Zijin Mining Group Co., Ltd.*

紫金礦業集團股份有限公司

(a joint stock limited company incorporated in the People's Republic of China with limited liability)

(Stock code: 2899)

2021 Environmental, Social and Governance Report

Attached herewith the 2021 Environmental, Social and Governance Report of Zijin Mining Group Co., Ltd.* (the "Company") for the period from 1 January 2021 to 31 December 2021.

Investors and shareholders are advised by the board of directors to exercise caution when dealing in the securities of the Company.

This report is written in both Chinese and English. In the case of any discrepancies, the Chinese version shall prevail.

As at the date of this announcement, the Board of Directors of the Company comprises Messrs. Chen Jinghe (Chairman), Lan Fusheng, Zou Laichang, Lin Hongfu, Ms. Lin Hongying and Mister Xie Xionghui as executive directors, Mister Li Jian as non-executive director, and Messrs. Zhu Guang, Mao Jingwen, Li Changqing, He Fulong, Suen Man Tak and Bo Shao Chuan as independent non-executive directors.

By Order of the Board of Directors
Zijin Mining Group Co., Ltd.*
Chen Jinghe
Chairman

4 May 2022, Fujian, the PRC

** The Company's English name is for identification purposes only*

ZiJin

SSE: 601899.SH HKEX: 2899.HK

Zijin Mining Group Co., Ltd.*

2021 Environmental, Social and Governance Report

Mining for a Better Society

https://www.zjky.cn/

CONTENTS

About This Report

The Environmental, Social and Governance Report (hereinafter the "Report" or "ESG Report") of Zijin Mining Group Co., Ltd.* (hereinafter "Zijin Mining", "the Company" or "We") describes Zijin Mining's environmental, social, and governance ("ESG") practices and performance in 2021.

Reporting Entity:

The organisational boundaries of this Report are determined by the principle of the operational control method, which covers all companies whose operations are under the actual operational control of the Company (hereinafter "subsidiaries").

Reporting Cycle and Reporting Scope:

1 January to 31 December 2021 (hereinafter referred to as the "reporting period"). In order to enhance the comparative and forward-looking nature of this Report, some of the contents may contain retrospective information or forward-looking descriptions as appropriate. The release cycle of this Report is once a year, which coincides with the financial year.

Basis of the Report:

-This Report complies with the requirements of the Notice of Shanghai Stock Exchange (SSE) on Strengthening the Social Responsibility of Listed Companies and the Guidelines for the Disclosure of Environmental Information of Companies Listed on SSE and the Guidelines for the Preparation of the "Report on the Fulfillment of Social Responsibilities by Companies";

-It complies with the disclosure requirements of Appendix 14 The Corporate Governance Code and Corporate Governance Report and Appendix 27 Environmental, Social and Governance Reporting Guide of the Main Board Listing Rules published by the Hong Kong Stock Exchange (HKEX) effective for the financial years after 1 July 2020;

-It has been prepared in accordance with the Global Reporting Initiative (GRI) Standards (core) framework;

-It has been prepared in accordance with the Sustainable Accounting Standards Board (SASB) Standards and the Task Force on Climate-Related Financial Disclosures (TCFD);

-It has been prepared in accordance with the "China Corporate Social Responsibility Report - Corporate Social Responsibility Preparation Standard CASS-CSR4.0 - General Mining Industry" of the Chinese Academy of Social Sciences.

Data Sources and Description:

The data in this Report comes from Zijin Mining's internal original records, documents, and audit reports, and some financial data comes from the Company's 2021 annual report, which has been audited by Ernst & Young Hua Ming LLP. Unless otherwise specified, all currencies in this Report are Renminbi (RMB).

Data Assurance:

The data and textual information in this Report have been verified by an international independent third-party verification agency - TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch in accordance with the AA1000SE and AA1000ASv3 assurance principles, and an assurance opinion has been issued.

How to Access:

This Report has been released in both printed and electronic versions. The electronic version may be downloaded and/or browsed on the official websites of SSE, HKEX and Zijin Mining.

Languages of the Report:

This Report is printed in both Chinese and English. In the case of any discrepancies, the Chinese version shall prevail.

A Message from the Chairman

Faced with the unprecedented changes in a century and the global pandemic in 2021, we adhered to the co-development belief of "mining for a better society" and upheld the value of "create wealth in harmony, balance development of the corporation, the employees and the society". The Company achieved better-than-expected financial and operational performance as well as major project constructions, continued to supply high-quality mineral products for the recovery of the global economy, and attained significant results in the development of ESG system and the ESG practice.

We followed the United Nations Sustainable Development Goals (SDGs), fulfilled the responsibility of corporate citizenship and to actively converge with the global low-carbon transition. The Company has formulated the grand Outline of Five-Year (2+3) Plan and Development Goals for 2030, and repositioned the strategic goal to being a "green, high-tech, leading global mining company", integrating the belief of green and sustainable development and ESG concepts deeply into the corporate development. We are dedicated to exploration, development and engineering technology application and research of strategic metallic minerals, including copper, gold and renewable energy related minerals. We have made a significant step toward a full-scale entry into the renewable energy and advanced materials industry with the successful merger and acquisition of the world-class high-grade 3Q (Tres Quebradas) lithium brine mining project.

We continue to deepen the "streamlining, compliance and efficiency" reform with internationalisation as the main theme, endeavor to establish the ESG system, and enhance the Company's ESG management mechanism, so as to improve the Company's ESG performance in material issues including environmental and ecological protection, occupational health and safety, human rights protection, anti-corruption, and community engagement. We issued the Corporate Code of Conduct to build a "transparent", "friendly", "fair and just" responsible supply chain system with various stakeholders based on the principles of equality, mutual trust, and win-win cooperation. The Company adheres to the development concept of "lucid waters and lush mountains are invaluable assets", with great work being done in high-standard ecological restoration, environmental protection, and water recycling in our mines and production systems. We are comprehensively promoting the implementation of ISO 45001, ISO 14001, and other international standardisation system certifications. We attach great importance to the irreplaceable role of scientific and technological innovation in our environmental protection and promote the mining engineering management model of "integrating five ore treatment processes into one" with Zijin's characteristics on a global scale, to achieve green and highly effective development of multiple world-class copper and gold mines.

We actively respond to the Paris Agreement and the carbon neutrality action, explore effective measures to reduce greenhouse gases (GHGs) emissions, and promote carbon sink, photovoltaic deployment, and wind and hydropower stations to support the construction of mines and enterprises. Low-carbon development has been the direction of the Company's construction and operation. The Company's world-class Kamoa-Kakula Copper Mine will be among the world's lowest greenhouse gas emissions per unit of copper produced. The

Zijinshan Gold and Copper Mine is accelerating to build the carbon neutrality demonstration mine. The Company and Fuzhou University co-founded the “ammonia-hydrogen energy key industrial innovation platform”.

We truly feel that the future of the Company’s development is closely linked to the destiny of the world, striving to create a "community of destiny" at the places where the projects are located to allow Zijin Mining to benefit more people. The Company respects the equal employment and development rights of social groups of different races, nationalities, and genders, and continuously increases the proportion of international talents and the ratio of local employees. Our overseas projects have been highly praised by the leaders of local governments and the communities for their contributions to the society.

Looking forward to 2022, with the continuous impact of the global pandemic and the accelerating evolution of the unprecedented changes, the external environment will become more complex and challenging. As “food” for industries and energy, minerals have their fundamental position reestablished in the national economy. The renewable energy revolution and the wave of electrification are experiencing a booming period, with accelerated transformation and upgrading of emerging industries and traditional industries, resulting in the formation of a huge blue ocean market. In our main business, the strategic position of copper resources continuously rises, with further growth in the demand. The demand for renewable energy metals such as lithium, cobalt and nickel are being opened up vigorously, and as a traditional hedging tool, gold is expected to remain in a high price range with fluctuation.

We will adhere to the concept of green, high-quality, and sustainable development and accelerate the development of an ESG system with Zijin’s characteristics in line with international standards. We have initially established a global operation and management system that is highly compatible with the Company’s development, so as to continue to enhance its global competitiveness. With adherence to the main business of mining, our focal attention will be paid to the major revolution in the energy mix brought about by the "carbon peak and carbon neutrality” policy. We will actively align ourselves in the direction of industrial development, enhance our new ability to open up new industries. We will strive to become a supplier of renewable energy and advanced materials with global influence, using high-quality mineral raw materials and renewable energy minerals to contribute to development of the global economy and transformation and upgrading of industrial sectors.

We will adhere to the common development concept of "mining for a better society”. We will actively discharge corporate social responsibilities and build a good co-dependent and co-existing industry ecological system while keeping rapid growth of the Company, providing assistance to the social and economic development of the world and the areas where our projects are located. Zijin people around the world will strengthen the strategic confidence, capability confidence, and cultural confidence, to face the world and embrace the future, and strive to build a "green, high-tech, leading global mining company" on a full scale!

Zijin Mining Group Co., Ltd.*
Chairman and Chief Officer of
the Strategic and Sustainable Development (ESG) Committee
CHEN Jinghe

A Message from the Director of the ESG Management Committee

In 2021, the ESG Management Committee made great efforts in driving and enhancing the ESG performance and good practice across the Group under the leadership of the Company's Board of Directors and the Strategic and Sustainable Development (ESG) Committee. With the general work directive of "deepening reform, achieving leaping growth and sustainable development", we identified key ESG risks and opportunities in line with international initiatives and guidelines, including the United Nations Sustainable Development Goals (SDGs) and the World Gold Council's Responsible Gold Mining Principles (RGMPs). With these as the basis, we initially formulated the Group's ESG goals and strategies and strived to improve our ESG key performance. We profoundly integrated the green, open, and shared responsibility concept into our corporate culture and promoted high-quality sustainable development of the Company, which allowed us to become one of the world's first-class companies with a responsible image in the mining industry and create a social value widely recognised by the governments of various levels and local communities in the countries of our projects, as well as various sectors of the society, and stakeholders.

In 2021, the Company's ESG governance was further improved. With the support of the Board of Directors, we improved the ESG executive team covering the whole world. We followed international authoritative standards and learnt advanced experience of the industry and formulated the "Corporate Code of Conduct" for Zijin Mining, which was used as the guideline for the integration of our ESG concept into our policies and standards covering procurement, sales, human resources, engineering, supervision, etc. We strengthened our business ethics and anti-corruption measures with more standardised ESG governance. We aligned with international and industry standards, put forward the Company's mid-term and long-term ESG development goals and established corresponding indicator systems with refined implementing measures. Our ESG governance methods were more effective and powerful, and ESG risk and opportunity management continued to be strengthened.

We focused on the goal of "carbon peak and carbon neutrality," and our green and low-carbon development pattern was continuously consolidated and improved. We actively responded to the Paris Agreement and the National Climate Change Adaptation Strategy proposed by the Chinese government, and proposed to achieve carbon peak and carbon neutrality goals by 2029 and 2059, respectively. We will release our action plan on "carbon peak and carbon neutrality" in 2022. We firmly promoted ecological restoration, biodiversity conservation, water resources management and protection, tailings storage facilities safety management, and industrialised utilisation of solid waste resources. We had made a prompt entry into the fields of copper, lithium, renewable energy, and advanced materials as well as photovoltaic, hydropower, ammonia-hydrogen, and other renewable energy development projects, to promote the development of the global low-carbon industries.

We attached great importance to the safety of employees, contractors, and other stakeholders, with better awareness of the safety concepts and standards. We adhered to the "life

comes first" safety concept, putting the occupational health and safety of employees, contractors, and other stakeholders in the first place. We continued to improve the level of intrinsic safety and implemented "technology for better safety" strategy and system certification, resulting in the initial formation of safety management system with Zijin's characteristics. Our lost time injury rate and recordable incident rate decreased year-on-year, with more stringent and standardised management on operators and integrated management of contractors. We attached great importance to the health of our employees. In the face of volatile overseas pandemic situation, we provided a large amount of pandemic preventive supplies to the countries and regions where our projects are located, while encouraging and supporting the vaccination of the employees of our overseas projects, employees of their contractors, and their family members in local communities. We provided psychological counseling and humanistic care for employees and made every effort to help them overcome the impact of the pandemic.

We insisted on common development and showed the world our image as a large and responsible multinational corporation. We regarded the project locations and communities as important stakeholders and important partners for the Company's development and actively supported and cultivated local industries, implemented localised labour and local procurement policies and actively participated in community affairs; we actively helped local people by improving infrastructure and medical and health care conditions and made positive contributions to the economic and social development and people's well-being of the areas where our projects are located. We adhered to the people-oriented approach, followed international norms, and constantly improved policies and mechanisms regarding human rights protection and employee development. We treated employees of different nationalities, races, genders, religious beliefs, and cultural backgrounds fairly and justly, and established a global human resources system. We required suppliers to conduct business in a responsible manner, and guided suppliers and stakeholders to jointly build a supply chain due diligence management system.

In 2022, in the face of multiple challenges including the global pandemic and climate change, adhering to green, high quality, and sustainable development is a global consensus and an inevitable choice. ESG has become a hot topic in the global market. As a responsible international metal mining company, Zijin Mining will actively support the United Nations Sustainable Development Goals, follow international norms and initiatives, and integrate the ESG concepts into the entire process of corporate development, production, and operation. We will further improve key performance in various ESG areas and help the global mining industry transform into green and low-carbon one to help the economic, social, and livelihood development of the places where our projects are located, and promote the organic integration of Zijin culture into local culture.

"Mining for a better society" is the original aspiration and mission of Zijin Mining. We believe that with the care and support of governments at all levels of different countries and various sectors of the society, and through the joint efforts of the Zijin people around the world, Zijin Mining will surely achieve higher-quality sustainable development in a responsible manner, so that it will accelerate its establishment as a green, high-tech, leading global mining company. With high-quality mineral raw materials and metal products, we will contribute to global economic growth and a better life for the people of all countries!

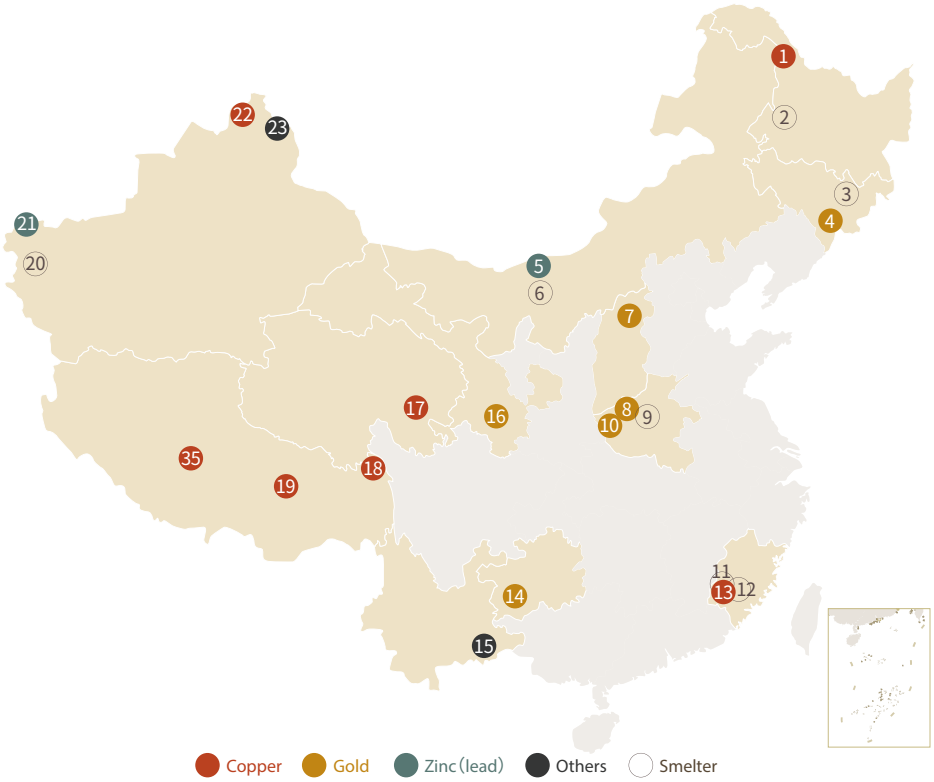
Zijin Mining Group Co., Ltd.*
President of the Company and Director of
the ESG Management Committee

ZOU Laichang

About Zijin Mining

1. Main Business

As a large multinational mining group, the Company engages in the global exploration and development of key mineral resources, including copper, gold, zinc, and lithium, and further extends, as appropriate, to businesses that include smelting, processing, trade, and finance, encompassing a relatively complete industrial chain. During the reporting period, the Company expanded into the fields of renewable energy and advanced materials on a full scale, made substantial breakthroughs in renewable energy mineral mergers and acquisitions, and launched its first lithium carbonate exploration project. A number of our advanced material projects have been accelerated, and important milestones have been achieved.

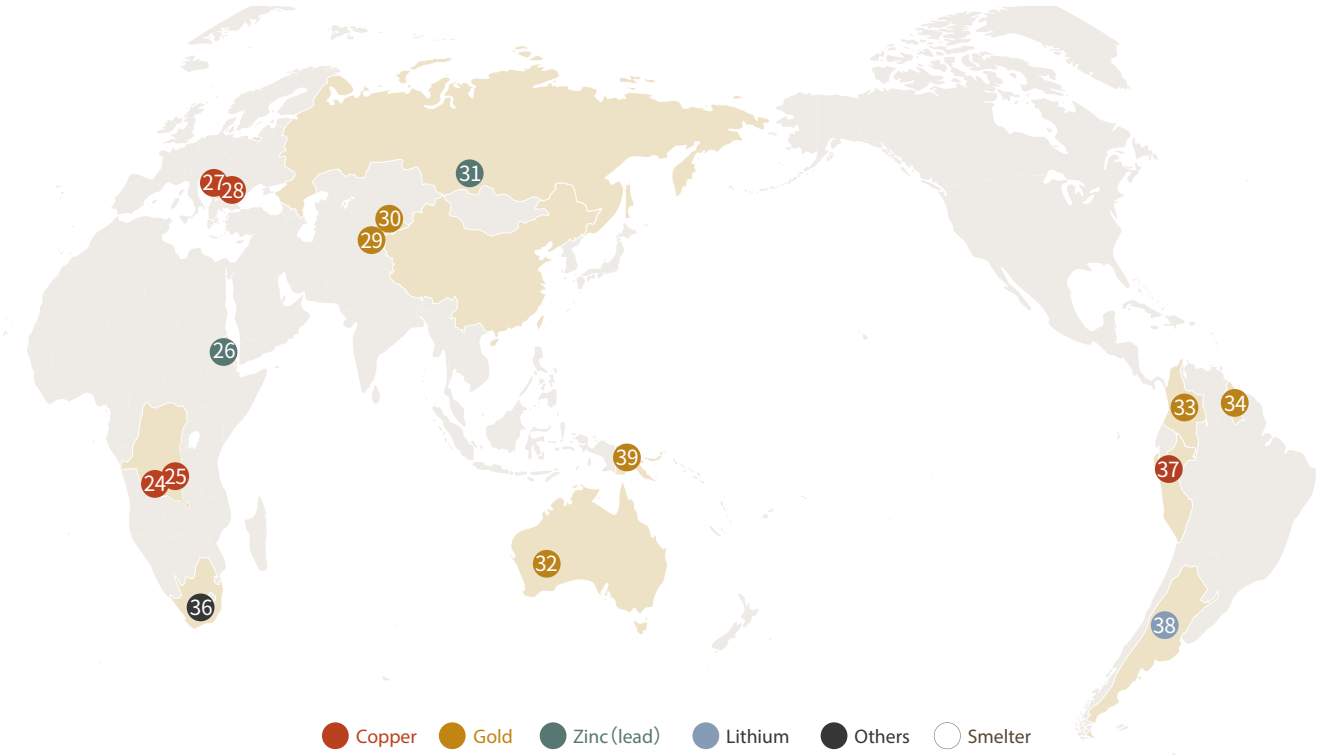


Key Projects in Production / Included in the Report or not

1	Duobaoshan Copper Mine	✓	13	Zijinshan Gold-Copper Mine	✓
2	Heilongjiang Zijin Copper Smelter	✓	14	Shuiyindong Gold Mine	✓
3	Jilin Zijin Copper Smelter	✓	15	Malipo Tungsten Mine	✓
4	Shuguang Gold-Copper Mine	✓	16	Liba Gold Mine	✓
5	Miaogou/Sanguikou Lead-Zinc Mine	✓	17	Deerni Copper Mine	✓
6	Bayannur Zijin Zinc Smelter	✓	18	Yulong Copper Mine[1]	✗
7	Yixingzhai Gold Mine	✓	19	Julong Copper Mine	✓
8	Luyuangou Gold Mine	✓	20	Xinjiang Zijin Non-ferrous Zinc Smelter	✓
9	Yinhui Gold Smelter	✓	21	Wulagen Lead-Zinc Mine	✓
10	Shanggong Gold Mine	✓	22	Ashele Copper Mine	✓
11	Zijin Mining Group Gold Smelting Co., Ltd.	✓	23	Mengku Iron Mine	✓
12	Zijin Copper Co., Ltd.	✓			

2. Zijin in the World

Zijin Mining is one of the companies with the largest volumes of metallic mineral resources in China, as its main business, gold and copper metallic resources and reserves and mineral product output rank first among listed mining companies in China. It is also one of the most profitable Chinese companies with the largest volumes of overseas reserves and resources of copper and gold and mineral product output. It has important mining investment projects in 14 provinces (regions) in China and 13 foreign countries. Its overseas reserves of mineral resources, production, and profits of copper and gold have all exceeded those in China, with overseas resources accounting for 76% of copper and 74% of gold, and overseas production accounting for 53% of copper and 60% of gold. During the reporting period, the Company's three world-class projects were completed and put into production, including the Kamoa-Kakula Copper Mine Phase 1 in the Democratic Republic of the Congo (the DR Congo), the Upper Zone of the Čukaru Peki Copper-Gold Mine in Serbia, and the Julong Copper Mine Phase 1 in Tibet, China, allowing us to become the company with the fastest and highest growth in mine-produced copper production, and becoming one of the world's leading mining companies.



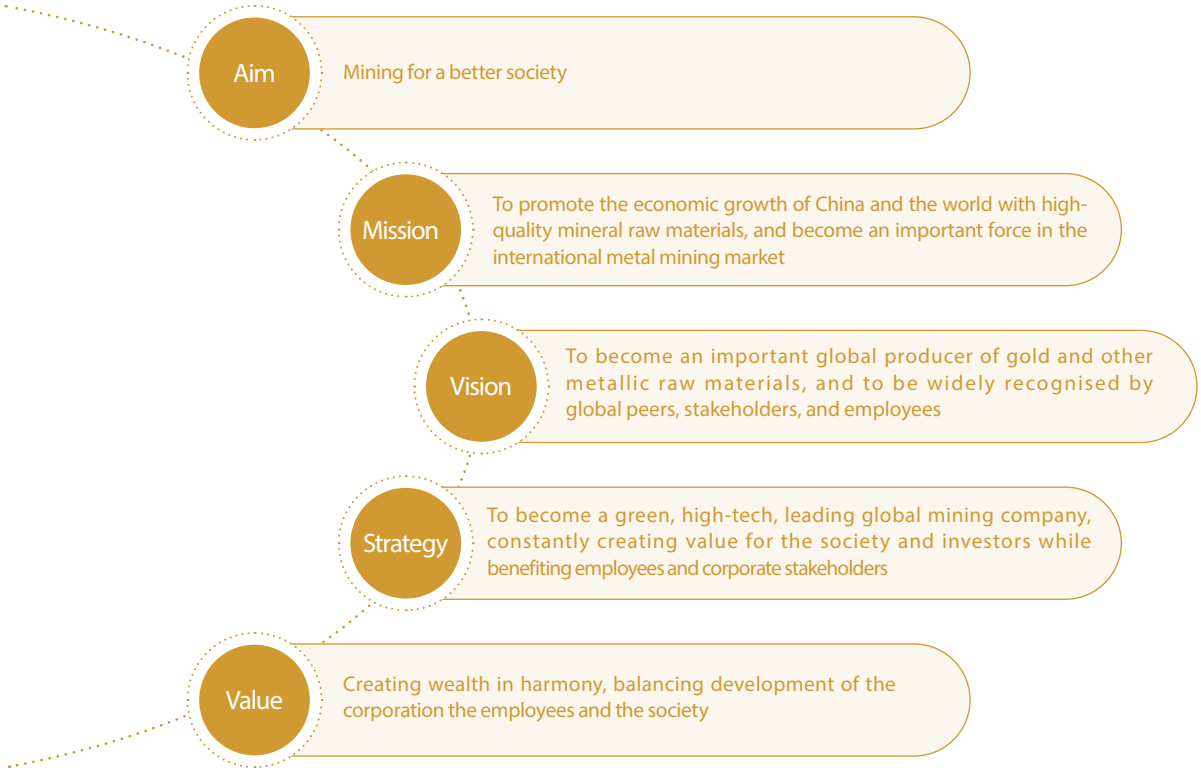
24	Kamoa-Kakula Copper Mine[1]	✗
25	Kolwezi Copper-Cobalt Mine	✓
26	Bisha Zinc-Copper Mine	✓
27	Bor Copper Mine	✓
28	Čukaru-Peki Copper-Gold Mine	✓
29	Jilau/Taror Gold Mines	✓
30	Taldybulak Levoberezhny Gold Mine	✓
31	Kyzyl-Tash Turk Lead-Zinc-Copper Polymetallic Mine	✓
32	Norton Gold Fields	✓
33	Buriticá Gold Mine	✓
34	Aurora Gold Mine	✓

Key Projects not in Production / Included in the Report or not [2]

35	Xietongmen Copper-Gold Mine[1]	✗
36	Garatau Platinum Group Metals Mine	✗
37	Rio Blanco Copper-Molybdenum Mine	✓
38	3Q Lithium Brine	✓
39	Porgera Gold Mine[1]	✗

Notes:
1.Since Zijin Mining does not have actual control of the projects, these projects are not included in the scope of disclosure in this Report
2.The environmental data in this Report does not include key projects not in production

3. Value and Concept



4. Core Competitiveness

In the process of development, the Company has formed a unique innovative development concept. It has the advantages of self-initiated technological innovation and core technologies in geological exploration, hydrometallurgy, comprehensive recovery and utilisation of low-grade refractory resources, and large-scale engineering development, putting it in a leading position in the industry. It is one of the few multinational mining companies in the world with self-initiated system technology and engineering management capabilities, and has its own complete scientific research system and scientific research institutions. Under the guidance of the ideas about economic mining and system engineering and based on the ore flow, the Company has explored and formed five areas of operation, including geological prospecting, mining, mineral processing, smelting, and environmental protection for the purposes of comprehensive study and whole-process control, which resulted in the innovative mining engineering management model of "integrating five ore treatment processes into one", which is the general goal to maximise economic and social benefits. The Company has established a complete system of geological prospecting, mining, mineral processing, smelting, environmental protection, and technology innovation systems and has formed all-round independent technology and engineering capabilities, which are applied and promoted globally.

5. Position in the Industry

Forbes 福布斯

The Company ranked 398th in Forbes Global 2000 List 2021

FORTUNE 500

The Company ranked 486th in Fortune 500 List of Companies 2021

MSCI

The Company is one of the first batch of 234 large-cap A Share companies included in the MSCI index

The Company is included in FTSE China A50 Index

Hang Seng Corporate Sustainability Index Series Member 2021-2022

The Company is included in Hang Seng Corporate Sustainability Benchmark Index

Zijin Mining's Path of Sustainable Development

1. Our ESG Journey

2021

- Determined the Company's short-term, medium-term, and long-term ESG development goals
- Committed to carbon peak by 2029 and full carbon neutrality by 2059
- Proposed the vision of becoming a "green, high-tech, leading global mining company"
- Adopted the TCFD recommended framework for information disclosure
- Participated in the programme of information disclosure of the CDP Climate, Water, and Forest Questionnaires
- Participated in the S&P CSA questionnaire

2020

- The Board of Directors comprehensively strengthened ESG management, established the "Strategic and Sustainable Development (ESG) Committee" , and established the ESG Management Committee at the operational level
- Executive compensations are linked to ESG performance
- Joined the World Gold Council with the commitment of the Responsible Gold Mining Principles (RGMPs)
- Participated in the launch of Alliance of Chinese Business in Africa for Social Responsibilities
- For the first time, Continental Gold, a subsidiary of the Company, released an ESG report in three languages - Chinese, Spanish, and English

2018

- MSCI included the Company's A Shares in the emerging market index
- Released the first ESG Report based on the original "Social Responsibility Report"

2012

- Invested RMB200 million to launch Zijin Mining Charity Foundation

2010

- Established a social responsibility work system benchmarking against ISO 26000

2009

- Established the Corporate Social Responsibility Department to promote the work of social responsibility
- Released the first "Social Responsibility Report"

1993

- Established Zijin Mining Company in Shanghang County

2. Sustainable Development Goals and Strategic Planning

We support the United Nations SDGs. By centring on our own characteristics and advantages and referring to the five stages of the United Nations Global Compact (UNGC) Council and the World Business Council for Sustainable Development (WBCSD) "SDG Compass: The guide for business action on the SDGs", we have identified 12 of the 17 Zijin Mining project objectives as the high-priority goals, for the purposes of achieving the SDGs globally and setting our development strategies accordingly.

Under the leadership of the Strategic and Sustainable Development (ESG) Committee of the Board of Directors, we have positioned ourselves as a "green, high-tech, leading global mining company " and clarified the Company's contributions to global sustainable development in the three dimensions of environment, society, and governance. We have aligned the Company's core areas with the SDGs and formulated short-term, medium-term, and long-term plans for the Company's 2021-2030 sustainable development goals. We will actively carry out ESG practical work together with internal and external stakeholders to jointly create a sustainable future.

