確保礦場的作業符合地方環境標準，承租方實施了每月一次的空氣質量檢測程序，以確保所有指標均遵守當地法律法規的要求。

Chibuluma South Mine does not have a smelter plant, so the emission of harmful gases is relatively limited. At the same time, to ensure that the operation of the mine meets local environmental standards, the lessee has implemented a monthly air quality testing program to ensure that all indicators comply with local laws and regulations.

生物多樣性及土地利用

BIODIVERSITY & LAND-USE

生物多樣性及土地資源為生產經營提供至關重要的食物、燃料及淡水，同時亦對氣候變化的影響有所緩解。金川國際深明礦山開採活動對生態環境的潛在影響，並高度注重生物多樣性保護及土地保育。我們實施了一系列措施，如植樹造林、合法採伐、設立土壤污染事故應急程序等，以加強礦區及周圍社區的環境保護及生態修復，致力於將生產活動對生物多樣性的風險及影響降至最低，確保自然和諧與商業活動的可持續發展相輔相成。

Biodiversity and land provide food, fuel, and freshwater that are vital to productive operations, while also mitigating the effects of climate change. JCI recognizes the potential impact of mining activities on ecological environment and highly value biodiversity conservation and soil conservation. We conducted a series of measures, such as afforestation, legal logging, and setting up emergency procedures for soil contamination incidents to enhance the environmental protection and ecological restoration at the mine site and in neighbouring communities. We are dedicated to minimizing the risks and impacts of production activities on biodiversity to ensure the mutual support of natural harmony and sustainability of business activities.

生物多樣性 Biodiversity

生物多樣性關係到人類福祉，是人類生存及社會發展的重要基礎。每年，金川國際各礦場均會根據當地情況開展一系列生物多樣性保護行動，促進礦區及周圍社區生態系統的穩定性及多樣性。

Biodiversity relates to human benefits and is a critical foundation of human existence and social development. Every year, JCI's mines will conduct a series of biodiversity conservation actions in accordance with local conditions, to enhance ecosystem stability and diversity at the mine site and in neighbouring communities.

Ruashi礦場

Ruashi Mine

Ruashi礦場嚴格遵守剛果(金)相關法律法規，扎實推進生物多樣性保護工作，並每年組織植樹造林活動，以此加強環境保護及生態建設。

Ruashi Mine strictly abides by laws and regulations of the DRC and concretely progress ecological diversity conservation. Ruashi Mine organizes annual reforestation activities every year to enhance environmental protection and ecological construction.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場嚴格遵守剛果(金)相關法律法規,致力於保護生物多樣性,每年開展植樹造林行動,並致力於提高當地居民對不濫砍伐及焚燒樹木的意識。

Kinsenda Mine strictly abides by laws and regulations of the DRC and is advocated to ecological diversity conservation. The mine organizes annual reforestation activities every year to strive to enhance the local residents' awareness against deforestation and burning trees.

Musonoi項目

Musonoi Project

剛果(金)法律、《礦業法》第42條及《礦業條例》第527條對法律條款以及生物多樣性保護(由政府部門掌管)作出規定;有鑒於此,Musonoi項目在合法合規的情況下砍伐森林,並會根據剛果(金)的法律要求制定及實施重新造林計劃。

The DRC laws, mining code article 42, and Mining regulations article 527 stipulate the legal provision and the biodiversity protection which is controlled by government service. In light of this, Musonoi Project deforests in line with local laws and will develop and implement a reforestation plan following the legal requirements of the DRC.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場遵守贊比亞環境管理法、農業用地法及野生動物法;我們向負責日常採礦作業的第三方傳達禁止濫砍樹木、不干擾採礦許可區域周圍的自然棲息地、禁止捕殺蜜蜂等倡議。

Chibuluma South Mine complies with the Zambia Environmental Management Act, the Agriculture Lands Act, and the Wildlife Act. We conveyed the initiatives of forbidding deforesting, disturbing natural habitats around the licensed mining area, or catch and kill bees.



Ruashi礦場植樹活動
Ruashi Mine's Reforestation Activity

生態應急處置 Biological Emergency Handling

我們遵循項目所在地的採礦條例規定，於礦場營運層面制定了《重大溢油或泄漏時的應急程序》，旨在確保我們以系統化、環境友好的方式管理緊急泄漏事件，防止污染礦區周圍的排水溝或溪流。此外，我們將收集受油污染的土壤，並通過生物修復技術進行處理，促進安全、健康及環境保護工作落實到位。

Following the mining regulations of the countries where our mines locate, we formulated Emergency Procedure during Major Oil Spillage or Leakage at the operational level, aiming at ensuring us to manage emergency leakage incidents in a systematic and environmentally friendly manner, preventing drainages or streams around the mining area from being polluted. In addition, we will collect soils that are polluted by oil and treat it with biological refreshment technology to promote the full implementation of safety, health, and environmental protection works.



儲油罐故障導致泄漏 Leakage caused by oil tank malfunction

如若儲油罐出現破壞或故障，可以通過添加鋸屑來吸收油，並將剩餘的油排放至適當的儲存設施中，將受污染的土壤及鋸屑另行處理

If the oil tank is broken or malfunction, oil can be absorbed by adding sawdust, and the remaining oil can be discharged to appropriate storage facilities, and contaminated soil and sawdust shall be treated separately.



運輸及運行期間泄漏 Leakage during transportation

如若在運輸及運行期間發生泄露，我們需要當即豎立警告標志，在溢出物覆蓋的區域撒上木屑吸收劑，並挖出受影響的木屑吸收劑統一儲存處理；同時，我們設有漏油/泄漏應急小組以應對該類事件，且保證他們每年至少接受一次專業培訓，以確保其擁有處理該類情況所需的知識及技能

If there is a leak during transportation, we need to immediately erect warning signs, sprinkle sawdust absorbent in the area covered by the spill, and excavate the contaminated sawdust absorbent for unified storage and disposal. At the same time, we have set an oil leakage/leak emergency group to respond to such kinds of incidents, and make sure that they receive professional training at least once a year to ensure that they have necessary knowledge and skills for handling such situations.

| 土壤保育 Soil Conservation

金川國際各礦場均高度重視土壤保育工作，致力於加強對土地資源的有效保護。Ruashi礦場已設立符合ISO 14001:2015標準的土壤污染防治與修復程序。本文件提供燃料及潤滑劑的儲存與處置，以及燃料及潤滑劑儲罐、管道及燃料轉運場維護的指引。如遇土壤污染，Ruashi礦場將按照程序規定，使用磷酸一銨及水或微生物對受污染土壤進行生物修復（所採用方法取決於洩漏物質及洩漏程度）。礦場環境管理有關部門將就補救方法提出建議。在建立及管理生物修復區時，受污染土壤必須保持潮溼通氣，以便微生物分解碳氫化合物；必須向土壤中添加磷酸一銨形式的營養物質；土壤需要通氣，以加速石油及燃料的分解；同時保證修復區域的土壤必須每兩週翻耕一次。

Kinsenda礦場嚴格遵守剛果（金）相關法律法規，對土地資源進行妥善管理，以盡量減少土壤事故的發生及其造成的損失。此外，Musonoi項目積極實施土壤保育策略，包括於污水坑、尾礦壩、沉澱池等關鍵區域鋪設土工膜，以避免土壤污染。同時，為防止水土流失及土壤擾動，礦區亦已建造了排水溝系統。

JCI's mines highly value soil conservation, and are dedicated to enhance the effective protection of land resources. Ruashi Mine has already established the Soil Pollution Prevention and Remediation Procedure to comply with the ISO14001:2015 standard. This document provides guidelines for the storage and disposal of fuels and lubricants, as well as the maintenance of fuel and lubricant tanks, pipelines, and fuel transfer areas. In case of soil contamination, Ruashi Mine will bioremediate the contaminated soil using Mono-Ammonium Phosphate and water or microorganisms, as specified in the Procedure (the method used depends on the substance spilled and the extent of the spill). Department concerned with environmental management of the mine will make recommendations on remediation methods. In setting up and managing the bioremediation area, the contaminated soil must be kept damp and aerated to allow microorganisms to break down the hydrocarbons; nutrients in the form of Mono-Ammonium Phosphate must be added to the soil; the soil needs to be aerated to accelerate the decomposition of the oil and fuel; and to ensure that the soil in the remediation area must be turned over every two weeks.

Kinsenda Mine strictly abides by laws and regulations of the DRC and properly manages its land resources to minimize the occurrence of soil accidents and the resulting losses. In addition, Musonoi Project proactively implement soil conservation strategy, including lay geofabric membrane in key areas, such as sump, tailing dam, settling pond, to avoid soil pollution. At the same time, to prevent water and soil loss and soil disturb, mining areas also built drainage system.

尾礦管理

TAILINGS MANAGEMENT

在採礦活動中，尾礦是對開採的礦石進行加工後，將有價值的金屬或礦物從主岩中分離出來的剩餘材料。尾礦管理及儲存是全球採礦業當前面臨的一項關鍵挑戰，亦是我們的高重要性議題之一。金川國際充份認識到我們需要在尾礦設施生命週期管理的所有階段承擔責任，包括從設計、建設、營運至關閉以及閉庫後的管理，並將確保尾礦設施的穩定性及安全性。在此過程中，我們綜合考慮了社會、環境、地理條件及技術等多方面的要求，並敦促各個礦區採取必要措施，保障尾礦存儲設施的絕對安全。我們旨在最大限度地減少因尾礦管理不當而造成的環境損害、社會影響及財產損失。

In mining activity, tailings are the remaining materials after valuable metal or mineral products are separated from the main rock post to the process of mineral rocks. Tailings management and storage is a critical challenge encountered by the mining industry worldwide, and is one of our topics that enjoy a high materiality. JCI is aware that we need to take responsibility at all stages of tailing facility life cycle management, including from design, construction, operation, closure, and post-closure management and we will ensure the stability and safety of the tailings management. In this process, we take social, environmental, territorial requirements, and technical factors into account, and urge each mine site to take various initiatives to ensure the absolute safety of tailings storage facilities. We aim to minimize the environmental damage, social impact, and property loss due to improper tailings management.

Ruashi礦場

Ruashi Mine

Ruashi礦場於尾礦儲存設施建設階段委聘第三方編製尾礦壩殘渣處理設計報告，並委聘外部公司編製尾礦儲存設施設計延續報告，以完善尾礦壩復墾策略。在尾礦壩監測方面，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。

2024年初，Ruashi礦場計劃對尾礦壩的管理進行獨立審計。Ruashi礦場現已收到第三方委托機構針對Ruashi尾礦儲存設施的盡職調查提案，該計劃將嚴格按照行業領先標準及指南進行，如尾礦管理全球行業標準（GISTM）、SANS 10286:1998《礦山殘渣作業規範》、2015年第632號法規：殘渣堆和殘渣礦床的規劃和管理。

Ruashi Mine engaged a third party to prepare a Residue Disposal Design Report for Tailings Dam during the construction phase of the tailing's storage facilities, and also commissioned an external company to prepare a Design Continuation Report for the Tailings Storage Facility to refine the tailings dam reclamation strategy. In terms of tailings dam monitoring, during the reporting period, Ruashi Mine insists on engaging third-party organizations to conduct safety audits, and write Annual Audit Reports and Vigilance Reports to identify the risks of tailings facilities and propose optimizations.

In the beginning of 2024, Ruashi Mine planed to conduct independent audit of tailings dam management. Ruashi Mine now has received the due diligence proposal for tailings storage facilities from the entrusted third party. The plan will be carried out strictly following the industrial leading standard and guidance, such as Global Industry Standard on Tailings Management (GISTM), SANS 10286:1998 Code of Practice Mine Residue, and Regulation 632, 2015: Planning and Management of Residue Stockpiles and Residue Deposits.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場制定了《尾礦壩運行維護監測手冊》，並依照加拿大採礦協會 (MAC) 提供的指導方針管理尾礦壩。Kinsenda礦場尾礦壩管理以日常營運管理、設施維護及檢查為主，逐步形成營運、維護及監察 (OMS) 尾礦壩管理體系——OMS管理系統包括尾礦壩、尾礦細度管理、尾礦壩報告、尾礦壩月報、剩餘採礦空間控制等各項日常操作流程。

此外，Kinsenda礦場每日監測尾礦壩的平均密度、尾礦回填、尾礦堆壩、降雨量等數據，加強對尾礦壩災害的預警應對。Kinsenda礦場尾礦儲存設施由第三方諮詢工程公司營運，並每兩年進行一次尾礦庫的全面檢查及性能審查，並出具相應報告，且針對評估結果提出及落實相應的整改措施。本輪審查已於2022年完成，審查結果顯示尾礦壩不存在任何重大的穩定性或安全隱患。

Kinsenda Mine formulated Tailing Dam Operation Maintenance And Surveillance Manual and manage tailings dam following the guidance of Mining association of Canada (MAC). Kinsenda Mine tailings dam management is mainly focused on daily operation management, facility maintenance and inspection, which gradually forms the OMS (Operation, Maintenance, Surveillance) tailings dam management system. The OMS management system consists of various daily operating procedures including tailings dams, tailings fineness management, tailings dam reports, monthly tailings dam reports, free space control, etc.

In addition, Kinsenda Mine monitors the average density, tail-to-backfill, tail-to-dam, and rainfall data of tailings dams daily to enhance the early warning response to tailings dam disasters. Kinsenda Mine tailings storage facilities are operated by third-party consulting engineering company, which would comprehensively examine the tailings pond and assess the function every 2 years. The third-party company will produce corresponding reports, suggest improving measures based on the assessment results, and implement such measures. This round of assessment has been completed in 2022, the result of which shows that the tailings dam does not have any material risk related to stability or safety.

Musonoi項目

Musonoi Project

Musonoi項目仍在建設中，尚未正式投入使用。該礦場的尾礦儲存設施將嚴格按照當地法律法規的要求進行建設，確保完全符合相關標準。

Musonoi Project is under construction and hasn't been put into use yet. The tailings storage facility of this mine will be constructed strictly follow the local laws and regulations to ensure the fully compliance with relevant standards.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場在尾礦儲存設施的管理方面，完全符合贊比亞保護人類健康及避免產生不利環境影響的法律要求。報告期內，Chibuluma南礦場針對尾礦壩的特定區域實施了植樹造林措施以防止土壤侵蝕，並建立了應急儲存池，以應對可能發生的緊急情況。

Management of tailings storage facilities at Chibuluma South Mine complies with Zambian legal requirements to protect human health and avoid adverse impacts on the environment. During the reporting period, Chibuluma South Mine reforested certain area of the facility to prevent soil erosion and established emergency storage ponds to respond to potential emergencies.



○ 我們的表現 - 2023年尾礦設施有關數據
Our Performance - Tailings Storage Facilities Data in 2023

	單位 Unit	2023
尾礦總重量 Total weight of tailings	噸 Tonne	1,768,843
尾礦庫總數 Total number of tailings storage facilities	個 Number	3
活躍的尾礦庫數量 Number of active tailings storage facilities	個 Number	2
高風險尾礦庫數量 Number of high-risk tailings storage facilities	個 Number	0



JINCHUAN 金川

04

社會影響
Social Impact

社會支持是企業可持續發展的關鍵因素。金川國際積極踐行聯合國可持續發展目標，追求企業與社會相生相宜、相輔相成，將對僱員及屬地社區之責任貫徹於業務發展及日常營運之中，盡心盡力履行我們應盡之社會責任。

Social support plays a crucial role in the sustainable development of businesses. At JCI, we are actively committed to implementing the SDGs. We aim to achieve harmony and complementarity between our business and society, fulfilling our social responsibilities to employees and local communities through our business development and operations.

本章節所響應SDGs SDGs focus in this chapter



本章節所回應重大性議題 Material topics addressed in this chapter

- 僱傭與勞工管理 Employment and Labour 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 Employee Safety and Health
- 社區關係 Community Relationships
- 原住民關係 Indigenous Peoples Relationships

亮點2023

2023 HIGHLIGHTS

金川國際堅守其根本責任，切實維護僱員、當地社區及其他持份者的合法權益。報告期內，我們致力於在所有業務中營造安全、公平且包容的工作環境，確保每一位僱員均能夠在平等、尊重的基礎上貢獻自身力量，且積極構建與屬地社群的良好關係，並取得如下成績：

Adhering to fundamental responsibility, JCI fully safeguards the legitimate rights and interests of employees, local communities, and other stakeholders. During the reporting period, we strived to establish a secure, equitable, and inclusive working environment across all our operations in an effort to ensure that each employee can contribute on the basis of equality and respect, while actively fostering positive relationships with local communities. As a result of our efforts, we achieved the following outcomes:

0 起童工使用或強迫勞動事件

Zero incidents of child or forced labour



0 起營運地罷工或停工事件

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



0 起侵犯原住民人權事件

Zero incidents of indigenous human rights violations



0 起因工死亡事件

Zero work-related fatalities



社區投資較上一年度增長

42%

A 42% increase in community investment compared to the previous year



人權

HUMAN RIGHTS

金川國際堅持聯合國人權宣言以及國際勞工組織的基本公約。我們的人權政策聲明概述了我們對僱員作出的承諾及制定的標準，包括消除童工及強迫勞動、不歧視、有權自由結社及集體談判。為於本公司內部維護並促進對人權的尊重，我們努力確保本公司內部每個個體均承認及尊重基本人權與自由，並確保人權政策得到有效認可及遵守。我們的人權政策聲明適用於所有僱員、承建商、顧問及其他受僱於或參與我們擁有的所有業務及項目的第三方。此外，我們的所有經營活動中均有設立礦工工會，以保護礦工合法權利。

JCI firmly adheres to the United Nations Declaration of Human Rights and the International Labour Organization's fundamental conventions. Our Human Rights Policy Statement outlines our commitment and standards set out for our people, including the eradication of child and forced labour, non-discrimination, the right to freedom of association and collective bargaining. To uphold and promote respect for human rights within the Company, we strive to ensure that every individual within the Company recognises and respects basic human rights and freedom and ensure our Human Rights Policy is effectively recognised and observed. Our Human Rights Policy Statement applies to all employees, contractors, consultants, and other third parties employed or engaged in all operations and projects that are owned by us. Mine workers' unions are established in all operations to protect the mine workers' rights.

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

我們的招聘常規完全符合中國香港、南非、剛果(金)及贊比亞等地的當地法律。在剛果(金)，當地的招聘常規遵守國際勞工組織《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》，剛果(金)法律對僱傭16歲以下兒童作出具體規定；而在贊比亞，2019年第3號《就業法》及國際勞工組織勞工標準則規定，最低就業年齡為15歲。

The recruitment practices of JCI fully comply with local legislation, including Hong Kong SAR (China), South Africa, the DRC, and Zambia. In the DRC, local recruitment practices adhere to the International Labour Organization Conventions No. 138 on the Minimum Age of Employment and No. 182 on the Worst Forms of Child Labour, and DRC law makes specific provisions for the employment of children under the age of 16, while in Zambia, the Employment Code Act No. 3 of 2019 and the International Labour Organization's labour standards specify that the minimum age for employment is 15 years of age.

為遵守當地法律，我們設有嚴格的年齡要求，禁止僱傭任何年齡低於18歲的人員，所有僱員在獲錄用及加入本公司時均須出示身份證件並完成背景調查。該政策亦適用於承建商，我們不與使用童工的供應商、承建商或其他第三方合作。2023年，我們的作業現場概無發生童工及強迫勞動情形。

To comply with the local legislation, we have a strict age requirement that we do not employ anyone younger than 18 years of age. All employees are required to present identity documentation and complete background checks when hiring and joining the Company. The policy also applies to contractors. We do not collaborate with suppliers, contractors, or other third parties that use child labour. No cases of child labour and forced labour have occurred at our operation sites in 2023.



Ruashi礦場的童工及現代奴役政策及程序

Child Labour and Modern Slavery Policy and Procedure at Ruashi Mine

依據相關法律法規及國際公約，Ruashi礦場制定了《Ruashi童工及現代奴役政策及程序》，以確保在管理及經營公司業務時對童工及現代奴役情況有所關注、糾正及監督，詳述如下。

In compliance with applicable laws, regulations, and international conventions, Ruashi Mine formulated the Ruashi Child Labour and Modern Slavery Policy and Procedure, which ensures child labour and modern slavery are noted, corrected, and monitored when governing and conducting the company's business. The policy specifies cases handling processes where child labour and modern slavery have been noticed, as detailed below:

▶ 一旦發現童工及現代奴役情形時，Ruashi礦場人力資源管理部應

When noticing cases of child labour and modern slavery, the Human Resource Management Department at Ruashi Mine should:

- 立即編製報告並告知本公司；
Immediately prepare a report and inform the Company;
- 立即將兒童調離異常情況；
Immediately remove the child from the abnormal situation;
- 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。
Investigate to find out what went wrong, especially determine whether it is a case of the worst form of child labour or modern slavery, and take appropriate corrective measures.

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

為創造包容的工作環境,令每位僱員得到應有尊重,金川國際及其僱員一切行為應基於相互尊重。我們不接受組織內出現任何形式的霸凌、騷擾、歧視及其他可能被視為威脅或有辱人格的行為。

我們的《公司性騷擾政策》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。該政策之目的是為僱員提供可信、可靠及公正的機制來處理性騷擾的指控。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,公司僱員亦可將根據《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。

To create an inclusive work environment where every employee is treated with the respect they deserve, the behaviour of JCI and its employees should be based on mutual respect. We do not accept any form of bullying, harassment, discrimination, and other behaviour that may be regarded as threatening or humanly degrading across our organization.

We have a Corporate Sexual Harassment Policy that aims to prevent and protect employees against any form of sexual harassment in the workplace and safeguard the personal safety and dignity of employees. Furthermore, this policy applies to all permanent, fixed-term, and temporary employees. The objective of the policy is to provide employees with credible, accessible, and fair mechanisms to deal with allegations of sexual harassment. We are committed to dealing with all sexual harassment incidents in a serious manner and will take the appropriate action against those who are found guilty of such an offense. Meanwhile, employees are also encouraged to report any suspected misconduct in accordance with the Anti-Fraud, Misconduct and Whistleblowing Policy to ensure that employees feel comfortable reporting any suspected misconduct without fear of retaliation of any kind.



Kinsenda礦場對僱員歧視或騷擾行為的處理程序

Kinsenda Mine's Procedures for Addressing Discrimination or Harassment

Kinsenda礦場在公司細則中明確規定,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,詳述如下:

Kinsenda Mine's Corporate Policy clearly affirm the protection of employees' rights to report incidents of discrimination or harassment, and emphasise that individuals who engage in such behaviour will face consequences according to the outlined penalties:

- 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爲。這些言語或行爲因其有辱人格或侮辱性的性質而攻擊或玷污了一個人的尊嚴，或對他們造成了一種恐嚇、敵意或冒犯的局面；

Employees are strictly prohibited from engaging in any form of sexual harassment, including the use of sexually explicit or suggestive language or actions, which, due to its degrading or humiliating nature, undermines an individual's dignity or creates an intimidating, hostile, or offensive environment.

- 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爲，或因就此類行爲作證或舉報此類行爲，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；

No employee, job applicant, or current trainee shall face any form of direct or indirect punishment, dismissal, or discriminatory measures, particularly concerning their salary, training, reclassification, assignment, career advancement, transfer, or contract renewal, for being subjected to or refusing to tolerate discriminatory or harassing behaviour, or for providing testimony or reporting such behaviour.

- 任何實施歧視或騷擾行爲的僱員都將受到紀律處分。

Any employee found to be involved in discriminatory or harassing behaviour will be subject to disciplinary action.

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

金川國際竭力為所有僱員創造公平、尊重的工作環境，我們亦就共同關注事項尋求所有僱員的交流意見、信息及感受。本公司的僱員關係政策及相關程序與營運所在國家或地區的當地法例保持一致，且將有助於我們管理勞資關係，維護公司、管理層、僱員及勞工聯盟之間的良好關係，並於僱員待遇方面促進公正、公平、平等、合理及一致。2023年，我們的採礦營運地均未發生罷工或停工事件。

JCI strives to create a fair and respectful working environment for all employees, we also seek to exchange ideas, information, and feedbacks with all employees on matters of mutual concern. Our Group Employee Relations Policy and related procedures are aligned with the local legislation in the countries where we operate. It also helps manage our industrial relations, maintain the existence of healthy relationships among the company, management, employees, and worker's unions, and promote justice, fairness, equity, reasonableness, and consistency in the treatment of employees. There were no strikes or lockouts at any of our mining operations in 2023.

具體而言，我們承認並維護僱員結社自由及集體談判的權利。我們的僱員可以選擇加入或不加入工會，而不必擔心受到干擾或遭到報復。我們與工會保持積極的合作關係。截至報告期末，Ruashi礦場、Kinsenda礦場、Musonoi項目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。

2023年，Ruashi礦場實施了最新的集體協議。該協議增加了僱員的退休福利，調整了僱傭終止通知期的計算方式；Musonoi項目則於報告期內組織了1次工會選舉、3次正式會議，推選了5名僱員代表。

Specifically, We recognise and uphold the rights of our employees to freedom of association and collective bargaining. Our employees can choose to join or not to join Trade Union, without interference or fear of retaliation. We maintain a positive and collaborative relationship with Trade Union. As of the end of the reporting period, Ruashi Mine, Kinsenda Mine and Musonoi Project have established trade unions according to local laws and regulations. Chibuluma South Mine's finance lessee has also set up a trade union organization for the mine. The Trade Union regularly selects employee representatives to understand and respond to employees' expectations and demands.

During the reporting period, Ruashi Mine practised an updated collective agreement in 2023. This agreement enhanced retirement benefits for employees and modified the calculation of the notice period for employment termination. Additionally, Musonoi Project conducted one union election, held three formal meetings, and elected five employee representatives.



Ruashi礦場僱傭終止通知期的計算方式
Calculation of the Notice Period for Employment Termination at Ruashi Mine

| 原住民人權 Indigenous Human Rights

原住民關係為金川國際的重要議題。我們遵守《聯合國土著人民權利宣言》，承認並尊重原住民的文化、傳承及傳統權利，支持鑑定、記載、管理及保護原住民的文化遺產。我們的《集團社會政策》規範了各營運項目的社區關係管理標準，並承諾維護及促進營運地所在社區的人權，以及承認並尊重土著人民的文化、遺產及傳統權利，支持土著文化遺產的鑑定、記錄、管理及保護。2023年，我們未發現任何涉及侵犯原住民人權的事件。

在我們的營運體系中，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酋長領地、社區及村莊。為此，Chibuluma南礦場制定了《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居民（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，還有助於公司了解原住民的關切及訴求，以將相關信息納入公司決策過程。

Indigenous relation is a material topic for JCI. We adhere to the United Nations Declaration on the Rights of Indigenous People, recognise and respect indigenous people's culture, heritage, and traditional rights and support the identification, recording, management, and protection of indigenous cultural heritage. Our Group Community Policy specifies the standards of community relations management at each of our operations and pledges to uphold and promote the human rights of the communities in which we operate. Additionally, we recognise and respect the culture, heritage, and traditional rights of indigenous peoples. We also support the identification, documentation, management, and preservation of indigenous cultural heritage. There were no incidents involving violations of the human rights of indigenous peoples in 2023.

In our operating system, Chibuluma South Mine encompasses distinct and significant relations with the local communities, which include chiefdoms, communities, and villages established and acknowledged by the Zambian Constitution. In this regard, Chibuluma South Mine has formulated an External Stakeholder Engagement Procedure. These individuals comprise indigenous people residing on the site (irrespective of property rights), aboriginal peoples or tribes with a special connection to the land or specific resource and cultural rights, and those who will be impacted by the project or necessitate resettlement of their land or assets. This procedure not only facilitates indigenous people in freely expressing their opinions but also enables the Company to comprehend their concerns and aspirations. Consequently, this information can be integrated into the Company's decision-making process.

