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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)

2019 Environmental, Social and Governance Report

Attached herewith the 2019 Environmental, Social and Governance Report of Zijin Mining Group Co., Ltd.* (the "Company") for the period from 1 January 2019 to 31 December 2019.

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 over its English version.

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 and Suen Man Tak as independent non-executive directors.

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

28 July 2020, Fujian, the PRC

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

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Definition

A Share(s)	The domestic share(s) issued by the Company to domestic investors with a nominal value of RMB0.10 each, which are listed on the Shanghai Stock Exchange
Altynken	Altynken Limited Liability Company, a subsidiary of the Company
Articles of Association	The articles of association of the Company, as amended, modified or otherwise supplemented from time to time
Ashele Copper	Xinjiang Habahe Ashele Copper Co., Ltd., a subsidiary of the Company
Bayannur Zijin	Bayannur Zijin Non-ferrous Metals Co., Ltd., a subsidiary of the Company
Board, Board of Directors	The board of Directors of the Company
COMMUS	La Compagnie Minière de Musonoie Global Société par Actions Simplifiée, a subsidiary of the Company
Company, Zijin Mining, Zijin, we	Zijin Mining Group Co., Ltd.*
CSRC	China Securities Regulatory Commission
Director(s)	The director(s) of the Company
DR Congo	The Democratic Republic of the Congo
Duobaoshan Copper Industry	Heilongjiang Duobaoshan Copper Industry Inc., a wholly-owned subsidiary of the Company
Fujian Zijin Copper	Fujian Zijin Copper Co., Ltd., a wholly-owned subsidiary of the Company
Group	The Company and its subsidiaries
Guizhou Zijin	Guizhou Zijin Mining Co., Ltd., a subsidiary of the Company
H Share(s)	The overseas-listed foreign invested share(s) in the Company's share capital, with a nominal value of RMB0.10 each, which are listed on the Hong Kong Stock Exchange
Heilongjiang Zijin Copper	Heilongjiang Zijin Copper Co., Ltd., a wholly-owned subsidiary of the Company
Hong Kong Stock Exchange	The Stock Exchange of Hong Kong Limited
Hunchun Zijin	Hunchun Zijin Mining Co., Ltd., a wholly-owned subsidiary of the Company
Jilin Zijin Copper	Jilin Zijin Copper Co., Ltd., a wholly-owned subsidiary of the Company
Longnan Zijin	Longnan Zijin Mining Co., Ltd., a subsidiary of the Company
Longxing	Longxing Limited Liability Company, a subsidiary of the Company
Luoning Huatai	Luoning Huatai Mining Development Co., Ltd., a subsidiary of the Company
Luoning Zijin	Luoning Zijin Gold Refinery Co., Ltd., a subsidiary of the Company
Norton	Norton Gold Fields Pty Limited, a wholly-owned subsidiary of the Company
Porgera JV	Porgera Joint Venture
PRC	The People's Republic of China but for the purpose of this Report, excludes Hong Kong SAR, Macau SAR and Taiwan
Rakita	Rakita Exploration d.o.o. Bor, a wholly-owned subsidiary of the Company
RMB	Renminbi, the lawful currency of the PRC
Shanxi Zijin	Shanxi Zijin Mining Co., Ltd., a wholly-owned subsidiary of the Company

Supervisor(s)	The supervisor(s) of the Company
Supervisory Committee	The supervisory committee of the Company
Urad Rear Banner Zijin	Urad Rear Banner Zijin Mining Co., Ltd., a subsidiary of the Company
USD	United States dollar, the lawful currency of the United States of America
West Copper	Qinghai West Copper Co., Ltd., a wholly-owned subsidiary of the Company
Wuping Zijin	Wuping Zijin Mining Co., Ltd., a subsidiary of the Company
Xinjiang Jinbao	Xinjiang Jinbao Mining Co., Ltd., a subsidiary of the Company
Yuanyang Huaxi	Yuanyang Huaxi Gold Co., Ltd., a subsidiary of the Company
Zeravshan	Joint Venture Zeravshan Limited Liability Company, a subsidiary of the Company
Zijin Bor	Serbia Zijin Bor Copper doo Bor, a subsidiary of the Company
Zijin Construction	Zijin Mining Construction Co., Ltd., a subsidiary of the Company
Zijin Copper	Zijin Copper Co., Ltd. a wholly-owned subsidiary of the Company
Zijin Gold Smelting	Zijin Mining Group Gold Smelting Co., Ltd., a wholly-owned subsidiary of the Company
Zijin Zinc	Xinjiang Zijin Zinc Co., Ltd., a wholly-owned subsidiary of the Company

Part I. 2019 Environment, Society and Governance Report

Photo taken in the Group's Zijinshan, a national green mine in China



2019

ENVIRONMENT, SOCIETY & GOVERNANCE REPORT

 紫金礦業集團股份有限公司
ZIJIN MINING GROUP CO., LTD.