Dimension	SDGs	Our Goals
A transparent, efficient, and responsible listed company		Increase the reserves and output of major mineral resources, bring major economic indicators and benefits to a new level, and build a green, high-tech, leading global mining company on a full scale; build an advanced global operation and management system that conforms to the sustainable development concepts, so as to form global competitiveness and comparative competitive advantages - Continue to improve the diversity of the Board of Directors - Continue to improve the independence of the Board of Directors - Increase the Board's efforts to promote ESG management - Establish and improve the ESG risk management system
A green and sustainable environmentalist		Establish and improve green ecological mines, with the energy consumption and carbon emission indicators per unit of production capacity continuing to decline and low-carbon production becoming an important standard for the development and operation of the Company, which will become a core force to improve global climate and environmental problems - Reach carbon peak by 2029 - The proportion of renewable energy use shall increase to above 25% by 2030 - Using 2020 as the benchmark, all existing production and operation sites shall have obtained ISO 14001:2015 certification by 2023, and new production and operation sites shall have this certification within three years - Complete an environmental impact review for all production and operation sites every three years - The water re-use rate shall maintain at a level no less than 90% - By 2030, the water consumption intensity shall decrease by 10% compared with 2020 - All mines shall meet the green mine development standards by 2030 - By 2030, all smelting and processing companies shall meet the green factory development standards - Develop and implement biodiversity conservation plans for all mines by 2030 – By 2030, SO_2 and NO_x emission intensity shall be reduced by at least 5% from the 2020 levels - By 2030, the comprehensive utilisation rate of non-hazardous waste shall increase by 5% compared with 2020 - 100% restoration rate for recoverable land
A corporate social citizen that promotes harmonious development		By promoting the economic development of the host countries, alleviating ESG risks, help resource-based countries and cities establish an equal, safe and harmonious environment, tap into more industries to support the economic prosperity of the localities, and provide companies with the opportunities for sustainable development; promote the "coordinated development of the Company, its employees, and society" - Local employment rate remains above 95% - Local procurement rate remains above 30% - Using 2020 as the benchmark, obtain ISO 45001:2018 certification for all existing production and operation sites by 2023, and new production and operation sites shall have this certification within three years - Maintain 100% coverage of employees and contractors in terms of safety training - 0 work-related death - 30% reduction in LTIR by 2022 compared with 2019 - 30% reduction in TRIR by 2022 compared with 2019 - At least 1% of profits is invested into the community per year

Our Practices

-Improve the ESG governance system, integrate ESG into corporate culture, formulate ESG strategies, and actively improve the transparency of ESG information
-Place the concerns of stakeholders as important topics of corporate sustainable development, carry out communication actively, and establish a formal and usable complaint and grievance mechanism
-Follow international initiatives and formulate the "Corporate Code of Conduct" to operate in a manner consistent with business ethics; improve compliance and integrity systems and adopt the principle of fair competition to support fair and reasonable market operations
-Join various responsible alliances, follow responsible initiatives such as the RGMPs, and use our position in the industry to promote the common responsibility of industry peers

-Carry out diversion of clean and dirty water and environmental monitoring to ensure water quality and reduce external water intake; recover and reuse metals from wastewater
-Strengthen the maintenance of energy infrastructure and improve energy efficiency and waste heat recovery; conduct energy audits and reduce the proportion of non-renewable energy, and increase the proportion of clean energy such as solar energy, hydropower, and geothermal energy
-Include climate change on Board agendas; respond to host countries' climate policies; set 2029 carbon peaking goal; establish climate-related risk analysis, and take climate change issues into consideration in planning and investments
-Plan land use with the focus on the entire life cycle of the mine; minimise land disturbance; make arrangements for mine closure and post-closure ecology, and promote the construction of mine parks
-Minimise the impact on the environment and ecology, carry out biodiversity action plans, and make ecological compensation for the disturbed environment

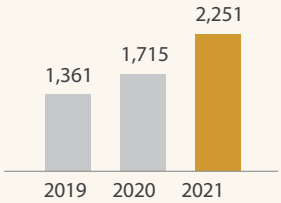
-Actively assist infrastructure construction, including transportation, health care, and education in the project locations, support the development of key characteristic industries in the project locations, carry out local procurement, and promote the development of local diversified economy
-Use community resettlement to provide a better living environment for indigenous peoples, and provide more local job opportunities and salaries that are above the level of meeting the basic living needs of the local people
-Accept diverse groups and increase local employment rate
-Provide women with equal employment opportunities, ensure equal pay for male and female employees for equal work, and provide women with gender-appropriate physical and mental health facilities and career development plans
-Provide local labour force with various vocational skills training; transfer technology to resource-based countries; cultivate the development of local personnel and enterprises
-Establish a safe, healthy, and decent work environment; conduct strict health and safety monitoring in the workplace; carry out occupational disease and infectious disease prevention and control; pay attention to the mental health of employees and provide treatment and counselling services
-Reasonable planning of land use to protect local cultural heritages

3. Key Performance

(1) Economic Performance

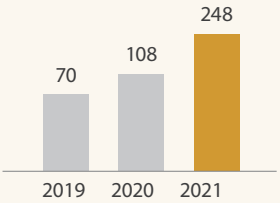
Revenue
(RMB100 million)

2,251 ↑31%



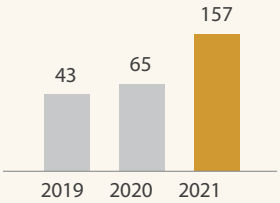
Profit before tax
(RMB100 million)

248 ↑129%



Net profit attributable to owners of the parent (RMB100 million)

157 ↑141%



Copper resources
(10,000 tonnes)

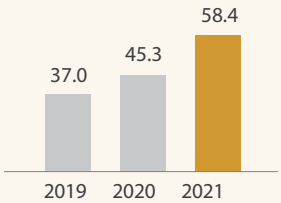
6,277 ↑1%

Gold resources
(tonne)

2,373 ↑2%

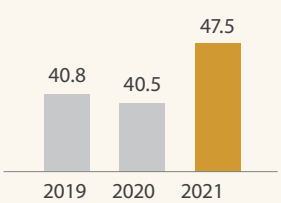
Mine-produced copper
(10,000 tonnes)

58.4 ↑29%



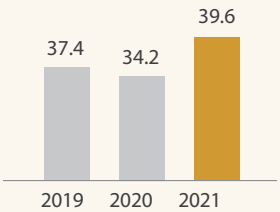
Mine-produced gold
(tonne)

47.5 ↑17%



Mine-produced zinc
(10,000 tonnes)

39.6 ↑16%



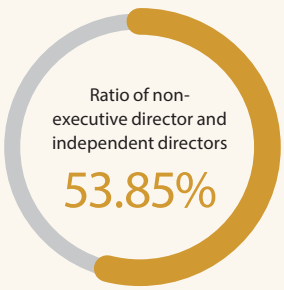
Zinc resources
(10,000 tonnes)

962 ↓7%

Lithium carbonate resources
(10,000 tonnes)

763

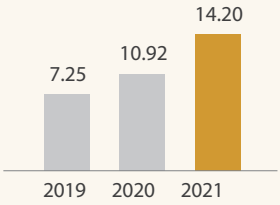
(2) Governance Performance



(3) Environmental Performance

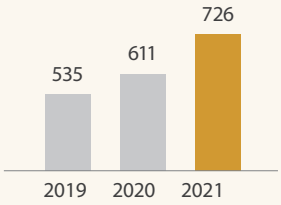
Investment in environmental protection (RMB100 million)

14.20 ↑30%



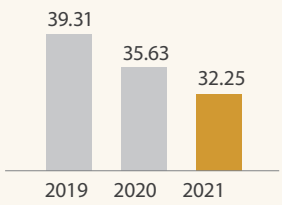
Total GHGs emissions (10,000 tCO_2e)

726



GHGs emissions intensity by revenue (tCO_2e/RMB million)

32.25 ↓9.49%



ISO 14001 certification coverage

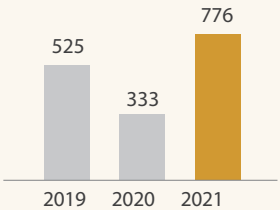
87.5%

Energy consumption intensity by revenue (MWh/RMB million)

67.69 ↓19%

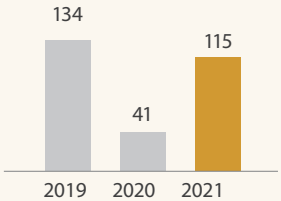
Area of vegetation restored (10,000 m^2)

775.6 ↑133%



Number of trees planted (10,000)

115.2 ↑182%



Water recycling rate

92.02%

Water intensity by revenue (tonne/RMB million)

269.04

SO_2 emission intensity by revenue

↓15.95%

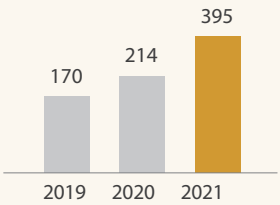
NO_x emission intensity by revenue

↓11.96%

(4) Social Performance

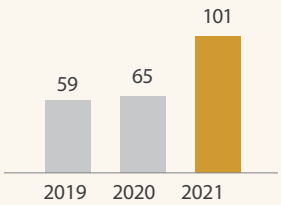
Total social contribution value (RMB100 million)

395 ↑84%



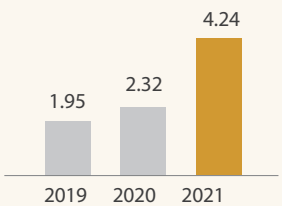
Total taxes paid (RMB100 million)

101 ↑55%



Community Investment (RMB100 million)

4.24 ↑83%



Total recordable incident rate per million hours worked (TRIR)

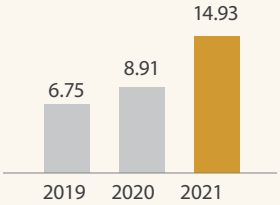
0.7

Lost time injury rate per million hours worked (LTIR)

0.3

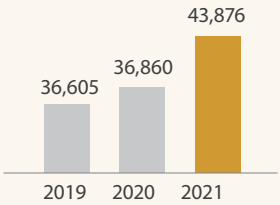
Investment in production safety (RMB100 million)

14.93 ↑68%



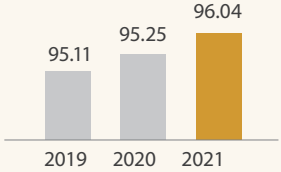
Total number of employees

43,876 ↑19%



Local employment rate

96%



Local procurement rate

31.82%

4. External Recognition

Zijin Mining received the following honours during the reporting period:

Honours	Awarded by
Best Employer Brand Award	Linkedin
A-Share Listed Company Social Responsibility Award	Securities Times
China's Listed Company Golden Bull Award – Social Responsibility Award	China Securities Journal
Chinese Enterprise ESG "Golden Responsibility Award" Excellent Enterprise for Environmental Responsibility	Sina Finance
Hong Kong Outstanding Listed Company – Outstanding ESG Company (Raw Materials Category)	Economic Digest
Ranked 11th in China's Corporate Social Responsibility	Southern Weekend

Our subsidiaries received the following honours during the reporting period:

Award Winner	Country	Honours
Tibet Julong Copper Co., Ltd.	China	Lhasa Green Development Pilot Company
		Water-Saving Company in the Industrial Field, Tibet Autonomous Region
		Regional-Level Green Mine in Tibet Autonomous Region
Xinjiang Zijin Zinc Co., Ltd.	China	National Advanced Collective for Poverty Alleviation
		Certificate of Merit for the Development and Construction of Xinjiang
		Model Collective Ethnic Unity and Progress in Kizilsu Kyrgyz Prefecture Demonstration Company of Ethnical Unity and Progress in Kizilsu Kyrgyz Prefecture
Xinjiang Habahe Ashele Copper Co., Ltd.	China	Outstanding Enterprise for the Support of Rural Revitalisation
Xinjiang Jinbao Mining Co., Ltd.	China	Outstanding Enterprise for the Support of Rural Revitalisation
Continental Gold Limited Sucrusal Colombia	Colombia	Antioquia Department Mining Social Responsibility Award
		2021 Sustainable Award
Joint Venture Zeravshan Limited Liability Company	Tajikistan	Outstanding Social and Economic Contribution Award
		Environmental Protection Excellence Award
Serbia Zijin Copper Doo	Serbia	Bor District Outstanding Economic Contribution Award
Serbia Zijin Mining Doo	Serbia	Bor District Outstanding Economic Contribution Award
Norton Gold Fields Limited	Australia	Outstanding Contribution Award

5. External Initiatives

As a member of the World Gold Council (WGC), we are committed to the RGMPs and dedicated to adopting the RGMPs in all areas of operation under our direct control and influence, working with our stakeholders to engage in good ESG practices. We will continue to improve the internal management system of the Company to meet the requirements of the RGMPs, and complete public disclosure, third-party independent verification, and the disclosure of the verification report in accordance with the requirements of the RGMPs.

We report our position and progress on climate change-related risks in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). In the future, we will continue to improve the transparency of our reports based on the TCFD recommendations and strive to implement the best practices in the industry.

We work together with various stakeholders to jointly launch the Alliance of Chinese Business in Africa for Social Responsibilities (ACBASR) to promote social responsibility practices and the coordinated development of African economy, society, and environment as well as the improvement of people's livelihood.

Memberships in other industry associations:

- Vice President unit of China Gold Association
- Vice President unit of China Mining Association
- Vice President unit of China Nonferrous Metals Industry Association
- Vice President unit of China Occupational Safety and Health Association

Materiality Assessment

1. Communication with stakeholders

We identify our main stakeholders, including employees, shareholders and investors, business partners (including customers, suppliers, and contractors), governments and regulatory authorities, surrounding communities and environment, NGOs, and media based on the GRI Standards, AA1000SE, and other relevant international standards and guidelines for stakeholder communication.

We adhere to the principles of integrity, interaction, equality, and transparency, and respect the needs of stakeholders; we have established and improved the communication and participation mechanism of stakeholders and adopted multiple measures to strengthen periodic/aperiodic communication with stakeholders; we invite stakeholders to participate in decision-makings and activities related to corporate sustainability in order to understand the needs of stakeholders and the strengths and weaknesses of the Company's ESG work. We regularly record, measure, and review our communication with stakeholders, and improve the communication mechanism in a timely manner based on the feedback from stakeholders, so as to continuously improve the effectiveness and timeliness of our communication with various stakeholders.

During the reporting period, we integrated the concerns of various stakeholder groups. The table below shows the topics of concern of various stakeholders and the corresponding ways and frequencies of communication.

How we communicate with our stakeholders

Stakeholders	Concerns	Way of Communication	Frequency of Communication
Employees	Human Rights Protection Security Practice Occupational Health and Safety Equal Rights and Development	Meeting of representatives of trade union	Twice per year
		Conference and training	Monthly
		Bulletin board, Company Intranet	Occasionally
Shareholders and Investors	Steady Operation Sustainable Development Good Governance Information Transparency	Annual general meeting	Annually
		Results briefing	Three times per year
		Information disclosure	Occasionally
		Investors' communication platform	
Business Partners	Occupational Health and Safety Business Ethics and Transparency	Contractor training	Annually
		Suppliers conference	
Government and Regulatory Authorities	Compliance According to Laws Paying Tax According to Laws Driving Economic Growth Boosting Employment	Meeting with stock exchanges	Occasionally
		Meeting with governments	
		Information disclosure platform	
		Visit by government officials	
Surrounding Communities and Environment	Human Rights Protection Community Development Response to Climate Change Water Resources Management Biodiversity Conservation Emissions Management	Community exchange	Daily
		Mine open day	Monthly
		Environmental protection cooperation	Occasionally
		Mining project kick-off meeting	
NGOs, Media, and Research and Educational Institutions	Response to Climate Change Business Ethics and Transparency Water Resources Management Human Rights Protection Biodiversity Conservation	Regular ESG report disclosure	Annually
		Company's official website	Occasionally

2. Analysis of Material Topics

Based on the materiality analysis process of the Global Reporting Initiatives (GRI) and Zijin Mining's business characteristics, the materiality analysis process of Zijin Mining was formed. At the end of the reporting period, with the assistance of external ESG experts, we carried out a detailed survey. Based on the senior management's judgments on the materiality assessment results, we screened out 12 important topics in relation to corporate development. The reporting boundaries of this Report were hereby determined and approved by the Board of Directors.

Matrix for Analysing Material Topics

High-Materiality Topics					
4	Business Ethics and Transparency	11	Energy Management	12	Water Resources Management
13	Waste and Toxic and Hazardous Substance Management	15	Biodiversity	16	Climate Change
20	Employee Training and Development	22	Occupational Health and Safety	23	Pandemic Prevention and Control
24	Security Practice	25	Human Rights Protection	27	Indigenous Peoples' Rights/ Community Relations
Medium-Materiality Topics					
1	Economic Performance/Financial Performance	2	Structure of the Board of Directors	3	Compliance and Risk Management
5	Supply Chain Due Diligence	10	Environmental Management System	14	Tailings Storage Facilities Management
17	Employment Relationship	19	Lawful Employment	21	Natural Disaster Emergency Management
26	Promoting Regional Economic Development				
Low-Materiality Topics					
6	Product Quality and Safety	7	Intellectual Property Rights Protection and Technological Innovation	8	Customer Management
9	Information Security	18	Freedom of Association and Collective Bargaining	28	Charity

Governance

Targets	Achievements in 2021
Continuously improve Board diversity	Ratio of female in the Board 7.7% Directors possess experience in a wide range of fields including mining, corporate strategy, finance, and sustainability
Continuously improve Board independence	Ratio of non-executive director and independent directors 53.8% The Audit and Internal Control Committee is comprised of both independent directors and non-executive director
Increase Board's influence on ESG management	30% of the proposals considered and approved by the Board related to ESG issues The remuneration of the executive directors and senior management is linked to ESG performance of the Company
Establish a sound ESG risk management system	A sound ESG management model has been initially established Key ESG risks have been preliminarily identified

Corporate Governance

The Board

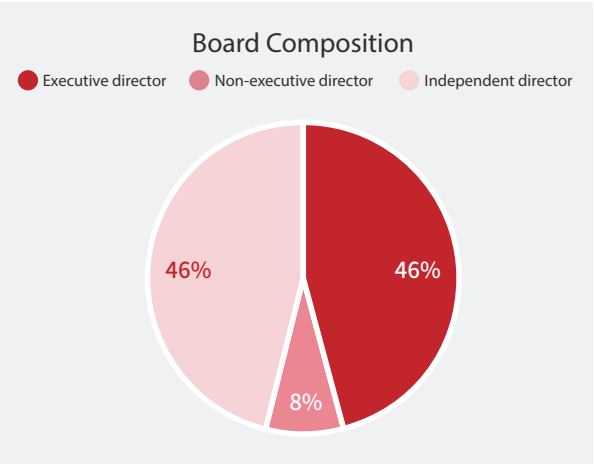
Balance and diversity of the background of the members of the Board of Directors (the Board) is important to Zijin Mining. The size and composition of the Board complies with the relevant laws and regulations such as the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Code of Governance for Listed Companies of the People's Republic of China, the Rules Governing Listing of Stocks on the Shanghai Stock Exchange, and Main Board Listing Rules of the Hong Kong Stock Exchange. There are 4 committees under the Board, including the Strategic and Sustainable Development (ESG) Committee, Execution and Investment Committee, Audit and Internal Control Committee, and Nomination and Remuneration Committee, forming a sound decision-making mechanism.

The Board is the highest authority and the ultimate body responsible for ESG at Zijin Mining. During the reporting period, it reviewed a total of 88 proposals, of which 26 were related to ESG, including the setting of climate actions and renewable energy and advanced materials strategies, review of community development programmes, and formulation of the Corporate Code of Conduct and the ESG Management Rules, etc.

Independence

The Board is comprised of 13 directors, including 6 executive directors, 1 non-executive director, and 6 independent directors. The non-executive directors and independent directors make up 53.8% of the Board.

During the reporting period, the Company made changes to the Audit and Internal Control Committee so that it consists only of independent directors and non-executive director. In addition, it revised the Implementation Policy for the Audit and Internal



Control Committee of the Board of Directors to make audit and internal control work more independent. None of the independent directors hold shares in the Company in any form.

Diversity

The Board has 1 female director, representing 7.7% of the Board.

The Board members come from the fields of mining development, industry research, finance, and sustainable development. They have the necessary knowledge, skills and competence to discharge their duties:

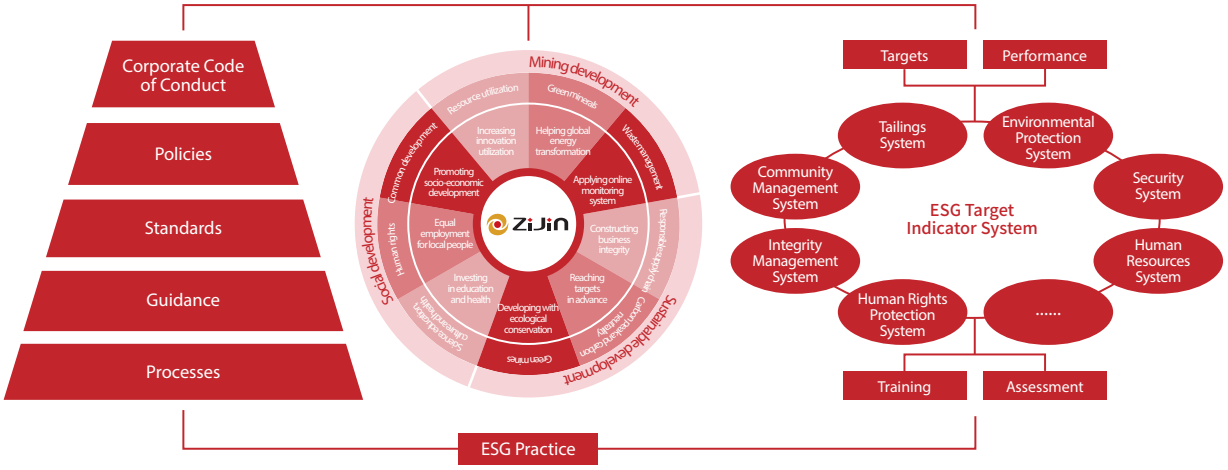
- Mining development: Experience in the operations of large-scale mining projects or technical mining; success in leading exploration or development of large-scale projects; and exemplary performance in safety and environmental protection work.
- Global experience: Experience in working in different regions around the world; and global market and macro political and economic perspective.
- Industry research: Experience in developing and implementing corporate strategies for companies in long-cycle industries; profound understanding of the industry; and ability to develop new business or lead business transformation.
- Risk control: Strong understanding of systematic risks; extensive experience in developing and implementing risk management framework; and ability to identify and successfully deal with key risks that may exist or occur during production and operations.
- Product value chain: Familiar with market demand drivers; and in-depth understanding of products, markets, and supply chains.
- Corporate finance: Substantial experience in financial regulation; ability to evaluate financial statements and understand key financial data; and ability to implement effective internal financial management and risk control.
- Sustainability: Familiar with public policies; and rich experience in dealing with community issues and developing a healthy and safe environment and harmonious social relations.

Remuneration Appraisal and Clawback

In order to adhere to the principle of linking the remuneration to the Company's sustainable development and ESG indicators, we have revised the Remuneration and Assessment Proposal of Directors and Supervisors to link the appraisal for the incentive remuneration of Directors, supervisors, and senior management to the Company's sustainable development and ESG performance. We have also established an accountability and clawback mechanism. It stipulates that if the appraisal subject violates the Company's sustainability principles, gets into a major environmental or safety incident, or causes a significant negative impact on the Company's reputation, business ethics, human rights protection, community relations, responsible supply chain, and other ESG performance, and it is clear that he or she is principally responsible for the incident, the Company can make a veto on his or her incentive salary and refuse to offer the option bonus. Those who are suspected of having committed crimes will be handed to the judicial authorities according to the laws. These measures ensure the Company's sustainable development and ESG work requirements, as well as to stimulate the enthusiasm and sense of responsibility of all Directors, supervisors, and senior management of the Company. In 2021, we gave ESG Excellence Awards and bonuses based on the full-year ESG performance to the senior management and subsidiaries.

ESG Ecosystem

We improved the "ESG ecosystem with Zijin's characteristics during the reporting period. Adhering to the idea of sustainable development, we established an ESG management policies system with the Corporate Code of Conduct as the guidance. Taking ESG goals and performance as the core, making reference to the best international ESG management practices and disclosure requirements, we established the ESG goals and indicators system, incorporating the Company's management models for material issues. Through training and assessment, we effectively align our corporate practices with the ESG ecosystem.



ESG Management Structure

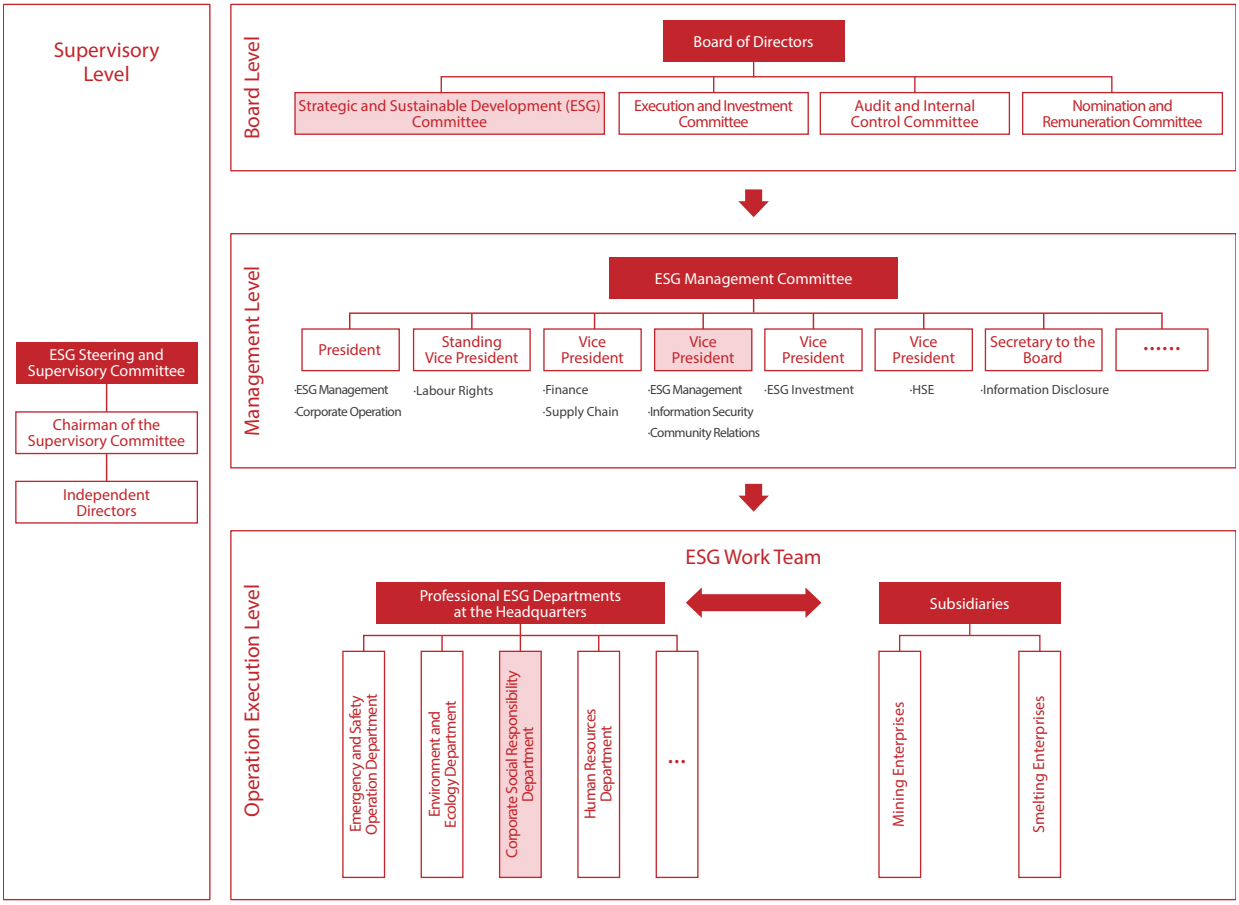
The Company has a complete ESG governance structure. There are four committees at the Board level. The Strategic and Sustainability Development (ESG) Committee comprises of nine Board members, including four executive directors, one non-executive director, and four independent directors. The ESG Steering and Supervisory Committee set up at the supervisory level comprises of supervisors and independent directors and is responsible for overall supervision and guidance of the Company's ESG work at all levels.

The ESG Management Committee set up at the operational level is led by the President of the Company. Its members include senior management members at the president and vice-president levels who are in charge of ESG issues such as safety, environment, business ethics, community relations, supply chain, product quality, labour relations, etc. The ESG Management Committee has a high level of professionalism and diversity to effectively push the implementation of the ESG strategies set by the Board and its committees and improve the Company's ESG performance.

At the operation execution level, we strengthened our ESG working networks during the reporting period. At the headquarters level, the Corporate Social Responsibility Department is responsible for coordinating the Company's ESG tasks. Each department has an ESG officer in order to effectively incorporate international initiatives and standards into the Company's policies and measures on environment, safety, human rights, etc. and to report to the management. At the subsidiary level, each subsidiary has a comprehensive governance structure with at least one ESG officer who is responsible for coordinating ESG work with individual departments and reporting the ESG matters to the general manager of the subsidiary and the headquarters of the Company. Meanwhile, the Corporate Social Responsibility Department at the headquarters and the ESG officers of the subsidiaries form an ESG coordination and

management network, and different departments from the headquarters and subsidiaries form their own ESG management network. Relying on the ESG working group networks, we efficiently break down the ESG strategic goals and policy requirements and deliver to the lower levels to take action, forming a dynamic and effective risk management and communication mechanism to promote good ESG practices.

During the reporting period, we developed specific ESG training for the Board level, management level, and executive level. We conducted training sessions on human rights, supply chain, environmental protection, safety, international relations, etc. for the senior management of the Company and general managers and reserved cadres of the subsidiaries, to reinforce their understanding of international ESG standards. In addition, we conducted training sessions on stakeholder communication, information disclosure, human rights protection, responsible supply chain, etc. for ESG officers to enrich their knowledge and raise the efficiency of ESG management.



Board of Directors and the Strategic and Sustainable Development (ESG) Committee:

- Identify important ESG issues and determine sustainable development policies, strategies and goals
- Supervise and inspect ESG work
- Review the Company's ESG-related reports
- Review the achievement of annual ESG performance targets that is linked to management's remuneration

ESG Steering and Supervisory Committee:

- Comprehensive supervision and guidance of ESG work at the Board, management, and executive levels of the Company

ESG Management Committee:

- Formulate ESG vision, strategies, frameworks, principles, and policies
- Review the main ESG trends and related risks and opportunities, and implement ESG strategies in corporate decision-making, investment, and operation
- Review the Company's ESG-related reports and disclosure documents
- Assign ESG tasks and supervise ESG practices

Professional ESG Departments at the Headquarters:

- Formulate relevant policies, norms, and standards regarding the ESG management; make phased work plans and implementation plans
- Set up performance target systems related to ESG management issues and formulate measures to promote the implementation of related issues
- Guide, supervise, inspect, and evaluate the work on ESG management issues
- Communicate with stakeholders

Subsidiaries:

- Practical work related to implementing the overall strategic objectives of ESG management
- Communicate with stakeholders

Business Ethics

We are committed to conducting business in compliance with all applicable laws and regulations and the highest ethical standards. We promise to conduct our business with professionalism, honesty, and integrity in all business transactions and relationships and prohibit any activities that adversely affect the integrity and reputation of the Company. We have developed the Corporate Code of Conduct with reference to international standards such as the UNGC, RGMPs, the United Nations Guiding Principles on Business and Human Rights, and the United Nations Convention against Corruption. It sets out Zijin Mining's stand on business ethics, including promoting free and fair competition, anti-corruption, avoiding conflicts of interest, and paying taxes in compliance with the laws. We require every project we operate, as well as every director, employee, supplier, and contractor we work with, to comply with it.

At the headquarters level, we have formed a "5-in-1" business ethics management system made up of the Company's Supervisory Committee, Disciplinary Inspection Committee, supervision body, audit body, and internal control body. The Supervision and Audit Office at the headquarters is set up as a dedicated department for the business ethics management system, vertically managing the supervision and audit departments of our subsidiaries to maintain the independence of the internal supervision system. We take a series of measures such as setting internal and external complaint and feedback channels, strengthening risk prevention and internal control, conducting internal and external supervision and audit, participating in external third-party audits, organising supply chain anti-corruption training, and requiring suppliers to sign business ethics and anti-corruption commitment agreements. Through these measures, the Company identifies, mitigates, and remedies the activities which are in violations of laws and regulations and customer requests, prevents unfair competition and corruption, and ensures the implementation of the Business Ethics Management Policy. At present, every operation site of the Company has a supervision department with dedicated personnel responsible for the compliance of supervision, realising supervision in all sectors.