賦能僱員

EMPOWERED WORKFORCE

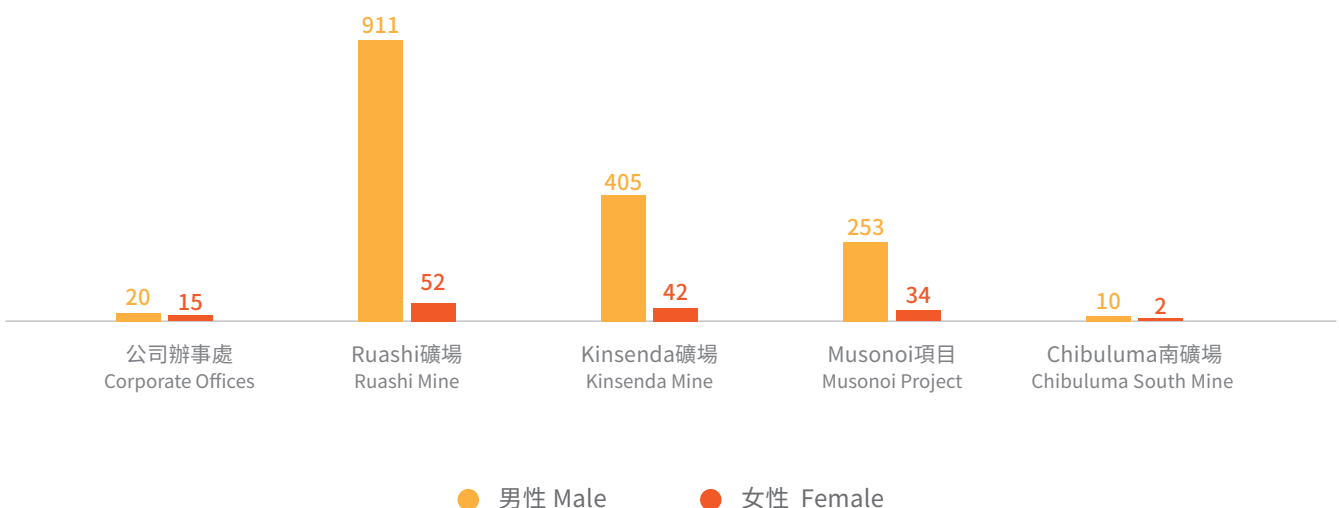
金川國際嚴格遵守採礦業務所在國家勞動法。贊比亞及剛果(金)兩地的礦場必須遵守勞工守則、部長法令及集體協議。因此，我們制定的內部政策嚴格遵守相關地方法例，對工作時間、休息時段、平等機會、薪酬、離職、工作條件及職業資格等進行了規範及說明。此外，我們通過提供優質就業機會、公平補償及福利、多樣化的健康福利以及發展成長機會等方式，持續吸引並保留優秀人才。

JCI strictly adheres to the labour law of the countries where our mining operations located. Mines in Zambia and the DRC are required to follow the Labour Code, Ministerial Decrees, and Collective Agreements. Therefore, we formulate internal policies in strict compliance with relevant local legislation, regulating matters such as working hours, rest periods, equal opportunity, remuneration, leave, work conditions and vocational qualifications, etc. Moreover, we aim to attract and retain employees by providing quality employment opportunities, fair compensation and benefits, diversified health and well-being, and opportunities for development and growth.

截至報告期末，金川國際全球僱用1,744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。

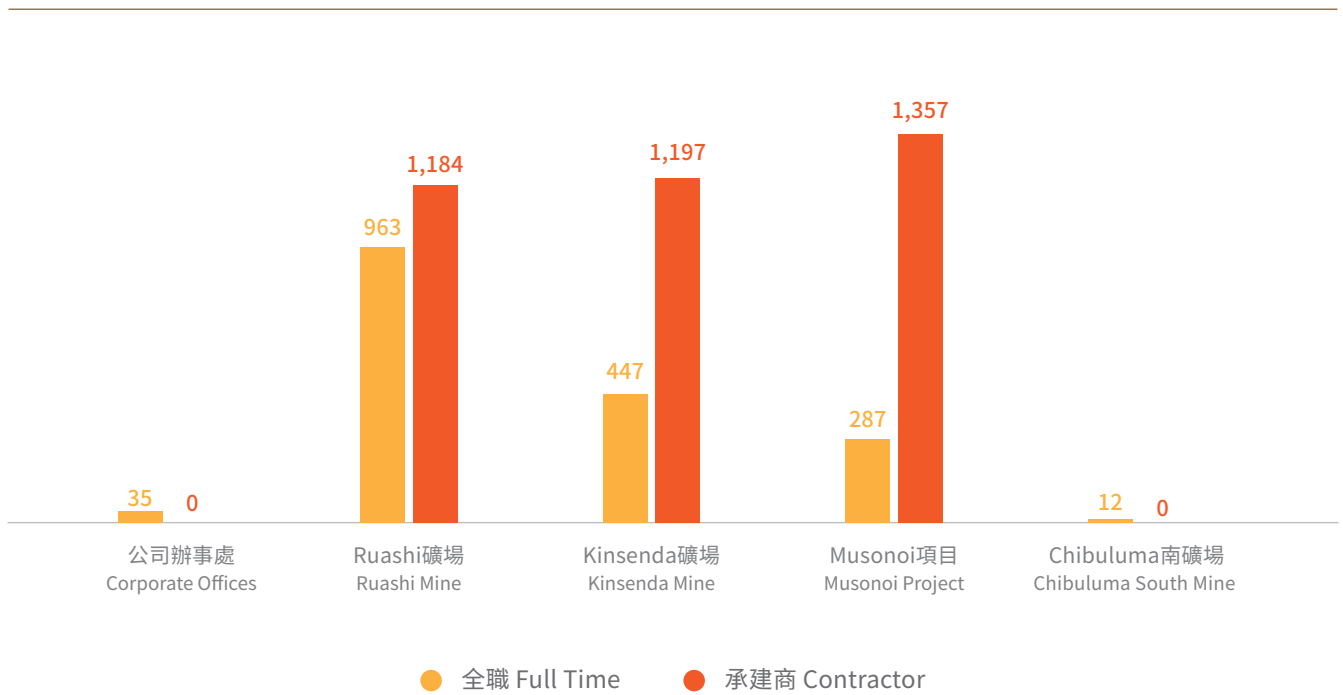
As of the end of the reporting period, JCI globally employed 1,744 permanent employees across our operating mines and corporate offices in Hong Kong SAR (China), the DRC, Zambia and South Africa.

▼ 按性別劃分的僱員總數 Total Workforce by Gender



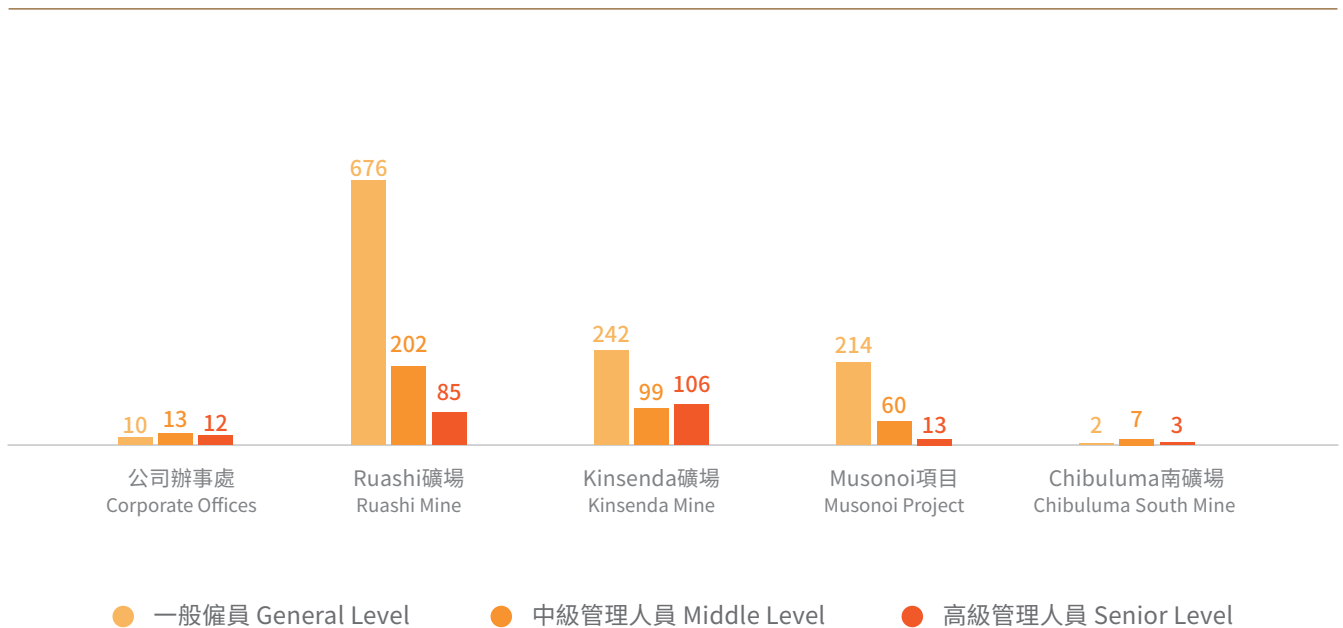
按僱傭類型劃分的僱員總數¹¹

Total Workforce by Employment Type



按僱員類別劃分的僱員總數

Total Workforce by Employee Category



11.按僱傭類型劃分的僱員總數包括承建商。

Total workforce by employment type includes contractors.

2023年僱員流失率 - 2023年總僱員流失率¹² (單位: %)
Employee Turnover 2023 - Total Employee Turnover 2023 (Unit: %)

公司辦事處 Corporate Offices	7.89
Ruashi礦場 Ruashi Mine	3.41
Kinsenda礦場 Kinsenda Mine	4.70
Musonoi項目 Musonoi Project	3.48
Chibuluma南礦場 Chibuluma South Mine	7.69

多元共融 Inclusion and Diversity

金川國際積極落實多元化、本地化的僱傭政策。我們接納僱員的不同國籍、種族、性別、宗教信仰及文化背景，致力為他們提供公平公正的發展機會。我們亦致力推動海外採礦業務的本土化，積極為項目所在國家或地區解決就業問題。截至報告期末，Ruashi礦場、Kinsenda礦場、Musonoi項目及Chibuluma南礦場的當地就業率¹³分別為95%、89%、56%及58%。

JCI proactively implements a diversified and localised employment policy. We embrace and value the diversity of nationalities, races, genders, religious beliefs, and cultural backgrounds among our employees. Our aim is to provide them with equal and impartial opportunities for professional growth. Furthermore, we have been promoting the localization of our overseas mining operations and actively resolving employment challenges in the countries or regions where our projects are situated. As of the end of the reporting period, the local employment rates of Ruashi Mine, Kinsenda Mine, Musonoi Project, and Chibuluma South Mine were 95%, 89%, 56%, and 58% respectively.

12. 計算公式: 年度僱員流失率 = 全年離職僱員數目 / (年初僱員數目 + 全年新聘僱員數目) * 100%

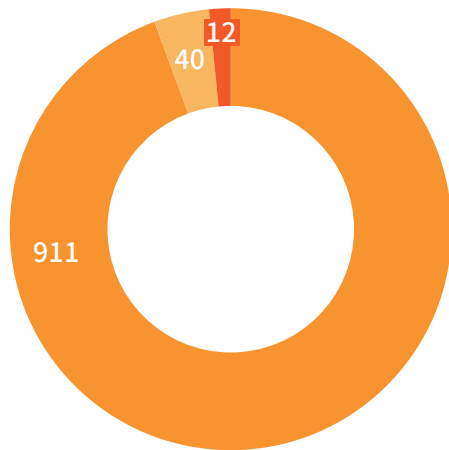
Calculation formula: Annual employee turnover = No. of employees who left their job in the year / (No. of employees at the beginning of the year + No. of new recruits in the year) * 100%

13. 計算公式: 當地就業率 = 國籍為礦場所在地的僱員人數 (年末) / 礦場僱員人數 (年末) * 100%

Calculation formula: Local employment rate = No. of employees whose nationality is the location of the mine (at the end of the year) / No. of employees at the mine (at the end of the year) * 100%

▼ Ruashi礦場按國籍劃分的勞工總數

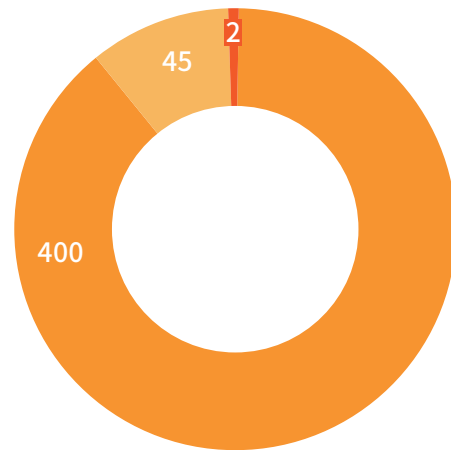
Total Workforce 2023 by Nationality at Ruashi Mine



- 剛果(金) the DRC
- 中國 Chinese
- 其他國籍 Other Nationality

▼ Kinsenda礦場按國籍劃分的勞工總數

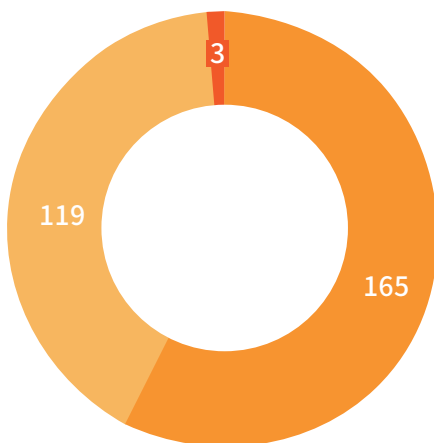
Total Workforce 2023 by Nationality at Kinsenda Mine



- 剛果(金) the DRC
- 中國 Chinese
- 其他國籍 Other Nationality

▼ Musonoi 項目按國籍劃分的勞工總數

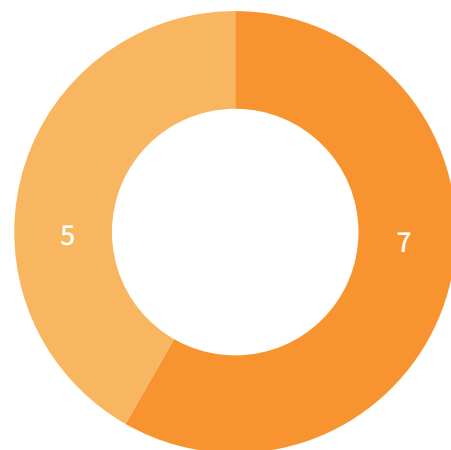
Total Workforce 2023 by Nationality at Musonoi Project



- 剛果(金) the DRC
- 中國 Chinese
- 其他國籍 Other Nationality

▼ Chibuluma 南礦場按國籍劃分的勞工總數

Total Workforce 2023 by Nationality at Chibuluma South Mine



- 贊比亞 Zambia
- 中國 Chinese

公平薪酬及福利關懷 Fair Remuneration and Welfare

透過公平及共融的僱傭策略，我們為僱員提供具有行業競爭力的薪酬及福利體系，並持續檢視薪酬及福利計劃，以吸引、激勵及挽留有才能的僱員。

▶ 公平薪酬

Fair Remuneration

金川國際致力根據中國香港、剛果(金)、贊比亞及南非相關就業法及勞工法向僱員提供平等的就業機會，並尊重公平及平等工資權利。我們認為，僱員是維繫公司競爭優勢的關鍵，公司的最終價值來源是所有僱員共同的知識、技能及貢獻。為此，我們不僅設有績效管理指導委員會，還制定了《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》《集團管理成果及爭取優惠政策評審獎勵辦法》等制度及政策，使僱員獲得與所從事崗位及所創造價值一致的薪酬(工資及福利)。

具體而言，我們從內部及外部兩方面確保薪酬公平。於公司內部，我們藉助第三方的Paterson定級系統，根據不同崗位的複雜性及工作產出，確定其相對價值及貢獻。同時，我們每年監測市場動向，通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。必要時，我們將參與由第三方進行的臨時薪酬調查。

Through fair and inclusive employment strategies, we offer our employees an industry-competitive remuneration and benefits package and consistently assess our compensation and benefits schemes to attract, inspire, and retain skilled employees.

JCI is committed to providing equal employment opportunities for employees in accordance with the relevant Employment Act and Labour Act in Hong Kong SAR (China), Zambia, South Africa, and the DRC, and respecting the rights of fair and equal wages. We firmly believe that our employees are instrumental in maintaining our competitive advantage and that the true value of the Company stems from the knowledge, skills, and contributions of each individual. In pursuit of this belief, we have established a performance management steering committee and developed several policies and systems such as the Group Conditions of Employment Policy, Group Reward and Recognition System, Group Job Evaluation Policy, Group Job Profiling Policy, Group Employee Recognition Policy, and Group Incentive Measures for Management Innovations and Obtaining Preferential Policies. These initiatives ensure that our employees receive appropriate remuneration (including wages and benefits) aligned with their roles and the value they bring to the organization.

To be specific, we guarantee fair remuneration, both within our organization and compared to external benchmarks. Internally, we employ a third party Paterson grading system to assess the relative value and impact of various roles, taking into account their complexity and output. Simultaneously, we conduct an annual market trend analysis to ensure our compensation remains reasonable and competitive by comparing it with the target labour market, the mining market in different operating locations, and our competitors. When necessary, we will participate in an ad-hoc remuneration survey conducted by third parties.

► 僱員關懷

Employee Care

我們為僱員提供全面的福利及關懷，包括生活、健康、居住、出行等方面，致力於提升僱員的滿意度及幸福感。根據公司發展及僱員需求，未來我們將不斷對福利計劃進行調整及優化，以回饋僱員的付出。

We provide employees with a wide range of benefits and support for their life, health, housing, and travel, and improve their contentment and well-being. As the company grows and the requirements of our employees evolve, we will persist in refining and enhancing our benefits schemes to recognise the efforts of our employees.

生育支持 Maternity Support

帶薪家庭責任假、育兒假、家庭津貼、學費
Paid Family Leave, Paternity Leave, Family Allowance, School Fees

豐富生活 Enriched Life Assurance

生活津貼、玉米津貼、土地
Living Allowance, Corn Allowance, Land

健康保障 Health Protection

醫療補貼、衛生津貼
Medical Subsidy, Hygiene Allowance

生產保障 Production Security

風險津貼、安全津貼、設備津貼、井下津貼
Risk Allowance, Safety Allowance, Equipment Allowance, Underpit Operation Allowance

居住保障 Housing Security

住房津貼、安置津貼
Housing Allowance, Resettlement Allowance

結婚祝賀 Wedding Celebration

婚假
Marriage Leave

出行保障 Travel

柴油/燃油津貼、車輛租借、車輛維護
Diesel/Fuel Subsidy, Vehicle Rental, Vehicle Maintenance

節日慰問 Holiday Celebration

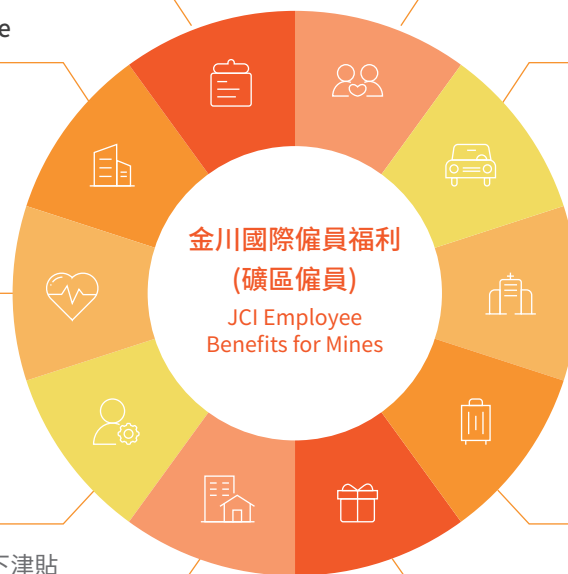
宗教節日假、聖誕果籃
Religious Holidays, Christmas Fruit Gifts

年假事假 Annual Leave

24-30個工作日全薪年假
24-30 annual leave with full pay on working days

退休關懷 Retirement Care

物質福利
Material Benefits



金川國際僱員福利
(礦區僱員)
JCI Employee Benefits for Mines

此外，我們亦十分關注僱員的業餘生活，鼓勵僱員積極參與各類娛樂休閒活動，在培養興趣愛好的同時強身健體，有效釋放工作壓力。

Furthermore, we carefully consider the leisure time of our employees and promote their active engagement in a variety of recreational and leisure activities, allowing them to pursue their hobbies and interests, improve their physical well-being, and effectively alleviate work-related stress.



Ruashi礦場舉辦籃球比賽
Basketball Competition at Ruashi Mine



Musonoi項目元旦活動
New Year's Day Activities at Musonoi Project



Musonoi項目新春活動
Chinese New Year Activities at Musonoi Project

培訓及發展 Training and Development

僱員成長是我們成功的關鍵因素。因此，確保僱員的繼續培訓及發展對我們的可持續發展息息相關。僱員通過參與正式的選拔或繼任程序可以獲得晉升的機會。在選拔程序中，我們將綜合考慮僱員過去的工作表現及出勤記錄、崗位的最低資格要求及所需技能，以及崗位的職業發展路徑，深入分析、比較擇優。

我們的《集團培訓及發展政策》是人力資源戰略的基礎，該政策支持所有礦場根據組織需要及營運要求開展培訓及發展計劃。我們將提供資源及機會，確保僱員掌握高效營運所需專業技能，並安全有效地執行任務。此外，我們的《集團助學制度》則為僱員提供參與教育、培訓及發展計劃的機會，參加公司所批准的學習項目及/或資格考試的僱員將被提供進修假，且所有僱員均有機會申請學習援助，並獲提供財務及其他類型的支持。Chibuluma南礦場亦制定了《培訓及僱員發展政策》，通過培訓對僱員進行投資，充份發揮僱員的個人價值。

為使僱員能夠適應業務中愈發增多的技術及創新應用，我們推進了多項培訓及發展計劃。2023年，Ruasi礦場開展了77場培訓，涉及技術、法律、環境審計等；Kinsenda礦場開展了15場培訓，涉及技術、急救、談判等；Musonoi項目開設了中文、英語、斯瓦希里語等語言課程；Chibuluma南礦場的財務團隊則參與了由贊比亞特許會計師協會舉辦的《國際財務報告準則》等培訓課程。

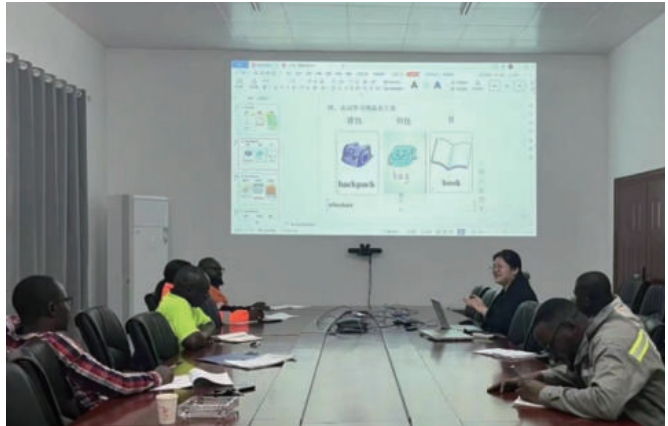
The growth of our employees is a key part of our success and thus ensuring our workforce's continued training and development is critical to our sustainability. Employees can complete the promotion by going through formal selection or succession processes. As part of this process, we assess and compare their past work performance, attendance record, minimum job requirements and required skills, and career trajectory for the role to select the best one.

Our Group Training and Development Policy serves as the foundation for our human resources strategy and facilitates the creation of training and development initiatives across all our mines, tailored to meet organizational needs and operational demands. We are committed to providing resources and opportunities to ensure that employees acquire the necessary professional skills to operate efficiently and carry out their duties safely and effectively. Additionally, the Group Study Assistance Policy offers employees the chance to participate in education, training, and development programmes. Study leave is granted to staff undertaking company-approved study programmes and/or qualification examinations, and all employees have the opportunity to apply for study assistance with financial and other types of support being provided. Chibuluma South Mine has also implemented a Training and Staff Development Policy aimed at investing in our employees through training to maximise their personal value.

To help our employees adapt to the increasing use of technology and innovation, we have introduced a range of training and development programmes. In 2023, Ruasi Mine hosted 77 training sessions covering technology, legal affairs, and environmental auditing, whilst Kinsenda Mine conducted 15 sessions including technology, first aid training and negotiation. Language courses in Chinese, English, and Kiswahili were held at Musonoi Project and the finance team from Chibuluma South Mine partook in training sessions such as the International Financial Reporting Standards (IFRS) organised by the Zambia Institute of Chartered Accountants.



Musonoi項目開展的採礦培訓
Mining Training at Musonoi Project



Musonoi項目對當地僱員開設的中文課程
Musonoi Project Chinese Language Courses for Local Employees

○ 我們的表現 - 2023年僱員培訓人數總體數據¹⁴
Our Performance - Training by Employee Category and Gender in 2023

已培訓僱員總數(單位: 人) Total Number of Employee Trained	1,384
已培訓僱員所佔百分比(單位: %) % of Employee Trained	79

○ 我們的表現 - 2023年僱員培訓時長總體數據¹⁵
Our Performance - Employee Training Hours in 2023

培訓總時數(單位: 小時) Total Training Hours (Unit: Hour)	2,379,990
每年僱員平均培訓時數(單位: 小時) Average Training Hours per Employee (Unit: Hours)	1,365

14. 培訓數據統計由各礦場及公司辦公室收集。由於各礦場培訓類別多樣，故某些礦場不包含日常安全培訓，因此各礦場培訓數據類別各不相同。
Data on training are gathered at every mine and the corporate office. The specific types of data on training differ across mines due to the range of training programmes offered and because certain mines may not have daily safety training included.

15. 2023年數據包含了Musonoi項目(在建項目)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 Musonoi Project (under construction) and therefore differs significantly from previous years' data.

職業健康及安全

OCCUPATIONAL HEALTH & SAFETY

金川國際始終致力於創造安全、健康的工作環境。鑒於礦場僱員每天從事包括鑽探、爆破、高空及地下作業、接觸高壓電、使用化工品及操作重型機械等高風險活動，保障僱員、承建商、來訪者、社區及任何其他會受到礦場營運影響人士的健康及安全至關重要。

JCI is committed to creating a safe and healthy work environment. Mining employees are engaged in high risk activities every day, including drilling, blasting, working at height and underground, exposure to high voltage electricity, using chemicals, and operating heavy machinery. The health and safety of our employees, contractors, visitors and the community or any other persons who might be impacted by the mines where we operate are of paramount importance.

我們的礦場遵守所處國家、地區及地方的安全法規、法定義務及其他適宜的規定（如剛果（金）的《礦業法》《礦業條例》及贊比亞於二零一零年頒佈的《職業健康及安全法》）進行營運。我們的《集團零傷害政策》適用於所有採礦業務，且各礦場設有自身的安全及健康政策，其適用於所有僱員及承建商。

Our mines are operated by applicable national, regional, and local safety regulations, statutory obligations, and other requirements as appropriate, such as the Mining Code and Regulations in the DRC and the Occupational Health and Safety Act of 2010 in Zambia. Our Zero Harm Policy applies to all mining operations and each mining site has its own safety and health policies that apply to all employees and contractors.

2023年，金川國際全體營運礦場錄得零宗因工死亡事故。

No fatalities were recorded at all operating mines of JCI in 2023.



提供有利於實現零傷害的工作環境
Providing a working environment that is conducive to achieving zero harm.



確保提供適當的資源、培訓及個人防護設備
Providing adequate resources, training, and personal protective equipment.



應用Metorex風險管理框架管理工作場所風險
Managing workplace risks through the Metorex Risk Management Framework.



遵守適用的法律要求，及組織所訂的其他要求
Comply with relevant legal and organizational requirements.



