



云南锡业股份有限公司
YUNNAN TIN COMPANY LIMITED

2024 Sustainability Report



Yunnan Tin Company Limited

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*:Topics of Double Materiality

About This Report

This is the 17th Environmental, Social, and Governance (ESG) Report issued by Yunnan Tin Co., Ltd. ("the Company"). To help shareholders, creditors, partners, employees, and other stakeholders gain an in-depth understanding of the Company's responsibilities and practices, this report provides a disclosure of the Company's development practices and key achievements in environmental, social and corporate governance as well as the fulfilment of other responsibilities in 2024.

Reporting Period

This report covers the period from January 1, 2024 to December 31, 2024. To improve the comparability and perspectiveness, some sections of this report may extend appropriately beyond this Reporting Period.

Reporting Boundary

The report discloses information on the fulfillment of corporate governance, social and environmental responsibilities by Yunnan Tin Co., Ltd. and its branches and subsidiaries, and the relevant typical cases are sourced from the Company's affiliates.

Information Source

The information disclosed in this report is obtained from the internal official documents, statistical reports and annual reports of Yunnan Tin Co., Ltd. Data sources used in this report include public data from government agencies, the actual operational data, annual financial data, internal statistical reports of Yunnan Tin Co., Ltd., third-party questionnaire surveys, third-party evaluations or interviews, etc. The financial data in this report is expressed in RMB. For any discrepancy between this report and the financial statements, the financial statements shall prevail.

Report Terminology

- Yunnan Tin Co., Ltd. (hereinafter referred to as "Yunnan Tin", "the Company" or "We")
- Datun Tin Mine Branch of Yunnan Tin Co., Ltd. (hereinafter referred to as "Datun Tin Mine")
- Laochang Branch of Yunnan Tin Co., Ltd. (hereinafter referred to as "Laochang Branch")
- Kafang Branch of Yunnan Tin Co., Ltd. (hereinafter referred to as "Kafang Branch")
- Tin Branch of Yunnan Tin Co., Ltd. (hereinafter referred to as "Tin Branch")
- Copper Branch of Yunnan Tin Co., Ltd. (hereinafter referred to as "Copper Branch")
- Yunnan Hualian Zinc Indium Co., Ltd. (hereinafter referred to as "Hualian Zinc Indium")

- Wenshan Zinc Indium Smelting Co., Ltd. of Yunnan Tin Co., Ltd. (hereinafter referred to as "Wenshan Zinc Indium")
- Yunnan Tin New Materials Co., Ltd. (hereinafter referred to as "Yunnan Tin New Materials Co., Ltd.")
- Chenzhou Yunxiang Mining and Metallurgy Co., Ltd. (hereinafter referred to as "Yunxiang Mining and Metallurgy")

Basis for Compilation

- Shenzhen Stock Exchange Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (for Trial Implementation) (hereinafter referred to as the "Guidelines")
- Shenzhen Stock Exchange Self-Regulatory Guidance No. 3 for Companies Listed on Shenzhen Stock Exchange—Preparation of Sustainability Report
- Sustainable Development Goals (SDGs) of the United Nations
- Sustainability Reporting Standards (GRI Standards) of the Global Sustainability Standards Board
- China National Institute of Standardization (CNIS) Guidance on Social Responsibility Reporting (GB/T36001-2015)
- International Organization for Standardization (ISO) ISO 26000: Guidance on Social Responsibility (2010)

Assurance of Report Reliability

The Company guarantees that the content of this report is true, accurate, and complete, without any false records, misleading statements, or material omissions.

Access to this Report

This report is available in electronic form on the Company's official website (<http://www.ytl.com.cn/>) If you have any questions or suggestions regarding this report, please email to xygfzqb@ynxy.wecom.work or call 0871-66287901.

Special Notice

This report is available in both Chinese and English. In case of any discrepancy between the two versions, the Chinese version shall prevail.

Message from the Chairman

In 2024, the global economic landscape remained complex and dynamic, presenting a range of challenges for the non-ferrous metals sector. Nevertheless, Yunnan Tin has stayed true to its original intention and steadfastly pursued sustainable development. This year, we made significant strides and garnered valuable experience in advancing our environmental, social, and corporate governance (ESG).

In corporate governance, we consistently prioritized high-quality development, optimized our governance framework, strengthened compliance and risk management, and enhanced the transparency and quality of information disclosure. Recognizing that good corporate governance is fundamental to the sustainable development of an enterprise, we continuously improved the decision-making framework comprising the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors, the Party Committee and the Senior Management, standardized the implementation of the internal governance system, and ensured a scientific and transparent decision-making process. In addition, we attached great importance to communication and interaction with investors. Through high-quality performance briefings, active response to investor concerns, and great efforts to enhance the Company's investment value, we made contribution to the healthy development of the capital market.

In environmental management, we adhered to the philosophy of green development, actively responded to the national strategy of carbon peaking and carbon neutrality, and made every effort to build a new pattern of green development. In 2024, we achieved significant results in energy conservation, emission reduction, resource recycling, and ecological restoration. By optimizing production processes and promoting advanced energy conservation technologies, we achieved steady improvements in energy efficiency. Through enhanced recycling of water resources and stringent controls of pollutant emission, we actively protected the ecological environment. Our efforts in tailings pond management and mining ecological restoration have contributed positively to biodiversity conservation. We believe that environmental protection is fundamental to productivity, and that environmental improvement drives sustainable growth. Moving forward, we will continue to increase our investment in environmental protection, advance the development of green mines, and make unremitting efforts to realize the synergy between the economy and the environment.

In social responsibility, we always adhered to innovation-driven development, and constantly improved the quality of products and services, to protect the rights and interests of customers. We prioritized employee development, and created a good working environment that helps employees achieve personal value and professional growth. Furthermore, we actively engaged in social welfare undertakings, with a focus on areas such as education, healthcare, and rural revitalization, aiming to create more value for society. We deeply understand that the success of an enterprise is driven by not only the creation of economic value, but also its contribution to social welfare. We will uphold responsibility and collaborate with all stakeholders, making greater contributions to the future of sustainable development.

Looking ahead, Yunnan Tin will uphold the ESG principles, integrate sustainable development into every link of the Company's strategic planning, operation, management, and daily decision-making. We will continuously optimize corporate governance to enhance our competitiveness, strengthen environmental protection to preserve the natural environment, and actively fulfill our social responsibilities to give back to society. We believe that, through unremitting efforts, Yunnan Tin will steadily advance on the path of sustainable development, create greater value for shareholders and make greater contributions to society.

Chairman of Yunnan Tin Co., Ltd.

李 强

About Us

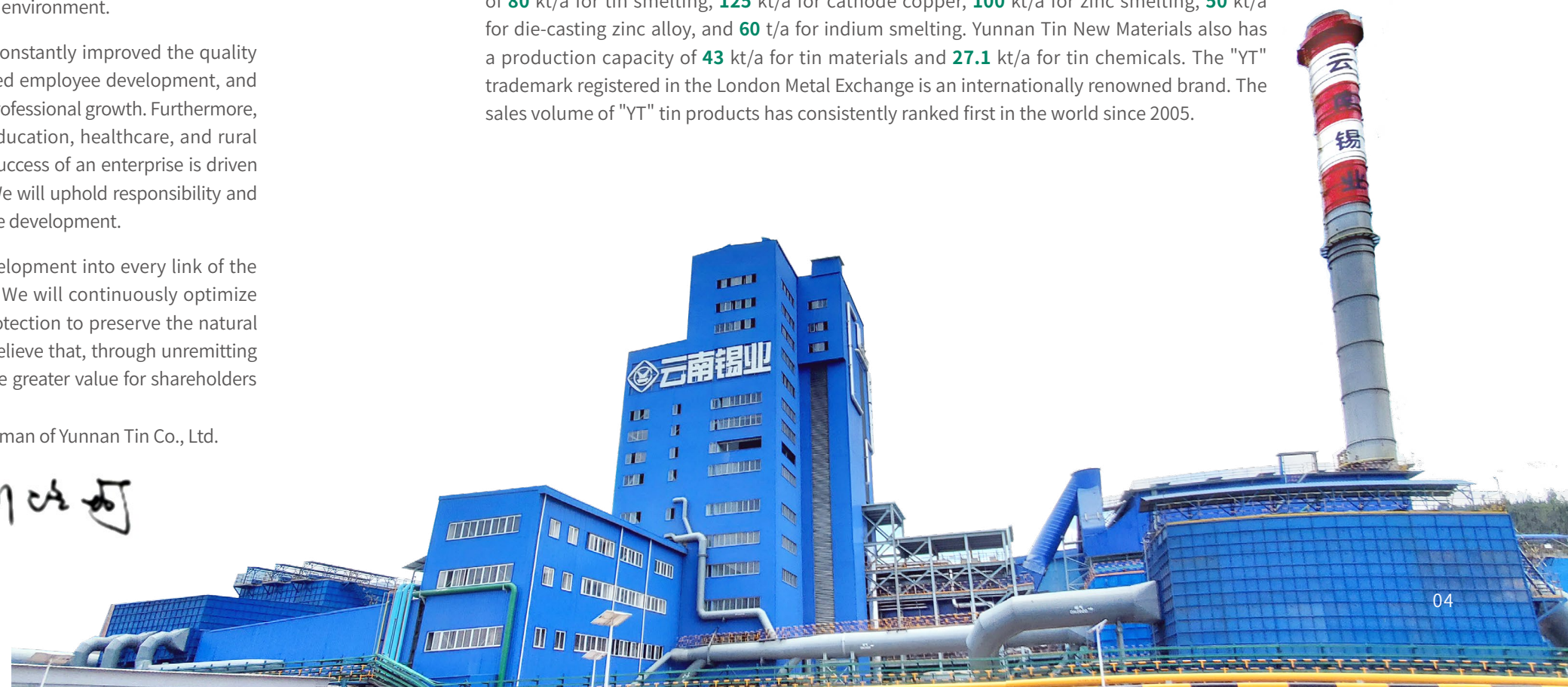
Company Profile

Yunnan Tin Co., Ltd. (hereinafter referred to as "Yunnan Tin" or "the Company") is a state-owned listed company controlled by Yunnan Tin Group (Holding) Co., Ltd. In 1998, with the approval of the Yunnan Provincial People's Government (Document No.: Yun Zheng Fu [1998] No. 99), the Company was established by the Yunnan Tin Company, Gejiu Xidu Nonferrous Metal Processing Factory, Gejiu Yinguan Tin Arts and Crafts Factory, Gejiu Tin Resources Industrial Company, and Gejiu Juyuan Industrial and Mining Company as sponsors.

In October 1999, Yunnan Tin issued 130 million ordinary shares to the public for the first time with the approval of the China Securities Regulatory Commission. In February 2000, the Company was listed on the Shenzhen Stock Exchange (stock name: "Yunnan Tin"; stock code: 000960), and became the only A-share listed company with a complete tin industry chain.

The Company has an integrated industrial structure that spans the entire supply chain of exploration, mining, dressing, and smelting of non-ferrous metals such as tin, indium, zinc, and copper, with its reserves of tin and indium resources ranking first in the world. As a leading enterprise in the world's tin industry, the Company has the largest tin production and processing base in China and the longest and most complete tin industry chain in the world, and represents the leading level of the world's tin industry.

The Company's main products are tin ingots, cathode copper, zinc ingots, die-casting zinc alloy, and indium ingots. Yunnan Tin New Materials, a significant holding enterprise of the Company, offers products such as tin materials and tin chemicals. It has a production capacity of **80 kt/a** for tin smelting, **125 kt/a** for cathode copper, **100 kt/a** for zinc smelting, **50 kt/a** for die-casting zinc alloy, and **60 t/a** for indium smelting. Yunnan Tin New Materials also has a production capacity of **43 kt/a** for tin materials and **27.1 kt/a** for tin chemicals. The "YT" trademark registered in the London Metal Exchange is an internationally renowned brand. The sales volume of "YT" tin products has consistently ranked first in the world since 2005.



Corporate Development and ESG Milestones

1883

The predecessor of the Company was Gejiu Factory Merchants Bureau established in the ninth year of the reign of Emperor Guangxu of the Qing Dynasty.

1992

The "YT" Fine Tin trademark was registered at the London Metal Exchange (LME).

1998

With the approval of the People's Government of Yunnan Province, Yunnan Tin Company, Gejiu Tin Capital Industrial Company, Gejiu Xidu Nonferrous Metal Processing Plant, Gejiu Juyuan Industrial and Mining Company, and Gejiu Yinguan Tin Arts and Crafts Factory jointly initiated the establishment of Yunnan Tin Co., Ltd.

2000

"Yunnan Tin" A-shares were listed on the Shenzhen Stock Exchange, with the stock code being 000960.

2002

The Ausmelt furnace was completed and put into operation, increasing production efficiency by 20 times and setting a world record for the largest tin smelting capacity of an Ausmelt furnace.

2005

The output of tin metal reached 42,720 tons, ranking first among tin production enterprises.

2006

The Company became one of the first manufacturers of raw materials and devices in line with the EU RoHS directive.

2007

The Company won the title of "Top 100 Best Investor Relations Management in China in 2006".

The "YT" brand of Yunnan Tin was rated as a famous trademark in Yunnan Province.

2008

The Company ranked among the ten most popular listed companies in Yunnan Province.

The Company won the title of "Excellent Supplier of Baosteel", and was selected as the sample of the Shenzhen Component Index for the first time, the Top 100 Enterprises by the 10th Golden Bull Award for Listed Companies in China, and the sample stocks of the Shenzhen 100 Index.

2009

The Company was appointed by the National Standardization Administration of the People's Republic of China to undertake the work of the Secretariat of the Tin and Tin Alloy Working Group (TC243/SC2/WG2) of the Heavy Metal Sub-Technical Committee of the National Nonferrous Metals Standardization Committee, responsible for organizing and mainly undertaking the task of formulating and revising tin industry standards.

2010

The Company won the 2010 China's Best Wealth Creation IR (Investor Relations Management) Award.

2011

The Company won the Golden Eagle Award at the 7th Annual Conference of China's Securities Market.

2012

The Company was selected as one of the 2012 Top 100 Capital Brands of Listed Companies in China.

2013

The Company won the title of "Customer Satisfaction Enterprise" from the China Association for Quality.

2014

The Company won the title of Advanced Collective in the National Non-Ferrous Metal Industry.

2015

The Company acquired 75.74% of the equity in Hualian Zinc Indium for a consideration of RMB 3.7 billion.

2016

The Company became the first listed company complete the market-oriented "debt-to-equity swap" among locally state-holding enterprises nationwide.

2017

The Company was ranked 190th in the *List of China's Top 500 Enterprises* published by Fortune.

2018

The Company implemented the first share repurchase in its history.

The annual tax payment of the Company hit a record high. The Company won the "National Market Quality Credit A-level User Satisfaction Enterprise" Certificate (AA User Satisfaction Level).

2019

The Company was included in the FTSE Russell Index, S&P Emerging Markets Index, and MSCI Index, with the Company's business philosophy and development prospects fully recognized by global authoritative institutions.

2020

With good business development performance and social responsibility, the Company won the title of "Most Socially Responsible Listed Company" on the List of Chinese Listed Companies with Good Reputation.

2021

The Company's first performance briefing and 2020 Annual Report Performance Briefings were successfully selected as the "2020 Excellent Practice Case of Annual Report Performance Presentations of Listed Companies" by the China Association for Public Companies along with other 200 listed companies nationwide.

2022

Shenzhen Information Co., Ltd., a wholly-owned subsidiary of the Shenzhen Stock Exchange, officially launched the National Securities ESG rating. The Company achieved an AA rating and was successfully included in the Shenzhen ESG Benchmark Index and Shenzhen ESG Leading Index.

2023

The Company was selected into the list of world-class professional leading demonstration enterprises created by the State-owned Assets Supervision and Administration Commission of the State Council; The Company was awarded the "First Prize of the Science and Technology Award 2022 for China's Nonferrous Metals Industry".

2024

The Company won the "2023 ESG Pioneer Practitioner Case" award.

The Company signed a cooperation agreement with the Yunnan Tin Sub-center of the National Engineering Research Center of Vacuum Metallurgy.

The Company received an "A" rating in information disclosure for the 2023-2024 period from the Shenzhen Stock Exchange.

Performance in 2024

01 Corporate Governance

- Made a total tax payment of RMB **1,803.2286** million
- Organized and participated in **130** investor communications
- Docked with **488** institutional and individual investors
- Received **25** one-on-one visits paid by shareholders.
- Answered **167** questions on irm.cninfo.com.cn
- Received a total of **168** calls from investors

03 Economic Achievement

- Achieved an operating revenue of RMB **419.73** million
- Net Profit Attributable to Owners of the Parent Company of RMB **14.44** million.
- Newly obtained **52** patent authorizations, including **20** invention patents and **32** utility model patents.
- Invested RMB **397.48** million in R&D
- Obtained a comprehensive customer satisfaction score of **97.19**
- Realized a **100%** signing rate of the *Commitment to Compliance and Integrity* by suppliers

- Invested RMB **316.69** million in environmental protection
- Generated and used **80,274** MWh of renewable electricity
- Used **1,802,232** MWh of clean energy
- Utilized **77,972,096** m3 of recycled/reused water
- Recycled/reused **3,008,205** tons of waste
- Completed ecological restoration of **110.39** hectares of mine areas
- Offered **746** training sessions on laws and regulations, typical cases, governance technologies and other knowledge concerning ecological and environmental protection, with **46,100** person-times of participants.

02 Environmental Protection

- Had **4,771** ethnic minority employees
- Had **115** employees with disabilities
- Hired **622** veteran employees
- Spent RMB **13.6857** million on employee training, and offered **9,251** training sessions, with an average training duration of **45.24** hours per employee.
- Invested RMB **266.7975** million in safety production
- Participated **1,059** employee volunteer activities, with an average volunteer service duration of **216.8** hours per employee
- Invested RMB **1.9804** million in rural revitalization, with the number of persons assisted up to **5,491**

04 Social Contribution

Honorary



Performance



Tin Branch Won the Title of the National "Green Factory"



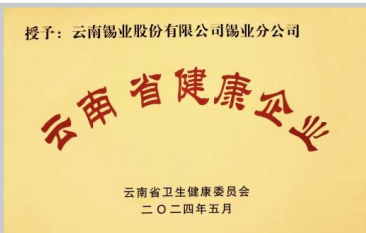
The Company was Honored the "May Fourth Red Flag Youth League Committee 2023"



The Company Won a Number of Science and Technology Progress Award



The Company received the National May 1st Labor Award



The Company was awarded the title of "Healthy Enterprise in Yunnan Province"



The Company Was Awarded the 2024 Typical Case of Best Practices in Digital Transformation for Listed Companies



The Company Received the 2024 Excellent Cases of Good Practices of the Board of Directors in Listed Companies

Honorary



Performance



The Company Received the Panorama Investor Relations Gold Award (2023) - Exemplary Investment Relations Award, Outstanding ESG Value Communication Award, and Outstanding Institutional Communication Award



The Company Was Honored the "2024 Outstanding Practice Case in Sustainable Development" and the "2023 Best Practice Case of Annual Report Performance Briefings" from the China Association of Public Companies.

Honorary



Performance



"YT" Tin Ingots Was Awarded a Four-star Rating for Customer Satisfaction by the "China Association for Quality"



"YT" Zinc Ingots Received a Three-Star User Satisfaction Rating by "China Association for Quality"



Certificate of Mineral Supply Chain Due Diligence Assessment - Level A



The Company Received the 26th Golden Bull Award for Listed Companies - 2023 Golden Information Disclosure Award

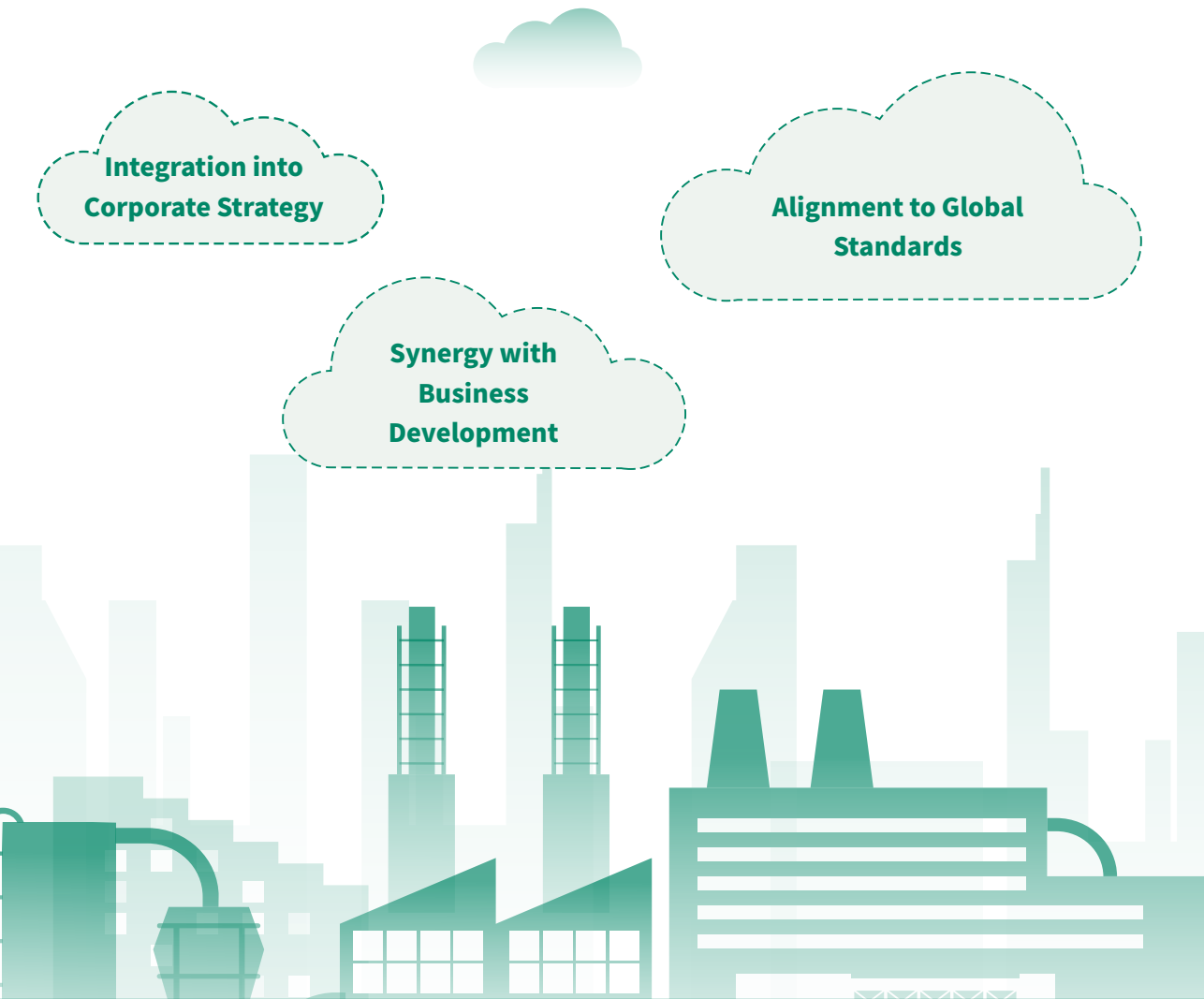


The Office of the Board of Directors Was Recognized as the Excellent Practice Case of the Office of the Board of Directors of Listed Companies for 2024

ESG Management

Sustainable development has become a key driving force for the Company to achieve long-term value growth and stable operations. The Company places high importance on the deep integration of business management and ESG principles, and incorporates ESG elements into the Company's decision-making process to ensure that they are embedded in every aspect of strategic planning, operational management, and daily decision-making. To further enhance the effectiveness and timeliness of the Board of Directors' supervision of sustainable development matters and strengthen the integration of the sustainable development strategy and the operation policy, the Company has established an ESG management structure with the Board of Directors as the highest responsible body, to coordinate and advance ESG management efforts and improve the Company's sustainability level.

ESG Management Principles



ESG Management Structure and Responsibilities



Board of Directors

- Act as the highest responsible body for ESG management and disclosure in the Company.
- Review and approve the Company's ESG strategic plans and programs.
- Review and approve the ESG governance structure and important ESG systems.
- Review and approve the Company's ESG-related information disclosures and reports.
- Review and approve the public disclosure of material information relating to the Company's ESG governance
- Review and respond to ESG-related risks and major negative ESG events that have a significant impact on the Company



Relevant Specialized ESG Committees

- Conduct research and provide recommendations on the Company's long-term development strategy and major investment decisions.
- Conduct research and provide recommendations on major investment and financing plans that require the approval of the Board of Directors
- Conduct research and provide recommendations on major capital operations and asset management projects that require the approval of the Board of Directors
- Identify risks and opportunities related to the Company's sustainable development, conduct research, analysis, and risk assessment on ESG-related matters, guide and supervise the formulation and implementation of ESG systems and objectives, and provide decision-making consultation, including ESG governance vision, goals, policies, ESG risks, etc.
- Organize and coordinate the supervision and inspection of the Company's ESG-related policies, management, performance, and goal progress, and propose corresponding recommendations
- Review the Company's strategies, risks, and execution related to ESG management (including but not limited to focusing on the Company's greenhouse gas reduction, response to climate change, water resource protection and management, biodiversity, scientific and technological innovation, social contributions) and propose recommendations
- Conduct research and provide recommendations on other major matters that affect the Company's development
- Monitor the implementation of the above matters
- Handle other matters authorized by the Board of Directors



Relevant Investment and ESG Management Review Groups

- Formulate ESG strategic plans and ESG-related system policies.
- Develop ESG management system and indicator system, and make ESG disclosure
- Implement the Company's ESG strategy and ESG responsibilities
- Maintain regular communication with stakeholders and regularly identify material ESG topics
- Focus on ESG development trends and policy updates
- Organize ESG-related training
- Implement other matters required by the relevant specialized committees under the Board of Directors

Stakeholder Communication

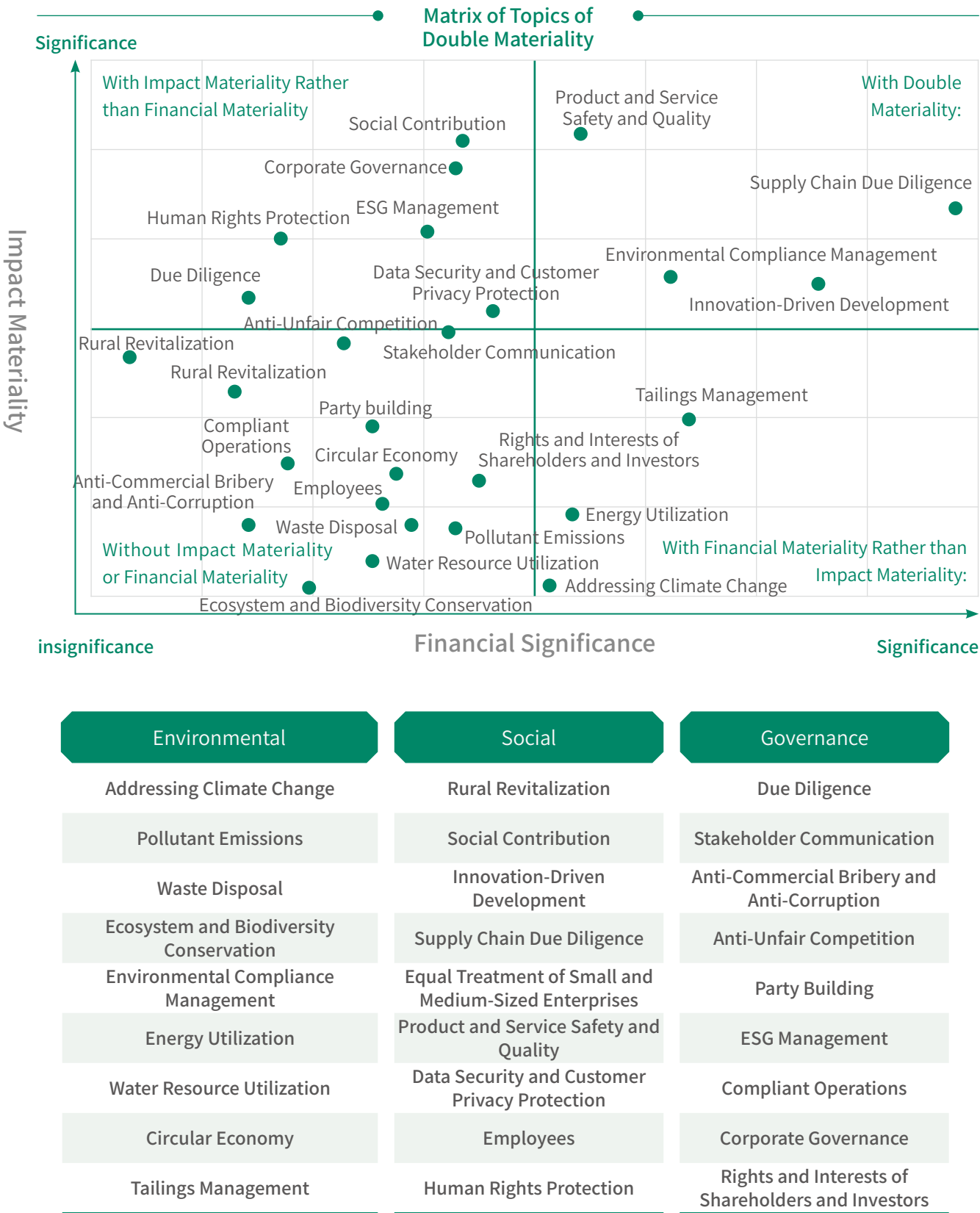
The Company attaches great importance to communication and interaction with both internal and external stakeholders. Through various channels, the Company engages in dialogue with stakeholders to gain a deeper understanding of their demands and expectations, strives for their trust and support, and promotes the continuous improvement of ESG management efforts of the Company.

Stakeholders	Expectations and Demands	Communication and Response
 Shareholders and Senior Management	Economic Performance Corporate Governance Compliance Risk Control Business Ethics	General Meetings of Shareholders, Board Meetings, Financial Reports, Business Reports, Roadshows, and Communication with the Company, etc.
 Government and Regulatory Agencies	Corporate Governance Business Ethics Environmental Management Waste Discharges	Regular Communication and Reporting, Institutional Research, Policy Implementation, Information Disclosure, etc.
 Customers and Suppliers	Innovation and R&D Supply Chain Management Supply Chain Due Diligence Product Quality Privacy and Data Security	On-site Communication, Market Surveys, Supplier Training, Transparent Procurement, Customer Satisfaction Surveys, etc.
 Employees	Employees' Rights, Interests and Benefits Employee Development and Training Occupational Health and Safety	Employee Activities, Employee Training, Employee Handbook, etc.
 Partners	Supply Chain Management Supply Chain Due Diligence Scientific and Technological R&D and Innovation Product quality	Industry Conferences, Strategic Partnerships, Exchange Visits, etc.
 Community, the Public, Media, etc.	Ecological Environmental Protection Community Public Welfare Investor Relations Management	Community Volunteer Activities, Social Welfare Programs, Social Undertaking Support Programs, etc.

Analysis of Topics of Double Materiality

In order to gain a deeper and more accurate understanding of stakeholder expectations and demands, and to enhance the professionalism, relevance, and substance of this report, the Company invites stakeholders through questionnaires to select topics of "impact materiality" and "financial materiality" regarding the Company's environmental, social, and governance matters. These topics are then disclosed in the report, laying the direction and foundation for the Company's sustainable development system.

Topic Materiality Analysis Process



01

Advancing Steady Progress Grounded on Strong Governance

Adhering to the responsibilities as a state-owned enterprise and the goal of high-quality development, and focusing on information disclosure, Yunnan Tin will continuously optimize corporate governance, further enhance communication with investors, and strive to increase the Company's investment value. The Company will effectively achieve the "improvement in both quality and return", to promote the active and healthy development of the capital market. In addition, the Company strictly conducts compliance risk management, continuously builds a clean and honest environment, and leads the Company's sustainable development with high-quality Party building.