ABOUT THIS REPORT

The Environment, Society and Governance Report (the “Report” or “ESG Report”) of Zijin Mining Group Co., Ltd.* mainly describes the performance of Zijin Mining in the aspects of sustainable development, corporate governance, ecological and environmental protection, safety management, employee development, community development and so on during the reporting period from 1 January 2019 to 31 December 2019. For more information of the Company, please refer to 2019 Annual Report of Zijin Mining Group Co., Ltd.* and 2019 Environmental Report of Zijin Mining Group Co., Ltd.* published on the Shanghai Stock Exchange and the Hong Kong Stock Exchange.

Reporting entity:

Zijin Mining Group Co., Ltd.* (“Zijin Mining”, the “Group”, the “Company” or “we”).

Publication interval:

This Report is for the year 2019, being the 12th Environment, Society and Governance Report (Social Responsibilities Report) issued by Zijin Mining. This Report is published once every year. Certain descriptions and data are related to prior periods.

Reporting scope:

The scope of contents and data disclosed in this Report is consistent with that of the Company’s annual report, and further descriptions are provided for certain data.

Sources of data:

The data contained in this Report are extracted from the Company’s internal statistical reports, internal documents, audited financial statements, etc. Certain data are extracted from the Company’s 2019 Annual Report, and such data have been audited by Ernst & Young Hua Ming LLP.

Basis for the compilation:

The compilation of this Report is mainly based on the Notice on Strengthening Listed Companies’ Assumption of Social Responsibility and Issuance of “Guidelines on Listed Companies’ Environmental Information Disclosure of the Shanghai Stock Exchange”, Guidelines on Preparation of Report on Company’s Performance of Social Responsibilities and Appendix 27: Environmental, Social and Governance Reporting Guide (2016 version) of Main Board Listing Rules issued by the Hong Kong Stock Exchange. References were also made to the Global Reporting Initiative (GRI): Sustainability Reporting Guidelines, Guidance on social responsibility reporting (GB/T 36001-2015), Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises CASS-CSR4.0 - General Mining Industry issued by the Chinese Academy of Social Sciences and other standards and guidelines.

ABOUT ZIJIN MINING



Major projects in China

- | | |
|--|---|
| 1 Zijinshan Gold and Copper Mine (Fujian) | 2. Ashele Copper Mine (Xinjiang) |
| 3 Wulagen Zinc (Lead) Mine (Xinjiang) | 4. Mengku Iron Mine (Xinjiang) |
| 5 Shuiyindong Gold Mine (Guizhou) | 6. Deerni Copper Mine (Qinghai) |
| 7 Urad Rear Banner Zinc (Lead) Mine (Inner Mongolia) | 8. Dugou Gold Mine (Gansu) |
| 9 Yixingzhai Gold Mine (Shanxi) | 10. Shuguang Gold and Copper Mine (Jilin) |
| 11 Duobaoshan Copper Mine (Heilongjiang) | 12. Shanggong Gold Mine (Henan) |
| 13 Huatai Gold Mine (Henan) | 14. Malipo Tungsten Mine (Yunnan) |

Zijin in China

Major overseas projects

- | | |
|--|---|
| 1 Paddington Operations (Australia) | 2 Taror/Jilau Gold Mines (Tajikistan) |
| 3 Taldybulak Levoberezhny Gold Mine (Kyrgyzstan) | 4 Porgera Gold Mine (Papua New Guinea) |
| 5 Buriticá Gold Mine (Colombia) | 6 Tuva Zinc and Polymetallic Mine (Russia) |
| 7 Bisha Zinc and Polymetallic Mine (Eritrea) | 8 Kolwezi Copper and Cobalt Mine (DR Congo) |
| 9 Kamo a Copper Mine (DR Congo) | 10 Bor Copper Mine (Serbia) |
| 11 Timok Copper and Gold Mine (Serbia) | 12 Rio Blanco Copper Mine (Peru) |
| 13 Garatau Platinum Mine (South Africa) | |

Zijin in the world

Zijin Mining is a sizeable international mining group in China being partially owned by the state. Its business is focused on exploration and development of gold, copper, zinc and other metallic mineral resources. The Company is entirely listed on the H Share market of Hong Kong (stock code: 02899) and the A Share market of Shanghai (stock code: 601899) successively. The Company's metal resources reserve volumes of gold, copper and zinc, which are its key products, and its production volumes of mineral products are among the top three in the PRC mining industry. With all of its total assets, operating income, market capitalisation and aggregate profit before various types of taxes exceeding RMB100 billion and having over 50 thousand staff in entities and affiliates within and outside the PRC, the Company is one of the large mining companies in the PRC with the best efficiency and controlling the largest volume of metallic mineral resources, and one of the most competitive as well. The rankings published by the Forbes Magazine in 2019 show that the Company ranked 889th in the list of "Forbes Global 2000: World's Largest Public Companies". The Company occupied the 87th place in Fortune China 500 for the year 2019.