在與所有持份者的互動中遵循協商、透明、建設性的方法
Adopting a consultative, transparent, and constructive approach when engaging with stakeholders.



最大限度地減少潛在的負面社會影響，同時促進東道國社區的機會及利益
Minimizing potential negative social impacts while prioritizing the interests and opportunities of the host community.



確保僱員及承包商具備以安全、環保的方式執行與工作相關的任務的相關技能，並了解其個人的環境、社區、健康及安全義務及權利

Ensuring that employees and contractors possess the necessary skills to perform their work in a safe and environmentally friendly manner, while also being aware of their individual obligations and rights regarding environmental, community, health, and safety matters.



在考慮持份者的期望、最佳實踐、科學知識及新技術的同時，通過設定並實踐擴展目標，不斷提高環境、職業健康、公共健康及安全績效

Continuous improving environment, occupational health, public health, and safety performance by setting and striving for targets while considering stakeholder expectations, best practices, scientific knowledge, and new technologies.

金川國際零傷害政策
JCI Zero Harm Policy

我們的表現
Our Performance

		2023	2022	2021
死亡事故數目 Number of Fatalities	Ruashi礦場 Ruashi Mine	0	0	0
	Kinsenda礦場 Kinsenda Mine	0	0	2
	Musonoi項目 Musonoi Project	0	0	0
	Chibuluma南礦場 Chibuluma South Mine	0	0	0
每百萬工時死亡頻率 Fatality Frequency Rate per Million-man Hours Worked	Ruashi礦場 Ruashi Mine	0	0	0
	Kinsenda礦場 Kinsenda Mine	0	0	0.83
	Musonoi項目 Musonoi Project	0	0	0
	Chibuluma南礦場 Chibuluma South Mine	0	0	0
因工傷損失工作日數(單位:天) Number of Lost Days Due to Work Injury (Unit: days)	Ruashi礦場 Ruashi Mine	0	79	1
	Kinsenda礦場 Kinsenda Mine	0	0	0
	Musonoi項目 Musonoi Project	0	0	2
	Chibuluma南礦場 Chibuluma South Mine	4	3	5

隱患管控 Hazard Control

我們積極識別現場的安全隱患，並採取預防措施來避免此類風險。我們相信通過科學的安全風險管控，將能防止事故發生。我們期望全體僱員及承建商對自身的安全、同事的安全及對營運所在社區的安全負責，共同營造安全生產文化。

We proactively identify safety hazards at our sites and take preventive measures to avoid such risks. We believe that all incidents can be prevented and avoided through scientific safety risk management. We expect all employees and contractors to take responsibility for their own safety, the safety of their colleagues, and the safety of the communities in which we operate, and to create a culture of safe work together.

▶ 安全管理架構

Safety Management Framework

我們於所有礦場均設置了安全管理團隊，包括一名安全經理及若干名安全員，並定期召開安全會議及講座。

We have safety management teams at all of our mines, including a Safety Manager and Safety Officer(s), and hold regular safety meetings and seminars.



Ruashi礦場安全會議結構圖
Safety Meeting Structure at Ruashi Mine



Ruashi礦場對安全會議議程的規定 Ruashi Mine's Requirements for Safety Meeting Agendas

Ruashi礦場深明安全會議是礦場安全計劃不可或缺的部分, 並對安全會議的議程作出了具體規定, 詳述如下:

Ruashi Mine recognises that safety meetings are an integral part of the mine's safety programme and has made specific provisions for safety meeting agendas as detailed below:

- 匯報上次會議的未決事項;
Report back on outstanding items from the previous meeting(s);
- 本月及本年度迄今為止的部門/分區安全統計數據;
Departmental/Sectional safety statistics for the current month and year to date;
- 已發現及糾正的危險;
Hazards identified & corrected;
- 審查登記簿(設備檢查表);
Review of registers (equipment checklists);
- 下一級安全會議的報告;
Issues to be taken to the next level safety meeting;
- 分區/部門的內務管理狀況, 如存儲、排水、垃圾等;
Status of housekeeping in the section/department, e.g., storage, drains, Litter;
- 安全代表對其指責檢查的反饋意見;
Feedback from the Safety Representative with respect to his/her duties inspections;
- 一般情況。
General.

此外, 這些會議的記錄必須妥善保存在IsoMetrix中, 並將提供一份副本供僱員參考。主管將代表其委員會出席下一級會議, 並提出在該會議上無法解決或令人關切的問題。

A proper documented record of these meetings must be kept on IsoMetrix as well as a copy made available for easy reference for employees. The supervisor will represent his committee at the next level meeting and raise matters that could not be resolved or are of concern in that forum.

▶ 安全風險評估

Safety Risk Assessment

Ruashi礦場制定了風險評估程序，並對不同等級的風險進行了劃分，以全面了解不同工作區域及工作任務中存在的潛在風險。

Ruashi Mine has developed a risk assessment process and has categorised the risks into various levels to provide a comprehensive understanding of the potential risks across various work areas and tasks.



Ruashi礦場工作前風險評估五步法則

Ruashi Mine's Five-Step Pre-work Risk Assessment Process

RISK ASSOCIATED WITH THE TASK



CONSEQUENCE	PROBABILITE / LIKELIHOOD			
	Very Likely	Likely	Unlikely	Highly Unlikely
Fatality	HIGH	HIGH	HIGH	MEDIUM
Major Injuries / Level 3	HIGH	HIGH	MEDIUM	MEDIUM
Minor Injuries / Level 1 or 2	HIGH	MEDIUM	MEDIUM	LOW
Negligible Injuries	MEDIUM	MEDIUM	LOW	LOW

Ruashi礦場風險矩陣圖
Risk Matrix at Ruashi Mine




Musonoi項目通過每日、每週及每月的安全檢查以及不同部門的交叉巡查來識別安全隱患，而檢查中發現的風險點將於每週、每月及季度SHEC報告中得到闡明，並要求核銷。此外，Musonoi項目通過開發並使用DSTI程序對礦場小型風險進行評估，且礦場HSE及管理層強制所有承建商使用此程序來開展跟進工作。Musonoi項目亦每日進行日常安全工具箱使用講座，以作為日常安全風險檢查系統的一部分。

Safety hazards at Musonoi Project are identified through regular safety inspections conducted daily, weekly, and monthly and cross inspections carried out by various departments. Any identified risk points must be documented in weekly, monthly, and quarterly SHEC reports. Additionally, Musonoi Project has developed and implemented the Daily Safety Task Instruction(DSTI) programme for assessing minor risks at the mine and it is compulsory for all contractors to utilise this programme, with supervision and follow-up provided by the mine's HSE and management. Moreover, Musonoi Project conducts daily safety toolbox workshops as an integral component of the daily safety risk inspection system.


HOW TO PREVENT COVID-19 CASES

- Follow the rules
- Educate yourself using our website
- Study and apply the protocol - they are on the website keep social distance - the more distance the better
- Wash and sanitize your hands
- Respect and support each other
- Remain calm and follow the protocols
- Self-isolate if you feel unwell – don't wait
- Call the hotline and take precautions by having a medical check

Wearing of face masks compulsory at all times



Le port de masques faciaux est obligatoire en tout temps

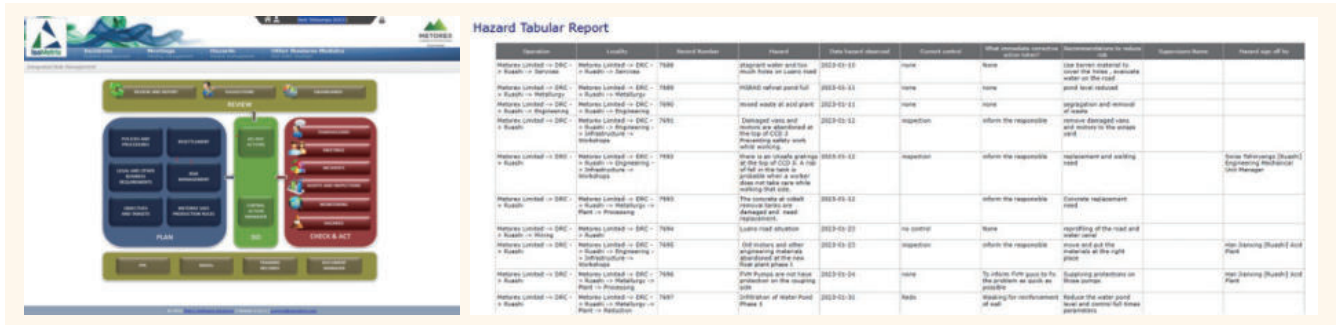
Musonoi項目使用DSTI程序對新冠肺炎疫情進行風險警示
Musonoi Project Employs the DSTI Programme to Issue Risk Alert for the COVID-19 outbreak

► 安全管理數字化

Digitalization of Safety Management

同時，我們的所有礦場都會定期進行安全檢查，並把發現的各類問題錄入IsoMetrix系統，以供日後查閱及改進。

Our mines also undergo regular safety inspections and identified issues are recorded in the IsoMetrix system for subsequent review and improvement.



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

| 安全防護 Safety Protection

為確保所有僱員在工作環境中執行任務時都能得到充份保護，我們免費為所有僱員提供適用的防護服及防護設備並強制使用。我們於政策中明確規定了特殊工種個人防護設備的要求以及各類個人防護設備的更換頻率。我們亦將定期更新及維護個人防護設備，並監督及檢查其使用情況。

To ensure the adequate protection of all employees during their work duties, we supply all employees with appropriate protective clothing and equipment at no cost and their usage is compulsory. We clarify in our policy the personal protective equipment (PPE) requirements for specific job categories and the exchange frequency for different PPE types. We will regularly update and maintain PPE, and supervise and inspect their use.

此外，安全防護亦將作為績效評估的一部分。一旦僱員被發現濫用或未佩戴個人防護設備，將按相關政策進行處罰。個人防護設備包括且不限於安全帽、眼部及面部防護、聽力防護、手部防護、安全鞋、一體式及兩件式工作服、呼吸器、防墜落裝置、電擊保護器、焊接、打磨及切割防護以及醫學防護等。

Besides, we take safety protection as a part of the performance measurement. Employees found to be misusing or not wearing PPE may be subject to disciplinary action by our relevant policies. Our PPE includes hard hats, eye and face protection, hearing protection, hand protection, safety shoes, one and two-piece overalls, respiratory equipment, falling protection, electrical shock protection, welding, grinding and cutting protection, medical protection, etc.



各類重要個人防護設備
Various Important PPE



便携式自救器
Portable Self-Rescuer

應急準備 Emergency Preparedness

我們致力於確保所有可能受到某個現場或附近緊急事件影響的人員的安全、健康及福祉。因此，我們的全體礦場已制定了應急管理預案，以有效應對潛在的緊急事件或危機。應急方案包括災難管理、應急撤離、已安裝的緊急預警系統、急救、洩漏管理、消防及救援，以及熟悉各種緊急警報及信號、疏散路線、緊急出口及集合區等。為確保應急程序得到有效執行，全體礦場每年均會進行正式的危機管理培訓及演練。

We are committed to ensuring, as far as practicable, the safety, health, and well-being of all people who could potentially be impacted by emergency events at or near one of our sites. Therefore, all of our mines have an emergency management plan in place to effectively respond to potential emergencies or crises. Emergency response programmes include disaster management, emergency evacuation, emergency warning systems installed, first aid, management in case of spillage, firefighting and rescue, and familiarization with various emergency alarms and signals, evacuation routes, emergency exits, and assembly areas. To ensure that the emergency programmes are effectively implemented, formal crisis management training and practices are conducted annually at all mine sites.

Ruashi礦場

Ruashi Mine

Ruashi礦場在大多數建築物中安裝了緊急預警系統，並對僱員進行了急救、洩露情況處理及每個工作場所滅火方面的培訓。全體僱員需每年進行一次消防演練，並每月進行消防疏散演練。此外，為確保全體僱員能夠有效應對緊急情況，管理人員必須向他們介紹現場應急處理程序，並要求各部門每隔不超過十二個月進行一次意外事故模擬演練。

Ruashi Mine installs emergency alert systems in most of the buildings and employees are trained in first aid, management in case of spillage and firefighting in every workplace. Annual fire demonstrations and monthly fire evacuation drills are required for all employees. To ensure the efficiency of employee response to emergencies, managers should brief all employees on the Site Emergency Procedures, and each department is required to conduct an accident/incident simulation at intervals not exceeding 12 months.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場的應急管理系統由急救行動規劃及綜合性急救消防系統組成，後者包括消防栓、滅火器、消防車及地下避難所等。各急救消防設備均會定期進行檢測或維護——滅火器於半年度由政府進行維護，消防栓及消防車每週進行一次檢測，急救設備則每三年更換一次，且避難所每週由安全主任進行一次檢測。Kinsenda礦場亦配備了一名專職負責應急工作的僱員。

The emergency management system at Kinsenda Mine includes first aid operational planning and an integrated first aid and firefighting protection system. The latter encompasses fire hydrants, fire extinguishers, fire trucks, and underground shelters. All first aid and firefighting equipment undergoes regular inspections and maintenance. Specifically, fire extinguishers are maintained semi-annually by the government, while hydrants and fire trucks are inspected on a weekly basis. Additionally, the first aid equipment is replaced every three years, and shelters are subjected to weekly inspections overseen by the Safety Officer. Kinsenda Mine also employs a dedicated emergency response staff member.

Musonoi項目

Musonoi Project

Musonoi項目制定了不同的管理指南以及現場發生緊急情況時應採取的緊急預案，其應急管理計劃涵蓋現場、周邊地區及Musonoi項目負有法律、道德或社區責任的所有緊急情況。同時，Musonoi項目鼓勵全體僱員及承建商為現場、露天及地下礦場的死亡及/或其他緊急情況做好準備，以確保火災、爆炸、運輸事故等重大或輕微的緊急情況均能得到妥善處理，相關信息亦可得到有效管理，並將未來發生緊急情況的可能性降至最低。此外，報告期內，Musonoi項目的大多數僱員均接受了獨立培訓機構提供的急救員培訓，並獲得了急救員培訓證書。

Musonoi Project develops different management guidelines and emergency plans to be followed in the case of an on-site emergency. Its emergency management programme covers all on-site and surrounding emergency situations, as well as those for which Musonoi Project has legal, ethical, or community-related responsibilities. Additionally, Musonoi Project promotes the preparedness of all employees and contractors for on-site emergencies, including fatalities or other incidents in both open pit and underground mines so that various emergencies, including fires, explosions, transportation accidents, and more are appropriately managed, and relevant information is efficiently managed to minimise the likelihood of future emergencies. Furthermore, during the reporting period, the majority of employees at Musonoi project received first aid training from an independent training organization and were awarded emergency responder training certificates.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場成立了應急團隊，負責協助制定及實施應急回應及恢復程序，並統籌安排應急演練。在防火方面，礦場為每個工作區制定了火災預防及防護策略，安裝了火災探測設備及消防設備，並定期進行檢測及維護。

Chibuluma South Mine set up an emergency response team to assist in the development and implementation of Emergency Response and Recovery Procedures and coordinate emergency drills and simulations. In terms of fire prevention, the mine formulates a fire prevention and protection strategy for each workplace, installs fire detection equipment and firefighting equipment, and regularly inspects and maintains them.

職業健康 Occupational Health

我們致力於提供安全健康的工作環境，減少與職業危害相關的風險，以預防僱員患病。我們的健康方案涵蓋了各礦場的安全管理政策，關注心理健康、現場工作環境、化學品、生物或物理因素，以及其他可能導致急性病或長期慢性職業疾病的問題。

We are committed to preventing illness among employees by providing a safe and healthy working environment and by reducing risks associated with occupational hazards. Our health approach, covered by each mine's safety management policy, focuses on mental health, physical work environment, chemical, biological or physical agents, and other issues that can lead to acute illness or long-term chronic occupational disease.



► 危險化學品管理

Hazardous Chemicals Management

我們嚴格遵守適用的危險化學品相關的國際管理規範及法律法規，並將根據實際的業務營運情況及相關法律法規的要求進行更新。我們明確各環節的危險化學品管理職能，以規範化學品的採購、運輸、儲存、使用及廢棄，持續加強日常安全管理。Kinsenda礦場制定了《化學品與試劑管理》，明確規定使用化學品及試劑有關的安全處理、管理及棄置方法，並要求全體涉及人員熟悉化學產品的所有特性，以降低其帶來的化學風險，避免化學品對人員、設施或環境造成危害。

We strictly comply with applicable international regulations and laws and regulations related to hazardous chemicals and continuously update them in accordance with business operations and the requirements of relevant laws and regulations. We have clearly defined the management responsibilities for hazardous chemicals in each stage to regulate the procurement, transportation, storage, usage and disposal of chemicals and to consistently enhance daily safety management practices. Kinsenda Mine developed the Chemicals and Reagents Management, which clearly stipulates the safe handling, management and disposal methods related to the use of chemicals and reagents and mandates familiarity of all personnel involved with the characteristics of chemical products to mitigate the risks associated with these chemicals and prevent potential harm to personnel, facilities, and the environment.

Produits chimiques	Catégorie	Danger chimiques	GHS pictogramme	DOT Placard	Précautions et stockage	Incompatibles (voir MSDS)	Premier Secours (voir MSDS)
● Acétylène		Inflammable			<ul style="list-style-type: none"> 6.2 m éloigné de gaz oxydant Sécuriser les cylindres en position droite et immobile Garder les contenants dans une zone bien aérée Garder loin de toute source de combustion Ne fumez pas Stocker séparément les cylindres pleins et vides. 	<ul style="list-style-type: none"> Gaz Oxydant Gaz toxique Solides Oxydant 	<ul style="list-style-type: none"> Inhalation Ingestion
● Oxygène	Gaz comprimé	Oxydant			<ul style="list-style-type: none"> Garder les contenants dans une zone bien aérée 6.2 m éloigné de tous les inflammables Éloigner de tous matériels combustibles Sécuriser les cylindres en position droite et immobile 	<ul style="list-style-type: none"> Gaz inflammable 	<ul style="list-style-type: none"> Inhalation Irritation
● Argon ● Hélium		Ininflammable			<ul style="list-style-type: none"> Stocker dans une zone fraîche et bien aérée. Sécuriser fermement les contenants et en position droite. Stocker séparément les cylindres pleins et vides. 	N/A	<ul style="list-style-type: none"> Gaz peut rapidement causer de suffocation parce qu'il y a insuffisance de l'oxygène Asphixie: la vapeur de l'argon est dense que l'air Brûlure : L'argon liquide est extrêmement froid et peut causer de brûlure en contact avec la peau

Kinsenda礦場化學品管理程序
Kinsenda Mine's Chemicals Management Procedure

► 傳染病管理

Infectious Disease Prevention

我們所有的礦場均處於瘧疾易發區域，這對全體僱員構成了重大的健康隱患。為了預防瘧疾，各礦場採取了一系列措施，包括且不限於為僱員提供驅蟲劑及蚊帳、定期在工作區噴灑驅蟲劑、開展防止瘧疾的培訓等，以降低當地的瘧疾感染風險。

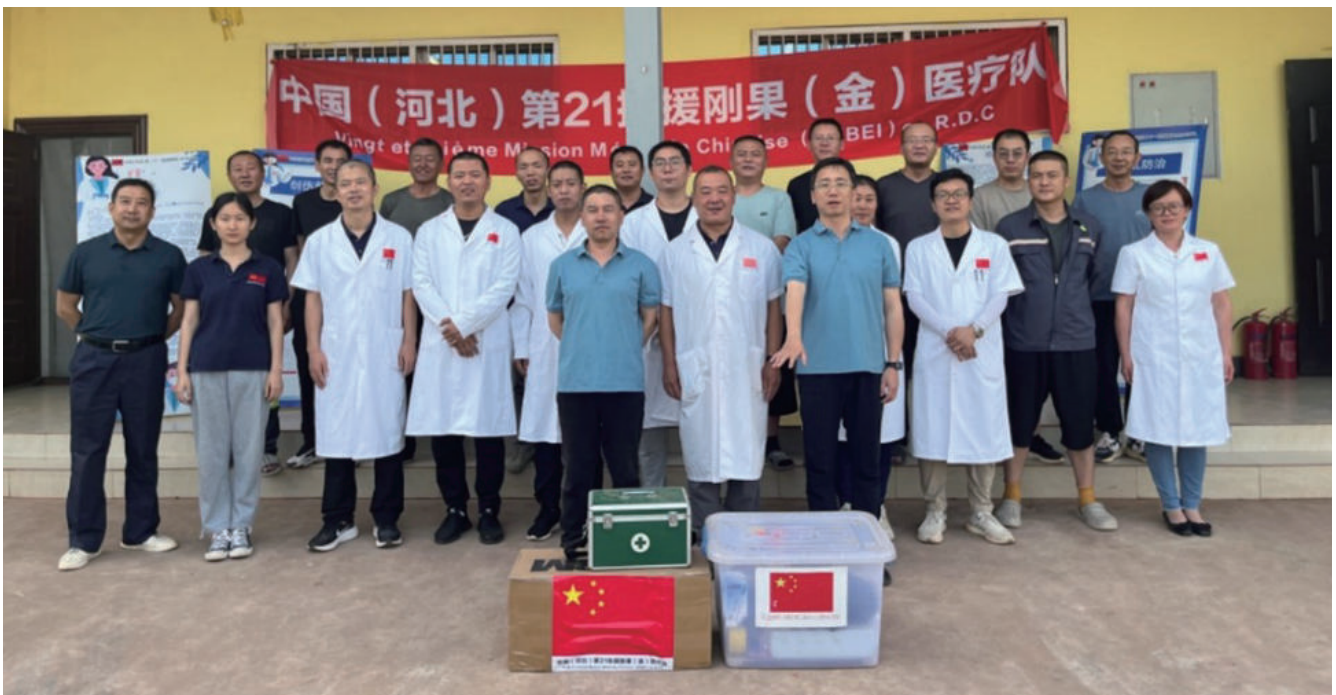
All our mines are located in malaria-endemic regions, presenting a substantial health hazard for our employees. To mitigate the threat of malaria, each mine adopts several preventive measures, such as providing employees with insect repellent and mosquito nets, conducting regular insect repellent spraying in the workplace, and launching training on malaria prevention with the aim of reducing the local malaria infection risk.

► 健康及疲勞管理

Health and Fatigue Management

我們重視僱員的健康福祉，確保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。報告期內，Ruashi礦場向僱員提供相關培訓，幫助僱員了解睡眠不足的危害；Musonoi項目正在制定疲勞管理程序，並計劃在未來實施三班制，減少僱員的夜班工作時間。

We prioritise the health and well-being of our employees by providing adequate rest time to mitigate the negative impact of excessive fatigue on work safety and productivity. During the reporting period, at Ruashi Mine, employees received specific training to raise awareness about the risks of sleep deprivation. Similarly, Musonoi Project is in the process of developing fatigue management procedures and plans to implement a three-shift system in the future to reduce the number of hours worked by employees on night shifts.



中國義診隊於Musonoi項目開展義診
Chinese Volunteer Clinic Team at Musonoi Project



Musonoi項目醫療保健服務 Medical Healthcare Services at the Musonoi Project

Musonoi項目持續為全體僱員及其直系親屬提供醫療保健服務，僱員僅需從人力資源部門獲得許可卡，即可前往診所就診。同時，不論是本地僱員或外籍僱員，全體新僱員均會被送往診所進行入職體檢，以證明其身體狀況適合開展工作。所有僱員的體檢證明均由現場人力資源部門存入個人檔案，並確保僱員隱私將得到妥善保護。

Musonoi項目在礦區現場設有一個臨時醫療設施以用於急救，而現場診所的建設工作亦已於報告期內完成，預計2024年將投入使用。此外，Musonoi項目還計劃根據剛果(金)勞動法規的要求，對全體僱員進行為其三個月體檢行動。

Musonoi Project continues to provide medical healthcare services to all employees and their immediate family members, who only need to obtain a permit card from the Human Resources Department to visit the clinic. Additionally, all new employees, whether local or expatriate, undergo a medical checkup at the clinic to ensure their fitness for work. Their medical certificates are stored in their personal files by the on-site Human Resources Department to safeguard employee privacy.

Musonoi Project currently has a temporary medical facility for first aid on site, and the construction of an on-site clinic was completed during the reporting period. It is anticipated to become operational in 2024. Furthermore, in adherence to DRC labour regulations, Musonoi Project plans to carry out a three-month medical checkup programme for all employees.

| 安全培訓 Safety Training

基於我們各礦場的培訓要求，安全培訓責任部門將相應地制定職業安全衛生培訓計劃，並對計劃的有效性進行評估及持續改進。新僱員及長期休假後返回的僱員在開始工作之前必須參加入職培訓、安全生產規章制度以及班前危害識別及風險評估培訓，該培訓涵蓋安全流程、標準操作流程及應急流程等。

Depending on the training requirements of each mine site, corresponding departments responsible for safety training will develop a Safety and Occupational Health Training Programme, review the effectiveness of the programme and follow up on continuous improvement. New hires and employees returning from long leave must attend Induction Training, SPR (Safe Production Rules), and Pre-work HIRA (Hazard Identification & Risk Assessment) training before starting work. The training covers safety procedures, standard operating procedures, and emergency procedures.

報告期內，各礦場均根據實際情況開展了各類安全培訓活動，強化安全風險管控，提升安全生產及職業健康保障水平。Ruashi礦場應管理層之要求，對礦區維修團隊進行了密閉空間及上鎖、挂牌及試車相關培訓，並計劃對目標主管人員進行一級急救復習培訓；Kinsenda礦場開展了包括危險識別及風險評估、安全生產規則、急救及救援、滅火器使用介紹、採礦作業及爆破等相關安全培訓；Musonoi項目進行了包括採礦安全、工作場所安全、密閉空間、墜落防護、用電安全、急救、消防等多類安全培訓；Chibuluma南礦場每天及每週對新老僱員進行安全及健康培訓介紹，強化僱員安全生產意識。

During the reporting period, each mine launched various safety training activities in accordance with actual circumstances, whilst also bolstering safety risk management and control to elevate production safety and occupational health protection. At the behest of management, Ruashi Mine administered training on confined space, and lockout, tagout, and trial run for the maintenance team. It also scheduled first aid refresher training for the target supervisory staff. Kinsenda Mine undertook safety training on hazard identification and risk assessment, production safety regulations, first aid and rescue techniques, as well as guidance on fire extinguisher usage, mining operations, and blasting. Musonoi project, for its part, provided diverse safety training sessions on mining safety, confined space operations, fall protection, electrical safety, first aid, and firefighting. Lastly, Chibuluma South Mine delivered daily and weekly safety and health training presentations to new and existing employees, thus enhancing their awareness of production safety.



Kinsenda礦場操作員安全培訓
Operator Safety Training at Kinsenda Mine



Musonoi項目僱員接受安全培訓
Musonoi Project Employees Receive Safety Training

社區繁盛

THRIVING COMMUNITY

金川國際尊重社區文化、傳統、信仰及其與土地之關係，致力於最大限度地減少潛在的負面社會影響，並妥善解決合理的投訴。我們亦尊重以符合當地文化的方式參與社區及與社區互動的權利。

JCI respects the community's culture, traditions, beliefs, and connection to the land, commits to minimize potential negative social impacts, and resolves legitimate complaints appropriately. We also respect the right to participate and interact with the community in a manner consistent with local culture.

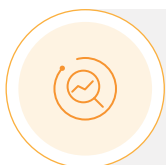
我們於整個採礦服務年限中的活動可能會帶來一系列社會、經濟及環境風險。我們相信，合法、紀律嚴明的管理流程有助於有效控制此類風險，並幫助我們建立良好的社區關係。此外，我們遵守適用的國家及地方社區法規及其他適當要求，如《世界人權宣言》《聯合國工商業與人權指導原則》《聯合國土著人民權利宣言》及《聯合國全球契約》。我們根據我們的承諾開發、實施及維護社區管理系統，並與世界級標準保持一致。

Our activities throughout the mining life cycle may have a range of social, economic, and environmental risks. We believe that legal and disciplined management processes help to effectively control such risks and help us to build good community relations. In addition, we comply with applicable national and local community regulations and other appropriate requirements, such as the Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights, the United Nations Declaration on the Rights of Indigenous Peoples, and UNGC. We develop, implement and maintain community management systems aligned with our commitments and kept consistent with world-class standards.