The Company's supervision body receives whistleblowing reports and verifies them strictly as prescribed by laws and regulations, and submits the findings to the management. After receiving approval from the relevant management body, it takes actions against violations by means of admonitory talks, disciplinary actions, or even pass the case to judicial authorities. We continuously track and monitor the issues reflected in whistleblowing reports and the issues identified through internal check, and take appropriate measures to improve our management. In the future, Zijin Mining will further innovate the supervisory measures, improve supervision efficiency and effectiveness using information technology and big data, recruiting supervision experts from all over the world, and reinforce anti-corruption training and education for employees, their families, as well as suppliers and contractors. During the reporting period, the Company had no major violations of laws and regulations in the economic and social fields.

Anti-corruption

Creating a fair, transparent, and honest work and business environment is our goal. We have zero tolerance for bribery, extortion, and corruption. We have formulated a series of policies such as the Rules on Internal Supervision, Administrative Disciplinary Measures, Implementation Measures for Inspection Work, and Regulations on Internal Audit Management to investigate and deal with corruption and fraud. Employees who violate these policies will be severely penalised or dismissed by the Company.

We develop anti-corruption review plans which are aimed to review new projects and key projects every year and for other projects every two years. We will adjust these plans based on risk levels and industry trends. We conduct business ethics and anti-corruption inspections, audits, internal controls, and special inspections on our subsidiaries every year. Based on the findings of these reviews, we summarise the problems and improve accordingly. During the reporting period, the Company completed 42 out of the 44 reviews planned, achieving a completion rate of 95.45%. The two reviews that were not completed were mainly affected by plan adjustments and the pandemic. In addition, we performed anti-corruption risk assessments for all production and operation sites, guided and supervised 41 subsidiaries in their 205 internal control self-inspection and evaluation exercises, and submitted 1,214 deficiencies for rectification, pushing the subsidiaries to improve their internal control, self-inspection and evaluation mechanisms on a continuous basis.

We have also formulated the Rules on Integrity at Work to provide a clear definition of special relationship. Together with the Human Resources Management Regulations and the Implementation Measures for Employee Recruitment, the hiring, employment and remuneration of persons with special relationship are regulated, as well as the business dealings them. Employees are required to declare their persons with special relationship on a regular basis, effectively reducing the risk of corruption of personnel and creating an honest work environment. During the reporting period, we investigated and dealt with five cases which involved employees being dismissed or given disciplinary actions for corruption, six cases of corruption-related violations which resulted in termination of contracts with business partners, and two corruption lawsuits (both were referred to judicial authorities for hearing, one of which already has a verdict and the other is still under hearing).

Disseminating the Anti-corruption Policy

We require all directors, supervisors, employees, suppliers and contractors to abide by our policies and standards. To ensure that the relevant policies and standards are implemented, we conduct a variety of activities such as integrity pledge signatures, surveys, warning films, and integrity talks to strengthen anti-corruption education and promote the development of the Company's integrity system.

We are committed to creating a healthy and transparent supply chain. There are integrity clauses in all contracts entered into between our subsidiaries and suppliers or contractors, thus achieving a 100% acknowledgement rate for our anti-corruption policies and procedures. At the same time, we organise collaborative "Anti-bribery" talks for suppliers and contractors to learn about anti-corruption policies and regulatory documents such as the Policy Statement on Whistleblowing Management and the Policy Statement on Business Ethics Management.

By assessing corruption risks of different positions, we provide anti-corruption training to personnel in high-risk positions, such as Directors, supervisors, senior management, new employees, newly promoted employees, employees in sensitive key positions, etc.; 100% of these personnel have received such trainings.

Business Ethics Policies and Procedures Acknowledgment Coverage

Category	2021	2020	2019
Directors, supervisors and senior management	100%	100%	100%
Employees	100%	100%	100%
Suppliers and contractors	100%	100%	100%

Business Ethics Training Coverage

Category	2021	2020	2019
Directors, supervisors and senior management	100%	87.19%	83.29%
Employees	64.82%	63.96%	68.00%
Suppliers and contractors	62.10%	61.55%	58.24%

Anti-unfair Competition

We strictly comply with domestic and international laws and regulations and international standards, such as the Anti-Unfair Competition Law of the People's Republic of China, the Contract Law of the People's Republic of China, and the Model Provisions on Protection Against Unfair Competition. In order to establish an honest and fair competition mechanism and avoid the occurrence of unfair competition, we conduct special investigations into leads related to unfair competition that we discover and receive in whistleblowing reports. We also conduct regular reviews of the projects of our subsidiaries, with different frequencies set according to the project level. In the past three years, we did not involve in any unfair competition related lawsuits against the Company.

Grievance and Whistleblowing Mechanism

We encourage all stakeholders to report truthfully any possible violations of business ethics management. To ensure that stakeholders' petitions are promptly and effectively dealt with, the Company set up a grievance and whistleblowing mechanism for stakeholders since the early days of its establishment. We have issued the Policy Statement on Whistleblowing Management and formulated the Written and In-person Whistleblowing Management Measures to regulate whistleblowing work.

Whistleblowers may report violations under their real names or anonymously using the following methods:

Telephone number: +86-0597-3833182
Email address: jcsjs@zjky.cn
Mailing address: Supervision and Audit Office, Zijin Mining, No. 1 Zijin Road, Shanghang County, Fujian Province
WeChat account: Zijin Mining Supervision Platform

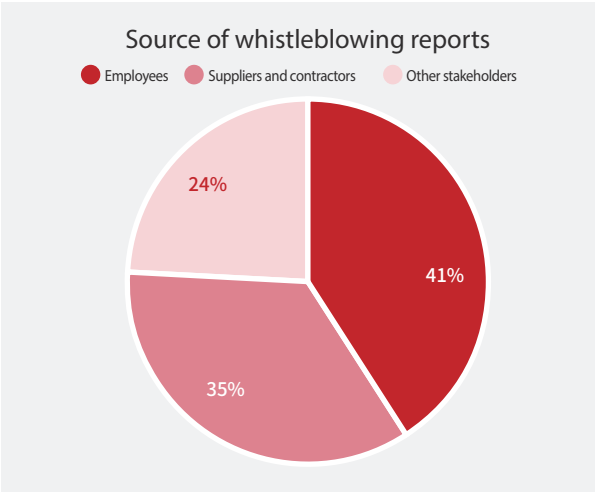
The whistleblowing system is maintained and managed by the Company's Supervision and Audit Office, with dedicated personnel responsible for receiving grievance information. The mechanism is applicable to all stakeholder groups and covers all business activities of the Company. The whistleblowing methods are published on the Company's official website, as well as included in the clauses of all external contracts. This can effectively help the Company identify and solve problems, protect the rights and interests of complainants, standardise the handling of grievances, and improve the Company's business management.

The whistleblowing process is as follows:

After receiving the information, we analyse the content and categorise such information for further action: reports on serious issues are investigated and handled by the headquarters' Supervision and Audit Office (within 3-6 months), and reports on less serious issues are transferred to the supervision department or relevant department of the subsidiary concerned for investigation (within 1 month). For non-anonymous reports, feedback on the outcome will be provided within the time limit; and for anonymous reports, feedback will be provided based on the verified information.

At the same time, we are committed to providing more grievance and whistleblowing channels for stakeholders in order to make it more convenient for them to file a grievance and to respond to their claims in a timely manner.

During the reporting period, a total of 154 complaints of violations of the Policy Statement on Business Ethics Management were received through our grievance mechanism, which included three reports on conflict of interest and one report on retaliation against employees. In total, 145 reports were closed after follow-up actions, representing a closing rate of 94.2%. The followings are the sources of the different types of whistleblowing reports we received:



Whistleblower Protection

Protecting whistleblowers' rights and interests is of importance in our anti-corruption work. In order to gain the trust of whistleblowers and increase their willingness to report, we encourage anonymous reporting, and at the same time, we receive and accept whistleblowing reports and complaints through dedicated personnel at dedicated locations and on dedicated telephone number and mailboxes or through third parties. We register every report individually and take strict measures, such as encrypting, proper storage and implementing strict control on the number of people with access to the information, to keep the information confidential. At the same time, we have established recusal mechanism where any personnel who is a properly interested person with the whistleblower or who has connection with the information reported must take the initiative to recuse themselves. We take serious actions against anyone who takes threatening or retaliatory actions. Depending on the actual situation, we may resort to disciplinary actions, dismissal, or even transfer the case to judicial authorities to pursue civil and criminal responsibilities.

Case study: Continental Gold launches the third-party whistleblowing platform to protect the legitimate rights and interests of whistleblowers

In order to protect the legitimate rights and interests of whistleblowers, Continental Gold, a subsidiary of the Company, is using a third-party payment whistleblowing platform called línea transparencia. Whistleblowers using this platform do not need to have direct contact with Continental Gold. Instead, they report through an encrypted third-party whistleblowing channel (telephone or email). After the platform collates and processes the information, it forwards the information to the person from Continental Gold in charge of receiving such reports. As the information is professionally processed by the intermediary platform, its confidentiality is greatly increased, eliminating the worries of the whistleblowers. This provides a lot of valuable whistleblowing information for Continental Gold to combat internal and external collusion, illegal mining, precious metal theft, etc. It not only safeguards the Company, but also protects the legitimate rights and interests of the whistleblowers through the legally protected third-party platform.

ESG Risk and Opportunity Management

In 2021, we newly published the Zijin Mining ESG Risk and Opportunity Identification, Analysis, and Evaluation Procedure and assessed the Company's material ESG risks and opportunities according to the requirements of the procedure. Each business department and functional department of the Company has completed the Zijin Mining ESG Risk and Opportunity Identification, Analysis, and Evaluation Form based on its actual situation. The following is the summary analysis:

Risk category	Risk description	Impact	Countermeasures and opportunities
Geopolitical risk	The Company's overseas projects have a wide geographical presence. Insufficient understanding of national policies, regulations, and standards, as well as changes in local policies, may pose certain geopolitical risks, risks of policy and regulatory changes, and community risks	As the Company does not have full understanding of policies, regulations and standards, this may affect the production and operation and the relations with local communities. Construction of the project may also fall behind schedule	• Study the latest policies and regulations promulgated by the host countries on a monthly basis, and conduct related trainings • Compile a Zijin Mining's Mining Industry Environmental and Ecological Policies and Regulations Manual and update it regularly • Engage third-party environmental consulting agencies to conduct compliance audits on subsidiaries • Make good use of preferential policies, apply for national subsidies, or grasp opportunities for extending the mining rights
Environmental risk	The Company's material environmental risks include pollutant leakage and illegal disposal by external disposal vendors	Impact on the environment leads to project construction and operations not being carried out as expected	• The Company's headquarters and subsidiaries take seepage prevention measures as required and build collection ponds, cofferdams, etc., to prevent leakage of harmful substances into the environment, as well as conduct regular emergency drills for hazardous waste leakage • The Company reviews the entrusted disposal vendors' qualifications and inspect their technical information on disposal, in order to improve the comprehensive utilisation rate of hazardous waste and reduce the amount of hazardous waste generated
Market risk	Consumers prefer to source environmentally friendly, responsible products, and changes in consumer habits can put pressure on upstream due diligence	Manufacturing companies prefer to procure green minerals and metal products, which will increase management costs in terms of energy efficiency, emissions reduction, and due diligence	• In response to competition risk, the Company develops new energy and sustainable value chain, and increases its efforts in responsible procurement and due diligence management • In the operation process, focus needs to be placed on labour rights protection, biodiversity conservation, and natural resources and environmental protection
Climate change risk	During mining, there are acute risks such as rainstorm, mudslides and earthquake. High emission projects are difficult to obtain financing.	Significant impact on operations, and cause personnel and property losses to a certain extent; higher financing costs	• Formulate emergency plans and conduct regular drills • Control the risks posed by climate change, take the opportunities to reduce emissions, develop hydropower, photovoltaics, and other renewable energy generation facilities to generate positive environmental benefits while obtaining economic benefits through industrial upgrade
Pandemic risk	Due to the impact of the pandemic, the global economy remains sluggish and the international economic and political landscape is going through significant changes; the pandemic increases barriers to enter international trade and international operations	Inadequate control of the pandemic will affect the Company's production plans and trading and affect its operating performance to a certain extent	• The Company will take relevant control measures to counter the pandemic risk, including increasing disinfection of the environment, providing protective equipment, and supporting community efforts on pandemic prevention • The pandemic will push up the prices of commodity raw materials. If the Company is under normal operations, the Company's operating results may improve significantly when there is an increase in both volume and price
Human rights risk	The Company notes that the main sources of human rights risk are indigenous peoples' FPIC rights, discrimination, human rights violations by security forces, etc.	Negligence in the management of human rights can lead to serious incidents, such as job strikes and indigenous peoples' opposition to production, and make it difficult to sell mineral products downstream	• Ongoing training for employees and contractors on human rights policies • Strict management and ongoing tracking of the grievance process and remedies in the recruitment and employment process • Strengthen communication with the communities and provide necessary legal assistance to community residents • Ongoing interaction with employees and stakeholders to create a positive corporate environment and raise the Company's reputation

Environment

Targets	Achievements in 2021
Reach carbon peak by 2029	Total greenhouse gas emissions 7.26 million tCO_2e Greenhouse gas emissions intensity 32.25 tCO_2e/ RMB million revenue, down 9.49% year-on-year
Increase renewable energy use to above 25% by 2030	Renewable energy ratio is 2.3%, up 1.32% year-on-year
Using 2020 as the benchmark, obtain ISO 14001:2015 certification for all production and operation sites by 2023, and get new production and operation sites certified within three years	16 new production and operation sites received certification; the certification coverage is 87.5%
Conduct an environmental audit on all production and operate sites every three years	Using 2020 as the benchmark, 94.3% of the subsidiaries have completed at least one environmental impact audit by 2021
The water re-use rate shall maintain at a level no less than 90%	Water re-use rate 92.02%
By 2030, reduce water consumption intensity by 10% compared to 2020	Water consumption intensity is 269.04 tonnes/RMB million revenue, down 9.12% compared to 2020
All mines to meet green mine development standards by 2030	1 new provincial-level green mine, the ratio of green mines in China is 88.2%
All smelting and processing enterprises to meet green factory development standards by 2030	1 new national-level green factory, the ratio of green factories in China is 70%
All mines to develop and implement biodiversity action plans by 2030	64.3% of mines have implemented biodiversity action plans
By 2030, reduce SO_2 and NO_x emissions intensity by at least 5% compared to 2020	SO_2 emissions intensity reduced by 15.95% year-on-year NO_x emissions intensity reduced by 11.96% year-on-year
By 2030, increase comprehensive utilisation rate of non-hazardous waste by 5% compared to 2020	Comprehensive utilisation rate of non-hazardous waste 13.62%, up 5.50% year-on-year
Maintain 100% restoration rate for restorable land	Restored 7.756 million square metres of land, all restorable land in this year has been restored

Environmental Management System (EMS)

It is our responsibility and duty to protect the ecological environment. During the reporting period, we invested a total of RMB1.42 billion in environmental protection, a 30% increase from the previous year.

As a global company, we have established an Environmental Management System (EMS) according to international practice and the environmental regulatory requirements of the host countries. We are working on getting ISO 14001 environmental management system certification for our mines and smelters. Our goal is to ensure all of our mines and smelters in operation will be ISO 14001 certified by 2023. As at the end of the reporting period, 35 subsidiaries had been ISO 14001 certified, an increase of 16 subsidiaries from the previous year, with the certification coverage reached 87.5%.

The Company has formed a Safety Production Committee (hereinafter "the SPC"). Led by our President, it prioritises the Company's environmental work as a strategic task, and continuously enhances the internal environmental management system by making reference to international practices. By improving on the setting up and the implementation of management policies, we establish a full life-cycle environmental management system for our mines from pre-construction due diligence to project closure. If the countries (regions) where our projects are located lack relevant environmental standards or have less stringent requirements, we will adopt IFC or Chinese standards to consciously fulfill our eco-environmental protection responsibility.

Environmental impact assessment	• Prior to project acquisition, conduct due diligence in accordance with the laws and regulations to assess the ecological damage, environmental pollution, environmental penalties, environmental litigation, operation of environmental protection facilities, and related eco-environmental risks that have resulted from the past operational activities of the acquisition target. • Prior to project construction, carry out environmental impact assessment in accordance with the laws and regulations of the country (region) where the project is located to investigate and assess the adverse impacts and risks on the surrounding environment throughout the life cycle of the project. Formulate reasonable risk response measures to, as much as possible, lower and eliminate any possible adverse impacts. • Carry out subsequent planning and design, construction, production and operation, mine closure, and post-closure restoration according to the requirements of the environmental impact assessment report. Ensure that the work on environmental protection can cover the whole life cycle of the mine.
Pollution prevention and control	• During the operational phase of the project, carry out ecological conservation, mitigation and control of greenhouse gas emissions, as well as air emissions, water pollutants, noise, vibration, radiation, solid waste pollution under the principle of prevention first, combination of prevention and management, and integrated treatment. Reduce ecological damage and land disturbance through improving environmental protection design, and carry out ecological restoration according to the local conditions. • Install online monitoring system according to the specific pollutants of different operations, entrust an independent authoritative third party to ensure the operation and maintenance of online monitoring. The statistics of emissions and pollutants would be sent to the local regulatory authorities and published on the authorities' official website.
Environmental assessment	• Set environmental and ecological goals for each year and assign targets and work to responsible units and positions. Use assessments and other incentive measures to make sure they fulfill their responsibilities and improve their environmental performance. Such assessments are applied on the senior management and general employees, as well as the contractors and construction service providers.
Environmental audit	• Conduct regular environmental audits on all subsidiaries and require the subsidiaries to conduct annual internal audit to ensure that their operation projects comply with the host countries' environmental laws and regulations and Zijin Mining's EMS requirements. • Regularly engage with external third parties to inspect the mines and smelters, in order to identify potential environmental risks and respond to them in a timely manner. • In 2021, 92.5% of the subsidiaries conducted environmental audit, and 94.3% of the subsidiaries have completed at least one environmental impact assessment in the past two years.
Emergency management	• Formulate the Emergency Plans for the Outbreak of Environmental Incidents on the Company level. Each subsidiary formulates their own emergency response plan that is in line with the Company's Plans by taking into account the climate and operation condition of the local situation. • Regularly revise the plans according to production changes, and conduct at least one emergency drill per year to ensure the emergency response plan is practical.

Responding to Climate Change

We support the Paris Agreement and the Chinese government's National Strategy for Climate Change Adaptation. Achieving the "Carbon Peak" and "Carbon Neutrality" goal and stepping into the "renewable energy and advanced materials" business have become important components of the Company's development strategy for the next decade. According to our plan, by 2030, more than 25% of our energy use will be from renewable energy; carbon dioxide emissions per unit of industrial added value will be decreased by 20% compared to 2020. We are making every effort to arrive carbon peak by 2029 and achieve carbon neutrality by 2059. During the reporting period, the Company issued RMB300 million of "carbon neutrality" bonds for low-carbon industry projects. In addition, we are in the process of developing a detailed Climate Action Plan, which will be announced in 2022.

Zijin Mining has the motivations to promote energy conservation and emissions reduction. Climate risks and opportunities are also driving our continuous efforts in the related areas. The risks we have identified include environmental and safety incidents caused by extreme weather and the impact on our production operations, the difficulty and high cost of using electricity due to inadequate power facilities in some areas, and the additional costs of carbon tax which may be imposed on the Company. Improvements in energy conservation and emissions reduction will bring us more market, reputation, investment, and financing opportunities.

Based on our ESG governance structure, we have brought climate issues up to the Board level and formed a top-down management structure. The Board is responsible for formulating climate change related strategies, policies, and mechanisms and supervising their implementation, while the ESG Management Committee is responsibility to coordinate the implementation of climate change-related initiatives and regularly approve and supervise targets and implementation of the plans. The departments at the headquarters, as well as the subsidiaries, are responsible for implementing climate change-related plans and providing regular feedback to the ESG Management Committee.

Greenhouse Gas Emissions

We rely on our energy and carbon emissions management system to gradually conduct internal carbon accounting and scientific statistical evaluation, as well as carry out carbon asset management. At present, we carry out emissions reduction work mainly in the following three ways:

- Process optimisation: Promote biohydrometallurgy and other low-energy production processes; adopt intensive production processes and improve the energy efficiency of equipment; increase re-use of residual heat, residual gas, and residual pressure
- Energy transformation: Carry out transition from "oil" to "electricity" to reduce the fossil energy ratio; develop renewable energy such as photovoltaic power, wind power and hydropower to increase the renewable energy ratio
- Natural carbon sinks: Rehabilitate mining waste storage sites and carry out greening at production areas to increase natural carbon sinks

During the reporting period, our total GHGs emissions (SCOPE 1+2) were 7.26 million tCO_2e. The increase compared to the previous year is because our newly acquired mines and newly constructed mines have commenced production and the existing mines have expanded their production capacity. However, through adopting the energy conservation and emissions reduction measures, we had reduced the emissions intensity to 32.25 tCO_2e/RMB million, representing a 9.49% decrease year-on-year.

GHGs Emissions

Indicator	Unit	2021	2020	2019
Total GHGs emissions (SCOPE 1+2)	Million tCO_2e	7.26	6.11	5.35
GHGs emissions intensity by revenue	tCO_2e/RMB million	32.25	35.63	39.31
Direct GHGs emissions (SCOPE 1)	Million tCO_2e	2.79	2.54	2.02
Indirect GHGs emissions (SCOPE 2)	Million tCO_2e	4.47	3.57	3.33

Notes: Parameters such as lower heating value, mass of carbon per unit of calorific value, and carbon oxidation rate are mainly based on the GHGs emissions calculation methods and reporting guidelines for each industry in the host countries. Each enterprise uses the local standards of grid CO_2 emission factor.

During the reporting period, we reviewed the GHGs emissions statistics and calculation methods of the subsidiaries that were within the scope of disclosure and backtracked on past data. The followings are the reasons for the differences between the data of this year and previous years:

1. In the previous years' statistics, data of subsidiaries with less than six months of production was not included; such statistics were modified this year to add back such data.
2. The Company reviewed the energy consumption and carbon emissions ownerships generated and supplemented some of the energy consumption and carbon emissions that had not been included in the statistics in the past.

GHGs Emissions by Business Segment

Segment	Unit	2021	2020	2019
Mining	Million tCO_2e	4.83	3.86	3.37
Smelting	Million tCO_2e	2.41	2.23	1.96
Others	Million tCO_2e	0.02	0.02	0.02

Energy Management

The Company's energy management system is led by the ESG Management Committee, managed by the business segments, and guided and supervised by the Technical Services and Supervision Committee. It improves energy utilisation efficiency and energy conservation management through energy conservation planning and on-site supervision, inspection, and guidance, building and utilisation of an energy consumption index database, energy conservation benchmarking analysis, energy conservation policy dissemination and implementation, and ensures effective implementation of the above measures through measurement and assessment of the energy consumption indicators of the subsidiaries.

We conduct internal energy reviews and audits in accordance with the relevant management regulations stipulated in the Energy Management Measures and the Measuring Management Measures. The energy management is audited and certified according to ISO 50001 requirements.

We have established a clean production management system and implemented a green procurement policy. The purchase of equipment and facilities with high energy consumption and serious pollution is prohibited. We modify, replace, or remove our high energy consumption production equipment and facilities after counting and clearing.

Energy Consumption

Source of Energy		Unit	2021	2020	2019
Direct energy	Paraffin	Tonne	1,481	1,833	3,929
	Diesel	Tonne	345,894	256,856	202,336
	Gasoline	Tonne	1,502	1,457	1,162
	Coal	Tonne	636,682	859,536	610,665
	Liquefied natural gas	Tonne	372	471	464
	Natural gas	Million cubic metres	2.25	1.41	3.59
	Other direct energy	TJ	230.61	425.46	520.57
Indirect energy	Electricity	GWh	6,331	5,011	4,687
	Steam	TJ	-802.56	-783.41	-907.62
Renewable energy (not included in GHGs emissions calculation)	Hydropower	GWh	347	324	206
	Solar power	GWh	3.20	-	-

Notes: Other direct energy includes heavy oil, methanol and liquefied petroleum gas.
During the reporting period, the Company made retrospective modifications to energy data when going over the carbon emissions calculations for the subsidiaries that were within the scope of disclosure. The followings are the reasons for the differences between the data of this year and previous years:
1. In the previous years' statistics, data of subsidiaries with less than six months of production was not included; the statistics were modified this year to add back such data.
2. The Company reviewed the energy consumption rights and supplemented some of the energy consumption that had not been included in the statistics in the past.

Energy transition is an important path to achieving our climate goals of "carbon peak" and "carbon neutrality". Renewable energy is gradually becoming the main force of "carbon neutrality". In order to implement the concept of green development with green, circular and low carbon production, we have developed the Zijin Renewable Energy "14th Five-Year" Investment Plan. Tapping on our edge as the leader in the mining industry, we established Zijin Environmental Technology Co., Ltd. and Fujian Zijin New Energy Co., Ltd. to make a full foray into the renewable energy business.

We made full use of the idle land of mines and smelters, plant roofs and surrounding rivers to promote the development of photovoltaic power, hydropower and other renewable energy projects. During the reporting period, the Company's renewable energy generation under equity basis was 113.26 GWh, equivalent to emissions reduction of 116.3 thousand tCO_2e or planting of 63,442 trees.

•Photovoltaic Energy: Our first distributed photovoltaic project was completed on 9 February 2021. The photovoltaic projects which we had started construction had a total installed capacity of 32MW, and about 20MW had completed grid connection.

•Hydropower: We have a total of 9 hydropower stations, with a combined installed capacity of 97MW.

•Hydrogen Energy: We are actively exploring innovation in hydrogen energy development. In 2021, we launched a high-level cooperation with Fuzhou University and Beijing SJ Environmental Protection in ammonia-hydrogen energy project and set up a hydrogen energy company focusing on ammonia-hydrogen. Through a series of efforts such as searching for low-cost hydrogen, developing scenarios of hydrogen generation from ammonia decomposition, developing scenarios of hydrogen refueling station with hydrogen generation from ammonia decomposition, and planning for the fuel cell market, we are working hard to build a complete industrial chain from low-cost hydrogen-synthetic ammonia in the upstream to the fuel cell application in the downstream.

During the reporting period, our energy consumption totalled 15,236.89GWh (equivalent to approximately 54,852.80TJ) and the consumption intensity by revenue was 67.69 MWh/RMB million. Compared to 2020, although total energy consumption was higher due to increased production capacity, consumption intensity has fallen by 18.65% due to energy transition and series of energy-saving measures, and renewable energy ratio is increasing by year.

Indicator	Unit	2021	2020	2019
Total energy consumption	GWh	15,236.89	14,271.21	11,377.08
Energy consumption intensity by revenue	MWh/RMB million	67.69	83.21	83.59
Ratio of direct energy (fossil fuel) consumed	%	57.61	64.14	59.20
Ratio of indirect energy consumed	%	40.09	33.59	38.99
Ratio of renewable energy consumed	%	2.30	2.27	1.81
Ratio of grid electricity purchased externally	%	41.56	35.12	41.20

Development of Advanced Materials

While working on reducing emissions from our own operations, Zijin Mining is also empowering the global carbon emissions reduction industries by accelerating the development of key raw materials for the low-carbon industries, such as copper and lithium. We continuously reduce the carbon footprint of key minerals, provide clean materials for the global low-carbon industries. During the reporting period, we made a rapid entry into the advanced materials businesses and carried out high-quality work for the projects on the basis of "moderate advancement, strong advantages, new technologies, excellent processes, and environmental friendliness."

- Accelerate copper mine development: Promote the construction of world-class copper mines such as the Kamoa-Kakula Copper Mine in the DR Congo, the Upper Zone of the Čukaru Peki Copper-Gold Mine in Serbia and the Julong Copper Mine in China, and make every effort to increase Zijin Mining's external copper supply capacity
- Plan for important minerals for renewable energy: Step into the lithium mining industry by the completion of acquisition of the 3Q Lithium Brine Project in Argentina
- Renewable energy materials development: Promote advanced materials such as lithium iron phosphate, electrolytic copper foil, high-performance copper alloy strip and foil, ammonia-hydrogen energy, and high-purity scattered and precious metal materials, and engage in the research and development, production, and processing of renewable energy materials used in the batteries, integrated circuit, optoelectronics, and other high-tech industries
- Establish renewable energy and advanced materials R&D and innovation entities: Renewable energy and advanced materials design and research institute and technology companies are established to carry out research, development and innovation in the fields of renewable energy and advanced materials. The Company carries out R&D in lithium extraction from brine, new energy battery, energy storage technology, and high-purity metal and alloy material technology. The Company also builds a reserve of professional talents and innovation achievements related to the energy saving, carbon emissions reduction, and other industries

The Company enters the trillion-Renminbi green industry chain together with the hydrogen energy "national team"

Water Resources Management

In terms of water resources management and protection, we strictly comply with the relevant national laws, regulations and local policies, such as the Water Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, the Environmental Protection Law of the People's Republic of China, as well as the General Environmental, Health and Safety Guidelines, the Environmental, Health and Safety Guidelines for Mining, and the Environmental, Health and Safety Guidelines for Base Metal Smelting and Refining promulgated by the International Finance Corporation ("IFC"), and other water resources management laws and regulations at the places where our overseas subsidiaries are located.

The ESG Management Committee is responsible for our water resources management strategy and performance. Internally, we continuously innovate our equipment and processes to improve the water re-use rate, maximise the utilisation and recycle of water resources, reduce the discharge of contact water into the external environment, and utilise multiple storage facilities to collect rainwater and runoff, etc., to minimise the use of external sources of water for our operations. Externally, we strengthen water resources management by striking the balance between our operational needs and the needs of the local communities and ecosystems, and taking into account the impact of climate change in the places where our projects are located.

Water Consumption Management

We mainly use water that is recycled from our production. Other water sources mainly include surface water, groundwater, and municipal water. During the reporting period, the total water withdrawal was 60.5607 million tonnes, and the water re-use rate reached 92.02%. Water intensity by revenue was 269.04t/RMB million, representing a 9.12% drop compared to 2020. There were no major water withdrawal or discharge violations.

Water Consumption

Water Metrics	Unit	2021	2020	2019
Total water withdrawal[1]	Million tonnes	60.56	50.77	45.23
Water intensity by revenue	Tonne/RMB million	269.04	296.04	332.33
Total water discharge[2]	Million tonnes	42.29	20.82	20.56
Water re-use rate [3]	%	92.02	91.86	91.29
Water withdrawal by water categories				
- Fresh water	Million tonnes	40.47	35.59	33.97
- Non-fresh water	Million tonnes	20.09	15.18	11.25
Water withdrawal by water sources				
- Surface water	Million tonnes	43.11	34.83	31.42
- Ground water	Million tonnes	8.78	7.71	5.65
- Externally purchased water	Million tonnes	4.58	3.71	3.22
- Rainwater	Million tonnes	4.09	4.53	4.93

Notes:

1.Water withdrawal refers to the water collected from various sources and stored for use. Due to the modification of the estimated rainwater collection volume and the modification of the data of subsidiaries with less than six months of production in the previous years, the previous years' water withdrawal volumes in this disclosure are different from the water withdrawal volumes disclosed in last year's report.

2.Due to the high annual rainfall at the mines located in South America during the reporting period, there was a surge in the amount of water discharged from the mines, resulting in the volume of water discharged higher than water withdrawal.

3.Water re-use rate = (Total water consumption - Total water withdrawal)/Total water consumption

Water Stress Risk Assessment

Before water withdrawal, the Company conducts water use analysis and assessment to analyse the current water resources development and utilisation situation in the watersheds or regions where the projects are located, including the rationality of water use, the impact of water resources development and utilisation on water resources conditions and other users, and the water resources protection measures. We update the results of our water risks assessment annually to find out changes in water risks in the regions/water areas in which we are located, in order to formulate effective measures to reduce risks and ensure that the water resources are able to support the Company's

long-term operations and the common development of all stakeholders.