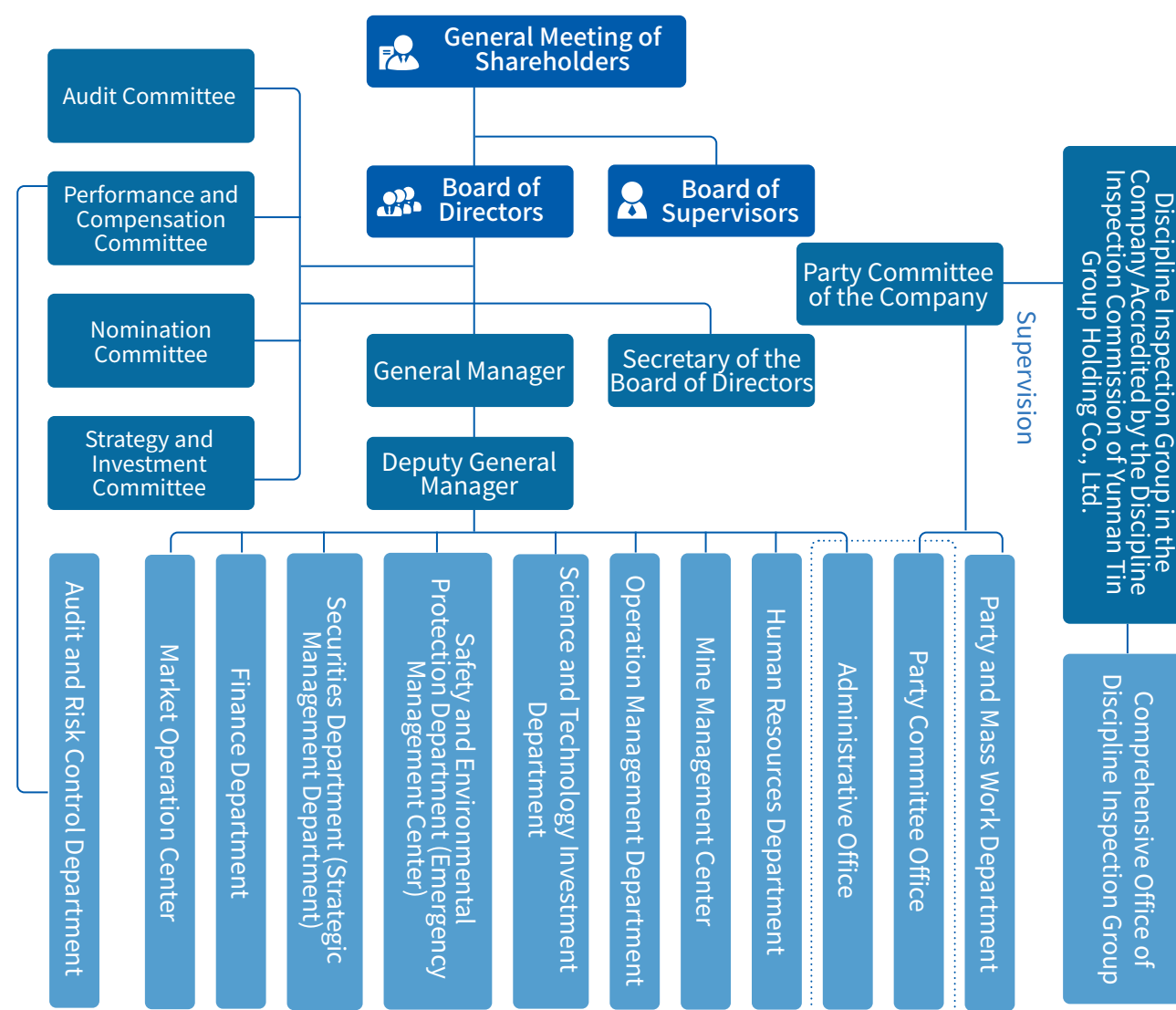
- ◎ Corporate Governance
- ◎ Compliance Risk Control
- ◎ Investor Relations Management
- ◎ Anti-Commercial Bribery and Anti-Corruption
- ◎ Party Building



Corporate Governance

Good corporate governance is the cornerstone of sustainable development of an enterprise. Yunnan Tin always maintains a highly responsible attitude towards shareholders, and continuously improves corporate governance structure in strict accordance with applicable laws and regulations such as the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Corporate Governance for Listed Companies*. The Company has successfully established a decision-making mechanism centered around the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors, the Party Committee, and the Senior Management, to ensure clear division of responsibilities, efficient coordination, and effective governance. During the Reporting Period, the Company standardized the implementation of internal governance systems such as the *Articles of Association*, the *Rules of Procedure for the General Meeting of Shareholders*, the *Rules of Procedure for the Board of Directors* and the *Rules of Procedure for the Board of Supervisors*, and standardized the organization of the meetings of the Board of Directors, the General Meetings of Shareholders and the Board of Supervisors to ensure the scientific and transparent decision-making process.

- Organizational Structure •



Powers and Responsibilities of the Board of Directors, the General Meeting of Shareholders, and the Board of Supervisors



The General Meeting of Shareholders is the highest governance body of the Company. The Company convenes and holds the General Meeting of Shareholders in a standardized manner in strict accordance with the *Company Law of the People's Republic of China, the Articles of Association, the Rules of Procedure for the General Meeting of Shareholders and other relevant regulations and requirements to ensure that all shareholders*, especially minority shareholders, can enjoy an equal status and fully exercise their legitimate rights.



The Board of Directors reviews and makes decisions on major matters of the Company in strict accordance with its powers and responsibilities defined in the *Articles of Association*. The notification, convening, voting methods and other procedures of the meetings of the Board of Directors comply with the provisions of the *Company Law of the People's Republic of China and the Articles of Association*, and the minutes of the meetings are complete and standardized. All directors are able to work in accordance with applicable laws and regulations, attend the meetings of the Board of Directors and the General Meeting of Shareholders, diligently fulfill their duties and obligations, actively participate in relevant training and learning, familiarize themselves with applicable laws and regulations, and improve their ability to perform their duties.



The Company strictly implements the election procedures for the Board of Supervisors in accordance with the *Articles of Association* and other applicable regulations. The Board of Supervisors actively exercises its supervisory responsibilities, reports to the General Meeting of Shareholders, and supervises the legality of the Company's finances and the performance of duties by the Company's directors and senior management. It focuses on key matters such as hedging and connected transactions to effectively protect the legitimate rights and interests of the Company and its shareholders.

Key Performance



As of the end of 2024, the Board of Directors had a total of **9** directors,including **1** female director,and **3** independent directors.

In 2024, the Company Held **7** meetings of the Board of Directors,with **100%** attendance rate of the Board members, and **0** directors attending fewer than 75% of the meetings;

Convened **7** meetings of the Board of Supervisors

Hosted **3** meetings of the General Meeting of Shareholders

The Company strives to achieve the effectiveness, independence, diversity and professionalism of the operation of the Board of Directors. We endeavor to promote diversity on the Board of Directors in terms of professional skills, industry experience, occupational background, gender and culture in order to promote diversity in development.

Basic Information of Directors

Liu Luke (Male)



Non-ferrous metal mining, smelting, deep processing, supply chain, and enterprise management

Li Shiyon (Male)



Legal affairs and enterprise management

Zhang Yan (Male)



Board Secretary related experience and enterprise management

Wu Hongxing (Male)



Non-ferrous metal smelting and enterprise management

Chen Xiongjun (Male)



Marketing and enterprise management

Li Dening (Male)



Finance and strategic development

Yuan Rongli (Female)



Accounting, financial education, and financial management

Wang Daobin (Male)



Analysis and finance of the non-ferrous metal industry

Yu Dingming (Male)



Legal education and legal service

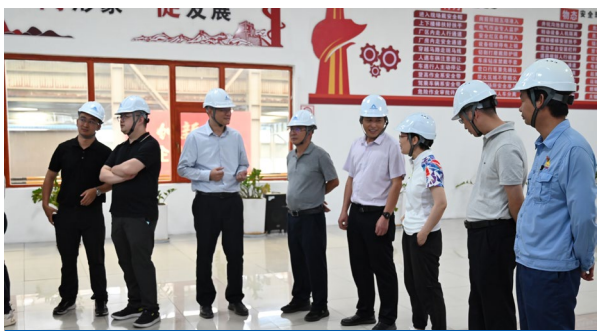
Case

The Company Organized On-Site Surveys by Independent Directors to Enhance Corporate Governance

In August 2024, to implement the requirements for on-site research by independent directors as set out in the *Measures for the Administration of Independent Directors of Listed Companies*, the Company organized a one-week on-site research of its subsidiaries by independent directors. During the research period, the independent directors conducted a comprehensive research of the production, operations, financial management, safety, environmental protection, and other aspects of the Company, and based on their professional backgrounds and experience, provided targeted management recommendations to the Company, further enhancing the Company's governance level.



On-Site Surveys by Independent Directors



On-Site Surveys by Independent Directors

Compliance Risk Control

In 2024, the integrated "internal control, risk management, and compliance governance" management system of the Company officially began operations. This new management system has improved the Company's internal control and risk prevention mechanisms, standardized internal governance, and reinforced the awareness of risk and compliance among all employees, which effectively ensures the compliance and stability of all business activities, and provides strong support for the Company's standardized management, risk prevention, and compliance operations. The Company continues to fulfill its tax obligations and manage tax-related risks, to ensure its sustainable operations.

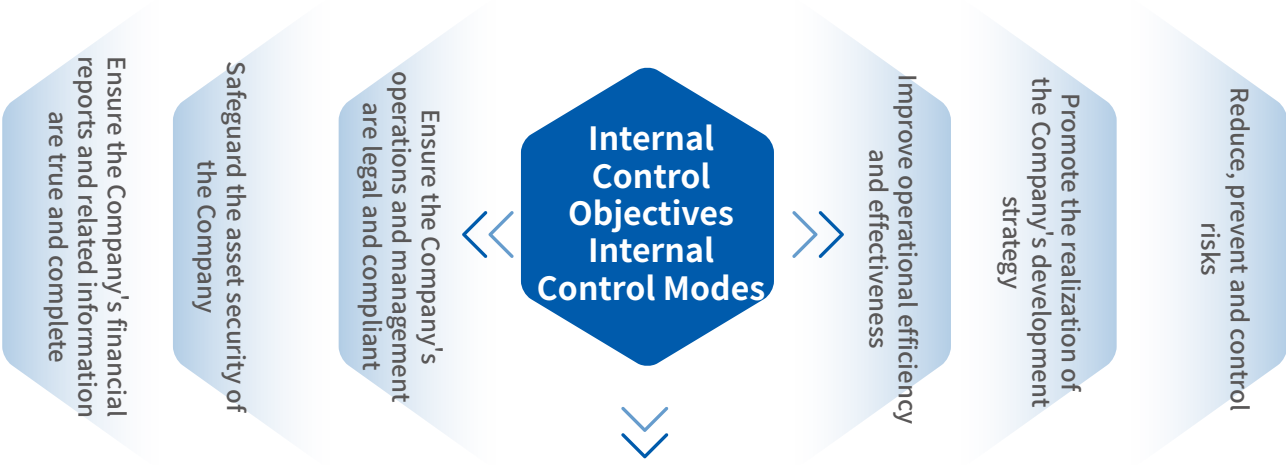
Integrated Management System Combining "Internal Control, Risk Management and Compliance Governance"



Lines of Defense Against Compliance Risks

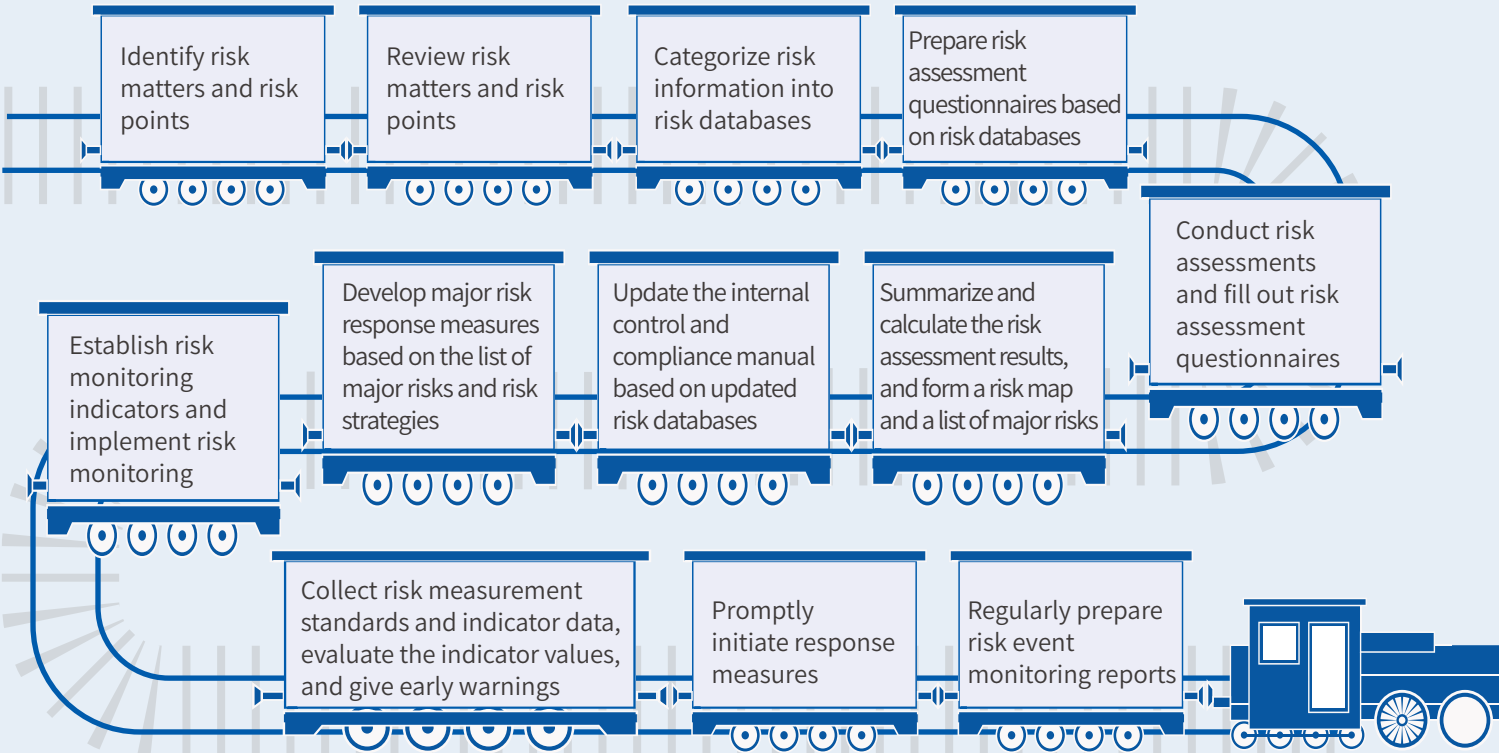


Internal Control Objectives Internal Control Modes



Based on risk assessment results and with internal control methods that integrate manual control and automated control, as well as preventive control and detective control, the Company keeps risks within an acceptable range through control measures such as incompatible duties segregation, authorization and approval, accounting system, asset protection, budget management, operational analysis, and performance evaluation.

Risk Identification, Evaluation, and Response Process



Case

The Company Conducted Risk Assessments to Improve Risk Management Level

In April 2024, the Company issued a risk management and assessment report based on prior risk identification and assessment. Through the assessment, the Company analyzed the internal and external environments affecting its business operations, and identified and categorized potential risks in its business activities. The identified risks were evaluated in two dimensions: the likelihood of occurrence and the degree of impact. In addition, the Company proposed effective preventive measures against major risks, promoted the fulfillment of risk management responsibilities, and improved risk management level.

Case

The Company Organized Training on Risk Management to Enhance Practical Capabilities

In June 2024, the Company organized training on "Internal Control, Risk Management, Compliance Governance, and Internal Audit". Guided by leading practices and innovative research, the training analyzed the advanced practices of internal control and risk management in benchmark enterprises, and helped relevant personnel in the Company further understand the law and essence of risk management, as well as the challenges and bottlenecks in the risk management process, to enable them to master comprehensive methods for addressing major corporate risks and practical capabilities in risk management, internal control, and compliance management.



The Company Organized Training on "Internal Control, Risk Management, Compliance Governance, and Internal Audit"

Tax Management System

The Financial Management Department is the primary department responsible for the tax management of the Company. The Company assigns tax administrators to perform tax management duties.

Tax Risk Management System

The Company collects internal and external relevant information in a comprehensive, systematic and continuous manner and, taking into account the actual situation, and identifies tax risks in the Company's business activities and processes through steps such as risk identification, risk analysis and risk evaluation. We analyze and describe the likelihood and conditions of risk occurrence, and assess the impact of risks on our tax management objectives, to determine the priority and strategies for risk management.

Tax Control and Risk Management Measures

Key Performance



In 2024, the Company paid a total of RMB **1,803.2286** million in taxes.



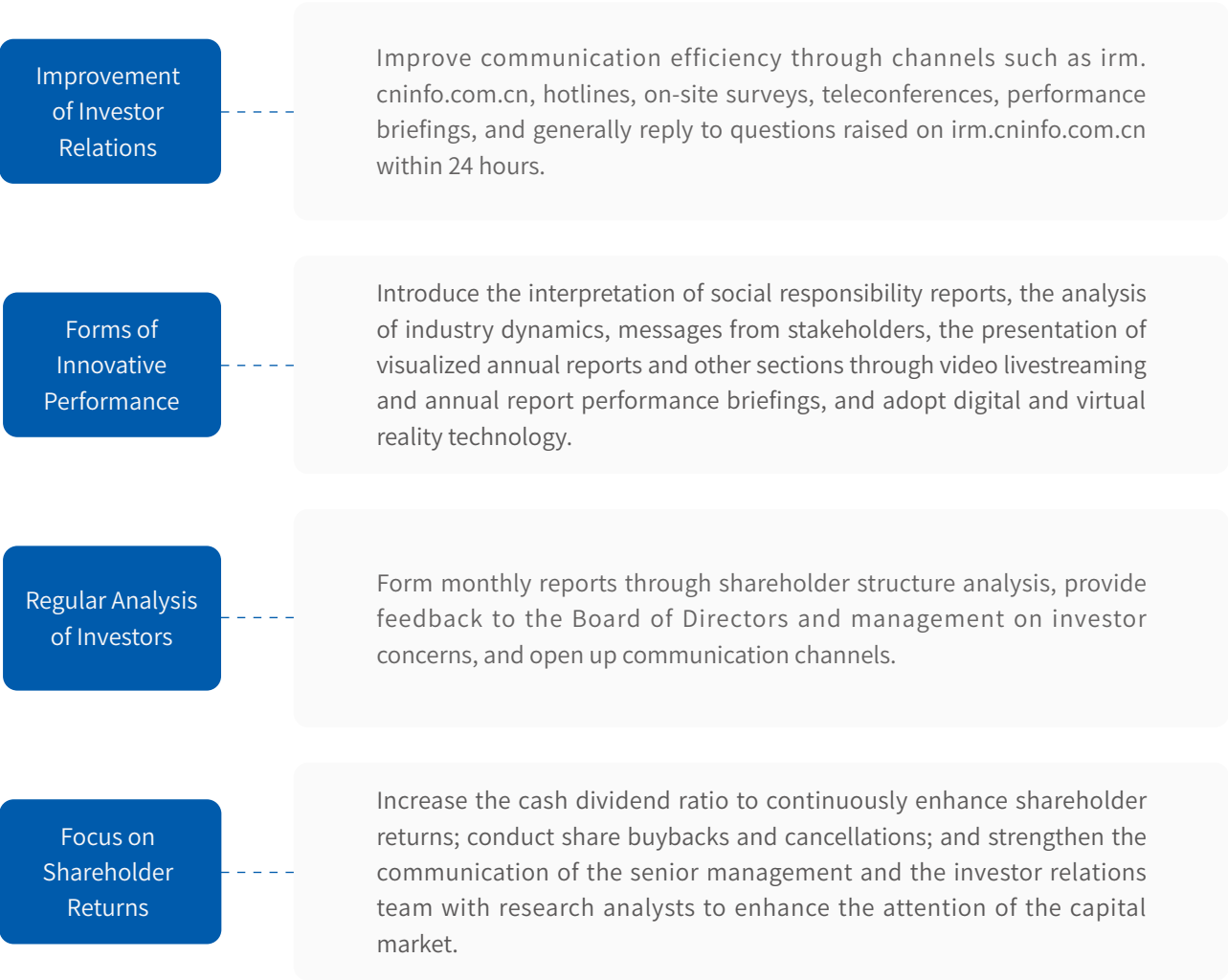
- The Company hires an intermediary agency with the required qualifications and professional capabilities to conduct regular tax inspections every year. The intermediary agency will check whether the Company has calculated and paid taxes for all economic operations conducted by the Company during the year in strict accordance with applicable tax laws in a timely and accurate manner, whether tax matters have been handled in strict accordance with prescribed procedures, and whether tax files are managed is in compliance with applicable regulations.
- The Company dynamically manages tax risks on an annual basis, and promptly assesses the changes in existing risks and any newly generated tax risks. Based on the results of tax risk assessment and the cost and benefits of risk management, we formulate tax risk response strategies within the overall management and control system, establish an effective internal control mechanism, and reasonably design tax management processes and control methods, to achieve comprehensive control of tax risks.
- The Company maintains effective communication with the competent tax authorities and other relevant units to establish and improve systems for collecting and updating tax policies and regulations related to the Company's business operations.
- Tax-related training sessions are offered annually for the Company's financial personnel to strengthen their tax awareness.

Tax Management

Tax management is a crucial cornerstone for an enterprise to ensure compliant operations and enhance financial transparency. The Company attached great importance on tax compliance, viewing it as a crucial link in fulfilling social responsibilities and maintaining a good business reputation. Through the establishment of a sound tax management system, we are committed to optimizing tax processes, reducing tax risks, and ensuring the accuracy and timeliness of tax filings.

Investor Relations Management

The Company always attaches great importance on two-way communication with the capital markets, organizes high-quality performance briefings, and conducts investor research and communication activities. With the ongoing success and innovation of the Company's performance briefings in recent years, the Company's performance briefings have repeatedly won honors such as "Best Practice Case" and "Outstanding Practice Case of Performance Briefings" from the China Association for Public Companies. Additionally, the Company has been continuously invited by various institutions to share experiences in performance briefings, marking high recognition from regulatory authorities, self-regulatory organizations, investors, and other market players for the Company's remarkable achievements in the management of performance briefings and investor relations.



Key Performance



- In 2024, the Company Organized and participated in **130** investor communication events
- Docked with **488** institutional and individual investors
- Received **25** one-on-one visits paid by shareholders
- Answered **167** questions on irm.cninfo.com.cn
- Received a total of **168** calls from investors

Case The Company Held an Annual Report Performance Briefing to Deepen Communication with Investors

In April 2024, the Company successfully held the 2023 Annual Report Performance Briefing and Investor Communication Meeting through the Investor Relations Interactive Platform in the form of a "live meeting + video livestreaming". The Company shared with investors about Yunnan Tin's 2023 operating results, industry developments, and the results of Yunnan Tin's ESG efforts, and engaged in deep discussions on investor concerns. The performance briefing effectively promoted Yunnan Tin's intrinsic investment value to the capital market, communicated the Company's voice to a wide range of investors, listened to investor viewpoints and suggestions, and fully accepted scrutiny from the capital market.



Key Honors

The Information Disclosure Work of Yunnan Tin Received an "A" Rating from the Shenzhen Stock Exchange in 2023-2024

主板		创业板	
公司代码	公司简称	考评结果	考评年度
000960	锡业股份	A	2023

Information Disclosure Evaluation Results from the Shenzhen Stock Exchange

In October 2024, the Company received a *Circular on the Assessment Results of Information Disclosure by Listed Companies in 2023-2024* from the Shenzhen Stock Exchange, according to which the Company received a "A" rating (the highest rating) in the assessment by the Shenzhen Stock Exchange. According to the evaluation results, only 487 out of 2,810 companies listed on the Shenzhen Stock Exchange received an "A" (excellent) rating, accounting for 17.33% of the total number of listed companies evaluated.

Returns to Shareholders

To actively reward shareholders and share them with operating results, the Company, under the premise of complying with the Company's profit distribution policy and ensuring its normal operations and long-term development, implemented a cash dividend distribution plan to issue a cash dividend of RMB 2.60 (tax inclusive) per 10 shares to all shareholders in May 2024, with the total distributed cash dividend amounted to RMB 427,908,507.52 (tax inclusive). In January 2025, the Company implemented the interim dividend distribution for the first time by issuing a cash dividend of RMB 1.00 (tax inclusive) per 10 shares to all shareholders, with the total distributed cash dividend amounted to RMB 164,580,195.20 (tax inclusive), fully demonstrating the Company's responsible attitude in striving to reward the market and shareholders.

Anti-Commercial Bribery and Anti-Corruption

Yunnan Tin attaches great importance to the integrity education of employees and management staff at all levels, and continuously strengthens internal governance, to strictly prevent and control fraudulent activities. Through continuously revising and improving the Anti-Fraud Management System of Yunnan Tin Co., Ltd., the Company clearly designates the comprehensive office of the discipline inspection group as a permanent anti-fraud institution and urges employees and managers at all levels to strictly abide by the relevant rules and regulations of the superior discipline inspection commission and the *Provisions on Filing Records of Interference in Enterprise' Normal Operations and Management Activities (for Trial Implementation)*, to ensure that the Company's operation, and management activities are standardized, honest, and efficient.

Whistleblower Protection System



The Company has established a dedicated whistleblowing email and hotline. Any violations or misconduct by Party members or officials, if observed, may be reported to the Discipline Inspection Group in the Company Accredited by the Discipline Inspection Commission of Yunnan Tin Group Holding Co., Ltd. (Tel.: 0871-64983008). This protects whistleblowers' legal rights and provide a solid information feedback channel for internal anti-fraud efforts within the Company.

Accountability and Remedies

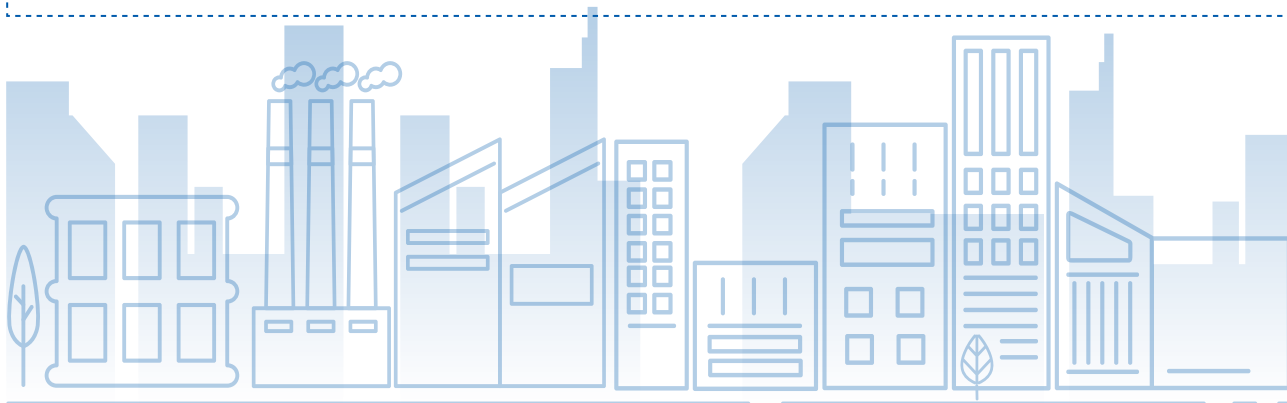
To effectively enforce accountability, the Company has stipulated that: Leaders shall be held accountable for the occurrence of fraud due to negligence within the scope of their supervisory or in-charge work. The Company's management personnel shall also be held accountable for violations during their direct operation or participation in decision-making within the scope of their duties. In response to the problems that have occurred, the affected business units shall carry out a comprehensive assessment and improvement of internal controls. The Company's business dealings with customers, suppliers and other relevant units shall be based on integrity and fairness, and relevant requirements for the Company's all anti-fraud work shall be communicated in a timely manner.

Disciplinary Measures and Handling Procedures

In accordance with the relevant regulations, the Company shall impose severe punishment for violations of the anti-fraud management provisions. Those who violate the law shall be handed over to the judicial organs according to applicable laws. Clear and strict disciplinary measures and handling procedures help continuously improve the Company's governance level, ensure the implementation of all management systems, and effectively prevent and curb the occurrence of corruption.

Continuous Supervision and Governance Improvement

To ensure the long-term validity of the anti-fraud management system, the Company continuously monitors and tracks whistleblower information and issues found in internal inspections, and takes corrective measures promptly. The continuous optimization of internal governance systems and supervision mechanisms empowers the Company to constantly enhance its integrity and self-discipline, creating a clean, positive, and stable operating environment and further strengthening the Company's competitiveness in the market.



Case

The Company Held a Conference on Party Integrity Construction and Anti-Corruption to Promote the Normalization of Clean Governance

In March 2024, the Company held the Party Integrity Construction and Anti-Corruption Working Conference to comprehensively implement the anti-corruption deployment for holding companies and further strengthen the construction of corporate anti-corruption systems. The conference emphasized that in 2024, the Company would continue to promote the integrated construction of the "Three No-Corruption", deepen political supervision, focus on key areas and critical links, resolutely investigate corruption issues, and strengthen the line of defense against corruption. At the conference, relevant personnel also signed the Commitment to Party Integrity Construction, reinforcing responsibilities at all levels and promoting the normalization of clean governance to provide a solid guarantee for the high-quality development of the Company.



The Company Held the 2024 Party Integrity Construction and Anti-Corruption Working Conference

Case

Kafang Branch Conducted Party Integrity Education Activities to Promote the Company's Integrity Culture Construction

In January 2024, Kafang Branch held a kick-off meeting for the warning and education of Party integrity under the theme of "Integrity Escorts and Leads Clean Kafang to Clean Governance and Long-term Development". The activity aimed to strengthen party integrity construction, enhance the awareness of party members and cadres of integrity and self-discipline through warning, education and case study, and promote the normalization of integrity construction. The meeting proposed the establishment of a "Clean Kafang" mechanism to prevent corruption, and clarified the integrity responsibilities of Party members and cadres. The activity helped to promote the Company's integrity culture construction, laying a solid foundation for the sustainable and healthy development of the Company.

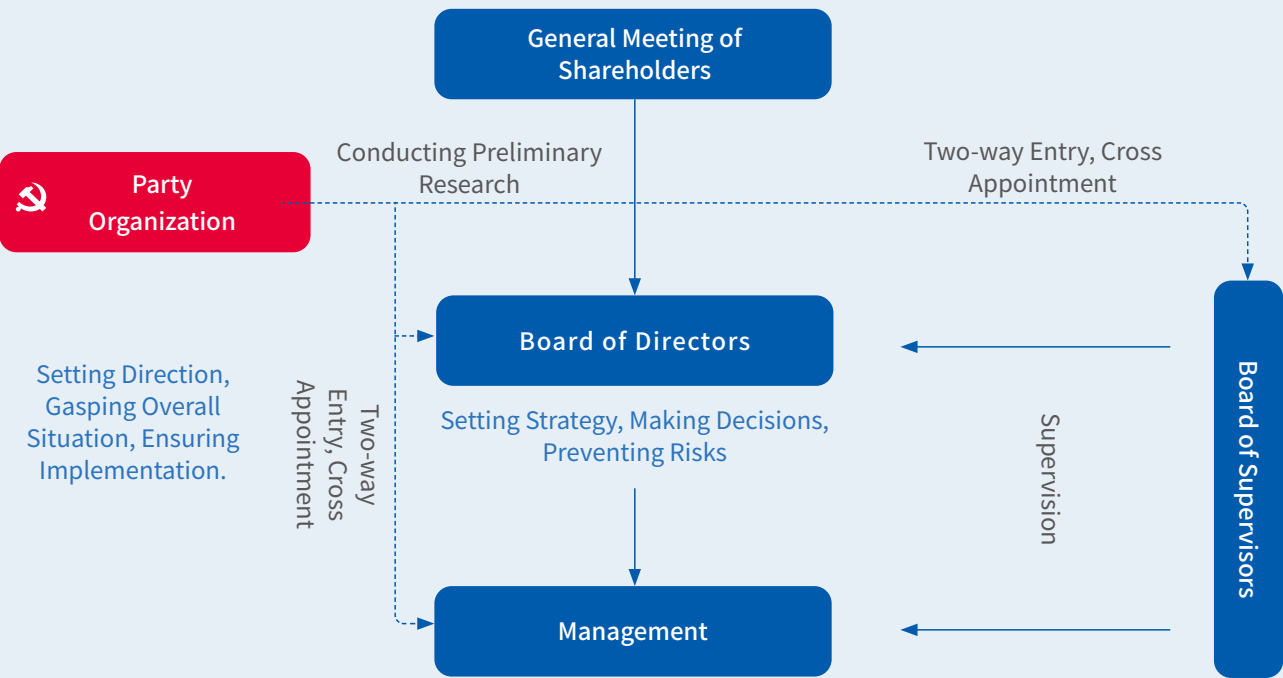


Kafang Branch Held a Kick-off Meeting for the Warning and Education of Party Integrity

Party Building

Adhering to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the Company fully practice the spirit of the 20th CPC National Congress and the 3rd Plenary Session of the 20th CPC Central Committee, and thoroughly studies and implements General Secretary Xi Jinping's important thoughts on party building. Driven by the goal of fulfilling the key annual tasks of party building and promoting the effective integration of party building with production and operation based on "three lists", the Company is committed to advancing key initiatives such as the study and education of Party discipline and the "Year of Promoting High-Quality Development of Provincial Enterprises through Party Building" event, ensuring their thorough and effective implementation. These efforts continuously strengthen the Party's leadership in supporting and enhancing our ability to tackle critical challenges, deepen reforms, expand markets, and stabilize operations, thus providing a solid political, ideological, and organizational foundation for building the Company into a world-class professional leading demonstration enterprise.