社區參與 Community Participation

金川國際努力將潛在負面社會影響降至最低，同時為東道主社區增加機會及利益。社區管理被公認為企業的高度優先事項，並是我們價值觀之一「零傷害」的組成部分。我們制定集團社區政策及確保社區福利可持續的計劃，貫徹執行如下承諾：

JCI strives to minimise potential negative social impacts while promoting opportunities and benefits for host communities. Community stewardship is recognised as a high corporate priority and is a component of Zero Harm, one of our values. We have developed the Group Community Policy and programme that ensures the sustainable welfare of communities while practising the following commitments:



通過監測、測量、管理我們的社會及經濟影響，不斷改進社區發展及社區投資計劃；
Continuously enhance community development and community investment programmes by monitoring, measuring, and managing our social and economic impacts.



制定確保社區可持續福利的方案；

Establish programmes that guarantee the sustainable well-being of communities.



維護及促進僱員、承建商、供應商及我們所在社區的人權；

Uphold and promote the human rights of employees, contractors, suppliers, and the communities in which we operate.



承認及尊重土著人民的文化、遺產及傳統權利，支持土著文化遺產的鑒定、記錄、管理及保護；

Acknowledge and respect the cultural, heritage, and traditional rights of indigenous peoples, supporting the identification, documentation, management, and protection of indigenous cultural heritage.



與直接受影響或對我們的營運感興趣的人建立及維護利益相關者關係；

Foster and maintain stakeholder relationships with those directly affected by or interested in our operations.



管理僱員、承建商及當地社區的公共衛生威脅風險。

Mitigate public health risks to employees, contractors, and local communities.

社區交流 Community Communication

金川國際與直接受我們業務影響或於我們業務中擁有權益的相關方建立及維持利益相關者關係。

我們於Ruashi礦場設有負責聯絡當地社區及非政府的社會事務辦公室，並通過該辦公室與當地利益相關者進行公開透明的接觸，以促進我們經營及發展業務能力。我們的社區參與戰略要求與社區合作，以減少及減輕負面影響並增加產生最大利益的機會。參與及協商確保社區對我們如何開發及營運項目擁有發言權，將有助於更好地了解我們的業務活動。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。

JCI establishes and maintains stakeholder relationships with those who are directly affected or interested in our operations.

At Ruashi Mine, we have a social office for liaison with the local community and Non Governmental Organizations, through which we engage openly and transparently with local stakeholders to facilitate our ability to operate and develop our business. Our community engagement strategy calls for collaboration with communities to reduce and mitigate negative impacts and increase opportunities to generate maximum benefits. Engagement and consultation ensure that communities have a voice in how we develop and operate projects, which promotes a better understanding of our business activities. During the reporting period, JCI did not receive any significant complaints from neighbouring communities at any of our mines.

Ruashi礦場

Ruashi Mine

Ruashi礦場積極與當地社區溝通，增信釋疑、互學互鑒。
Ruashi礦場與社區溝通的方法包括：

At Ruashi Mine, we make proactive efforts to engage with the local community to foster trust, alleviate uncertainties, and promote mutual learning. Ruashi Mine's approach to communicating with the community includes:

- 通過每週兩次的開放日及監管流程與當地利益相關者進行正式對話；
Dialogue with local stakeholders takes place formally through open houses and regulatory processes.
- 通過與我們在當地的社區發展代表、社區合作小組及社區投資基金會的互動保持溝通；
Maintain communication through interactions with our community development representatives on the ground, community partnership panels, and community investment foundations.
- 使用社區投訴管理系統記錄處理及回應社區關注的問題；
Use a community complaint management system to record, address and respond to community concerns.
- 每三個月出版一期關於Ruashi採礦活動的通訊，內容包括生產、安全、健康、社區及礦山的任何其他活動，並將通訊分發給當地政府及媒體。
Publish a newsletter on Ruashi Mine's mining activities every three months, covering production, safety, health, community initiatives, and any other activities taking place at the mine. Distribute the newsletter to local authorities and the media.

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場靠近Kinsenda村莊，我們通過各種方式與社區、當地領導及機關保持持續密切的聯繫，並收穫良好的溝通成效。

At Kinsenda Mine, our proximity to Kinsenda village means that we are in constant and close contact with the community as well as with local leaders and authorities through various approaches that have yielded good results.

Musonoi項目

Musonoi Project

Musonoi項目設有社會及社區部門，負責與社區代表舉行季度會議，以解決可能出現的問題。每當公司就各種問題尋求政府援助或干預時，從政治及行政層面到市政及社區層面，我們都會通過各地機關與政府進行溝通。Musonoi項目擁有一個命名為申訴監測及解決程序(報告及監測)的系統，其：

At Musonoi Project, we have a social and community department responsible for holding quarterly meetings with community representatives to tackle issues that may arise. We communicate with the government through various local authorities whenever the Company seeks government assistance or intervention on various issues, from the political and administrative levels up to the municipal and community levels. We have a system in place that we have named: GRIEVANCE MONITORING AND RESOLUTION PROCEDURE (reporting and monitoring), which:

- 允許我們作為一家公司提供一種機制來管理對社區財產的損壞，同時承擔負責團隊的監督及報告；
Allows us as a company to provide a mechanism to allow for the management of damage to community property, while assuming the monitoring and reporting of the team in charge.
- 讓社區或利益相關者表達彼等真實或是感知到的擔憂，以便在事態升級前解決困難及獲悉反饋；
Allows the community or stakeholders to express their real or perceived concerns so that difficulties may be resolved and feedback may be received before the situation escalates.
- 允許我們表達真誠的關心及支持；推崇支持；並在所有階段加強基於溝通及信任的尊重關係。
Allows us to show our genuine concern and support; promotes buy-in; and strengthens a respectful relationship based on communication and trust at all stages.



政府人員來訪Musonoi項目
Government Officials Visit Musonoi Project

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場於2010年成立了社區關係辦公室，就社區管理的進展及表現與利益相關方進行持續溝通，如向地方當局披露礦山及項目狀況、重新安置行動計劃、勘探進展以及影響社區的安全及環境相關事宜。此外，Chibuluma南礦場亦根據社區申訴政策處理社區申訴——公司實行開放政策，允許社區居民到辦公室投訴及/或申訴。報告期內，礦場發生了若干起與重新安置計劃相關的投訴，均已得到妥善處理，截至報告期末尚無重大未決社區投訴事項。

Chibuluma South Mine established a community relations office in 2010 to communicate with our stakeholders on the progress and performance of community management. This includes the disclosure of mine and project status to local authorities, resettlement action programme, exploration progress, and safety and environmental matters affecting the community. Moreover, Chibuluma South Mine manages community complaints and grievances in accordance with the Community Complaint Policy, fostering an open-door approach that encourages community residents to bring complaints and grievances to the office. During the reporting period, the mine received several complaints related to the resettlement programme, all of which were appropriately addressed, and no significant outstanding community complaints remained at the end of the reporting period.

原住民權利保護及安置 Indigenous Rights Protection and Resettlement

原住民關係為金川國際的重要議題。我們承認並尊重原住民的文化、傳承及傳統權利，支持鑑定、記載、管理及保護原住民的文化遺產。

Musonoi項目制定了與當地代表舉行季度會議的計劃，以解決影響彼等社區的問題，於當地社區招募年輕工人，並提供職業培訓。此外，我們於Chibuluma南礦場識別社會弱勢群體並為彼等尋求廣泛的支持。報告期內，我們共為42戶居民重新安置、向彼等家庭提供小雞作為生計支援並舉辦家禽管理技能培訓，同時為該社區挖掘5口井眼。

Indigenous relation is a material topic for JCI. We recognise and respect indigenous people's culture, heritage, and traditional rights and support the identification, recording, management, and protection of indigenous cultural heritage.

At Musonoi Project, we have established a programme to conduct quarterly meetings with local representatives to address issues affecting their communities, and we also recruit young people from the local community as temporary workers with the provision of vocational training. At Chibuluma South Mine, we identify socially vulnerable groups and seek broad-based support for them. During the reporting period, we successfully resettled a total of 42 households and provided those families with baby chicks as a means of livelihood support, followed by training sessions on poultry management skills. Furthermore, we dug five boreholes to benefit the community.

社區發展 Community Development

我們深明社區發展是承諾履行社會責任的關鍵組成部分。報告期內，我們積極參與社區活動並以多種方式與社區合作，合作方式包括但不限於：為彼等提供技能培訓，改善生計；制定當地勞工計劃，提高當地就業率；為改善當地交通、農業、教育、健康、環境、安全、醫療及其他基本狀況作出貢獻，支持社區可持續發展。

We are aware that community development is an integral part of our commitment to fulfilling our social obligations. During the reporting period, we engaged in community activities and worked with communities in a variety of ways to support sustainable community development. The modes of cooperation include but are not limited to providing them with skills training to improve their livelihoods; developing local labour programmes to improve local employment rates; contributing to the improvement of local transportation, agriculture, education, health, environment, safety, medical and epidemic prevention, and other basic conditions to support sustainable community development.

Ruashi礦場

Ruashi Mine

Ruashi礦場參與的社區活動廣泛，涵蓋社區生活的主要領域，包括教育、健康、農業、飲用水供應、電力等。報告期內，我們主要參與Ruashi社區的如下活動：

Ruashi Mine's involvement in the community is wide-ranging and covers the key areas of community life, including education, health, agriculture, drinking water supply, electricity, etc. During the reporting period, we were primarily involved in the following activities in the Ruashi community:

- **教育類：**修建學校，提供學校所需桌椅、飲用水及太陽能，並支付教師工資，以扶持當地教育發展；
Education: Supporting local education by constructing schools, supplying desks and chairs, clean drinking water, and solar energy in schools, and providing salaries to local teachers.
- **醫療健康類：**為兩家診所提供多普勒超聲儀、顯影機、科學燈、放射設備等醫療設備，以幫助提高社區的治療質量及健康安全；
Medical Health: Improving the quality of treatment and safety of healthcare practices in the community by equipping two clinics with medical equipment, including Doppler ultrasound machines, visualisers, medical exam lights, and radiology equipment.
- **促進經濟發展及技能提升類：**為耕作面積達200公頃的耕作活動提供化肥及種子，並為不同的農民群體提供培訓，以支持礦區周圍的農業發展；為礦區附近的300名婦女提供為期一年的時令蔬菜農業培訓項目，提升女性群體就業能力；
Promotion of Economic Development and Skills Enhancement: Providing fertilisers and seeds to cultivate farming activities on 200 hectares of land and training programmes to different groups of farmers to enhance agricultural development in the vicinity of the mine; implementing a one-year training programme focused on seasonal vegetable farming for 300 women to bolster their employability.

- 其他類：贊助剛果企業聯合會 (Federation des Entreprises du Congo/Federation of Congolese Enterprises, FEC) 的活動、贊助廢物管理論壇、剛果民主共和國年度礦業盛會，促進當地工業發展。

Others: Sponsoring significant events such as the Federation des Entreprises du Congo / the Federation of Congolese Enterprises (FEC) events, the Waste Management Forum, and the annual DRC Mining Gala to strengthen the local industry.



Ruashi礦場, 參與卡南巴小學建設並提供相關物資
Ruashi Mine Participated in the Construction of the Garamba Primary School and Provided Related Materials



Ruashi礦場, 為社區成員提供培訓
Training for Community Members at Ruashi Mine

Kinsenda礦場

Kinsenda Mine

Kinsenda礦場一直積極投身社區公益活動，有效幫助解決當地農業種植及發展、社區衛生防疫、教育技能培訓、用水用電等問題。報告期內，我們主要參與Kinsenda社區的如下活動：

During the reporting period, Kinsenda Mine has effectively helped with community matters such as agricultural farming, community health and epidemic prevention, education, and skills training and water and electricity. During the reporting period, we were primarily involved in the following activities in the Kinsenda community:

- 教育類：修建學校、為學生提供獎學金及企業參訪，支持當地教育事業發展；
Education: Supporting local education by constructing schools, offering scholarships to students, and facilitating corporate visits.
- 醫療健康類：建立社區衛生及醫療機構並資助醫療衛生設施，協助社區改善醫療衛生條件；舉行健康及安全知識普及活動，提升社區健康安全意識；
Medical Health: Establishing community health and medical organizations, and subsidizing medical and health facilities to improve community medical conditions; organizing health and safety awareness activities to enhance overall community well-being.
- 促進經濟發展及技能提升類：支持農業發展，助力農貿市場的建設及營運；支持婦女就業及創業，協助改善社區居民生活水平。

Promotion of Economic Development and Skills Upgrading: We actively support agricultural development, contribute to the construction and operation of agricultural markets, promote women's employment and entrepreneurship, and strive to improve the living standards of the community residents.



Kinsenda礦場，修建學校並提供物資
Kinsenda Mine Constructs the School and Provided Supplies



Kinsenda礦場, 修建社區衛生醫療機構
Kinsenda Mine Constructs the Community Health Care Facility



Kinsenda礦場, 支持婦女就業及創業
Kinsenda Mine Supports Women to Get Employed and Start Their Own Businesses

Musonoi項目

Musonoi Project

根據公司就致力於當地社區發展方面的策略，Musonoi項目制定了社區發展行動計劃。報告期內，Musonoi項目的主要社區公益活動實踐如下：

In line with the Company's strategies in terms of commitment to the development of local communities, Musonoi Project has established its Community Development Action Plan. During the reporting period, Musonoi Project's key community practices were as follows:

- 教育類：資助DILALA社區小學板凳、課桌及教學文具；協助並提供學生到公司參觀實習，提供實地井下參觀機會並對地下設備系統進行操作培訓；

Education: Providing subsidies for benches, desks, and stationery in the elementary school of the DILALA community; facilitating internship visits to the Company for students, organizing on-site visits to underground wells, providing valuable training on the operation of underground equipment and systems.

- 醫療健康類：資助MANIKA社區診所一批醫療器械及消毒液；聯合並贊助LUALABA省防愛滋病協會進行社區預防愛滋病教育宣傳，贊助DILALA區婦女協會預防乳腺癌宣傳活動；

Medical Health: Supporting the MANIKA Community Clinic by subsidizing a batch of medical equipment and disinfectant supplies; joining forces with the AIDS Prevention Association of LUALABA Province to carry out community education and public awareness campaigns on AIDS prevention and sponsoring the DILALA District Women's Association to raise awareness about breast cancer prevention.

- 促進經濟發展及技能提升類：提供DILALA農業合作社雞苗若干；關注婦女就業需求，項目本地僱員女性比例由20%提高至35%；提供DILALA社區木工、焊工、水電工職業培訓；

Economic Development and Skills Upgrading: Supplying a number of baby chicks to DILALA Agricultural Cooperative; recognizing the employment needs of women by increasing the proportion of female local employees in the project from 20% to 35%; providing vocational training for carpenters, welders, plumbers, and electricians in the DILALA community.

- 其他類：聯合LUALABA省消防局與MANIKA社區舉行火災應急逃生及預防知識講座；提供挖掘機，裝載機，壓路機等施工機械、材料及技術人員，修復被雨水沖毀的道路。

Others: Organizing a seminar on fire emergency escape and prevention in collaboration with the LUALABA Provincial Fire Department and the MANIKA community; supplying excavators, loaders, rollers, and other necessary construction machinery, materials, and technicians to address rain-induced damages on the road.

Chibuluma南礦場

Chibuluma South Mine

Chibuluma南礦場充份尊重社會、經濟、文化傳統習俗及人權，尊重當地社區的傳統習俗，致力於構建可持續發展的零傷害社區。報告期內，Chibuluma南礦場的主要社區實踐活動如下：

Chibuluma South Mine fully respects social, economic, and cultural traditions and customs, as well as human rights while recognizing and appreciating the traditions and customs of the local community. Its commitment is to build a sustainable community with zero harm. During the reporting period, Chibuluma South Mine actively engaged in the following community initiatives:

- 教育類：為1名貧困兒童提供高等教育支援；
Education: Providing financial support to an underprivileged child pursuing tertiary education.
- 其他類：重點支持地方政府相關活動，如參與婦女節捐款、校內競賽捐款、衛生捐款、行政部門捐款；完成礦區附近社區的重新安置工作。
Others: Prioritizing support to local government activities, including donations on Women's Day, school competition donations, donations for health, and donations for the administrative department; completing the resettlement process for communities near the mine.

綜上行動，下表列明了我們於2023年社區項目的財政投資。《礦業法》規定，採礦步入生產階段後，須撥出年營業額的0.3%至社會及社區部門，用於當地社區的發展。

In summary, the table below highlights our financial investment in community projects in 2023. According to the Mining Code, once mining enters the production phase, 0.3% of our annual turnover is allocated to the social and community sector for local community development.



○ 我們的表現 - Ruashi礦場社區投資(單位:千美元)
Our Performance - Ruashi Mine Community Investment (Unit: US\$' 000)

項目 Item	2023	2022	2021
社區供水 Community Water Provision	500	470	150
病房 (Ruashi鎮區) Ward Offices – Ruashi	390	390	85
農業項目 Agriculture Projects	250	200	350
植樹及應對氣候變化 Tree Planting and Response to Climate Change	250	-	-
健康 Health	200	247	65
教育 Education	200	-	85
社區糧食供給計劃 (孤兒及遺孀) Community Feeding Schemes (Orphans and Widows)	10	10	10
其他社區關係 Other Community Relations	100	45	-
合計 TOTAL	1,900	1,362	745

○ 我們的表現 - Kinsenda礦場社區投資(單位:千美元)
Our Performance - Kinsenda Mine Community Investment (Unit: US\$' 000)

項目 Item	2023	2022	2021
社區電力 Community Electricity	504	347	354
農業項目 Agriculture Projects	231	147	120
社區糧食供給計劃(孤兒及遺孀) Community Feeding Schemes (Orphans and Widows)	57	76	24
教育 Education	13	33	18
體育及休閒 Sport and Recreation	31	2	8
社區衛生 Community Sanitation	3	45	48
其他社區關係 Other Community Relations	94	93	68
合計 TOTAL	933	743	640

○ 我們的表現 - Musonoi項目社區投資(單位:千美元)
Our Performance - Musonoi Project Community Investment (Unit: US\$' 000)

項目 Item	2023	2022	2021
社區道路維修及排水管道添置 Community Road Repair and Addition Drainage Pipes	80	3	-
教育 Education	0.20	-	-
健康 Health	0.40	-	-
經濟發展及技能提升 Economic Development and Skill Enhancement	0.15	-	-
應急安全 Emergency Safety	0.10	-	-
支付予受電力線安裝影響的社區費用 Payments to Communities Impacted by the Installation of Power Lines	-	55	927
合計 TOTAL	80.85	58	927

○ 我們的表現 - Chibuluma南礦場社區投資(單位:千美元)
Our Performance - Chibuluma South Mine Community Investment (Unit: US\$' 000)

項目 Item	2023	2022	2021
社區重置支出 Reset Community Expenses	175	-	-
企業社會責任 Corporate Social Responsibility	0.43	8.68	0.19
健康 Health	0.13	-	1.52
教育 Education	0.10	0.61	1.19
合計 TOTAL	175.66	9.29	2.90





JINCHUAN 金川

05

穩健管治

Sound Governance

金川國際一貫重視良好的企業管治，並深明優良的企業管治是公司業務得以長期可持續發展的基礎。公司務求在企業管治範疇中達至最佳水平，以保障股東、客戶、僱員及其他持份者的利益，並堅定地致力維護及加強優良公司治理的原則及實踐，從而有效履行我們應盡的可持續業務增長與財務責任。

JCI consistently attaches importance to good corporate governance, recognizing it as fundamental to long-term sustainable business development. The Company strives to attain the highest standard of corporate governance to safeguard the interests of its shareholders, customers, employees, and other stakeholders. We are unwavering in our commitment to uphold and enhance the principles and practices of good corporate governance, fulfilling our responsibilities for Sustainable Business Growth and Financial Responsibility.

本章節所響應SDGs
SDGs focus in this chapter



本章節所回應重大性議題
Material topics addressed in this chapter

- 企業管治 Corporate Governance
- 可持續業務增長與財務責任 Sustainable Business Growth and Financial Responsibility
- 僱員發展與培訓 Employee Development and Training
- 商業道德 Business Ethics
- 合規與風險管理 Compliance and Risk Management

亮點2023

2023 HIGHLIGHTS

金川國際企業管治的架構及常規實踐均奉行「企業管治守則」的各項原則。我們堅持良好的企業管治攸關我們為股東等持份者創造可持續價值，並將致力持續完善風險管理系統，矢志維持高水平的商業道德操守。報告期內，我們繼續奉行高水平的企業管治標準，持續優化內部監控及全面風險管理，進一步加強商業道德建設，並取得如下成績：

JCI's corporate governance structure and practices align with the principles outlined in the Corporate Governance Code. We firmly believe that good corporate governance is vital in 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 maintained stringent standards of corporate governance. We optimised our internal controls and comprehensive risk management, while further enhancing our business ethics. As a result, we accomplished the following outcomes:

非執行董事及獨立非執行董事
佔董事會成員總數的 **75%**
75% of our Board members
comprised Non-executive
Directors and Independent
Non-executive Directors



0 起重大訴訟、仲裁事項或受
到重大行政處罰
No significant litigations,
arbitration matters, or adminis-
trative penalties were filed



0 起與賄賂及腐敗有關的案件
No instances of bribery or
corruption were reported



30 次定期或不定期廉潔從業檢查
30 integrity checks were
conducted on a regular or
irregular basis



786 名礦場僱員參與商業
道德培訓
A total of 786 mine employ-
ees engaged in business
ethics training



企業管治

CORPORATE GOVERNANCE

構建管控結合、集約規範、權責利相統一的現代公司管治體系，是確保企業有序高效運行及維護持份者長期利益的根本保障。金川國際始終致力於建立良好的企業管治常規及程序，持續提升董事會建設及運行質量，切實優化董事委員會職能，注重發揮獨立非執行董事作用，為企業可持續發展奠定堅實基礎。

The implementation of a modern corporate governance system which features comprehensive management, rigorous standardization, and unified rights and duties, is crucial for the smooth and efficient operation of the Company and the protection of the long-term interests of stakeholders. JCI has consistently dedicated itself to establishing sound corporate governance practices and procedures. This includes continuously improving the Board's building and operation, practically optimizing the Committees' functions, and maximizing the effectiveness of independent non-executive directors. These efforts aim to establish a solid foundation for the sustainable development of the Company.



董事會及董事委員會 The Board and the Committee

金川國際董事會負責本公司業務事項、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本公司對股東及其他持份者的責任及義務的關鍵，並確保本公司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。

The Board is responsible for JCI's business affairs, strategy, and management and is committed to a high standard of corporate governance practices, which are considered to be pivotal in enhancing sustainable shareholder value and meeting the Company's accountability and responsibility 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.



金川國際董事會企業管治職責
JCI Board's Corporate Governance Duties

此外，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。各委員會根據書面訂明特定職權範圍，監管本公司事務的若干特定範疇。

In addition, 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 committee oversees certain particular aspects of the Company's affairs in accordance with clearly defined written terms of reference.

審核委員會 Audit Committee



- 審計委員會由一名執行董事及三名獨立非執行董事組成，他們具備會計、財務管理、行業知識、法律及業務經驗
Audit Committee comprises one executive director and three independent non-executive directors with expertise in accounting, financial management, industry knowledge, legal and business.
- 主要職責包括審閱財務報表、建議選任或更換審計師、監督審計師獨立性、評估審計效率、檢查財務控制與風險管理，並審視財會政策及就聯交所守則向董事會報告
The primary duties include reviewing financial statements, recommending the appointment or replacement of auditors, ensuring the independence of auditors, assessing the effectiveness of the accounting process, scrutinising financial controls and risk management, reviewing financial accounting policies and reporting them to the Board in compliance with the requirements of the Stock Exchange's Code.

薪酬及提名委員會 Remuneration and Nomination Committee



- 薪酬及提名委員會由五名成員組成，包括一名執行董事、一名非執行董事，以及三名獨立非執行董事
Remuneration and Nomination Committee comprises five members, including one executive director, one non-executive director, and three independent non-executive directors.
- 在薪酬方面，主要職責包括建議董事及高級管理人員的薪酬、審閱及提出薪金及獎勵計劃、管理長期激勵計劃及決定短期激勵的關鍵績效指標；在提名方面，主要職責包括評估董事會的結構、人選及技能、尋找及提名董事候選人以及就董事任命或繼任計劃提出建議
In terms of compensation, the main duties involve making recommendations regarding the remuneration of Directors and senior management, reviewing and proposing salary and incentive schemes, administering long-term incentive plans, and establishing key performance metrics for short-term incentives. As for nominations, the key responsibilities entail evaluating the structure, candidates, and skills of the Board, identifying and nominating individuals for director positions, as well as recommending appointment or succession plans for directorships.

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三名獨立非執行董事組成
Risk Management Committee comprises two executive directors and three independent non-executive directors.
- 主要職責包括監督公司內的風險管理活動，並對董事會提出關於風險策略及監控措施的建議，以減低因市場波動及其他外在因素而產生之整體風險；此外，風險管理委員會接獲管理層要求，檢討並提升本公司之風險管理系統、評估重大交易合約及貸款協議之潛在風險，並向董事會提供相關推薦建議
The main duties involve supervising risk management activities within the Company and advising the Board on risk strategies and controls to mitigate overall risk arising from market volatility and external factors. Additionally, the Risk Management Committee receives requests from management to review and enhance the Company's risk management system, assess potential risks associated with significant trading contracts and loan agreements, and provide appropriate recommendations to the Board.

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以及一名非執行董事組成
Strategy and Investment Committee comprises two executive directors and one non-executive director.
- 主要職責為制定集團長期策略、推薦收購與出售投資項目，以及監督及提升海外資產管理效率和回報，並向董事會提供相關專業建議
It is responsible for formulating long-term strategic development plans, reviewing current and target investments with a view to making recommendations on the appropriateness of acquiring or disposing of investments, advising the Board on target investments and managing the overall investment strategy.

董事會獨立性 Board Independence

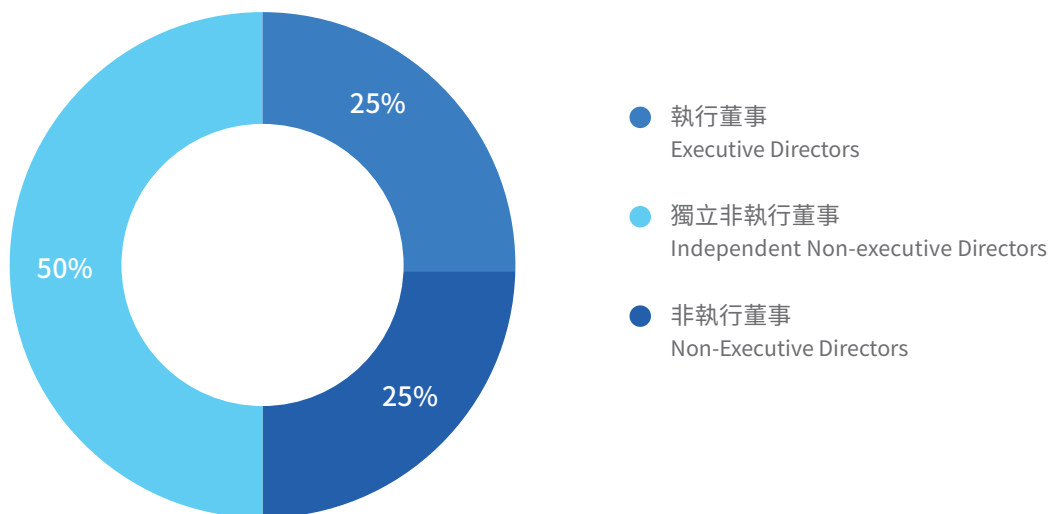
董事會獨立性直接影響企業的決策透明度及有效性。一個獨立的董事會能夠以更客觀的立場監督管理層，從而有效避免利益衝突，提升公司決策質量及透明度。截至報告期末，金川國際董事會共有8名成員，其中包括2名執行董事、2名非執行董事以及4名獨立非執行董事。非執行董事及獨立非執行董事佔董事會成員總數的75%。

同時，獨立非執行董事在我們公司治理結構中亦扮演著關鍵角色。本公司認為全體獨立非執行董事均為獨立人士，其不僅獨立於管理層、均未以任何形式持有公司股份，並在本公司任何業務或財務權益中無利害關係，與其他董事亦無任何私人或專業關聯。這保證了他們能夠在決策過程中保持客觀及公正。

The board independence directly impacts the transparency and efficacy of corporate decision-making. An independent board can objectively supervise management, thus effectively avoiding conflicts of interest and enhancing the quality and transparency of decision-making within the Company. As of the end of the reporting period, the Board of JCI consisted of eight members in total, including two executive directors, two non-executive directors and four independent non-executive directors. Non-executive directors and independent non-executive directors constituted 75% of the total board membership.