The Company's important mining investment projects currently span across 14 provinces and regions in the PRC and 11 overseas countries. Overseas projects are basically located in the countries along the route of the "Belt and Road Initiative", of which, the Kamo a Copper Mine in the DR Congo, the Timok Copper and Gold Mine in Serbia and the Buriticá Gold Mine in Colombia, all being projects under construction, are super large-scale world-class high-grade mine deposits. Among which, the Kamo a Copper Mine, with copper metal resources reserve volume of 43.69 million tonnes, is the largest copper mine in Africa and also the fourth largest copper mine in the world. Currently, the volume of controlled resources, production volume of mineral products and amount of profit of overseas projects represent over one-third of those of the Group respectively. The Company has become one of the Chinese enterprises with the largest production volume of mineral products and resources reserve volumes overseas.

The Company is committed to high-quality and sustainable development. Innovation is the Company's core competitiveness, especially in the field of science and technology. The Company has the advantages of possessing abundant practical experience and leading technological comparative advantages in the industry in the aspects of geological prospecting, hydrometallurgy, comprehensive recovery and utilisation of low-grade refractory resources, large-scale engineering development and so on. It always takes safety and environmental protection as the lifeblood of its existence and development, fully promotes the development of eco-mines and ecological civilisation, embraces the enterprise value of "creating wealth in harmony, balancing development of the corporation, the employees and the society", and proactively discharges its social responsibilities. It was awarded "China Charity Award" for three times.

The Company insists on internationalisation, project upsizing and asset securitisation, endeavours to become an extra-large scale international mining group with high technology and efficiency, and contributes to the economic development of China and the world by providing quality mineral raw materials.

Summary table of contribution to the society made by Zijin Mining in the most recent three years

Indicator / Year	2019	2018	2017
Total tax paid (RMB)	5,925,398,172	5,627,107,900	4,641,800,719
Aggregate value of contribution to the society (RMB)	16,977,862,799	15,247,925,237	12,632,991,174
Social contribution value per share (RMB)	0.73	0.66	0.56
Remuneration and benefits paid to employees (RMB)	3,765,182,943	3,072,478,824	2,923,049,026
Amount paid to suppliers (RMB)	133,864,272,936	99,174,379,742	86,385,342,490
Donation to communities (RMB)	178,033,075	206,505,553	154,494,008
Dividends per share (RMB)	0.10	0.10	0.09
Dividend payout ratio (%)	59.24	56.26	59.09
Total dividends paid (RMB)	2,537,725,994.6	2,303,121,889.10	2,072,809,700.19

Note: For more details of operating results, please refer to the 2019 Annual Report of Zijin Mining Group Co., Ltd.*.

REMARKS BY THE CHAIRMAN



Mr. Chen Jinghe, the Company's chairman

Mineral resources are the “food” for industrial development, and mining industry serves as the base industry for national economy. As a responsible corporate citizen in the mining industry, Zijin Mining adheres to integrating the practice of environmental, social and governance responsibilities into corporate development, establishing the value of “creating wealth in harmony, balancing development of the corporation, the employees and the society”, implementing the original aspiration and mission of “contributing to the society by the development of mining industry” and proactively contributing to promoting and building a “community with shared future” in global project locations of the Company as well as other aspects.

The Company pursues sustainable development by engaging in exploration and development of metallic mineral resources around the globe, striving to provide quality mineral raw materials to support the economic development of China and the world. The Company fully pushes forward the establishment of sustainable development system, strengthens the operation in compliance with laws and regulations, maintains rigorous corporate governance, enhances anti-corruption and bribery work and consistently elevates the standard of corporate governance, operation and management of the Company.

Remarks by the chairman

We insist on eco-development in pursuit of a high degree of harmony and unity between mining development and ecological environment. The project management model of “five ore treatment processes into one” is implemented in order to create a green ecological value chain integrating prospecting, mining, processing, refining, safety and environmental protection. In the development of mines, the Company plays an active role in responding to global climate change, biodiversity and human rights protection policy, paying attention to safety and occupational health of employees and striving to reach the targets of “zero work fatality, zero environmental incident and zero occupational disease”. The Company holds firm to the principle of “striving to be the first class above the standard”, attaches great importance to the management of three major kinds of waste, restoration of soil and vegetation in mines and makes efforts to reach an advanced level in terms of various emission indicators in China or the world. 9 mines were granted the title of “national green mine” by the Chinese government and 16 entities passed the Chinese environment management system certification.

We insist on shared development and continuously improve the effectiveness of coordination with stakeholders. Employees are the wealth and significant resources of the Company. The Company carries out localised employment policy in internationalisation and works hard to offer competitive career development opportunities, benefits and remunerations in the industry. The Company cares about the community development of the places where the projects are located, implements a variety of community aid policies covering medical care, education, agriculture, infrastructure allocation and resident settlement. Approximately RMB178 million was donated to communities in 2019. The Company respects the interests and demands of cooperating partners and subcontractors, values the upstream and downstream supply chain development and realises mutual development with stakeholders.