Decision-Making Framework Comprising the General Meeting of Shareholders, the Board of Directors, the Board of Supervisors, the Party Committee and the Senior Management



Planning Operation, Ensuring Implementation, Strengthening Management

Mutual Independence, Clearly Defined Responsibilities and Powers, Coordinated Checks and Balances, Effective Governance

Powers and Responsibilities of the Party Committee and Dispatched Discipline Inspection Group



Key Performance

In 2024, the Company organized **8** special study sessions for the theoretical center groups of the Party Committee

The members of the Party Committee attended **6** study sessions for the theoretical center groups of the Party Committee

Leading cadres at all levels delivered **62** speeches gave **462** Party lectures

Case The Company Deepens Learning, Refines Understanding, and Strengthens Implementation to Promote the Effective and Practical Advancement of Party Discipline Education

In 2024, the Company held a Party committee meeting to make arrangements for the study of party discipline. The Company established a dedicated working group specifically responsible for In 2024, the Company held a Party committee meeting to make arrangements for the study of party discipline. The Company established a dedicated working group specifically responsible for this matter and formulated relevant implementation plans. The Party Committee organized Party discipline study and education in the forms of reading sessions, specialized tutoring, thematic seminars by the Party Committee's Theoretical Study Group, disciplinary lectures, warning education sessions, and summary meetings, while the Party branches conducted Party discipline study and education through "Three Sessions and One Lesson", Thematic Party Day, etc. Additionally, the Company comprehensively coordinated and guided party organizations at all levels through the "five studies" initiative, which requires these party organizations systematically study General Secretary Xi Jinping's important thesis on comprehensively strengthening the Party's disciplinary construction, strictly abide by the *Regulations on CPC Disciplinary Action*, carefully and effectively carry out education, training and warning for Party members and cadres, integrate Party discipline study and education into daily practice on a regular basis, and promote Party discipline study and education to be deeper and effective.



The Party Committee of Yunna Tin Launched a Reading Session for Party Discipline Study and Education

Case The Company Conducted Research and Supervision of the "Three Lists" to Promote the Effective Integration of Party Building with Production and Operations

In June 2024, the Company conducted a supervisory inspection of the Copper Branch's implementation of the "Three Lists" of the *Implementation Measures and "Flowchart" for Promoting Effective Integration of Party Building with Production and Operation (for Trial Implementation)*. Through field research, exchanges at seminars, reviews of ledgers, and other similar means, the Company urges the Copper Branch to strengthen the implementation of the key tasks of party building, and effectively promotes the deep integration of party building with production and operation.



The Company Conducted an Inspection of the Party Building at the Copper Branch

02

Realizing Sustainable Development Rooted in Environmental Protection

In the wave of the era of sustainable development, Yunnan Tin deeply recognizes that the environment is the foundation of enterprise development and has always adhered to the philosophy of green development. In strict accordance with applicable laws, regulations, and industry standards, the Company: carries out environmental compliance management; actively responds to the energy "dual control" policy, optimizes the energy structure, and improves energy utilization efficiency; establishes and improves management systems to strengthen the recycling and protection of water resources; continuously upgrades technology and equipment, strictly controls pollutant emissions; adheres to the principles of waste minimization, waste valorization and environmentally sound management, and actively explores waste recycling methods; actively implements carbon peak and carbon neutrality strategies, formulates plans to address climate change to reduce carbon emissions; sets clear goals, and achieves significant results in the utilization of resources such as gypsum residue and tailings; actively carries out ecological restoration and other work to protect ecosystems and biodiversity. Yunnan Tin is making every effort to build a new pattern of green development through multiple measures, and working tirelessly to achieve the synergy between the economy and the environment.



- ◎ Environmental Compliance Management 「"a Topic of Double Materiality"」
- ◎ Energy Utilization
- ◎ Water Resource Utilization
- ◎ Pollutant Emissions
- ◎ Waste Disposal
- ◎ Addressing Climate Change
- ◎ Circular Economy
- ◎ Ecosystem and Biodiversity Conservation



Environmental Compliance Management

"a Topic of Double Materiality"

Governance

In 2024, Yunnan Tin continuously improved the environmental management system around the environmental management policy, and further optimized the ecological and environmental protection responsibilities of all departments and personnel at all levels in the Company. In line with the national laws, regulations and relevant requirements on ecological and environmental protection, the Company revised the *Ecological and Environmental Protection Responsibility List of Yunnan Tin Co., Ltd.* and the *Supervision and Management Measures for the Inspection and Management of Ecological Environmental Protection of Yunnan Tin Co., Ltd.*, and published and implemented the Solid Waste Pollution Prevention and Control Management System of Yunnan Tin Co., Ltd. and the *Measures for the Administration of Tailings Pollution Prevention and Control of Yunnan Tin Co., Ltd.*

Environmental Policy



Excellence Pursuit, Integrity Adherence,
Law Compliance, People Orientation,
Energy Conservation, Low Carbon,
Green Development

Existing Environmental Management Policies of the Company

- 01

Measures for the Administration of Ecological and Environmental Protection of Yunnan Tin Co., Ltd.
- 02

Ecological and Environmental Protection Responsibility List of Yunnan Tin Co., Ltd.
- 03

Measures for the Administration of Ecological and Environmental Protection Inspection and Supervision of Yunnan Tin Co., Ltd.
- 04

Measures for Environmental Protection Assessment and Reward/Punishment (for Trial Implementation) of Yunnan Tin Co., Ltd.
- 05

Solid Waste Pollution Prevention and Control Management System of Yunnan Tin Co., Ltd.
- 06

Measures for the Administration of Tailings Pollution Prevention and Control of Yunnan Tin Co., Ltd.

Organizational Structure for Environmental Management

- Safety Production and Ecological Environment Protection Committee

Comprehensively responsible for the leadership, organization, supervision, guidance, and coordination of management work related to safety production, ecological and environmental protection, occupational health, and other areas.
- Safety and Environmental Protection Department

Responsible for the Company's daily environmental management work, and for guiding, inspecting, and supervising the environmental management work carried out by each branch (subsidiary).
- Branches (Subsidiaries)

Establishing a management framework for ecological and environmental protection, with the Party Committee Secretary and (General) Manager fully responsible for the work, the Vice (General) Manager in charge of ecological and environmental protection specifically responsible, and the environmental protection management organization overseeing comprehensive supervision, while business management departments handle specialized management.
- Workshops (Pits)

Having a Deputy Director in charge of environmental protection and environmental management personnel responsible for the environmental management of the workshop (pit).

In 2024, the Company actively promoted ISO14001 certification. Through internal audits, management reviews, and third-party audits among other multi-dimensional review mechanisms, we organized a comprehensive inspection and diagnosis on the effectiveness, compliance, environmental target indicator achievement, and major environmental risk control of the operation of the Company's environmental management system. We are committed to identifying and solving problems, promoting the continuous improvement of environmental performance, and consolidating the foundation for the sustainable development of the Company.

Environmental Management System Certification



Building of Green Factory



Strategy

In early 2024, Yunnan Tin held an annual safety and environmental protection work meeting, thoroughly studied and implemented Xi Jinping Thought on Ecological Civilization, and implemented the spirit of the relevant meetings. The Commitment to Safety Production, Fire Protection, and Ecological and Environmental Protection were signed by employees at all levels, further enforcing their primary responsibilities for ecological and environmental protection. In addition, the *Opinions on 2024 Safety and Environmental Protection Arrangement of Yunnan Tin Co., Ltd.* was issued, detailing requirements for aspects such as the management and control of environmental risks and the prevention and mitigation of accident hazards, and relevant plans for advancing safety and environmental protection work were formulated and issued for implementation.



The Company Held an Annual Safety and Environmental Protection Work Meeting and Signed a Commitment to Ecological and Environmental Protection Responsibility.

Impact, Risk, and Opportunity Management

In 2024, all units of Yunnan Tin strictly implemented technical documents concerning environmental risk management, such as the *General Principles of the Technical Guidelines for the Construction of the Dual Prevention Mechanism for Environmental Management*, the *Technical Guidelines for the Construction of the Dual Prevention Mechanism for Environmental Management - Identification and Classification of Pollution Sources*, the *Technical Guidelines for the Construction of the Dual Prevention Mechanism for Environmental Management - Classified Management and Control of Environmental Risks*, and the *Technical Guidelines for the Construction of the Dual Prevention Mechanism for Environmental Management - Identification and Management of Potential Environmental Hazards*. In addition, they dynamically updated the pollution source identification and classification lists and the environmental risk classification and control lists, effectively formulated environmental risk management and control measures, regularly conducted the assessment and management of potential environmental hazards, and effectively prevented and mitigated major environmental risks.

Dual Prevention Mechanism and Process for Environmental Risks



● Classification and Control Mechanism against Environmental Risks ●



● Metrics and Targets

The Company, from a strategic height, continuously injects stable funds for environmental protection, with a total investment of RMB 316.69 million in 2024, and is committed to building a model of green enterprises.

Compliance Management

The Company strictly implements the *Law of the People's Republic of China on Environmental Impact Assessments*, the *Regulations on the Administration of Construction Project Environmental Protection*, the *Interim Measures for Environmental Protection Acceptance Inspection Upon Completion of Construction Projects*, the *Measures for the Administration of Post-Acceptance Environmental Impact Assessment of Construction Projects (for Trial Implementation)* and other laws and regulations, and strictly follows the "three simultaneities" of environmental protection equipment and facilities during the construction of the project, the environmental impact assessment of construction projects, and the system for environmental protection acceptance upon project completion. At the feasibility study stage of project construction, regarding ecological and environmental protection measures as an important basis for feasibility studies, we actively promote environmental management of construction projects in accordance with applicable laws, and enhance supervision and guidance before, during, and after the project construction to ensure that construction projects are legally compliant.

● Achievement of Environmental Management Goals for Construction Projects in 2024 ●



Emergency Management

In 2024, the Company continuously optimized and improved its emergency management system for environmental emergencies, stipulating provisions for the preparation of emergency response plans, environmental risk assessment, emergency material investigation, the filing, management and evaluation of emergency response plans, training on emergency response plans, and relevant drills. Additionally, each production unit of the Company has formulated emergency drill plans for sudden environmental incidents, and regularly organized emergency plan training and drills for sudden environmental incidents, effectively preventing and controlling the occurrence of such incidents.

Case
Emergency Drills to Build a Line of Defense against Environmental Emergencies

In 2024, Wenshan Zinc Indium, Hualian Zinc Indium, Datun Tin Mine and other units jointly carried out government-enterprise joint drills with local governments. The production units of the Company carried out **114** trainings on the emergency response plan and emergency management for environmental emergencies, with a total of **3,215** participants. They also organized **85** emergency response drills for various types of environmental emergencies such as leakage of exhaust gases, tailing ponds rollover wading or dam failure, with **1,859** participants in the drills. The emergency drills not only tested and improved the emergency plans, but also enhanced the ability of government and enterprises to respond to environmental emergencies in a coordinated manner, strengthened the level of emergency response of the relevant personnel, and built a solid foundation for effectively preventing and responding to environmental risks and safeguarding ecological and environmental safety.



Training on Emergency Response Plans



Training on Emergency Response Plans



Emergency Drill for Tailings Pond



Emergency Drill for Gas Leakage

Key Performance

In 2024, no major sudden environmental incidents occurred in any units of the Company, and no environmental event penalties were imposed on the Company.



Environmental Protection Promotion Initiative

In 2024, to actively respond to the national call for ecological and environmental protection, Yunnan Tin organized theoretical studies through the central group of the Party Committee. Leaders and cadres were deeply engaged in learning the thought on ecological civilization, and played a leading role. Special training sessions were offered, and environmental protection experts were invited to give detailed explanations of applicable laws, regulations and technologies related to pollution control. External training was also organized to allow employees to learn from advanced environmental protection experiences in other regions. Through a series of trainings, the ecological and environmental protection awareness among employees at all levels of the Company was significantly improved, laying a solid ideological foundation for the Company to practice the philosophy of green development in production operations, reduce environmental pollution risks, and achieve sustainable development.

Case
Knowledge Empowerment by Providing Environmental Protection Handbooks to Enhance Awareness Among All Employees

In 2024, the Company conducted in-depth research on the complex business processes of mining, dressing, smelting, etc. We comprehensively sorted out the provisions of laws and regulations on ecological and environmental protection, from the national core environmental protection laws to local industry-specific regulations, for environmental issues that may arise in production. We also compiled the Handbook of Ecological and Environmental Protection Knowledge in the Yunnan Tin and distributed it to all units of the Company, encouraging employees to study independently during their spare time through online and offline learning channels. The Handbook of the Ecological and Environmental Protection Knowledge effectively enhanced the environmental protection awareness of personnel at all levels in a concise and easy-to-understand manner, further supporting the Company's compliance in production and contributing experience to the industry's green development.



Case
An Environmental Lawyer was Invited to Strengthen the Line of Defense for Legal Compliance

In 2024, to strengthen the legal awareness of all employees for environmental protection, the Company invited a professional lawyer to offer training on laws and regulations concerning environmental protection. Through clear and engaging explanations combined with real and vivid case studies, the lawyer made complex legal knowledge accessible and understandable. More than 170 employees actively participated in the training, including senior executives, key leaders from all units and departments, as well as environmental management personnel and technical experts. This training not only helps employees to grasp the key points of environmental protection regulations in a timely manner, to avoid legal risks in production and operation, but also improves the Company's overall environmental protection management level, and contributes to the green and sustainable development of the Company.



Training on Ecological and Environmental Protection Knowledge

Case

The Company Promoted June 5 Environment Day to Build a New Path for Green Development Together

In June 2024, in alignment with Xi Jinping Thought on Ecological Civilization and relevant conference directives, as well as the guidelines of the Ministry of Ecology and Environment, the Company, based on its own operation needs, organized a series of promotional activities for the "June 5 Environment Day", to deepen in-depth study of relevant thoughts, strengthen green awareness, enhance public outreach, foster an ecological culture, and encourage employee to participate in ecological civilization initiatives. The "June 5 Environment Day" event helped to guide the whole company to practice the philosophy of "lucid waters and lush mountains are invaluable assets", mobilize employees and their families to participate in the construction of a beautiful China, create a good ecological and environmental protection atmosphere, and promote the sustainable development of the Company.



The Company Promoted "June 5 Environment Day" by Going into Communities and Organizing Environmental Protection Product DIY Contests



The Company Organized Tree Planting Activities for the "June 5 Environment Day"

Case

The Company Improved the Factory Environment to Build a Beautiful Yunnan Tin

In 2024, the Company made significant efforts to improve the factory environment, aiming to make its workspaces clean, comfortable, and healthy. Employees actively participated by sweeping factory roads, removing surface stains, clearing weeds around premises to refresh the surroundings, and trimming greenery to enhance the landscape aesthetics. These initiatives led to a noticeable transformation of our factory environment, significantly improving the workspace while demonstrating the Company's commitment to employee well-being and a high-quality working environment, helping to shape a positive corporate image and promoting harmonious development.



Employees Actively Participated in Building A Beautiful Yunnan Tin



Employees Actively Participated in Building A Beautiful Yunnan Tin

Key Performance



In 2024, the Company's subsidiaries, branches, and workshops (pits) offered a total of **746** training sessions on laws and regulations, typical cases, and governance technologies for ecological and environmental protection, with **46,100** person-times of participants.

Energy Utilization

Yunnan Tin, in accordance with relevant management requirements, integrates energy management into the *Quality, Environmental, Occupational Health and Safety, Energy Management System*, achieving integrated management. Through continuous annual inspections and internal audits, we ensure that the system is controlled and operated properly. In 2024, the Company formulated the *Measures for the Administration of Energy Conservation*, and included the comprehensive energy consumption of smelting products into the annual appraisal system as a key appraisal index in accordance with *GB25323-2023 The Norm Of Energy Consumption Per Unit Production*

Of Nonferrous Heavy Metals Metallurgical Enterprises. Through measures such as continuous optimization of production processes and effective implementation of energy conservation technologies, we ensured the steady improvement in energy utilization efficiency and the realization of refined and scientific energy management, contributing to the achievement of our sustainable development strategic goals.

Key Optimization Initiatives for Energy Conservation and Consumption Reduction in 2024

Upgrading with Energy-Efficient Technology

- The Company conducted the "Research on the Application of High-Voltage Variable-Frequency Speed Regulation Technology for MBY2740 Rod Mill", and completed the renovation of the first set of high-voltage variable-frequency speed-regulated rod mills.
- The Company achieved more than one function optimization, energy conservation and consumption reduction, with the annual electricity saving per unit of equipment being 15%.

Application and Promotion of Permanent Magnet Motor

- The Company conducted the "Research on the Application of High-Voltage Variable-Frequency Speed Regulation Technology for MBY2740 Rod Mill", and completed the renovation of the first set of high-voltage variable-frequency speed-regulated rod mills.
- The Company achieved more than one function optimization, energy conservation and consumption reduction, with the annual electricity saving per unit of equipment being 15%.

Waste Heat Power Generation

- The Company continued to promote the renovation for the power generation from waste heat of the smelting process, and the annual self-generated electricity amounted to 80.274 million kWh for grid connection or self-consumption, effectively improving the energy utilization rate.



ISO 50001 Energy Management System Certification

Utilization of Clean/Renewable Energy

- Currently, the clean/renewable energy used by the Company mainly includes hydropower, electricity from waste heat, electricity from waste energy, natural gas, etc. Electricity is the primary energy consumed by the Company, and approximately 84% of total electricity consumption by the Company is clean electricity. Among them, waste heat and waste energy power generation account for 4.8% of clean electricity.
- In 2024, the Company completed a portion of tailings pond projects and other PV power generation projects. It is expected that after these projects are put into operation in 2025, the additional power generation capacity will be 18 million kWh.



Case

New-Energy Loaders Drive Energy Conservation, Benefit Creation and Green Development

With the advancement of the national strategy of "carbon peaking and carbon neutrality", Datun Tin Mine introduced 2 new-energy loaders to be used for ore loading, supply, and short-distance ore transfer at the raw ore yard, to address problems of fuel-powered loaders such as high energy consumption, high maintenance costs, and significant pollution. The new-energy loaders have significant advantages in terms of power performance, environmental protection, and maintenance, and demonstrate remarkable results after being put into use: significant reduction in energy cost reduction, at least 1,200 yuan per day compared to fuel-powered loaders; easier maintenance operations, lower maintenance costs; long service life, reduced equipment renewal costs; avoidance of environmental risks, promotion of the transformation to clean energy structure, and a reference for the green development of the industry.



New-energy Loaders

Case

Renovation of Refining Furnaces and Crystallizers for Energy Conservation Unlocks New Momentum for Cost Reduction and Efficiency Improvement

In 2024, to implement the "Three-Year Cost Reduction and Efficiency Improvement" Action Plan, the Company addressed the high energy consumption and poor control stability of refining furnaces and crystallizers by replacing the infrared heating with original resistance heating, and used a PID-controlled thermostat to conduct energy-saving transformations on the crystallizer's tank body, feed pot, and other components. The renovated crystallizers showed remarkable results: the capacity per unit increased by more than 10%, the comprehensive electricity consumption decreased by more than 20%, and the electricity cost decreased by nearly RMB 0.2 million per year. This technological transformation reduced production costs and improved production efficiency, providing strong support for the realization of the Company's cost reduction and efficiency improvement goals.

Case

The Optimization and Upgrading of the Ventilation System Opens a New Chapter for Energy Conservation in Mines

From 2023 to 2024, Laochang Branch, Datun Tin Mine, and Kafang Branch implemented an underground ventilation system optimization project for the mines. They optimized ventilation routes, reduced system installation power, and replaced high-consumption, low-efficiency motors with Class-I energy-efficient motors, to achieve energy conservation and consumption reduction. In July 2024, the project passed inspection and acceptance. The three mines reduced the installed power of the ventilation system by a total of 3,133 kW, the actual power consumption of fan operation was reduced by 20%, and the annual power consumption was reduced by 9.28 million kWh. This effectively reduced the Company's operating costs, improved energy utilization efficiency, and provided strong support for the sustainable development of the mines.

Case

Waste Heat Recovery Creates Economic Benefits and Contributes to Green Smelting

In 2024, to promote green and high-quality development, the Company implemented a project to recover waste heat from the condensate water in the copper smelting system and the wastewater discharged from boilers. With the condensate water in the steam pipeline and the wastewater discharged from medium-pressure boilers as the sources of waste heat, the Company transformed the flash distillation recovery equipment, preheated the desalinated water with the flash distillation steam, and recovered condensate water through a condenser. The project has shown significant results after being put into operation. In 2024, it reduced low-pressure steam usage by 1,257 tons, desalinated water usage by 9,303 tons, and generated 143,300 kWh of electricity, which not only improved energy utilization efficiency, but also reduced operating costs and enhanced the Company's green competitiveness.

As per applicable regulations and requirements such as the *Measures for Cleaner Production Audit and the Law of the People's Republic of China on the Promotion of Clean Production*, the Company continues to carry out mandatory cleaner production audits. Currently, the Company's branches (subsidiaries), namely, Datun Tin Mine, Kafang Branch, Copper Branch, Tin Branch, and Hualian Zinc Indium, have all passed the cleaner production audit and acceptance.

In response to the policy for the dual control of total energy consumption and energy intensity, the Company attaches great importance to the development and utilization of renewable energy, continues to formulate rigorous annual energy management objectives and plans, and includes total electricity consumption, as the main energy consumption, into the annual energy plan, with the planned total electricity consumption being 2 billion kWh. In terms of electricity procurement strategy, the Company has adopted a market-oriented operation mode, and purchases electricity from external organizations in a uniform way. 80% of the purchased electricity is from clean energy power generation, and 20% is from coal-fired power generation. This optimizes the energy structure and enhances the proportion of green energy.

Key Performance



In 2024, the Company's comprehensive energy consumption in smelting decreased by **2.5%** when compared with that in 2023, realizing the goal of achieving a **1%** decrease in the comprehensive energy consumption of tin, copper and zinc smelting in 2024 when compared to 2023 as set out in the Three-Year Cost Reduction Plan.

Energy Conservation Goal for 2025: In 2025, the company's comprehensive energy consumption per unit of smelting product will be controlled to **a level better than the national first-grade standard**.

Indicator	Unit	2024
Comprehensive Energy Consumption	tce	399,079
Energy Usage Intensity	tce/10,000 yuan of revenue	0.10
Direct Energy Consumption	tce	138,229
Including: Coal	ton	127,556
Including: Gasoline	Liters	258,060
Including: Diesel	Liters	28,921,368
Including: Natural gas	m ³	9,063,900
Indirect Energy Consumption	tce	260,850
Including: Electric power	MWh	2,122,459
Total purchased electricity	MWh	2,042,185
Consumption of Self-generated Renewable Electricity	MWh	80,274
Clean Energy Consumption	MWh	1,802,232
Clean Energy Usage Rate	%	57.97

Energy Consumption in 2024

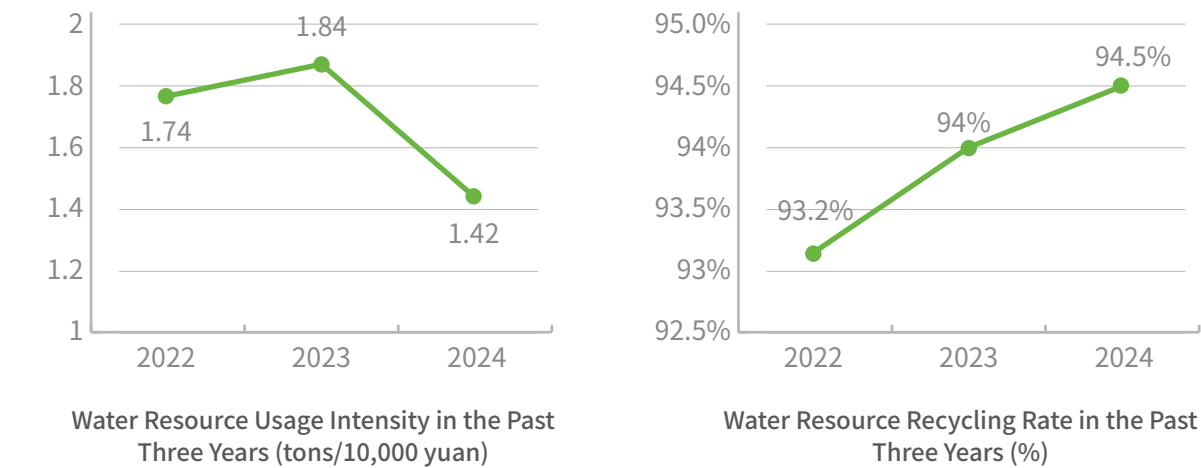
Water Resource Utilization

Yunnan Tin is actively evolving into a national water-saving enterprise. The Company carries out daily inspections according to *GBT7119-2018 Evaluation Guide for Water-saving Enterprises*, strengthens water-saving publicity, and formulates a series of water resource management systems such as the *Measures for the Administration of Water Supply and Drainage*. With management focus on water conservation, water source protection, and the prevention and control of risks in water consumption, the Company included the goal of achieving a 1% continuous decrease in water consumption per unit product into the annual assessment in accordance with the requirements of the *Three-Year Cost Reduction Plan*. The Company reduces new water consumption at the source by optimizing production processes and equipment; strengthens the comprehensive utilization of mine inflow water to achieve water resource recycling; regularly inspects water pollution risks, and promotes the rational use of water resources and water environmental protection in an all-round manner.

Key Performance



In 2024, the Company continued to carry out water-saving and consumption reduction measures and increased the recycling of water resources. With the decrease in water resource usage intensity, the water resource recycling rate of the Company has improved year by year.



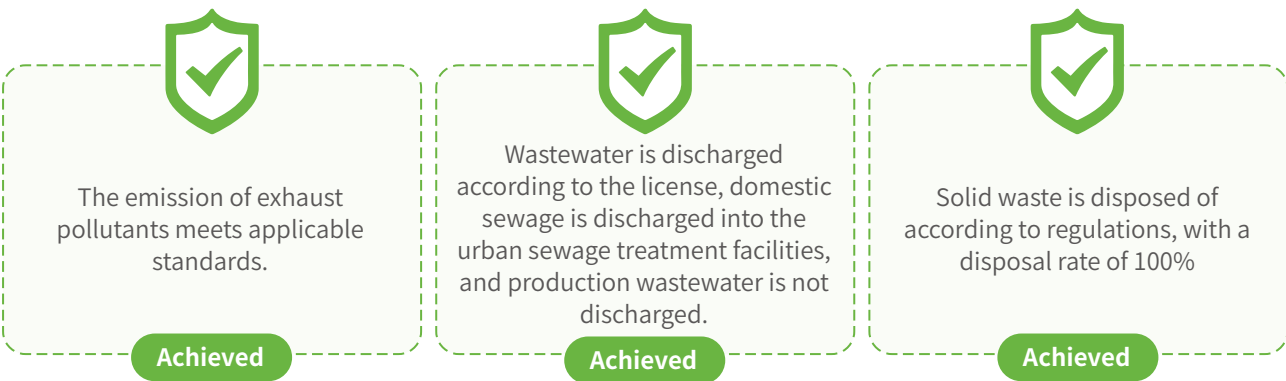
指标	单位	2024	2023	2022
Total water consumption	ton	4,569,150	5,220,742	5,487,423
Total Consumption of Fresh Water	m³	4,569,150	5,220,742	5,487,423
Recycled/Reused Water	m³	77,972,096	82,097,308	76,128,121

Water Resource Utilization in 2024

Pollutant Treatment

Yunnan Tin attaches great importance to wastewater and waste management, and regards it as a key for sustainable development. In 2024, the Company strictly implemented environmental impact assessment and pollutant discharge permit management systems, completed the application for pollution discharge permits, and ensured that pollutant concentrations met emission standards, and that the total discharge volume complies with permit requirements. We also continuously optimized internal governance rules, executed in-house standards stricter than industry standards, and implemented special emission limits for subsidiaries in key areas. In addition, the Company developed a scientific wastewater and waste monitoring plan, adopted diversified monitoring methods, built prevention and control facilities according to environmental impact assessment requirements, and took multiple measures to enhance wastewater and waste management levels, actively practicing the green development philosophy.

Pollution and Waste Management Goals and Achievements in 2024



Key Performance



In 2024, **No** significant deficiencies were observed in the Company's environmental monitoring plans and risk management measures; **No** environmental issues such as excessive emissions or major spills occurred in the Company, and **No** penalties due to pollutant discharge were imposed on the Company.

Wastewater

The wastewater pollutants generated by the Company are mainly production wastewater produced during the ore dressing process, the smelting process, and deep processing units, with the primary water pollutants being chemical oxygen demand (COD), ammonia nitrogen, heavy metals, etc.

In the principle of "diverting clean water from waste water and separating rainwater from sewage", the Company sets up rainwater pipelines and sewage pipelines for the classified collection of various types of wastewater, and builds sedimentation tanks, initial rainwater collection tanks, thickeners, production wastewater treatment systems, domestic wastewater treatment systems, backwater pump stations, and other wastewater collection and treatment facilities to classify and treat different types of wastewater.



The Company's Wastewater Discharge Units Apply for Pollutant Discharge Permits in Accordance with Applicable Laws

Optimization Measures for Wastewater Treatment in 2024

Upgrading of Groundwater Monitoring System

Each mining unit evaluated the groundwater monitoring wells at the tailings ponds and waste rock yards in service, and upgraded unreasonable monitoring systems, to ensure the effectiveness of groundwater monitoring

Research on Deep Treatment of Tailings Wastewater

Hualian Zinc Indium conducted a study on the deep treatment of wastewater discharged from tailing ponds: Industrial trials of composite water treatment agents and COD removal agents were carried out at the Tongjie Dagou Tailings Pond; industrial trials of biological agents and high-efficiency fluorine removal agents were conducted at the Nanjia Tailings Pond, which provided technical reserves for the Company's deep treatment of tailings wastewater.

Diversion of Clean Water from Waste Water in Tailings Pond

Hualian Zinc Indium completed the Dongbang Construction Project for the Diversion of Clean Water from Waste Water in Nanjia Tailings Pond, which guided the watershed from mountains in Dongbang into the downstream of the tailings pond, reducing the water inflow to the tailings pond and lowering wastewater discharge.

Rainwater-Sewage Separation in Hazardous Waste Slag Yard

Tin Branch completed the preliminary construction for the closure of the hazardous waste slag field, carried out feasibility studies and closure design, shaped the top slag heap as designed, and covered it with an impermeable membrane to achieve rainwater-sewage diversion, reducing rainwater infiltration and leachate generation.

Indicator	Unit	2024	2023	2022
Total Wastewater Discharges	10,000 m ³	137	117	265
Including: Total Industrial Wastewater	10,000 m ³	137	117	265
Including: Total Domestic Wastewater	10,000 m ³	-	-	-
Chemical Oxygen Demand (COD)	kg	24,351	17,775	51,250
Biochemical Oxygen Demand (BOD)	kg	/	/	/
Ammonia Nitrogen (NH3-N)	kg	219	807	7,586
Total Nitrogen (TN)	kg	4,141	2,383	10,206
Total Phosphorus (TP)	kg	45	52	123
Total Arsenic	kg	6	16	57
Suspended Solids in Wastewater	kg	12,364	6,757	28,846

Wastewater Discharge in 2024

Waste Gases

The Company's waste gas pollutants are particulate matter-containing waste gases generated during the ore dressing process and the material storage and transportation process, as well as smelting gases containing pollutants such as sulfur dioxide, nitrogen oxides and heavy metals that are generated during the metal smelting process.

In strict compliance with the *Environmental Protection Law of the People's Republic of China*, *Self-monitoring Technology Guidelines For Pollution Sources—General rule*, and other laws, regulations and standards, the Company formulates a waste gas monitoring plan. The quality of monitoring is ensured through both self-monitoring and outsourced monitoring. Moreover, the Company actively builds air pollution control facilities. For areas prone to dust emissions, measures such as using gas collection hoods and spraying water for dust suppression are implemented to reduce dust and unorganized waste gas emissions, actively promoting air pollution control efforts and contributing to a better atmospheric environment.



The Company's Waste Gas Discharge Units Apply for Pollutant Discharge Permits in Accordance with Applicable Laws

Optimization Measures for Waste Gas Treatment in 2024

Upgrading of Dust Removal Facilities

Copper Branch and Hualian Zinc Indium replaced the original bags in bag filter with ultrafine fiber bags; Kafang Branch used a high-efficiency wet dust remover to replace the original water curtain dust collector to further reduce the particulate emissions in the waste gas and ensure that the particulate matter meets the industry's special emission limits.

Denitrification of Off-Gas from Acid Production Process

Copper Branch and Hualian Zinc Indium replaced the original bags in bag filter with ultrafine fiber bags; Kafang Branch used a high-efficiency wet dust remover to replace the original water curtain dust collector to further reduce the particulate emissions in the waste gas and ensure that the particulate matter meets the industry's special emission limits.

Upgrading of Dust Removal Facilities

Wenshan Zinc Indium addressed the dust issues at the leaching slag transfer warehouse and transfer slag yard by increasing the height of the surrounding enclosure and adding roller doors, controlling the generation and emission of dust, and further improving the surrounding environment.

Tin Branch completed the preliminary work for closing and sealing the hazardous waste slag yard, conducted a feasibility study and closure design for the hazardous waste slag yard, and covered the top of the slag heap with an impermeable membrane according to the closure design requirements, effectively controlling the generation of dust.

Waste Disposal

The solid wastes generated by the Company are mainly waste rock and tailings from the mining process, as well as smelting slag and arsenic-containing hazardous wastes from smelting flue gas purification and wastewater treatment in the smelting process.