During the reporting period, we assessed the annual water risks at our operation sites using Aqueduct™ Tools, a tool developed by the World Resources Institute (WRI). It covered quantitative physical risks (e.g. baseline water stress, impacts of meteorological hazards) and qualitative physical risks (water quality impacts), as well as regulatory and reputational risks. The assessment results produced by this tool revealed that 20% of the subsidiaries are located in the areas with extremely high water risks (EH 4-5). In order to better manage water resources, we have developed a series of measures.

1. Implement water resources monitoring plan, reservoir anti-seepage treatment, rainwater management, and other physical measures or procedures to protect surface water and/or groundwater resources.
2. Enhance the protection of surface water and groundwater resources by setting up groundwater monitoring wells to monitor changes in water quality at rivers near the mine sites, as well as key areas within the mine sites (such as upstream and downstream of the tailings storage facilities and upstream and downstream of the landfill sites) and other locations quarterly, in order to promptly respond to changes in water quality and take actions.
3. For the use of water at the mine sites, we utilise the "water balance model" of each mine site to predict water withdrawal, consumption, and discharge in order to promptly manage risks that are related to water resources.
4. Stay out of water resources protection zones if possible before project construction or acquisition. All projects shall conduct water use analysis and assessment before water intake. Companies that take water directly from rivers, lakes, or underground shall prepare a Water Resources Justification Report.
5. Conduct annual water risks assessment.

Water Withdrawal at Areas with Extremely High Water Risks (EH 4-5)

Water Withdrawal	Unit	2021	2020	2019
Water withdrawal at water stressed areas	Million tonnes	8.81	6.48	7.10
Ratio of water withdrawal at areas with high water risks	%	14.55	12.77	15.69

Wastewater Management

Our industrial wastewater is mainly generated from the mining and smelting production process. Its main pollutants include oil pollutants, metal ions, acid and alkali pollutants (copper-containing acidic wastewater), cyanide, etc.

We use our own "environmental protection and ecological information management platform" to monitor the pollutant discharge information and realise the timely forecast and early warning on the total amount and concentration of pollutants. We also regularly conduct internal and external environmental audits on all production and operation sites. The utilisation of wastewater is important to us. By increasing water recycling and extracting valuable substances, we reduce the discharge of pollutants. We carry out "volume reduction at source, control in the middle, and compliance at the end" for the life cycle of water from the time it enters the mine to the time it is discharged:

• At the source, we strive to reduce water intake from external sources and make full use of rainwater collected at the mine. We "separate rainwater and wastewater, and polluted water and unpolluted water". We have established a set of facilities for diversion and transportation, collection and storage, extraction and recovery, environmental protection treatment, and concentration and sedimentation of neutralised slag, etc. Through separation of polluted water and unpolluted water, the polluted water after treatment is collected and used for production.

• In the middle section, we "conduct treatment on the water and use the water depending on water quality". We treat the leached acidic wastewater containing heavy metals that flows through the mine and tailings storage facility according to its concentration. Valuable metals are recovered from the higher concentration solution before the solution flows into the wastewater treatment facility, whereas low concentration wastewater flows directly into the wastewater treatment facility. Through neutralisation, sedimentation, and other treatments, the water is reused or discharged after reaching the required standards. The sludge and neutralised slag generated from wastewater treatment are used to replace the soil from other places to improve the soil quality of acidic slopes at dumps and copper ore storage sites, and restore ecological vegetation. This not only puts the waste slag to effective use, it also reduces the costs of improving acidic slope substrate, achieving both economic and ecological benefits.

• At the end section, we reuse or discharge water. We have installed water quality online monitoring systems at all discharge points, as well as downstream of the watersheds of the mining zones. We engaged with qualified online monitoring operation and maintenance companies to carry out third-party operation and management. We have also implemented real-time alert by SMS and real-time checking of external wastewater quality data with an intelligent mobile management system. During the reporting period, the Company monitored all production and operation points which discharged wastewater externally online and in real-time and disclosed the monitoring data to the public. In addition, we have also built biological monitoring points along the rivers near the mines to understand the water quality by observing the physiological changes of the fish at the monitoring stations.

Major Water Pollutants

Indicator	Unit	2021	2020	2019	2018
Discharge volume					
COD	Tonne	524.13	299.82	346.33	206.85
Ammonia nitrogen	Tonne	27.60	3.58	14.43	6.82
Total copper	Tonne	2.26	0.73	0.60	0.11
Total zinc	Tonne	1.27	0.46	0.40	0.81
Discharge intensity by revenue					
COD	10^{-6}tonnes/RMB million	2,328.43	1,748.21	2,544.7	1,952
Ammonia nitrogen	10^{-6}tonnes/RMB million	122.61	20.87	106.03	64.30
Total copper	10^{-6}tonnes/RMB million	10.04	4.26	4.41	1.04
Total zinc	10^{-6}tonnes/RMB million	5.64	2.68	2.94	7.64

Note: The significant increase in the total volume and intensity of wastewater pollutants discharged in 2021 is mainly due to the high rainfall at the mines located in South America, which directly affected the volume of water discharged. Although the higher discharge volume directly led to an increase in the total volume of pollutants discharged, the pollutant discharge concentrations met, or were even far below, the wastewater discharge standards for the project sites. For details of the concentrations of the wastewater pollutants of each subsidiary, please refer to the Company's annual report.

For acid rock drainage, we work with external experts to assess mine sites where acid rock drainage may occur, and develop plans to reduce the generation of such drainage based on the Global Acid Rock Drainage Guide. We incorporate acid rock drainage into our overall water recycling system, recovering valuable metals from higher concentration acid rock drainage, and then neutralising it with lower concentration acid rock drainage and reusing or discharging it after meeting the required standards. By using this method, Zijinshan Gold and Copper Mine is able to recover more than 10,000 tonnes of copper metal from acid rock drainage each year.

Acid Rock Drainage

Indicator	Number	Ratio
Number of mines with risk of acid rock drainage	7	13.72%
- Mines where acid rock drainage is predicted to occur	1	1.96%
- Mines where acid rock drainage is actively mitigated	2	3.92%
- Mines where acid rock drainage is under treatment or remediation	4	7.84%

Case study: Serbia Zijin Copper works with the Serbian government to control the wastewater pollution in Bor City

Lake Robule in Bor City, Serbia, is located near the abandoned ore dump and the municipal landfill. It is close to the Oštrelj community, with a water area of about 40,000 square metres and a water volume of about 100,000 cubic metres. Before the acquisition of the original Bor Copper Mine by Zijin Mining, insufficient investment in environmental protection and poor management had resulted in historical problems, including the failure of effective interception, control, and treatment of wastewater from the ore dump and municipal landfill. The metal pollutants in Lake Robule exceeded the limits, turning the lake water red. It was called the "Red Lake" by the locals.

After the project is taken over by Zijin Mining, the Company actively assists the local communities to build a "green mining city, beautiful Bor", and makes donation to build Lake Robule wastewater neutralisation system, which treats 1,000 cubic metres of "Red Lake" wastewater per day. The pH value of the neutralised water reduces to 6.5-8.5. All the treated water is reused for production, which reduces the external water withdrawal of the Company and effectively improves the water quality of the Bor River and its downstream.

Case study: Zijinshan Gold and Copper Mine received the title "National Water and Soil Conservation Demonstration Project"

Zijinshan Gold and Copper Mine actively carries out the soil and water conservation project to reduce soil erosion, the amount of sediment entering the river, and the sediment content of the downstream river, ensuring the safety of the project and the surrounding ecological environment. It received the title "National Water and Soil Conservation Demonstration Project", and was the only project successfully selected as the National Water and Soil Conservation Demonstration Production and Construction Project in Fujian Province in 2021.

Ecological Protection

The operations of the mining industry may cause certain damage to the land surface. If it is not managed properly, exploration, mining and smelting activities may have negative impacts on the ecological environment. Because of this, we have formulated a series of policies and guidelines from the perspective of the whole life cycle of the mine, adopted the management strategies of "avoidance, reduction, and mitigation" and "development along with recovery together". We set up a special fund for ecological restoration, to ensure maximum vegetation coverage in all production and operation sites, and minimise the disturbance to the land and the impact on the ecological environment through the promotion of biodiversity conservation, rational planning of land use, implementation of ecological restoration, and other measures.

We strictly abide by the Wildlife Protection Law of the People's Republic of China, the Regulations of the People's Republic of China on Nature Reserves and the laws and regulations of the host countries related to biodiversity. At the corporate level, we have formulated the Policy Statement on Ecological Environmental Protection, Guidelines for Biodiversity Work, and Basic Standards for Environmental Order Management, to guide all production and operation sites to carry out ecological protection work. During the implementation process of ecological protection, we established an environmental protection accountability system, with various levels of management having signed the eco-environmental protection accountability statement to clarify their responsibilities in eco-environmental protection. We assess the ecological and environmental protection work of each subsidiary and contractor to ensure that the ecological protection policies are in place.

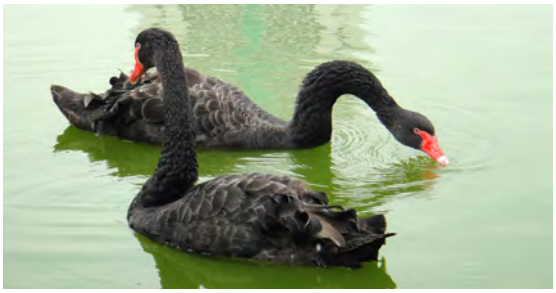
Biodiversity Conservation

We adopt responsible biodiversity management method across all mines under production and operation, do our best to ensure that fragile ecosystems, habitats and endangered species will not be harmed, and formulate responsible plans for mine closures. Our Biodiversity Action Plan (BAP) specifically includes the following measures:

- Avoid damage: We do not conduct exploration, mining, and any construction activities within key areas such as nature reserves and ecologically vulnerable areas. Before mining commences, we investigate and assess the current status of biodiversity in mining zones and areas that may be affected by mining activities. For nationally or locally protected animals, plants or ecosystems, we take measures such as in-situ conservation or ex-situ conservation to protect the biodiversity of the mines.
- Monitor ecological environment: We conduct ecological monitorings around the mines with high ecological risks. As at the end of the reporting period, we had carried out ecological diversity surveys in 18 mines. For example, Aurora set up hidden camera capture points at strategic locations around the mine to monitor and understand the ecology of the mine with minimal disruption to the natural habitat of wildlife. In the future, we will continue to pay attention to the biodiversity conservation strategies and action plans formulated by the countries (regions) where our projects are located, carry out detailed biodiversity surveys, and continuously improve the monitoring and protection mechanisms.
- Implement biodiversity compensation programmes: We protect endemic and precious plants by establishing new botanical gardens, reserved areas, and wetland reserves, and build ecological compensation forests to compensate for the damaged forest areas. In addition, we also actively participate in animal protection organisations. For example, Continental Gold has joined the National Animal Protection Organisation of Colombia.
- Protect biodiversity of rivers: In order to conserve the diversity of aquatic life in the rivers near the mines and improve the quality of the regional water environment, we select local fish species every year under the guidance of the local fishery departments and professional and technical experts, and carry out breeding and release activities in designated river locations to maintain the ecosystem of these rivers.
- Ecological restoration: We create a suitable living environment for species through ecological restoration.

Case study: Biodiversity conservation practice at the Duobaoshan Copper Mine

In 2021, the Duobaoshan Copper Mine in Heilongjiang invited Northeast Forestry University to conduct a biodiversity survey. Investigations, evaluations and analyses were performed from three dimensions - plant diversity, soil microbial diversity and animal diversity. The investigation and research revealed that there were more species of hamsters and mustelids among the large animals near the mines, and more species of corvids and sandpipers among the birds. The insect diversity index remained above 85%; the variations in the overall number were relatively balanced.



To reduce the impact of mining on the ecology, the Duobaoshan Copper Mine has comprehensively planned to build a mine park with the characteristics of the post-mining era. In the past five years, the copper mine has increased 930,000 square metres of vegetation areas. The dumping ground has been transformed to venues including golf field, mine park, fishing pond, fruit and vegetable garden, and flower garden. The mine has achieved zero wastewater discharge and full reuse of water from the tailings storage facility. Egrets often fly freely around the tailings storage facility. The interception pond in the downstream of the tailings storage facility is filled with clear water with an abundance of fish and ducks.

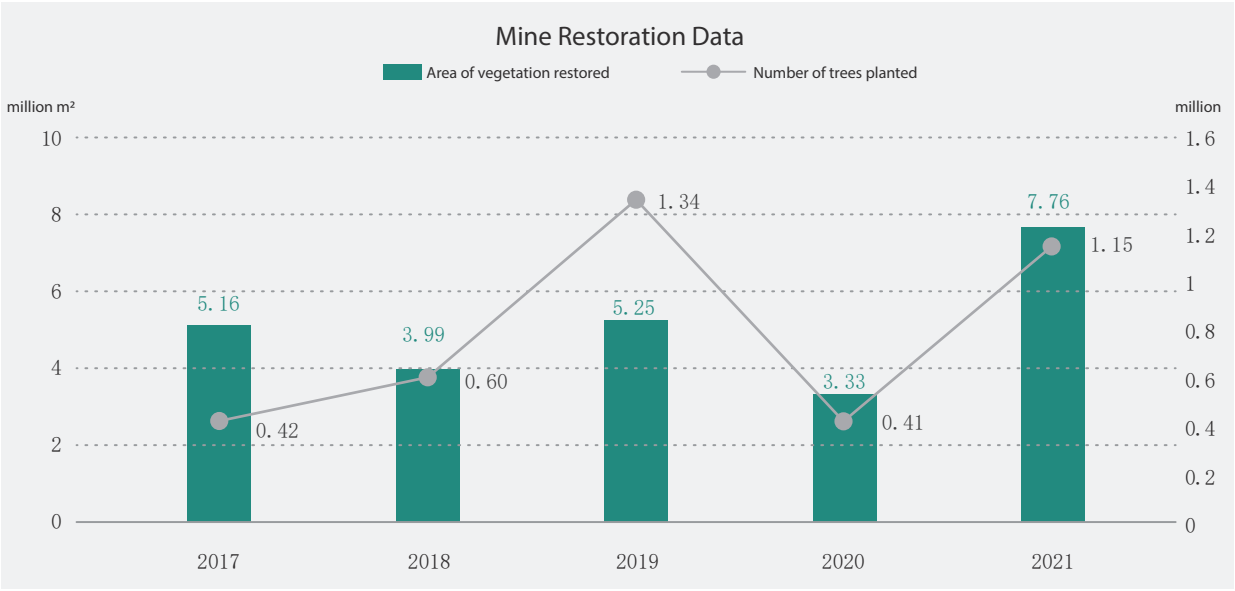
Case study: Biodiversity conservation practice of Norton Gold Fields

During the construction of the project, Norton Gold Fields adopted the strategy of avoidance, reduction, and mitigation. By reassessing and planning the project area, it avoided 32 hectares of vegetation being cleared, providing shelter for small reptiles, mammals, and birds in the project area. It also erected fences on the periphery of the project to prevent larger animals from entering the project area to avoid injury. In addition, dust control measures are used to prevent further degradation of the preserved vegetation, providing an ideal habitat for animals.

Land Use and Mine Restoration

We are making every effort to promote the construction of green mines and garden-like mines, and strive to explore a green mining path that is compatible with mine production, construction and ecological protection. We have formulated the “Greening Work Guidelines” to provide compliance and technical reference for the development of vegetation design, reclamation and soil and water conservation of subsidiaries, and carried out ecological restoration work at all operating sites to ensure that the vegetation coverage rate reaches 100% of the areas which are available for vegetation. We have also formulated the "Environmental Protection and Ecological Inspection Management Regulations" and the “Environmental Protection and Ecological Assessment Management Policies” , to check the ecological compensation, ecological restoration and other measures in mining zones on a regular basis, and perform annually responsibility assessment on the performance of each subsidiary's environmental and ecological protection. At present, we have 13 national-level green mines, 3 provincial-level green mines, 7 green factories, and 1 mine park.

During the reporting period, we invested a total of about RMB335 million in ecological restoration, restoring a vegetation area of about 7.756 million square metres and planting about 1.152 million trees, and achieved the restoration of the restorable area as much as possible.



Case study: The flower sea in Julong Copper blooms on the roof of the world

Julong Copper overcame the unfavourable factors such as extreme cold weather and high-altitude, and invested RMB102 million during the reporting period to actively promote the ecological restoration of the mining zone.

Julong Copper formulated the 2021-2025 Five-Year Ecological Restoration Plan. In accordance with the principle of "developing one area, stabilising one area, treating one area, and achieving success in one area", it conducted full evaluations of the mining zone and surrounding land as well as the ecological risks according to their special geographical location and climatic environment, and made detailed ecological restoration plans. In the process of construction, it made every effort to collect any collectible native turf and humus soil, which were then transplanted and stacked for subsequent reuse. Based on the local land conditions, it followed the scientific model of "planting trees or grass where the conditions are suitable, and forming stepped restoration" to restore vegetation: the "tree + shrub + herb" greening model was mainly adopted in areas below 4,000 metres in altitude, and the "shrub + herb" greening model was mainly adopted in areas between 4,000-5,000 metres in altitude; for areas above 5,000 metres in altitude, the "alpine herb" greening model was mainly adopted. During the reporting period, it completed an ecological restoration area of 1.72 million square metres, with 172,686 trees and shrubs planted.

At present, Julong Copper has a variety species of plants such as alpine grass, plateau willow, Tibetan poplar, sea buckthorn, Gesang flower and rapeseed at the surrounding area. Julong Copper's success has set a model for ecological restoration of plateau mines for the global mining industry.

Before the ecological restoration of the downstream of the tailings storage facility

After the ecological restoration of the downstream of the tailings storage facility

Julong Mine in Tibet before restoration

Julong Mine in Tibet after restoration

Case study: COMMUS pioneered ecological mining in the DR Congo

The soil in the slope of the mining zone of COMMUS is loose and soft, and lacks fertility. The soil is difficult to hold water, and is easily washed away in the rainy season. Due to such issues, the survival rate of grass seeds was less than 10% either from artificial sowing or vegetation planting. In order to improve the ecological restoration work, COMMUS increased plants' survival rate and coverage rates by laying humus to improve the soil quality and artificial deep planting. After several years of hard work, the total area of green plants on the slopes of the dump and tailings storage facility has reached 400,000 square metres, with the coverage rate of the possible greening areas exceeding 90%, which has greatly improved the quality of the local ecological environment.

Before vegetation

After vegetation

Waste Management

A large amount of waste, including tailings, waste rocks, and hazardous waste, is generated during the mining, beneficiation, and processing of ore. In order to process the waste in a responsible manner, we fulfill our commitment to reduce its impact and risks on the environment through reasonable storage, disposal, recycling and re-use. During the reporting period, we did not have any major lawsuits relating to general or more serious environmental emergencies and hazardous waste violations.

We strictly abide by the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Standard for pollution control on the non-hazardous industrial solid waste storage and landfill (GB18599-2020), Standard for pollution control on hazardous waste storage (GB18597-2001), and the relevant environmental protection laws and regulations of China and other places where our projects are located. We encourage various production and operating sites to carry out technological innovation and process improvement, to effectively reduce the generation of waste and take actions of “volume reduction at the source, control in the middle, and management, recycling, and reuse at the end”.

Non-hazardous Waste

Non-hazardous waste mainly includes tailings and waste rocks generated in mining operations, tailings and smelting slag generated in smelting process, neutralised slag and inorganic crystalline salts generated in water treatment process, and domestic waste. Our principle is "turning waste into resources and utilisation", to increase the added value of comprehensive waste utilisation and reducing waste generation. For tailings and waste rocks, we give priority to underground refilling, use as building materials, vegetation restoration, road paving, recovery of valuable components, and other means for their comprehensive utilisation. The rest is stored in dumps or tailings storage facilities that meet the national standards of the project locations. Seepage prevention in tailings storage facilities is carried out in accordance with the local standards to ensure the safety of groundwater quality in the downstream of the tailings storage facilities. Ecological restoration has also been done in a timely manner on the slopes that have been stabilised and at the closed tailings storage facilities. For the tailings generated from smelting, we give priority to the recovery of their valuable components. For example, the smelting slag is re-ground and re-processed, with the recovered slag concentrate returned to the smelting system as raw materials for production, and the processed tailings are sold externally as cement additives. The anode slime materials, which are the final waste from copper smelting are effectively treated in the terminal material comprehensive recovery system for the recovery of rare and precious metal elements, including gold, silver, selenium, tellurium, platinum, palladium, rhenium and so on. The slag generated in the water treatment process will be sold externally as a cement additive or used as a neutraliser for acidic slopes reclaimed, to improve its utilisation value.

Non-hazardous Waste

Indicator	Unit	2021	2020	2019
Total non-hazardous waste generated	Million tonnes	640.50	554.60	452.18
- On-site diverted from disposal	Million tonnes	82.19	66.44	30.32
- Off-site diverted from disposal	Million tonnes	5.05	5.16	4.47
- On-site directed to disposal	Million tonnes	444.82	381.22	312.62
- Off-site directed to disposal	Million tonnes	108.44	101.78	104.77
Non-hazardous waste comprehensive utilisation rate	%	13.62	12.91	7.69
Non-hazardous waste generated intensity by revenue	Tonne/RMB10,000	28.45	32.34	33.22

Note: The data may vary from previous years due to the addition to the non-hazardous waste statistics data processed tailings and smelting slag generated in the smelting process, neutralised slag and inorganic crystalline salts generated in the water treatment process, domestic waste, etc.

Tailings

Indicator	Unit	2021	2020	2019
Total tailings generated	Million tonnes	114.34	97.38	86.03
Total tailings recovered	Million tonnes	25.28	20.73	16.46
- Used for mine reclamation	Million tonnes	23.22	19.00	14.87
- Re-processed or manufactured	Million tonnes	2.03	1.73	1.59
- Re-utilised	Million tonnes	0.03	0	0
- Externally recycled	Tonne	3,876	0	200
Recycling rate	%	22.11	21.29	19.13

Note: This table modifies and supplements the data of the companies that had been in production for less than half a year in previous years, so the amount of recycling may be different from the data disclosed in previous years.

Hazardous Waste

Our hazardous waste mainly includes waste oil produced in the smelting process, hazardous waste from copper smelting and lead smelting. We carry out comprehensive utilisation and optimise the original production process or treatment process to reduce the generation of hazardous waste from the source. We mainly take the following measures:

- Standardised management in the transportation, storage, use and disposal of hazardous materials to reduce the generation of hazardous waste.
- All operating projects have their own independent closed hazardous waste storage warehouses that are windproof, rainproof, sunproof and with warning signs, and there are collection channels on the ground for leaking liquids and wastewater from ground washing.
- In addition to enhancing comprehensive utilisation of waste, we turn waste into resources and render the waste harmless. For example, through the recovery and utilisation of valuable components such as rare and scattered metals and rare and precious metals in non-ferrous metal smelting slag, we carry out scaled utilisation of the residual waste resulting from the extraction of valuable metals to reduce the original harmfulness of hazardous waste.
- Hazardous waste that cannot be recycled or disposed of on-site will be recycled and disposed of through a qualified third-party.

Hazardous Waste

Indicator	Unit	2021	2020	2019
Total hazardous waste	Tonne	357,214.01	279,286.75	414,012.78
- On-site diverted from disposal	Tonne	42,097.84	25.06	24.60
- Off-site diverted from disposal	Tonne	79,617.90	64,747.03	65,294.27
- On-site directed to disposal	Tonne	228,658.34	212,373.35	345,905.39
- Off-site directed to disposal	Tonne	6,839.93	2,141.31	2,788.52
Hazardous waste comprehensive utilisation rate	%	34.07	23.19	15.78
Hazardous waste generated intensity by revenue	Tonne/RMB million	1.59	1.63	3.04

Air Emissions

Our main pollutants in air emissions include dust from mining, flue gas from smelting, and sulphur dioxide and nitrogen oxides from fuel combustion. The standard we take for air emissions in mine projects is Integrated emission standard of air pollutants (GB16297-1996), the laws and regulations of the host countries and the IFC Standards. Dust in organised discharge is collected and processed with dust removal equipment. Dust in unorganised discharge is controlled with adding fog cannons, atomising spray devices, sprinklers, wind and dust suppression nets, closed storage, and other measures.

Air emission standards implemented in smelting companies include Emission standard of pollutants for copper, nickel, cobalt industry (GB25467-2010), Emission standard of pollutants for lead and zinc industry (GB25466-2010), the laws and regulations of the host countries and the IFC Standards. High-concentration sulphur dioxide and nitrogen oxides in the smelting flue gas are recovered through the acidic gas production systems to obtain by-products such as sulphuric acid and nitric acid. The combined process technology of dry activated coke desulphurisation and highly effective wet scrubbing and the highly effective hydrogen peroxide desulphurisation are used to recover flue gas to efficiently remove sulphur dioxide and heavy metals. The annual average emission concentration of sulphur dioxide was below 40mg/m^3 and the annual average emission concentration of nitrogen oxides was below 11 mg/m^3.

All of our smelting companies have installed online monitoring equipment to dynamically monitor the concentration of gas pollutants in real time. They also regularly entrust third-party agencies to inspect the air pollutants emitted, and monitor the gas pollutants and surrounding air quality regularly on a quarterly basis.

During the reporting period, due to the construction completion and operation of new smelting and processing projects and the expansion of production capacity of some projects, the Company's total annual emissions of air pollutants increased compared with 2020. However, through measures such as technical research, exhaust gas treatment and transformation, and ultra-low emission transformation, the emission intensities of sulphur dioxide and nitrogen oxides decreased by about 15.59% and 11.96%, respectively, compared with 2020.

Air Emissions

Indicator	Unit	2021	2020	2019
Nitrogen oxides	Tonne	888.41	768.81	957.17
Sulphur dioxide	Tonne	1,483.64	1,344.86	1,380.71
Particulate matter (PM)	Tonne	754.30	646.60	643.50

Notes: 1. The total amount of air pollutants is estimated based on the pollutant concentrations and exhaust gas flow in the exhaust gas inspection reports.
2. For details of the emission concentrations of various air pollutants of each subsidiary, please refer to the Company's annual report.

Case study: The remarkable results of the flue gas treatment of the Bor Copper Mine in Serbia

Due to historical problems of the Bor Copper Mine, including backward process, aging equipment, and insufficient investment, its smelter had not been able to solve the problem of excessive flue gas emission, which had affected the reputation of the company and the local environment. After Zijin Mining took over the Bor Copper Mine in December 2018, in order to solve the problem of excessive flue gas emission of the smelter, overall comprehensive technical upgrade of the TIR smelter was implemented. The newly built exhaust gas collection and desulphurisation system was completed ahead of schedule and put into operation on 25 July 2021. Through comparison of the data from the automatic air quality monitoring stations, the sulphur dioxide concentrations of various monitoring stations in the urban area of Bor City dropped significantly from the previous period, the average SO_2 concentration dropped by about 24.6% compared with that before the system was put into use, and the daily average SO_2 concentration was less than 17% of that in the Serbian air quality standard. This improved the air quality of Bor City and increased the satisfaction level of the local government and community.

The new collection and desulphurisation system of Serbia Zijin Copper's TIR Smelter is put into trial operation

Third-Party Comments

"Before Zijin Mining came here, the air quality problem in Bor had existed for decades. The Ministry of Environmental Protection and Zijin Mining have worked hard to completely solve the air pollution problem from the very beginning. With the new system put into operation, we took a big step forward towards this goal. The air quality in Bor has been significantly improved, and the comparable data from our monitoring stations can prove this. In August this year, there was not a single day with the data exceeding the standard. We expect that in 2022, after the technical upgrade project is fully completed, the flue gas problem in Bor will be completely eradicated."

——Vujović, Minister of Environmental Protection of Serbia

"Thanks to the investment from Zijin Mining, the city's budget almost doubled what it was in 2008, and I believe that by next August, Bor will become a city of ecological civilisation."

——Aleksandar Milikić, Mayor of Bor City

"I am very pleased to see the efforts made by the Serbian government and Zijin Mining to protect the ecological environment. In terms of ecological protection, China and Serbia adhere to the common philosophy that protecting the environment is protecting productivity."

——Liu Kai, Counselor of the Chinese Embassy in Serbia

Tailings Storage Facility Management

Following the 15 principles of the Global Industry Standard on Tailings Management, we take responsibility for all phases in the lifecycle of the tailings storage facilities, including closure and post-closure, and prioritise safety of the tailings storage facilities. We take social, environmental, local requirements and technical factors into comprehensive consideration, and based on the good practices learned and centralised risk investigation and rectification during the initial stage, we have formulated the Whole Life Management Process Standard for Tailings Storage Facilities and the Safety Management Specification for Tailings Storage Facilities with life cycle management of tailings storage facilities covering design, construction, operation, closure and post-closure.

Pre-design
1. Feasibility study
2. Geotechnical investigation

During design
1. Dam collapse simulation analysis
2. Design and review of safety facilities

Construction
1. Quality control assurance
2. Change management system

Operation
1. Establishing policies, systems and accountability mechanisms
2. Corresponding governance structure
3. Quality and risk management review at different levels
4. Ordinary training and learning from incidents
5. Emergency response and recovery mechanism

Closure and post-closure
1. Safety evaluation, design and acceptance
2. Routine inspection and monitoring
3. Ecological restoration and comprehensive utilisation

During the reporting period, there were a total of 52 tailings storage facilities principally managed by the Company. We conducted a comprehensive risk assessment of all the tailings storage facilities (mainly including the number of persons subject to potential harms, possible loss of life (damage to health), environmental impact, infrastructure and economy, and social and community impacts). All the tailings storage facilities have been identified as having a low potential risk.

Based on Safety regulations for tailings pond of China, we have strengthened the dissemination and implementation of tailings storage facilities management, improved the life cycle management process of tailings storage facilities, and continued to promote and solidify the existing systematic and standardised whole-process management requirements, paying more attention to the assessment and maintenance of the reliability and safety of tailing dams and drainage systems. Each responsible subsidiary has tested and inspected the quality of the flood drainage system as required, and conducted safety assessments on tailings dams in accordance with the regulations to ensure that the tailings storage facilities are reliable and safe, with legal compliance rate of 100%.

Tailings Storage Facilities Distribution

Society

Targets	Achievements in 2021
Maintain local employment rate at above 95%	Local employment rate reached 96.04%
Maintain local procurement rate at above 30%	Local procurement rate reached 31.8%
Using 2020 as benchmark, obtain ISO 45001:2018 certification for all production and operating sites by 2023; and get new production and operation sites certified within three years	Certification coverage reached 87.5%
Using 2019 LTIR as the benchmark, lower 2022 LTIR by 30%	LTIR 0.30
Using 2019 TRIR as the benchmark, lower 2022 TRIR by 30%	TRIR 0.68
Maintain employee and contractor safety training rate at 100%	100% of employees and contractors received safety training with an average of 5.0 training sessions received per employee and contractor
Committed to invest 1% of profit for every financial year	A total of RMB424 million (1.68% of the profit) was invested in communities

Human Rights

We conduct our human rights-related work according to the human rights spirit and missions set out in the UN Guiding Principles on Business and Human Rights, the UN Universal Declaration of Human Rights, and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work.