Looking forward to the future, the Company will uphold the direction of internationalised development, echo to the win-win objective of the national “Belt and Road Initiative” and the development concept of “extensive consultation, joint contribution, shared benefits and common prosperity” proposed by General Secretary Mr. Xi Jinping to operate in compliance with laws and regulations, and conscientiously carry out environmental, social and governance responsibilities, in order to make returns to stakeholders with outstanding performance, contribute to shareholders, investors, employees, collaborators, as well as the local government and development of community of the places where the projects are located!



SOCIAL RESPONSIBILITY MANAGEMENT

The Board of the Company undertakes the environmental, social and governance (“ESG”) responsibilities of the enterprise, including formulating the ESG concept, strategy and goal, approving general rules and systems, deciding on important matters relating to ESG at the Company’s level, determining and assessing ESG-related risks, reviewing the ESG Report and other matters.

Social responsibility management system

Under the leadership of the Board and the management, Zijin Mining has established a unified and effective social responsibility management system based on three aspects, namely decision-making, operation and execution.

For the purpose of achieving good corporate governance, the Board of the Company has prudently considered, assessed and formulated a series of ESG strategies and policies in a responsible manner, including formulating “Social Responsibility Policy”, focusing on employees’ rights protection, customers’ and consumers’ rights protection, environmental protection and sustainable development, public relations and social charity work, information disclosure (reporting) and developments of other management strategies within the scope of social responsibility; formulating policies relating to production safety, focusing on safety system development and management, providing a safe production environment and ensuring employee safety in avoidance of occupational hazards; formulating policies in respect of environmental protection, focusing on environmental protection; formulating a series of human resources management and safeguard policies, providing recruitment, remuneration, promotion, paid leave and other benefits, promoting equal opportunities, anti-discrimination and diversity for global employment; formulating audit, internal control and integrity management policies, developing internal supervision and management policies and systems, etc.

The management of the Company takes an active role in guaranteeing the effective operation of the management strategy and system, including introducing the implementation details and emergency plan on the system, establishing Corporate Social Responsibility Department, Human Resources Department, Emergency and Safety Operation Department, Environment and Ecology Department and other departments; assigning corresponding department to subsidiaries for responsibility management and full-time and part-time personnel to coordinate and cooperate with each other, fully implementing different agendas of environmental protection, use of resources, responsible supply chain, reduction of air emission and greenhouse gas emission, occupational health and safety, human rights protection, community development, etc., in order to effectively integrate the ESG strategy into the routine operation system of the Company.

Compilation procedures of this Report

Set up report preparation taskforce→Collect key concerned issues and suggestions from stakeholders→Launch kick-off meeting and training for report preparation→Collect information and data of the Report→Compile contents for the Report→Organise reviews by management→Amend the Report with suggestions→Consideration and approval by the Board→Publication and printing of the Report.

Vision and philosophy for social responsibility

In accordance with the strategic goal, the Company formulated the mission and vision for corporate social responsibility, by way of integrating social responsibility concepts and behaviours into corporate strategy formulation and daily operation and fulfilling the expectation on the enterprise of the society and stakeholders, in order to realise the integration of corporate sustainable development and implementation of social responsibility, dedicate to advancing the sustainable development of economy, environment and the society and build up the brand of a responsible Zijin.



Our social responsibility mission:

Contribute to the society by the development of mining industry



Our social responsibility vision:

Become a globally important gold and metallic raw material producer, gain broad recognition from mining counterparts, stakeholders and employees worldwide



Our social responsibility value:

Create wealth in harmony, balance development of the corporation, the employees and the society



Our policy on environmental protection and safety:

Life comes first, environmental protection takes priority



Our rules for employees:







Integrity, diligence, cooperation and friendship

Social responsibility risk management

For the purpose of continuously managing and lowering the risks potentially caused by the enterprise on the economy, society and environment, the Company compiles the “Social Responsibility Risk Diagnosis Service and Internal Supervision on Responsibility Fulfillment Handbook of Zijin Mining Group Co., Ltd.*” in accordance with the regulations of the stock exchanges of Shanghai and Hong Kong, social responsibility management systems including “ISO 26000 - Guidance on social responsibility”, “SA8000 - Social accountability”, the “Global Compact’s Ten Principles”, the “Guiding Principles on Business and Human Rights” and “Universal Declaration of Human Rights” issued by the United Nations, etc. A review mechanism comprising 8 responsibility issues and 40 indicators is developed. Areas with potential risks including compliance with laws and regulations, environmental quality and occupational health and safety, community development and communication, responsible supply chain, employee rights, human rights, information disclosure, etc. are the key areas being assessed. The Company also regularly supervises its enterprises to implement effective measures on risk control and management, and elimination and investigation of hidden dangers.