In strict compliance with regulations and policies such as the Environmental Protection Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes, the Company, aiming to achieve waste minimization, waste valorization and environmentally sound management, controls the quantity at source through technical research, strengthens the utilization of solid waste resources and promotes the management of historical slag heaps to prevent and control the risk of pollution. In 2024, the Company introduced the Solid Waste Pollution Prevention and Control Management System and the Measures for the Administration of Tailings Pollution Prevention and Control to further standardize solid waste management, strengthen preventive measures, ensure the safety of tailings pond environments, and actively promote solid waste management efforts.



The Company's units engaged in hazardous waste operation in accordance with applicable laws apply *Hazardous Waste Management License*

Management of Wastes

By formulating and implementing the *Measures for the Administration of Solid Waste*, the Company has formulated management measures for the entire process of solid waste from generation to disposal, and stipulated pollution prevention and compliance management requirements for solid waste management plans, labeling, ledger records, transfer management, storage and landfill pollution control, IoT construction, emergency management, etc.

Indicator	Unit	2024	2023	2022
Total Exhaust Gas Emissions	10,000 m ³	736,311	757,900	994,090
Nitrogen Oxides (NOx) Emissions	kg	201,954	230,061	237,357
Sulfur Oxides (SOx) Emissions	kg	127,653	122,079	189,630
Volatile Organic Compounds (VOCs) Emissions	kg	/	/	/
Particulate Matter (PM) Emissions	kg	39,201	47,796	56,790
Ammonia (NH3) Emissions	kg	/	/	/
Hydrogen Chloride (HCL) Emissions	kg	/	/	/
Arsenic Hydrogen (AsH3) Emissions	kg	/	/	/
Phosphine (PH3) Emissions	kg	/	/	/

Air Pollutant Emissions in 2024

S/N	Unit	Hazardous Waste	Disposal Method
1	Tin Branch	Centrifugal slag, aluminum slag, sulfur slag, acid sludge, electric furnace smelting slag, charcoal slag, tin smelting soot	Self-utilization
		Arsenic-containing soot, anode sludge, waste mineral oil, zinc carbonate, cadmium slag	Outsourced utilization
		Calcium sulfate slag	Self-landfill or outsourced disposal
		Waste salt, waste contaminants, waste asbestos, waste chemicals, waste resins	Outsourced disposal

S/N	Unit	Hazardous Waste	Disposal Method
2	Copper Branch	Black copper sludge, anode sludge, silver-splitting slag, copper fume	Self-utilization
		Copper fume, lead filter cake, waste catalyst, waste mineral oil, waste lead storage batteries	Outsourced utilization
		Neutralization slag, arsenic filter cake	Self-landfill
		Salt-containing sludge, arsenic sulfide residue, waste insulation cotton, waste contaminants	Outsourced disposal
3	Wenshan Zinc Indium	Zinc scum	Self-utilization
		Leaching slag, copper sinking slag, copper concentrate, cobalt concentrate, acid sludge, waste mineral oil, waste lead batteries	Outsourced utilization
		Arsenic sulfide residue, contaminated waste, online monitoring waste liquid, and waste asbestos felt	Outsourced disposal
4	Laochang Branch, Kafang Branch, Datun Tin Mine, Hualian Zinc Indium	Waste mineral oil, waste lead batteries	Outsourced utilization
		Waste lubricating oil, waste contaminants, laboratory waste liquid	Outsourced disposal
5	Yunxiang Mining and Metallurgy	Arsenic-containing soot, waste mineral oil, copper slag, aluminum slag	Outsourced utilization
		Sludge from the sewage station, waste liquid under online monitoring	Outsourced disposal

Main Hazardous Waste and Disposal Methods

S/N	Unit	Hazardous Waste	Disposal Method
1	Tin Branch	Water-quenching slag	Self-landfill or outsourced utilization
2	Copper Branch	Slag selection tailings	Self-landfill or outsourced utilization
		Desulfurization gypsum slag, gypsum	Outsourced disposal
3	Wenshan Zinc Indium	Gypsum slag	Self-utilization or outsourced utilization
		Neutralization slag	Self-landfill or outsourced disposal
4	Laochang Branch, Kafang Branch, Datun Tin Mine, Hualian Zinc Indium	Tailings	Self-landfill
		Waste rock	Self-utilization or outsourced utilization
5	Yunxiang Mining and Metallurgy	Desulfurization gypsum slag	Outsourced disposal

Main Non-Hazardous Waste and Disposal Methods

Case

Multiple Measures to Promote Mine Waste Management and Utilization

In 2024, the Laochang Branch adopted different disposal measures for general solid waste and hazardous waste generated from mining and ore dressing: Waste rock from underground excavation was used for filling underground mined-out areas, processed into concrete materials and road materials, and tailings were stored in the tailings pond. Hazardous waste such as waste mineral oil was placed in temporary storage and storage bins and was disposed of or recycled by qualified companies. Through the implementation of these measures, the Company filled a total of 31.72 million tons of waste rock into underground mined-out areas, reducing the stockpile in the waste dumps and extending the service life of 3 waste dumps. The required construction materials were supplied in a timely manner, reducing costs and environmental risks, and achieving resource recycling.



Storage Bin for Hazardous Waste



Yangbadi Tailings Pond for Stockpiled Tailings

Case

Training on Pollution and Waste Management to Assist Ecological Protection

In 2024, the Copper Branch focused on waste and sewage management and conducted a series of key trainings. In the training on IoT construction for hazardous waste, employees learned in-depth how to use IoT technology to achieve real-time monitoring and information management of the entire hazardous waste process, and improve regulatory efficiency and accuracy. The training on the online monitoring of pollution sources focused on the operation of advanced monitoring equipment, data interpretation, and handling abnormal situations to ensure the timely and accurate grasp of pollutant emission dynamics.

The training on standardized management of hazardous waste provided detailed explanations on relevant laws, policies, ledger establishment, safe storage, and other key points. These trainings help the Company meet environmental compliance requirements, reduce legal risks caused by improper waste management, improve waste treatment levels, minimize environmental pollution, and assist in ecological protection.



Training on IoT Construction for Hazardous Waste



Training on Online Monitoring of Pollution Sources



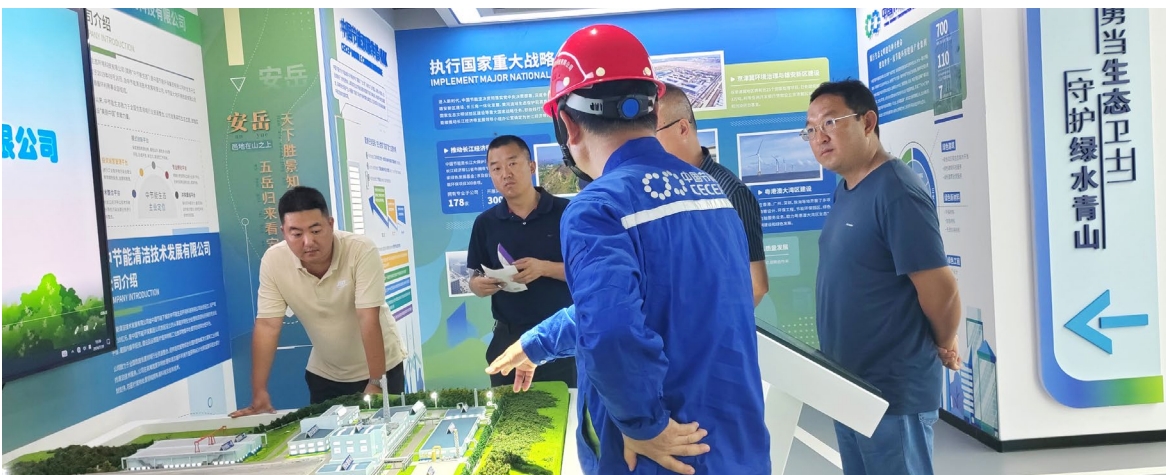
Training on Standardized Management of Hazardous Waste



Case

Learning from Experience Across Multiple Locations for Waste and Sewage Management

In 2024, the Company continued to strengthen hazardous waste management and pollution prevention efforts. We actively organized professional teams to travel to Sichuan, Guizhou, Shandong, Zhejiang, and other regions, conducting on-site visits to local enterprises. The team explored advanced pollution control technologies and the standardized management of hazardous waste disposal, gaining detailed insights into the operation principles of advanced equipment, the application of innovative technologies, and efficient management processes. This learning experience helps the Company accumulate valuable knowledge, lays the foundation for the Company's compliant disposal of hazardous waste, and enhances the Company's pollution prevention capabilities. It also helps the Company establish a scientifically efficient waste and sewage management system to improve pollution prevention capacity.



In-depth learning on Waste and Sewage Management at Multiple Enterprises

Indicator	Unit	2024	2023	2022
Total Waste Generation	ton	55,705,406	58,406,200	30,034,600
<i>Including: Total Hazardous Waste</i>	ton	206,838	216,300	232,700
<i>Including: Total Non-Hazardous Waste</i>	ton	55,498,569	58,189,900	29,801,900
Hazardous Waste Density	tons / 10,000 yuan of revenue	0.05	0.05	0.04
Non-Hazardous Waste Density	tons / 10,000 yuan of revenue	13.22	13.74	5.73
Total Recycled/Reused Waste	ton	3,008,205	1,135,600	2,950,700
Waste Recycling Rate	%	5.40	1.94	9.82

Waste Emissions in 2024

● Waste Minimization

In 2024, the Company coordinately advanced the research on comprehensive waste utilization and hazardous waste minimization. With the goal of "minimizing the generation and disposal of low-value hazardous waste containing arsenic", The Company conducted surveys and in-depth on-site research to analyze and address key and difficult issues, and proposed measures to strengthen and improve work processes.

● Comprehensive Utilization of Solid Waste in 2024 ●

Comprehensive Utilization of General Industrial Solid Waste

Treatment of Historical Iron-Sintered Ball Slags

Exploring multiple channels for handling the iron-sintered ball slags left by Third Metallurgical, the Company sold 194 thousand tons (95.9%) of such slag for outsourced utilization, turning the leftover slag into valuable resources.

Simultaneous Tailings Slurry Filling Technology

Datun Tin Mine completed technological research and project construction. This project can fill 250k m³ of tailings into underground mined-out areas each year, reducing the amount of tailings entering the tailings pond by approximately 320 thousand tons.

Comprehensive Utilization of Hazardous Waste

Research on Extracting Valuable Metals from White Soot

On the basis of the technological transformation of the white soot utilization project in 2023, the Company explored key technology applications and controlled key process parameters, continuously improved the problems existing in the trial operation process, and realized the stable operation of the whole process of the technology for comprehensive utilization of white soot. The comprehensive utilization of white soot for the whole year amounted to a total of 3507t.

Comprehensive Utilization of Calcium Sulfate Slag in the Second Section of Acidic Waste Water Treatment

Without affecting process indicators, the Company utilized the gasification furnace for the comprehensive utilization of calcium slag sulfate in the second section of acidic waste water treatment.

● Hazardous Waste Minimization in 2024 ●

Technology Enhancement for Hazardous Waste Minimization

- Quality Improvement through Sulfurization and Arsenic Removal: Focusing on the problem of insufficient capacity of the hydrogen sulfide arsenic removal system, the Company implemented sulfide arsenic removal transformation for quality improvement, and achieved stable operation of the new treatment process.
- Optimization of Acidic Wastewater Treatment: The Company reviewed the water quality entering the acidic wastewater treatment station, optimized the treatment process of acidic wastewater, classified high-arsenic and low-arsenic wastewater for separate treatment, converted some low-arsenic solid waste into general solid waste, and reduced the amount of hazardous waste disposal through multiple channels.
- Tin-Copper Smelting High-Arsenic Acidic Wastewater Coordinated Treatment Trial: The Company conducted experimental research on the sulfurization arsenic removal system for treating tin smelting acidic wastewater. The treated sulfurized liquid has arsenic content ≤ 30 mg/L, achieving the expected targets. Currently, the Company is conducting experimental research on the high fluorine and chlorine content in the tin smelting acidic wastewater, laying the foundation for the next step of coordinated acidic wastewater treatment.

Hazardous Waste Minimization Results

- Copper Branch: From 2023 to 2024, the hazardous waste generation decreased from 27,354 tons to 11,893 tons, reducing slag by 15,461 tons, a year-on-year reduction of 56.5%. By classifying wastewater disposal, the Company conducted property identification on neutralized slag and waste treatment, transforming neutralized slag from hazardous waste to general industrial solid waste.
- Tin Branch: In 2024, the Company reduced hazardous waste disposal by 2,919 tons. In particular, 2,025 tons of calcium carbonate slags were disposed of as general solid waste, and 894 tons of second-stage slags from acidic wastewater treatment were comprehensively utilized.

Case

Innovative Technology Achieved Hazardous Waste Slag Reduction and Promoted the Development of Green Metallurgy

In 2024, in response to the challenges of acidic wastewater treatment, the Company initiated the Research on the Application of the Minimization Technology to Arsenic-Containing Slags for Copper Smelting Acidic Waste Treatment of Yunnan Tin. This project aims to build an acidic sulfurization treatment system to replace the original lime slurry system, using methanol catalytic cracking for hydrogen production and other processes to treat acidic wastewater. The project has shown significant results, with a substantial decrease in the production of arsenic-containing gypsum slag and neutralized slag. The by-product gypsum has been utilized as a resource, and the acidic wastewater is being recycled with zero emissions. The tail gas meets the discharge standards. This not only reduces environmental pollution but also lowers the Company's operational and hazardous waste treatment costs, meeting sustainable development requirements and providing a demonstration of clean production in the smelting industry.

● Management of Hazardous Chemicals

The Company strictly follows the *Regulations on the Control over Safety of Dangerous Chemicals, Determination Standards for Hidden dangers of Major Production Safety Accidents in Chemical and Hazardous Chemical Production and Operation Units and Dangerous Chemical Production and Operation Units, Safety Specifications Of Special Work In Hazardous Chemicals Enterprises*, as well as relevant regulations and internal rules such as the *Safe Management Process of Dangerous Chemicals and Hazardous Operations of Yunnan Tin Co., Ltd.*, to ensure that the work on the management of dangerous chemicals is in compliance with the rules and regulations.

● Dangerous Chemicals Management System ●

Information Management

- List Update: Timely update the list of dangerous chemicals and accurately grasp the types and quantities of d chemicals in the Company.
- Data Collection: Comprehensively collect safety technical data sheets and safety labels, and provide accurate technical information and warning messages for the safe management of dangerous chemicals.

Risk Management and Contro

- Risk Identification: Organize professional technical personnel to carry out a comprehensive safety risk identification for the dangerous chemical production process systems, usage processes, and storage facilities, identifying potential safety hazards.
- Risk Assessment: Conduct risk evaluations to assess the severity and likelihood of occurrence of risks. Measure Formulation: Take appropriate safety measures to reduce the level of risk based on risk identification and evaluation results.

Personnel Capability Enhancement

- Implementation of Training Plans: Offer safety training to key personnel, safety management personnel, and special operation personnel handling dangerous chemicals according to the training plan.
- Knowledge and Skill Acquisition: Ensure relevant personnel are familiar with the physicochemical properties of dangerous chemicals, and knowledgeable about hazardous characteristics, first aid measures, emergency response measures, and personal protective measures.
- Standardization of Operations: Standardize employees' operations, ensure correct use of personal protective equipment, and enhance employees' safety awareness and operational skills.

Optimization of Safety Evaluation

- Standardized Self-Assessment: Conduct an annual self-assessment of safety standardization to measure the extent to which the Company's management of dangerous chemicals is in compliance with the standardization requirements.
- Evaluation of Current Situation: Regularly assess the current status of safety management of dangerous chemicals and identify problems and deficiencies in management. System Improvement: Continuously revise and improve the operating instructions and safety procedures, and optimize the safety management system, based on the assessment results.

Maintenance of Facilities and Equipment

- Regularly inspect and maintain safety facilities such as ventilation, explosion prevention, leakage prevention, fire prevention, lightning protection, sun protection, moisture prevention, theft prevention, static electricity prevention, and protective embankments, as well as emergency equipment and facilities, to ensure they are in effective operating condition, providing hardware support for the safe storage and use of dangerous chemicals.

Addressing Climate Change

● Corporate Governance

Yunnan Tin actively responds to the major strategic decisions of the Party Central Committee and the State Council regarding carbon peaking and carbon neutrality, and fully lays out the green and low-carbon transformation. The Company has prepared the *Carbon Peaking Implementation Plan*, and made efforts in multiple dimensions, including structural adjustment, management enhancement, technological innovation, digital empowerment, elimination of outdated process equipment, and green energy manufacturing, to improve the collaborative efficiency of pollution reduction and carbon reduction in the industrial chain, striving to build a green and low-carbon development pattern, and ensuring the smooth achievement of the carbon peak target by 2030.

● Strategy

In 2024, the Company carried out energy conservation and emission reduction, as well as energy-saving and carbon reduction practices, in an all-around, multi-measure approach throughout the production and operation of the mining, selection, and smelting industry chain. In addition, we issued the *Notice on Carrying Out Carbon Emission Accounting and Data Reporting Management Work*, and strictly conducted energy consumption data statistics, greenhouse gas (CO₂) emission accounting, data aggregation, and reporting according to regulations, ensuring comprehensive, accurate, and standardized management.

● Key Optimization Measures for Energy Conservation and Carbon Reduction in 2024 ●

Optimization of Production Operations

- Fully leverage the advantages of integrated regional mining and selection, as well as the "three major platforms", to continuously optimize various production systems such as mining development, transportation, and ventilation. Optimize to make the regional system become more streamlined and efficient, significantly improve transportation efficiency, further enhance the matching level of mining and selection, coordinate various production processes to achieve energy conservation and carbon reduction, and effectively promote energy-saving and emission-reduction in the production process.

Promotion of Green Energy Use and Green Manufacturing

- Optimizing Energy Consumption Structure: Vigorously reduce fossil energy consumption, actively promote coal consumption substitution and transformation in the smelting process, realize coal reduction and restriction in key coal-consuming processes, and actively adopt measures such as using green electricity instead of coal and natural gas instead of coal, to adjust the energy consumption structure and reduce carbon emissions.

- Taking Renewable Energy Substitution Actions: Actively participate in the cooperative development and construction of wind and photovoltaic power generation, using closed tailing ponds to build photovoltaic power projects. This not only increases the share of renewable energy in the energy structure but also further reduces dependence on traditional fossil energy, driving the green transformation of energy.
- Building a Green Manufacturing System: Build leak-free factories in the mining, selection, and smelting stages, fully implement clean production, and actively create green mines and green factories. Promote coordinated governance for emission reduction and carbon reduction, starting from various stages of production to achieve synergistic development of energy conservation, emission reduction, and environmental protection.

Implementation of Technological Upgrading

- Applying New Technologies: Continue to promote new technologies such as tailings paste filling mining, pre-selection waste disposal, and energy-saving technology transformation for tin refining furnaces, to reduce energy consumption from the source of production processes.
- Conducting Equipment Upgrades and Transformations: Use technologies such as variable frequency speed control and permanent magnet synchronous direct drive to upgrade mining, selection, and smelting equipment. Replace traditional equipment with high-efficiency, low-energy-consuming equipment to improve equipment operation efficiency and reduce energy consumption.
- Improving Waste Heat (Energy) Utilization: Increase research on waste heat recovery and utilization, and carry out improvements to enhance the efficiency of waste heat power generation units. This will increase the waste heat recovery rate and power generation efficiency, while exploring carbon capture, utilization, recycling, and storage technologies in smelting enterprises to provide technical reserves for deep carbon reduction.

Enhancement of Comprehensive Utilization of Solid Waste

- Deepen research and application on the "waste minimization, waste valorization and environmentally sound management" for the treatment of solid waste. Increase the application of rock filling and tailings paste filling in underground mines, reduce waste rock removal and tailings discharge; focus on the construction of rigid landfills for hazardous waste in the smelting stage, address the shortcomings in hazardous waste disposal, reduce the environmental impact of solid waste, and realize the recycling of resources and energy conservation and emission reduction.

Elimination of Outdated Processes and Equipment

- Fully review outdated processes and equipment in mining, selection, and smelting, accelerate the elimination of high-energy-consuming and low-efficiency motors and transformers, and complete the elimination of 545 high-energy-consuming devices, to effectively reduce energy consumption and overall operating costs and improve energy utilization efficiency.

Advancement of Digital Empowerment

- Digitization of Management: Promote the application of various management software to realize standardized and refined management in multiple fields such as human resources and finance. Use digital supervision to improve management efficiency and reduce resource waste.
- Digitization of Mines: Introduce digital mining management software systems, establish databases and models, and apply geological measurement and mining coordination platforms and remote control for 8 major systems to improve the digital level of mining, optimize production processes, and reduce energy consumption.
- Digitization of Dressing Plants: Promote full-process digital control of the selection plant, apply various expert control systems, improve production efficiency in the selection plant, and achieve energy conservation and consumption reduction.
- Digitization of Smelting: Explore the application of cutting-edge technologies in smelters, promote the application of intelligent equipment, warehousing and logistics and energy management platforms, enhance the automation, informatization and intelligence level of smelters, and reduce energy consumption and carbon emissions.

Case

The "Fuel-to-Electric" Conversion Leads Energy Conservation and Emission Reduction and Supports Green Development of Mines

In 2024, facing challenges such as high energy consumption, high costs, and technical limitations of traditional fuel-powered mining trucks, Hualian Zinc Indium, based on previous research findings, cooperated with multiple parties to optimize equipment configurations and implement the "Fuel-to-Electric" Conversion—decommissioning some old fuel-powered models and promoting the large-scale use of high-tonnage pure electric rigid mining trucks. After the implementation of "Fuel-to-Electric" Conversion, the comprehensive unit cost of 28 pure trolley cars was

lower than that of fuel-powered ones by 1.05 yuan/m³.km, which saved RMB 21.9056 million in transportation costs and solved the "bottleneck" of core technologies. This not only reduces the Company's costs, supports the achievement of the "carbon peaking and carbon neutrality" goals, but also provides an exemplary model for the industry in terms of energy conservation, emission reduction, and technological upgrades.



Pure Electric Rigid Mining Trucks

● Impact, Risk, and Opportunity Management

The Company has identified risks associated with extreme weather conditions, such as strong winds and heavy rainfall, during the operation of open-pit mines, waste dumps, tailings ponds, tunnels, slopes, construction projects, power stations, water and power supply lines, and their ancillary facilities during the flood season. These risks include landslides, mudslides, dam breaches in tailings ponds, tailings leakage, damage to buildings and equipment, potentially causing company shutdowns, casualties, property loss, and environmental pollution. To address these risks, the Company has implemented extreme weather early warning and information reporting systems, managed events based on their impact level, and established a comprehensive risk emergency response organization.

Principles for Emergency Response



Metrics and Targets

The Company attaches great importance to green operations, keeps close monitoring of greenhouse gas emissions, and requires all subsidiaries to track and report on their emissions.

Type	Emissions in 2024 (tCO ₂ e)
Scope 1 GHG Emissions	293,910
Scope 2 GHG Emissions	1,257,098
GHG Emissions Reduced due to Emission Reduction Measures	54,048
GHG Emissions (Scope 1 + Scope 2)	1,496,960

Greenhouse Gas Emissions

Circular Economy

In 2024, Yunnan Tin actively practiced the philosophy of circular economy, regarded it as the key path to driving green development, improved resource utilization efficiency, and achieved a win-win result in both economic and environmental benefits. In 2024, the Company set clear goals for recycling and continuously explored innovations in production practices. Significant achievements were made in the resource utilization of gypsum slag and tailings, which not only effectively reduced the waste of resources and environmental risks, but also provided a valuable practical example for the industry's green and sustainable development.

Item	Objectives	Descriptions	Achievement
Copper Content in Copper Matte	176 tons	The copper slag is treated to produce copper matte which is internally supplied as a raw material for smelting.	Achieved

Recycling Goals and Achievements in 2024

Case

Valorized Utilization of Gypsum Slag Opening up a New Path of Green Development

In 2024, Wenshan Zinc Indium conducted in-depth research on the raw material characteristics, process control, and end-stage washing and recovery of gypsum slag, and successfully developed a two-stage gypsum washing system and relevant modification technology. Leveraging this technology, the Company processes industrial by-product gypsum into gypsum powder, gypsum blocks, and other building materials, effectively expanding the application fields of gypsum slag. This has achieved the resource utilization of gypsum slag, reduced its potential environmental risks, decreased the need for natural gypsum resource extraction, and has positive significance for ecological and environmental protection. What's more, Wenshan Zinc Indium recovers 300 tons of zinc metal and 5 tons of indium each year, improving resource utilization efficiency and economic benefits. This also provides the industry with a successful practical case of solid waste resource utilization, and effectively promotes the green development of the industry.

Case

Building Tailings Utilization Demonstration Line and Opening a New Journey for Resource Utilization

Based on the large existing tailings resources and the various metals contained, as well as opportunities brought by the development of the non-ferrous metal market and mineral processing technologies, the Company carried out the comprehensive utilization of the tailings pond at the shady thrust of the Huangmao Mountain at the Laochang Branch in 2023, and conducted small and pilot studies after the exploration of such resources. In 2024, a 1,300 t/d industrial demonstration line was established, with an annual production of over 400 tons of tin-rich concentrate. This project has achieved effective utilization of tailings resources, increased resource utilization rates, and reduced the environmental risks associated with tailings storage, in line with national green and safe development philosophy. It provides technical and management support for subsequent large-scale tailings resource extraction and helps promote sustainable development in the industry.


Ecosystem and Biodiversity Conservation

In the pursuit of sustainable mining development, Yunnan Tin integrates the philosophy of green development throughout its mining operations, formulates the *Measures for the Administration of Mining Technologies (for Trial Implementation)*, and standardizes the mine extraction, safety management and other work, to build a solid foundation for sound development. We construct a scientific ecological management system, monitor and assess ecological impacts in real time, and adjust mining strategies and protection measures accordingly. In terms of ecological restoration, we develop plans to restore ecological damage areas by means such as vegetation restoration and soil improvement, striving to build green mines and promote green mining development.

● Green Mines

In ecological management, the Company always views safeguarding green ecology as an important mission. The Company plans mineral development reasonably, reducing the negative impacts on ecosystems from the source; establishes strict systems for tailings pond management, ensuring safe disposal of tailings and reducing environmental risks; actively conducts soil pollution investigations and remediation to ensure soil environmental quality; and builds a comprehensive monitoring and prevention system for geological disasters, organizing hazard inspections, rectification, and emergency drills. Through multiple measures, we promote ecological management comprehensively and fulfill our ecological responsibility effectively.

● Green Mine Development Mode ●



Before the pre-project planning and ground disturbing activities, the Company conducts comprehensive risk assessments within the project scope, along with geological surveys, to evaluate and identify high biodiversity areas and species impact risks. The Company works to control the impact range and mitigate biodiversity effects, continually improving ecological quality, and achieving coordinated development of ecological restoration and sustainable production.

The Company prioritizes the protection and sustainable use of biodiversity. By enhancing environmental protection education and awareness training for internal employees, the Company deepens understanding and attention to ecological protection at the awareness level, and at the action level, creating a culture of full participation in ecological protection. This mobilizes all employees to jointly dedicate efforts to safeguarding green ecology and advancing environmental protection initiatives.

The Company strictly formulates and implements mining geological restoration and land reclamation plans. Through timely restoration of land and plant and animal communities, the Company continuously improves the vegetation coverage rate of mines and the greening rate of factory areas, enhances the carbon sequestration capacity of the mine's ecosystem, and achieves the sustainable development of the mine's ecosystem.



Green Mining

The Company strictly follows the *Specification for Green Geological Survey and Mineral Exploration* and other standards and policy requirements, and comprehensively promotes green exploration. By adopting advanced exploration methods such as using drilling instead of trenching and multi-porous foundation drilling, the Company strengthens project implementation supervision and management, improves exploration technology and equipment levels, ensures high-quality completion of mineral exploration objectives, minimizes environmental impact while ensuring resource development, and makes unremitting efforts to build a green mine.

● Principles of Green Mining ●

<p>Mining Safety</p> <p>Have good working conditions to ensure mining safety</p>	<p>Environmental Protection</p> <p>Take comprehensive environmental protection measures to reduce the negative impact of mining on the environment</p>	<p>High Efficiency</p> <p>Apply efficient mining techniques and methods to improve mechanized production and labor productivity and reduce mining costs</p>	<p>Low Consumption</p> <p>Possess sustainable development capabilities, reduce loss and dilution rates during mining, and reasonably control energy consumption by mining activities</p>
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Case Mining Innovations Promote the Construction of Green Mines

In the process of mining innovation and green mine construction, the Company is actively engaged in upgrading mining technology and vigorously promoting the application of backfill mining methods. In January 2024, the tailings paste filling system at Datun Tin Mine was successfully completed and officially put into operation, which will help the Company achieve efficient mining while making continuous progress towards green and sustainable development.



In January 2024, the construction project of the synchronized tailing paste filling system project at Datun Tin Mine successfully passed the inspection and acceptance upon completion.

Key Performance

In 2024, the Company achieved **79,000** m³ of tailings paste filling and **356,000** m³ of waste rock backfill; and in 2025, the Company plans to complete **310,000** m³ of tailings paste filling and **240** thousand m³ of waste rock backfill.

Management of Tailings Ponds

In strict compliance with a series of laws and standards, such as the *Environmental Protection Law of the People's Republic of China* and the *Regulations on the Supervision and Management of Tailings Ponds*, and based on its own practices, the Company formulates and implements the *Measures for the Administration of Tailings Pollution Prevention and Control* and the *Measures for the Administration of Tailings Pond Safety*, clearly defining responsibilities and standardizing processes in areas such as pollution control and safety management. In 2024, the Company made solid progress in the safe and compliant construction of tailings ponds, completed the processing of safety production permits for 5 tailing ponds in 3 units, and promoted four tailing ponds to complete the assessment of the second level of standardization of safety production, so as to enhance the level of tailing management in all aspects.

Tailings Management System



Monitoring
and Statistics

Water Quality Monitoring

Conduct regular sampling and testing of water quality in the reservoir and groundwater monitoring wells according to the monitoring plan.

Water Quality Monitoring

Accurately record the tailings volume to provide a basis for environmental pollution control after the closure of the tailings pond.



Identification
and
Management

Assessment in Flood Season

Conduct at least one comprehensive assessment and management before each flood season.

Plan Formulation

Formulate management plans based on the list of issues identified during the inspection and in combination with daily inspection and management, implement "one pond, one plan" management, define specific management measures, completion timelines, and follow-up management actions, and eliminate pollution risks.

Risk Inspection

Ensure that personnel at all levels strictly follow the dual-prevention mechanism for environmental risks to conduct daily and monthly inspections, and that corrective measures, responsible persons, and timelines are in place for identified issues.



Environmental
Management

Account Management

Establish an environmental management ledger for the tailings pond, and implement "one pond, one file" management.

Dust Control

Strengthen solidification, greening, and watering work on the dry beaches of the tailings pond to prevent dust from tailings. Release the ore according to the design requirements.

Elimination of External Emissions

Strictly prohibit tailings and tailings from being discharged to prevent pollution of the downstream environment. Ensure proper downstream environmental monitoring and prevent latent pollution after the accident if external discharge is necessary due to risks to tailings pond safety (such as a major safety accident or during flood discharge), and promptly report accidents (if any) to the workshop, mine department, and environmental protection department, and notify downstream residents.

Prohibition of Harmful Acts

Prohibit any unit or individual from arbitrarily digging, reclaiming, grazing, building, or engaging in any other activities that may interfere with the normal use of tailings pond facilities or cause potential pollution hazards.



Maintenance
of Facilities

Drainage Facilities

Timely clear flood discharge channels and drainage ditches to keep them unobstructed; maintain stable water levels in the catchment area, and regularly inspect the condition of drainage and seepage facilities.

Transmission Pipeline

Ensure relevant units regularly inspect the tailings transportation pipelines to prevent occurrences of "leakage, overflow, dripping, and leakage".

Backwater Pool and Backwater Pump

Strengthen the inspection and management of the backwater pool to ensure its effective operation and prevent overflow; carry out regular inspections and maintenance of the backwater pump to guarantee 100% recycling of the backwater.



Personnel Management

Record Filling

Ensure that the staff carefully fill in records related to the tailings pond and that the records are complete and accurate.

Inspection System

Establish an inspection system for workshops to conduct day-and-night inspections of the tailings pond, eliminate potential risks, and ensure that no environmental pollution incidents occur in the tailings pond.

Familiarity with Emergency Response

Ensure the tailings pond inspectors familiarize themselves with the emergency response plan for environmental emergencies and actively participate in the rehearsal of the plan.



Monitoring and Control System for Slopes and Waste Dumps in Mines

Tailings Pollution Prevention Measures in 2024

Control of Dust Generation

Take measures such as "spraying water to reduce dust", "covering with a dustproof net", and "surrounding mineral placement to ensure the moisture of the tailing surface", and reduce the environmental pollution caused by dust from the tailings pond.

Prevention of Groundwater Pollution

Take measures like "constructing leachate collection pools and groundwater monitoring wells", "recycling leachate for dust reduction in the pond area", and "conducting groundwater monitoring as required", to effectively prevent the tailings pond from polluting groundwater.