Simultaneously, independent non-executive directors play a crucial role in our corporate governance structure. The Company recognises that all independent non-executive directors are impartial. They maintain independence from management, possess no shares in the Company, hold no vested interest in its business or finances, and have no personal or professional relationships with other Directors. This guarantees their ability to maintain objectivity and impartiality throughout the decision-making process.

▼ 董事會成員構成情況 Board Composition



為進一步加強董事會的獨立性及其功能，提升決策的透明度及效率，我們亦實施了以下措施來確保監督機制的高效運作。

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 supervising mechanism.



董事選舉及評估 Election and Evaluation of Directors

在選擇和推薦董事候選人時，薪酬及提名委員會嚴格考慮候選人是否符合《上市規則》第3.13條所載可影響獨立性的因素的要求。

In selecting and recommending candidates for directorships, the Remuneration and Nomination Committee strictly considers whether the candidates meet the criteria affecting independence as set out in Rule 3.13 of the Listing Rules.



定期獨立會議 Regular Independent Meetings

主席至少每年舉行一次只有獨立非執行董事參加的會議，以確保他們在沒有其他董事參與的情況下能夠自由討論及表達意見。

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 at least once a year.



專業意見的取得 Access to Professional Advice

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.

董事會獨立性強化措施 Board Independence Enhancement Measures

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的表現素質裨益良多。多元化將帶來不同的觀點及經驗，增強決策過程的質量及創新性。因此，為達致可持續及均衡的發展，根據企管守則及董事會提名政策，我們在設定董事會成員組合及甄選董事人選時，會從多個方面考慮董事會成員多元化，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. Diversity brings varied perspectives and experiences while enhancing decision-making innovation and quality. Therefore, to achieve sustainable and balanced development, when setting the composition of the Board 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

截至報告期末，女性董事在董事會中的比例為12.50%。我們將持續推動女性領導力發展，在增強董事會靈活性的同時，為企業決策帶來更多元化的思維。
As of the end of the reporting period, the proportion of female directors on the Board was 12.50%. 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.



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的背景，具備豐富的經驗及專業知識，從而有效監督公司的業務。目前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。

Our executive and non-executive directors have a diverse background and possess a wealth of experience and expertise to effectively oversee the Company's business. 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.



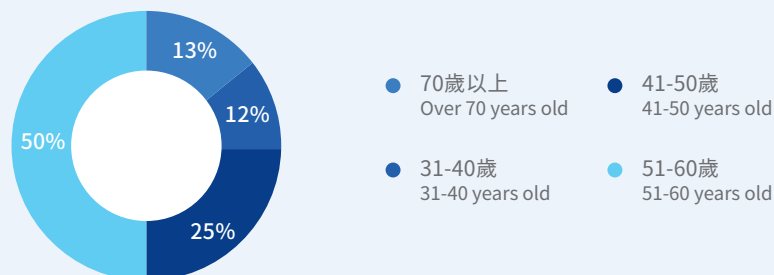
年齡結構多元化

Diversity of Age Structure

公司董事會成員年齡組別結構均衡，覆蓋了多個年齡層次，反映出我們對各代人才及經驗的重視，並有助於確保決策過程中既有年輕的創新活力，又有資深的穩重智慧。這種跨年齡的合作及知識共享將為公司的可持續發展及對市場變化的敏感性提供堅實基礎。

The balanced age structure of the Board, covering a wide range of age groups, reflects the importance we place on talent and experience from all generations, which ensures that decision-making benefits from the creativity of the young and the wisdom of the experienced. This cross-generational collaboration and knowledge sharing will form a strong basis for the Company's sustainable growth and adaptability to market changes.

▼ 董事會成員年齡結構 Age Structure of Board Members



專業培訓及發展 Professional Training and Development

為確保我們的董事能夠有效履行職責並深入了解公司的策略方向、業務活動及可持續發展，我們致力於為董事提供持續的專業發展機會。報告期內，我們安排了一系列針對董事的專業發展活動，旨在加強其對本公司行為守則、業務活動以及相關上市規則及其他適用監管規定的理解。相關專業發展活動包括且不限於內部簡報會、提供專門的守則資料以及鼓勵董事參加有關培訓課程。特別是，我們關注於向董事傳達有關最新監管發展及良好企業治理實踐的知識，以確保我們的治理結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，並已向公司提交了截至報告期末的培訓記錄。

上述行動，反映了我們對提升董事會整體效能及專業知識的持續承諾，同時確保每位董事都能在深入理解當前業務營運及監管環境的前提下，對董事會及公司作出富有洞察力的重要貢獻。

We provide continuous professional development opportunities for our Directors to ensure they can perform their duties effectively and deeply understand the Company's strategic direction, business activities and sustainable development. During the reporting period, we have arranged a series of professional development activities for our Directors to enhance their understanding of the Company's Code of Conduct and business activities, as well as relevant Listing Rules and other regulatory requirements. These activities include internal briefings, provision of specialised materials, and encouragement for Directors to attend relevant training courses. Additionally, we focus on educating our Directors about the latest regulatory developments and good corporate governance practices, ensuring our governance structure and operations adhere to the highest standards. All Directors have participated in these professional development activities and submitted their training records to the Company by the end of the reporting period.

The above efforts exemplify our ongoing dedication to improving the overall effectiveness and expertise of the Board. This commitment ensures each Director can contribute insightfully to the Board and the Company with a deep understanding of current business operations and the regulatory environment.

商業道德




BUSINESS ETHICS

金川國際致力於建立並維護高標準的商業道德。我們承諾，在進行任何商業交易及/或建立商業關係時，都將保持專業、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。我們自2016年起實施《道德行為準則和人權政策》（「道德守則」），該守則是我們文化的核心部分，亦是我們商業決策及內外部互動的指導原則。同時，該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），並旨在確保金川國際及其附屬公司的全體僱員遵守及實施我們的標準及價值觀，從而體現我們對組織誠信及商業道德的堅定承諾。此外，我們致力於向股東及公眾及時提供全面、公正、準確且易於理解的信息，持續提高信息披露透明度以增進信任。

JCI is dedicated to establishing and maintaining high standards of business ethics. We are committed to professionalism, honesty, and integrity in all business dealings and relationships, and we strive to prohibit any behaviour that could tarnish the Company's reputation and integrity. Since 2016, we have introduced the Group Code of Ethics and Human Rights Policy (the Code of Ethics), which underpins our culture and guides our business decisions and internal and external interactions. The Code is applicable to all JCI employees worldwide, regardless of their location or role. It is designed to ensure that all employees of JCI and its subsidiaries adhere to and implement our standards and values, thus demonstrating our resolute dedication to organizational integrity and business ethics. In addition, we are committed to the timely disclosure of full, fair, accurate, and understandable information to our shareholders and the public.

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 pursuing these values, JCI requires its Directors, manager and employees to adhere to the Code of Ethics and be bound by it to uphold the following standards:

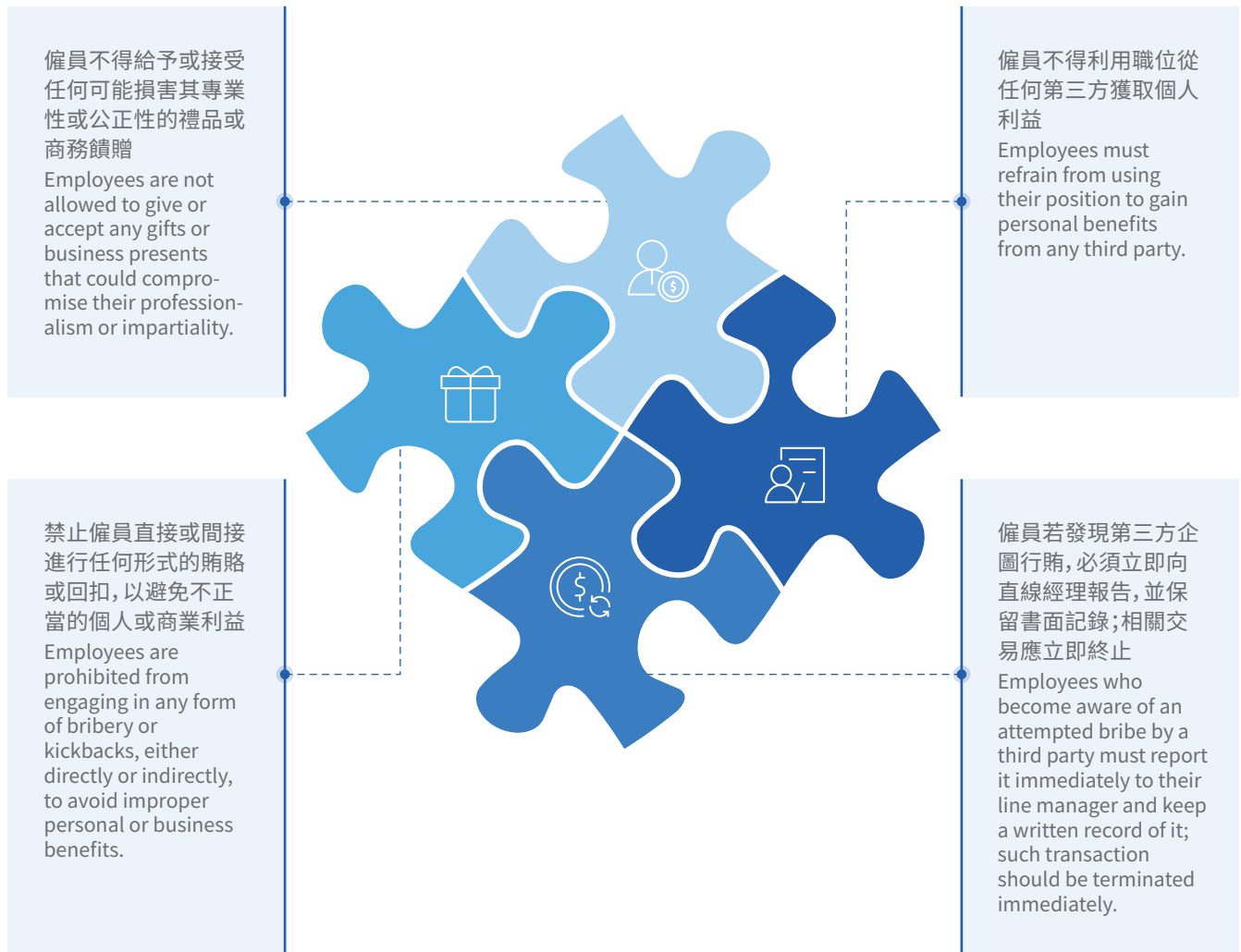
-  避免與公司利益衝突的行為或個人利益追求
Avoid behaviour that conflicts with the Company's interests or the pursuit of personal gain.
-  保密公司資訊，禁止私自使用或洩露
Keep company information confidential and prohibit its use or disclosure for personal use.
-  按照《道德守則》處理利益衝突
Deal with conflicts of interest in the manner required in the Code of Ethics.



反腐敗及反賄賂 Anti-Corruption and Anti-Bribery

我們積極推動建立一個廉潔、透明的企業文化，要求所有董事、監事、僱員、供應商及承建商嚴格遵守公司政策及標準，嚴格禁止任何形式的賄賂及腐敗行為，並要求僱員在面對此類行為時採取積極的行動。我們密切監察全公司有關賄賂及腐敗的政策，並遵照《聯合國全球契約原則》《聯合國反腐敗公約》等，制定公司有關反賄賂及反腐敗的政策，對標最高商業道德標準，規範全員誠信及道德行為。2023年，金川國際內並無發生賄賂及腐敗案件。

We foster a clean and transparent corporate culture by mandating strict compliance with the Company's policies and standards for all Directors, supervisors, 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 bribery and corruption and developed company policies for anti-bribery and anti-corruption in line with the UNGC Principles and United Nations Convention against Corruption, benchmarking against the most stringent ethical business standards and regulating the integrity and ethical conduct of all our employees. In 2023, there were no reported cases of bribery and corruption within JCI.



「道德守則」中反腐敗及反賄賂的四項主要內容
The Four Key Elements of the Code of Ethics Against Corruption and Bribery

於礦場層面，金川國際各礦區均有量身定制的反腐敗及反賄賂相關慣例，並不斷加強內控自查及評價機制。我們對所有營運點均進行了反腐敗風險評估，指導並督促開展了30次定期或不定期廉潔從業檢查，參與商業道德培訓的僱員總數共計786人。

At the mine site level, JCI tailors anti-corruption and anti-bribery related practices in each of its mines, and continuously strengthens its internal control self-inspection and evaluation mechanism. We have carried out anti-corruption risk assessments at all our operating sites, providing guidance and oversight for 30 regular or irregular integrity inspections, and delivering business ethics training to a total of 786 employees.



Ruashi礦場 Ruashi Mine

Ruashi礦場已制定了一套全面的反腐敗合規計劃，該計劃包含對所有對外付款的授權及記錄保存的詳細政策及程序，以強化對疏通費用的監督管理。我們堅決不鼓勵任何形式的疏通費，並要求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，並在公司賬簿中作出妥善記錄。報告期內，Ruashi礦場共計開展3次商業道德培訓，參訓人數為574人，並開展廉潔從業檢查1次。

Ruashi Mine has put in place a comprehensive anti-corruption compliance programme, which contains detailed policies and procedures for the authorization and record keeping of all the payments made to external parties at the Company in order to strengthen the oversight and management of facilitation payments. We strongly discourage facilitation payments of any kind and require that All facilitation payments must be reviewed and approved in accordance with Company policies and local procedures and must be properly recorded in the Company's books. During the reporting period, the Ruash Mine organised three business ethics training sessions with a total of 574 participants. Additionally, one integrity inspection was conducted.



Kinsenda礦場 Kinsenda Mine

Kinsenda礦場繼續遵守「一崗雙責」制度，確保所有高級管理人員專注於其負責的業務領域，並全面貫徹商業操守原則。報告期內，Kinsenda礦場共計開展4次商業道德培訓，參訓人數為68人，並開展廉潔從業檢查12次。

Kinsenda Mine continues to comply with the "One Position, Two Responsibilities" system to ensure that all senior management staff focus on their respective areas of responsibility and effectively uphold the principles of business ethics. During the reporting period, Kinsenda Mine conducted four business ethics training sessions for 68 participants and carried out 12 integrity inspections.



Musonoi項目 Musonoi Project

Musonoi項目於報告期內亦繼續加強反賄賂、反腐敗管治建設，通過與高級管理層的面談及專題會議，加強高層對於廉潔合規文化的認識及執行。報告期內，Musonoi項目共計開展12次商業道德培訓，參訓人數為144人，並開展廉潔從業檢查17次。

Musonoi Project also continued to reinforce its anti-bribery and anti-corruption governance during the reporting period, through interviews and special sessions with senior management to enhance their understanding and implementation of a culture of integrity and compliance. During the reporting period, Musonoi Project organised 12 business ethics training sessions for 144 participants and conducted 17 integrity inspections.

反不當競爭 Prevention of 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》等法律法規及相關標準，致力於公平誠信地進行競爭。為確保建立公平誠信的競爭機制，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，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 laws and regulations, as well as relevant standards. In order to ensure the establishment of a fair and honest competition mechanism, 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.

舉報者保護 Whistleblower Protection

我們建立健全舉報者保護制度，鼓勵內外部人員對不合規營運事件進行監督舉報，以進一步鞏固風險管理機制。我們的《反欺詐、不當行為及舉報政策》闡述了公司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公平對待。此外，即使指出的疑慮最終無法得到證實，公司亦將確保僱員不會受到不公平解僱、傷害或不當的紀律處分，並重視及感激舉報者的關注。若有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，公司保留向任何人（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的紀律處分。

We have developed a comprehensive Whistleblower protection policy that encourages internal and external individuals to supervise and report operational irregularities to further strengthen our risk management mechanisms. Our Anti-Fraud, Misconduct and Whistleblowing Policy sets out the Company's stance on safeguarding the legitimate rights of Whistleblowers and clearly stipulates that persons making genuine and appropriate complaints under this policy are assured of fair treatment. In addition, the Company will ensure that employees are not unfairly dismissed, victimized or unwarranted disciplined, even if the concerns raised turned out to be unsubstantiated, and that the Whistleblower's concerns are valued and appreciated. 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.

舉報者可根據《反欺詐、不當行為及舉報政策》中闡明的舉報渠道進行舉報，公司將依照規定開展後續調查工作。相關行為一經查實，公司將按照政策規定追究相應責任；觸犯法律的，將移交當地司法機關處理。同時，公司在能力範圍內將致力確保舉報者的身份得到保密，除非獲得舉報人的書面同意或因法律責任或規定的需要，否則我們將不會透露舉報人的身份及信息，且所有舉報數據將受到嚴格的保密處理，並在法律框架內得到保護。

Whistleblowers may report according to the reporting channels set out in the Anti-Fraud, Misconduct and Whistleblowing Policy, and the Company will carry out follow-up investigations in accordance with the provisions. Once the report is verified, the Company will pursue the corresponding responsibility in accordance with the policy; in case of violation of the law, it will be transferred to the local judicial authorities for handling. Meanwhile, the Company will make every effort, within its capacity to do so, to keep the Whistleblower's identity confidential. Unless with the Whistleblower's written consent or due to legal obligations, we will not disclose their identity or associated information. All reported data will be handled and protected with strict confidentiality within the bounds of the law.

電郵舉報途徑 Email Reporting Channel

whistleblowing@jinchuan-intl.com



風險評估及管理

RISK ASSESSMENT & MANAGEMENT

金川國際深明建立並維護一個有效而健全的風險管理及內部監控系統的重要性。基於此，我們的董事會積極承擔起評估、監督及定期檢討這一系統的責任，以確保它能夠適應不斷變化的商業環境及潛在風險。管理層則負責從上而下確立公司的業務基調，確保所有僱員都能理解並致力於風險管理工作。此外，我們的管理團隊專注於設計、操作及實施合適的內部監控及風險管理系統，同時在項目建設及日常業務運作的每個環節中，融入對ESG風險的綜合考量。

JCI recognises the significance of establishing and maintaining an effective and robust risk management and internal control system. Accordingly, our Board actively evaluates, oversees, and regularly reviews the system to ensure its responsiveness 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 devoted to risk management. Furthermore, our management team concentrates on developing, operating, and implementing suitable internal control and risk management systems, while integrating ESG risk considerations into every facet of project construction and day-to-day business operations.

風險管理框架 Risk Management

我們堅持以價值最大化的方式識別、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份理解公司面臨的風險狀況，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定並強化落實有效的風險緩解措施。透過維護風險管理框架，我們致力於：

We adhere to a value-maximizing approach to identifying, managing and mitigating risks and incorporate risk considerations into the decision-making process. Through Enterprise Risk Management programme, we are committed to ensuring that management fully comprehends the Company's risk profile, and facilitates discussions and information sharing on key risks among different functions. This drives informed strategic decision-making and enhances the implementation of effective risk mitigation measures. Through the maintenance of the framework, we are dedicated to:



在我們的風險管理職能體系中，董事會對風險管理流程承擔總體責任，而風險總監則是風險管理流程的總保證人。董事會透過審計委員會評估風險管理制度及流程的有效性，每年進行風險管理政策的審查及批准，監控重大風險，並設定風險偏好及風險抵禦水平。風險總監則負責確保風險管理框架及流程的各個組成部分得到妥善執行，並向執行管理團隊賦予全面的風險管理責任，以確保整個組織內部的風險管理流程與公司營運一致且有效。

In our risk management function system, the Board holds overall responsibility for the risk management process, while the Chief Risk Officer is the overall sponsor of JCI's risk management process. The Board should evaluate the effectiveness of the system and process of risk management through the Audit Committee. On an annual basis, the Board is required to review and approve the risk management policy, monitor material risks, and set risk appetite and tolerance levels. It is the duty of the Chief Risk Officer to ensure the proper implementation of all components of the risk management framework and processes and delegate responsibility for all aspects of risk management to the Executive Management Team, ensuring consistent and effective risk management processes throughout the Company's operations.

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礎性作用，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。透過對整體風險管理流程和框架的理解，每位僱員能夠將深刻的風險文化融入公司的各個層面，超越傳統的安全、健康及環境文化，從而形成全面的風險意識文化。

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. By comprehending the overall risk management process and framework, all employees are able to embed a deep risk culture into every facet of the Company, extending beyond the conventional realms of safety, health, and environmental considerations to cultivate a comprehensive risk-aware culture.

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，堅信此為保障公司健康穩定發展、增強企業價值之關鍵。為此，我們於報告期內持續加強並優化我們的風險管理及內部監控機制，確保其既符合行業最佳實踐，又貼合本公司營運特點及戰略需求。

We attach great importance to the establishment and improvement of our internal control and risk management system, and firmly believe that it is the key to safeguarding the healthy and stable development of the Company and enhancing its corporate value. Therefore, we have continuously fortified and optimised our risk management and internal control mechanisms throughout the reporting period, aligning them with industry best practices, as well as the unique operational characteristics and strategic requirements of the Company.

我們每年均對風險管理及內部監控系統的有效性進行全面檢討。報告期內，經董事會及審計委員會之合作，我們完成了對公司風險管理及內部監控系統的年度全面評審，並認為風險管理及內部監控系統有效且完整。此次評審涵蓋所有重大監控，包括財務、營運及合規監控，以及多個風險管理職能，並將對系統進行任何必要的更新。此外，此次評審亦對維持系統持續有效性所需的資源充足度、人員資質、培訓計劃等方面進行了深入分析，評估了風險管理及內部控制系統持續監控的範圍及質量，並確認了會計及財務報告部門僱員的專業資質及經驗，以及對他們進行持續培訓的計劃及預算的充份性，以保持團隊的高效能力及響應速度。

Annually, we conduct a comprehensive review of the effectiveness of our risk management and internal control system. During the reporting period, in collaboration with the Board and the Audit Committee, we completed a comprehensive annual review, which considered the risk management and internal control system to be effective and comprehensive. The review covered all material controls, including financial, operational, and compliance controls, as well as various risk management functions, with any necessary system updates to be implemented. Furthermore, the review delved into an in-depth analysis of resource adequacy, staff qualifications, and training programmes essential for maintaining the ongoing effectiveness of the system. It assessed the scope and quality of ongoing controls within the risk management and internal control system, verifying the professionalism and experience of the employees in the Accounting and Financial Reporting Department, in addition to the sufficiency of plans and budgets for their continuous training to uphold their high level of competency and prompt responsiveness.

內幕消息管理 Inside Information Management

我們的行為守則對所有僱員均具備約束力，明確規範了在內幕信息得到合法披露前，對這些資訊的保密要求以及禁止利用內幕消息為個人謀利的行為。我們致力於不斷審視並強化內部處理及發放內幕消息的程序，以及相關內部監控措施的有效性。這包括定期對我們的行為守則及內部管理流程進行更新，以確保我們的資訊管理工作有效遵循國際最佳實踐標準並符合所有適用的法律法規要求。

Our Code of Conduct binds all employees and outlines the obligations for preserving the confidentiality of inside information until its lawful disclosure, as well as prohibiting the use of inside information for personal benefit. We are dedicated to consistently evaluating and enhancing our internal protocols for managing and distributing inside information, along with the efficiency of associated internal controls. This encompasses regular updates to our Code of Conduct and internal management procedures, ensuring that our information management practices align with international best practice standards and conform to all relevant legal and regulatory mandates.





JINCHUAN 金川

06

經濟韌性

Economic Resilience

金川國際於礦場採購活動全生命週期內積極踐行負責原則，在合法合規營運的同時，以科技賦能生產，提供安全且高質產品，並致力於構建可持續供應鏈，提升高質量發展能力，從而有效增強公司經濟發展韌性。

During the full life cycle of its mining procurement, JCI consistently adheres to responsible principles. Operating in accordance with legal and regulatory standards, the Company leverages technology to ensure the safety and high quality of its products. Additionally, JCI is dedicated to establishing a sustainable supply chain, enhancing the capacity for high-quality growth, thereby enhancing the Company's economic resilience.

本章節所響應SDGs

SDGs focus in this chapter



本章節所回應重大性議題

Material topics addressed in this chapter

- 可持續業務增長與財務責任 Sustainable Business Growth and Financial Responsibility
- 產品責任 Product Responsibility
- 負責任供應鏈 Responsible Supply Chain
- 商業道德 Business Ethics

亮點2023

2023 HIGHLIGHTS

金川國際致力於以可持續方式經營業務，並具備足夠且恰當的管治體系來監管其發展及最大限度地提高採礦與成礦活動的社會、環境及經濟效益，切實維護各利益相關方的合理權益。報告期內，我們合法合規地開展相關採購及產品銷售活動，並取得如下成績：

JCI is committed to conducting its operations in a sustainable manner and possesses various proper governance systems to oversee its growth and optimise the social, environmental, and economic benefits of its mining and mineralisation activities, while also protecting the legitimate rights and interests of all stakeholders. During the reporting period, we executed procurement and product sales activities in a lawful and compliant manner, yielding the following achievements:

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的事件

No instances of recall of sold or shipped products due to safety or health concerns



0 起關於廣告與實際不符相關情況的投訴

No complaints regarding misleading advertisements



0 起關於洩露或侵犯消費者/客戶個人情況及隱私的投訴

No complaints concerning the disclosure or violation of consumer/customer personal information and privacy



0 起關於負責任採購相關的輿情事件

No reputational incidents associated with responsible purchasing



經濟表現

ECONOMIC PERFORMANCE

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，大力提升銅、鈷等優勢礦種，不斷追求在礦產高效開發方面的技術突破，以效率更高、成本更低、排放更少的工藝完成礦產開發。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。下表反映了金川國際的主要經濟貢獻：

To support the global energy transformation, JCI is committed to leveraging its resource strengths to make positive economic and social impacts. This includes actively promoting the extraction of copper, cobalt, and other valuable minerals, and continually seeking technological advancements to enhance the efficient development of these resources. Through this approach, we aim to streamline mining processes, reduce costs, and minimise emissions. 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 not only fulfil our fiscal obligations but also contribute to the financial well-being of local governments and the overall welfare of their residents. Please refer to the table below for an overview of JCI's significant economic contributions:

指標 Indicators	單位 Unit	2023	2022	2021
銅產出量 Copper Production	噸 Tonne	62,006	59,440	61,260
鈷產出量 Cobalt Production	噸 Tonne	2,207	3,961	3,379
收益 Revenue	百萬美元 US\$' m	638.9	881.6	831.9
除息稅折舊攤銷減值前溢利 EBITDA	千美元 US\$' 000	111,912	111,776	311,534
年內(虧損)溢利 (Loss) Profit for the Year	千美元 US\$' 000	(10,670)	6,864	162,445
所得稅開支 Income Tax Expense	千美元 US\$' 000	37,694	54,266	116,729

產品責任

PRODUCT RESPONSIBILITY

金川國際之產品主要出售予全球貿易商及/或冶煉廠。我們的材料及產品管理措施注重通過提供可持續產品、技術、營銷支持以及可靠且及時的交付，成為優先選擇及負責任的供應商。

JCI's products are sold primarily to a variety of global traders and/or smelters. Our materials and product stewardship initiatives focus on being a preferred and responsible supplier by providing sustainable products, technology, marketing support, and reliable and timely delivery.