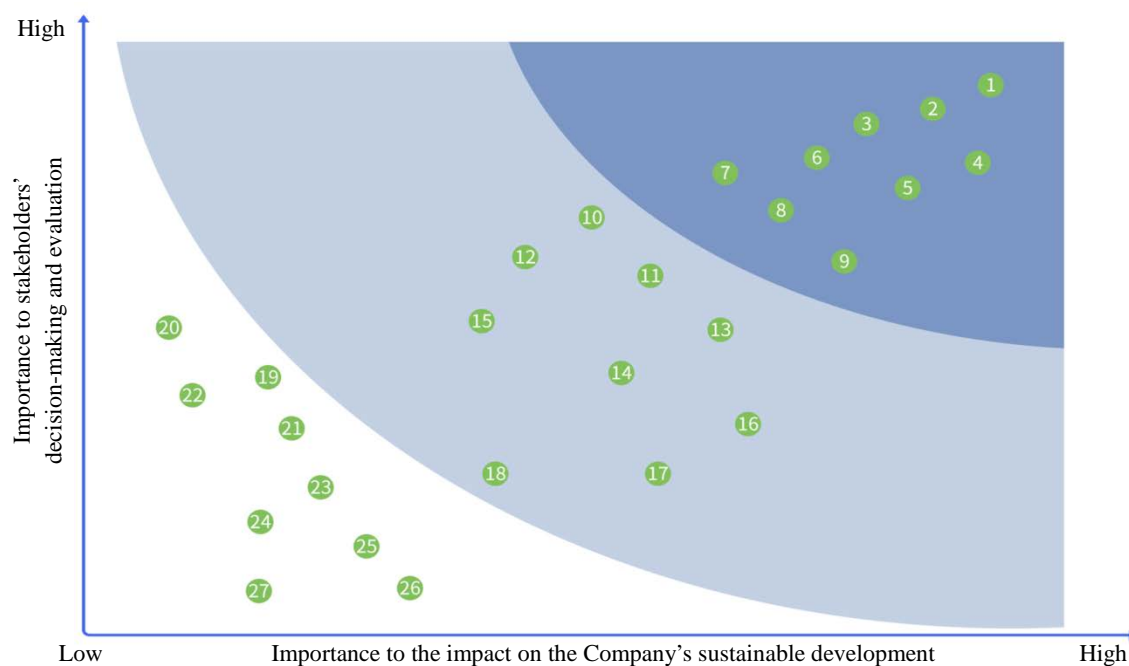
Stakeholder engagement

A full understanding of the demands and expectations of stakeholders provides the basis for an enterprise to realise sustainable development. Through meetings regarding specific topics, interviews, consultations, researches, symposiums, phone and email communication and other channels, the Company acquires knowledge of, responds to and improves on the concerned issues of stakeholders in order to realise mutual growth with stakeholders. Details of communication between the Company and stakeholders are as follows:

Key stakeholder groups	Issues concerned	Major communication channels	Major responding measures
 Employees and their families	Career development Remuneration and benefits Training and education Health and safety	Employee appraisal meeting Meeting regarding specific topic Staff representative meeting Family connection activity	Vocational training Safety inspection Family visit to mine Grievance mailbox
 Shareholders/investors	Operating performance ESG management of the Board Disclosure of human rights policies Anti-corruption	Press release/announcement On-site research and investigation Routine consultation	Shareholders' general meeting Results press conference Annual report Integrity campaign
 Governmental and regulatory authorities	Operation in compliance with laws and regulations Operating performance Safety and environmental protection Community aid	Specific work report Meeting notice Visit and inspection	Compliance with laws and regulations Regular reporting Implementation of community project
 Community and environment	Community development Social charity Environmental protection Local employment	Symposium Daily communication Grievance mechanism	Community service department Implementation of community project Invitation for visit Localised employment
 Non-governmental organisations	Human rights protection Environmental protection ESG policies	Phone call/email On site research and investigation	Disclosure in ESG report Disclosure in official website of the Company Timely response
 Business partners and subcontractors	Customer services Product quality Supply chain management	Industry organisation Symposium Daily communication	Satisfaction survey Responsible supply chain management

Scope of material issues of this Report

With reference to the “Environmental, Social and Governance Reporting Guide” issued by the Hong Kong Stock Exchange, based on two aspects of “importance to the impact on the Company’s sustainable development” and “importance to stakeholders’ decision-making and evaluation”, the Company identified and selected substantive material issues which are the common concerns of the Company and stakeholders, and sequenced their importance by way of questionnaire, investor interview and other approaches, in order to determine the scope and content of this Report. The index of relevant issues is as follows:



No.	Material issues of high importance	Page number	No.	Material issues of medium importance	Page number	No.	Material issues of low importance	Page number
1	Occupational health	P.44	10	Waste management	P.37	19	Employee remuneration	P.49
2	Corporate governance	P.19	11	Response to climate change	P.41	20	Localisation and diversification	P.47
3	Biodiversity conservation	P.30	12	Social responsibility management	P.14	21	Product quality and customer services	P.26
4	Anti-corruption and bribery	P.22	13	Safety management system	P.42	22	Community communication and complaints	P.58
5	Water resources management	P.40	14	Safety training	P.44	23	Supply chain management	P.25
6	Cyanide management	P.40	15	Scientific and technological innovation and comprehensive use of resources	P.27	24	Community development	P.51
7	Ecological rehabilitation	P.29	16	Employee development	P.46	25	Caring for employees	P.49
8	Security and human rights	P.59	17	Employee training	P.48	26	Safety management of subcontractors	P.45
9	Emission control	P.32	18	Safety management	P.42	27	Community investment	P.51

Major awards received in respect of corporate responsibility during 2019

Award	Institution
01 The 889th in the list of “Forbes Global 2000: The World’s Largest Public Companies”, the 10th among the global non-ferrous metal corporations and the 1st among the global gold corporations	Forbes Magazine
02 The 87th in Fortune China 500	Fortune
03 The Top 10 Charity Enterprises on the 16th China Charity Ranking	China Philanthropy Times
04 National Model Enterprise with Harmonious Labour Relations	Ministry of Human Resources and Social Security of the PRC, All-China Federation of Trade Unions, China Enterprise Confederation/China Enterprise Directors Association
05 The 3rd on the list of 2019 Annual “Social Value 99” A-share Listed Company Sustainable Development Value Rankings	China Alliance of Social Value Investment
06 Asia-Pacific Mining M&A Deal for the Year	2018 Mines and Money Asia Conference cum Exhibition
07 Advanced Private Enterprise of “Thousand Enterprises Aiding Thousand Villages” Precise Poverty Alleviation Campaign of Fujian Province	United Front Work Department of Party Committee of Fujian Province, Fujian Federation of Industry and Commerce, Office of Poverty Alleviation and Development Leading Team of Fujian Province, Fujian Province Society for Promotion of the Guangcai Programme, Agricultural Development Bank of China Fujian Branch



CORPORATE GOVERNANCE



Corporate governance structure

In strict compliance with the stipulations in the “Company Law of the PRC”, the “Securities Law of the PRC”, “Code of Corporate Governance for Listed Companies of the PRC”, “Rules Governing the Listing of Stocks on Shanghai Stock Exchange”, “Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited” (Main Board Listing Rules) and other domestic and overseas laws and regulations, the Company has formulated and rigorously follows the Articles of Association and Rules Governing the Procedures of the Shareholders’ General Meeting, in order to ensure that shareholders, especially minority shareholders, can enjoy equal status. The Company regularly amends policies and continuously refines the Company’s corporate governance structure.

Substantial shareholder and the listed company

The Company and the substantial shareholder are completely independent and separated in terms of assets, personnel, finance, institution and operation. The Company’s Board, Supervisory Committee and internal institutions operate independently, and the substantial shareholder does not intervene in the daily operation of the Company. The substantial shareholder of the Company strictly complies with the commitments made to the Company to avoid mutual competition within the same industry. During the reporting period, the substantial shareholder of the Company did not use its special status to encroach and prejudice the interests of the Company and other shareholders.

Directors and the Board

The Board completed the change of term on 30 December 2019. The new term of the Board consists of 12 Directors (including a female director, representing 8.33% of the Board), in which there are 5 independent non-executive Directors. The number of members and the composition of the Board comply with the provisions of the relevant laws and regulations. The composition of professions of the members of the Board is reasonable. The members of the Board possess the necessary knowledge, skills and competence to discharge their duties. The Directors timely attend shareholders’ general meetings and Board meetings, discharge their duties conscientiously, faithfully and diligently, and proactively participate in business trainings. They are familiar with the relevant laws and regulations and have clear sense of the rights, obligations and responsibilities as a Director. There are four specialised committees under the Board including the strategic committee, execution and investment committee, audit and internal control committee and nomination and remuneration committee to further enhance the decision-making mechanism of the Board.

Supervisors and the Supervisory Committee

The Supervisory Committee of the Company completed the change of term on 30 December 2019. The new term of the Supervisory Committee consists of 5 members, including 2 Supervisors representing workers and staff. The number and composition of the members of the Supervisory Committee comply with the relevant laws and regulations, and the majority of Supervisors possess professional knowledge and work experience in the aspects of accounting, auditing and so on. Pursuant to the authority and responsibility conferred by the Articles of Association, the Supervisory Committee regularly convenes Supervisory Committee meetings, conscientiously discharges its duties so as to be responsible to shareholders, supervises and inspects the performance of the Directors and senior management personnel and the legality and compliance of the Company's financial issues to fully safeguard the legitimate rights and interests of the Company and shareholders.