Management of In-service Tailings Pond

Treatment of Tailings Wastewater

Recycle all tailings wastewater in Laochang Branch, Kafang Branch, and Datun Tin Mine for production; treat the remaining wastewater after reuse in Hualian Zinc Indium and discharge it in compliance with environmental standards, ensuring that wastewater treatment meets environmental protection requirements.

Closure of Kafang Tailings Pond

The Kafang Tailings Pond Closure Project was completed and accepted in September 2024, and the reclamation and grass planting area of the pond area was 427.3 thousand m².



Closure of Tailings Pond

Closure of Wanlongshan Tailings Pond

The reclamation and treatment of reservoir beach in the Wanlongshan Tailings Pool Closure Project was completed in April 2024, and the reclamation and grass planting area was 230 thousand m².

Case

Closure of Kafang Tailings Pond: A Solid Action to Safeguard Ecology and Safety

From 2021 to 2024, the Kafang Branch implemented the closure and treatment of the decommissioned Kafang Tailings Pond. During the period, the Company organized professional personnel to conduct comprehensive surveys and evaluations, completed topographic map measurements, geotechnical engineering surveys, and other preliminary tasks, and developed a scientific treatment plan based on these data. In 2024, the Company completed tailings pond treatment projects, including the construction of new drainage ditches on the surface, surface leveling, soil covering and grass seed planting, and the removal of blocked overflow pipes. After treatment, the safety hazards of the tailings pond were eliminated, the reclamation and grass planting area reached 427.3 thousand m², the ecological environment was improved, biodiversity increased, land resources were revitalized, and a successful example for tailings pond management was provided to the industry, achieving the collaborative development of safety, ecology, and economy.

Treatment Measures for Kafang Tailings Pond

- Scientific planning and precise design: From 2021 to 2024, the Company organized professionals to conduct comprehensive surveys and evaluations of the tailings pond, completed topographic map measurements, geotechnical engineering surveys, and other preliminary work, and developed a closure treatment plan based on data and terrain, laying the foundation for the design of safety facilities.
- Strict review and legal advancement: In January 2024, the Company invited experts organized by the Department of Emergency Management of Yunnan Province to review the safety facility design, and obtained approval in March, to ensure the legal and compliant advancement of the project.
- Efficient construction and fine management: The construction began in May 2024. To address challenges such as tight schedules and construction during the flood season, the Company cooperated with construction, design, and supervision units, coordinated the schedule, allocated resources, and strengthened safety and quality control. The main project was completed in June; internal completion inspection was conducted in July; and safety facility completion inspection was passed in September.

Treatment Results of Kafang Tailings Pond

- **Elimination of Safety Hazards:** The drainage system was optimized, safety facilities were improved, and the safety performance of the tailings pond was enhanced, enabling the tailings pond to withstand natural disasters and unexpected impacts, ensuring the safety of surrounding residents and the Company's production.
- **Improvement of Ecological Environment:** Grass seeds were sowed on a land of 417,800 m², vegetation coverage rate increased, dust pollution was controlled, air quality improved, and biodiversity gradually enriched.
- **Revitalization of Land Resources:** Land resources were released to promote regional economic development. This provides the industry with a closure treatment example, and enhances the industry's safety and environmental protection standards.



Kafang Tailings Pond after Treatment

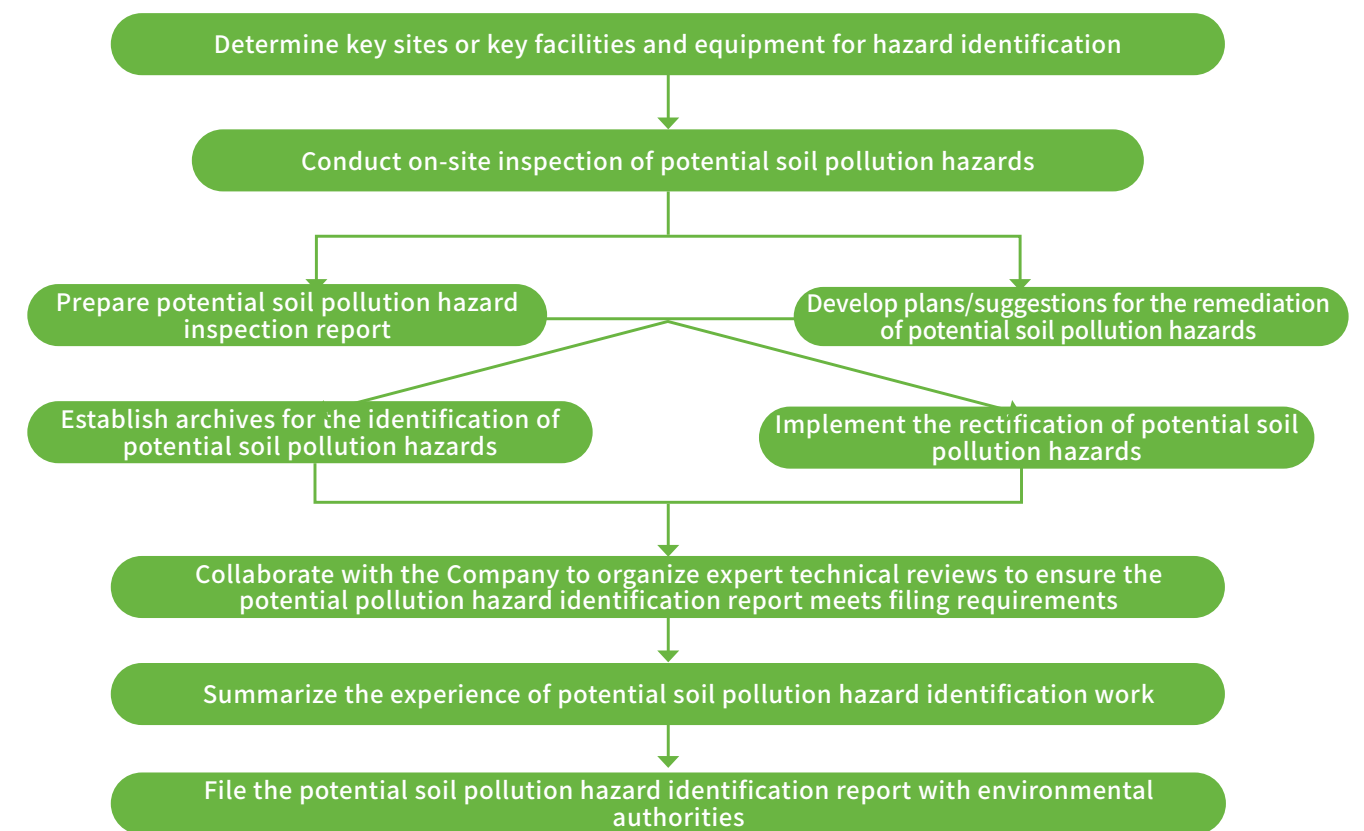


Kafang Tailings Pond after Treatment

Treatment of Soil Pollution

In accordance with the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Soil Pollution Prevention and Control Law of the People's Republic of China* and other laws and regulations, the Company prepares the Potential Soil (Groundwater) Pollution Hazard Identification System, along with inspection and monitoring plans, to carry out the identification, treatment, and monitoring of potential hazards, and submit related reports as required. Some units have carried out monitoring, identification, and report filing for toxic and hazardous substances with multiple approaches to effectively control soil pollution and actively protect the soil ecological environment.

Potential Soil Pollution Hazard Identification Process



Geological Disaster Control

In 2024, in the face of the severe situation caused by geological disasters triggered by special weather, the Company organized all mines to carry out a "100-day campaign" for geological disaster hazard risk investigation and remediation according to the *Geological Disaster Emergency Response Plan*. The focus was on key areas such as mining production zones and tailings storage areas. The Company cooperated with government natural resource departments to conduct regular patrols and inspections of 20 geological disaster and hazard points. The Company conducted publicity, training, and emergency drills at the Datun Tin Mine to promote disaster prevention and control knowledge, and effectively improved the workers' ability to avoid risks and their awareness of disaster prevention and reduction, ensuring the safety of the mines and the life and property of the personnel.



Thermal Imaging Map of Geological Disaster Emergency Drill by Drone



Measurement Robot for Geological Disaster Online Monitoring System

Key Performance



In 2024, the Company conducted **22** geological disaster patrols and inspections, proposed **47** remedial measures and suggestions, submitted the comprehensive geological disaster hazard investigation records **12** times, prepared the Report on the Geological Disaster Hazard Risk Inspection and Identification for the Mining Area in Response to Typhoon Yagi, and supervised mine units to conduct four single-point emergency drills.

Ecological Restoration

On the path of practicing sustainable development, the Company attaches great importance to ecological restoration and biodiversity conservation, and strictly follows the Kunming-Montreal Global Biodiversity Framework, the sustainability standards of International Finance Corporation (IFC), and the Convention on Biological Diversity, striving to achieve the goals of biodiversity conservation and sustainable use by 2030.

In 2024, the Company formulated the Measures for the Administration of Mining Ecological Restoration Implementation (for Trial Implementation) and each mine developed a "one mine, one policy" remediation plan based on their actual needs. Through measures such as soil covering and vegetation greening, the Company is fully promoting the ecological restoration of historical slag heaps, tailings ponds, and abandoned mines, to promote the accelerated development of mining ecological construction.

Case

Ecological Restoration of Iron-Sintered Ball Slag Dump to Fulfill the Responsibility in Green Development

In 2024, Tin Branch carried out ecological restoration at the iron-sintered ball slag dump. The Company entrusted a professional organization to test the soil, prepare feasibility studies and implementation plans, and organize expert reviews; the site management included slope restoration, soil covering, and determining the direction of forest restoration. A combination of trees and grass was used for greening, planting and sowing camphor trees, Bermuda grass, and clover, with subsequent care and management. A total of RMB 1.3914 million was invested in the project, effectively preventing geological disasters, controlling soil erosion, increasing vegetation coverage, restoring soil functions, and providing support for the Company's sustainable development.



Soil-restored Iron-Sintered Ball Slag Dump

Case

Ecological Restoration in Mining Areas Creates a New Green Landscape

The Company actively promotes ecological restoration at multiple waste dumps and slopes, involving several areas in Laochang Branch, Kafang Branch, Datun Tin Mine, and Hualian Zinc Indium. The ecology of the site has been effectively restored through site levelling, clean-up, demolition of old buildings and hardening of the ground, mulching, planting of trees, shrubs and lianas, as well as sowing of ryegrass seeds, and subsequent monitoring and management efforts. After restoration, vegetation coverage at each site has significantly increased, soil erosion has notably decreased, and the regional ecological environment has been significantly improved, creating suitable habitats for surrounding wildlife and promoting ecological balance.



16# Waste Rock Yard of Datun Tin Mine



1820# Waste Dump of Kafang Branch



Re-greening and Reclamation of Mining Area



Key Performance



In 2024, the Company set a target of completing 91 hectares of mining ecological reclamation but actually completed **110.39** hectares of ecological restoration, achieving **121%** of the target; and in 2025, the Company plans to complete **97** hectares of mining ecological reclamation.

Currently, the Company has completed a total of **748.63** hectares of mining ecological restoration.

● Protection of Mineral Resources

Mineral resources are the key to the survival and sustainable development of the Company. Yunnan Tin actively fulfills its responsibility for resource protection by expanding the resource scale through geological exploration, optimizes mining and beneficiation indicators to improve resource utilization efficiency, and advances resource protection through a dual approach of "increasing supply" and "reducing waste". In the mining production process, the Company accelerates mining site construction, ensures proper mine site replacement, guarantees the balance of the three-level mineral volume, and enhances production capacity. In terms of beneficiation, the Company focuses on full-load production, researches technological transformations, reasonably allocates ore types, improves technical and economic indicators, enhances comprehensive resource utilization, and strengthens the supply of self-produced raw materials, continuously consolidating the results of resource protection.

● Mineral Resource Protection Mechanism ●

Increasing Supply

The Company has formulated related regulations, such as the Measures for the Administration of Mineral Resource Reserves of Yunnan Tin Co., Ltd., the Measures for the Administration of Geological Exploration (Survey) of Yunnan Tin Co., Ltd., covering the entire process from geological exploration, resource expansion, upgrading and densification, to consumption and eventual mining.



Reducing Waste

With daily coordination meetings as a tool and specialized meetings as an entry point, the Company gradually reconstructs the mining production scheduling management system, promptly corrects and resolves issues arising during production, such as mining loss rate, ore depletion rate, and beneficiation recovery rate, continuously improving production operations and resource utilization quality.

● Optimization Measures for Mineral Resource Utilization in 2024 ●





Tin Branch Company Chung Yeung Festival to honor the elderly sympathy

03

Shaping a Prosperous Future Centered around Social Contribution

Yunnan Tin always adheres to the core philosophy of innovation-driven development, responsibility fulfillment, and win-win cooperation, striving to play an active role in the broad stage of social development. The Company understands that the success of an enterprise comes not only from the creation of economic value but also from its contributions to and promotion of social welfare. Therefore, we place great importance on the safety and quality of our products and services, seeing them as the cornerstone of our survival and development; and we uphold data security and customer privacy protection, with customer trust as our highest principle. In supply chain management, we make every effort to safeguard the security and stability of the supply chain, and ensure that each link operates efficiently and sustainably. We value the contributions and growth of each employee and strive to create a work environment full of care and opportunities, enabling both employees and the Company to grow together. In addition, the Company actively participates in social contributions and rural revitalization efforts, creating more value for society and making a greater contribution to a sustainable future.



- ◎ **Innovation-Driven Development** 「"a Topic of Double Materiality"」
- ◎ **Product and Service Safety and Quality** 「"a Topic of Double Materiality"」
- ◎ **Data Security and Customer Privacy Protection**
- ◎ **Supply Chain Due Diligence** 「"a Topic of Double Materiality" "a Topic of Double Materiality"」
- ◎ **Employees**
- ◎ **Social Contribution**
- ◎ **Rural Revitalization**
- ◎ **Industry Co-construction**



Innovation-Driven Development

「"a Topic of Double Materiality"」

Governance

Yunnan Tin deeply understands that innovation is the core driving force for development. The Company practices the new development philosophy, firmly focuses on aligning the innovation chain with the industrial chain, promotes the development of new quality productive forces, fully implements the innovation-driven development strategy, and vigorously advances technological innovation efforts. The Company has formulated the Measures for the Administration of Science and Technology Work based on national major policies and guidelines. We continuously increase investment in scientific research to provide solid financial support for innovation; actively recruit talented individuals to gather innovative wisdom; and expand external cooperation to absorb diverse innovation resources. We also focus on solving key core technologies, breaking through development bottlenecks, accelerating the transformation of scientific and technological achievements, and strengthening the foundation of innovation from multiple dimensions.

Key Honors

In 2024, Hualian Zinc Indium was recognized as a national high-tech enterprise; Wenshan Zinc Indium was selected as one of the sixth batch of National "Little Giant" Specialized and Sophisticated Enterprise that Produces Novel and Unique Products; the "Digital and Intelligent Factory" of Tin Branch was selected as an excellent case for the "Digital China" Construction Summit and became a key support project for the "Lighthouse Factories" initiative in Yunnan Province.



Main Management Responsibilities of Technology Work

Policy Planning and Incentives

Implement the Party and national science and technology policies, carry out the Company's technological innovation strategy, and draft technology innovation incentive policies to create a favorable policy environment for the Company's technological innovation. Organize research and prepare medium- and long-term science and technology development plans and implementation measures, as well as annual science and technology plans and budget preparation to provide strategic guidance and resource support for the Company's technological development.

Project Full-Process Management

Conduct comprehensive management, supervision, and guidance services for the Company's technological work. Specifically organize, coordinate, and inspect the approval, contract signing and implementation, project execution, and acceptance at different stages of the technology plan, and ensure that scientific and technological projects proceed in a standardized and orderly manner. Organize the preliminary technical demonstration and evaluation of major technology introduction and renovation projects, as well as the organization and management of awards and evaluations for key technological breakthrough projects, and safeguard the technical feasibility of the projects and the fairness of the award review.

Technology Resources and Achievement Management

Manage the Company's science and technology statistics and archives, organize performance evaluations and assessments of scientific and technological activities, and provide data support and performance basis for the Company's scientific and technological decision-making. Conduct daily management of scientific and technological achievements and patents, establish patent work systems, guide, coordinate, and inspect the patent work of affiliated units, balance the total number of patents and manage the patent ledger, organize and recommend science and technology award reviews, and promote the transformation of scientific and technological achievements and intellectual property protection.

Technology Resource Coordination and External Communication

Coordinate and manage science and technology innovation platforms and other technological resources of the Company and its affiliated units, and promote resource sharing and efficient utilization. Organize external scientific and technological exchange activities, strengthen the Company's connections and cooperation with external research institutions and enterprises, enhance the Company's technological influence, and introduce external resources and advanced philosophies for the Company's technological innovation.

Through Continuous Deepening of Technological Management Reforms, the Company's Innovation and R&D System Has Been Further Improved.

Optimizing Innovation Management Structure

- Strengthen top-level design, clarify the functional positioning of the decision-making, management, and execution levels, and enhance the macro management and coordination ability of technological innovation work.
- Improve the technology management structure at the grassroots level, achieve full coverage of technology management functions, establish a layered management model with complementary advantages, and solidify the management foundation for innovation and R&D.

Improving System to Encourage Innovation

- Improve the incentive mechanism, revise the reward system, and improve relevant systems such as the evaluation criteria for technological innovation. Stimulate innovation vitality, and provide a solid institutional guarantee for the construction of the innovation and RD system.

Integrating Resources to Drive Innovation

- Use technologies as a link and projects as a carrier, optimize the allocation of technological resource elements, and consolidate the strength of all parties. Create a comprehensive innovation system covering technological R&D, achievement transformation, talent cultivation, and open cooperation, and provide sustained momentum for innovation and R&D.

Strengthening Standard and Patent Layout

- Incorporate standards and patents into the entire process of technology reserve, project R&D, achievement transformation, and application promotion, and treat them as key elements and indicators of technological innovation work to enhance the Company's independent innovation capability.

The Company has established a comprehensive and highly incentivizing innovation mechanism. In terms of evaluation, the quantity of patent authorizations and the application of the patent system are important performance assessment criteria for the technological activities of each subsidiary; in terms of rewards, inventors of authorized job-related invention patents are given one-time rewards, motivating employees to actively engage in innovative practices and improving the Company's overall innovation strength and intellectual property reserve.

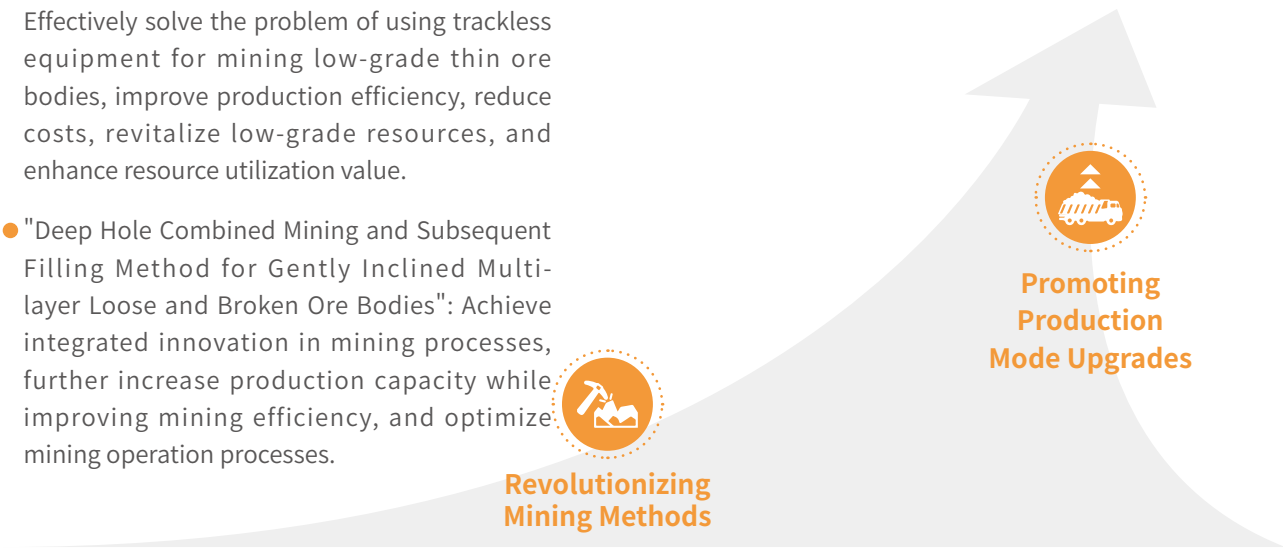
● Strategy

Technological Innovation

In 2024, the Company used the three-year action plan for technology-driven efficiency as a key focus to deeply promote the integration of the innovation chain with the industrial chain, continuously increasing investment in R&D, and implemented 37 Class-1 technology projects and 197 Class-2 technology projects. The implementation of a series of key technology development projects, such as the Research on the Optimization of the *Pre-crushing and Waste Discarding Process for Oxidized Ore System*, the *Research on the Localization of 125 t-135 t Hydraulic Backhoe Excavators*, the *Research on the Secondary Safe and Efficient Mining Technology for Old Resources under Complex Geological Conditions in the East Area of Gejiu*, and the *Research and Application of Electric Furnace Smelting Technology for Tin Polymetallic Materials*, has laid the foundation for the enhancement of the Company's technological innovation capabilities. The Company has collaborated with Kunming University of Science and Technology to establish the Yunnan Tin Sub-center of the National Engineering Research Center of Vacuum Metallurgy. We are fully committed to creating a technological innovation hub in the field of non-ferrous metal metallurgy.

- "Reconstruction and Continuous Mining Technology for Pillar Re-creation in Gently Inclined Thick Ore Bodies": Improve the production capacity, mining efficiency, and recovery rate of the mining field, and allow the previously difficult-to-use low-grade dead ore to be developed and utilized, thus expanding the range of available resources.
- "Comprehensive Technology for Intensive Mining of Low-Grade Thin Ore Bodies": Effectively solve the problem of using trackless equipment for mining low-grade thin ore bodies, improve production efficiency, reduce costs, revitalize low-grade resources, and enhance resource utilization value.
- "Deep Hole Combined Mining and Subsequent Filling Method for Gently Inclined Multi-layer Loose and Broken Ore Bodies": Achieve integrated innovation in mining processes, further increase production capacity while improving mining efficiency, and optimize mining operation processes.

- Conduct research on the collaborative development of rail and trackless mining, define reasonable intervals and operating methods, and create a collaborative development pattern that not only reduces safety risks, improves working environments and conditions, but also enhances the quality of economic operations, to lay the foundation for a strategic shift to trackless mining.



Digitalization Construction

In 2024, the Company actively advanced digital construction, closely followed the digital cloud tin model "One Map, Two Lines" for overall layout and phased implementation, and made significant progress in several key areas: The integration of business and financial digitization across the tin industry chain, centered on ERP, has been comprehensively improved, while the digital manufacturing system, led by the MES management system, has been gradually established. The connection between ERP and MES allows "digital intelligence" to be integrated into key production processes, with the CNC rate of key equipment in major processes reaching 75.23%, achieving an intelligent upgrade from "manual control" to "digital control". We achieve the integration of the office network and control network, establish an intelligent dispatch center and data center; build various monitoring and remote control systems, create a 3D visualization platform, and strengthen safety control and energy management. Moreover, we also enable information systems to realize remote monitoring of equipment and data sharing; build a private cloud data center, apply multiple business systems, and improve production efficiency and management levels.

● Some Digital Management Systems ●

ERP System

- Supported by an advanced technology platform and combined with the Company's needs, the ERP system realizes vertical integration, horizontal integration, enhanced control, and real-time insights, strongly supporting the Company's operational management.
- In financial management, the system significantly reduces manual voucher entry, improves financial work and settlement efficiency, optimizes report generation processes, and reduces overdue accounts receivable; in procurement management, it optimizes business processes, improves work efficiency, shortens procurement cycles, and reduces procurement costs; in inventory management, it shortens inventory turnover days and reduces inventory waste and transportation costs.

Mining MES System Collaborative Control Platform

- The platform builds an information control system based on the "Platform + Application" model, develops multiple mining-specific configuration tools, and creates a highly configurable digital mining development application platform.
- It has core functions such as data collection and modeling analysis, and can realize the automation, structuring, and standardization of data management, providing reliable data support for production decision-making.

Indium on Cloud MES Platform

- The platform builds a system module ecosystem, focuses on solving the problems of decentralized traditional enterprise information systems, inconsistent data, and low management efficiency, and achieves seamless integration with overall business related to information systems. In core business, it achieves full industry chain coordination from mining, selection, inspection, to sales, effectively avoiding operation separation and data distortion issues.
- The platform breaks down barriers between various links in the industry chain, initially realizes "one system managing production", and gradually builds into a personalized, integrated, multi-business management system, significantly improving the Company's management efficiency and operational efficiency.

Tin Smelting MES System

- The system is a core component of the key technology R&D project for intelligent production lines in tin smelting based on the industrial internet.
- Selected as a typical case for digital transformation by the China Association for Public Companies, the system is awarded the Excellent Case of "Digital Transformation of Listed Companies" by Securities Daily.

Unit	Intelligent Mine Construction Goals	Operation Results
Datun Tin Mine	To complete the construction of the "One Network" which involves hundreds of kilometers of optical cables, over 70 core devices, and more than 1,000 access terminals.	A unified transmission network and the integration of the office network and control network have been realized, improving the reliability of the information technology infrastructure.
	To use automation and remote control technologies to build a standardized data center and an intelligent integrated dispatch command center.	Unmanned operation has been realized in production auxiliary systems such as compressed air, ventilation, water supply, and high-voltage power supply and distribution.
	To take the Mining Execution System (MES) platform at the core, and fully promote the construction of a digital mine.	The full-process management of production operations has been realized.
Laochang Branch	To successfully build an energy consumption online monitoring platform, safety control platform, and other equipment control layer systems, as well as a centralized power control system, remote control system for air compressors, etc.	The remote control of underground ventilation fans, water pumps, and other equipment has been realized.
	To initially build a 3D visualization integrated control platform.	The remote visual supervision of mine safety production has been realized.
	To build underground "three major safety" systems, slag slope online monitoring system, and tailings pond online monitoring system.	The branch has realized the positioning and communication of underground personnel, and the monitoring of toxic and harmful gases, slag slope and pit wall displacement, and tailings pond safety.
Kafang Branch	To build systems such as the 2,000 t single copper flotation machine liquid level automatic control, crushing system, intelligent management of truck scales, electricity consumption data collection, unmanned power station, unmanned backwater system pump station, and remote centralized control of fans.	The remote monitoring and intelligent control of production equipment have been achieved, improving production efficiency.
	To establish "three major" systems for underground safety and an online monitoring system for tailings ponds.	Strong support has been provided for mine safety production.

Unit	Intelligent Mine Construction Goals	Operation Results
Hualian Zinc Indium	To establish a private cloud data center, and achieve full fiber optic coverage of the basic communication network across the entire company.	The centralized data management and efficient transmission have been realized.
	To build the MES integrated business information platform, open-pit mining truck scheduling system, etc.	The intelligent control and optimized scheduling of the production process have been realized, improving production efficiency and safety management levels, with an expected 500% increase in production measurement and statistics efficiency.
	To realize data integration and sharing.	The integration and sharing of data in areas such as mining production, quality inspection, sales, cost, equipment, inventory, personnel, and payroll have been mostly completed, and the data can be mined and analyzed according to management's requirements. Over 80 business analysis reports are automatically generated, with report efficiency transitioning from the traditional manual mode to real-time automatic generation and sharing.
	To expand the coverage of the DCS Automation Control System.	The remote startup, monitoring, control, and shutdown of equipment have been realized, effectively improving equipment operating efficiency and production metrics.

Construction of Intelligent Mines by Branches (Subsidiaries) in 2024



Case5G Empowers Intelligent Smelting and Leads the Industry's Digital Transformation

In 2024, Tin Branch devoted itself to building the "5G+Cloud Tin Intelligent Smelting Plant", to deeply advance the digital transformation of manufacturing, and further enhance the Company's production efficiency and management reform. The Tin Smelting Intelligent Manufacturing Demonstration Factory Project (Phase I) was selected as one of "Lighthouse Factories" supported by the 2024 Yunnan Provincial Manufacturing High-Quality Development Special Fund. The "Indium on Cloud MES Platform" won the Best Practice Award for Digital Transformation by the China Association for Public Companies, providing a model for the industry's digital and green transformation.

Key Performance

Tin Branch's "5G+Cloud Tin Intelligent Smelting Factory" was selected as one of the **30 national** excellent cases for the 2023 Digital and Green Collaborative Transformation Development and one of the **57 provincial** excellent cases for 2023, becoming a key showcase at the 2024 "Digital China" Construction Summit to highlight the achievements in digitalization and intelligence in tin smelting.



In November 2024, four technological projects of Tin Branch won the Technology Progress Award for Yunnan Tin Group Holding Co., Ltd.



The "Indium on Cloud MES Platform" was recognized as the "Best Practice Model Case" of the (Third) 2024 Digital Transformation of Listed Companies in China.

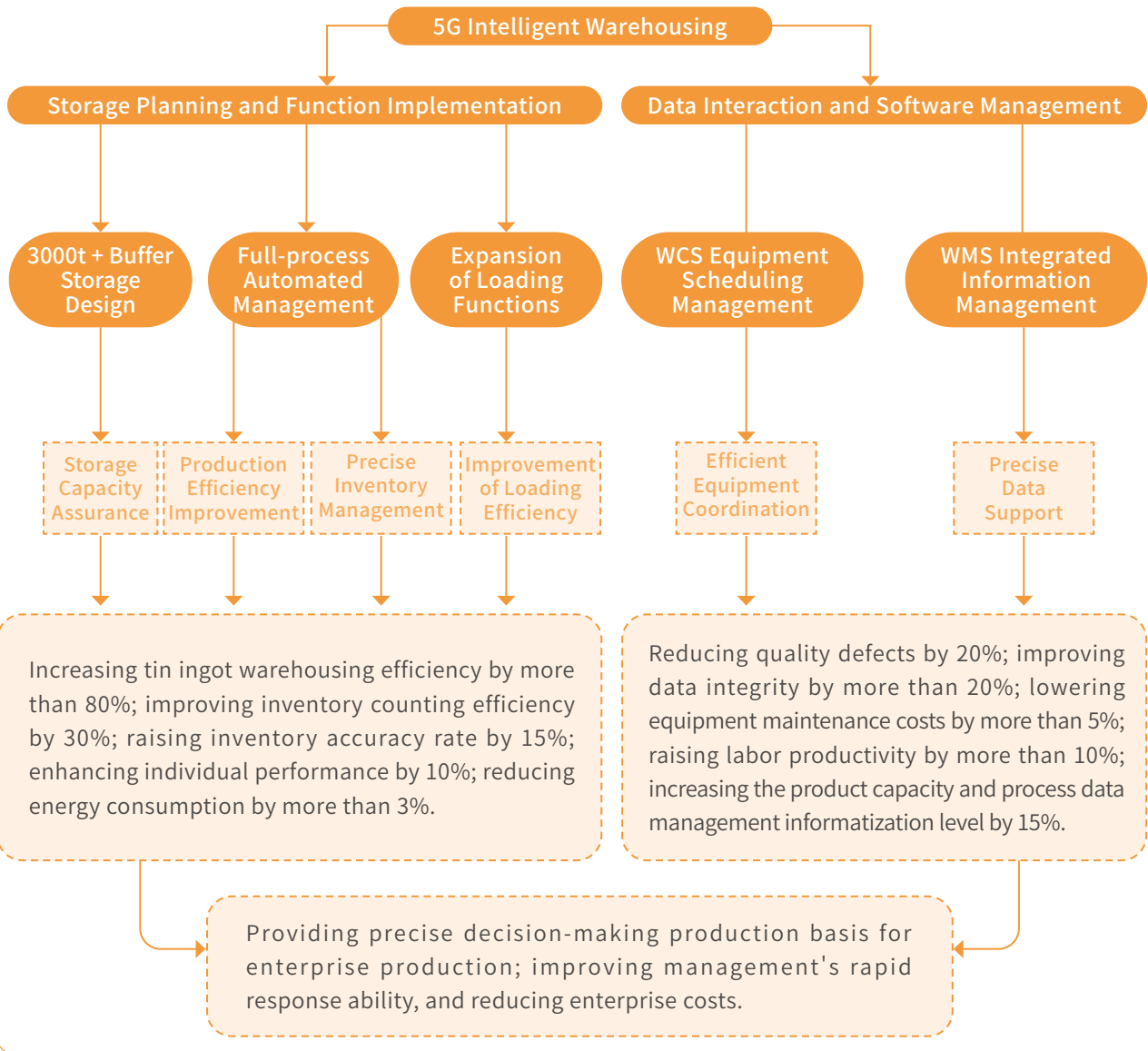


The "First Global Unmanned Tin Refining System Based on 5G+AI Technology" project won the second prize at the 7th "Blossom Cup" 5G Application Collection Competition.