The Company's ESG Management Committee is responsible for human rights management. All subsidiaries have an ESG working body that is vertically managed by the ESG Management Committee to implement human rights management plans and to supervise compliance with human rights standards. The Committee regularly conducts human rights audits on all projects according to the Corporate Code of Conduct. The chief officer of the Committee (the President of the Company) is responsible for reporting any significant matters or progress to the Board of Directors.

We assess potential human rights risks and develop mitigation measures according to national regulations, the international human rights framework, including the due diligence process in the UN Guiding Principles on Business and Human Rights, and the Company's policies and standards.

We also provide human rights trainings for all employees and stakeholders to raise their awareness on human rights. During the reporting period, we did not have any incidents of human rights violation such as child labour, harassment, and forced labour.

Prohibition of Child Labour

Our Recruitment Management Policy requires strict compliance with the minimum age for work specified in the laws and regulations of the countries (places) where our operations are located or in the ILO Convention No. 138, whichever is higher. To improve the child protection system, the Company requires contractors, suppliers, and labour dispatch agencies to eliminate the use of child labour, analyse the causes of hiring child labour by mistake and take timely remediation measures.

Remediation measures against child labour incidents

- Stop working: When a child labour who is hired by mistake is found, the Company shall stop the child from working, remove the child from workplace, and immediately report to the Company's management representative and the Human Resources Department for support.
- Health examination: The Human Resources Department shall send the child to occupational health institutions to check if the health condition of the child is affected. If the health condition is affected, all of the corresponding living and medical expenses incurred shall be borne by the Company.
- Wages and benefits: When paying wages to the child who is hired by mistake, the amount must be calculated and paid strictly according to the legal provisions of the Company and the national/regional governments, as well as the Company's policies, without any undue deductions.
- Safe return: The Company is obliged to contact the parents or guardians of the child who is hired by mistake and send the child to his/her place of residence safely. All transportation and accommodation costs for the return shall be borne by the Company.
- Compulsory education: The Company shall find out whether the child labour who is hired by mistake has completed compulsory education. The Company shall help the child who has not completed the compulsory education by paying the costs of the compulsory education period.
- Provide support: The Company shall give priority to job opportunities for the family members of the child who is hired by mistake who have reached the legal working age and have the intention and ability to work.

Prohibition of Forced Labour

We have developed a modern slavery risk assessment process according to international practices to reduce the risk of forced labour. For example, during the reporting period, Norton Gold Fields, a subsidiary of the Company, completed the compliance statement for the Modern Slavery Act to comply with the requirements of the local regulations in Australia and based on ongoing enhancements to the management of its operations and supply chain, in order to further reduce the risk of modern slavery and protect and respect human rights.

Screen current critical suppliers

▼

Conduct annual co-evaluation of desk risks with external consultants

▼

Form Modern Slavery Act Compliance Statement

▼

Submit to ESG Committee for approval

▼

Adjust according to policies and regulations

Freedom of Association and Collective Bargaining

We value the role of our employees in democratic management, participation, and supervision, as well as two-way transparent communication with the employees. Within China, each of our subsidiaries has a trade union set up in accordance with the laws and regulations. These trade unions regularly elect employee representatives, convene employee representative meetings, respond to the employees' expectations and demands, and protect the employees' rights to know, to participate, to manage, to elect, and to supervise. The trade unions represent the employees in collective bargaining and signing the Collective Wage Agreement for Employees and the Collective Labour Contract for Employees with the Company. Outside China, our subsidiaries also set up trade unions or other labour organisations in accordance with the relevant laws and regulations of the host countries to protect the legitimate interests of the employees in terms of employment, wages and benefits, rest and leave, occupational health, safety and social insurance. The Company shall notify employees at least 1 month in advance in the case of significant operational changes to minimise potentially negative impacts.

Anti-discrimination and Anti-harassment

In order to create an inclusive work environment for every employee to be treated with the respect he or she deserves, we have zero tolerance for discrimination, bullying, hazing, intimidation, and harassment. We have developed the Workplace Sexual Harassment Prevention and Penalisation Policy to prevent and reduce sexual harassment incidents in the workplace.

Case study: Rio Blanco Copper's prevention and penalisation of sexual harassment in the workplace

In 2021, Rio Blanco Copper established a workplace sexual harassment prevention committee based on Peruvian labour laws and the Company's human resources management standards. At the same time, it improved and implemented relevant rules, regulations and supervision system to prevent and penalise sexual harassment in the workplace, implemented internal control of the process, and provided psychological guidance for the employees, in order to create a workplace with positive atmosphere. The committee is made up of two employee representatives and two employer representatives, comprising two men and two women, to ensure gender equality. The two employee representatives were elected by the staff members of all departments of the company through voting, while the two employer representatives were appointed by the company. The election was notarised by an independent third-party notary in Piura, Peru, in accordance with the law.

The main role of the committee members is to supervise, identify, and review any incidents of sexual harassment in the workplace within the company and promptly report such behaviour after its occurrence. The relevant departments will then take action to intervene and provide counselling to the employees involved. Depending on the severity of the incident found in the investigations, disciplinary actions will be taken against the employees involved, including verbal and written warnings, suspension of work, and dismissal.

In addition, Rio Blanco Copper has engaged a local Peruvian consulting service company to provide regular professional trainings for the committee and relevant departments of the company such as the human resources department and the legal department. Training topics cover internal control procedures for investigation and penalisation, psychotherapy, and measures to protect employees after sexual harassment.

Workplace Sexual Harassment Handling Process

Employee Development

Employee development is an important aspect of the Company's sustainable development, and "people first" is one of the Company's development principles. From equal employment and job security to career development, we strive to provide decent work for our employees to meet their aspirations for a wonderful life.

We have developed the General Human Resources Policy, Job Management Measures, Attendance and Leave Management Measures, Remuneration Policy, Craftsman Training Management Measures, Training Management Measures, Outstanding Youth Talents Management Measures, and other policies on remuneration and dismissal, recruitment and promotion, working hours, leave, equal opportunities, freedom of association, diversity and inclusion, gender equality, anti-discrimination, prohibition of child labour, etc., and implemented the relevant measures to protect every right of our employees. During the reporting period, 100% of employees received regular performance appraisals and career development reviews.

Fair Remuneration and Benefits

Through implementing the Remuneration Policy, we have established a fair remuneration structure with basic salary as the main remuneration, equal pay for equal work as the principle and supplemented by performance bonuses, allowances, and benefits, which facilitates employees' development and applies to all types of employees. We perform regular remuneration benchmarking analysis to make sure all operating sites provide fair remuneration and benefits and competitive remuneration to the employees. During the reporting period, the Company shared the results of economic growth with the employees by rising the basic salaries of all employees. The overall increase in total remuneration for the year was approximately 15% to ensure that standards of remuneration and benefits for our employees are competitive in the countries where our projects are located.

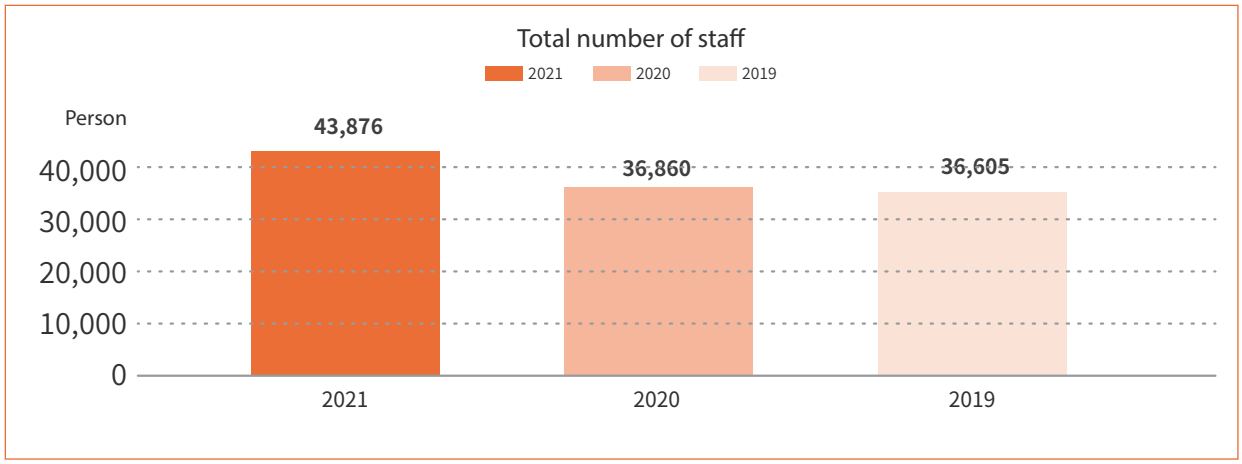
To ensure our female employees' rights and benefits, we have formulated a policy to extend their paid maternity leave. The policy also specifies the relevant treatment for male employees during their paternal leave. On top of that, we have revised our Performance Management Measures to ensure that female employees on maternity leave are given fair performance review. We have also implemented a comprehensive remuneration plan for all levels of employees that includes salary, benefits, career development, and work-life balance.

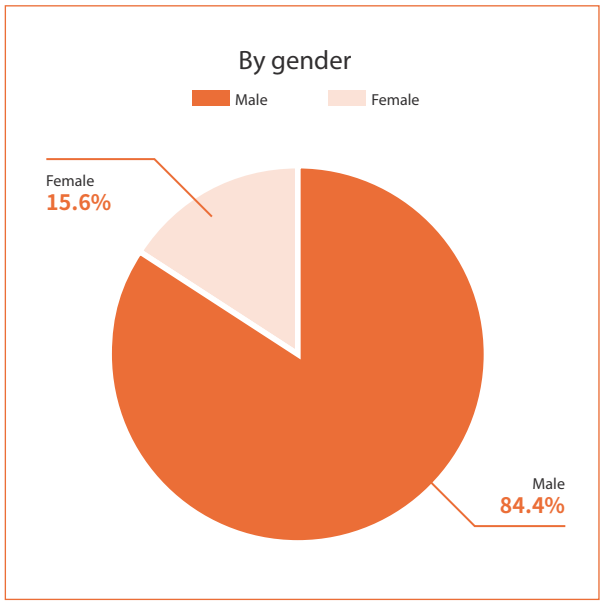
Diversified Employment Policy

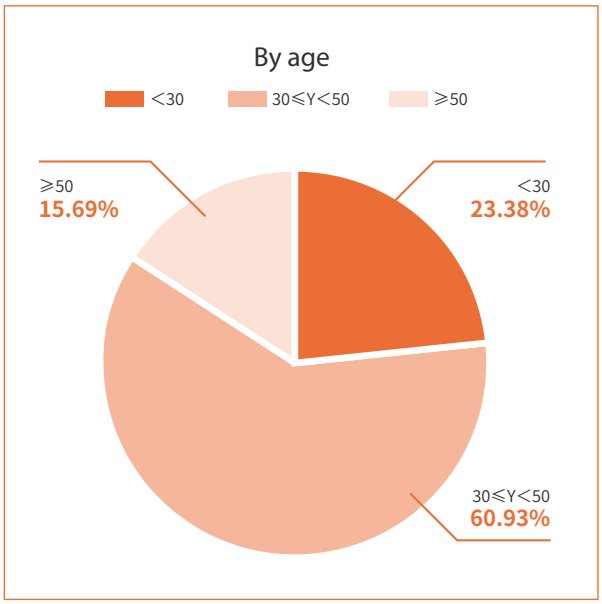
We respect the background of each employee and treat employees of different nationalities, races, genders, religious beliefs, and cultural backgrounds fairly and equally. We have zero tolerance for any discrimination, and strive to build a diverse workforce. With diversity and equal career opportunities in mind, we are dedicated to building a diverse and talented workforce based on skills and potential. During the reporting period, many of the new hirers came from the DR Congo, Madagascar, Pakistan, Zambia, Nigeria and other developing countries. We addressed employment issues in our host countries by adhering to the local employment policy. Our local employment rate during the reporting period reached 96.04%.

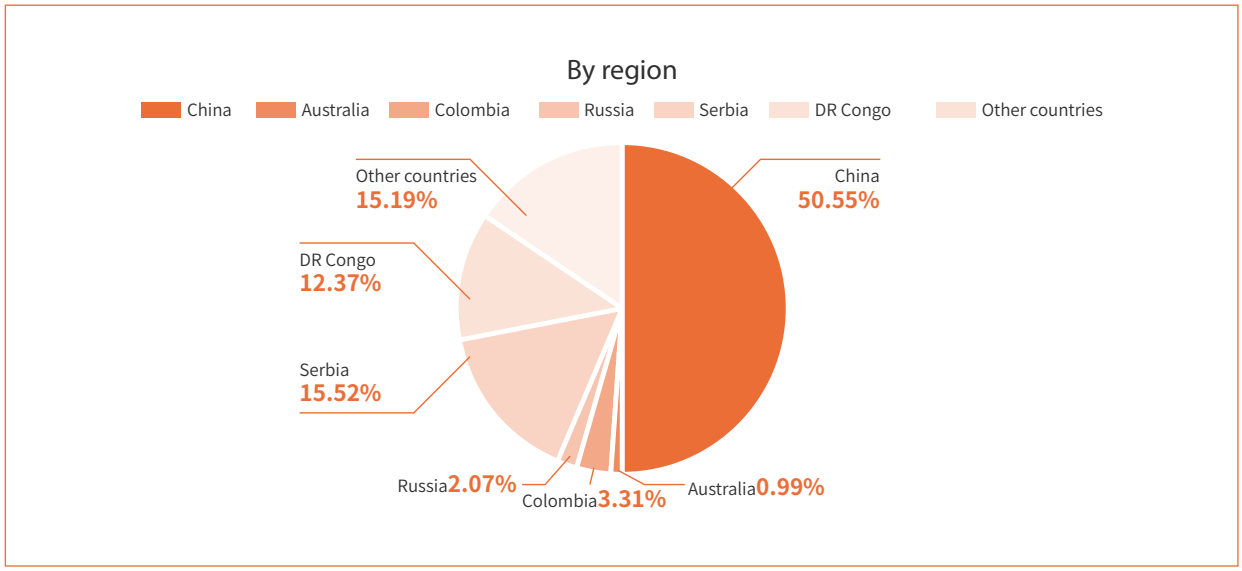
At the end of the reporting period, the Company had 43,876 employees, including 102 dispatched employees (part-time employees), representing 0.23% of the total number of staff.

Staff Composition









During the reporting period, the Company's staff turnover rate was 7.57%. The statistical data of the staff turnover is as follows:

Turnover	Unit	2021	2020	2019
By gender				
Male	%	7.25	8.72	7.66
Female		8.84	12.39	7.74
By age				
< 30	%	10.25	12.42	9.86
30≤Y < 50		5.63	6.83	6.48
≥50		10.68	14.78	10.60
By region				
China	%	8.24	10.51	9.75
Other countries and regions outside China		6.75	7.84	5.17

Note: The workforce statistics were calculated after aggregating the data submitted by each subsidiary. Due to local laws or practices on anti-discrimination, protection of personal privacy, etc., certain subsidiaries are not allowed to collect certain information on their employees, such as age and gender. As a result, there are certain discrepancies between the total number of employees and the actual total number of employees in the calculation of the employee ratio in each category. Our disclosure is based on the ratio in the actual statistics, and the number of such employees who are not counted in the ratio of the Company's employees by gender and age in 2021 is approximately 4,831.

Case study: Nkwe creates job opportunities for the local communities

Zijin Mining's Nkwe Garatau Platinum Group Metals Mine (Nkwe) in Limpopo Province, South Africa is actively working with the local government to help with the development of the local communities. Nkwe gives priority to employing local people, continues to provide bursaries and study programmes for students from the local communities. At the same time, it makes donation to the local communities to alleviate poverty and provides help for the pandemic prevention in the local communities.

In order to enhance the employability of the local communities, Nkwe has launched the local social and labour programme (SLP). A total of 14.5 million South African Rand has been invested in this programme for adult training, education, and bursaries to benefit the residents living near the mine.

Stan Mathabatha, Premier of Limpopo Province, praised Nkwe and Zijin Mining for their investments in establishing the Garatau Platinum Group Metals Mine, saying it would create much needed jobs for the local people, so as to reduce unemployment and eradicate poverty, contributing to social development.

Multi-path Development and Training

Growth of our employees is the cornerstone of our success. Ensuring that our employees receive the proper continuing education and skills training is essential for the sustainable development of the Company. We have established a comprehensive international-oriented education and training system that has a complete hierarchy and wide coverage. We also actively carry out career planning for our employees.

We have developed a diversified employee growth mechanism to lay out three career paths for all employees, namely administrative management, business management, and technical expertise. Employees can choose their own path according to their personal intention. At the same time, we have developed a series of training and development programmes for different types of employees to give full play to their own value, which include the "Senior Management Reserves", "Outstanding Youth Talents", "Outstanding Craftsmen" and "Golden Elites". We strive to build stronger leadership skills for our employees at all levels through the development and training mechanisms.

During the reporting period, we revised the General Human Resources Management Policy to encourage all employees to participate in continuing education and obtain various qualifications. Employees can reimburse the full amount of their tuition fees and enjoy opportunities for salary increase and promotion.

We have a professional development system including internal training, job rotation opportunities, and incentive-based development programmes for our employees. During the reporting period, the average numbers of training hours for male and female employees are 31.15 and 31.34, respectively.

Employee Training by Job Level

By job level	Number of persons trained	Training ratio (%)	Average number of training hours
Upper-level employees	554	100	28.31
Mid-level employees	2,280	82.7	29.20
Entry-level employees	16,780	93.9	32.51

Note: Entry-level employees do not include overseas entry-level employees, employees with no job level yet, and employees below Grade 8.

Case study: Nkwe empowers women in the mining industry

South African Women's Day falls on 9 August every year. It aims to promote gender equality, effectively help women to gain equal access to education, increase women's participation in politics, and allow them to enjoy their legitimate rights that are guaranteed by laws. Before the Women's Day in 2021, Nkwe rolled out three initiatives to enhance the rights and abilities of women in the communities near the mine.

- Nkwe and Zijin Mining jointly established the Garatau Women's Forum, which consists of five women from the Garatau community. It is a tripartite effort between the mine, the community, and the regulatory body to build an inclusive society that can actively promote the well-being of the local women.
- One thousand sets of sanitary products were donated to the communities near the mine. Nkwe and Zijin Mining distributed sanitary products to impoverished girls and women in schools in Garatau, Maandagshoek, Hoepakrantz, and De Kom, and arranged the local women's groups to provide livelihood counselling for them in order to raise the cleanliness and hygiene awareness among local women.
- Nkwe and Zijin Mining have partnered with Sany Southern Africa, the world's leading manufacturer and supplier of construction and mining equipment, to provide an introductory excavator training programme for six female residents from the mining communities. During the one-week programme, they learned the basic components and structure of an excavator and practised how to operate it.

Third-party Comment

"We are delighted to be working with Nkwe and Zijin Mining on this training programme. Women are severely under-represented in the mining industry, so we hope to help them gain a greater competitive edge for employment in this sector by empowering them with high-quality training in excavator operation skills and state-of-the-art equipment."

——Samuel Zhang, General Manager of Sany Southern Africa

Occupational Health and Safety

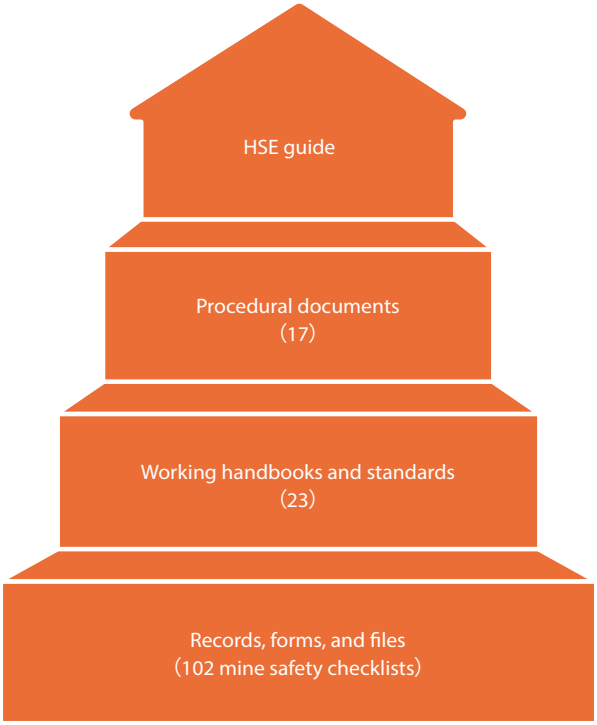
We adhere to the safety philosophy of "life comes first," with our safety management work guided by the "Top 10 Safety Guidelines" to achieve our goal of "Zero Fatality and Zero Occupational Disease". We are committed to providing a safe and healthy workplace for our employees and contractors. We strive to prevent work-related injuries and health damage, effectively manage occupational health and safety risks associated with our production and operation to improve our occupational health and safety performance and bring health and well-being to our employees and contractors, as well as the communities in the places where our operations are located.

The Company's Board of Directors is responsible for making decisions on important safety and health matters. The SPC is responsible for managing safety and health work across departments, and establishing, managing and evaluating the Company's safety and health objectives and guidelines. The safety and health department of each subsidiary carries out safety and health-related work as required by the SPC.

On the basis of risk prevention and control, dynamic management, and full participation, we have developed and issued Occupational Health, Safety, and Environment Management Guide (the "HSE Guide"), a guiding policy document, with reference made to the ISO 45001 standards and international best practices to initially form a pyramid-shaped safety management system for the Company. The HSE Guide covers all of operation scenarios and processes and is applicable to all employees and contractors. During the reporting period, 17 mines and smelters newly obtained the ISO 45001 certification. There are a total of 35 subsidiaries obtained the certification. The certification coverage reaches 87.5%. Our target is to obtain ISO 45001 certification for our production and operation sites (use 2020 as benchmark) by 2023, and new production and operation sites must obtain certification within three years.

During the reporting period, we accumulatively invested RMB1.493 billion on production safety, including improvement, modification, and maintenance of safe protection facilities and equipment; standardisation of safety inspection, evaluation, and consultation; safety education and training; and safety protection equipment for the workers.

Pyramid of the Company's safety management system

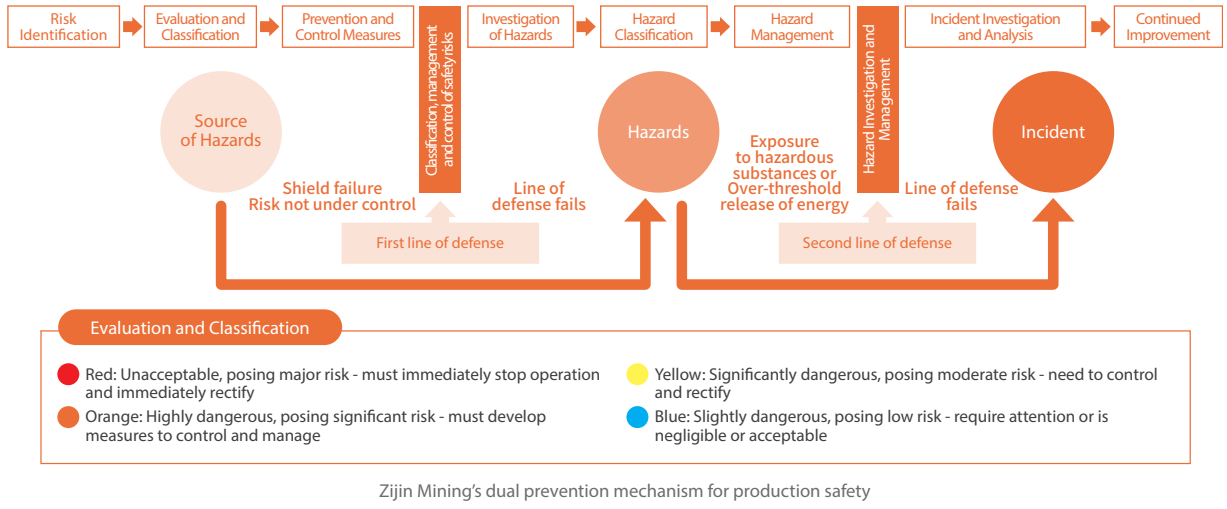


Safety Risk Management

We believe that good safety and occupational health performance can be achieved in spite of the inherent safety risks and production scale of a company, and we believe that all work-related injuries and occupational diseases are preventable. Dedicated to the effective management and prevention of safety and occupational health risks that may arise in our business, we have formulated the Measures for Safety Risk Classification, Management and Control and Prevention, Investigation and Management of Hidden Hazards. Based on these measures, we established a dual prevention mechanism comprising the Company's safety risk classification, management and control, and prevention, investigation and management of hidden hazards in an effort to eliminate risks at their source.

Zijin Mining's dual prevention mechanism comprising of safety risk classification, management, control and prevention, investigation and management of hidden hazards

We have established a long-term mechanism for risk management, implemented dynamic safety risk management and control in different levels. Unimplemented and ineffective risk control measures are treated as safety hazards and dealt with in order to ensure that all types of risk management and control measures always remain effective, and take safety precautions against hazards, effectively preventing safety incidents.



Zijin Mining's dual prevention mechanism for production safety

During the reporting period, we developed a self-initiated incident management information system, and encouraged reporting near misses and trivial incidents. Through analysing incident information such as the time of occurrence, location, type of incident, hazards, job position involved, injury areas, etc. relating to the incidents, we can send alerts and formulate targeted preventive measures to mitigate safety risks and eliminate the hidden hazards in order to secure production safety. Sadly, four of our subsidiaries and four of our contractors had production safety accidents in which four of our employees and four contractors' employees succumbed to the injuries. The causes of the incidents included roof-falling and rib-spalling, motor vehicle injury, machinery injury, fire, etc.

We have made thorough investigations on the incidents, their process and causes, analysed in-depth the main problems and contradictions, and formulated various rectification measures to avoid similar accidents in the future. The main reasons of the increasing fatality number during the reporting period compared to previous years are as follows:

1. The long period of pandemic hindered the construction and production of projects. In particular, many frontline employees in overseas projects stayed abroad for a long time, which caused impacts to their physical and mental health to a certain extent. Although the Company increased humanistic care and behavioral intervention, the possibility of abnormality and operation error is still relatively high.
2. Despite the safety facilities, management, and training applied in production processes and operating behaviour, there is still a certain probability of incidents. The Company will further develop delicate safety management from the aspects of ergonomics and intrinsic safety improvement.
3. As more newly acquired projects were put into production, our project coverage area increased. The original safety facilities of such projects are relatively poor. The total numbers of employees and production hours also increased.

To prevent such incidents, we have adopted the following improving measures:

1. Raising safety awareness of our employees: increase the care for the physical and mental health of employees; carry out safety education; standardise the operation process; and improve the work environment.

2. Optimising safety management: standardise the entire mining process; carry out construction plan reviews and demonstrations; manage tunnel roofs and open-pit slopes by zone and grade; clarify the licencing regulations on unconventional operations so that no work can commence before the risks are identified.

3. Strengthening safety hazards checks: comprehensively rectify the safety problems of machines and equipment, safety facilities and dangerous chemicals, improve the safety level of equipment, facilities and work environment.

4. Promoting the establishment of intelligent mines: cooperate with high-tech enterprises in the project design and construction of intelligent mines; according to the production scale and production process of each subsidiary, implement different level of "three advancements" (replacing personnel with machine, reducing personnel with automation, and adopting unmanned intelligent operation).

Production Safety Performance

Indicator	Unit	2021	2020	2019
Number of work-related fatalities of our employees	/	4	0	0
Number of work-related fatalities of contractors' employees	/	4	2	1
Lost days	/	2,540.75	5,909.50	4,448.25
Lost work hours rate (per million hours worked)	/	105.62	328.35	251.88
Lost time injury rate (LTIR) (per million hours worked)	/	0.30	0.33	0.89
Total recordable incident rate (TRIR) (per million hours worked)	/	0.68	0.69	1.37
Near miss frequency rate (NMFR) (per million hours worked)	/	0.18	0.07	0.16
Total number of hours worked	Million hours	192.44	143.98	141.28

Notes:
1. Calculation methods: Lost work hours rate = Lost work hours due to work-related injuries ÷ Total number of hours worked x 1,000,000
Lost time injury rate (LTIR) = Number of persons with lost time injury ÷ Total number of hours worked x 1,000,000
Total recordable incident rate (TRIR) = Number of persons with recordable incident injury ÷ Total number of hours worked x 1,000,000
Near miss frequency rate (NMFR) = Number of near misses ÷ Total number of hours worked x 1,000,000
2. Unless otherwise indicated, the scope of these statistics includes mines, smelting and processing companies under actual operational control of the Company, and their contractors.

Fostering a Safety Culture

Fostering a safety culture is the core in raising employee safety and health awareness and the Company's safety management. We have established a safety training and education database based on the Safe Production Training Policy. For different types of personnel including new employees, current employees, employees at special work positions and employees of contractors, we have different training requirements and training records on duration, content, category, methodology, and assessment according to the nature of the different job positions:

- all workers need to pass the necessary tests and obtain the licence to work; transfer staff and new process workers need to be retrained and pass the necessary tests before they are allowed to commence work;
- all workers and persons-in-charge are randomly selected for safety knowledge check, and those who fail are required to retake the trainings; and
- all workers are required to receive no less than 20 hours of on-the-job safety training and education per year, and the key persons-in-charge to receive no less than 16 hours of safety training per year, and anyone entering the mine must receive basic safety training prior to entry.

Indicator	Unit	2021	2020
Cumulative number of attendances of safety training by current employees	10,000	33.43	23.97 (excl. contractors)
Number of training sessions per current employee	/	5.0	6.8 (excl. contractors)

In order to enhance the safety awareness of all employees, we have implemented a visualised safety training module of "training + coursework + database + assessment + inspection". We have established the "Zijin Safety Academy" safety training and education platform and carried out online and offline safety training with assessment and supervision. Now, we have 2,000 visits for online safety training per day . In addition, a number of subsidiaries including the Zijinshan Gold and Copper Mine, Zijin Copper, and Duobaoshan Copper Industry are providing three-dimensional education to construction workers through the Safety Experience Centre to let them intuitively and vividly get to know the sources of danger they may face in their work environment and feel the danger of non-compliant operations.

Chinese and Serbian safety management personnel training of Serbia Zijin Copper

Serbia Zijin Copper's pre-entry safety education for contractors

Safety Management of Contractors

We regard contractors as our important partners in safety work. We integrate them into the Company's occupational health and safety management system to establish a management model that treats all of us equally, manages all of us in the same way, subjects all of us to the same requirements, and makes all of us better.

In accordance with the Measures for the Management of Production Safety of Contractors, we assess the level of safety management and risks of the contractors and implement a customised plan for each contractor, raise the level of supervision on contractors with high risk level, poor management capability, abnormal staff turnover rate, low staff safety compliance, and frequent accidents, and assign safety supervisors to the individual projects.

To improve the level of safety management of contractors, we manage our contractors as a whole to standardise management, training, inspection, assessment, and reward and punishment. To cultivate our own professional mining team and effectively carry out technological innovation in safe mining, some subsidiaries such as the Zijinshan Gold and Copper Mine and Ashele Copper are gradually shifting to self-employed mining teams or overall contracting.

Management of Hazardous Chemicals

We have formulated policies, such as the Code of Practice for Safe Management of Hazardous Chemicals, strictly according to international management standards related to hazardous chemicals and the laws and regulations of the countries in which we operate. At the same time, we carry out proper safety management in the procurement, transportation, production, storage, and use of hazardous chemicals, including cyanide, through the following measures:

- Refrain from using and producing chemicals that are prohibited by the laws and regulations of the host countries and international conventions;
- Design storage depots for hazardous chemicals according to specifications and install relevant emergency facilities according to the required standards;
- All employees and contractors who handle, transport, and dispose of hazardous chemicals must receive special training;
- Develop special emergency plans for relevant hazardous chemicals and conduct emergency drills at least once a year.