Members of the new Board

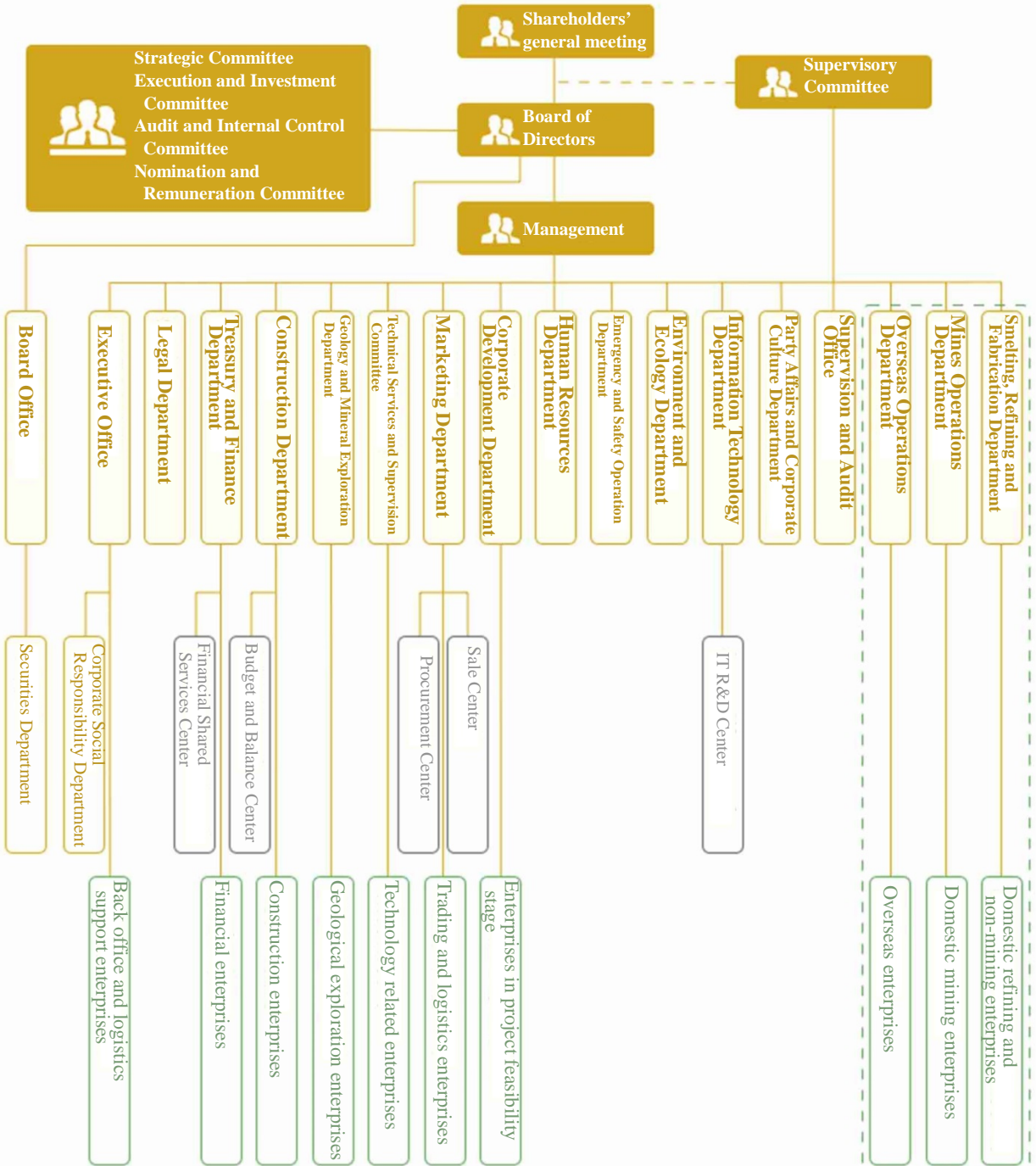
The new term of the Board, Supervisory Committee and management of the Company are extensively equipped with construction, operation and management experience at the base level and international projects, with a wide variety of professions, rich management experience in the fields of mining and metallurgy, finance, law, accounting, auditing, safety, environmental protection, etc., and the knowledge, techniques and competence required to discharge their duties.

Registration and management of insiders

During the reporting period, the Company strictly followed the Management Policy for Inside Information and Insiders, carried out registrations and filings of insiders properly based on the development of the relevant significant events and matters which were confidential in nature. There was no unusual volatility of the Company's stock price attributable to leakage of inside information. The Company's principle of fair information disclosure was upheld, and the legitimate interests of the Company's shareholders were practically protected.

Note: For more details of the Company's corporate governance, please refer to the Company's 2019 Annual Report.

Organisational chart of the Company's ESG management





Anti-corruption and bribery

The Company always stands firm against corruption and bribery. We are fully aware that corruption will result in resource misallocation, impairing the fairness of decisions made by the government and community and damaging equal opportunity and the business environment. The Company insists on lawful operation with integrity and resolutely opposes misconducts including commercial bribery with external stakeholders. Direct or indirect transfer of interests in any form by employees to stakeholders are prohibited. The Company adopts zero-tolerance attitude and rigorously investigates into behaviours of corruption and malpractices. Where employees violate such rules, stringent penalties or even dismissal would be imposed by the Company. The Company values and continuously strengthens the development of integrity governance and anti-corruption, dedicates to contributing to the battle against corruption and joins hands with business sector, government and community to strive for and realise the goal.