Case 5G Empowers Intelligent Warehousing of Tin Ingot and Drives Efficient Transformation and Development

The Company, addressing the issues of heavy reliance on manual labor, low efficiency, high safety risks, and insufficient informatization in the tin ingot storage and logistics process, has built an intelligent tin ingot warehousing system. This system automates the entire process of tin stack offline transfer, storage, outbound, and loading, along with intelligent equipment scheduling and information management, and enables data interaction with the existing production control system. The construction of the intelligent warehousing system not only improves the Company's production efficiency, reduces costs, and enhances competitiveness, but also provides a model for the intelligent transformation of storage in the non-ferrous metal industry, promoting the industry's development toward digitalization, automation, and intelligence. It has a positive significance for optimizing industry supply chain management and improving overall operational levels.

Intelligent Warehousing Construction and Results

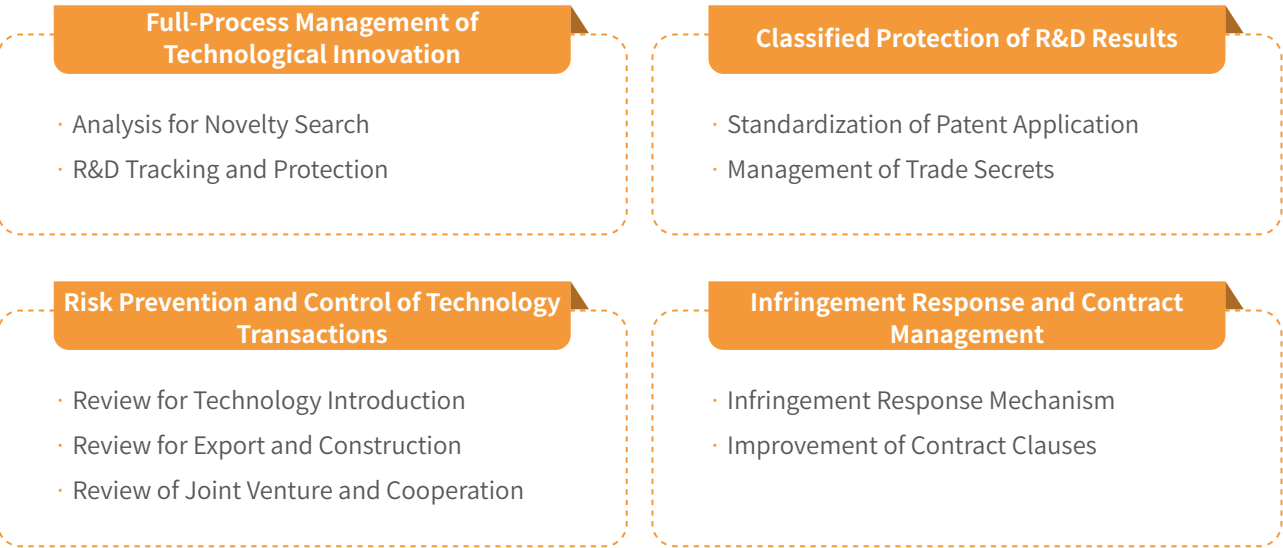


Intelligent Warehousing System Contributing to Efficient Operations

Impact, Risk, and Opportunity Management

In the technology-driven development process, the Company has keenly realized the critical importance of risk management for innovation activities. To ensure the sound promotion of technological innovation, effective protection of R&D achievements and smooth and safe technology transactions, the Company has constructed a complete and detailed intellectual property management system.

Intellectual Property Management System



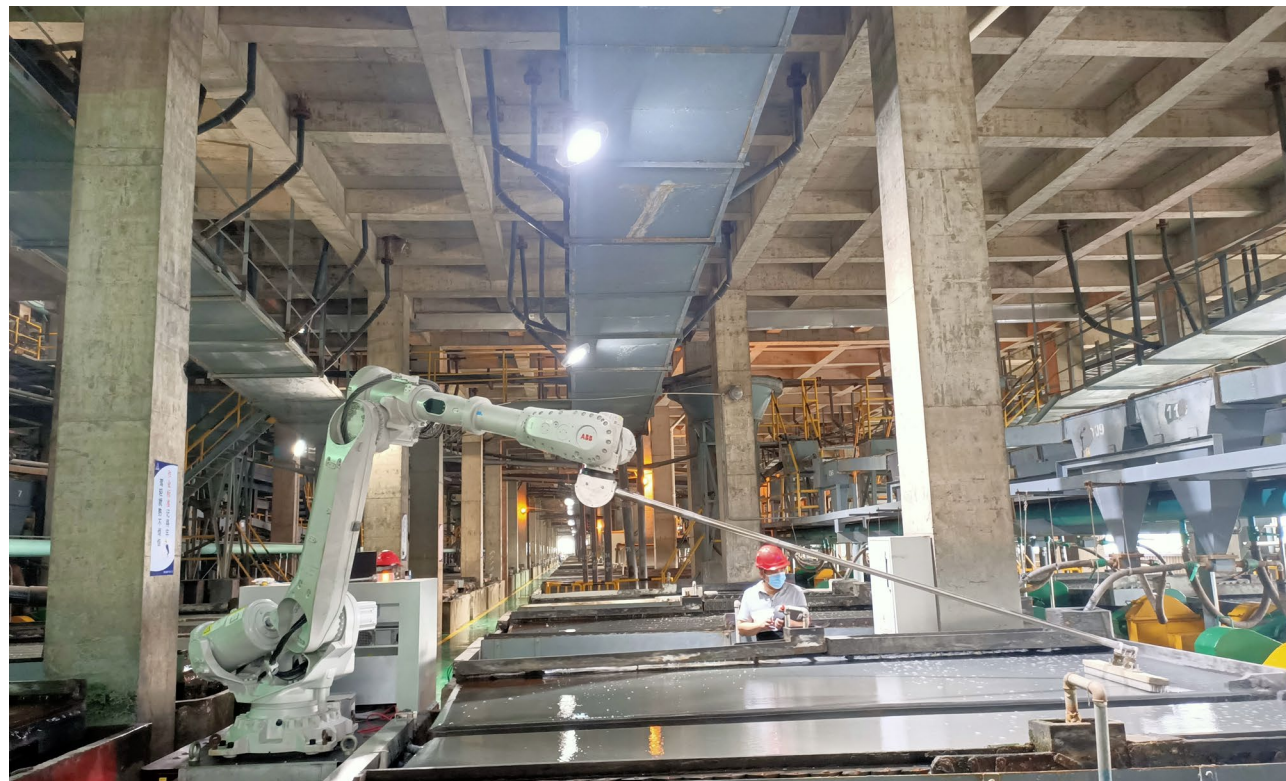
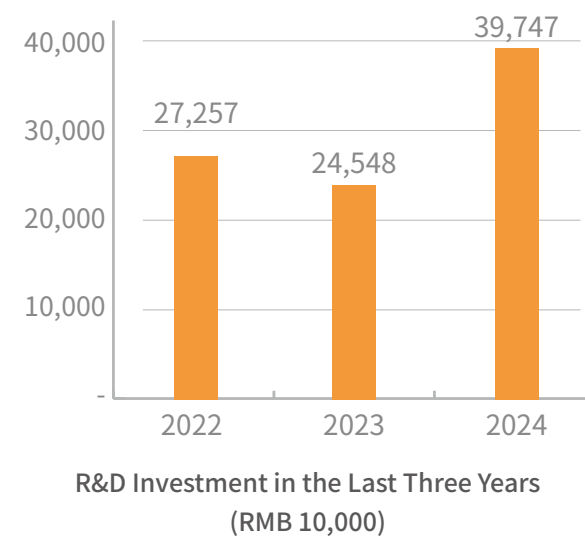
Metrics and Targets

The Company encourages various types of innovation, respects intellectual achievements, focuses on protecting intellectual property, and continuously invests resources in innovation.

In 2024, the Company was granted 52 new patents, including 20 invention patents and 32 utility model patents, and awarded a patent bonus of RMB 118 thousand. By the end of 2024, the Company had held 374 valid patents, including 110 invention patents and 264 utility model patents.

In 2024, the Company organized and implemented 37 first-class science and technology projects, 197 second-class science and technology projects, and won 2 provincial and ministerial-level science and technology awards.

In 2024, the Company's R&D investment was RMB 397.48 million, an increase of 61.92% on a year-on-year basis. In the future, the Company will continue to increase its investment in R&D, ensuring that the ratio of R&D investment to main business revenue remains above 2%.



Product and Service Safety and Quality

"a Topic of Double Materiality"

As an key player in the industry, the Company understands that ensuring the high-standard safety and excellent quality of products and services is not only a key manifestation of fulfilling corporate social responsibility but also an important cornerstone for driving steady business growth and enhancing market competitiveness. The Company has established a strict quality management system to ensure product quality while using continuous improvement as the driving force to continuously enhance service quality, meet and exceed customer expectations, and achieve sustainable development.

Quality Management

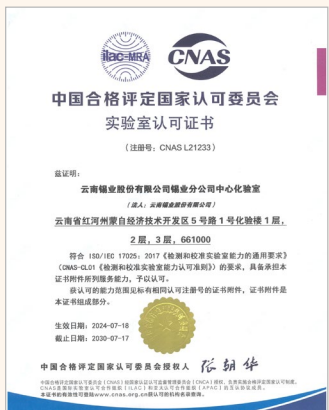
Governance

Quality is a key element of core competitiveness and the cornerstone of business development. Yunnan Tin actively responds to and fully implements a series of plans such as the *Three-Year Quality Improvement Action Plan*. We also have developed a series of systems, including the *Quality, Environment, Occupational Health and Safety, and Energy Management Manual*, the *Quality Management Regulations*, the *Standardization Management Measures*, and the *Quality Management Assessment Measures*, to strengthen the effective operation of the quality management system. Additionally, the Company relies on intelligent factories and intelligent enterprise construction to establish an MES quality module, achieving mechanized, automated, and information-based control of quality inspection, comprehensively improving the level of quality management.

公司知识产权管理体系



Quality Management System Certification



The Company's subsidiaries including Tin Branch, Hualian Zinc Indium, and Datun Tin Mine have passed CNAS certification.

Strategy

In 2024, the Company implemented a series of comprehensive and systematic measures centered around quality management, aiming to improve product quality, meet customer needs, and achieve the Company's quality and business objectives.

● Key Optimization Measures for Quality Management in 2024 ●

Improving the Quality Management Responsibility System

- The Company implemented the system holding the responsible persons and the Chief Quality Officer accountable for product quality and safety. Through standardized documents such as the System Manual and the Process Procedure, the quality responsibilities and objectives at each level are clearly defined.
- Each department and subsidiary broke down quality responsibilities and objectives to the grassroots level, while establishing an assessment mechanism and a performance management system with grape charts. Regular supervision, assessment, and enforcement of rewards and penalties ensured the effective implementation of quality responsibilities.

Strengthening Quality Process Control

- Comprehensive testing and monitoring were conducted from production materials to final products. Based on the PDCA process, risk points were identified, workflows were streamlined, and scientific management systems and operational mechanisms were established.
- Process product quality indicators for the smelting production process were determined, and inspections were organized in comparison with third-party quality inspection agencies to improve inspection and analysis quality.

Promoting Data-Driven Quality Improvement and Goal Optimization

- Quality and metrology management ledgers were established to collect and analyze monthly data in aspects such as product and process quality, raw and auxiliary material quality, customer complaints, product delivery inspection quality control pass rate, and incorporate data into performance evaluations. Corrective actions for non-conformity were formulated based on the analysis results, to promote stable improvement in product quality throughout the production management process.
- Quality objectives were reviewed and revised based on data and actual conditions, to ensure that product quality remains stable and reliable, align with market demand and the Company's development strategy, and safeguard the achievement of the Company's quality and business Goals.

Improving All Employees' Quality Management Awareness

- The Company focused on customer needs, and integrated quality philosophy into the production process. Employees' skills and quality awareness were improved through activities such as skill competitions, knowledge sharing, QC team activities, and team building, to provide support for quality management.

Case

Iron Ore Desulfurization and Quality Upgrade Unlocked New Value of Existing Resources

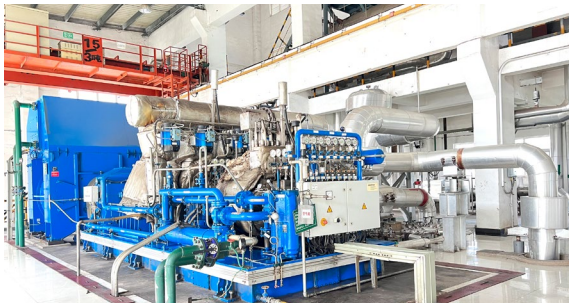
In 2024, Hualian Zinc Indium launched desulfurization and quality improvement technological upgrades for iron ore. Faced with the situation where the increase in the iron grade of the raw ore led to higher tin content and a significant loss of tin in the iron concentrate, the Company explored and adopted magnetic pyrite activators and efficient collectors. By combining fine grinding, flotation, and magnetic separation processes, the Company achieved efficient mineral separation. After the improvements, the iron content and sulfur content of the iron concentrate after weak magnetic separation increased, while the tin and arsenic content decreased. Some tin metal in the tailings could be re-selected, and the product quality was significantly improved. Resource utilization was enhanced, and the market competitiveness of the product was strengthened, providing a reference example for quality and efficiency improvement in the mining industry.

Case Multiple Measures were taken to Improve Cathode Copper Quality and Created a New High in the Industry

In 2024, the Company established a quality improvement team. Through initiatives such as improving co-line production, optimizing the electrolyte circulation process, introducing advanced equipment and conducting regular maintenance to promote equipment upgrades, organizing multi-level employee training on product quality, improving the quality control system, strictly controlling raw material quality, and increasing inspection frequency, the Company actively worked to enhance the quality of cathode copper products. In 2024, the Company's cathode copper product quality was significantly improved, with the A-grade copper product rate rising from 93.9% to 99.25%, customer satisfaction reaching 100%, and the economic benefits increased significantly. This not only enhanced the Company's competitiveness but also provided high-quality raw materials to downstream industries, helping to drive technological progress and quality improvement in the industry.



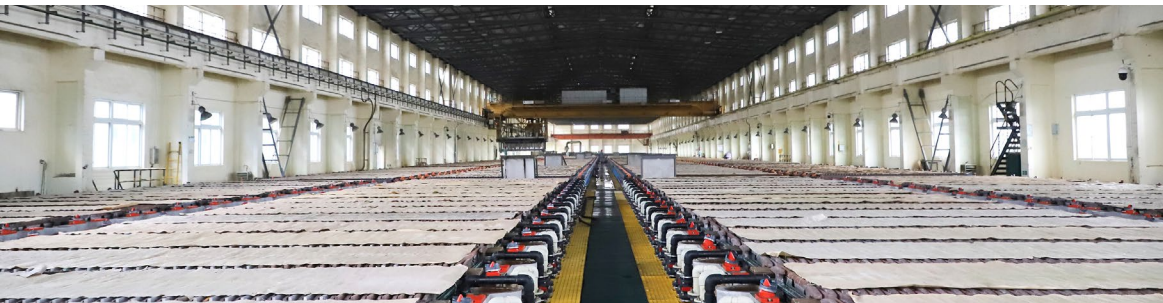
Cathode Copper Equipment Upgrades



Cathode Copper Equipment Upgrades



Training on Product Quality



Cathode Copper Process Optimization

Case Diverse Training Empowered and Improved Employees' Quality Management Awareness

In 2024, the Company actively carried out diversified training activities to improve its quality management level. Training sessions were organized on aspects of basic quality management knowledge, technical reinforcement and safety knowledge, covering fields such as quality management systems, quality control methods, and more. Various specialized training activities were held, including internal audit training for quality and environmental systems, metrology knowledge training, and more, with a series of Quality Month activities held in September. Employees were also encouraged to participate in the national quality management knowledge competition. Through these trainings, employees' quality awareness and professional skills were significantly enhanced, laying a talent foundation for ensuring product and service quality and improving the overall competitiveness of the Company.



Promotion and Training for the Quality Month Event



Key Performance



In 2024, the Company offered 6 quality training sessions, with a total of 10,725 person-times of participants.

Case

QC Team Activities Empowered and Created a New Height in Quality Management

In 2024, the Company launched the Quality Management (QC) Team initiative, encouraging departments and units to autonomously form QC teams and adopt quality management improvement techniques and statistical analysis methods to address quality and cost issues in the production and operation process, and adopted the PDCA method to carry out activities. In 2024, the QC team initiative proceeded smoothly, with a success rate of over 80%, creating annual benefits of more than RMB 30 million. Some QC results were selected as typical industry cases for publicity purpose. This initiative helped us improve product and service quality, enhance core competitiveness and establish a good brand image, providing a successful example for industry quality management.

Key Honors



The Company's QC Teams and Units Received Provincial, Industrial and Even National Recognition in 2024

Key Honors

In February 2024, the Shanghai Futures Exchange announced that the "YT" zinc ingot (ZN99.995) produced by Wenshan Zinc Indium had been registered with the Shanghai Futures Exchange. Meanwhile, our tin ingots received the China Four-Star User Satisfaction Product Certificate, while copper cathodes and zinc ingots received the China Three-Star User Satisfaction Product Certificate.



The Products of the Company Were Awarded the "User Satisfaction Certificate" by the China Association for Quality

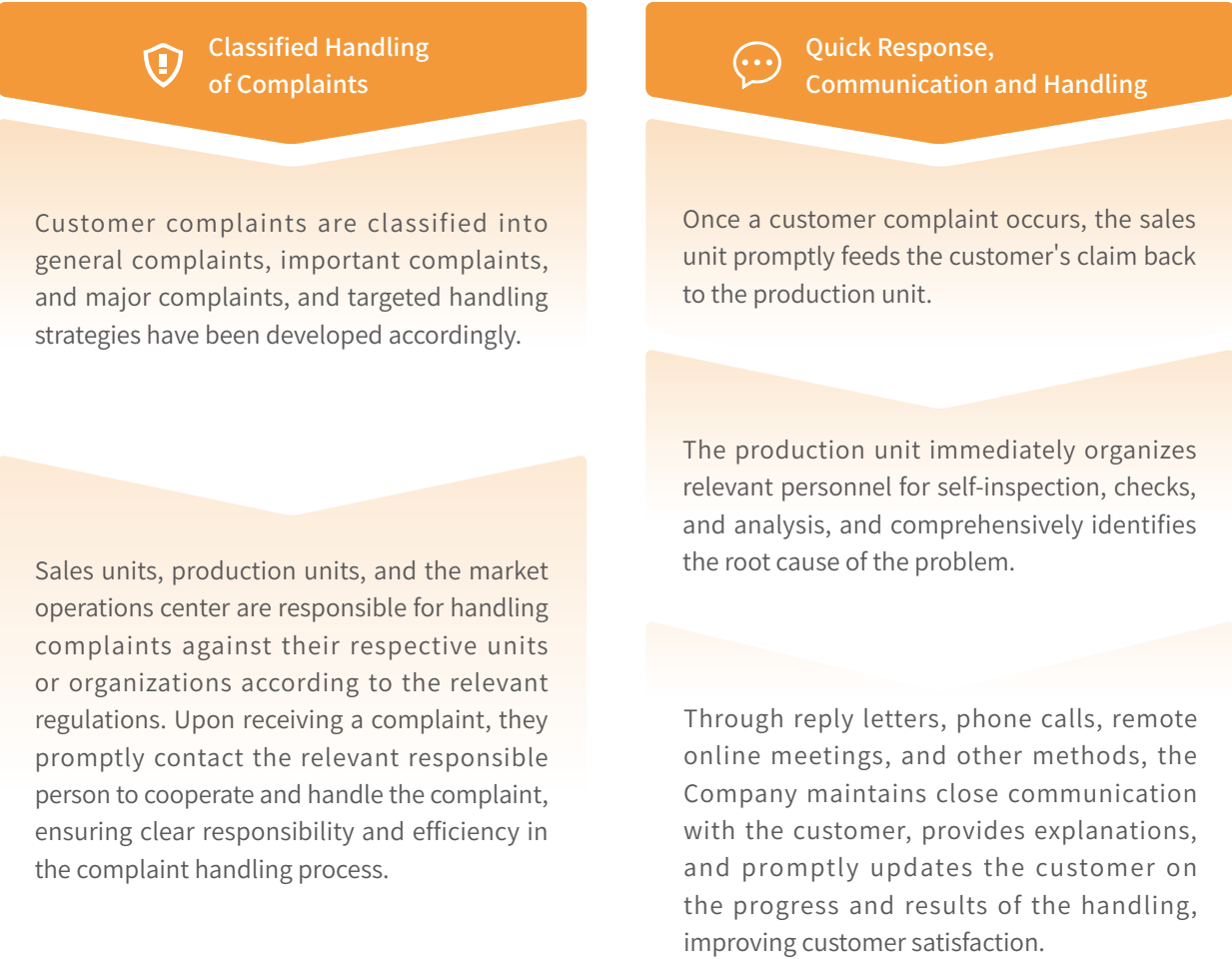
附件

2024 年云南省工业质量标杆名单
(排名不分先后)

序号	企业名称	经验名称
1	勐海茶业有限责任公司	基于“三全、两检、一集中”设计的零缺陷管理模式
2	云南锡业股份有限公司	实施“5H”卓越质量管理模式
3	昆明电缆集团昆电电缆有限公司	基于“信息化驱动+绿色智造”的全产业链低碳、高质量管控经验
4	云南云天化氟化学有限公司	实施氟化铝全流程数字化监测管理的经验
5	昆明嘉和科技股份有限公司	基于特种工业泵大数据分析的质量管理实践
6	云南益华管道科技有限公司	基于高分子管材的“精益化、标准化、数字化”三化协同全产业链质量提升管理经验
7	鹤庆溢鑫铝业有限公司	实施“电解铝智慧工厂质量安全数智化+产业链绿色低碳协同制造管理经验”

Based on systems such as the *Non-conforming Product Management Process*, the *Customer Complaint Handling Process (for Trial Implementation)*, the *Measures for the Administration of Product Return (Replacement)*, the Company clearly defines the management organization, responsibilities, and processing procedures for product returns and recalls, and establishes a quality complaint management system. This ensures that when products are returned or recalled due to quality, packaging, market, or other reasons, we can handle customer complaints efficiently, take legal liability for quality damage compensation, protect customers' rights and interests, and safeguard the reputation of the Company.

● Quality Complaint Management System ●



Case

Efficient Handling of Quality Complaints Maintained the Company's Reputation

In August 2024, after receiving a quality complaint regarding tin ingot products, the Company's Quality Supervision Department took immediate action. Through investigating production and inspection records, retesting retained samples, and other methods of self-checking, the issue was initially identified as possibly related to the customer's testing methods. After multiple communications with the customer, the professionals proposed a solution to lend the branch's standard samples to the customer for simultaneous testing. Ultimately, the customer confirmed that the product quality was fine, withdrew the return request, and returned the standard samples. This handling effectively resolved the customer's concerns, protected the Company's reputation, avoided economic loss, and demonstrated the Company's commitment to product quality and efficient complaint handling capabilities.

Impact, Risk, and Opportunity Management

Yunnan Tin deeply recognizes the importance of product quality risk management. To effectively respond to potential risks and protect product quality and brand reputation, the Company has established a quality management system covering the entire product lifecycle, from raw material procurement and production processing to after-sales services. From the four dimensions of "Plan - Implement - Check - Improve", the Company systematically identifies and strictly controls risk points during implementation, striving to provide customers with products of excellent quality and reliable safety, thereby laying a solid quality foundation to support the Company's steady progress in the market.

● Product Lifecycle Quality Management System ●

Raw Material and Auxiliary Material Management

By formulating the *Measures for the Administration of Raw Material Acceptance* and the *List of Key Materials and Execution Standards*, the Company clearly defines the quality requirements and acceptance standards for raw materials and production auxiliaries, controlling product quality from the source.

Production Process Management

The Company identifies the key processes and quality control points in the production process, and formulates the *Work Instructions* and the *Operating Procedures* to precisely control the technical parameters of production processes, product quality standards, and qualification rates. Moreover, the Company has established a system for monthly workshop checks, quarterly department checks, and annual company-wide checks to ensure the stability of quality in the production process.

Quality Inspection and Non-conforming Product Handling

The Quality Supervision Department is responsible for sampling, testing, and evaluation of raw materials, intermediates, and finished products. In accordance with the Measures for the Administration of Non-conforming Products, all non-conforming raw materials, intermediates, and products are isolated, labeled, recorded, and properly disposed of to prevent them from entering subsequent processes or being used for unintended delivery.

Ex-factory and After-sales Management

Product inspection before delivery follows internal control standards that are stricter than national standards, to ensure that only high-quality products are delivered to customers. After delivery, the Company continuously monitors product usage and customer experience. Through visits, surveys, phone communication, and satisfaction surveys, the Company collects customer feedbacks and needs to continuously improve product quality.

Goals and Indicators

The Company strictly controls product and service quality, and values product and service quality as a core competitive advantage.

Objectives	Achievement
Smelting Process Product Quality Qualification Rate $\geq 91\%$	The Smelting Process Product Quality Qualification Rate was 97.04%
Smelting Product Internal Control Qualification Rate $>97\%$	The Smelting Product Internal Control Qualification Rate was 99.91%
Major Equipment Integrity Rate $>97\%$	The Major Equipment Integrity Rate was 99.95%
National Sampling Product Pass Rate = 100%	The Product Factory Pass Rate was 100% ; and the National Sampling Product Pass Rate was 100%
Customer Dispute Resolution Rate = 100%	The Customer Dispute Resolution Rate was 100% , 0 major quality complaint occurred, and the Product Recall Rate was 0%

Quality Goals and Achievements in 2024

Customer Service

Guided by the principle of "providing first-class service quality for customers", the Company provides tin ingot bundling or retail service based on customer demands. For customers purchasing our tin ingots, we offer them supporting services for copper, indium, zinc, and silver raw materials and products. To improve after-sales service, the Company has developed a Customer Complaint Handling Process to classify complaints into general, important, and major complaints for targeted handling. Sales Units, Production Units, and the Market Operation Center are responsible for handling complaints raised against them respectively, and collaborating with relevant persons in charge to resolve problems and improve customer satisfaction.

Key Performance

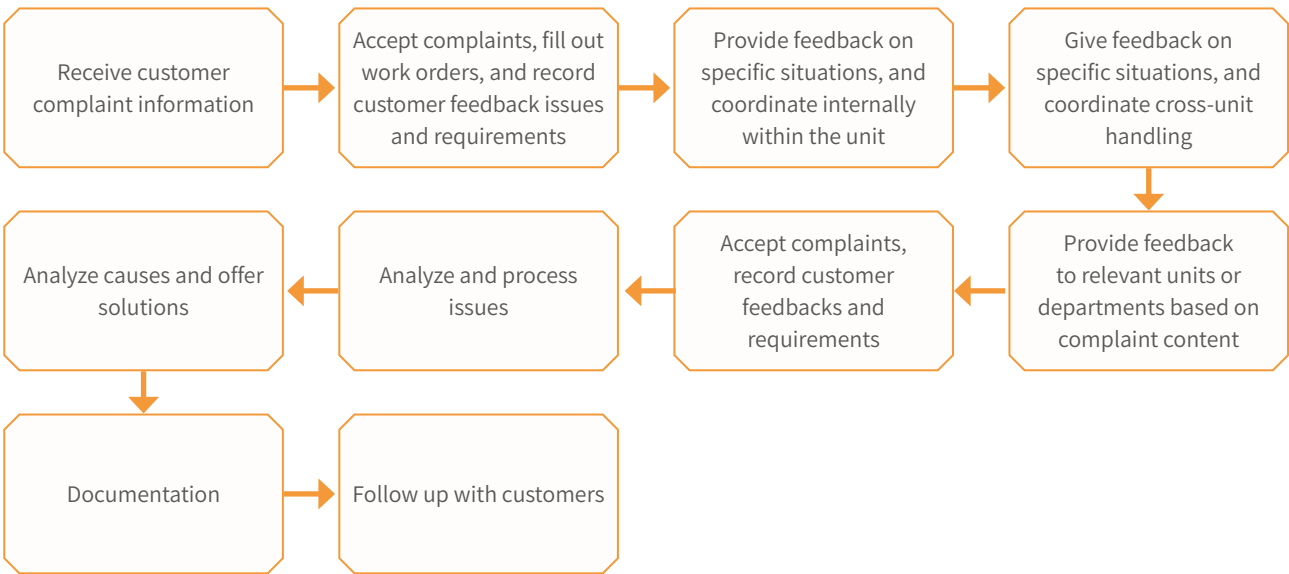
In 2024, the Company entrusted a third party to conduct a customer satisfaction survey on tin ingots, cathode copper, and zinc ingot products, achieving a comprehensive satisfaction score of **97.19**.

Key Honors



The Company Received the Excellent Contribution Award for Outstanding Supply Chain Partner from Customers.

Customer Complaint Handling Process



Data Security and Customer Privacy Protection

In recent years, the Company has effectively utilized digital technology to improve production and operational efficiency, reduce management costs, and advance the Company's digital transformation and upgrade. To strengthen digital management and reduce data security-related risks, the Company has formulated the *Digital Management Measures* in accordance with the *Network Security Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, the *Measures of Security Assessment for Data Export* and other laws and regulations. This further standardizes the Company's data security protection efforts, safeguarding the interests of both the Company and its customers.

Digital Management Principles



Organizational Structure and Responsibilities for Digital Management

The Company has established a Cybersecurity and Informatization Leading Group (the "Cybersecurity Leading Group"). The Company's Secretary of the Party Committee and the Chairman of the Board of Directors serve as the Leader of the Cybersecurity Leading Group. The Company's Deputy Secretary of the Party Committee and Deputy General Manager (in charge of informatization) serve as the Vice Leader of the Cybersecurity Leading Group. The members of the Cybersecurity Leading Group include the heads of departments (centers) at the headquarters of the Company.

The main responsibilities of the Cybersecurity Leading Group include: implementing the national guidelines, policies, laws, regulations, and the work requirements of the holding company regarding cybersecurity and informatization development; making decisions and coordinating discussions on the Company's cybersecurity and informatization development work; researching, formulating, and guiding the implementation of the Company's cybersecurity and informatization development strategic plan; coordinating and managing significant matters and key tasks regarding the Company's cybersecurity and informatization development; establishing a coordination mechanism for the Company's cybersecurity and informatization work; and approving the Company's software legalization plan.

Regulations on Data Security Management

Each unit shall manage its data assets by classification and grading in accordance with the Data Security Law of the People's Republic of China, and implement different security protection strategies and technical measures for different levels of data. **01**

Each unit shall clearly define the purpose and use of data collection to ensure the legality, necessity, and business relevance of data collection. **02**

Each unit shall meet confidentiality and data de-identification requirements when providing data to external units for business purposes, and sign confidentiality agreements if necessary. **03**

Each unit shall establish a data backup and disaster recovery mechanism, perform local backups and remote disaster recovery for important data and application systems, and regularly conduct backup restoration drills to ensure backup effectiveness. **04**

Each unit shall implement comprehensive data security control measures, and strictly approve operations related to important data, such as access, modification, deletion, transmission, import, and export. **05**

Each unit shall apply technical measures such as data transmission encryption, data storage encryption, data leak prevention, and business confidentiality protection to ensure the security of important data. **06**

When computer terminals and peripherals need to be sent for external repair, data backup and clearing measures shall be taken, and security checks shall be conducted before reconnecting to the office network. During software maintenance, on-site operations personnel from the unit shall be present. Equipment disconnection from the network shall be handled securely. **07**

Computer terminals and devices with storage media that are to be discarded shall be disposed of in a unified manner. Before disposal, proper data backup and clearing measures shall be taken, and if necessary, hard drives, storage cards and other devices shall be dismantled. **08**

The important data of each unit is, in principle, stored within the territory of China, and if provided abroad as required, such data shall be approved by the competent authority in accordance with the relevant requirements of national departments. **09**

Systems that store employee personal information shall comply with national laws and regulations related to personal information protection. It is strictly prohibited to illegally sell or provide employee personal information to others. **10**

Measures to Ensure Information and Data Security



Next-Generation Firewall



Situation Awareness System



Zero-Trust Gateway



Log Audit



Endpoint Detection and Response (EDR)

Through a series of cybersecurity technologies, the Company collects network traffic in real-time, analyzes and predicts network threats and risks in real-time, reduces network threats and risks, improves the efficiency and defense capability of the Company's network security management, and ensures the safe and stable operation of the Company's business systems.

Key Performance



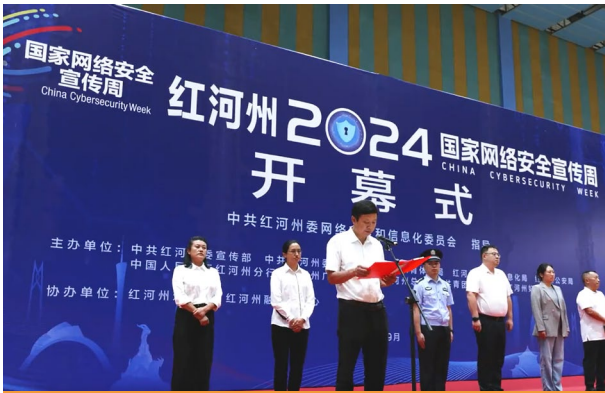
In 2024, no data security incidents or customer privacy leakage incidents occurred in the Company.

In 2024, the Company offered 4 training sessions on data security and customer privacy protection and carried out 1 related emergency drill.