In addition, we comply with the Minamata Convention on Mercury by committing not to use mercury to extract gold or accept gold that are produced by third parties using mercury. For elemental mercury that may be present in natural ores, we will dispose of and control it through measures such as fume capture and inspection in our mineral processing and smelting to ensure compliant emissions.

Promoting Employees' Physical and Mental Health

The mental and physical well-being of our employees is important to us. We are committed to creating a decent work environment for our employees. In order to effectively prevent, control, and eliminate factors of occupational hazards in the work environment, we formulate occupational health management plan in strict accordance with the policy of "prevention first, combining prevention and control" to implement classification management and comprehensive control.

- Training and education on prevention and control of occupational diseases: Before new employees start their work, they receive trainings on the risks of occupational hazards to which their job positions are exposed. After they start their work, they will receive regular safety trainings to enhance their knowledge in prevention of and protection from occupational diseases.
- Regular monitoring of occupational hazard factors: Define the cycle of internal and external monitoring and establish a monitoring record. Organise regular occupational health check for the employees and create "one file per person" for occupational health monitoring.
- Reducing the risk of exposure to occupational diseases: Implement a mechanism for job rotation and movement for personnel subject to risk of occupational diseases. Actively promote automation and remote control technology, and implement online monitoring and management and control of factors of occupational disease hazards such as dust, noise, and toxic gases to reduce the employees' risk of exposure to occupational diseases.
- Focusing on physical and mental health: Set up staff lounges in the mines to provide leisure and sports facilities for the employees, and organise regular psychological counselling activities to reduce the negative impact from work stress and improve the physical and mental health of the employees.

Case study: Serbia Zijin Copper optimises ventilation system to effectively prevent and reduce dust for a better work environment

Due to historical problem, the concentration of the dust generated from ore transportation and crushing at the VK Mine, JM Mine, etc., of Serbia Zijin Copper exceeded the standard limits, affecting the health of the employees. After Zijin Mining acquired Serbia Zijin Copper and took over the operations, it managed to effectively control the dust in the VK mineral processing plant by building a new production system, replacing the original dust removal facilities, implementing effective dust control measures, and increasing investment in dust removal facilities. At the same time, it modified and optimised the ventilation system at the JM Mine. It carried out simulation using the Vensim mine ventilation 3D simulation software to strengthen the ventilation capabilities of the system, and effectively improve the employees' work environment.

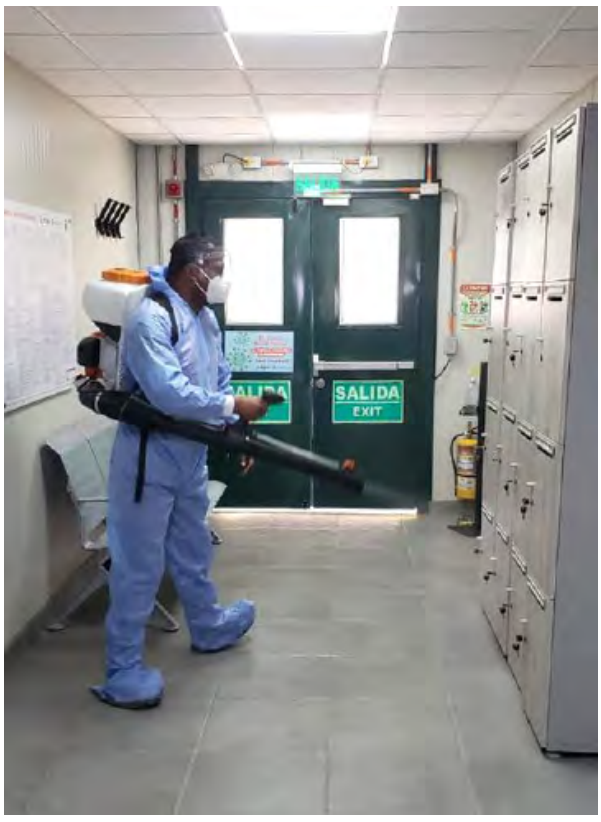
Pandemic Prevention Management

As the global COVID-19 pandemic continues to spread and pandemic control in China is normalised, our primary objective is to protect the health, safety, and well-being of our employees and contractors, as well as to ensure the stability and safety of our surrounding communities.

At the start of the COVID-19 outbreak, we set up a COVID-19 pandemic prevention and control steering group according to the guidelines of the World Health Organization (WHO) and the Chinese government's pandemic control measures. It consists of senior management and is led by the Chairman of the Board of Directors. There are an office, a general liaison team, a production, safety, and environmental protection team, a publicity and training team, a material security team, and an emergency response team under the steering group to plan and coordinate the subsidiaries' pandemic prevention and control work, which forms a comprehensive COVID-19 pandemic prevention and control system. The Company has also formulated the Work Plan for COVID-19 Pandemic Prevention and Control (updated to Version 4 in 2021) as a guiding framework for the pandemic prevention and control work of the Company's headquarters, subsidiaries, and business partners, and actively launched all-rounded pandemic prevention and control measures according to the local pandemic prevention policies to effectively reduce internal COVID-19 infection risk, so as to ensure that our employees, communities, and operations remained unaffected. In addition, we pay close attention to the mental health of our employees who are affected by the pandemic, launch the collaborative "Sunshine Mindset" programme to check for mental health risks and carry out one-on-one psychological counselling to check if the staff have any hidden psychological problems. During the reporting period, we organised nine seminars on mental health in the context of the pandemic situation to relieve employees' anxiety and ensure their physical and mental health and team stability.

In 2021, through active control efforts, the Company achieved zero infection in its projects in China; there were only a few controlled cases in some projects outside China. There was strong health protection for employees and stakeholders. Production and pandemic prevention were able to go hand-in-hand.

Promoting pandemic prevention at the mine



Disinfection at the workplace

Emergency Management System

To prevent emergencies, improve the ability to respond to emergencies involving public crises, prevent the expansion or escalation of incidents, minimise casualties and property losses, and reduce environmental damage and social impact, we have established an emergency management system with Zijin Mining's characteristics. Meanwhile, we formulated emergency response plans to effectively and promptly respond to various emergencies such as safety incidents, environmental incidents, natural disasters, and public health events.

We regularly revise our plans and conduct emergency drills at least twice a year to ensure these plans remain practical. During the reporting period, a total of 782 emergency drills for production safety incidents were conducted across the entire Group. Upholding the philosophy of "when one place suffers misfortune, aid comes from all sides", the emergency response teams of our subsidiaries went on several support missions in the localities of the projects to help the local communities handle emergencies.

Emergency Response Plans

- Emergency response plan for production safety incidents
- Emergency response plan for mass security incidents
- Emergency response plan for floods and storms
- Emergency response plan for geological disasters
- Emergency response plan for public health incidents
- Emergency response plan for environmental incidents
- Emergency response plan for overseas crisis
- Emergency response plan for building safety
- Emergency response plan for cyber security

Norton Gold Fields continues to work with the fire and emergency management departments of the local government to conduct emergency response training to improve emergency management capabilities. It is committed to Certificate III as the minimum standard for emergency response and rescue. It identifies potential emergency scenarios through mine risk assessments, provides technical training for each scenario to ensure our emergency response team is fully prepared for emergencies, and organises emergency response competitions to examine the effectiveness of the emergency response training.

In 2021, Zeravshan delivered emergency relief services to the surrounding communities on 21 occasions. The pictures show its personnel helping the local government to clear roads that were washed away by mudslides.

Implementing "Technology for Better Safety" Strategy

In order to overcome the safety risks caused by human factors and environmental factors at the mines, we have implemented the "Technology for Better Safety" strategy, which involves the use of advanced information technology data platforms, intelligent equipment, and automated machinery to improve production safety or replacing humans, so as to prevent potential safety and health impacts on employees in the workplace and to enhance the intrinsic safety of our mines.

Case study: Safety Risk Management Digital Platform for All Staff being promoted at the mines

The Group's Safety Risk Management Digital Platform for All Staff was launched in early 2019 to standardise safety work management and the work conduct of the frontline staff. It provides standardised, procedural, and detailed management of safety management work and the key nodes of the frontline operation processes through computer and mobile applications to rapidly improve the timeliness of safety management and transform the top-down, singular management mode into a comprehensive management mode that is interactive and participated by all staff. The new platform covers the entire process of the work safety for all staff in the processing plants. The platform not only improves the efficiency of safety management work, but also helps the staff develop work safe behaviour as a habit, making safety management "systematic, precise and transparent". This system has completed its pilot phase and will be gradually rolled out in all mines.

Security Practices

We are dedicated to protecting and respecting the personal and property safety, as well as basic freedoms and human rights, of our employees, communities, and other stakeholders who may be affected by our production and operations. We integrate security and human rights management into the Company's ESG strategic planning and operational activities and abide by the Voluntary Principles on Security and Human Rights (VPs). Guided by the ISO 31000 risk assessment process, we have assessed the implementation of baseline security risk standards and risk levels for our projects against security risk assessment models recognised by the international security industry, as well as elements set by international security experts, and formulated corresponding mitigation and alleviation measures. We have formulated the Security and Human Rights Policy, the Guidelines on the Principles of the Use of Security Force Overseas, the Guidelines on Security Facilities and Security Forces for Overseas Projects, and other security management policies, baseline security standards, and crisis management plans.

Our objectives:

- No violations against our employees and assets by external parties;
- Safeguard the Company's personnel, property, information, processes, and reputation;
- Do not commit or contribute to serious human rights abuses;
- Through our partnerships, indirectly avoid or mitigate adverse human rights impacts that are related to our operations, products, or services;
- Where we have directly or indirectly caused an adverse human rights impact, we will investigate the case according to the relevant procedures and take appropriate remedial actions;
- Create and maintain a safe and stable work environment for our employees and contractors;
- Adjust security measures according to actual and everchanging risks, in order to balance security needs and production and operation needs; and
- Make a positive impact on the safety of the surrounding communities.

Modern security management is risk-oriented and intelligence-based. The Company's headquarters makes use of the public opinion monitoring platform and the risk intelligence platform to collect, process, analyse, and generate risk intelligence, in order to issue timely security risk alerts to employees stationed at overseas projects, as well as employees in international business trips, and carry out travel risk management. At the same time, they also provide objective and credible design benchmarks for the design of security systems, as well as viable intelligence for management decisions.

During the reporting period, we provided trainings to a total of 1,309 security personnel from our overseas projects related to human rights policies and specific procedures; the training coverage rate was 100%.

Collect risk information via various channels → Conduct preliminary data analysis → Conduct in-depth integration and data analysis → Apply the analysis results on decision-makings and take actions

Case study: Security and human rights trainings in the DR Congo

To further raise the awareness of human rights protection and provide the human rights related professional knowledge to our employees in the DR Congo, build a harmonious and friendly community atmosphere, and promote peaceful coexistence with the local communities, the Company held several security and human rights training sessions in 2021. The trainings were attended by 377 security personnel from three projects in the DR Congo, namely COMMUS, Kamoa, and CARRILU. Professional human rights trainers were invited to systematically speak on the topics about the types of human rights issues within the extractive industries, as well as how to provide support for the development of surrounding communities and how to promote relations between the companies and local communities.

Product Responsibility

Product Management

We follow the integrity philosophy of "putting our foothold in gold products, achieving mutual benefits and win-win situation", and formulated customer service and quality assessment systems, including Zijin-Brand Product Quality Management Measures and Customer Satisfaction Survey Procedures. We use various channels to collect customer feedback on our products and services and have established a customer needs database, forwarding customer needs and suggestions to our production, technology, process, equipment, quality, and other departments, so as to formulate product improvement plans and continuously improve our product quality and services.

The quality and technical parameters of the gold bullion, silver bullion, copper cathode, and zinc bullion produced by the Company are in line with or even better than the technical indicators specified in the national standards, including GB/T 4134-2015 (Gold ingots), GB/T 4135-2016 (Silver ingots), GB/T 467-2010 (Copper cathode), and GB/T 470-2008 (Zinc ingots). The "Zijin" brand gold bullion and "Zijin" brand silver bullion have passed the quality certification by the London Bullion Market Association (LBMA). The quality of "Zijin" brand A-grade copper and "Zijin" brand zinc bullion have obtained official and international recognition, and they are registered delivery brands at the London Metal Exchange (LME). Zijin Gold Smelting, a subsidiary of the Company, is one of the first gold refineries qualified by the Shanghai Gold Exchange to provide standard gold bullion and has received recognition from the Shanghai Gold Exchange for 14 consecutive years. In April 2021, Zijin Gold Smelting received the title "Best Enterprise Providing Standard Gold Bullion for the year 2020". By formulating the "Goal and Assessment Incentive Management Measures," the Company defines the quality goals, which were broken down and assigned to members of the management and relevant departments. We have established the internal control standard for the quality of gold bullion - the Quality Inspection Rules for Finished Gold Bullion - to ensure that the quality of the gold bullion produced by the Company is 100% in compliance with the requirements of the SGEB1-2019 Gold Ingot of the Shanghai Gold Exchange.

Our smelting subsidiaries formulated the Control Procedure for Unqualified Products and the Control, Correction and Prevention Procedures for Non-Conformity. In case of unqualified products, the manufacturing plant shall carry out rework treatment and make corresponding records. The reworked products shall be re-inspected by quality check. If the reworked products fail in the re-inspection, the quality control personnel shall make a decision, such as continue to rework or scrap, and send the records to the manufacturer for carrying out the corresponding handling, so as to ensure that the ex-factory products meet the quality requirements.

During the reporting period, the Company did not have any product recalls or complaints due to safety and health reasons. The qualification rate of mineral products remained at 99.8% for the third consecutive years, while customer satisfaction reached above 99%. The Company did not have violations related to sales and marketing.

Product Management

Item	Unit	2021	2020	2019
Qualification rate of mineral products	%	99.90	99.80	99.90
Number of products recalled due to safety and health reasons	/	0	0	0
Number of complaints lodged due to safety and health reasons	/	0	0	0
Customer satisfaction	%	99.22	99.29	99.28
Wood for packaging products	Tonne	699	253	206
Bags for packaging concentrate products	Tonne	1,841	2,370	2,725

Information Security and Privacy Protection

In recent years, we have comprehensively promoted digital transformation of mines. Information, intelligence and automation technologies have been increasingly applied in production and management, which has improved the management efficiency on operation and maintenance and reduced production safety risks. However, our information systems and automatic equipment are also under various information security threats and risks, including network hacking, data leakage, and system failures. As such, maintaining network and information security is important to the society and us.

In response to such potential risks, we have taken a multipronged approach to safeguard the Company's information security by establishing clear responsibilities for information security governance, information security management, and assurance for information security emergency response. Depending on their severity, information security incidents shall be reported step by step from the lower to the higher level of management, up to the chief officer of the Company's informatisation working committee. At the same time, the effectiveness of information security is included in the appraisal of relevant personnel and linked to their remuneration.

We have established a complete information security system and supporting technical standards, and implemented corresponding management measures to protect the confidentiality, integrity, and availability of our information system, automatic equipment, and data. We have also established a security management mechanism that covers 14 areas, including information security management, data centre security management, and network security management.

For information security assurance, we have taken into consideration our own practical conditions, the regulatory requirements, and best practices at home and abroad. We are committed to establishing an information security protection system that is highly compatible with our main business. In order to improve the information security awareness and privacy protection ability of the Company's employees, we regularly conduct information security and data protection trainings. During the reporting period, the coverage of information security and privacy protection training reached 100% through online training.

We have unified planning, construction, deployment, policy configuration, and network resource allocation for the Company's network and information security. We protect the privacy and information of our employees, customers and suppliers, and promptly identify and respond to possible network and information security threats. During the reporting period, we did not have any incident of customer privacy leakage.

Technological Innovation

Innovation is our core competitiveness. The Company adheres to the innovation-driven and technology-led sustainable development strategy. Technological innovation and management innovation allow the Company to enjoy competitive and low-cost advantages. We comprehensively promote the in-depth integration of informatisation, digitisation, and intelligence into production, operation, and management, and establish our technology-led global competitiveness.

In order to better promote and implement scientific and technological innovation, the Company formulated a series of institutional documents, including the Management Policy for Science and Technology Work, Detailed Rules for the Implementation of Science and Technology Awards, Measures for the Management of Scientific Research Projects, and Regulations on Intellectual Property Management. We set up the corporate science and technology awards to encourage professional and technical personnel to carry out self-initiated innovation from different dimensions, strive to obtain outstanding science and technology breakthroughs, and promote the integration of scientific research, technology development, and corporate development. We promote the industrialisation and commercialisation of scientific and technological achievements, and accelerate the implementation of the Company's sustainable development strategy.

Number of research projects carried out for the year

145

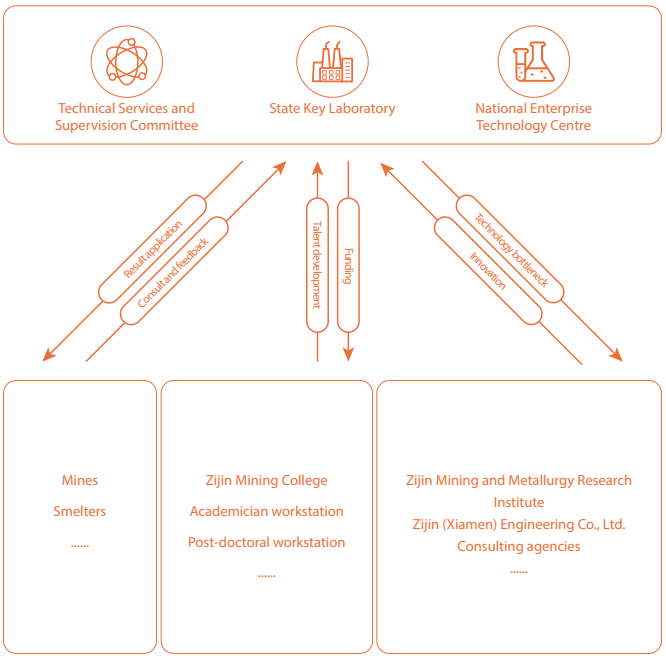
Total number of patents owned

176

We have core technologies in geological exploration, hydrometallurgy, comprehensive recycling and utilisation of low-grade refractory resources, and large-scale engineering development, placing the Company in a leading position in the industry. It is one of the few multinational mining groups in the

world with self-initiated system technology and engineering management capabilities. The Company also has its own complete scientific research system and scientific research institutions. The Company has established a number of high-level R&D platforms and research and design entities, including the only State Key Laboratory in the gold industry of China, enterprise technology centre at national level, workstation for academician research, workstation for post-doctoral research, and mining and metallurgy research institute, forming a technological innovation system with Zijin's characteristics and resulting in a series of independent intellectual property rights and research achievements. 14 of our entities, including the Company's headquarters and subsidiaries, have been rated as "High and New Technology Enterprises".

During the reporting period, the Company's large-scale natural caving mining method research went into practical stage, and the mining engineering management model of "integrating five ore treatment processes into one" has been continuously promoted and applied in the Company. The Company carried out 145 scientific research projects throughout the year, including 1 provincial level science and technology project. The Company obtained 7 scientific and technology awards at provincial level or from associations; presided over or participated in the completion of 37 standard revisions. At the 2021 Zijin Mining Scientific and Technological Achievement Evaluation Conference, 3 projects were rated as international leading projects, and 5 projects were evaluated as international advanced projects. In 2021, the Company also obtained 26 authorised invention patents and was granted 6 utility model patents. The Company owns 176 patents in total.



Case study: Breakthrough in the technical test of the large-scale natural caving mining method

The natural caving method is the only highly effective underground mining method that is comparable to the economic benefits of open-pit mining. It has the outstanding advantages of low mining costs, large production capacity, and high labour productivity, which is of great significance to the Company's strategic development needs, including the stabilisation and increase of its production capacity.

In 2021, the Company launched the project of "Key Technology Research and Engineering Practice of the Natural Caving Mining Method in Ultra-Large Hard Rock Deposits", tackling the key technical problems of rock mechanics encountered in the ultra-deep mining using the natural caving method at the ultra-large porphyry copper deposits in the Lower Zone of the Čukaru-Peki Copper-Gold Mine in Serbia. Through comprehensive theoretical analysis, physical tests, numerical simulation, and other means, the Company carried out special research on the basic characteristics of rock mechanics, collapsibility analysis and evaluation, and fragmentation analysis and forecast, and conquered and mastered the ultra-large natural caving mining process and key technology at the ultra-deep section of the Čukaru-Peki Copper-Gold Mine, laying the foundation for subsequent experimental research and field practice, as well as low-cost, large-scale, and high-efficiency mining.

Responsible Supply Chain

Mining and trading of mineral resources generate revenue, support the socio-economic development and community prosperity, and promote the mutually beneficial relationships between communities, companies or partners in the supply chain, and individuals. We focus on responsible supply chain management and require suppliers to conduct business in a responsible manner, which is a prerequisite for doing business with us.

During the reporting period, we revised and implemented the Material Procurement Management Policy, Smelting Raw Material Procurement Policy, Product Sales Management Policy, Supplier Management Operation Guidelines, and other supplier management policies, to promote suppliers to conduct business with the responsibility that is consistent with business ethics and ensure that our suppliers' ethics, safety, health, and human rights principles as well as social and environmental performance are consistent with ours.

Our practice includes both global and local procurement, taking the needs of the communities into full consideration, and we prioritise procurement of materials with regional advantages in the areas where our businesses are located. We support the development of local enterprises through local procurement, which can increase the tax revenue of the local governments and contribute to the economic development of the communities. We regularly review the share of local procurement. During the reporting period, local procurement of goods and services by our mining business amounted to RMB7.613 billion, accounting for 31.82% of all procurement expenditures of our mining business for the year. We plan to continue to increase such proportion in the future. We are committed to understanding more about the social and economic background of the areas where our businesses are located, with particular attention paid to underprivileged groups who are excluded from employment or local business opportunities for systemic or unintended reasons.

We conduct due diligence with reference to the five-step framework described in OECD (Organisation for Economic Co-operation and Development) Due Diligence Guidance for Responsible Supply Chains of Minerals.

Supply Chain Due Diligence Practice

Step 1: Establish strong company management systems

The Company's ESG Management Committee is responsible for promoting due diligence and providing necessary resource support.

The Company has formulated relevant procedural documents for the due diligence management of the mineral supply chain. The Company provides trainings to employees and other relevant personnel, trainings on the interpretations of relevant policies and anti-corruption policy studies to new suppliers, and invites suppliers in need of improvement to study and practice on-site, to achieve collaborative development.

Step 2: Identify and assess risks in the supply chain

We conduct evaluation on conflict-affected and high-risk areas where our minerals originate and assess the situation of armed conflicts, human rights, and governance of the governments in these areas, with the help of conflict-affected and high-risk areas (CAHRAs), World Bank Index, Corruption Index, Human Rights Report, Child Labour Report, and other tools. We have identified two important risks, namely, conflict-affected minerals and small-scale artisanal mining.

Step 3: Design and implement a strategy to respond to identified risks

For the potential risks that have been identified, we carry out discussion on risk mitigation measures with suppliers and stakeholders. We guide and help our suppliers to establish and implement a supply chain due diligence management system, and regularly follow up on the suppliers' risk mitigation effectiveness. We might continue or suspend the cooperation with our suppliers depending on the results of these continuous mitigation measures. For unacceptable risks, or when risk mitigation measures fail, cooperation will be terminated. In addition, we conduct additional fact and risk assessments after the changes in environment occurred.

Step 4: Carry out independent third-party audit

We invite third-party agencies to audit the raw material sources of standard gold and silver to assess if they meet the requirements of LBMA Responsible Gold Guidance. In 2021, the Company's LBMA assurance scored 94 points and got certified. We carried out due diligence on the source of raw materials for copper cathode and zinc bullion, and were certified as a LME delivery brand.


LME
The London Metal Exchange
Brand Listing Certificate


LBMA RGG
Independent Reasonable Assurance Report
For third-party audits based on ISAE 3000

Independent Reasonable Assurance Report to Zijin Mining Group Gold Smeltin
Refiner's Compliance Report 2020 for the London Bullion Market Association
Gold Guidance

To the Board of Directors of
Zijin Mining Group Gold Smelting Co., Ltd

We were engaged by Zijin Mining Group Gold Smelting Co., Ltd to provide reasonab
its LBMA Refiner's Compliance Report for the year ended 31 December 2020. The
consists of the Refiner's Compliance Report.

Step 5: Report annually on supply chain due diligence

The Company regularly discloses information about its supply chain due diligence in its annual ESG report.

Supplier Qualification Assessment

We advocate the establishment of long-term, stable and honest cooperative relations with suppliers and set up a regular communication mechanism with them. We strive to motivate our suppliers to discharge their social responsibilities by adopting green procurement policy, prohibiting the purchase of equipment and facilities with high energy consumption and serious pollution so as to promote the development of responsible supply chains. During the reporting period, the newly revised Supplier Management Operational Guidelines included the ESG elements into the supplier qualification and review evaluation and scoring criteria, and scores were given to the suppliers accordingly. Suppliers cannot be included in our supplier list unless they have passed the on-site inspection and unified review. Our evaluation criteria are as follows:

Supplier Qualification Assessment Criteria

Environmental Assessment Elements	Social Assessment Elements	Governance Assessment Elements
Environmental Management System and Policies	Engagement in Public Affairs Labour Rights Policies	Compliance and Anti-Corruption Policies
Energy Consumption and Carbon Emissions Record	Negative Public Opinions from the Society	Information Disclosure and Transparency
Environmental Pollution Violations and Fines Record	Production Safety	Negative Business Ethics Controversies and Violations
Production Environment Environmental Protection Measures		

We have included the requirements for compliance with our Corporate Code of Conduct in our suppliers' standard procurement agreements in an effort to make sure that their ethics, safety, health, and human rights principles, as well as social and environmental performance are consistent with ours.

During the reporting period, we conducted qualification reviews on the applications of 1,380 potential suppliers, of which 762, or 55.22%, were qualified as our suppliers.

Supplier Review and Assessment

We review and assess the business responsibility practices of all of our critical suppliers at least once a year, assessing their risks in terms of environment, safety, and social responsibility and taking corresponding measures. Suppliers found in serious violation of the contract or law will be blacklisted for 1-3 years. Suppliers with major quality problems, significant safety and environmental protection risks, bribery, or being blacklisted for poor production and operation safety records by governments at all levels will be directly removed from our supplier list, and the cooperation with them will be terminated.

As at the end of the reporting period, we had a total of 5,380 suppliers and 612 contractors, including 745 critical suppliers (tier 1 suppliers) and 4,635 whitelisted suppliers (non-tier 1 suppliers). During the reporting period, we conducted review and assessment on 1,507 suppliers, with a particular focus on their on-site operating environment, production safety conditions, environmental protection measures, employment, and other areas of social responsibility. The on-site inspection and unified review identified 10 suppliers with potentially significant negative social or environmental impacts. We required 2 of them to rectify while terminated the cooperation with the other 8. We also gave Excellent Collaboration Award to 5 suppliers with excellent performance and Excellent Assistance in Pandemic Prevention Award to 1 supplier with excellent performance.

Contractors and Suppliers

Categories	Unit	2021	2020	2019
Total number of contractors	/	612	513	493
Total number of suppliers	/	5,380	4,669	4,923
-Suppliers from China	/	4,480	4,172	4,495
-Suppliers from countries and regions outside China	/	900	497	428
Number of new suppliers	/	762	917	592
-Number of new suppliers selected by ESG standards	/	762	917	592

Community Relations

We respect the culture, traditions, and religious beliefs of the communities, do not operate in protected areas of indigenous peoples, attach importance to their concerns and strive to respond to their legitimate claims. We respect indigenous peoples' traditions, culture, and connection with the land, protect their rights to participate and the right to know. We interact with the communities in a culturally appropriate manner. Any commercial activity that may result in disrespect for or even damage of indigenous peoples' culture and heritage is strictly prohibited.

Our activities throughout the mining life cycle may involve a range of social, economic, and environmental risks in the areas of human rights, employment, health, safety, community conflict, and environment. We believe that standardised management processes are conducive to the effective control of these risks and the building of good corporate community relationships. Based on this concept, we have established a vertical community management organisation consisting of the Board of Directors, ESG Management Committee, and community relations departments of subsidiaries. We developed and implemented the Corporate Social Responsibility Policy, External Donation Policy, and community relationship management rules in line with international standards such as the Universal Declaration of Human Rights, United Nations Guiding Principles on Business and Human Rights, United Nations Declaration on the Rights of Indigenous Peoples, UNGC, and RGMPs, to ensure we can co-develop with the local communities.

Community Engagement

Our community engagement goal is to minimise or mitigate risks arising from our production and operation. In the planning stage of a project, we carry out community impact assessment before the project starts, and formulate community baselines according to local conditions to communicate with stakeholders in the potentially affected community as early as possible. We identify affected groups and assess the social impact and potential risks in the area where the project operates. Based on the concerns of the affected groups, the Company evaluates the significance of the impact of operations on social risks at the localities and formulates risk mitigation plans and measures accordingly. We set up a community impact management information database based on the above evaluation results and our work progress, and update it regularly during the process of our project operations, to ensure the effectiveness of the relevant work, so as to reduce the negative impact in areas such as human rights, labour, employment, gender, health, community conflict, and environment.

1. Identify potentially affected stakeholders

Identify and establish a list of stakeholders and ensure that no key stakeholders are left out.

2. Establish a mechanism for collecting stakeholders' appeals

Comprehensively collect the appeals of potentially affected stakeholders through the community service centres, telephone calls, e-mails, information systems, and other channels.

3. Review and respond to relevant appeals and concerns

Analyse appeals and ensure reasonable ones are included in the agenda for improvement. Respond to and communicate on the appeals that cannot be resolved immediately to ensure that they will be resolved in a proper manner.

4. Create a community development plan

Develop community interaction and participation plans based on appeals and ensure that appeals related to community development are included in the Company's community development plan for overall implementation.

5. Implement the community development plan

Implement the community development plan and clarify the responsible departments, and ensure there are sufficient personnel and funds for the community development projects.

6. Evaluate the implementation of the community development plan and communication

Actively conduct communication on concerns, regularly disclose relevant data and reports, monitor and evaluate the progress of community development projects.

Communication and Grievance Mechanism

In order to ensure the effective communication and participation of community stakeholders, we have established clear workflows to respond to the appeals of the communities. We have also established the community relations management departments, which mainly consist of local employees, according to the host countries' cultures, customs and social conditions. As at the end of the reporting period, 100% of our mines had established community communication and grievance organisations. The Company's representatives communicate and respond to the appeals of the communities on a regular basis

All the community relations management departments of our subsidiaries must prepare and implement a community communication policy

▼

Each community relations management department must review and revise the complaint mechanism annually to ensure that it remains effective

▼

The community relations management departments must submit a communication report to the general manager and relevant departments on a regular basis

▼

If community relations management departments discover any violations of the Corporate Code of Conduct (human rights, safety, environment, etc.), they shall immediately report to the Corporate Social Responsibility Department at the headquarters

▼

The Corporate Social Responsibility Department at the headquarters will then report the violations to the Board of Directors and the ESG Management Committee of the Company and take actions according to the assessment results

Zijin Mining Community Communication and Grievance Mechanism

Case study: Continental Gold's community work mechanism

Continental Gold sets "enabling stakeholders to benefit from our existence" as the mission, seeks to establish a harmonious relationship between the company and the community, by setting up a community communication mechanism with a series of community activities in line with local characteristics:

Mine Open Day:

Continental Gold regularly invites stakeholders affected by the project to visit the mine, and deepen their understanding of the Buriticá Mine through professional explanations. These activities help them better understand the mining process and the company's efforts in managing the impacts brought about by the project's operations.