我們依據行業固定方式進行礦石產品的銷售及結算，礦產品的質量由我們同客戶共同指定的第三方實驗室進行裁定，不存在誇大產品質量、不道德採購等情況，我們的礦權均經當地政府（礦業部）官方認證，不存在衝突礦產產品。報告期內，金川國際未有產品出於產品安全、健康或質量原因而被召回。

We adhere to the industry's established practices when selling and settling our ore products. The quality of our mineral products is verified by third-party laboratories appointed by us and our customers, and we neither overstate the quality of our products nor engage in unethical sourcing. Our mineral rights have been officially certified by the local government (the Ministry of Mining), and we do not deal in conflict minerals. During the reporting period, JCI did not have any products recalled for safety, health, or quality reasons.

產品質量管理 Product Quality Management

產品質量是企業生存及發展的立足根本，直接關乎企業效益及品牌形象。金川國際各礦場一貫高度重視產品品質管控及質量管理技術的不斷提升，確保將優質產品供予全球客戶。

Product quality is fundamental to an enterprise's survival and development, having a direct impact on its efficiency and brand image. JCI's mines consistently prioritise product quality control and continuously enhance quality management technology to deliver high-quality products to customers worldwide.

► Ruashi礦場產品質量管理

Product Quality Management at Ruashi Mine

Ruashi礦場的所有產品均由我們的實驗室、國際公認的第三方公司及政府控制的服務機構進行檢驗及測試控制，以確保向市場提供合格、高質量產品。一方面，我們製定了生石灰、氧化鎂、硫磺等試劑質量管理標準，實施試劑質量控制，降低試劑廢品率，保持高質量標準。另一方面，我們製定了國外礦石管理政策、取樣、樣品製備及化驗程序等製度，以保護公司及客戶的利益。2023年，我們將冶金會計系統升級到新版本，高精度地生成生產報告、回路平衡及試劑消耗，以更好地賦能高質量礦石生產。

Ruashi礦場生產的電解銅以每捆2至2.5噸（約60塊電解板）的形式放置。第三方檢測機構使用隨機數生成法對每捆電解銅進行抽樣及目視檢查以確保無表面污染或實物問題。

► Kinsenda礦場產品質量管理

Product Quality Management at Kinsenda Mine

Kinsenda礦場已建立全面的質量及技術標準來控制我們的產品（銅精礦）質量，如精礦品位、精礦水份及鬆散度，以獲得客戶認可。我們通過及時根據原礦品位變化調整浮選藥劑及產出率而使得2023年精礦品位高達47.23%，遠高於客戶要求的40%。2023年，我們通過加速精礦出口、提高精礦壓濾效率等方式，將精礦水份控制在11%左右，產品未出現結塊現象。

The products from Ruashi Mine undergo inspection and testing by our in-house laboratories, internationally recognised third-party companies, and government-controlled service organizations to guarantee the provision of high-quality, qualified products to the market. We establish quality management standards for reagents, including quicklime, magnesium oxide, and sulphur, along with stringent quality control measures to minimise reagent rejects and uphold high standards. Additionally, we establish foreign mineral management policies, and sampling, sample preparation, and testing procedures to safeguard the Company's and customers' interests. In 2023, we upgraded our metallurgical accounting system to a new version that produces production reports, circuit balances, and precise reagent consumption data, enhancing high-quality mineral production.

At Ruashi Mine, copper cathode produced is placed in bundles of 2 to 2.5 tonnes each (approximately 60 cathode sheets). A third-party inspection organization samples and visually inspects each bundle of copper cathode using random number generation to ensure that there are no surface contaminations or physical issues.

Kinsenda Mine establishes comprehensive quality and technical standards to control the quality of our products (copper concentrate). These standards encompass concentrate grade, moisture levels, and bulkiness to meet the expectations of customers. Through timely adjustments in flotation reagents and production rates in response to variations in the mineral grade, we achieved a remarkable concentrate grade of 47.23% in 2023, significantly surpassing the customers' minimum requirement of 40%. Furthermore, in the same year, we effectively maintained concentrate moisture levels at around 11% by expediting the export of concentrates and enhancing the efficiency of concentrate filtration, resulting in no product agglomeration.

Kinsenda礦場根據不同的產品類別、狀態、包裝樣式等制定不同的抽樣管理方法。報告期內，我們通過優化精礦裝袋管理、提高精礦噸袋質量、採用1.5噸裝袋方式等措施，加快服務速率、提高服務質量。同時，我們通過提高每個精礦袋所裝精礦的重量（從1噸提高至1.5噸），減少精礦袋的用量，有效節約物料使用。

At Kinsenda Mine, different sampling management methods have been developed according to different product categories, states, packaging styles, etc. During the reporting period, we optimised concentrate bagging management, enhanced the quality of concentrate bags, and implemented the 1.5-tonne bagging method to bolster service rates and improve service quality. Concurrently, by increasing the content of concentrate in each bag from 1 tonne to 1.5 tonnes, we minimised the number of bags required, thereby conserving materials effectively.



Kinsenda礦場精礦裝袋管理
Concentrate Bagging Management at Kinsenda Mine

▶ 外部質量審計

Quality Audit by External Agencies

Ruashi礦場已制定電解銅生產流程，並向客戶披露所有信息，尤其向通過美國海關運輸產品的客戶披露CF28檔要求。應客戶要求，我們已多次進行負責任採購審核，接受賓士、寶馬、奧迪、三星根據經濟合作與發展組織（「OECD」）之要求，聘請第三方專業機構進行多次審核並已出具符合規定的審計報告。

Ruashi Mine develops copper cathode production processes and provides comprehensive information to customers, specifically regarding the CF28 requirements for shipping products through US Customs. In response to customer requests, we have conducted various responsible sourcing audits and have obtained multiple compliance audit reports from third-party professional organizations, as mandated by the Organization for Economic Cooperation and Development (OECD), for clients such as Mercedes-Benz, BMW, Audi, and Samsung.

產品安全管理 Product Safety Management

安全管理是企業生產管理的重要組成部分。金川國際一貫致力於確保我們的產品、包裝，以及僱員、客戶及環境營運的安全性，並深明此為企業可持續發展的關鍵要素。

Safety management is a vital aspect of enterprise production management. At JCI, we are dedicated to guaranteeing the safety of our products, packaging, and the operations of our employees, customers, and the environment. We acknowledge that this is a fundamental component of sustainable development.

► Ruashi礦場化學品成分管理

Chemical Composition Management at Ruashi Mine

Ruashi礦場生產銅(目標是LME A級)、氫氧化鈷(目標是鈷含量達到28%至30%)，主要出售予國際貿易商。我們嚴格遵循歐盟《關於化學品註冊、評估、許可和限制法案》(「REACH」)，規範對化學物質的生產及使用；並根據《全球化學品統一分類和標籤製度》(「GHS」)標準中氫氧化鈷已被分類並確定為「分解後對健康有害」之情況，依據相關規定編製了涵蓋彼等產品範圍的材料安全數據表(「MSDS」)，包括有關安全處理、儲存及使用彼等產品的說明、應急控制措施、接觸彼等產品對健康的影響等，確保僱員、承建商、客戶等利益相關方對彼等產品的正確接觸及使用，以保障健康及安全。

Ruashi mine produces copper (targeting LME A grade), cobalt in hydroxide (targeting cobalt content of 28% to 30%) and sells them primarily to international traders. We strictly follow the European Union's Registration, Evaluation, Authorization, and Restriction of Chemicals Act (REACH), which regulates the production and use of chemicals. Moreover, according to the Globally Harmonised System of Classification and Labeling of Chemicals (GHS) standard, which classifies cobalt hydroxide as "Harmful to Health upon Decomposition", we prepare Material Safety Data Sheets (MSDSs) for our products in line with relevant regulations. These sheets provide comprehensive information including safe handling, storage and usage instructions, emergency control measures, and details on the health effects of exposure to our products. We aim to ensure that our employees, contractors, customers, and other stakeholders have proper access to and use these products safely whilst safeguarding their health and safety.

► Kinsenda礦場放射性安全管理

Radioactive Safety Management at Kinsenda Mine

Kinsenda礦場產品的放射性安全管理符合國際要求。我們通過聘用具有國際認證資質的第三方檢測機構對產品開展輻射檢測工作，於2023年全年平均產品放射性低於0.3 micro Sv/hr，且未收到任何產品安全問題反饋。

The radioactive safety management of Kinsenda Mine adheres to international standards. We conduct radiation testing on our products through an internationally accredited third-party testing organization. The average product radioactivity for the entire year of 2023 was less than 0.3 micro Sv/hr, and we have not received any safety-related feedback on our products.

客戶反饋及投訴 Customer Feedback and Complaints

金川國際樂意以專業、及時、尊重的方式接收並回覆客戶的所有反饋，並將致力公平公正地審視情況。所有反饋都將得到我們的重視，並成爲我們持續改進戰略及實踐的核心。

Ruashi礦場建立了第三方機構礦石申訴機制，且於報告期內記錄並調查了關於幾袋重量不正常的氫氧化鈷的投訴，記錄了一起關於清潔石灰交付的石灰質量的投訴，並為解決此類問題而採取了處罰措施。此外，報告期內亦發生了兩起客戶關於電解銅質量的投訴，並已根據客戶要求而引入了新的規格，以處理電解銅中高雜質含量的問題。截至報告期末，Ruashi礦場無產品及服務質量相關的未決投訴，無廣告與實際不符相關情況的投訴。

Kinsenda礦場主要通過相關人員郵件交流、現場交流等方式提高產品及服務質量。2023年，客戶對我們的產品及服務滿意度高達100%。同時，本年度我們未收到任何與產品及服務質量相關的投訴，亦無廣告與實際不符相關情況的投訴。

JCI willingly receives and responds to all customer feedback in a professional, timely, and respectful manner. We strive to review situations fairly and impartially and take all feedback seriously, as it is central to our continuous improvement strategies and practices.

At Ruashi Mine, a third-party institutional mineral grievance mechanism is in place. During the reporting period, several complaints concerning abnormally weighted bags of cobalt hydroxide were logged and investigated, along with a complaint about the quality of delivered cleaning lime, resulting in the imposition of penalties to resolve these issues. Furthermore, two customer complaints regarding the quality of copper cathode led to the introduction of new specifications addressing the requested reduction in impurity content. As of the end of the reporting period, there were no outstanding complaints regarding the quality of products and services at Ruashi Mine and no complaints concerning inconsistencies between advertisements and reality.

At Kinsenda Mine, we primarily enhance the quality of our products and services through email and on-site exchanges among relevant personnel. In 2023, Kinsenda Mine achieved a 100% customer satisfaction rate for our products and services. Notably, no complaints related to the quality of products and services were received during the year, and there were no complaints regarding inconsistencies between advertisements and reality.

科技創新發展 Technology Innovation and Development

長期以來，金川國際堅持創新驅動、科技引領的可持續發展戰略，通過技術創新及管理創新獲得競爭優勢及低成本優勢。於礦區層面，針對各礦區的實際特點，我們於產品開發上亦開展針對性技術創新。同時，我們亦積極開展知識產權1護行動，為我們的創新成果保駕護航。

JCI has consistently pursued a sustainable development strategy focused on innovation and technology as key drivers, enabling us to achieve a competitive edge and cost advantages through continuous technological and management innovations. We implement targeted technological advancements in product development at the mine level, tailoring our approach to the unique characteristics of each mine. Simultaneously, we are actively involved in protecting our intellectual property to secure our innovations.

Ruashi礦場積極研究、分析、設計、製作、整改或升級專業設備及系統，在選材、原料替代、結構優化等方面充份考慮資源使用、能源消耗、化學品使用、僱員健康及安全、產品質量、產品損失率及回收率、對環境的負面影響等因素，整體提升並優化採礦工藝流程，努力提升產品產量及質量，並減少採礦活動對環境造成的不良影響。

Ruashi Mine researches, analyses, designs, manufactures, refurbishes, and upgrades professional equipment and systems. Our approach to material selection, raw material substitution, and structural optimization takes into account various factors including resource utilisation, energy consumption, chemical usage, employee health and safety, product quality, product loss, and recovery rate, and environmental impact to enhance and streamline the overall mining technology process. Our objective is to continuously enhance product production and quality while mitigating the adverse effects of our mining activities on the environment.



Ruashi礦場優化處理混合礦浮選工藝

Optimisation of the Mixed Mineral Flotation Process at Ruashi Mine

Ruashi礦場根據業務發展、礦石品位及質量提升需要，自2020年起開始研究低品位氧化礦、硫化礦及混合礦的處理工藝，進行硫化礦浮選試驗、低品位氧化礦磁選試驗，並對選礦系統進行擴建及改造，達到了擴產增效提質的良好效果。

Since 2020, Ruashi Mine has been studying processing techniques to improve mineral grade and quality in response to the need for business development. The focus has been on low-grade oxide minerals, sulfide minerals, and mixed minerals. The mine has carried out flotation testing for sulfide minerals and magnetic separation testing for low-grade oxide minerals, as well as expanding and reconstructing the processing system. These efforts have yielded positive results in terms of expanding production, enhancing efficiency, and improving quality.



探索開發新組合藥劑用於銅鈷氧硫混合礦分選，使精礦回收率均達到80%以上，硫化精礦銅品位超過20%，有效節約資源並提高產品質量；

Enhancing the development of novel reagent combinations for sorting mixed copper, cobalt, oxygen, and sulphur minerals has resulted in a recovery rate of over 80% for concentrates, with sulphide concentrates containing more than 20% copper, effectively conserving resources and enhancing product quality.



使用分散劑有效降低脫石墨滑石環節的礦漿黏度，減少金屬夾帶損失及浪費；

Applying dispersant has significantly decreased the slurry viscosity in the removal of graphite and talc, thereby reducing metal entrainment loss and waste.



浮選控制高度自動化，提高工藝流程控制的穩定性和產品質量；
Implementing highly automated flotation control has enhanced process stability and product quality.



解決堆存的混合礦石變現途徑，豐富生產工藝及產品結構，提升經濟效益並減少資源浪費。
Addressed the challenges associated with monetization of stockpiled mixed minerals, enriched the production process and product structure, and ultimately improved economic efficiency while reducing resource waste.

優化處理混合礦浮選工藝所取得成效
Result of Optimization of the Mixed Mineral Flotation Process

報告期內，Kinsenda礦場圍繞礦山通風及尾砂充填問題開展科技創新攻關，研發投入313,000美元，並取得了如下技改創新成果：一方面，有效提高採場作業效率，日均可多生產礦石189噸；另一方面，充填尾砂分級輸送效率較設計提高100%至110%，滿足礦山充填的供砂需求，極大地緩解了尾礦壩的庫容壓力，使尾礦壩壽命與礦山壽命同步。此外，Musonoi項目處於礦山開發尾部階段，該礦山採用數字化、智能化建設理念，通過採礦部分環節自動化設計及先進系統應用，可確保施工人員安全，降低採礦過程對環境、當地社區造成的不利影響。

During the reporting period, Kinsenda Mine invested US\$313,000 in technological innovation and research focusing on mine ventilation and tailing sand filling. These efforts resulted in the following technological innovation results: on one hand, it effectively improved the overall mining productivity by producing 189 tonnes of mineral per day on average; on the other hand, the efficiency of classified transportation of tailing filling surpassed the design expectations, achieving a 100% to 110% increase, which satisfied the demand for sand supply for filling the mine and greatly relieved the pressure on the storage capacity of tailing dams, making the service life of tailing dams synchronised with the service life of the mine. Furthermore, Musonoi Project, currently in its final stage of mine development, has embraced digital and intelligent construction concepts. By implementing automated design and employing advanced systems in specific areas of the mining process, the Project seeks to ensure the safety of construction personnel while reducing the negative environmental and community impacts associated with mining operations.

數據隱私及網絡安全 Data Privacy and Cybersecurity

金川國際致力於通過強大的信息系統提供安全的工作環境。我們的採礦活動得到負責任的信息及通信技術（「ICT」）系統及世界級標準基礎設施的支持，該等基礎設施均須接受外部及內部審計。

我們採取積極主動的方法來降低網絡安全風險，並開展業務連續性計劃及災難恢復計劃，以確保業務彈性。我們制定有《集團信息通信》，就有效使用ICT設施及濫用及/或誤用該等設施的可能形式向僱員提供指導方針；並制定《集團信息系統政策手冊》以防範網絡安全威脅帶來的日益增加的風險，確保遵守我們營運所在國家/地區的數據保護法規。為維護信息安全、保護隱私、提供理論及實踐檢查工具而實施的政策將可用於所有業務的流程改進。同時，該等政策與解決數據安全管理的預防、檢測、響應及恢復功能的最佳實踐保持一致。

本公司亦採取措施定期升級電腦系統安全功能，對所有互聯網線路進行加密並定期更改密碼，於防火牆及活動目錄中安裝防火牆及安全規則，於伺服器中安裝殺毒，於活動目錄中實施集中採購，對每個帳戶強制執行、定期監控及驗證雙因素身份驗證（「2FA」）等，以防止客戶的個人數據被盜用或濫用。我們於與客戶簽訂的所有合同中均設有保密條款。報告期內，我們並未發生重大數據丟失或其他重大數據洩露事件。

JCI is dedicated to providing a safe work environment through robust information systems. Our mining activities are supported by responsible information and communications technology (ICT), systems and world-class standardised infrastructure, which are subject to both external and internal audits.

We have adopted a proactive approach to mitigating cybersecurity risks and establish business continuity planning and disaster recovery planning to ensure the resilience of our business. In addition, we have developed a Group Information Communication to provide guidelines to employees regarding the effective use of ICT facilities and the possible forms of abuse and/or misuse thereof. Furthermore, we have formulated a Group Information Systems Policy Manual to safeguard against the increasing risks posed by cybersecurity threats and ensure compliance with data protection laws and regulations in the countries where we operate. The policies, being implemented to maintain information security and protect privacy, as well as to provide theoretical and practical inspection tools, will be available for process improvement across all operations. Meanwhile, these policies are aligned with best practices in addressing the prevention, detection, response, and recovery functions of data security management.

The Company also takes steps to upgrade its computer system's security features, encrypts all internet lines, changes passwords regularly, installs firewalls and security rules on firewalls and active directories, installs antivirus on servers, and implements centralised purchasing on active directories. Besides, we enforce, regularly monitor, and validate two-factor authentication (2FA), on each account to prevent theft or misuse of customers' personal data. We have confidentiality clauses in all contracts with our customers. During the reporting period, we did not experience any significant data loss or other material data breaches.

可持續供應鏈

SUPPLY CHAIN SUSTAINABILITY

建立負責任、高效、綠色、廉潔的供應鏈是金川國際可持續發展的重要保障。我們秉持合規、公允、可持續的負責任採購原則，積極携手供應鏈合作夥伴，共同承擔社會責任，努力實現多方共贏。截至報告期末，金川國際供應鏈遍及18個國家或地區，供應商廠區遍佈全球。

Establishing a responsible, efficient, environmentally friendly, and clean supply chain is a vital assurance for the sustainable development of JCI. We are committed to the principles of compliance, fairness, and sustainable purchasing, actively engaging with our supply chain partners to promote social responsibility and pursue mutually beneficial outcomes for all parties. At the end of the reporting period, JCI's supply chain spans 18 countries or regions, with suppliers' factories located worldwide.

| 供應商管理體系 Supplier Management System

為規範公司供應鏈管理，確保供應鏈交易的公平性、合法性及道德性，提升供應鏈韌性及安全水平，並加強供應鏈風險管理，我們根據礦區經營地及公司上市地相關法律法規制定並有效執行了《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。該等政策及管理方針適用於我們所有的供應商，以確保：

01

所有本公司供應鏈交易均以公平、道德及商業化的方式開展，使商業模式得以實施，從而持續、及時地供應商品及/或服務，確保營運可達到目標。

All supply chain transactions are conducted in a fair, ethical, and business-like manner, enabling the implementation of a business model resulting in a constant, timely supply of goods and/or services ensuring the operations fulfilling their objectives.



To standardise the Company's supply chain management and ensure the fairness, legality, and moral conduct of supply chain transactions, as well as to bolster the supply chain resilience and security while strengthening supply chain risk management, we have established and effectively implemented the Group Supply Chain Management Policy, Group Code of Ethics and Human Rights Policy, Group Approval Framework, Group Supply Chain Master Data Standard Procedure, and Group Tender Committee Terms of Reference in compliance with the relevant laws and regulations governing the locations of the mines and the Company's listing. These policies and management guidelines apply to all of our suppliers to ensure the following:

02

一致性、準確性的明確規定得以遵守，確保交易合法合理。

Defined regulations, which drive consistency and accuracy, are complied with, ensuring legally sound trading conclusions.



此外，承建商亦須遵守我們所有的公司政策、程序及規則，包括集團社區政策、集團環境政策、集團健康安全計劃、集團零傷害政策以及商業行為準則。在入職及遵守礦山規則及程序方面，我們對承建商同全體僱員一視同仁。承建商應充份了解與彼等將執行的工作相關的礦山規則及程序，並接受相關培訓。

報告期內，並未發現供應商及承建商對環境及社會造成實際及潛在重大負面影響。

Contractors are also required to comply with all of our policies, procedures, and rules, including the Group Community Policy, Group Environmental Policy, Group Health and Safety Plan, Group Zero Harm Policy, and Code of Business Conduct. In addition, contractors will be treated as employees for onboarding and compliance with mine rules and procedures. Contractors are expected to be fully aware of and trained in the mine rules and procedures relevant to the work they will perform.

During the reporting period, no significant adverse environmental or social impacts, either actual or potential, were identified from our suppliers and contractors.

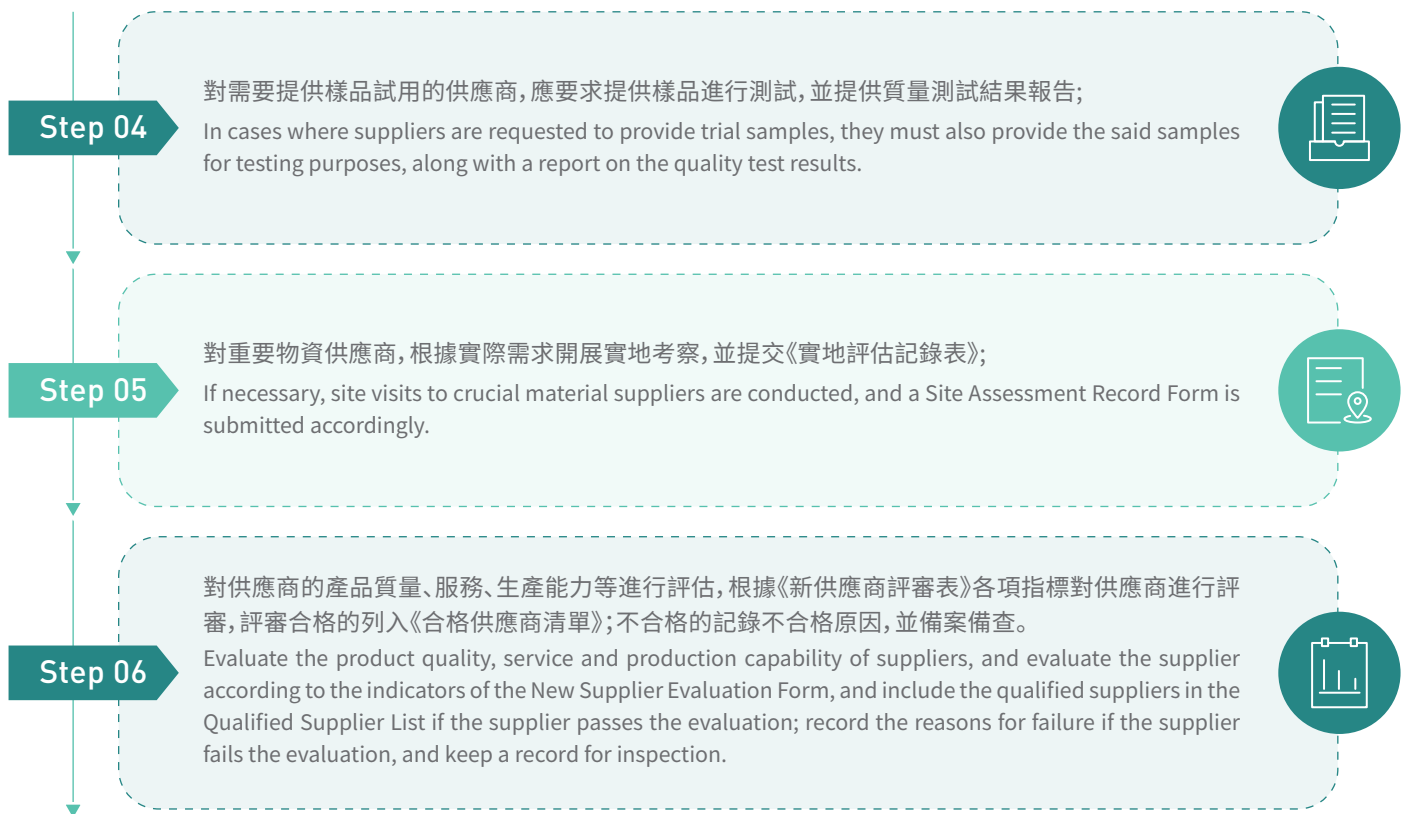
► 供應商准入

Supplier Access

我們要求供應商本著「誠信及質量第一」的原則提供產品及服務。我們優先考慮獲得第三方質量管理體系合規證書、信用評級高的供應商，且該等供應商未對僱員的安全造成風險、未對環境造成較大危害、未對公眾或社區造成重大負面影響等。

We require suppliers to provide products and services based on the principles of “integrity and quality first”. Preference will be given to suppliers who have obtained third party quality management system compliance certificates, maintain high credit ratings, and do not pose risks to employee safety, create significant environmental hazards, or have a detrimental impact on the public or the community.





金川國際供應商篩選流程
JCI's Supplier Selecting Process

► 供應商管理及覆核

Supplier Management and Review

我們建立並不斷完善供應商評估體系，依據供應商管理辦法定期/不定期對供應商進行包含產品質量、供應鏈勞工安全、環境與社區影響等在內的全面評估及信用等級評定，加強對我們重要的供應商的日常溝通及反饋，並與其建立長期合作供應商關係，簽訂長期合作協議。此外，我們實行黑名單製度，將發生過欺騙欺詐、違法違規、嚴重質量事故、圍標串標、惡意競爭、故意拖欠等不良記錄的供應商、服務商列入黑名單管理。列入黑名單的供應商、服務商，我們將不再與之開展任何業務。

We establish and constantly improve our supplier evaluation system. We conduct regular or irregular comprehensive evaluations and credit ratings of our suppliers, covering aspects such as product quality, labour safety in the supply chain, and environmental and community impacts, in line with our supplier management regulations. Furthermore, we enhance our daily communication and feedback with our key suppliers to establish long-term cooperative relationships and sign long-term cooperation agreements. Moreover, we have implemented a blacklisting system to flag suppliers and service providers with records of fraud, legal violations, severe quality incidents, bid-rigging and colluded bidding, malicious competition, and willful defaults. We will not engage in business with any blacklisted supplier or service provider.