Case

The Company Participated in the National Cybersecurity Awareness Week Event to Jointly Create a Line of Defense for Cybersecurity

In September 2024, the National Cybersecurity Awareness Week kicked off in Honghe Autonomous Prefecture. The Company was invited to attend the opening ceremony of the event and actively participated in subsequent cybersecurity activities. The event themed "Cybersecurity Serves the People, Cybersecurity Relies on the People" extensively promoted cybersecurity knowledge and awareness, improved the public's cybersecurity awareness and skills, and created a strong atmosphere encouraging the whole society to jointly build a line of defense for cybersecurity.



The Company Participated in the Opening Ceremony of the Cybersecurity Awareness Week Event

Case

The Company Participated in a Knowledge Lecture on Data Security to Enhance Internal Data Security Management.

In April 2024, an online knowledge lecture on the standardization of network data security in cybersecurity was launched by Honghe Autonomous Prefecture. The Company organized relevant personnel to actively participate in the lecture. The lecture mainly interpreted the standards such as the *Data Security Technology - Rules for Data Classification and Grading*, the *Data Security Technology Data Security - Risk Assessment Methods*, the *Information Security Technology - Personal Information Security Specification*, and the *Information Security Technology - Security Impact Assessment of Personal Information*, as well as the "Zhu Wang 2023" *Industrial Network Security Drill Report*, and organized relevant technical personnel to analyze the process of attack-defense drills. This lecture enhanced the professional knowledge and skills of internal personnel, ensuring stricter adherence to applicable laws and regulations in digital operations, while mitigating data security risks to protect organizational and client interests.



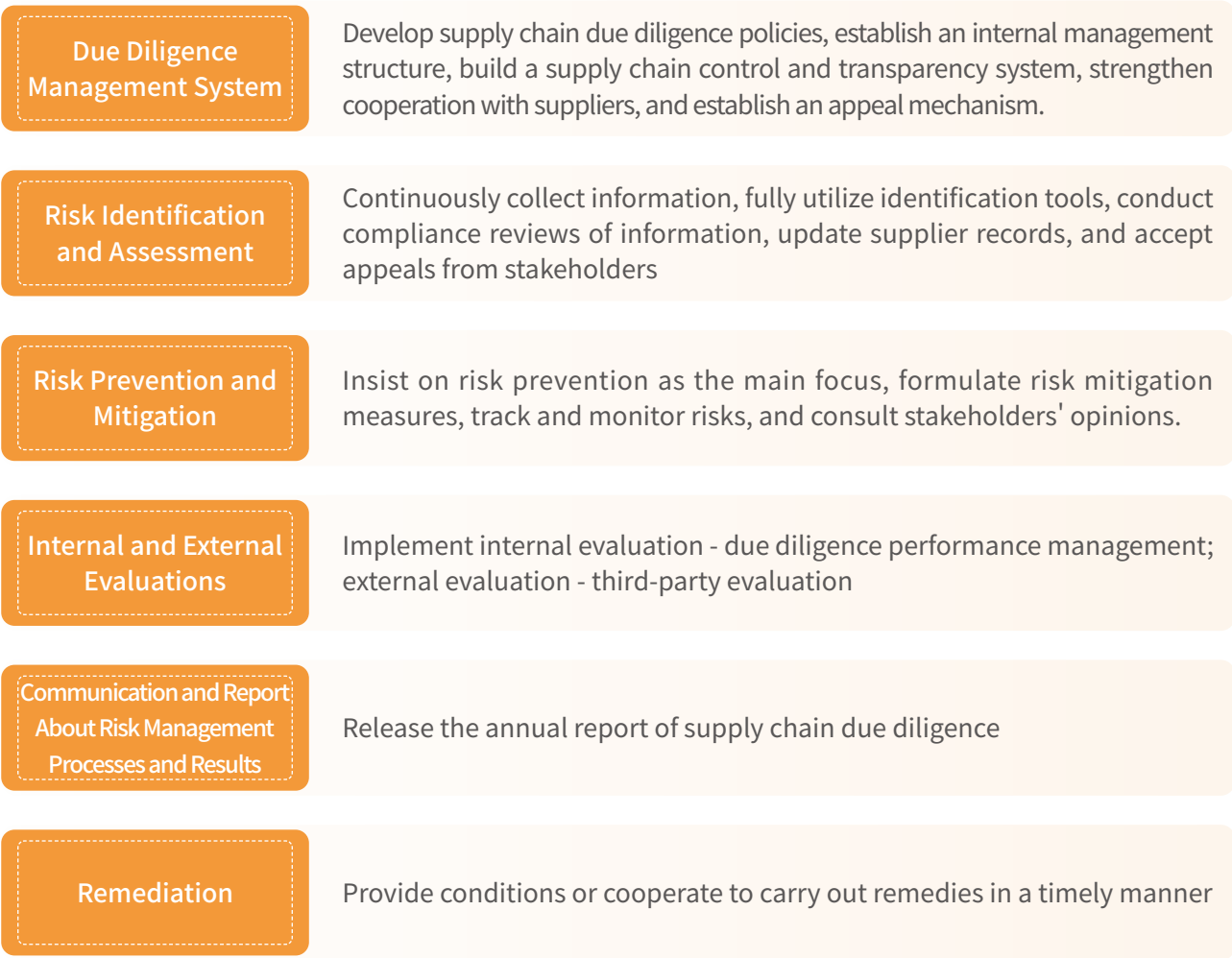
The Company Organized Relevant Personnel to Attend an Online Knowledge Lecture on Network Data Security Standardization

Supply Chain Due Dilligence 「"a Topic of Double Materiality"」

Governance

The Company understands that supply chain management and risk control are key elements of corporate core competitiveness. To ensure the stability and timeliness of raw material supply while controlling costs, the Company has established regulations such as the *Measures for the Administration of Procurement Activities*, the *Measures for the Administration of Suppliers*, the *Measures for the Administration of Electronic Procurement Platform*, and the *Measures for the Administration of Procurement Review Expert*. In supplier management, the Company implements a supplier grading system and evaluates suppliers' performance and capabilities in all aspects. In addition, the Company continuously optimizes the supply chain due diligence system and strictly controls supply chain risks. Through a systematic management strategy, the Company has enhanced its ability to withstand risks and provides a solid guarantee for the Company's sustainable development.

"Six-Step" Supply Chain Due Diligence System Process



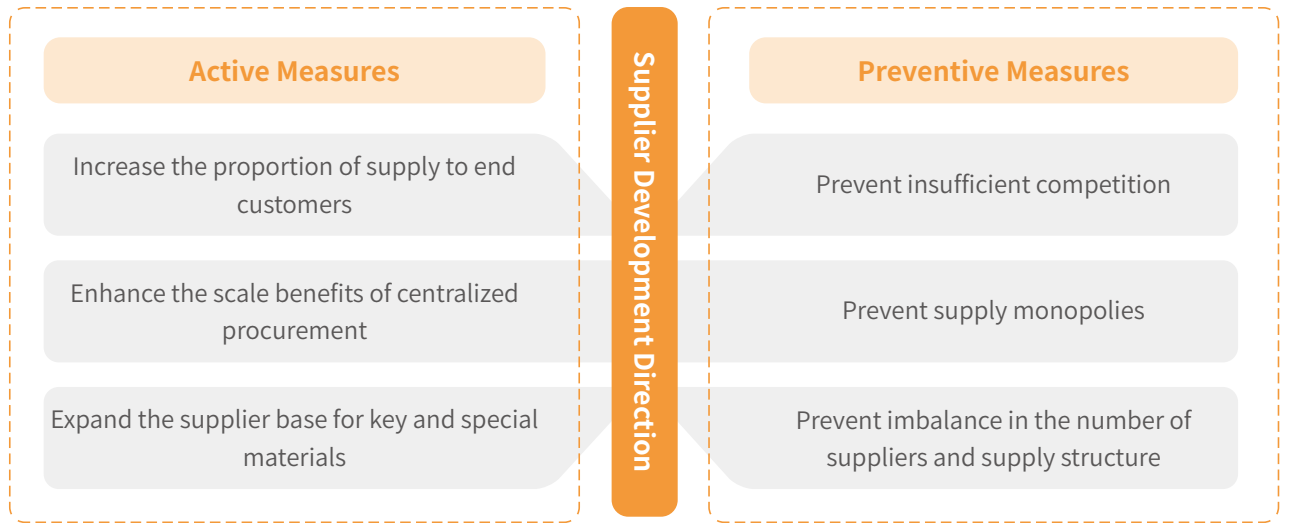
Supplier Performance Evaluation Dimensions



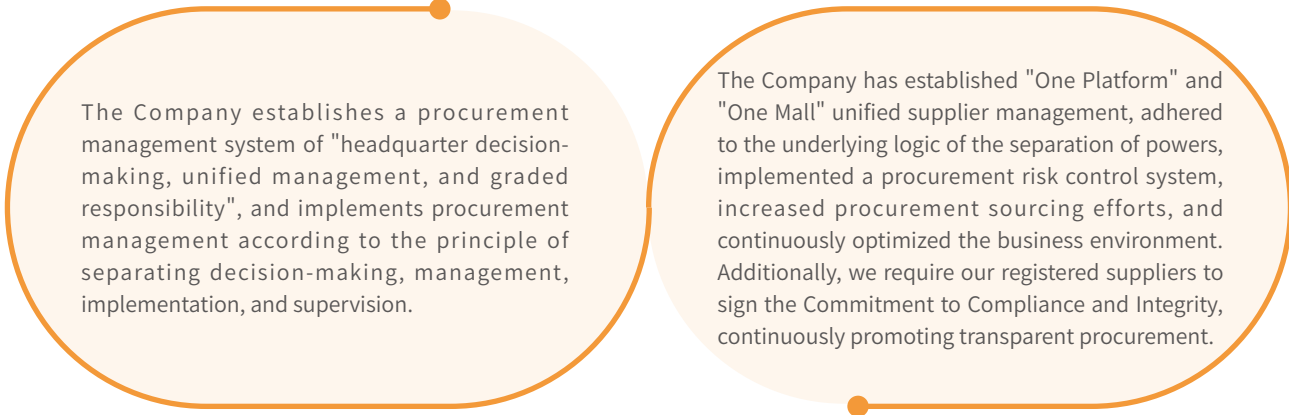
Strategy

The Company has developed systems such as the *Supply Chain Due Dilligence Manual - Tin* and the *Supplier Code of Conduct* to conduct comprehensive, systematic, and dynamic management and supervision of suppliers. This ensures that suppliers remain in a controllable, compliant, and high-quality state throughout the cooperation process, establishing a solid foundation for the supply chain security of the Company.

Supplier Development Direction



Transparent Procurement Mechanism



Case

The Company Offered Training on Supply Chain Due Diligence and Compliance Construction to Enhance Management Capabilities.

To meet the demands of globalization and understand the global mineral supply chain due diligence requirements, as well as the market and customers' expectations for compliance construction in upstream smelting plants, the Company offered training on supply chain due diligence and compliance construction in August 2024. This training covered topics such as international laws and regulations, global mineral competition, and supply chain governance, helping the Company learn and master ways to address supply chain compliance challenges and improve its capabilities in mineral supply chain due diligence.



The Company Offered Training on Supply Chain Due Diligence and Compliance Construction

Impact, Risk, and Opportunity Management

With increasing external environmental uncertainties, supply chain risk management has become an indispensable part of corporate strategic planning. The Company consistently upholds a rigorous business philosophy, incorporating supply chain risk management into its comprehensive risk management system. Through scientific process design and efficient management mechanisms, it ensures the efficient operation of the supply chain and manageable risks. We are committed to establishing long-term, stable, and mutually trusted relationships with suppliers. Through collaborative management and innovative practices, we jointly address various potential risks, ensuring the resilience and competitiveness of the supply chain and laying a solid foundation for the sustainable development of the Company.

Management Measures for Supply Chain Risks



Strengthening Risk Management in the Procurement Review for Tin-Containing Materials to Ensure the Safety and Compliance of Procurement Activities

The Company systematically collects and organizes information and reports from UN agencies, government departments, industry organizations, and non-governmental organizations, analyzing risk public opinion related to the Company. Providing key support for the compliance review of the Company's tin-containing material procurement business, further ensuring the stability and continuity of the supply chain.

Requirements for Supply Chain Due Dilligence



Requirements Regarding Serious Infringements Related to Mineral Extraction, Transportation or Trade

When conducting procurement or business activities in "conflict-affected and high-risk areas", we neither tolerate nor profit from, assist, support, or facilitate any party in implementing: any form of torture, cruel, inhuman, or degrading treatment; any form of forced or compulsory labor. Forced or compulsory labor refers to any work or service extracted from any individual under the threat of punishment, which the person does not voluntarily provide; the worst forms of child labor; other severe human rights violations, such as widespread sexual violence; war crimes or other serious violations of international humanitarian law, crimes against humanity, or genocide.



Requirements Regarding Direct or Indirect Support to Non-State Armed Groups

We will not tolerate providing direct or indirect support to non-state armed groups through mineral extraction, transportation, trade, processing, or export. The act of "providing direct or indirect support to non-state armed groups through mineral extraction, transportation, trade, processing, or export" includes, but is not limited to, purchasing minerals from non-state armed groups or their affiliates, making payments to them, or providing logistical support, equipment, or other assistance.



Requirements Regarding Public or Private Security Forces

We prohibit providing direct or indirect support to public or private security forces that illegally control mining sites, transportation routes, and upstream entities in the supply chain, such as illegally imposing taxes or demanding money or minerals at mining site entrances, along transportation routes, or at mineral trading points, or imposing illegal taxes or extorting intermediaries, export companies, or international traders.



Requirements Regarding Bribery, Corruption, and Fraudulent Misrepresentation of Mineral Origin

We will not offer, promise, engage in, or demand any bribes, and we resist temptation. We will not bribe to conceal or falsify the origin of minerals, or to falsely report taxes, fees, and royalties that shall be paid to the government for mineral extraction, trade, processing, transportation, export, etc.

Metrics and Targets

The Company continuously promotes the healthy development of the supply chain from bottom to top, maintaining a good industry chain ecosystem.

In 2024, the Company achieved a **100%** signing rate for the Supplier Compliance and Integrity Commitment Letter.

Employees

A high-quality and diverse workforce is not only the key to achieving the Company's strategic goals but also an important manifestation of the Company's social responsibility. The Company regards talent management as a key part of its operations and is committed to establishing a complete and efficient management system in employee recruitment, rights protection, development and training, as well as occupational health and safety. This ensures that the legal rights and interests of every employee are fully respected and protected, and that employees are offered opportunities to realize their personal value and career growth.

● Employment

The Company firmly implements the "talent-driven development" strategy, and adheres to the principles of openness, fairness, justice, and merit-based selection in talent recruitment. We strictly prohibit the employment of child labor and forced labor, oppose all forms of discrimination, and insist on building a diverse talent system. Moreover, we value internal human resources, regularly analyze internal human resource needs, and actively promote talent mobility, to ensure the efficient utilization of talent within the Company.

● Recruitment Principles of HR Department ●

Ensuring Open,
Fair, Just and
Merit-Based
Recruitment

Adopting
Multi-Faceted
Approaches
and Multiple
Measures



Introducing
both Talent and
Intelligence
and Prioritizing
Equally both
Human and
Intellectual
Resources

Seeking
Talent with
Morality and
Competence
While Giving
Priority to
Morality

● Open, Fair, and Just Recruitment Process ●

Open Recruitment

- The Company shall clearly define recruitment plan, procedures, information release, recruitment discipline, supervision channels, and other recruitment requirements.
- The recruitment plan shall not lack details such as the recruitment positions and conditions, number of recruits, recruitment schedule, and recruitment methods.
- Recruitment information shall be publicly released through channels such as government websites, company websites, employer websites, third-party service agency websites, broadcast TV, newspapers, magazines, new media, etc.

Fair and Just Recruitment

- The Company shall:
- Never set any discriminatory conditions based on ethnicity, race, gender, religious beliefs, etc;
- Never set any conditions unrelated to recruitment positions;
- Never set limits such as graduation schools, household registration, marital status, etc.;
- Never lower or raise any recruitment conditions in the same recruitment batch;
- Post the recruitment results on the Company's official website, bulletin board, or other public media, disclose the contact phone number and address of the disciplinary department for reporting and supervision, and ensure the announcement period is no less than 7 days.

● Efficient Utilization of Internal Human Resources ●

The Company implements periodic human resource inventories, regularly conducts surveys of human resource conditions in each department and subsidiary, collects and grasps human resource demand information in a timely manner, analyzes the objectivity and necessity of the demands, and provides internal human resource supply and demand information to each department and subsidiary. The Company also supports and services the movement of internal human resources.

After analysis and assessment, if the Company determines that some positions can be prioritized by internal staff transfer or competitive open selection to meet the demand, it will proactively communicate and coordinate to efficiently utilize existing human resources.

Key Performance



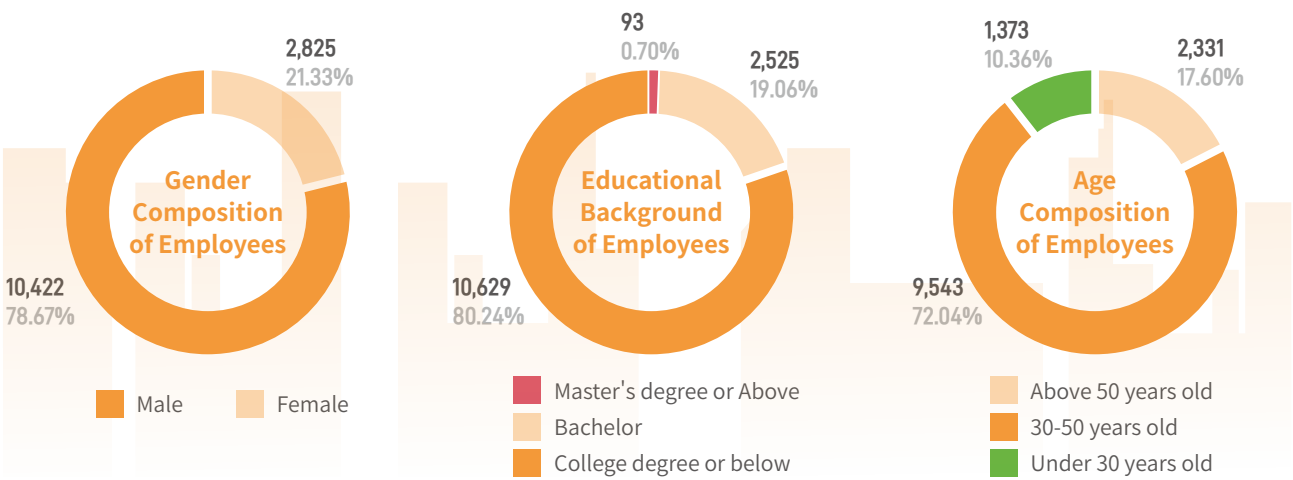
In 2024,

The total number of employees in the Company was **13,247**, of which **11,516** were local employees, accounting for **86.93%**;

The proportion of full-time employees was **100%**;

The number of newly hired employees was **163**;

The turnover rate of employees (including retired employees) was **5.16%**.



	Number	Proportion
Number of Employees of Minority Nationalities	4,771	36.02%
Number of Employees with Disabilities	115	0.87%
Number of Veteran Employees	622	4.70%

Employment of Relevant Employees in 2024

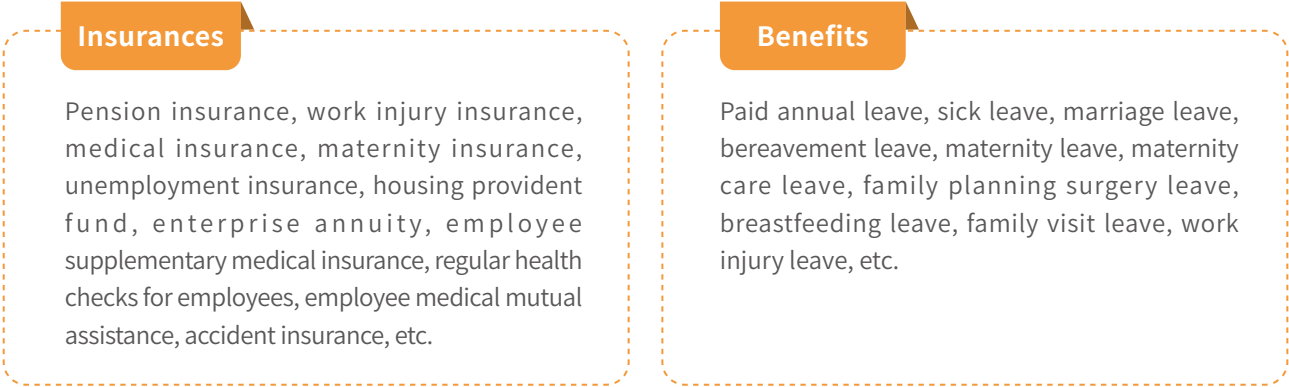
● Protection of Rights and Interests

The Company always adheres to the "people-oriented" philosophy. We are committed to building a fair, transparent, and competitive compensation system. Through a diversified salary structure, we ensure that employees' hard work is reasonably rewarded and provide employees with smooth performance appeal channels. The Company places great importance on employees' welfare protection, constantly improving welfare policies, and providing comprehensive care and support to help employees achieve a balance between work and life. We strictly abide by and implement the policies and regulations set by the higher authorities, such as the *Measures for Pairing Assistance of Employees in Difficulty* and the *Measures for the Administration of Archives of Employees in Difficulty* among other 9 policies aimed at helping employees in need, providing comprehensive guarantee for the Company's employees facing difficulties.

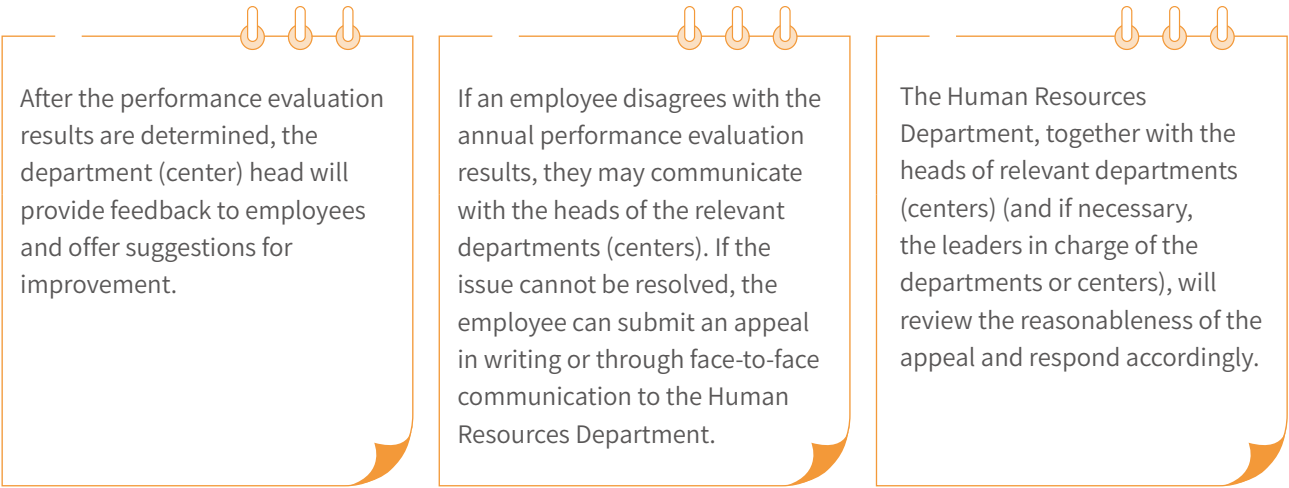
● Remuneration Structure and Influencing Factors ●



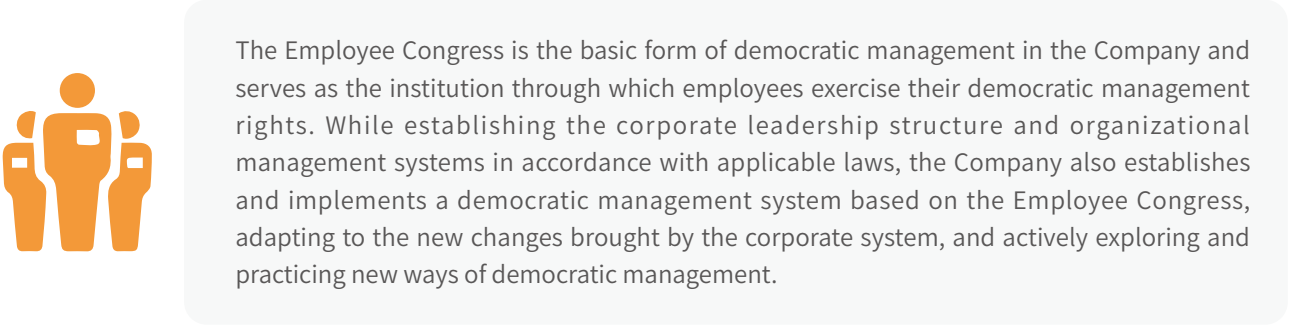
● Employee Welfare ●



● Performance Appeal Mechanism ●



● Employee Congress System ●



Key Performance

In 2024, the Company assisted **503** employees in difficulty, with the fund for assistance amounting to RMB **1.8346** million. The employee social security coverage rate is **100%**.

Case

The Company Convened the Employee Congress to Encourage Employees to Participate in the Decision-Making for Internal Affairs

In February 2024, the Company held the third meeting of the second Employee Congress, with 206 participants. At the congress, the Company listened to and reviewed documents such as the *Measures for the Administration of Total Wages of Yunnan Tin Co., Ltd.* and the *Measures for the Administration of Performance Evaluation and Compensation of Middle Management of Yunnan Tin Co., Ltd.* The Company received 9 proposals. During the proposal handling process, several issues concerning employee protection were resolved, such as reducing manual labor intensity and opening channels for querying individual accounts of the Company annuity. The congress reflected the democratic nature of the Company's management, encouraged employees to actively participate in the discussion and decision-making of company affairs, and enhanced employees' sense of belonging and responsibility.

Case

The Company Addressed Wage Arrears to Protect the Rights and Interests of Migrant Workers

In November 2024, the Company launched the winter action to address wage arrears. This action, based on the general requirements of treating the source, preventing risks, strengthening supervision, severe punishment, and ensuring a bottom line, focused on the construction project field, ensuring that migrant workers participating in the projects receive their due compensation in a timely manner. At the same time, it ensures that cooperative units do not face wage arrears or major mass incidents, extreme events, or negative online public opinion caused by wage arrears. After the Company's inspection, Yunnan Tin and its affiliated units have paid migrant workers in accordance with the contractual agreements and project settlement conditions, with no wage arrears. The action effectively protected the rights of migrant workers, and maintained and enhanced the Company's brand image.

Case

The Company Provided Work-Study Positions to establish a "Self-Sustaining" Assistance Mode

In 2024, the Laochang Branch provided work-study positions for the children of employees in difficulty, aiming to allow the children of these employees to receive living allowances while gaining work experience. The act mainly arranged for the children of employees in difficulty to participate in tasks such as organizing employee files and assisting with various aid projects. It also enabled the children of employees in difficulty to earn labor compensation and gain social practice experience, promoting the transformation of the aid model from "blood transfusion-type" to "self-sustaining-type", demonstrating the Company's original mission and commitment to serving and uniting employees through practical actions.

Case

The Company Launched the Golden Autumn Education Assistance Event to Reduce the Financial Burden on Families of Employees in Difficulty

In 2024, to continue implementing the "1+10" assistance service system for employees in difficulty, the Company launched the Golden Autumn Education Assistance Activity to actively help families of employees in difficulty alleviate the financial strain of their children's education. The event provided financial subsidies to 47 children of employees in difficulty who participated in the high school or college entrance examinations and were admitted, with a total subsidy of RMB 267.5 thousand, including RMB 80.3 thousand from the Company. It also effectively reduced the financial burden on families of employees in difficulty, reflecting the Company's care for its employees and allowing them to focus more on their work with peace of mind.

Case

The Company conducted the "Sending Coolness" Event to Enhance Employees' Sense of Belonging

In July 2024, the Company organized the "Union Warmth Reaches Thousands of Families" sending coolness activity. This activity provided cooling and heat-relieving "coolness packages" to 10,821 frontline employees who work in high (low) temperature environments, high-altitude environments, or harsh, dirty, tiring, and dangerous job positions. The packages contained cooling devices, cooling products, summer beverages, and other materials. The total expenditure for the activity was RMB 1.069 million. This activity reflected the Company's concern and respect for its frontline employees and enhanced employees' sense of belonging and recognition.



The Company Organized the "Sending Coolness" Event

Case

The Company Carried Out Warmth-Giving Activities on Holidays to Further Enhance Employee Happiness

In 2024, the Company carried out warmth-giving activities for employees in difficulty, retired personnel, and frontline employees on the New Year's Day, the Spring Festival, the Mid-Autumn Festival, and the National Day. During the activities, the Company's representatives engaged in an in-depth communication with the recipients, acknowledged the contributions made by employees to the Company's development, distributed consolation funds and gifts, and extended holiday greetings and blessings. A total of 327 people were comforted, further enhancing employee happiness and increasing the Company's cohesion and centripetal force.



The Company Carried Out Warmth-Giving Activities on Mid-Autumn Festival and National Day

Case

The Company Held a Female Health Knowledge Lecture to Raise Female Employees' Self-Protection Awareness

In March 2024, the Laochang Branch invited a professional doctor to hold a female health knowledge lecture titled "Caring for Women's Health, Sharing the Sunshine of Life". More than 70 female employees participated in the lecture. The lecturer, using a combination of images and text, combined clinical experience and real-life cases to provide a detailed introduction to the symptoms and dangers of breast cancer. After the lecture, breast cancer early screening was conducted for the female employees present. The lecture promoted healthy living for women, raised the self-protection awareness of female employees, and enhanced their ability to prevent diseases, reflecting the Company's deep care for female employees.



The Laochang Branch Organized a Female Health Knowledge Lecture and Breast Cancer Screening

Development and Training

In 2024, the Company continued to optimize the talent development environment, create a talent development atmosphere of "respecting labor, respecting knowledge, respecting talent, and respecting creativity", fully leverage the role of outstanding talents as models and leaders, and strengthen the construction of the cadre talent team. We also promoted the integrated development of talent "attraction, training, and utilization" with the goal of learning what is lacking and being practical and effective. The Company adheres to the principle of "Focusing on Internal Training, Supplementing with External Training", increasing the intensity of categorized, layered, and graded training for employees, continuously improving the comprehensive quality and business skills of the workforce.

Career Development System

The Company and its affiliated units have established a "multi-channel" career development system for employees. The headquarters has divided all positions into management and professional sequences. The management sequence consists of 5 levels, while the professional sequence consists of 8 levels. Employees in the management and professional sequences may switch development sequences upon meeting the corresponding conditions.

Employees in the professional sequence can qualify for salary adjustments and career development points through annual performance evaluations, obtaining professional titles/professional (vocational) qualifications, further education, receiving competition awards, and being recognized with honors. When their career development points reach a certain score, they can trigger a salary increase.

Talent Development Reward Scheme

The Company's talent development rewards are available for external talent recruited and internal talent trained in house.

External talent recruited includes three categories: national talent, provincial talent, and high-educated talent.

Internal talent trained includes four categories: national talent, provincial talent, technical talent, and high-qualification talent.

Talent Pool Mechanism

To strengthen, optimize and support the cadre talent team for the high-quality development, the Company has conducted a special talent team survey within its affiliated units. Through interviews, surveys and talent inventory models, the Company guides its affiliated units to establish, improve and dynamically manage talent pools.

Key Performance



In 2024, the Company spent RMB **13.6857** million on employee training, and offered **9,251** training sessions, with a **100**% employee training coverage rate.

The total training duration for employees amounted to **599,281** hours, namely, **129,515** hours for female employees and **469,766** hours for male employees.

The average training duration per employee was **45.24** hours, namely, **45.85** hours for female employees and **45.07** hours for male employees.

In 2024, a total of **93** applications for talent development rewards were submitted, with the amount of reward totaling RMB **1.496** million.

By the end of 2024, there were **834** talents in talent pools. The Company carried out dynamic management of its talent pools in 2024.



Training Programs	Types of Training	Targeted trainee
Tin Talent Plan	Ability Improvement Training for Professional Technical Backbones	Professional technical backbone
Leap Plan	2024 Newcomer Training Camp	Newly hired college graduates
Elite Plan	Business Knowledge Training in Professional Management Fields	Business backbones in professional management fields
Craftsman Plan	Skill Improvement Training for High-Skill Talent	Senior workers and skilled operators
	Training on Three Positions Safety Technologies	Unit heads, safety management personnel, special operations personnel
	Professional Skills Training	Skilled operators

Employee Training Plan i 2024

Case

The Company Organized Training on System Certification Standard Requirements to Enhance Employees' Management Ability

In July 2024, the Company invited experts in system certification to conduct training on system certification standard requirements, with 279 employees participating. Through key point sorting, case interpretation, discussions, and exchanges, the Company employees systematically understood the core content of system management, strengthened their understanding of the necessity and importance of establishing and implementing the "Four Systems," enhanced the Company's personnel awareness of quality, environment, occupational health and safety, and energy management, and helped employees improve their management abilities.