Working with the community to develop local culture

Human Rights Protection:

Continental Gold continues to communicate and discuss "Voluntary Principles on Security and Human Rights" with the government forces of the host country and Atempi, the private security contractor. The discussion centres on protecting the fundamental freedoms of the community and safeguarding the rights of civilians, which is for the purposes of respecting the community and the associated customs, traditions, and cultural identities, and operating in a peaceful and non-violent way.

Community Development:

Continental Gold considers community development as part of its sustainable development strategy, and presents itself as a partner in community development. It strives to work with the community and improve people's quality of life, provide effective solutions in health, education, and vocational training, as well as strengthen the development of institutions and preserving their culture and heritage.

Dialogue with the Community:

Continental Gold has developed a community interaction plan for listening and responding to the appeals of the community, thereby enhancing the company's reputation. The company engages in the dialogue with the community primarily through:

1) Community service centre, which is located in the Community Service Office in the urban area of Buriticá (Higabra Community Service Office). Telephone number: 3121026, ext. 3312-3368; mobile number: 3108988760; email address: atencionalciudadano@continentalgold.com

2) SIAC ("Citizen Service and Information System" in Spanish), which receives inquiries, complaints, claims, and suggestions from the community and other external stakeholders (such as contractors and employees).

3) 14 community billboards, which are used to publicise the company's social, environmental, educational, employment, and cultural information in the areas affected by the Buriticá Gold Mine.

Economic Development:

Through the establishment of regional alliances, the company promotes the support for small entrepreneurs to create a shared value chain, providing the community with sufficient guidance for the development of service and agricultural industries.

Protection of Indigenous Peoples' Rights

We respect the collective rights, traditions, cultures and the connection with the land of the indigenous peoples. We comply with the host countries' policies on human rights and indigenous peoples, and follow the requirements of the Food and Agriculture Organisation of the United Nations Governance of Tenure Technical Guide No. 3 - Respecting free, prior and informed consent: Practical guidance for governments, companies, NGOs, indigenous peoples and local communities in relation to land acquisition (FPIC), ILO Convention No. 169, and the United Nations Declaration on the Rights of Indigenous Peoples. We recognise the individual and collective rights of indigenous peoples, and design development plans that benefit indigenous peoples through active communication in the community. We adopt innovative solutions to realise regional prosperity and effectively narrow regional development gaps.

Protection of the Indigenous Peoples' Rights throughout the Life Cycle of the Project

Project Design/ Investment Due Diligence	• Collaborate and obtain input from indigenous peoples potentially or actually affected by the Company's operations; • Use the input collected to develop policies and procedures for dealing with indigenous-related matters, and incorporate indigenous peoples' concerns into project design.
Exploration and Construction	• Establish community communication teams and mechanisms to regularly engage and consult with relevant indigenous groups; • Respect the communities' right to know and strive to engage in prior and informed consultations with indigenous peoples regarding significant adverse impacts that may occur, in the areas including resettlement, land and territorial intrusion, and destruction of important cultural heritage.
Operation	• Respect the rights, interests, aspirations, cultures, and natural resource-based lifestyles of the indigenous peoples; • Formulate a community development plan based on the appeals of the indigenous peoples, and operate according to the plan and the agreement with the indigenous peoples; • Provide training to all staff working with or related to the culture of the indigenous peoples.
Mine Closure and Post-Closure	• For existing mines which require a closure plan and those that have been closed, we consult with local authorities, employees, affected communities, and other stakeholders to ensure that social and environmental considerations are incorporated into the mine closure plan.

Case study: Norton Gold Fields in Australia - Gnamma Cave Historical Site Conservation Project

Before the start of the project, the company invited representatives of three local aboriginal tribes to visit the site, to ensure that the aboriginal historical site was protected. They were also invited to participate in the project launch. The local aboriginal people of Karlkurla were invited to participate in the road construction, watering to reduce dust, and site leveling of the project. During the reporting period, about a dozen aboriginal employees stayed and worked in Binduli, which increased the employment rate and economic income of, and the company's recognition from the local aboriginal people.

The Aboriginal Historical Site Conservation Project is implemented

The Aboriginal people of Karlkurla are invited to participate in site conservation

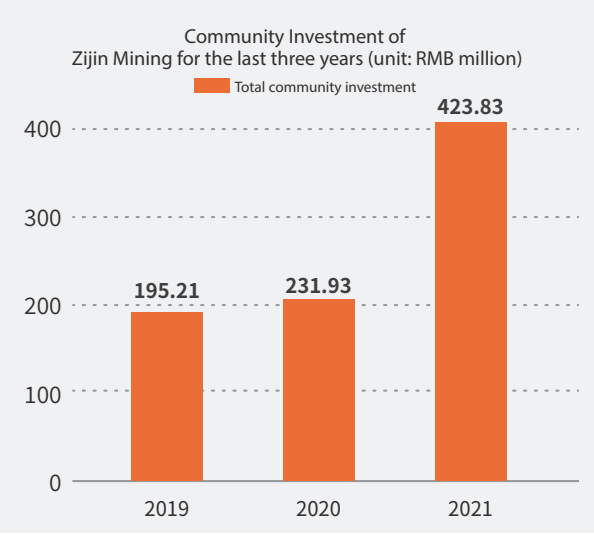
Relocation and Resettlement

Serbia Zijin Copper seeks community opinions on the resettlement

Mine development inevitably involves relocation and resettlement. In the event of resettlement-related situations, all land acquisitions will be carried out in accordance with applicable laws, regulations and international best practice. As defined in IFC Performance Standard 5, prior to the start of any resettlement, we work with local stakeholders, local law firms, government agencies, and resettlement experts to develop resettlement action plans and ensure that affected indigenous peoples and communities can make informed decisions to minimise adverse impacts and improve their livelihood and living conditions. We also ensure that affected indigenous peoples will receive fair treatment, fair compensation and subsequent livelihood skills.

Community Development

We participate in community activities on the basis of respect and good faith and for the common sustainable development of the communities and the Company. We carry out various cooperation with the communities so that they can be benefited from the Company's production and operation. We go deep into the communities where the projects are located, provide vocational trainings to the locals, formulate local procurement plans to support local suppliers, and make local employment plans to increase the local employment rate. We pay taxes and fees for the use of land and forest land in full amount to the local governments according to laws, which increase the revenue of the local governments so that they can use the funds to improve the livelihood of the local people. We provide funding to improve the local transportation, education, health care, environment, safety, medical services and pandemic prevention. We develop various welfare projects to support the underprivileged groups. In doing so, we make significant contributions to the national, regional, and local economies of the places where our projects operate. We are committed to investing no less than 1% of the Company's profit for every financial year in community development.



During the reporting period, our community investment amounted to RMB424 million, accounting for 1.68% of our profit, of which about RMB268 million was donated to the communities in the form of cash or material donations. We carried out a series of community development activities, including assistance programmes for indigenous peoples, education improvement, health care, environmental protection, industry development, infrastructure construction, and donations to charities, in the host countries of our projects.

[Support for the Indigenous Peoples] COMMUS contributed to socio-economic development and infrastructure construction

COMMUS donated a large amount of urgently needed items and school supplies to 150 orphans in Kanina Orphanage, including cornmeal, milk powder, cooking oil, and onions.

In the DR Congo, COMMUS incorporated socio-economic assessment in the environmental impact assessment, including information about community co-development. It identified key stakeholders, and established a community co-development plan encompassing stakeholder communication and participation mechanism. Witnessed by the Lualaba Provincial Government and the Provincial Department of Mines, it officially signed the 2021-2025 Community Project Task Document with the eight affected communities near the mine, and planned to invest about USD4.4 million as donations in five years in the form of successive construction of more than 20 projects, including training schools, medical and health stations, professional farms, farmers markets, multi-purpose stadiums, and municipal water supply facilities, with the focus on solving the more urgent problems of the local communities, including road safety, community health and pandemic prevention, dust and noise, resident relocation, agricultural development, and drinking water sanitation.

[Support for Industries] Continental Gold helped community coffee business go global

Continental Gold supports the development of coffee estates in the areas affected by the Buriticá project. By providing management training to estate operators and guiding them to create their own business models, it increases the popularity of the local coffee by building well-known coffee brands. In 2021, the company assisted the local communities to establish a coffee growers' association, covering 13 local coffee brands and involving a total of 260 coffee growers in the local communities. In 2021, Continental Gold received the Antioquia Department Mining Social Responsibility Award for the third consecutive year.

[Rural Revitalisation] Zijin Zinc in Xinjiang responded to the national strategy to help communities alleviate poverty

Rooted in the westernmost part of China, Zijin Zinc in Xinjiang actively responds to the Chinese government's call for precise poverty alleviation, and devotes itself in the poverty alleviation campaign in local communities. Through the precise measures of "employment assistance + education assistance + fixed-point assistance", it continues to implement the "Four Priorities" policy - giving priority to the employment of college graduates who are native of the local communities, giving priority to support the employment of impoverished families, giving priority to hire local ethnic minorities and giving priority to train and promote management cadres of ethnic minorities. These measures successfully increased the income of community residents, provided employment for more than 3,000 persons in the local areas. The company paid more than RMB1.7 billion of taxes and fees accumulatively, accounting for more than 70% of the total tax revenue of Wuqia County. It helped the impoverished village - Kolerik Village - where the mine is located to be among the first villages to eliminate poverty, in an effort to help China complete the task of comprehensive poverty alleviation as scheduled. It was honored the title "National Advanced Collective for Poverty Alleviation".

Zijin Zinc received the honourary title "National Advanced Collective for Poverty Alleviation"

[Clean Water] Serbia Zijin Mining repaired community water supply pipelines

In April 2021, in order to solve the problem of aging and damaged water supply pipes in Bela Village, Bor City, Serbia, Serbia Zijin Mining invested RMB1.2 million to renovate the tap water supply pipes in the village, enabling more than 700 local villagers to drink clean and hygienic tap water.

[Education Improvement] Founding of Zijin Secondary School

Zijin Secondary School campus

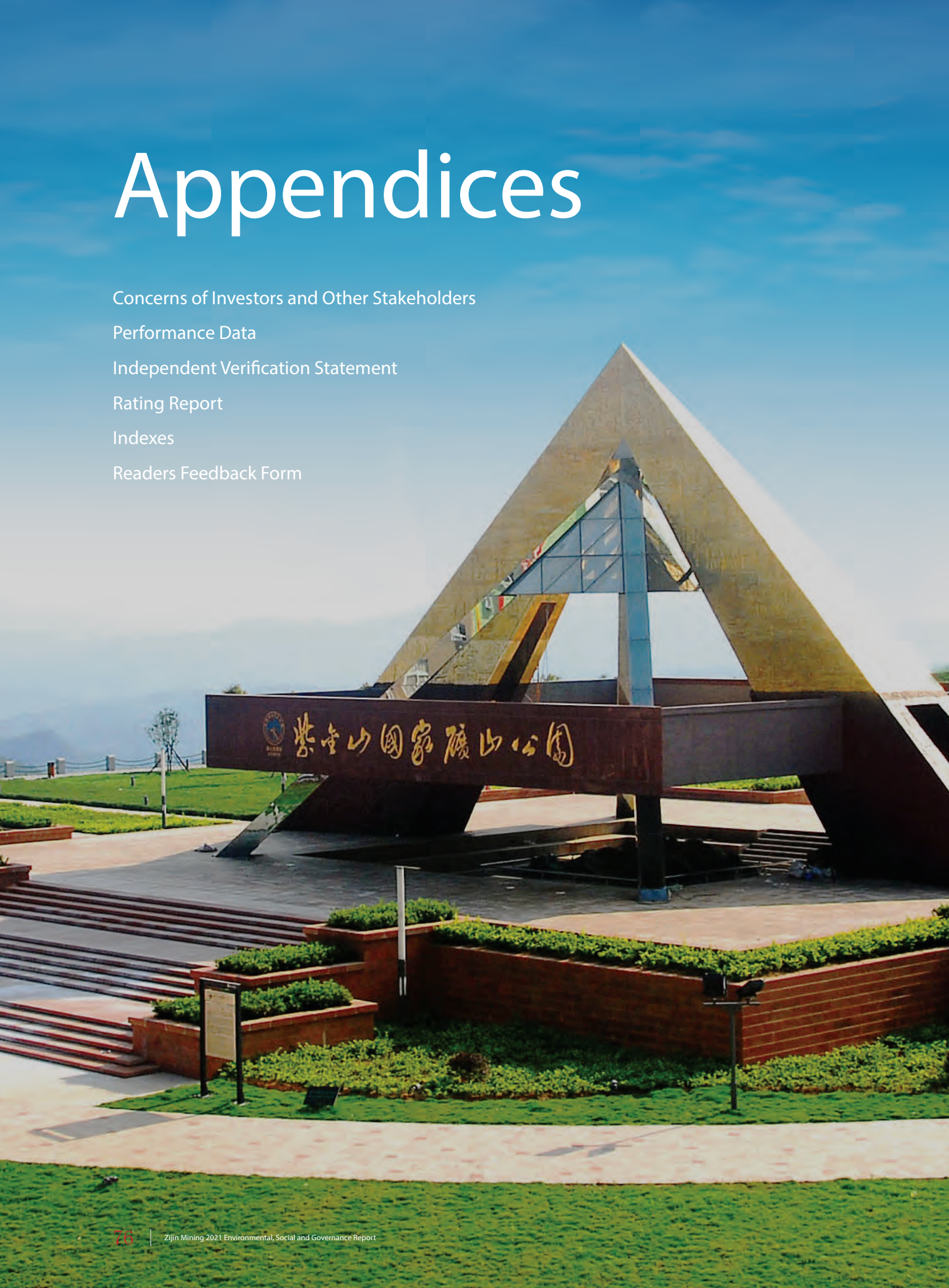
In order to alleviate the increasing shortage of educational resources in Shanghang County where the Company's headquarters is located, improve the quality of education in backward areas, and train outstanding talents for the local community as a way to give back to the community and benefit the society, the Company invested RMB830 million in 2019 to establish a non-profit school - Zijin Secondary School, providing more than 3,600 school places for local children. Since its establishment, it aims to becoming a first-class school in the province, and has made vigorous efforts to introduce excellent teachers while attaching importance to the cultivation of students' comprehensive quality. The initial results of the school were remarkable, which were well recognised by the local government and the community.

[Cultural Inheritance] Zijin Mining's subsidiaries in Serbia respect local customs and help with cultural inheritance

Participating in the local cultural festivals

Vlach is an important ethnic group in Bor City, Serbia. 11 of the 12 villages around Bor City are Vlach villages. The Vlach Culture and Art Festival is an annual traditional ethnic cultural event of the Vlachs in the Bor area. Every year, government officials, local companies, social figures from all walks of life, and community residents gather and celebrate the festival together. Serbia Zijin Copper and Serbia Zijin Mining attach great importance to the cultural and folk customs of the surrounding communities of the projects, giving great support to the continuation of this folkloric and cultural event. In August 2021, they sponsored the organisation of the 28th Vlach Ethnic Culture Festival in Bor City and received the title "Honorary Resident" from the local communities.

Appendices



Concerns of Investors and Other Stakeholders

This Report mainly discusses the ESG practices and performance of various projects under Zijin Mining's actual operational control, but we have noticed that various stakeholders are highly concerned about some projects, such as the Porgera Gold Mine located in Papua New Guinea and the Kamoa-Kakula Copper Mine located in the DR Congo, which are neither under our actual operating control nor included in this Report.

We have also noticed that there are some ESG controversies that stakeholders are highly concerned about in these projects. Although we are not in actual operational control, as a joint controlling shareholder, we are highly concerned about the operating performance and ESG performance of these projects, and use our rights as a shareholder to actively promote their operations in a responsible manner:

- Before we invest in these projects, we evaluate their potential ESG risks, including those of environments, communities, and human rights, and take these factors into consideration for future mine construction and operation
- We appoint directors and executives to the project companies, and actively promote the development of the project companies' ESG governance system; we listen to the project companies' reports on production, operation, and ESG issues through regular production and operation meetings and the board meetings; we use our shareholder status and our role in the governance to urge their management to implement their ESG practices well
- We use the management principles, methods, and our experience of various ESG topics in this Report to discuss good ESG practices with the project managers
- In terms of information disclosure, ESG information is disclosed to the public after being jointly reviewed and approved by Zijin Mining and the joint controlling shareholders of the projects. All stakeholders can also pay attention to the ESG reports and annual reports of the actual operating controller of the project for more complete information

With such participation and management mechanism, each project has come up with good ESG performance in the project locations. For example, Porgera established a local community hospital and carried out environmental monitoring of the surrounding water, which was reviewed by a local authoritative third-party organisation. It also actively improved the living environment of the local indigenous peoples, so as to promote its relationship with the local community, mitigate the risk in trust, and enhance the community environment.

In the future, we will continue to work with the joint controlling shareholders in a responsible manner, to promote the projects' good ESG practices and the harmonious development of the host countries' environment and society.

Zijin Mining 2021 ESG Performance Data

Performance data - Economic

Economic

Indicator	Unit	2021	2020	2019
Business performance				
Revenue	RMB100 million	2,251	1,715	1,361
Profit before tax	RMB100 million	248	108	70
Net profit attributable to owners of the parent	RMB100 million	157	65	43
Total assets at the end of the reporting period	RMB100 million	2,086	1,823	1,238
Total amount of tax paid	RMB100 million	101	65	59
Employee salaries and benefits	RMB100 million	72	40	38
Payment to suppliers	RMB100 million	2,107	1,634	1,339
Total social contribution value	RMB100 million	394.83	214.09	169.78
Social contribution value per share	RMB	1.53	0.84	0.73
Production volume				
Mine-produced copper	10,000 tonnes	58.4	45.3	37.0
Mine-produced gold	Tonne	47.5	40.5	40.8
Mine-produced zinc	10,000 tonnes	39.6	34.2	37.4
Resources				
Copper	10,000 tonnes	6,277	6,206	5,725
Gold	Tonne	2,373	2,334	1,887
Zinc	10,000 tonnes	962	1,033	856
Lithium carbonate	10,000 tonnes	763	/	/

Performance data - Governance

Composition of the Board of Directors

Indicator	Total	Executive Directors	Non-executive Director	Independent Directors	Female Director
Number of Directors	13	6	1	6	1
Percentage	100%	46.2%	7.7%	46.2%	7.7%

Business ethics

Indicator	2021	2020	2019
Business ethics training coverage			
Directors, supervisors and senior management	100%	87.19%	83.29%
Employees	64.82%	63.96%	68.00%
Suppliers and contractors	62.10%	61.55%	58.24%
Whistleblowing reports			
Total number of whistleblowing reports received	154	104	/
-from employees	63	28	/
-from suppliers and contractors	54	33	/
-from other stakeholders	37	43	/

Performance data - Environment

Investment in environmental protection

Indicator	Unit	2021	2020	2019	2018	2017
Investment in environmental protection	RMB100 million	14.20	10.92	7.25	6.63	4.89
Area of vegetation restored	Million m^2	7.76	3.33	5.25	3.99	5.16
Number of trees planted	Million	1.15	0.41	1.34	0.60	0.42

GHGs emissions

Indicator	Unit	2021	2020	2019
Total GHGs emissions (SCOPE 1+2)	Million tCO_2e	7.26	6.11	5.35
GHGs emissions intensity by revenue	tCO_2e/RMB million	32.25	35.63	39.31
-Direct GHGs emission (SCOPE 1)	Million tCO_2e	2.79	2.54	2.02
-Indirect GHGs emissions (SCOPE 2)	Million tCO_2e	4.47	3.57	3.33
GHGs emissions by business type				
-Mining	Million tCO_2e	4.83	3.86	3.37
-Smelting	Million tCO_2e	2.41	2.23	1.96
-Others	Million tCO_2e	0.02	0.02	0.02

Notes: Parameters such as lower heating value, mass of carbon per unit of calorific value, and carbon oxidation rate are mainly based on the GHGs emissions calculation methods and reporting guidelines for each industry in the host countries. Each enterprise uses the local standards of grid CO_2 emission factor.

During the reporting period, we reviewed the GHGs emissions statistics and calculation methods of the subsidiaries that were within the scope of disclosure and backtracked on past data. The followings are the reasons for the differences between the data of this year and previous years:

1. In the previous years' statistics, data of subsidiaries with less than six months of production was not included; such statistics were modified this year to add back such data.
2. The Company reviewed the energy consumption and carbon emissions ownerships generated and supplemented some of the energy consumption and carbon emissions that had not been included in the statistics in the past.

Energy consumption

Indicator		Unit	2021	2020	2019
Direct energy	Paraffin	Tonne	1,481	1,833	3,929
	Diesel	Tonne	345,894	256,856	202,336
	Gasoline	Tonne	1,502	1,457	1,162
	Coal	Tonne	636,682	859,536	610,665
	Liquefied natural gas	Tonne	372	471	464
	Natural gas	Million cubic metres	2.25	1.41	3.59
	Other direct energy	TJ	230.61	425.46	520.57
Indirect energy	Electricity	GWh	6,331	5,011	4,687
	Steam	TJ	-802.56	-783.41	-907.62
Renewable energy (not included in GHGs emissions calculation)	Hydropower	GWh	347	324	206
	Solar power	GWh	3.20	-	-
Energy consumption by source (GWh)					
Total energy consumed		**GWh**	**15,236.89**	**14,271.21**	**11,377.08**
Total direct energy (non-renewable energy) consumed		**GWh**	**8,777.92**	**9,153.24**	**6,735.34**
-Paraffin		GWh	18.41	22.79	48.84
-Diesel		GWh	4,163.55	3,091.80	2,440.22
-Gasoline		GWh	18.70	18.14	14.46
-Coal		GWh	4,265.43	5,744.37	4,042.94
-Natural gas		GWh	247.77	157.95	44.27
-Other direct energy sources		GWh	64.06	118.19	144.61

Indicator	Unit	2021	2020	2019
Total indirect energy consumed	GWh	**6,109.03**	**4,794.16**	**4,435.47**
-Electricity	GWh	6,331.98	5,011.79	4,687.61
-Steam	GWh	-222.95	-217.63	-252.14
Total renewable energy consumed	GWh	**349.94**	**323.81**	**206.26**
-Hydropower	GWh	346.73	323.81	206.26
-Solar power	GWh	3.20	-	-
Energy mix				
Energy consumption intensity by revenue	MWh/RMB million	**67.69**	**83.21**	**83.59**
Ratio of direct energy (fossil fuel) consumed	%	57.61	64.14	59.20
Ratio of indirect energy consumed	%	40.09	33.59	38.99
Ratio of renewable energy consumed	%	2.30	2.27	1.81
Ratio of grid electricity purchased externally	%	41.56	35.12	41.20

Notes: Other direct energy includes heavy oil, methanol, and liquefied petroleum gas.
During the reporting period, the Company made retrospective modifications to energy data when going over the carbon emissions calculations for the subsidiaries that were within the scope of disclosure. The followings are the reasons for the differences between the data of this year and previous years:
1. In the previous years' statistics, data of subsidiaries with less than six months of production was not included; the statistics were modified this year to add back such data.
2. The Company reviewed the energy consumption ownerships and supplemented some of the energy consumption that had not been included in the statistics in the past.

Water consumption

Water metrics	Unit	2021	2020	2019
Total water withdrawal[1]	Million tonnes	60.56	50.77	45.23
Water intensity by revenue	Tonne/RMB million	269.04	296.04	332.33
Total water discharge[2]	Million tonnes	42.29	20.82	20.56
Water re-use rate[3]	%	92.02	91.86	91.29
Water withdrawal by water categories				
-Fresh water	Million tonnes	40.47	35.59	33.97
-Non-fresh water	Million tonnes	20.09	15.18	11.25
Water withdrawal by water sources				
-Surface water	Million tonnes	43.11	34.83	31.42
-Ground water	Million tonnes	8.78	7.71	5.65
-Externally purchased water	Million tonnes	4.58	3.71	3.22
-Rainwater	Million tonnes	4.09	4.53	4.93
Water withdrawal in water stressed (EH 4-5) areas				
Water withdrawal at water stressed areas	Million tonnes	8.81	6.48	7.10
Ratio of water withdrawal at areas with high water risks	%	14.55	12.77	15.69

Notes:
1. Water withdrawal refers to the water collected from various sources and stored for use. Due to the modification of the estimated rainwater collection volume and the modification of the data of subsidiaries with less than six months of production in the previous years, the previous years' water withdrawal volumes disclosed in this disclosure are different from the water withdrawal volumes disclosed in last year's report.
2. Due to the high annual rainfall at the mines located in South America during the reporting period, there was a surge in the amount of water discharged from the mines, resulting in the volume of water discharged higher than water withdrawal.
3. Water re-use rate = (Total water consumption - Total water withdrawal)/Total water consumption

Major water pollutants

Indicator	Unit	2021	2020	2019	2018
Discharge volume					
COD	Tonne	524.13	299.82	346.33	206.85
Ammonia nitrogen	Tonne	27.60	3.58	14.43	6.82
Total copper	Tonne	2.26	0.73	0.60	0.11
Total zinc	Tonne	1.27	0.46	0.40	0.81
Discharge intensity by revenue					
COD	10^{-6}tonnes/RMB million	2,328.43	1,748.21	2,544.70	1,952.00
Ammonia nitrogen	10^{-6}tonnes/RMB million	122.61	20.87	106.03	64.30

Indicator	Unit	2021	2020	2019	2018
Total copper	10^{-6}tonnes/RMB million	10.04	4.26	4.41	1.04
Total zinc	10^{-6}tonnes/RMB million	5.64	2.68	2.94	7.64

Note: The significant increase in the total volume and intensity of wastewater pollutants discharged in 2021 is mainly due to the high rainfall at the mines located in South America, which directly affected the volume of water discharged. Although the higher discharge volume directly led to an increase in the total volume of pollutants discharged, the pollutant discharge concentrations met, or were even far below, the wastewater discharge standards for the project sites. For details of the concentrations of the wastewater pollutants of each subsidiary, please refer to the Company's annual report.

Acid rock drainage

Indicator	Number	Ratio
Number of mines with risk of acid rock drainage	7	13.72%
- Mines where acid rock drainage is predicted to occur	1	1.96%
- Mines where acid rock drainage is actively mitigated	2	3.92%
- Mines where acid rock drainage is under treatment or remediation	4	7.84%

Non-hazardous waste

Indicator	Unit	2021	2020	2019
Total non-hazardous waste generated	Million tonnes	640.50	554.60	452.18
- On-site diverted from disposal	Million tonnes	82.19	66.44	30.32
- Off-site diverted from disposal	Million tonnes	5.05	5.16	4.47
- On-site directed to disposal	Million tonnes	444.82	381.22	312.62
- Off-site directed to disposal	Million tonnes	108.44	101.78	104.77
Non-hazardous waste comprehensive utilisation rate	%	13.62	12.91	7.69
Non-hazardous waste generated intensity by revenue	Tonne/RMB 10,000	28.45	32.34	33.22
Tailings				
Total tailings generated	Million tonnes	114.34	97.38	86.03
Total tailings recovered	Million tonnes	25.28	20.73	16.46
- Used for mine reclamation	Million tonnes	23.22	19.00	14.87
- Re-processed or manufactured	Million tonnes	2.03	1.73	1.59
- Re-utilised	Million tonnes	0.03	0	0
- Externally recycled	Tonne	3,876	0	200
Recycling rate	%	22.11	21.29	19.13

Note: The data may vary from previous years due to the addition to the non-hazardous waste statistics data processed tailings and smelting slag generated in the smelting process, neutralised slag and inorganic crystalline salts generated in the water treatment process, domestic waste, etc. This table modifies and supplements the data of the companies that had been in production for less than half a year in previous years, so the amount of recycling may be different from the data disclosed in previous years.

Hazardous waste

Indicator	Unit	2021	2020	2019
Total hazardous waste	Tonne	357,214.01	279,286.75	414,012.78
- On-site diverted from disposal	Tonne	42,097.84	25.06	24.60
- Off-site diverted from disposal	Tonne	79,617.90	64,747.03	65,294.27
- On-site directed to disposal	Tonne	228,658.34	212,373.35	345,905.39
- Off-site directed to disposal	Tonne	6,839.93	2,141.31	2,788.52
Hazardous waste comprehensive utilisation rate	%	34.07	23.19	15.78

Air emissions

Indicator	Unit	2021	2020	2019
Nitrogen oxides (NO_x)	Tonne	888.41	768.81	957.17
Sulphur dioxide (SO_2)	Tonne	1,483.64	1,344.86	1,380.71
Particulate matter (PM)	Tonne	754.30	646.60	643.50

Indicator	Unit	2021	2020	2019
Sulphuric acid mist	Tonne	76.91	102.12	48.38
Hydrogen chloride	Tonne	0.22	0.12	0.19
Ammonia	Tonne	1.00	0.33	0.01
Hydrogen sulphide	Tonne	0.00	0.01	/
Lead and its compounds	Tonne	1.28	0.97	1.08
Arsenic and its compounds	Tonne	0.83	0.76	0.91
Mercury and its compounds	Tonne	0.10	0.02	0.02
Volatile organic compounds (VOCs)	Tonne	0.19	0.22	/

Notes:
1. The total amount of air pollutants is estimated based on the pollutant concentrations and exhaust gas flow in the exhaust gas inspection reports.
2. For details of the emission concentrations of various air pollutants of each subsidiary, please refer to the Company's annual report.

Tailings storage facilities

Indicator	2021
Total number of tailings storage facilities	52
Number of active tailings storage facilities	37
Number of tailings storage facilities at risks	0

EMS certification and environmental audit

Indicator	2021
ISO 14001 certification coverage	87.5%
Environmental audit coverage	92.5%

Performance data - Society

Labour

Indicator	Unit	2021	2020	2019
Total number of staff	/	43,876	36,860	36,605
Local employment rate	%	96.04	95.25	95.11
By gender				
-Male	%	84.39	83.86	83.88
-Female	%	15.61	16.14	16.12
By age				
-<30	%	23.38	17.01	17.48
-30≤Y<50	%	60.93	63.75	60.10
-≥50	%	15.69	19.24	19.43
By country				
-China	%	50.55	52.24	54.69
-Serbia	%	15.52	/	/
-DR Congo	%	12.37	/	/
-Colombia	%	3.31	/	/
-Russia	%	2.07	/	/
-Australia	%	0.99	/	/
-Other countries	%	15.19	/	/

Notes: The workforce statistics were calculated after aggregating the numbers submitted by each subsidiary. Due to local laws or practices on anti-discrimination, protection of personal privacy, etc., certain subsidiaries are not allowed to collect certain information on their employees, such as age and gender. As a result, there are certain discrepancies between the total number of employees and the actual total number in the calculation of the employee ratio in each category. Our disclosure is based on the ratio in the actual statistics, and the number of such employees who are not counted in the ratio of the Company's employees by gender and age in 2021 is approximately 4,831.