► 供應商溝通

Supplier Communication

我們與供應商保持透明溝通，建立雙向、開放、多樣、直接的溝通渠道，根據業務需求進行不定期郵件、電話、微信、現場考察、實地走訪、線上線下會議溝通，及時分享信息及需求，並明確告訴對方申訴渠道，確保雙方都明確了解對方的期望及要求。倘若出現分歧或衝突，我們將及時進行溝通及協商，尋找解決問題的方案。在處理衝突時，我們確保採取公正、平等及尊重的態度，妥善處置衝突事宜。

We uphold transparent communication with our suppliers by establishing two-way, open, diverse, and direct communication channels to meet business needs. We communicate through unscheduled emails, phone calls, WeChat, on-site inspections, visits, and online and offline meetings to share information and needs promptly. We also clearly communicate complaint channels to ensure mutual understanding of expectations and requirements. In case of disagreement or conflict, we engage in timely communication and negotiation to find solutions. When addressing conflicts, we ensure a fair, equal, and respectful approach to handle them appropriately.

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

為維持礦石品位及產量的可持續性，Ruashi礦場從第三方礦石供應商採購原料，因此對來自受衝突影響地區及/或高風險地區的礦石供應鏈的負責任原料採購管理已成為礦場重點工作之一。Ruashi礦場依據《經合組織負責任的礦產供應鏈盡職調查指南》以及剛果（金）政府頒佈的最新礦業法律法規，制定並有效執行《第三方礦石管理政策》，識別並評估礦產供應鏈風險，建立並完善礦產供應鏈管理體系，加強供應鏈優化能力建設，確保建立合規、安全的供應鏈。我們承諾第三方礦石不來自以下不合規的供應商：

To maintain the sustainability of mineral grade and production, Ruashi Mine procures raw materials from third-party mineral suppliers. Therefore, the responsible sourcing management of the mineral supply chain from conflict-affected and/or high-risk areas has become a crucial task for the mine. As a response, Ruashi Mine formulates and implements The Third Party Ore Management Policy in alignment with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals and the latest mining laws and regulations issued by the government of the DRC. Additionally, Ruashi Mine identifies and assesses the risks throughout the mineral supply chain, establishes and enhances the management system, and strengthens the capacity for optimizing the supply chain to ensure the establishment of a compliant and secure supply chain. Furthermore, we are committed to not sourcing third party ore from the following non-compliant suppliers:



Ruashi礦場第三方礦石供應商否定項
Factors Causing Ruashi Mine's Disapproval to Third-Party Mineral Supplier

► 風險識別、管理及平衡

Risk Identification, Management and Balancing

Ruashi礦場識別出最高的負責任原料採購風險為支付給供應商與日常營運結算無關的，由於詐騙、盜竊、腐敗或賄賂導致的款項。針對識別出的該項高風險，礦場採取非常強硬的管理手段及嚴格的控制措施，以平衡從第三方採購礦石相關的風險。

At Ruashi Mine, the highest risk about responsible sourcing of raw materials is identified as the support payments to suppliers that are unrelated to the day-to-day settlement of operations, due to potential issues such as fraud, theft, corruption, or bribery. In response to this high-risk area, the mine implements robust management practices and stringent controls to balance the associated risks of sourcing minerals from third parties.

同時，我們識別出重大不利影響的風險與從受衝突影響及/或高風險地區提取、交易、處理及出口礦物相關。我們嚴格踐行尊重人權、合法用工、不助長衝突的負責任採購政策，並將其納入與供應商簽訂的合同及/或協議中，以降低並控制相關風險帶來的不利影響。

Furthermore, significant adverse impacts are identified to the extraction, trading, processing, and exporting of minerals from conflict-affected and/or high-risk areas. Our responsible sourcing policy, which prioritises human rights, lawful labour practices, and the prevention of contributing to conflicts, is rigorously enforced and incorporated into contracts and/or agreements with suppliers to mitigate and manage the negative impacts associated with these risks.

► 尋找及確定供應商

Sourcing and Identifying Vendors

Ruashi礦場副總經理及財務負責人負責與各個潛在供應商進行首次接觸及確定供應商，並檢查與礦石供應相關的文件以確保負責任採購的100%可追溯性。

In addition, the sourcing and identification of suppliers is overseen by Ruashi's Deputy General Manager and Responsible Financial Officer. Their roles include conducting initial contact with potential suppliers, supplier identification, and reviewing documents related to material supply to ensure 100% traceability of responsible sourcing.



初次接觸第三方礦石供應商時應獲取並審閱的資料
Information to be Obtained and Reviewed During Initial Contact with Third Party Material Supplier

► 開展盡職調查與持續評估

Conduct Due Diligence and Ongoing Assessment

為確保供應商尊重人權、不助長衝突、遵守國際及/或國內法律法規，以及確保第三方未被列入聯合國安全理事會制裁的綜合名單，Ruashi礦場在與潛在供應商首次成功接觸後正式簽訂協議前，將委派項目評估小組開展實地盡職調查，以對項目進行綜合評估。

此外，為確定並解決實際或潛在的風險，防止或減輕與項目有關的不利的內部或外部影響，確保不存在任何安全、環境、人權、商業道德及礦石質量等問題，礦場將每年利用特定的資源及限值對合作廠商進行一次實地盡職調查評估，確定受衝突影響和高風險地區（「CAHRAs」）名單，並對潛在的CAHRAs進行持續監測。基於考察了解，我們會給供應商相應的培訓或合作，以解決礦石材料質量等問題。同時，我們要求礦石供應商必須遵守礦場零傷害政策，違反該政策超過六個月的供應商將被終止供應合同。我們會根據對第三方礦石供應商的年度審查結果，採取簽訂合同、延長合同、暫停合同、取消合同或強制執行等措施，確保供應商管理機制行之有效。

報告期內，我們沒有發生有爭議的採購輿情事件，未使用有爭議礦石原料生產礦石產品。

To ensure that suppliers respect human rights, do not promote conflict, comply with international and/or domestic laws and regulations, and are not placed on the United Nations Security Council Consolidated List, Ruashi Mine will assign a Project Evaluation Team to carry out on-site due diligence to conduct a comprehensive assessment of the Project before formalizing an agreement with a potential supplier after the first successful contact.

Moreover, to identify and address actual or potential risks, prevent or mitigate adverse internal or external impacts associated with the projects, and ensure that there are no concerns about safety, environment, human rights, business ethics, and mineral quality, the mine performs an on-site due diligence assessment of the partner vendors annually using specific resources and thresholds to identify Conflict Affected and High Risk Areas (CAHRAs), with ongoing monitoring of the Potential CAHRAs. Based on this comprehension, we provide relevant training or cooperation to our suppliers to tackle issues of the quality of mineral materials. Simultaneously, we require mineral suppliers to adhere to our Zero Harm Mine Policy, and suppliers who violate this policy for more than six months will have their supply contracts terminated. Actions such as contract signing, extension, suspension, cancellation, or enforcement will be taken following the results of our annual review of third-party mineral suppliers to ensure the effectiveness of our supplier management mechanism.

During the reporting period, there were no controversial procurement incidents, and no controversial raw materials were used in the production of mineral products.

綠色供應鏈 Green Supply Chain

我們積極踐行綠色採購政策，優先選擇與更加環保的柴油等燃料供應商合作，減少硫氧化物、顆粒物等廢氣物排放，降低對環境的負面影響。我們要求供應鏈物資的包裝及運輸須遵守所在國家、地區環保標準及相關國際環境管理條例，我們在營運過程中對供應商的產品及包裝質量、化學品毒性及環境危害等因素進行持續評估。

We actively enforce a green procurement policy, prioritizing collaboration with suppliers of environmentally friendly diesel and other green fuels, to minimize emissions of sulfur oxides, particulate matter, and other gases, and mitigating adverse environmental effects. Our supply chain necessitates adherence to environmental standards set by the countries and regions in which we operate, alongside relevant international environmental regulations, when it comes to the packaging and transportation of materials. We consistently assess the quality of our suppliers' products and packaging, as well as the toxicity of chemicals and environmental hazards in the course of our operations.

廉潔供應鏈 Integrity in the Supply Chain

我們貫徹執行廉潔供應鏈政策，要求所有合作供應商遵循我們的反貪腐及反洗錢政策，要求所有合作供應商須具有良好的信譽及誠信。各礦區均已持續加強對供應鏈合規管理，規範開展供應鏈業務，有效防範經營及法律風險。同時，我們要求公司相關僱員每年提交一份利益衝突書面聲明，並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，違者將立即受到相應的紀律處分。

We practise a clean supply chain policy, mandating all collaborating suppliers to adhere to our anti-corruption and anti-money laundering protocols and to uphold strong reputations and integrity. All mining regions have consistently bolstered their supply chain compliance management and conducted supply chain operations systematically to efficiently mitigate operational and legal risks. Simultaneously, we necessitate that relevant Company employee submit an annual written declaration of any conflict of interest and strictly forbid any employee from accepting money or gifts from suppliers in exchange for information or favours, with immediate disciplinary action for offenders.

供應鏈賦能 Empowerment to Supply Chain

為滿足金川國際客戶審計要求並提升自身供應鏈韌性，Ruashi礦場對包括現場管理人員在內的現場所有供應商進行企業管理培訓。同時，為確保提供合規、安全、優質的服務，Ruashi礦場要求所有在現場工作超過 7 天的供應商均需經過上崗培訓，目標供應商需進行技術培訓。

To fulfill JCI's clients' auditing requirements and enhance the resilience of its supply chain, Ruashi Mine conducts on-site corporate management training for all suppliers, including site management personnel. Additionally, to ensure the delivery of compliant, safe, and high-quality services, Ruashi Mine mandates that suppliers working on-site for more than seven days undergo induction training, while targeted suppliers must undergo technical training.

此外，報告期內，Kinsenda礦場通過派遣僱員參加南非Indaba礦業大會、贊比亞礦業展、剛果(金)礦業周等活動，面對面與供應商深入交流採礦、選礦、冶煉的最新技術及研發設備，更好地賦能供應商發展。Musonoi項目為加強溝通、提高項目整體貨物進口效率，特邀第三方清關公司為各承辦商進行有關物流清關工作的培訓。

Furthermore, during the reporting period, Kinsenda Mine dispatched its employees to engage in the Indaba Mining Conference in South Africa, the Zambia International Mining and Energy Conference & Exhibition, the DRC Mining Week, and other events. This facilitated face-to-face exchanges with suppliers regarding the latest technological advancements and research and development equipment in mining, mineral processing, and smelting to better support supplier development. Musonoi Project also sought to strengthen communication and enhance project efficiency by enlisting a third-party customs clearance company to provide logistics and customs clearance training for contractors.



Ruashi礦場為供應商提供多種培訓支持

Ruashi Mine Provided a Wide Range of Comprehensive Training Support to its Suppliers

報告期內，Ruashi礦場共為供應鏈合作商提供5,362小時培訓支持，其中：

During the reporting period, Ruashi Mine dedicated a total of 5,362 hours to training support for its supply chain partners. The breakdown of this support is as follows:

1,532

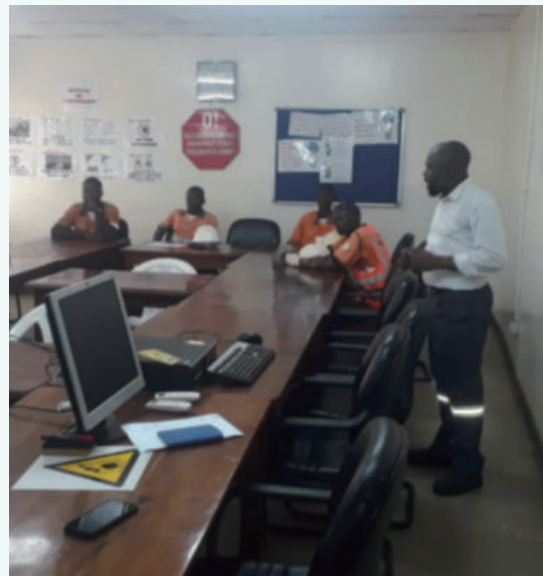
安全上崗及參訪基礎培訓1,532小時
1,532 hours for basic training for safety induction and visits

75

技術支持培訓75小時
75 hours for technical support training

3,755

環境、社會、安全、人權、監管合規等
ESG相關議題培訓3,755小時
3,755 hours for training on ESG-related matters, including environmental, social, safety, human rights, and regulatory compliance



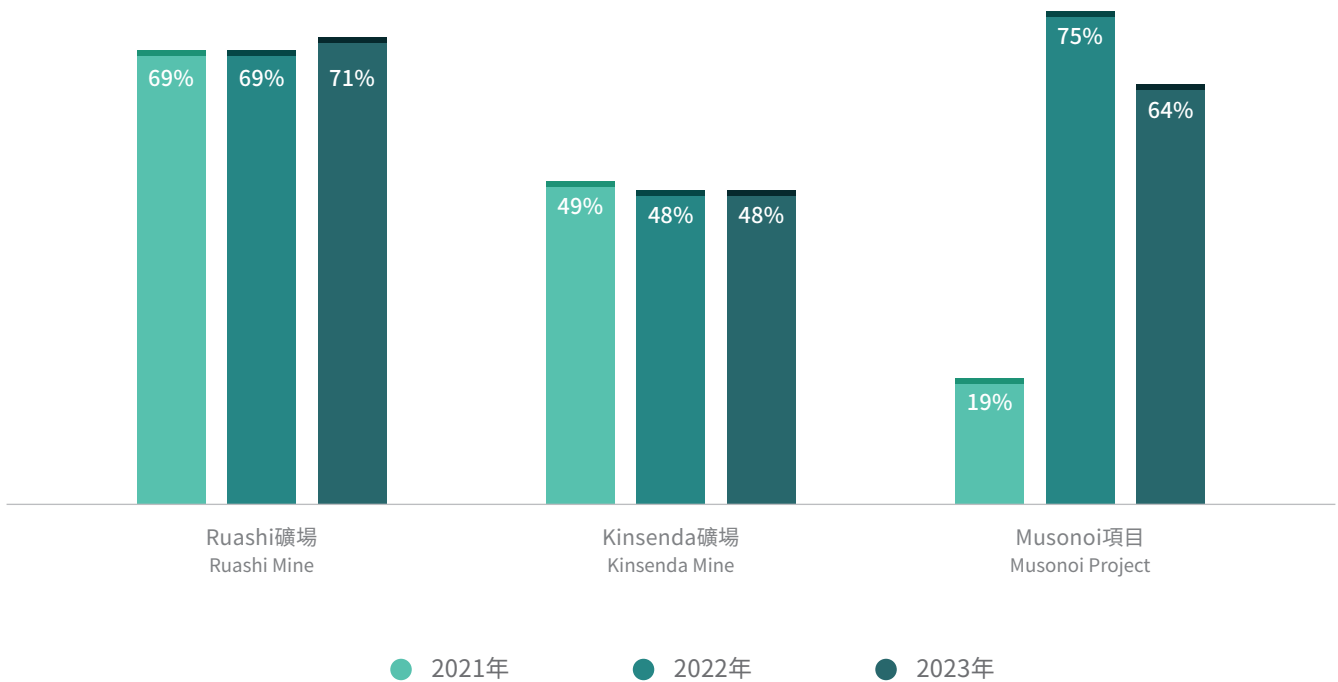
Ruashi礦場對供應商進行培訓
Supplier Training at Ruashi Mine

本地採購 Local Procurement

我們深明本地採購的重要性及其在為當地社區及其經濟帶來利益方面發揮的重要作用。我們致力於製定本地採購決策及流程，以對我們營運地點所在地區的業務產生重大積極的影響。

We recognise the significance of local procurement and the important role it plays in bringing benefits to local communities and their economies. We are committed to making local procurement decisions and processes to generate significant and positive impacts on the businesses in the regions of our operation sites.

▼ Ruashi礦場、Kinsenda礦場、Musonoi項目東道國本地採購率¹⁶
Local procurement Rate in Host Country of Ruashi Mine, Kinsenda Mine, Musonoi Project



16.東道國本地採購率意指公司在東道國(即公司或項目所在國)進行採購時,選擇該國本地供應商的比例。

Local procurement Rate in Host Country means the percentage of local suppliers in the host country (i.e., the country where the Company or project is operated) that the Company chooses for its purchases.

○ 我們的表現 - 2023年與供應商管理相關的其他數據
Our Performance - Other Data Related to Supplier Management in 2023

指標 Indicators	單位 Unit	Ruashi礦場 Ruashi Mine	Kinsenda礦場 Kinsenda Mine	Musonoi項目 Musonoi Project
於2023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 2023	%	88	100	76
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	%	76	100	45
已開展社會影響評估的供應商數量 Number of suppliers that have conducted social impact assessments	/	0	1	86
已開展環境影響評估的供應商數量 Number of suppliers that have conducted environmental impact assessments	/	4	1	54
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	/	0	0	0
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	/	0	0	0
新供應商總數 Total new suppliers	/	15	51	29
使用環境標準評估新供應商的百分比 Number of new suppliers and percentage using environmental criteria	%	35	100	45
使用社會標準評估新供應商的百分比 Number of new suppliers and percentage using social criteria	%	10	100	55
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	%	95	50	-

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 EMISSIONS¹⁷

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
溫室氣體排放總量(範圍1及範圍2) Total GHG Emissions (Scope 1 and Scope 2)	每噸二氧化碳當量 Tonne CO ₂ -e	49,728 ¹⁸	23,850	22,751	16,890
溫室氣體排放密度 GHG Emissions Intensity	每噸二氧化碳當量/噸銅產量 Tonne CO ₂ -e/ Tonne Cu Produced	0.80	0.40	0.37	0.23
直接溫室氣體排放(範圍1) Direct GHG Emissions (Scope 1)	每噸二氧化碳當量 Tonne CO ₂ -e	48,740	22,770	21,725	15,859
間接溫室氣體排放(範圍2) Indirect GHG Emissions (Scope 2)	每噸二氧化碳當量 Tonne CO ₂ -e	988	1,080	1,026	1,031

• 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	每噸二氧化碳當量 Tonne CO ₂ -e	0	4	2	2
	範圍2 Scope 2	每噸二氧化碳當量 Tonne CO ₂ -e	43	124	121	109
Ruashi	範圍1 Scope 1	每噸二氧化碳當量 Tonne CO ₂ -e	32,572	15,836	10,214	3,903
	範圍2 Scope 2	每噸二氧化碳當量 Tonne CO ₂ -e	523	580	562	593

17. 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佈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.

18. 由於業務發展及碳排放統計口徑有所變化, 本年度公司溫室氣體排放量有所增加。

The Company's GHG emissions increased during the year due to business development and changes in carbon emission statistics.

Kinsenda	範圍1 Scope 1	每噸二氧化碳當量 Tonne CO ₂ -e	10,018	6,745	9,418	7,216
	範圍2 Scope 2	每噸二氧化碳當量 Tonne CO ₂ -e	370	340	327	289
Musonoi	範圍1 Scope 1	每噸二氧化碳當量 Tonne CO ₂ -e	6,150	145	2,091	2,643
	範圍2 Scope 2	每噸二氧化碳當量 Tonne CO ₂ -e	52	22	16	8
Chibuluma	範圍1 Scope 1	每噸二氧化碳當量 Tonne CO ₂ -e	N/A	N/A	N/A	2,095
	範圍2 Scope 2	每噸二氧化碳當量 Tonne CO ₂ -e	N/A	N/A	N/A	32

▼ 能源消耗 ENERGY CONSUMPTION

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
電力消耗總量 Total Electricity Consumption	千瓦時 kWh	242,544,120	259,742,223	233,112,051	237,733,951
蒸汽消耗總量 Total Steam Consumption	噸 Tonne	158,168	145,626	163,753	162,733
液化石油氣消耗總量 Total LPG Consumption	噸 Tonne	0	9.83	10.48	N/A
柴油消耗總量 Total Diesel Consumption	噸 Tonne	13,715	9,048	5,118	2,577
汽油消耗總量 Total Petrol Consumption	噸 Tonne	62.60	22.86	15.05	12.20

• 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	63,451	60,513	59,931	27,326
Ruashi	電力 Electricity	千瓦時 kWh	134,092,000	159,381,000	151,756,000	152,959,000
	蒸汽 Steam	噸 Tonne	158,168	145,626	163,753	162,733
	柴油 Diesel	噸 Tonne	9,201	4,606	2,277	763
Kinsenda	電力 Electricity	千瓦時 kWh	94,955,900	86,748,550	77,144,000	74,396,900
	柴油 Diesel	噸 Tonne	2,786	2,977	2,358	1,799
	汽油 Petrol	噸 Tonne	51.60	15.60	12.50	12.20

Musonoi	電力 Electricity	千瓦時 kWh	13,432,769	13,552,160	4,152,120	2,097,953
	液化石油氣 LPG	噸 Tonne	0	9.83	10.48	N/A
	柴油 Diesel	噸 Tonne	1728	1,466	482.83	N/A
	汽油 Petrol	噸 Tonne	11	7.26	2.55	N/A
Chibuluma	電力 Electricity	千瓦時 kWh	N/A	N/A	N/A	8,252,772
	柴油 Diesel	噸 Tonne	N/A	N/A	N/A	15.48

水消耗 WATER CONSUMPTION

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
淡水消耗總量 Total Freshwater Consumption	立方米 m ³	2,513,030	2,877,876	2,214,754	2,461,055
金川國際耗水密度 Water Intensity of JCI	立方米/噸銅產量 m ³ / Tonne Cu Produced	40.53	48.42	36.15	33.96

• 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	2,205,030	2,571,276	1,925,674	2,048,254
	耗水密度 Water Intensity	立方米/噸銅產量 m ³ / Tonne Cu Produced	69.37	145.02	131.92	125.04
	循環水耗量 Recycled Water Consumption	立方米 m ³	1,839,938	1,830,634	2,436,066	2,190,122
	循環用水佔淡水耗量比例 Recycled Water as percentage of Total Freshwater Consumed	%	83.44	71.20	126.50	106.93
Kinsenda	淡水耗量 Freshwater Consumption	立方米 m ³	300,000	306,600	289,080	262,800
	耗水密度 Water Intensity	立方米/噸銅產量 m ³ / Tonne Cu Produced	9.93	10.54	10.25	8.60
	循環水耗量 Recycled Water Consumption	立方米 m ³	150,000	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	%	50	N/A	N/A	N/A

Musonoi	淡水耗量 Freshwater Consumption	立方米 m ³	8,000	N/A	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
Chibuluma	淡水耗量 Freshwater Consumption	立方米 m ³	N/A	N/A	N/A	150,001
	耗水密度 Water Intensity	立方米/噸銅產量 m ³ / Tonne Cu Produced	N/A	N/A	N/A	18.70

▼ 無害廢物處置及回收 NON-HAZARDOUS WASTE DISPOSAL AND RECYCLING

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
無害廢物處置總量 Total Non-hazardous Waste Disposal	噸 Tonne	156	137.40	121.02	114.43
無害廢物回收總量 Total Non-hazardous Waste Recycling	噸 Tonne	360.75	637.80	600.82	419.04

• 按營運地劃分的無害廢物處置及回收 NON-HAZARDOUS WASTE DISPOSAL AND RECYCLING BY OPERATION

Ruashi	處置 Disposal	噸 Tonne	69.50	49.90	43.47	37.50
	回收 Recycling	噸 Tonne	105.75	58.30	68.17	70.62
Kinsenda	處置 Disposal	噸 Tonne	66.50	69.50	65.55	61.05
	回收 Recycling	噸 Tonne	255	579.50	532.65	307.10
Musonoi	處置 Disposal	噸 Tonne	20	18	12	0
	回收 Recycling	噸 Tonne	0	0	0	0
Chibuluma	處置 Disposal	噸 Tonne	N/A	N/A	N/A	15.88
	回收 Recycling	噸 Tonne	N/A	N/A	N/A	41.32

▼ 有害廢物 HAZARDOUS WASTE

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
廢油總量 Total Waste Oil	升 Litre	78,800	43,360	41,440	77,630

醫療廢物總量 Total Medical Waste	噸 Tonne	2.24	1.86	0.37	0.35
廢棄催化劑總量 Total Spent Catalyst	噸 Tonne	0	37.20	66	5.60
硫渣總量 Total Sulphur Ash	噸 Tonne	48	52	53	67
IT廢物(墨盒)總量 Total IT Waste (Cartridges)	噸 Tonne	0.45	0.26	0.22	3.78
廢棄電池總量 Total Waste Batteries	噸 Tonne	0.00832	N/A	N/A	1.08

• 按營運地劃分的有害廢物量 HAZARDOUS WASTE QUANTITY BY OPERATION

Ruashi	廢油 Waste Oil	升 Litre	52,400	21,360	21,180	43,520
	醫療廢物 Medical Waste	噸 Tonne	0.24	0.31	0.37	0.28
	廢棄催化劑 Spent Catalyst	噸 Tonne	0	37.20	66	5.60
	硫渣 Sulphur Ash	噸 Tonne	48	52	53	67
	IT廢物(墨盒) IT Waste (Cartridges)	噸 Tonne	0.18	0.26	0.22	3.78
	廢棄電池 Waste Batteries	噸 Tonne	0.00832	0	0	0
Kinsenda	廢油 Waste Oil	升 Litre	22,000	22,000	20,220	18,540
	醫療廢物 Medical Waste	噸 Tonne	2	1.55	0	0
Musonoi	廢油 Waste Oil	升 Litre	4,400	N/A	N/A	N/A
	IT廢物(墨盒) IT Waste (Cartridges)	噸 Tonne	0.27	N/A	N/A	N/A
Chibuluma	廢油 Waste Oil	升 Litre	N/A	N/A	N/A	15,570
	醫療廢物 Medical Waste	噸 Tonne	N/A	N/A	N/A	0.07
	廢棄電池 Waste Batteries	噸 Tonne	N/A	N/A	N/A	1.08

▼ 氣體排放 AIR EMISSIONS

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
二氧化硫排放總量 Total Sulfur Dioxide (SO ₂) Emissions	噸 Tonne	137.3	133.80	144	126

▼ 尾礦設施 TAILINGS STORAGE FACILITIES

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
尾礦總重量 Total Weight of Tailings	噸 Tonne	1,768,843	N/A	N/A	N/A
尾礦庫總數 Total Number of Tailings Storage Facilities	個 Number	3	N/A	N/A	N/A
活躍的尾礦庫數量 Total Number of Active Tailings Storage Facilities	個 Number	2	N/A	N/A	N/A
高風險尾礦庫數量 Total Number of Tailings Storage Facilities at Risks	個 Number	0	N/A	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	1,114,148	N/A	N/A	N/A
	尾礦庫數量 Number of Tailings Storage Facilities	個 Number	1	N/A	N/A	N/A
	活躍的尾礦庫數量 Number of Active Tailings Storage Facilities	個 Number	1	N/A	N/A	N/A
	高風險尾礦庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	N/A	N/A	N/A
Kinsenda	尾礦重量 Weight of Tailings	噸 Tonne	654,695	N/A	N/A	N/A
	尾礦庫數量 Number of Tailings Storage Facilities	個 Number	1	N/A	N/A	N/A
	活躍的尾礦庫數量 Number of Active Tailings Storage Facilities	個 Number	1	N/A	N/A	N/A
	高風險尾礦庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	N/A	N/A	N/A

Musonoi	尾礦重量 Weight of Tailings	噸 Tonne	0	N/A	N/A	N/A
	尾礦庫數量 Number of Tailings Storage Facilities	個 Number	1 ¹⁹	N/A	N/A	N/A
	活躍的尾礦庫數量 Number of Active Tailings Storage Facilities	個 Number	0	N/A	N/A	N/A
	高風險尾礦庫數量 Number of Tailings Storage Facilities at Risks	個 Number	0	N/A	N/A	N/A

▼ 包裝袋消耗 PACKAGING BAG CONSUMPTION

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
一立方米的包裝袋總耗量 Total Consumption of 1m ³ Packaging Bags	個 Number	82,360	151,300	64,439	27,872

• 按營運地劃分的包裝袋消耗量 PACKAGING BAG CONSUMPTION BY OPERATION

Ruashi	個 Number	15,990	45,620	31,600	27,872
Kinsenda	個 Number	66,370	105,680	32,839	N/A
Musonoi	個 Number	N/A	N/A	N/A	N/A

▼ 環保開支 ENVIRONMENT EXPENDITURE

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
環保開支總額 Total Environment Expenditure	千美元 US\$' 000	1,932	1,504	620	615

• 按營運地劃分的環保開支 ENVIRONMENT EXPENDITURE BY OPERATION

Ruashi	千美元 US\$' 000	961	1,123	620	615
Kinsenda	千美元 US\$' 000	489	381	N/A	N/A
Musonoi	千美元 US\$' 000	482	N/A	N/A	N/A

19. Musonoi項目的尾礦設施目前正處於建設收尾階段，尚未投入使用。

The tailings facility at Musonoi Project is currently in the final stages of construction and is not yet operational.