The Company Organized Training on System Certification Standard Requirements

Case

The Company Offered Training on Customs Affairs and Advanced Enterprise Certification to Strengthen Employees' Abilities to Analyze and Solve Problems

In June 2024, the Company organized training on customs affairs and advanced enterprise certification, with 47 employees participating. This training invited experts in the field to explain the origin and trade agreements, origin certificate visa practices, origin certification, and AEO certification enterprise supply chain security to employees, strengthening their ability to analyze and solve problems in this area, further developing employees' thinking and knowledge systems.

Occupational Health and Safety

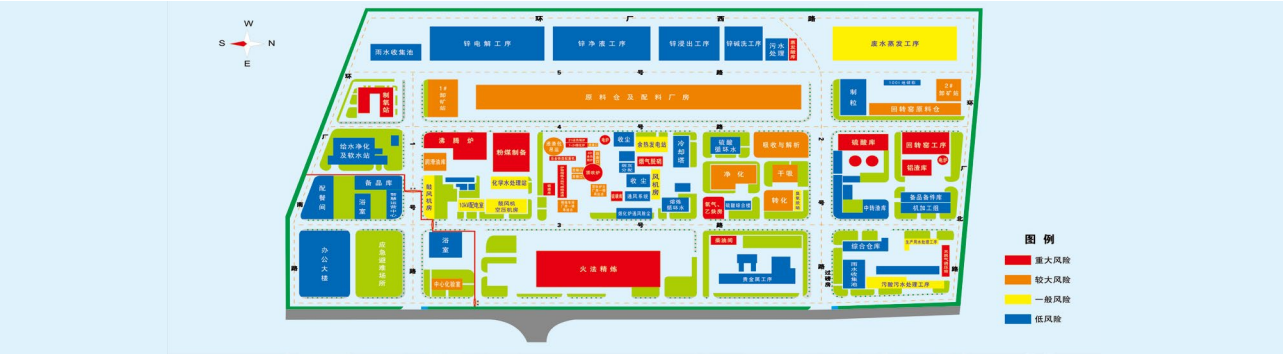
In accordance with the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, the *Law of the People's Republic of China on Work Safety*, and the *Measures for the Administration of Emergency Response Plans for Production Safety Accidents*, the Company has developed systems such as the Measures for the Administration of Occupational Health, the Safety Production Responsibility Regime and the Comprehensive Emergency Plan for Production Safety Accidents, establishing a sound occupational health management and safety production management system. The Company's Secretary of the Party Committee, Chairman, and General Manager jointly serve as the main responsible persons for safety production to strengthen the operation control of the safety production management system, continually eliminating or reducing employees' occupational health and safety risks.



Health and Safety Dual Prevention Mechanism

In terms of the occupational health and safety management system, the Company has established a unified set of 17 basic management processes and 9 occupational health and safety management processes. Related management and operations are carried out according to the work methods, content, and requirements of process management. Through systematic and structured management control, various risks are effectively managed and controlled.

In terms of safety standardization, all company units have completed safety production standardization construction according to the 8 standard modules and are operating regularly. The Company has basically achieved systematic occupational health and safety management, standardized job operation behaviors, intrinsic safety of equipment and facilities, and designated placement of work environment tools, forming a self-management and self-improvement mechanism.



Four-color map of Tin Branch security risks

Occupational Health and Safety Management System Certification

Key Performance

In 2024,

- The work-related injury rate was **0.13%**;
- The injury rate per million working hours was **0.67** person-times/million working hours;
- The workdays lost due to occupational injury were **7,156** days;
- The participants in safety training sessions were **242,352** person-times;
- Invested RMB **266.7975** million in safety production;
- The investment in occupational injury insurance investment was RMB **25.1461** million, with a coverage rate of **100%** for all employees;
- The investment in safety production liability insurance was RMB **1.6924** million, with a coverage rate of **100%** for all employees;

In 2024, the Company did not have any major or above production safety accidents.

In 2024, the Company organized **9,013** employees exposed to dust and toxins to participate in occupational health check-ups. Each subsidiary unit completed the detection, public disclosure, and reporting of occupational hazard factors for each position.

In 2024, the Company organized **181** practical emergency drills, with **3,890** participants and observers. The Company also organized **128** emergency training sessions for production safety accidents, with **4,891** participants.

By the end of 2024, the Company had identified a total of **10,098** safety risks, with **554** new risks added in 2024, all of which were evaluated and classified.

In 2024, the Company updated **42** safety risk four-color distribution maps based on changes in risk distribution.

Safety Production Policy



Safety First



Prevention Foremost



Comprehensive Governance

Management Measures for Safety Production in 2024



Potential Hazard Identification and Rectification, as well as Process System Safety Improvements

- Datun Tin Mine, Laofactory Branch, and Kafang Branch optimized the underground ventilation system
- Datun Tin Mine promoted the application of lightweight mobile temporary support devices for underground mining surfaces
- Hualian Zinc Indium completed the construction of the monitoring system for mine slopes and waste dumps and connected it to the provincial monitoring platform
- Kafang Branch carried out special rectification for ramp safety and built flood interception ditches



Exploration of Safety Management Models

- Copper Branch explored and promoted the "safety lock" control method for high-risk operations, further improving the risk control level for high-risk operations
- Wenshan Zinc Indium relied on the safety and environmental control platform to establish an online exam module for employee safety education and training and promotes its application



Increase of Investment in Emergency Equipment

- Wenshan Zinc Indium newly configured 6 sets of defibrillators and conducts operational skills training
- Each unit is equipped portable leak detectors, emergency shower devices, air respirators, emergency medications, and other types of emergency equipment and supplies based on the risk characteristics of different positions and maintains daily maintenance

Case

The Company Organized Safety Production Month Event to Enhance Employees' Safety Awareness and Emergency Response Capabilities.

In June 2024, the Company held Safety Production Month activities. The event themed "Everyone Talks Safety, Everyone Can Handle Emergencies—Smoothing Life Channels" was carried out through various forms such as "walking classrooms", setting up consultation desks, distributing safety production knowledge handbooks, displaying popular science exhibition boards, interactive Q&A, and experience activities, to carry out safety production theme publicity and education. A total of about 900 promotional materials were distributed, and 64 promotional exhibition boards were displayed, effectively raising employees' safety awareness and emergency response capabilities, and laying a solid foundation for strengthening the Company's safety defense line.



Safety Production Month Event

Case

The Company Organized Publicity for the Law of the People's Republic of China on Prevention and Control of Occupational Diseases to Create an Environment Where All People Value Occupational Health

In April 2024, the Company organized an event themed "Prioritizing Prevention, Guarding Occupational Health" to promote the Law of the People's Republic of China on Prevention and Control of Occupational Diseases. The event invited professionals to deliver lectures on occupational health monitoring knowledge and occupational disease prevention and control knowledge, along with practical demonstrations of emergency self-rescue and mutual rescue skills. At the same time, the event used banners, screens, windows, and other promotional media to publish occupational disease prevention and control knowledge, distributing 3,433 related promotional materials, reaching an audience of 10,247 people. This event not only improved employees' occupational health literacy and emergency response abilities but also created an atmosphere in which all parties value occupational health, which is of great significance for safeguarding employee health and promoting enterprise development.



Publicity for the Law of the People's Republic of China on Prevention and Control of Occupational Diseases

● Measures for the Administration of Training on Safety Production ●

Employees involved in safety training include primary responsible persons, safety production management personnel, special operations personnel, and other workers.

Employees shall receive safety training, be familiar with relevant safety production regulations and safety operating procedures, possess necessary safety production knowledge, master safety operating skills for their positions, understand emergency handling measures for accidents, and get aware of their rights and obligations in safety production.

Employees who have not passed safety training are not allowed to work.

Case

The Company Conducted Specialized Safety Training to Enhance Hazard Prevention Awareness

In December 2024, the Company organized a safety-focused training session for the mining and industrial sectors, with more than 150 participants. This training covered topics such as safety production-related laws and regulations, risk identification and hazard investigation, emergency plans, etc., helping various safety-related personnel further strengthen their awareness of hazard prevention, improve the Company's response ability when handling safety incidents, and ensure the Company's safe production.



The Company Conducted Specialized Safety Training for the Industrial and Trade Sector

● Emergency Response Plan for Production Safety Accident ●

Alert Evacuation

Quickly delineate the alert area, set up obvious markers such as warning zones, fences, etc.; evacuate personnel unrelated to emergency handling from the alert area, promptly notify units and personnel who might be affected by the incident to reduce unnecessary casualties; deploy alert personnel, prohibit unrelated personnel from entering the alert area; record and mark the original state of the accident site, protect the accident scene and related evidence, and cooperate with the rescue team to organize rescue operations.

Personnel Search and Rescue and Engineering Emergency Rescue

At the first moment of an accident, carry out personnel search and rescue and engineering emergency rescue. Depending on the nature of the accident, bring special protective equipment, specialized tools, and safety protective clothing, and quickly reach the designated site. After the accident occurs, quickly control, clear, or isolate hazardous sources to prevent secondary accidents, while organizing the search and rescue of endangered personnel. The initial response personnel at the scene cooperate with the rescue team to rescue the injured in a timely manner, take necessary measures to prevent the accident's impact from expanding, and prevent secondary and derivative disasters from occurring.

Medical Treatment

Prepare relevant rescue equipment and medicines according to the information provided by the alarm and the nature of the accident, quickly arrive at the designated site, provide immediate first aid and bandaging based on the injured personnel's condition, ensure proper arrangements for their transfer to medical facilities, and avoid causing secondary injuries to the injured personnel when providing first aid and bandaging.

On-site Monitoring and Environmental Protection

Strengthen emergency monitoring of air, water, soil, etc. Based on the types, properties of pollutants, and the local natural and social environmental conditions, define the corresponding emergency monitoring plans and methods, determine the monitoring locations and frequency, allocate emergency monitoring equipment and vehicles, and monitor in a timely and accurate manner to provide a basis for emergency decision-making. Properly collect, clean, and safely dispose of toxic and hazardous substances, as well as fire-fighting wastewater, waste liquids, etc.

Technical Support

The expert technical team analyzes the hazardous factors and risks within the impact range of the accident and proposes control measures; analyzes the development trend of the accident and proposes preventive measures to prevent the accident from spreading; provides timely technical consultation for the rescue site; researches and proposes solutions for technical difficulties encountered during the on-site emergency rescue operation.

Case

The Company Conducted Emergency Drills for Production Safety Accidents to Improve Emergency Rescue Capabilities

In June 2024, the Company conducted a joint emergency drill for a slope collapse accident at an open-pit mine. The drill simulated a slope collapse accident in an open-pit mine after continuous rainfall, resulting in the burial of some equipment and personnel being trapped in an emergency situation. Emergency personnel immediately took the corresponding actions according to the emergency plan requirements and successfully completed the drill. The drill further promoted the implementation of emergency management responsibilities, strengthened safety production responsibilities, and effectively improved the emergency rescue capabilities for non-coal mining accidents.



The Company Conducted Emergency Drills for Production Safety Accidents

Social Contribution

Conducting public welfare activities is an important manifestation of the Company's commitment to social responsibility. The Company continuously gives back to society in various ways, focusing on areas such as education, health, and elder care. In the education field, the Company cares about students' academic and living conditions; in health, the Company focuses on various groups in need of medical assistance; and in elder care, the Company emphasizes both spiritual and practical support for the elderly. Through social welfare activities, the Company not only contributes to society but also enhances employees' sense of social responsibility and team cohesion. The Company will continue to work hard, spreading love and warmth through practical actions, allowing the flower of public welfare to bloom in more places.

Key Performance



In 2024,
1,059 person-times of employees participated in the volunteer activities;
The average volunteer service time was **216.8** hours per person.

Case

Laochang Branch Conducted Volunteer Activities to Care for Students' Learning and Life

In April 2024, the Laochang Branch conducted a volunteer service activity themed "True Love Warms Children's Hearts and Devoted Companionship Ensures Their Healthy Growth" at an elementary school campus. During the activity, volunteers learned about the students' academic and living conditions, offered encouragement in their studies and daily lives, and provided them with stationery, basketballs, and other items. The volunteer service activity aimed to care for the growth of students, help them establish a correct view of life, cultivate a positive and uplifting spirit, and demonstrate the Company's sense of social responsibility.



Laochang Branch Organized Campus Volunteer Service Activities

Case

Laochang Branch Organized Blood Donation to Demonstrate Responsibility and Commitment through Practical Actions

In September 2024, the Laochang Branch organized a voluntary blood donation activity, with 47 employees participating. During the activity, employees followed the guidance of staff to complete processes such as form registration, physical examination inquiries, initial screening tests, and listened attentively to the medical staff's explanations of blood donation knowledge and precautions, before successfully completing the blood collection. This voluntary blood donation fully demonstrated the employees' high social responsibility, enthusiasm for public welfare, and willingness to contribute. The Company will continue to strengthen publicity efforts, encouraging more employees to actively participate in public welfare activities and demonstrate responsibility and commitment through action.



Laochang Branch Organized Voluntary Blood Donation

Case

Tin Branch Organized the Elderly Care Event on the Double Ninth Festival

In October 2024, with the arrival of the Double Ninth Festival, Tin Branch organized an event themed "Filial Piety Comes First". The event provided the elderly with living supplies and holiday blessings, and invited an art troupe to perform a dance for the elderly. In addition, the event included a fun quiz to educate the elderly on health and anti-fraud knowledge, as well as offering free medical services such as blood pressure measurements, supporting the elderly in maintaining a healthy life. The event reflected the Company's care for the elderly, showcased the Company's responsibility and commitment, and further promoted the social ethos of respecting and caring for the elderly.



Tin Branch Organized the Elderly Care Event on the Double Ninth Festival

Rural Revitalization

The Company always considers consolidating and expanding the achievements of poverty alleviation and effectively connecting them with rural revitalization as a top priority and a social responsibility it shall fulfill, firmly safeguarding against any large-scale return to poverty. The Company focuses on improving the development level of rural industries, enhancing rural construction standards, and advancing rural governance levels. We take measures to promote continuous income growth for people lifted out of poverty, help rural areas achieve comprehensive development in ecological livability, thriving industries, and effective governance, so that the people in rural revitalization can have more sense of achievement and happiness.

Key Performance



In 2024,
The investment in rural revitalization amounted to RMB **1.9804** million;
The number of people assisted reached **5,491**.

Case The Company Participated in the "Purchase-for-Assistance" Event to Consolidate Poverty Alleviation Achievements

In 2024, the Company organized some of its grassroots units to participate in the "Purchase-for-Assistance" event in Mazong Village. The Company cooperated with the Lvxing Cooperative to purchase 25.24 tons of terraced red soft rice planted by poor households, at a total price of RMB 367,300. The event effectively promoted the sale of local specialty agricultural products and helped poor households increase their income through consumption-based assistance. It further deepened the Company's connection with rural areas and consolidated the results of poverty alleviation.



The Company Participated in the "Buy Instead of Help" Event at Mazong Village

Case The Company Supported the Construction of Rural Infrastructures to Improve Local Living Environment

To achieve the goal of "building beautiful ecology and livable environment, helping people enjoy peace and prosperity in work and life", the Company invested RMB 552,400 to support infrastructure construction in 2024, which was used for the repair of infrastructure in four villages: Mazong Village, Shierjiao Village, Shangchenong Village, and Xiaboyi Village, including the construction of suspended road sections. The construction of the suspended road section addressed the practical needs of the villagers, helped improve the local living environment, enhanced the quality of life of the people, and further promoted rural revitalization.



悬空路段建设情况

Industry Co-construction

The Company understands that the development of the industry relies on collaborative cooperation from all parties. Therefore, we treat small and medium-sized enterprises equally and actively collaborate with companies within the industry and industry associations to jointly build a healthy and sustainable industrial ecosystem. By participating in the formulation of industry standards, resource sharing, and technological exchanges, the Company helps the industry break through bottlenecks and promote technological innovation. Moreover, we regularly participate in industry exchange activities, build communication bridges, and promote the sharing of knowledge and experience. We firmly believe that only in an open and cooperative atmosphere can the industry thrive. In this process, we will realize our own value and growth and make a greater contribution to the long-term development of the industry.

Accounts Payable and Overdue Payment

The Company firmly maintains a healthy industry ecosystem and treats small and medium-sized enterprises equally. At of the end of 2024, the balance of accounts payable (including accounts payable notes) was RMB 1.4 billion, accounting for 3.82% of the total assets.

S/N	Standard Name/Relevant Content	Type of Standard	Organization or Participation	Compilation Unit
1	Full English Translation of Tin Ingot	National Standard	Organization	Yunnan Tin
2	Green Factory Evaluation Requirements for Tin and Tin Alloy Production	Industrial Standard	Organization	Yunnan Tin
3	Methods for Chemical Analysis of Cast Bearing Metals – Part3: Determination of Antimony Content – Cerium Sulfate Titrimetric Method and Potassium Bromate Potentiometric Titration Method	Industrial Standard	Participation	Yunnan Tin
4	Management Rules of Heavy Non-Ferrous Metals Enrichment and Metallurgy Balance	Group Standard	Participation	Yunnan Tin
5	Copper Matte	Group Standard	Participation	Yunnan Tin
6	Zinc Stannate	Group Standard	Participation	Yunnan Tin
7	Methods for Chemical Analysis of Zinc Stannate – Part 1: Determination of Zinc Content - Potassium Iodate Titration	Group Standard	Participation	Hualian Zinc Indium
8	Methods for Chemical Analysis of Zinc Stannate – Part 2: Determination of Zinc Content - Na2EDTA Titration Method	Group Standard	Participation	Hualian Zinc Indium
9	Methods for Chemical Analysis of Tin – Part 1: Determination of Copper, Lead, Zinc, Cadmium, Silver, Nickel and Cobalt Contents – Flame Atomic Absorption Spectroscopy	National Standard	Organization	Yunnan Tin
10	Tin Balls	行业标准	Organization	Yunnan Tin
11	Arsenic Trioxide	National Standard	Participation	Yunnan Tin
12	Specification for Limit on Harmful Element Content of the Heavy Nonferrous Metal Concentrates	National Standard	Participation	Yunnan Tin
13	Stannous Iso Caprylate	Industrial Standard	Participation	Yunnan Tin
14	Methods for Chemical Analysis of Copper, Lead, Zinc Original and Tailing Ores - Part 2: Determination of Lead and Zinc Content - Na2EDTA Titration Method	Industrial Standard	Participation	Hualian Zinc Indium

S/N	Standard Name/Relevant Content	Type of Standard	Organization or Participation	Compilation Unit
15	Methods for Chemical Analysis of Copper, Lead, Zinc Original and Tailing Ores - Part 6: Determination of Copper, Lead, Zinc, Nickel, Cobalt, Cadmium, Magnesium, Manganese, Arsenic, and Molybdenum Content - Inductively Coupled Plasma Atomic Emission Spectroscopy	Industrial Standard	Participation	Hualian Zinc Indium
16	Technical Guidelines for the Construction of the Dual Prevention Mechanism for Environmental Risks in Industrial Enterprises - Identification and Classification of Pollution Sources	Group Standard	Participation	Yunnan Tin

Participation of the Company and its Subsidiaries in the Formulation and Revision of Standards in 2024

Case

Representatives of the International Tin Association Visited the Company for Exchange and Discussion on Industry Development

In November 2024, representatives of the International Tin Association visited the Company for a tour and exchange, discussing supply chain due diligence. During the visit, the guests toured the Datun Tin Mine, Tin Branch, and conducted on-site inspections of the Intelligent Operations Center, the Top-Blown Furnace Main Control Room, the Tin Cultural Corridor, 5G Intelligent Warehousing, and the Raw Material Warehouse, gaining a deep understanding of the Company's mining, beneficiation, and smelting production processes. Both parties engaged in in-depth discussions on system optimization, risk management, and mining source conditions, and shared insights on how to improve the effectiveness of supply chain due diligence and promote cooperation and development among stakeholders. This further deepened mutual cooperation and consensus in the field of supply chain due diligence.



Representatives of the International Tin Association Visited the Company for Exchange

Case

The Company Attended the OECD Forum on Responsible Mineral Supply Chains to Promote Harmonious Industry Development

In May 2024, the 17th OECD Forum on Responsible Mineral Supply Chains was held in Paris, France. The forum, a major international event in the field of responsible business conduct, gathered international organizations, standard-setting bodies, auditing organizations, government departments, and upstream and downstream enterprises from the global mineral supply chain. The Company attended the forum and gave a presentation on the Company's supply chain due diligence system and responsible tin supply chain development. The Company advocated for smelting enterprises to emphasize the importance of mining resource source audits, highlighted the feasibility of standards in different regions, and called for better communication between standards and greater recognition across upstream and downstream stakeholders to promote harmonious industry development.



The Company Attended the 17th OECD Forum on Responsible Mineral Supply Chains

Case

The Company Attended the Board Meeting of the International Tin Association to Showcase Its Thoughts on Industry Development

In May 2024, the International Tin Association held its first-half board meeting in Penang, Malaysia, and the Company attended the meeting. The meeting primarily focused on discussing the "Tin 2030" strategy, elaborating on the work plan and measures of "Tin 2030" from the perspectives of strategic framework, sustainable development, technology, and market information. As an important producer in the tin industry, the Company expressed support for the "Tin 2030" strategy, believing it provides clear direction for the future development of the tin industry. In the face of global warming, energy transformation, and the widespread use of smart devices, the tin industry needs to join global counterparts to embrace new opportunities and face new challenges. The meeting demonstrated the Company's reflection on industry development and the responsibility it bears as an important participant in the industry.



The Company Attended the Board Meeting of International Tin Association

Indexes

GRI Standards	Disclosure	Relevant Section
GRI 2: General Disclosures 2021	2-1 Organizational details	About This Report
	2-2 Entities included in the organization's sustainability reporting	About This Report
	2-3 Reporting period, frequency and contact point	About This Report
	2-5 External assurance	Independent Assurance Statement
	2-6 Activities, value chain and other business relationships	About Us
	2-7 Employees	Employees
	2-9 Governance structure and composition	Corporate Governance
	2-10 Nomination and selection of the highest governance body	Corporate Governance
	2-11 Chair of the highest governance body	Corporate Governance
	2-12 Role of the highest governance body in overseeing the management of impacts	ESG Management
	2-13 Delegation of responsibility for managing impacts	ESG Management
	2-14 Role of the highest governance body in sustainability reporting	ESG Management
	2-16 Communication of critical concerns	ESG Management
	2-17 Collective knowledge of the highest governance body	ESG Management
	2-19 Remuneration policies	Employees
	2-20 Process to determine remuneration	Employees
	2-22 Statement on sustainable development strategy	Message from the Chairman
	2-25 Processes to remediate negative impacts	Compliance Risk Control
	2-26 Mechanisms for seeking advice and raising concerns	Compliance Risk Control
	2-27 Compliance with laws and regulations	Compliance Risk Control
	2-29 Approach to stakeholder engagement	ESG Management
	2-30 Collective bargaining agreements	Employees

GRI Standards	Disclosure	Relevant Section
GRI 3: Material Topics 2021	3-1 Process to determine material topics	ESG Management
	3-2 List of material topics	ESG Management
	3-3 Management of material topics	ESG Management
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Performance in 2024
	201-2 Financial implications and other risks and opportunities due to climate change	Addressing Climate Change
	201-3 Defined benefit plan obligations and other retirement plans	Employees
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Rural Revitalization
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Anti-Commercial Bribery and Anti-Corruption
GRI 207: Tax 2019	207-1 Approach to tax	Compliance Risk Control
	207-2 Tax governance, control, and risk management	Compliance Risk Control
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Energy Utilization
	302-3 Energy intensity	Energy Utilization
	302-4 Reduction of energy consumption	Energy Utilization
	302-5 Reductions in energy requirements of products and services	Energy Utilization
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Pollutant Emissions
	303-2 Management of water discharge-related impacts	Pollutant Emissions
	303-3 Water withdrawal	Water Resource Utilization
	303-4 Water discharge	Pollutant Emissions
	303-5 Water consumption	Water Resource Utilization
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Ecosystem and Biodiversity Conservation
	304-3 Habitats protected or restored	Ecosystem and Biodiversity Conservation

GRI Standards	Disclosure	Relevant Section
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Addressing Climate Change
	305-2 Energy indirect (Scope 2) GHG emissions	Addressing Climate Change
	305-4 GHG emission intensity	Addressing Climate Change
	305-5 Reduction of GHG emission	Addressing Climate Change
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Pollutant Emissions
GRI 306: Effluents and Waste 2020	306-1 Waste generation and significant waste-related impacts	Waste Disposal
	306-2 Management of significant waste-related impacts	Waste Disposal
	306-3 Waste generated	Waste Disposal
	306-4 Waste diverted from disposal	Waste Disposal
	306-5 Waste directed to disposal	Waste Disposal
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Employees
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employees
	401-3 Parental leave	Employees
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Employees
	403-2 Hazard identification, risk assessment, and incident investigation	Employees
	403-3 Occupational health services	Employees
	403-4 Worker participation, consultation, and communication on occupational health and safety	Employees
	403-5 Worker training on occupational health and safety	Employees
	403-6 Promotion of worker health	Employees
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Employees
	403-8 Workers covered by an occupational health and safety management system	Employees

GRI Standards	Disclosure	Relevant Section
GRI 403: Occupational Health and Safety 2018	403-9 Work-related injuries	Employees
	403-10 Work-related ill health	Employees
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Employees
	404-2 Programs for upgrading employee skills and transition assistance programs	Employees
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Employees
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Employees
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Product and Service Safety and Quality
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Data Security and Customer Privacy Protection

Shenzhen Stock Exchange Self-Regulatory Guidelines No. 17 for Companies Listed on Shenzhen Stock Exchange—Sustainability Report (for Trial Implementation)	Article	Relevant Section
Chapter III Disclosure of Environmental Information	Article 22	Addressing Climate Change
	Article 23	Addressing Climate Change
	Article 24	Addressing Climate Change
	Article 27	Addressing Climate Change
	Article 28	Addressing Climate Change
	Article 30	Pollutant Emissions
	Article 31	Waste Disposal
	Article 32	Ecosystem and Biodiversity Conservation
	Article 33	Environmental Compliance Management
	Article 35	Energy Utilization
	Article 36	Water Resource Utilization
	Article 37	Circular Economy
	Article 39	Rural Revitalization
Chapter IV Disclosure of Social Information	Article 40	Social Contribution
	Article 42	Innovation-Driven Development
	Article 45	Supply Chain Due Dilligence
	Article 46	Industry Co-construction
	Article 47	Product and Service Safety and Quality
	Article 48	Data Security and Customer Privacy Protection
	Article 50	Employees
Chapter V Sustainability-related Governance Information Disclosure	Article 53	Stakeholder Communication
	Article 55	Anti-Commercial Bribery and Anti-Corruption

Independent Assurance Statement

Infaith Group (hereinafter referred to as "Infaith") has been commissioned by Yunnan Tin Company Limited (hereinafter referred to as "Yunnan Tin") to conduct independent limited assurance of the environmental, social, and governance (ESG) data and information disclosed in Yunnan Tin's 2024 Sustainability Report (hereinafter referred to as the "Report"), and to present the assurance findings and conclusions to the Report's readers and stakeholders via this Independent Assurance Statement.

Independence and Competence

- 1.All members of Infaith's assurance team have no commercial relationships with Yunnan Tin that could result in conflicts of interest. Infaith has independently conducted this assurance engagement.
- 2.Infaith's assurance team comprises industry-experienced professionals who have received specialized training in internationally recognized sustainability standards, such as the Global Reporting Initiative (GRI) Standards, AA1000AS v3, ISO 14001, ISO 26000, SA 8000, and the EcoVadis ratings for global supply chains. The team possesses comprehensive understanding and practical experience in applying international principles, evaluation frameworks, and verification standards.

Assurance Statement

- 1.The management of Yunnan Tin is solely responsible for the preparation and content of the Report. Infaith's responsibility is to conduct assurance within the scope described in this Statement and to provide professional assurance conclusions to the Report's readers and stakeholders.
- 2.Within the limitation of the scope of assurance, Infaith has performed independent limited assurance work and drawn conclusions in accordance with AA1000AS v3 for matters within the defined scope of the Report. Except for providing independent assurance on verified facts related to these conclusions and issuing this Assurance Statement, Infaith assumes no legal or other responsibility for any inquiries for other purposes, nor to any other parties who may read this Independent Assurance Statement.
- 3.Any questions regarding the content or related matters of this Independent Assurance Statement shall be addressed by Yunnan Tin.
- 4.In case of any discrepancies between the Chinese and English versions of this Independent Assurance Statement, the Chinese version shall prevail.

Assurance Standard

Infaith has applied the AA1000AS v3 (Type 2, moderate level of assurance), which includes evaluating Yunnan Tin's adherence to and the extent of its implementation of the four AA1000AS v3 principles: inclusivity, materiality, responsiveness, and impact.

Scope of Assurance

- 1. 1. The assurance scope is limited to the information and data covered in the Report pertaining to Yunnan Tin and its subsidiaries, excluding data and information from suppliers, contractors, or other third parties.
- 2. The AA1000AS v3 Type 2 Moderate level of assurance was employed to assess the nature and extent of Yunnan Tin's adherence to the four principles outlined in AA1000AS v3.
- 3. Yunnan Tin and Infaith mutually agreed to select specific performance indicators from the Report for partial assurance. The selected key performance indicators (KPIs) include:

- Investment in environmental protection
 - Total wastewater discharges
 - Total investment in employee training
- Clean energy consumption
 - Total number of employees
 - Coverage rate of safety liability insurance
- Total exhaust gas emissions
 - Average training hours per employee
 - Customer satisfaction

Assurance Procedure and Work Performed

To obtain evidence supporting our conclusion, we performed the following work:

- 1.Interviews with senior management and staff of Yunnan Tin to gain an understanding of it's overall ESG practices and related processes;
- 2.Verifying key organizational developments and policy implementations, as well as examining supporting evidence for the assertions made in the Report;
- 3.Assessing the Yunnan Tin's key stakeholders, their expectations and concerns, communication channels, and Yunnan Tin's responses through interviews and documentation review;
- 4.Selecting ESG-related disclosures in the Report and performed analytical procedures, evaluating overall performance, and verifying consistency with the reported information;

- 5.Reviewing Yunnan Tin's reporting processes against the AA1000 principles of inclusivity, materiality, responsiveness, and impact to assess the appropriateness of this Assurance Statement;
- 6.Conducting sample testing of supporting evidence to verify the reliability and quality of selected performance data;
- 7.Recalculating selected performance indicators to validate accuracy; and
- 8.Performing additional procedures as deemed necessary.

Conclusion

- 1.Based on the information provided by Yunnan Tin and our sample testing, we confirm that the Report contains no material misstatements.
- 2.In accordance with the AA1000AS v3 principles of inclusivity, materiality, responsiveness, and impact, our detailed assurance findings are as follows:

Inclusivity	The Report demonstrates that Yunnan Tin has implemented key measures to engage stakeholders, understand their expectations and concerns, and facilitate timely communication on material topics. These efforts reflect a responsible and strategic approach to addressing ESG commitments.
Materiality	Yunnan Tin has disclosed material topics that substantially influence its operations, stakeholders, decision-making, and performance. It has evaluated and enhanced its approach to managing these material topics and related performance.
Responsiveness	Yunnan Tin has established policies enabling timely responses to stakeholders’ concerns.
Impact	Yunnan Tin exhibits a robust capability to identify material topics and employs balanced, effective methods for assessment and disclosure. It has established systematic processes to monitor, measure, evaluate, and manage impacts, supporting informed decision-making and transparent reporting of ESG performance.

- 3.Based on the procedures performed and evidence obtained, we have no reason to doubt the reliability and quality of the selected key performance indicators disclosed in the Report.

Limitation

The assurance engagement was conducted within the scope and locations specified in the report; and

As there are no internationally recognized or universally applicable standards for the evaluation and measurement of non-financial information, the use of different but equally acceptable methodologies and measurement techniques may affect comparability with other organizations.

For any inquiries regarding this Assurance Statement, please contact us in the following ways:

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Authorized signature: 

Infaith Group
Shanghai, March 2025



Reader Feedback Form

Dear readers,

Hello!

Thank you very much for taking the time to read the 2024 Sustainability Report of Yunnan Tin Co., Ltd. To provide you and other stakeholders with more valuable information and effectively promote the Company's improvement of ESG management capability and level, we sincerely look forward to your feedback and suggestions.

Multiple Choice (Please check ☐ in the appropriate box)

1. Your overall assessment of the report:

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

2. Does this report address and disclose the issues that are of concern to stakeholders?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

3. How do you think Yunnan Tin has performed on environmental topics?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

4. How do you think Yunnan Tin has performed on social topics?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

5. How do you think Yunnan Tin has performed on corporate governance topics?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

6. Do you think the information, indicators and data disclosed in this report is clear, accurate and complete?

☐ Very Good ☐ Good ☐ Average ☐ Below Average ☐ Poor

7. Do you think the organization and layout design of this report are easy to read?

☐ Yes ☐ No

Open-ended Question

What are your opinions and suggestions regarding the ESG work of Yunnan Tin?



云南锡业股份有限公司

YUNNAN TIN COMPANY LIMITED