Staff turnover

Indicator	Unit	2021	2020	2019
Staff turnover rate	%	7.57	9.31	7.68
By gender				
Male	%	7.25	8.72	7.66
Female	%	8.84	12.39	7.74
By age				
<30	%	10.25	12.42	9.86
$30 \leqslant Y < 50$	%	5.63	6.83	6.48
$\geqslant 50$	%	10.68	14.78	10.60
By country				
China	%	8.24	10.51	9.75
Other countries and regions outside China	%	6.75	7.84	5.17

Employee training

Indicator	Training ratio (%)	Average training hours
By gender		
Male	93.3	31.15
Female	93.0	31.34
By job level		
Upper-level employees	100	28.31
Mid-level employees	82.7	29.20
Entry-level employees	93.9	32.51

Notes: Entry-level employees do not include overseas entry-level employees, employees with no job level yet, and employees below Grade 8.

Production safety

Indicator	Unit	2021	2020	2019
Investment in production safety	RMB100 million	14.93	8.91	6.75
ISO 45001:2008 certification coverage	%	87.5	/	/
Number of work-related fatalities of our employees	/	4	0	0
Number of work-related fatalities of contractors' employees	/	4	2	1
Lost days	/	2,540.75	5,909.50	4,448.25
Lost work hours rate (per million hours worked)	/	105.62	328.35	251.88
Lost time injury rate (LTIR) (per million hours worked)	/	0.30	0.33	0.89
Total recordable incident rate (TRIR) (per million hours worked)	/	0.68	0.69	1.37
Near miss frequency rate (NMFR) (per million hours worked)	/	0.18	0.07	0.16
Total number of hours worked	Million hours	192.44	143.98	141.28
Cumulative number of attendances of safety training by current employees	10,000	33.43	23.97 (excl. contractors)	/
Number of training sessions per current employee	/	5.0	6.8 (excl. contractors)	/

Notes:
1. Calculation methods: Lost work hours rate = Lost work hours due to work-related injuries ÷ Total number of hours worked x 1,000,000
Lost time injury rate (LTIR) = Number of persons with lost time injury ÷ Total number of hours worked x 1,000,000
Total recordable incident rate (TRIR) = Number of persons with recordable incident injury ÷ Total number of hours worked x 1,000,000
Near miss frequency rate (NMFR) = Number of near misses ÷ Total number of hours worked x 1,000,000
2. Unless otherwise indicated, these statistics are from the main mines, smelting and processing companies under actual operational control of the Company, and their contractors.

Product management

Indicator	Unit	2021	2020	2019
Qualification rate of mineral products	%	99.9	99.8	99.9
Number of products recalled due to safety and health reasons	/	0	0	0
Number of complaints lodged due to safety and health reasons	/	0	0	0
Customer satisfaction	%	99.22	99.29	99.28
Wood for packaging products	Tonne	699	253	206
Bags for packaging concentrate products	Tonne	1,841	2,370	2,725

Technological innovation

Indicator	Unit	2021	2020	2019
R&D expenditure	RMB100 million	7.71	5.83	5.39
New patents	/	32	24	27

Suppliers and contractors

Indicator	Unit	2021	2020	2019
Total number of contractors	/	612	513	493
Total number of suppliers	/	5,380	4,669	4,923
-Suppliers from China	/	4,480	4,172	4,495
-Suppliers from countries and regions outside China	/	900	497	428
Number of new suppliers	/	762	917	592
-Number of new suppliers selected by ESG standards	/	762	917	592
Amount of local procurement	RMB100 million	76.13	/	/
Local procurement rate	%	31.82	/	/

Community investment

Indicator	Unit	2021	2020	2019
Community investment	RMB million	423.83	231.93	195.21
-Charitable donations	RMB million	268.24	178.03	166.28
-Development contributions	RMB million	155.59	53.90	28.93

Independent Verification Statement

To the management team and stakeholders of Zijin Mining Group Co., Ltd.,

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch (hereinafter referred to as "TÜV SÜD") has been engaged by Zijin Mining Group Co., Ltd. (hereinafter referred to as "Zijin" or "the Company") to perform an independent third-party verification on 2021 Environmental, Social and Governance Report of Zijin Mining Group Co., Ltd. (hereinafter referred to as "the Report"). During this verification, TÜV SÜD's verification team strictly abided by the contract signed with Zijin and provided verification regarding the Report in accordance with the provisions agreed by both parties and within the authorized scope stipulated in the contract.

This Independent Verification Statement is based on the data and information collected by Zijin and provided to TÜV SÜD. The scope of verification is limited to the said information. Zijin shall be held accountable for authenticity and completeness of the provided data and information.

Scope of Verification

Time frame of this verification:

◈ The Report contains the data disclosed by Zijin during the reporting period from January 1st, 2021 to December 31st, 2021, including economic, environmental and social information and data, methods for management of substantial issues, actions/measures and the Company's sustainable development performance during the reporting period.

Physical boundary of this verification:

◈ The on-the-spot verification took place at below listed location, which is,

Headquarter of Zijin (Shanghang) address at 1 Zijin Road, Shanghang County, Longyan City, Fujian Province, the PRC.

◈ The scope of data and information in this verification:

The scope of assurance is limited to the data and information of Zijin and its factories/production sites under the operational control covered by the 'Report'.

The following information and data are beyond the scope of this verification:

◈ Any information and contents beyond the reporting period of this Report;

◈ The data and information of Zijin's suppliers, partners and other third parties; and

◈ The financial data and information disclosed in this Report that have been audited by an independent third party are not verified again herein.

Limitations

◈ This verification was performed at aforementioned sites, and no branch or subsidiary was visited during the aforesaid verification; and

◈ The Company's standpoint, opinions, forward-looking statements and predictive information as well as the historical data and information before January 1st, 2021 are beyond the scope of this verification.

Basis for the Verification

This verification process was conducted by TÜV SÜD's expert team who are highly experienced in the corporate social responsibility, economic, social, environmental and other relevant issues and this team drew the conclusions thereof. The verification referred to the following standards:

◈ AA1000AS v3

◈ Global Reporting Initiative Sustainable Development Reporting Standards (GRI Standards) 2016 2018 2020 edition

◈ The Stock Exchange of Hong Kong Limited: the Environmental, Social and Governance Reporting Guide set out in Appendix 27 to the Main Board Listing Rules

◈ TÜV SÜD Procedure of Verification on Sustainability Report

In order to perform adequate verification in accordance with the contract and provide reasonable verification for the conclusions, the verification team conducted the following activities:

◈ Preliminary investigation of the relevant information before the verification;

◈ Confirmation of the presence of the highly substantial issues and performance in the Report;

◈ On-the-spot review of all supporting documents, data and other information provided by Zijin; tracing and verification of key performance information;

◈ Special interview with the representative of Zijin's board of directors; interviews with the employees related to collection, compilation and reporting of the disclosed information; and

◈ Other procedures deemed necessary by the verification team.

Verification Conclusions

According to the verification, we believe the Report prepared by Zijin is substantial; the disclosed information and data of 2021 is authentic and traceable, no systematic or substantial problem has been detected; this Report can be used by the stakeholders of Zijin.

The verification team has drawn the following conclusions on this Report:

Stakeholders inclusiveness	The Report has fully identified internal and external stakeholders of the Company, and the Company has established regular communication mechanisms, such as meetings, interviews, emails, research and other ways, to maintain positive communication with stakeholders. Issues of high stakeholder concern are addressed in the Report.
Sustainable Development Background	Zijin considers the extent and scope of a company's impact on the global economy, environment and society in the broader context of sustainability.
Materiality	Zijin establishes a process for prioritizing material issues, identifies and prioritizes sustainable development issues that are highly relevant to the industry, and discloses the Company's sustainability management, management actions and performance data. The content of the Report is substantive.
Integrality	Zijin has comprehensively identified the -substantial issues in the industry and analyzed the scope of the impact of substantive issues in the Report.
Accuracy	The performance data presented in the Report has been verified by sampling to be exhaustive and accurate.
Balance	In the process of preparing the Report, the balance of the Report was adequately considered, where both positive information and negative information are disclosed.
Clarity	The Report uses a combination of pictures, charts and text, and has disclosed direct access to the Report.
Comparability	The Report compares the 2021 performance data with previous years, allowing stakeholders to have a clearer understanding of Zijin's sustainable development achievements.
Reliability	Zijin adopts a reliable data collection system to ensure consistent data statistics and traceability of original data.
Quantitative	Targets and KPIs of the substantial issues are measurable.
Timeliness	The Company releases the sustainable development report every year, and the time range of the Report is consistent with the annual report, so that stakeholders can consolidated information in time to make decisions.
Consistency	Zijin uses consistent disclosure statistics to reflect the ongoing performance of relevant aspects with consistent data.

Recommendations on Continuous Improvement

◈ Considering that the Company has published the carbon neutrality target, it is recommended that the Company enrich and detail the carbon neutrality implementation path in the next annual report.

Statement on Independence and Verification Capability

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Since 1866, TÜV SÜD has remained committed to its purpose of enabling progress by protecting people, the environment and assets from technology-related risks. Today, TÜV SÜD is present in over 1,000 locations worldwide with its headquarters in Munich, Germany. TÜV SÜD has been committed to sustainable development and actively promotes environmental protection related projects. Over the years, TÜV SÜD has been actively expanding its performance in energy management, renewable resources, and electric automobiles, etc., helping its customers meet sustainable development needs.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch is one of TÜV SÜD's global branches and has an expert team whose members have professional background and rich industrial experiences.

TÜV SÜD and Zijin are two entities independent of each other and both TÜV SÜD and Zijin and their branches or stakeholders have no conflict of interest. No member of the verification team has business relationship with the Company. The verification is completely neutral. All the data and information in the Report are provided by Zijin. TÜV SÜD has not been involved in preparation and drafting of the Report, except for the verification itself and issuance of the verification statement.

Signature:

On Behalf of TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Zhu Wenjun

TÜV SÜD Sustainability Authorized Signatory Officer

4-March, 2022

Shanghai,China

Note: In case of any inconsistency or discrepancy, the simplified Chinese version of this verification statement shall prevail, while the English translation and the traditional Chinese version are used for reference only.

Rating Report

Upon the request of Zijin Mining Group Company Limited, the Chinese Expert Committee on CSR Report Rating invited experts to form a rating team to rate The 2021 Environment, Society and Governance Report of Zijin Mining Group Company Limited (hereinafter referred to as "the Report").

I. Rating Criteria

Guidelines on China's Corporate Social Responsibility Reports-Ordinary Mining Industry (CASS-CSR 4.0) by Chinese Academy of Social Sciences, and Rating Standards on China's Corporate Social Responsibility Reports (2020) by China Expert Committee on CSR Report Rating.

II. Rating Process

1. The Rating Panel reviews and confirms CSR Report Process Materials Confirmation and supporting documents submitted by the CSR Report Compiling Group;
2. The Rating Panel assesses the preparation process and contents of CSR Report, and drafts the Rating Report;
3. Vice Chairman of China Expert Committee on CSR Report Rating, the Leader and experts of the Rating Panel jointly review and sign the Rating Report.

III. Rating Results

Process (★★★★☆)

The Company established the Strategy and Sustainable Development (ESG) Committee, with the chairman of the board of director as the chairman of the committee, who shall control the overall direction and key issues of the Report and be responsible for the final review of the Report. The Social Responsibility Department took the lead in setting up the report preparation working group and coordinates the specific preparation work; positioning the Report as an important tool for compliantly disclosing the responsibility performance information and strengthening stakeholder communication, with clear functional value positioning; identifying the substantive issues based on the international national social responsibility standards, major company affairs and stakeholder survey; planning to release the Report through the official website and present the Report in the form of electronic version, printed version and Chinese and English version, with leading performance in process.

Substantiality (★★★★★)

The Report systematically disclosed the key issues in ordinary mining industry, such as the implementation of macro policies, the digital mine construction, the occupational health management, the safe production, the environment management system, the R&D of environmental protection technology, the saving of land resource, the reduction of emission of "three types of waste", the management of tailings and the ecological protection in the mining area, with detailed and full narration and excellent substantiality performance.

Integrity (★★★★☆)

The main body of the Report systematically disclosed 88.17% of the core industrial indicators in the ordinary mining industry from the perspectives of "taking the precaution before the occurrence of any accident and making preparation before the occurrence of disorder: the enterprise governance road of Zijin", "mining and using the resources with restrictions: the ecological protection road of Zijin" and" pulling together in times of trouble: humanistic care road of Zijin", with leading integrity performance.

Balance (★★★★★)

The Report disclosed the negative data including "the loss-time accident rate", "the recordable accident rate", "the number of products recalled due to safety and health reasons", "the employee turnover", "the Lost-Time Incident Rate (LTIR)" and "the Total Recordable Injury Rate (TRIR)", and carefully described the reasons and corrective measures of the roof-fall accidents of the subsidiaries, with excellent balance performance.

Comparability (★★★★★)

The Report disclosed the comparative data of 128 indicators such as "total profit", "copper resource reserve", "total social contribution", "safety input", "environmental protection input" and "water recycling efficiency" for three consecutive years. In addition, it also makes a horizontal comparison based on data such as "ranking 398th among

Forbes Global Listed Companies in 2021" and "ranking 486th among 2021 Fortune Global Top 500 in 2021", with excellent comparability performance.

Readability (★★★★★)

With the theme of "Mining for the Benefit of Society", the Report comprehensively interpreted the concept, action and effectiveness of annual accountability from the three dimensions of governance responsibility, environmental responsibility and social responsibility, with a clear framework and prominent key issues. The cover and chapter double spread adopted panoramic real map to present the characteristic responsibility performance scene, enhancing the appeal of the Report; testimonials from stakeholders are introduced to prove the responsibility performance effectiveness, strengthening the communication value of the Report. The design style was fresh and lively, with the pictures and text collocations complementing each other and the cases were rich and detailed, with excellent readability performance.

Innovativeness (★★★★)

The Report actively responded to the United Nations Sustainable Development Goals (SDGs), demonstrated responsible actions under specific goals, and highlighted the value pursuit of the enterprise. Each chapter began with the presentation of the key issues and the annual results and concentrated on the main points, which was designed to facilitate stakeholders to quickly grasp the key information, with good innovativeness performance.

Overall Rating (★★★★★)

The 2021 Environment, Society and Governance Report of Zijin Mining Group Company Limited was rated as five stars by the rating team. It is an excellent corporate social responsibility report.

中国企业社会责任报告
评级专家委员会
Chinese Expert Committee on CSR Report Rating

The Environment, Society and Governance Report of Zijin Mining Group Company Limited gained the five-star evaluation for the first time.

IV. Improvement Suggestions

Present more responses to current hot issues in the framework and contents of the Report, keep up with the times, and enhance the innovativeness of the Report.

Vice Chairman of China Expert Committee on CSR Report Rating

Panel Leader

Panel Expert

Date of Issuance: March 15, 2022

Scan the QR code to view the corporate rating

GRI Content Index

GRI Standard	Disclosure	Page number(s)
General Disclosures		
Organizational profile	Disclosure 102-1 Name of the organization	P01
	Disclosure 102-2 Activities, brands, products, and services	P06
	Disclosure 102-3 Location of headquarters	Back cover
	Disclosure 102-4 Location of operations	P06-07
	Disclosure 102-5 Ownership and legal form	P06
	Disclosure 102-6 Markets served	P06-07
	Disclosure 102-7 Scale of the organization	P06
	Disclosure 102-8 Information on employees and other workers	P53
	Disclosure 102-9 Supply chain	P67
	Disclosure 102-10 Significant changes to the organization and its supply chain	P09
	Disclosure 102-11 Precautionary Principle or approach	P27
	Disclosure 102-12 External initiatives	P15
	Disclosure 102-13 Membership of associations	P15
Strategy	Disclosure 102-14 Statement from senior decision-maker	P02-05
	Disclosure 102-15 Key impacts, risks, and opportunities	P27
Ethics and integrity	Disclosure 102-16 Values, principles, standards, and norms of behavior	P08
	Disclosure 102-17 Mechanisms for advice and concerns about ethics	P24-26
Governance	Disclosure 102-18 Governance structure	P20
	Disclosure 102-19 Delegating authority	P22-23
	Disclosure 102-20 Executive-level responsibility for economic, environmental, and social topics	P22-23
	Disclosure 102-21 Consulting stakeholders on economic, environmental, and social topics	P16-18
	Disclosure 102-22 Composition of the highest governance body and its committees	P20-23
	Disclosure 102-23 Chair of the highest governance body	P03
	Disclosure 102-24 Nominating and selecting the highest governance body	-
	Disclosure 102-25 Conflicts of interest	-
	Disclosure 102-26 Role of highest governance body in setting purpose, values, and strategy	P20
	Disclosure 102-27 Collective knowledge of highest governance body	P22
	Disclosure 102-28 Evaluating the highest governance body's performance	P22
	Disclosure 102-29 Identifying and managing economic, environmental, and social impacts	P22
	Disclosure 102-30 Effectiveness of risk management processes	P27
	Disclosure 102-31 Review of economic, environmental, and social topics	P17
	Disclosure 102-32 Highest governance body's role in sustainability reporting	P22-23
	Disclosure 102-33 Communicating critical concerns	P16, P22
	Disclosure 102-34 Nature and total number of critical concerns	P17, P20
	Disclosure 102-35 Remuneration policies	P22
	Disclosure 102-36 Process for determining remuneration	-
	Disclosure 102-37 Stakeholders' involvement in remuneration	-
	Disclosure 102-38 Annual total compensation ratio	-
	Disclosure 102-39 Percentage increase in annual total compensation ratio	-

GRI Standard	Disclosure	Page number(s)
Stakeholder engagement	Disclosure 102-40 List of stakeholder groups	P16
	Disclosure 102-41 Collective bargaining agreements	P50
	Disclosure 102-42 Identifying and selecting stakeholders	P16
	Disclosure 102-43 Approach to stakeholder engagement	P16
	Disclosure 102-44 Key topics and concerns raised	P16
Reporting practice	Disclosure 102-45 Entities included in the consolidated financial statements	P06-07
	Disclosure 102-46 Defining report content and topic Boundaries	P01
	Disclosure 102-47 List of material topics	P18
	Disclosure 102-48 Restatements of information	P79-82
	Disclosure 102-49 Changes in reporting	-
	Disclosure 102-50 Reporting period	P01
	Disclosure 102-51 Date of most recent report	P01
	Disclosure 102-52 Reporting cycle	P01
	Disclosure 102-53 Contact point for questions regarding the report	P97
	Disclosure 102-54 Claims of reporting in accordance with the GRI Standards	P01
	Disclosure 102-55 GRI content index	P89
	Disclosure 102-56 External assurance	P85
Material topics		
Economic Performance 2016	GRI 103: Management Approach	P20
	Disclosure 201-1 Direct economic value generated and distributed	P12
	Disclosure 201-2 Financial implications and other risks and opportunities due to climate change	P27-30
Indirect Economic Impacts 2016	GRI 103: Management Approach	P69
	Disclosure 203-1 Infrastructure investments and services supported	P73
	Disclosure 203-2 Significant indirect economic impacts	P73
Procurement Practices 2016	GRI 103: Management Approach	P67
	Disclosure 204-1 Proportion of spending on local suppliers	P67
Anti-corruption 2016	GRI 103: Management Approach	P24
	Disclosure 205-1 Operations assessed for risks related to corruption	P24
	Disclosure 205-2 Communication and training about anti-corruption policies and procedures	P25
	Disclosure 205-3 Confirmed incidents of corruption and actions taken	P24
Anti-competitive Behavior 2016	GRI 103: Management Approach	P25
	Disclosure 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	P25
Tax 2019	207-1 Approach to tax	P24
	207-4 Country-by-country reporting	P13
Materials 2016	GRI 103: Management Approach	P65
	Disclosure 301-1 Materials used by weight or volume	P65
Energy 2016	GRI 103: Management Approach	P31
	Disclosure 302-1 Energy consumption within the organization	P31
	Disclosure 302-3 Energy intensity	P32
	Disclosure 302-4 Reduction of energy consumption	P32
	Disclosure 302-5 Reductions in energy requirements of products and services	P31
Water and Effluents 2018	GRI 103: Management Approach	P34
	Disclosure 303-1 Interactions with water as a shared resource	P35
	Disclosure 303-2 Management of water discharge-related impacts	P36
	Disclosure 303-3 Water withdrawal	P34
	Disclosure 303-4 Water discharge	P34

GRI Standard	Disclosure	Page number(s)
Biodiversity 2016	GRI 103: Management Approach	P38, P40
	Disclosure 304-2 Significant impacts of activities, products, and services on biodiversity	P38, P40
	Disclosure 304-3 Habitats protected or restored	P38, P40
Emissions 2016	GRI 103: Management Approach	P30
	Disclosure 305-1 Direct (Scope 1) GHG emissions	P30
	Disclosure 305-2 Energy indirect (Scope 2) GHG emissions	P30
	Disclosure 305-4 GHG emissions intensity	P30
	Disclosure 305-5 Reduction of GHG emissions	P30
	Disclosure 305-6 Emissions of ozone-depleting substances (ODS)	-
	Disclosure 305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	P45
Waste 2020	GRI 103: Management Approach	P43
	Disclosure 306-1 Waste generation and significant waste-related impacts	P43-44
	Disclosure 306-2 Management of significant waste-related impacts	P43-44
	Disclosure 306-3 Waste generated	P44
	Disclosure 306-4 Waste diverted from disposal	P44
	Disclosure 306-5 Waste directed to disposal	P44
Environmental Compliance 2016	GRI 103: Management Approach	P29
	Disclosure 307-1 Non-compliance with environmental laws and regulations	P34
Supplier Environmental Assessment 2016	GRI 103: Management Approach	P68
	Disclosure 308-1 New suppliers that were screened using environmental criteria	P68
	Disclosure 308-2 Negative environmental impacts in the supply chain and actions taken	P68
Employment 2016	GRI 103: Management Approach	P52
	Disclosure 401-1 New employee hires and employee turnover	P54
	Disclosure 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	P52
Labor/Management Relations 2016	GRI 103: Management Approach	P49
	Disclosure 402-1 Minimum notice periods regarding operational changes	P50
Occupational Health and Safety 2018	GRI 103: Management Approach	P56-62
	Disclosure 403-1 Occupational health and safety management system	P56-57
	Disclosure 403-2 Hazard identification, risk assessment, and incident investigation	P57
	Disclosure 403-3 Occupational health services	P59
	Disclosure 403-5 Worker training on occupational health and safety	P58
	Disclosure 403-6 Promotion of worker health	P59
	Disclosure 403-8 Workers covered by an occupational health and safety management system	P59
	Disclosure 403-9 Work-related injuries	P58
	Disclosure 403-10 Work-related ill health	P59
Training and Education 2016	GRI 103: Management Approach	P52
	Disclosure 404-1 Average hours of training per year per employee	P54-55
	Disclosure 404-2 Programs for upgrading employee skills and transition assistance programs	P54
	Disclosure 404-3 Percentage of employees receiving regular performance and career development reviews	P52
Diversity and Equal Opportunity 2016	GRI 103: Management Approach	P52
	Disclosure 405-1 Diversity of governance bodies and employees	P53
Non-discrimination 2016	GRI 103: Management Approach	P51
	Disclosure 406-1 Incidents of discrimination and corrective actions taken	P51
Freedom of Association and Collective Bargaining 2016	GRI 103: Management Approach	P50

GRI Standard	Disclosure	Page number(s)
Child Labor 2016	GRI 103: Management Approach	P49
	Disclosure 408-1 Operations and suppliers at significant risk for incidents of child labor	-
Forced or Compulsory Labor 2016	GRI 103: Management Approach	P50
	Disclosure 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	-
Security Practices 2016	GRI 103: Management Approach	P62
	Disclosure 410-1 Security personnel trained in human rights policies or procedures	P63
Rights of Indigenous Peoples 2016	GRI 103: Management Approach	P72
Human Rights Assessment 2016	GRI 103: Management Approach	P49-51
	Disclosure 412-2 Employee training on human rights policies or procedures	P49-51
Local Communities 2016	GRI 103: Management Approach	P69
	Disclosure 413-1 Operations with local community engagement, impact assessments, and development programs	P69
Supplier Social Assessment 2016	GRI 103: Management Approach	P68
	Disclosure 414-1 New suppliers that were screened using social criteria	P68
	Disclosure 414-2 Negative social impacts in the supply chain and actions taken	P68
Customer Health and Safety 2016	GRI 103: Management Approach	P64
	Disclosure 416-1 Assessment of the health and safety impacts of product and service categories	P64
	Disclosure 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	P65
Marketing and Labeling 2016	GRI 103: Management Approach	P64
	Disclosure 417-1 Requirements for product and service information and labeling	P64
	Disclosure 417-2 Incidents of non-compliance concerning product and service information and labeling	P64
	Disclosure 417-3 Incidents of non-compliance concerning marketing communications	P64
Customer Privacy 2016	GRI 103: Management Approach	P65
	Disclosure 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	P65
Socioeconomic Compliance 2016	GRI 103: Management Approach	P24
	Disclosure 419-1 Non-compliance with laws and regulations in the social and economic area	P24

HKEX Index

Index	Subject Areas, Aspects, General Disclosures and KPIs		Pages
A. Environmental			
Aspect A1: Emissions	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Hazardous wastes are those defined by national regulations.		P30, P36 P43, P45
	KPI A1.1	The types of emissions and respective emissions data	P30, P36 P43-45
	KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P30
	KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P44
	KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P43
	KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	P28, P45 P30, P36
	KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	P44
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.		P31-35
	KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P31, P32
	KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P34-35
	KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	P28, P31-32
	KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	P34, P35
	KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	P65
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impacts on the environment and natural resources.		P29
	KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P30-47
Aspect A4: Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.		P27, P30
	KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	P30
B. Social			
Employment and Labour Practices			
Aspect B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.		P11, P51, P52
	KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	P53
	KPI B1.2	Employee turnover rate by gender, age group and geographical region.	P54

Index	Subject Areas, Aspects, General Disclosures and KPIs		Pages
Aspect B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.		P56-62
	KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P58
	KPI B2.2	Lost days due to work injury.	P58
	KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P56-59
Aspect B3: Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.		P52-55
	KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P55
	KPI B3.2	The average training hours completed per employee by gender and employee category.	P54
Aspect B4: Labour Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.		P49, P50
	KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	P49, P50
	KPI B4.2	Description of steps taken to eliminate such practices when discovered.	P49, P50
Operating Practices			
Aspect B5: Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.		P67, P68
	KPI B5.1	Number of suppliers by geographical region.	P68
	KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	P68
	KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P68
	KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P68
Aspect B6: Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.		P64
	KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	P65
	KPI B6.2	Number of products and service related complaints received and how they are dealt with.	P64, P65
	KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	P65
	KPI B6.4	Description of quality assurance process and recall procedures.	P64
	KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P65
Aspect B7: Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.		P24
	KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P24
	KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P25
	KPI B7.3	Description of anti-corruption training provided to directors and staff.	P25
Community			
Aspect B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.		P69-71
	KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	P70-75
	KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	P73

SASB Index

SASB Code	Accounting Metric	Unit of Measure	Data/Pages
EM-MM-110a.1	Gross global Scope 1 emissions	Metric tons (t)CO_2e	2,790,000
	percentage covered under emissions-limiting regulations	Percentage (%)	0
EM-MM-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	NA	P30
EM-MM-120a.1	Air emissions of the following pollutants:		
	(1) CO	Metric tons (t)	0
	(2) NOx (excluding N_2O)	Metric tons (t)	888.41
	(3) SOx	Metric tons (t)	1,483.64
	(4) particulate matter (PM10)	Metric tons (t)	415.30
	(5) mercury (Hg)	Metric tons (t)	0.10
	(6) lead (Pb), and	Metric tons (t)	1.28
	(7) volatile organic compounds (VOCs)	Metric tons (t)	0.19
EM-MM-130a.1	(1) Total energy consumed	Gigajoules (GJ)	54,852,804
	(2) percentage grid electricity	Percentage (%)	41.56
	(3) percentage renewable	Percentage (%)	2.30
EM-MM-140a.1	(1) Total fresh water withdrawn	Million cubic meters (m^3)	40.47
	(2) total fresh water consumed	Million cubic meters (m^3)	40.47
	percentage of each in regions with High or Extremely High Baseline Water Stress	Percentage (%)	14.55
EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Number	0
EM-MM-150a.1	Total weight of tailings waste	Metric tons (t)	114,340,000
	percentage recycled	Percentage (%)	22.11
EM-MM-150a.2	Total weight of mineral processing waste	Metric tons (t)	1,227,539
	percentage recycled	Percentage (%)	65.46
EM-MM-150a.3	Number of tailings impoundments, broken down by MSHA hazard potential	Number	52 Low risk
EM-MM-160a.1	Description of environmental management policies and practices for active sites	NA	P29
EM-MM-160a.2	Percentage of mine sites where acid rock drainage is:		
	(1) predicted to occur	Percentage (%)	1.96
	(2) actively mitigated, and	Percentage (%)	3.92
	(3) under treatment or remediation	Percentage (%)	7.84
EM-MM-160a.3	Percentage of (1) proved and	Percentage (%)	-
	(2) probable reserves in or near sites with protected conservation status or endangered species habitat	Percentage (%)	-
EM-MM-210a.1	Percentage of (1) proved and	Percentage (%)	-
	(2) probable reserves in or near areas of conflict	Percentage (%)	-
EM-MM-210a.2	Percentage of (1) proved and	Percentage (%)	-
	(2) probable reserves in or near indigenous land	Percentage (%)	-
EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	NA	P49,P67,P69
EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	NA	P69
EM-MM-210b.2	Number of non-technical delays	Number	0
	Duration of non-technical delays	Days	0

SASB Code	Accounting Metric	Unit of Measure	Data/Pages
EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements broken down by local employees	Percentage (%)	70.33
	Percentage of active workforce covered under collective bargaining agreements broken down by foreign employees	Percentage (%)	35.33
EM-MM-310a.2	Number of strikes and lockouts	Number	4
	Duration of strikes and lockouts	Days	3.75
EM-MM-320a.1	(1) MSHA all-incidence rate	Rate	-
	(2) fatality rate[1]	Rate	0.01
	(3) near miss frequency rate[2] (NMFR)	Rate	0.04
	(4) a. average hours of health, safety, and emergency response training for full-time employees	Hours	20
	(4) b. average hours of health, safety, and emergency response training for contract employees	Hours	-
EM-MM-510a.1	(1) Description of the management system for prevention of corruption and bribery throughout the value chain	NA	P20
EM-MM-510a.2	(2) Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Metric tons (t)	-
EM-MM-000.A	Production of metal ores	Metric tons (t) Saleable	-
	Production of finished metal products	Metric tons (t) Saleable	-
EM-MM-000.B	Total number of employees	Number	43,876
	Total number of percentage contractors	Percentage (%)	0.23

Notes:
1. It adopts SASB's calculation method: fatality rate = fatalities/total number of hours worked*200,000
2. It adopts SASB's calculation method: near miss frequency rate = near misses/total number of hours worked*200,000

Reader's Feedback Form

Dear Reader,

Thank you for reading this Report. In order to improve the Company's ESG work and enhance the ESG capability and quality, we especially wish to hear your opinions and suggestions. Please take some time to complete an evaluation of this Report to help us improve further. Please answer the below questions in the list below and send your feedback to us:

1. What is your overall evaluation of this Report?

2. What is your opinion on the quality of information disclosed in this Report?

3. What part(s) of the Report interest(s) you most?

4. What other information do you think should be included in this Report?

5. Do you have any suggestion(s) regarding our sustainable development work and publication of the ESG reports in the future?

Please leave us your personal information if it is convenient

Name/company name/industry:

Telephone number/email address:

Our contact:

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