社會 SOCIAL

▼ 勞工 WORKFORCE						
披露事項 Disclosure Item		單位 Unit	2023	2022	2021	2020
• 勞工總數 TOTAL WORKFORCE						
公司辦事處 Corporate Offices		/	35	36	28	45
Ruashi		/	963	993	1,005	1,016
Kinsenda		/	447	419	449	426
Musonoi		/	287	138	80	53
Chibuluma		/	12	12	13	24
僱員總數 Total Number of Employees		/	1,744	1,598	1,575	1,564
• 按性別劃分的勞工總數 WORKFORCE BY GENDER						
公司辦事處 Corporate Offices	男性 Male	/	20	21	16	23
	女性 Female	/	15	15	12	22
Ruashi	男性 Male	/	911	939	950	964
	女性 Female	/	52	54	55	52
Kinsenda	男性 Male	/	405	380	409	392
	女性 Female	/	42	39	40	34
Musonoi	男性 Male	/	253	121	71	48
	女性 Female	/	34	17	9	5
Chibuluma	男性 Male	/	10	10	11	20
	女性 Female	/	2	2	2	4

• 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	/	35	36	28	45
	承建商 Contractor	/	0	0	1	0
Ruashi	全職 Full Time	/	963	993	1,005	1,016
	承建商 Contractor	/	1,184	1,408	1,336	1,371
Kinsenda	全職 Full Time	/	447	419	449	426
	承建商 Contractor	/	1,197	1,271	1,068	926
Musonoi	全職 Full Time	/	287	138	80	53
	承建商 Contractor	/	1,357	1,371	336	336
Chibuluma	全職 Full Time	/	12	12	13	24
	承建商 Contractor	/	0	0	0	125

• 按年齡組別劃分的勞工總數 TOTAL WORKFORCE BY AGE GROUP

公司辦事處 Corporate Offices	25歲以下 Under 25	/	0	1	0	0
	25-35歲 25-35	/	8	8	9	10
	36-40歲 36-40	/	5	7	3	5
	41-45歲 41-45	/	8	8	9	11
	46-50歲 46-50	/	4	4	5	11
	51-54歲 51-54	/	6	6	1	5
	55歲及以上 55 and above	/	4	2	1	3

Ruashi	25歲以下 Under 25	/	0	1	2	0
	25-35歲 25-35	/	37	64	97	118
	36-40歲 36-40	/	176	201	222	244
	41-45歲 41-45	/	259	260	258	251
	46-50歲 46-50	/	215	214	198	185
	51-54歲 51-54	/	120	102	100	101
	55歲及以上 55 and above	/	156	151	128	117
Kinsenda	25歲以下 Under 25	/	3	2	5	3
	25-35歲 25-35	/	86	82	72	68
	36-40歲 36-40	/	50	49	52	46
	41-45歲 41-45	/	43	33	34	33
	46-50歲 46-50	/	47	38	39	45
	51-54歲 51-54	/	44	53	56	51
	55歲及以上 55 and above	/	174	162	191	180
Musonoi	25歲以下 Under 25	/	25	12	8	4
	25-35歲 25-35	/	109	52	23	14
	36-40歲 36-40	/	46	19	14	6
	41-45歲 41-45	/	39	16	12	7
	46-50歲 46-50	/	30	19	8	11
	51-54歲 51-54	/	26	16	10	8
	55歲及以上 55 and above	/	12	4	5	3

Chibuluma	25歲以下 Under 25	/	0	0	0	0
	25-35歲 25-35	/	2	2	2	3
	36-40歲 36-40	/	1	2	2	9
	41-45歲 41-45	/	7	7	7	5
	46-50歲 46-50	/	1	1	1	2
	51-54歲 51-54	/	1	0	1	3
	55歲及以上 55 and above	/	0	0	0	2
• 按僱員類別劃分的勞工總數 TOTAL WORKFORCE BY EMPLOYEE CATEGORY						
公司辦事處 Corporate Offices	一般僱員 General Level	/	10	10	-	-
	中層管理人員 Middle Level	/	13	14	-	-
	高級管理人員 Senior Level	/	12	12	-	-
Ruashi	一般僱員 General Level	/	676	584	-	-
	中層管理人員 Middle Level	/	202	335	-	-
	高級管理人員 Senior Level	/	85	74	-	-
Kinsenda	一般僱員 General Level	/	242	215	-	-
	中層管理人員 Middle Level	/	99	104	-	-
	高級管理人員 Senior Level	/	106	100	-	-
Musonoi	一般僱員 General Level	/	214	115	-	-
	中層管理人員 Middle Level	/	60	15	-	-
	高級管理人員 Senior Level	/	13	8	-	-

Chibuluma	一般僱員 General Level	/	2	3	-	-
	中層管理人員 Middle Level	/	7	6	-	-
	高級管理人員 Senior Level	/	3	3	-	-
• 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	/	16	20	-	-
	中國僱員 Chinese	/	16	13	-	-
	其他國籍僱員 Other Nationality	/	3	3	-	-
	當地就業率 Local Employment Rate	%	46	56	-	-
Ruashi	當地僱員 Local Employee	/	911	942	-	-
	中國僱員 Chinese	/	40	39	-	-
	其他國籍僱員 Other Nationality	/	12	12	-	-
	當地就業率 Local Employment Rate	%	95	95	-	-
Kinsenda	當地僱員 Local Employee	/	400	374	-	-
	中國僱員 Chinese	/	45	42	-	-
	其他國籍僱員 Other Nationality	/	2	3	-	-
	當地就業率 Local Employment Rate	%	89	89	-	-
Musonoi	當地僱員 Local Employee	/	165	57	-	-
	中國僱員 Chinese	/	119	81	-	-
	其他國籍僱員 Other Nationality	/	3	0	-	-
	當地就業率 Local Employment Rate	%	57	41	-	-

Chibuluma	當地僱員 Local Employee	/	7	8	-	-
	中國僱員 Chinese	/	5	4	-	-
	其他國籍僱員 Other Nationality	/	0	0	-	-
	當地就業率 Local Employment Rate	%	58	67	-	-

▼ 僱員流失 EMPLOYEE TURNOVER

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020	
• 總僱員流失率 TOTAL EMPLOYEE TURNOVER						
公司辦事處 Corporate Offices	%	8	8	32	-	
Ruashi	%	3	1	2	-	
Kinsenda	%	5	8	7	-	
Musonoi	%	3	15	4	-	
Chibuluma	%	8	8	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	%	13	12	16	-
	女性 Female	%	0	0	45	-
Ruashi	男性 Male	%	3	1	2	-
	女性 Female	%	6	0	0	-
Kinsenda	男性 Male	%	5	9	8	-
	女性 Female	%	0	5	2	-
Musonoi	男性 Male	%	3	1	4	-
	女性 Female	%	9	59	0	-

Chibuluma	男性 Male	%	9	9	52	-
	女性 Female	%	0	0	60	-
<p>• 按年齡組別劃分的總僱員流失率 TOTAL EMPLOYEE TURNOVER BY AGE GROUP</p>						
公司辦事處 Corporate Offices	25歲以下 Under 25	%	0	0	0	-
	25-35歲 25-35	%	13	11	18	-
	36-40歲 36-40	%	0	0	0	-
	41-45歲 41-45	%	17	0	25	-
	46-50歲 46-50	%	0	20	29	-
	51-54歲 51-54	%	0	14	83	-
	55歲及以上 55 and above	%	0	0	50	-
	Ruashi	25歲以下 Under 25	%	0	0	0
25-35歲 25-35		%	6	0	2	-
36-40歲 36-40		%	1	1	1	-
41-45歲 41-45		%	3	1	2	-
46-50歲 46-50		%	1	1	0	-
51-54歲 51-54		%	2	2	2	-
55歲及以上 55 and above		%	11	3	5	-
Kinsenda		25歲以下 Under 25	%	0	0	0
	25-35歲 25-35	%	3	8	8	-
	36-40歲 36-40	%	0	6	9	-

	41-45歲 41-45	%	5	8	8	-
	46-50歲 46-50	%	2	3	5	-
	51-54歲 51-54	%	2	4	5	-
	55歲及以上 55 and above	%	8	12	8	-
	25歲以下 Under 25	%	4	8	0	-
	25-35歲 25-35	%	2	17	8	-
	36-40歲 36-40	%	2	0	0	-
Musonoi	41-45歲 41-45	%	5	16	8	-
	46-50歲 46-50	%	3	10	0	-
	51-54歲 51-54	%	4	27	0	-
	55歲及以上 55 and above	%	17	33	0	-
	25歲以下 Under 25	%	0	0	0	-
	25-35歲 25-35	%	0	0	33	-
	36-40歲 36-40	%	50	0	75	-
Chibuluma	41-45歲 41-45	%	0	0	13	-
	46-50歲 46-50	%	0	0	75	-
	51-54歲 51-54	%	0	100	67	-
	55歲及以上 55 and above	%	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	2023	2022	2021	2020
受訓僱員總數 Total Number of Employee Trained	number	1,384	1,047	-	-
受訓僱員百分比 % of Employee Trained	%	79	66	-	-

• 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	%	50	50	-	-
	中層管理人員 Middle Level	%	8	7	-	-
	一般僱員 General Level	%	80	80	-	-
Ruashi	高級管理人員 Senior Level	%	55	92	-	-
	中層管理人員 Middle Level	%	76	79	-	-
	一般僱員 General Level	%	86	69	-	-
Kinsenda	高級管理人員 Senior Level	%	23	39	-	-
	中層管理人員 Middle Level	%	51	72	-	-
	一般僱員 General Level	%	93	68	-	-
Musonoi	高級管理人員 Senior Level	%	100	100	-	-
	中層管理人員 Middle Level	%	100	100	-	-
	一般僱員 General Level	%	100	11	-	-
Chibuluma	高級管理人員 Senior Level	%	0	33	-	-
	中層管理人員 Middle Level	%	29	33	-	-
	一般僱員 General Level	%	0	0	-	-

• 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	%	50	48	-	-
	女性 Female	%	33	33	-	-
Ruashi	男性 Male	%	81	74	-	-
	女性 Female	%	79	65	-	-
Kinsenda	男性 Male	%	69	60	-	-
	女性 Female	%	48	79	-	-
Musonoi	男性 Male	%	100	20	-	-
	女性 Female	%	100	71	-	-
Chibuluma	男性 Male	%	20	20	-	-
	女性 Female	%	0	50	-	-

▼ 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	2023	2022	2021	2020
培訓總時數 Total Training Hours	小時 Hours	2,379,990 ²⁰	17,006	-	-
每名僱員平均培訓時數 Average Training Hours per Employee	小時 Hours	1,365	16	-	-

• 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	39	39	-	-
	中層管理人員 Middle Level	小時 Hours	40	40	-	-
	一般僱員 General Level	小時 Hours	28	28	-	-

20.2023年數據包含了Musonoi項目(在建項目)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 Musonoi Project (under construction) and therefore differs significantly from previous years' data.

Ruashi	高級管理人員 Senior Level	小時 Hours	7	29	-	-
	中層管理人員 Middle Level	小時 Hours	5	15	-	-
	一般僱員 General Level	小時 Hours	7	15	-	-
Kinsenda	高級管理人員 Senior Level	小時 Hours	1	10	-	-
	中層管理人員 Middle Level	小時 Hours	3	11	-	-
	一般僱員 General Level	小時 Hours	2	11	-	-
Musonoi	高級管理人員 Senior Level	小時 Hours	66	44	-	-
	中層管理人員 Middle Level	小時 Hours	56	40	-	-
	一般僱員 General Level	小時 Hours	11,062	40	-	-
Chibuluma	高級管理人員 Senior Level	小時 Hours	0	12	-	-
	中層管理人員 Middle Level	小時 Hours	7	12	-	-
	一般僱員 General Level	小時 Hours	0	0	-	-
• 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	37	32	-	-
	女性 Female	小時 Hours	38	34	-	-
Ruashi	男性 Male	小時 Hours	7	17	-	-
	女性 Female	小時 Hours	5	18	-	-
Kinsenda	男性 Male	小時 Hours	2	11	-	-
	女性 Female	小時 Hours	3	12	-	-

Musonoi	男性 Male	小時 Hours	8,248	58	-	-
	女性 Female	小時 Hours	8,372	6	-	-
Chibuluma	男性 Male	小時 Hours	5	12	-	-
	女性 Female	小時 Hours	0	12	-	-

▼ 健康與安全 HEALTH AND SAFETY

披露事項 Disclosure Item	單位 Unit	2023	2022	2021	2020
• 死亡事故數目 NUMBER OF FATALITIES					
Ruashi	宗 Number	0	0	0	0
Kinsenda	宗 Number	0	0	2	0
Musonoi	宗 Number	0	0	0	0
Chibuluma	宗 Number	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
Kinsenda	/	0	0	0.83	0
Musonoi	/	0	0	0	0
Chibuluma	/	0	0	0	0
• 因工傷損失工作日數 NUMBER OF LOST DAYS DUE TO WORK INJURY					
Ruashi	天數 Days	0	79	1	62
Kinsenda	天數 Days	0	0	0	299
Musonoi	天數 Days	0	0	2	29
Chibuluma	天數 Days	4	3	5	0

▼ 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	2023	2022	2021	2020	
• Ruashi						
剛果(金) The DRC	/	161	187	173	272	
南非 South Africa	/	38	48	49	74	
贊比亞 Zambia	/	10	15	11	22	
中國 The PRC	/	7	6	8	11	
阿拉伯聯合酋長國 United Arab Emirates	/	2	2	2	2	
毛里求斯 Mauritius	/	2	2	2	3	
德國 Germany	/	1	2	2	2	
英國 United Kingdom	/	1	1	1	2	
澳大利亞 Australia	/	1	-	1	2	
芬蘭 Finland	/	1	1	-	-	
美國 United States of America	/	1	1	-	-	
莫桑比克 Mozambique	/	1	1	-	-	
坦桑尼亞 Tanzania	/	-	2	-	-	
葡萄牙 Portugal	/	-	1	-	-	
瑞士 Switzerland	/	-	1	-	-	
新加坡 Singapore	/	-	1	-	-	
加拿大 Canada	/	-	-	-	1	

印度 India	/	-	-	-	1
供應商總數 Total Number of Suppliers	/	226	271	250	392
• Kinsenda					
剛果(金) The DRC	/	301	268	244	225
南非 South Africa	/	172	163	148	140
贊比亞 Zambia	/	94	89	83	78
中國 The PRC	/	22	19	15	-
英國 United Kingdom	/	5	4	4	-
荷蘭 Netherlands	/	3	3	3	-
毛里求斯 Mauritius	/	3	3	2	-
澳大利亞 Australia	/	2	2	1	-
比利時 Belgium	/	1	1	1	-
德國 Germany	/	1	1	1	-
瑞典 Sweden	/	1	1	1	-
瑞士 Switzerland	/	1	1	1	-
印度 India	/	2	2	-	-
西班牙 Spain	/	1	1	-	-
其他 Other	/	-	-	-	23
供應商總數 Total Number of Suppliers	/	609	558	504	466

• Musonoi						
剛果(金) The DRC	/	89	122	6	-	
中國 The PRC	/	24	18	24	-	
南非 South Africa	/	17	16	-	-	
贊比亞 Zambia	/	4	3	1	-	
英國 United Kingdom	/	2	2	-	-	
法國 France	/	1	1	-	-	
加拿大 Canada	/	1	-	-	-	
毛里求斯 Mauritius	/	1	-	-	-	
供應商總數 Total Number of Suppliers	/	139	162	31	-	
• Chibuluma						
贊比亞 Zambia	/	N/A	N/A	N/A		276
供應商總數 Total Number of Suppliers	/	N/A	N/A	N/A		276

▼ 2023年與供應商管理有關的其他數據 OTHER DATA RELATED TO SUPPLIER MANAGEMENT IN 2023

披露事項 Disclosure Item	單位 Unit	Ruashi	Kinsenda	Musonoi
於2023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 2023	%	88	100	76
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	%	76	100	45
已開展社會影響評估的供應商數量 Number of suppliers that have conducted social impact assessments	/	0	1	86
已開展環境影響評估的供應商數量 Number of suppliers that have conducted environmental impact assessments	/	4	1	54
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	/	0	0	0
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	/	0	0	0
新供應商總數 Total new suppliers	/	15	51	29
使用環境標準評估新供應商的百分比 Number of new suppliers and percentage using environmental evaluation criteria	%	35	100	45
使用社會標準評估新供應商的百分比 Number of new suppliers and percentage using social criteria	%	10	100	55
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	%	95	50	-

▼ 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	2023	2022	2021	2020
健康 Health	千美元 US\$' 000	203	682	200	609
教育 Education	千美元 US\$' 000	214	33	105	24
農業及生態保護 Agriculture and Ecological Protection	千美元 US\$' 000	731	347	470	223
體育及休閒 Sport and Recreation	千美元 US\$' 000	31	2	8	10
社區建設及幫扶 Community Construction and Assistance	千美元 US\$' 000	1,716	961	1,464	372
企業社會責任及關係 Corporate Social Responsibility and Relations	千美元 US\$' 000	195	147	68	127
社區投資總額 Total Community Investment	千美元 US\$' 000	3,090	2,172	2,315	1,365

管治 GOVERNANCE

▼ 董事會成員結構 STRUCTURE OF THE BOARD OF DIRECTORS

• 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	2	4	8
佔比 Percentage	%	25	25	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	/	7	1	8
佔比 Percentage	%	87.50	12.50	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.	36, 57, 60-61, 63-64
	A1.1	排放物種類及相關排放數據。 The type of emissions and respective emissions data.	64-65, 167
	A1.2	直接(範圍1)及能源間接(範圍2)溫室氣體排放量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	36-37, 162-163
層面A1:排放物 Aspect A1:Emissions	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).	63, 165-166
	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).	63, 165
	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.	58-59, 64-65
	A1.6	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。 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	61-62

	一般披露 General Disclosure	有效使用資源 (包括能源、水及其他原材料) 的政策。 Policies on the efficient use of resources, including energy, water and other raw materials.	37-38, 53
層面A2: 資源使用 Aspect A2: Use of Resources	A2.1	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)。 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).	44, 163-164
	A2.2	總耗水量及密度 (如以每產量單位、每項設施計算)。 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	57, 164-165
	A2.3	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。 Description of energy use efficiency target(s) set and steps taken to achieve them.	39-43
	A2.4	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。 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.	53-57
	A2.5	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。 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	168
層面A3: 環境及天然資源 Aspect A3: The Environment and Natural Resources	一般披露 General Disclosure	減低發行人對環境及天然資源造成重大影響的政策。 Policies on minimising the issuer's significant impacts on the environment and natural resources.	48-50
	A3.1	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。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	50-52
層面A4: 氣候變化 Aspect A4: Climate Change	一般披露 General Disclosure	識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。 Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	26-27
	A4.1	描述已經及可能會對發行人產生影響的重大氣候相關事宜, 及應對行動。 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	28-35

▼ 社會 SOCIAL

• 僱傭及勞工常規 EMPLOYMENT AND LABOUR PRACTICES

索引 Index	編號 Indicator No.	指標 Subject Areas, Aspects, General Disclosure and KPIs	頁碼 Pages
層面B1: 僱傭 Aspect B1: Employment	一般披露 General Disclosure	有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的: (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 compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	76-80
	B1.1	按性別、僱傭類型(如全職或兼職)、年齡組別及地區劃分的僱員總數。 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	82-83, 85
	B1.2	按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover rate by gender, age group and geographical region.	84
層面B2: 健康與安全 Aspect B2: Health and Safety	一般披露 General Disclosure	有關提供安全工作環境及保障僱員避免職業性危害的: (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 providing a safe working environment and protecting employees from occupational hazards.	91, 101
	B2.1	過去三年(包括匯報年度)每年因工亡故的人數及比率。 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	92
	B2.2	因工傷損失工作日數。 Lost days due to work injury.	92
	B2.3	描述所採納的職業健康與安全措施, 以及相關執行及監察方法。 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	93-104
層面B3: 發展與培訓 Aspect B3: Development and Training	一般披露 General Disclosure	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.	89
	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).	90
	B3.2	按性別及僱員類別劃分, 每名僱員完成受訓的平均時數。 The average training hours completed per employee by gender and employee category.	90

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.	76-77
	B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child and forced labour.	77
	B4.2	描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	77
<p>• 營運管理 OPERATING PRACTICES</p>			
層面B5: 供應鏈管理 Aspect B5: Supply Chain Management	一般披露 General Disclosure	管理供應鏈的環境及社會風險政策。 Policies on managing environmental and social risks of the supply chain.	151-152
	B5.1	按地區劃分的供應商數目。 Number of suppliers by geographical region.	181-183
	B5.2	描述有關聘用供應商的慣例, 向其執行有關慣例的供應商數目, 以及有關慣例的執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	152-155, 161
	B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例, 以及相關執行及監察方法。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	154-158
	B5.4	描述在揀選供應商時促使多用環保產品服務的慣例, 以及相關執行及監察方法。 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	158
層面B6: 產品責任 Aspect B6: Product Responsibility	一般披露 General Disclosure	有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的: (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 health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	143, 146, 150
	B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	143

	B6.2	接獲關於產品及服務的投訴數目以及應對方法。 Number of products and service related complaints received and how they are dealt with.	147
	B6.3	描述與維護及保障知識產權有關的慣例。 Description of practices relating to observing and protecting intellectual property rights.	147
	B6.4	描述質量檢定過程及產品回收程序。 Description of quality assurance process and recall procedures.	143-146
	B6.5	描述消費者資料保障及私隱政策, 以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	150
	一般披露 General Disclosure	有關防止賄賂、勒索、欺詐及洗黑錢的: (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 bribery, extortion, fraud and money laundering.	129-130
層面B7:反貪污 Aspect B7: Anti-corruption	B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	121, 130
	B7.2	描述防範措施及舉報程序, 以及相關執行及監察方法。 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	130-134
	B7.3	描述向董事及員工提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	128, 131-132

▼ 社區 COMMUNITY

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	有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。 Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	105-106
層面B8:社區投資 Aspect B8: Community Investment	B8.1	專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	110-115
	B8.2	在專注範疇所動用資源(如金錢或時間)。 Resources contributed (e.g. money or time) to the focus area.	116-118, 185

其他 ESG索引表 Other Core ESG Indexes

報告框架 Reporting Framework	GRI準則 GRI Standards	SASB標準 SASB Standards	TCFD披露建議 TCFD Recommendations
關於本報告 About This Report	2-1, 2-2, 2-3		
	行政總裁致辭 A Message from Our CEO		
	關於金川國際 About JCI	2-6, 2-9, 2-28, 102-18, 102-19	
概覽 Overview	我們的可持續發展戰略 Our Sustainability Strategy	2-22, 2-23, 2-24, 102-21, 102-26, 102-29, 102-31	
	重要性及持份者參與 Materiality & Stakeholder Engagement	2-16, 2-29, 3-1, 3-2, 3-3, 102-15, 102-33, 102-34, 102-40, 102-41, 102-42, 102-43, 102-44, 102-46, 102-47, 207-3	
	亮點2023 2023 Highlights		
氣候變化 Climate Change	氣候戰略 Climate Strategy	102-29	Governance-(a), (b)
	氣候風險及機遇 Climate Risks & Opportunities	201-2, 203-1, 203-2	EM-MM-110a.2 Strategy-(a), (b), (c) Risk Management-(a), (b), (c)
	氣候行動及能源管理 Climate Action & Energy Management	302-1, 302-3, 302-4, 302-5, 305-1, 305-2, 305-3, 305-4	EM-MM-110a.1 EM-MM-120a.1 EM-MM-130a.1 Metrics and Targets-(a), (b), (c)
	亮點2023 2023 Highlights		
環境管治 Environmental Stewardship	環境管理 Environmental Management	3-3, 307-1	
	水資源管理 Water Resources Management	303-1, 303-2, 303-3, 303-4, 303-5	EM-MM-140a.1 EM-MM-140a.2
	固體廢棄物及廢氣排放物管理 Solid Waste & Air Emissions Management	305-7, 306-2	EM-MM-120a.1 EM-MM-150a.7 EM-MM-150a.4
	生物多樣性及土地利用 Biodiversity & Land-use	304-2, 304-3	EM-MM-160a.1
	尾礦管理 Tailings Management	306-1, 306-2, 306-3, 306-4, 306-5	EM-MM-150a.1 EM-MM-150a.3 EM-MM-150a.5 EM-MM-150a.9

報告框架 Reporting Framework	GRI準則 GRI Standards	SASB標準 SASB Standards	TCFD披露建議 TCFD Recommendations
	亮點2023 2023 Highlights		
社會影響 Social Impact	人權 Human Rights	2-30, 405-1, 406-1, 407-1, 408-1, 409-1, 411-1	EM-MM-210a.3 EM-MM-210b.1 EM-MM-310a.2
	賦能僱員 Empowered Workforce	2-7, 2-8, 401-1, 401-2, 403-9, 404-1, 404-2	EM-MM-000.B
	職業健康及安全 Occupational Health & Safety	403-1, 403-2, 403-4, 403-5, 403-6, 403-7, 403-8, 403-10	EM-MM-320a.1
	社區繁盛 Thriving Community	203-1, 203-2, 411-1, 413-1	EM-MM-210b.1
	亮點2023 2023 Highlights		
穩健管治 Sound Governance	企業管治 Corporate Governance	2-9, 2-10, 2-11, 2-12, 2-14, 2-15, 2-20, 102-18, 102-22, 102-23, 405-1	
	商業道德 Business Ethics	2-25, 2-26, 205-1, 205-2, 102-16, 102-17, 206-1	EM-MM-510a.1
	風險評估及管理 Risk Assessment & Management	102-30	
	亮點2023 2023 Highlights		
經濟韌性 Economic Resilience	經濟表現 Economic Performance	201-1	EM-MM-000.A
	產品責任 Product Responsibility	416-1, 416-2, 418-1	
	可持續供應鏈 Supply Chain Sustainability	204-1, 308-1, 414-1	
	可持續發展績效數據 Sustainability Performance Data	102-47, 102-48	
附錄 Appendices	報告指標索引 Reporting Index	102-54, 102-55	
	氣候風險釋義 Climate Risk Definition	201-2	

附錄 - 氣候風險釋義

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²¹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超過該地正常水平的事件的頻次及持續時間 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)

21. 資料來源：妙盈科技 (MioTech) 氣候風險方法論。

Source: MioTech's Climate Risk Methodology.

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)



JINCHUAN 金川

Unit 3101, 31/F, United Centre,
95 Queensway, Hong Kong
香港金鐘道95號統一中心31樓3101室

www.jinchuan-intl.com



本產品採用 FSC™ 認證的和其他受控來源的材料。紙漿無氯氣漂染及不含酸性。FSC™ 標誌表示產品所含的木料來自管理良好的森林；該等森林根據 Forest Stewardship Council® 的規例獲得認可。

The product is made of FSC™ certified and other controlled material. Pulps used are chlorine-free and acid-free. The FSC™ logo identifies products which contain wood from well-managed forests certified in accordance with the rules of the Forest Stewardship Council®.