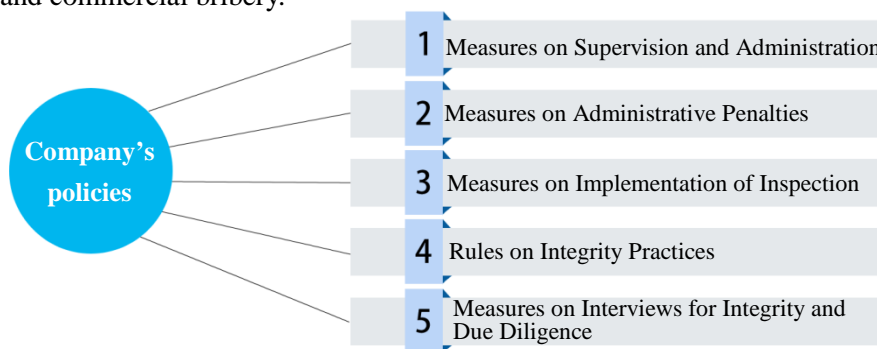
Refined supervisory mechanism

The Company ensures the independence of the Supervisory Committee and establishes internal supervisory systems involving cross-departmental collaboration among the supervision, auditing, internal risk control, compliance and legal issues divisions, to be responsible for disciplinary investigation, supervision, audit, internal control evaluation, etc.

The Company has established the Supervision and Audit Office as the department in-charge of supervision and audit work and as the day-to-day office of the Supervisory Committee. All subsidiaries have set up departments of supervision and audit, conducting the relevant work under the leadership of the supervisory committee of the respective entities. Such arrangement is an effective component of the Group’s supervisory system.

Improvement in management system

Under the guidance of the laws and regulations relating to anti-corruption in China, “Foreign Corrupt Practices Act” of the United States, the “Bribery Act” of the United Kingdoms and laws in the countries or regions where businesses are conducted, with reference to standards in the “Articles of Agreement of the International Monetary Fund (IMF)” and the “Convention on Combating Bribery of Foreign Public Officials in International Transactions” of the Organisation for Economic Co-operation and Development (OECD), the Company devised a series of policies to reduce the risks of internal malpractices and commercial bribery.



Enhancement on risk prevention and control

Drawing from “Managing the Business Risk of Fraud: A Practical Guide” issued by the Association of Certified Fraud Examiners (ACFE), the Company has built up work mechanisms for risk identification, assessment and response, consistently refined systems of risk management, internal control and fraud risk prevention. The audit and internal control committee of the Board of the Company engages an external auditor, Ernst & Young Hua Ming LLP (EY), to conduct an independent audit on the risks of the Company’s internal control and the Board every year, so as to effectively prevent malpractices of false accounting, concealment of asset misappropriation, etc. Furthermore, the Company reviewed anti-corruption and compliance plan on a regular basis, for the purpose of meeting the prevailing regulatory requirements and making corresponding adjustments. In 2019, the Company inspected on 4 subsidiaries and conducted 51 internal control audit and examination relating to key businesses and processes, including construction project management, material procurement and sale, supply chain financial trade, compliance and risk control of overseas projects and so on. A constant mechanism of self-identification and self-improvement in internal control has been gradually established.

Commitment to investigation and punishment with “zero tolerance” attitude

The Company upholds a “zero tolerance” attitude to strictly investigate and punish the practices of internal fraud and commercial bribery. In 2019, one bribery-related case was referred to judicial authorities, in which, the Company assisted judicial authorities to investigate into the bribery case of Longnan Zijin. Persons suspected of breaching the law were subject to criminal liabilities according to law.

For the purpose of deterrence and education, the Company organised over 100 managing cadres to attend the hearing of the case regarding the suspected crime of acceptance of bribe by a non-state functionary of Mr. He, the former general manager of Longnan Zijin, in order to use the case to reiterate the disciplines and deter similar acts in future. Furthermore, through the analysis of such corruption case, the Company put forward targeted measures for improvement on internal risk control and prevention as well as anti-corruption work of the Company, further plugged the loophole and realised favourable results in terms of legal compliance, disciplinary actions and social impact by the investigation and punishment in the case.

Whistleblowing mechanism

The Company has established and consistently enhanced petition reporting system, formulated the “Administrative Measures on Petition Reporting System”, established policies for incentivising whistleblowers, publicised the reporting channels, and set up a reporting mailbox for the Company’s Disciplinary Committee (jwsj@zjky.cn), a specific reporting section in the Group’s internal OA system, a reporting mailbox for the Supervisory and Audit Office (jcsjs@zjky.cn) and a reporting telephone number (0597-3833182). These whistleblowing channels are included in the Group’s external commercial documents and contracts as standard terms, in order to provide a seamless channel to company shareholders, customers, cooperating partners, the society and internal employees for reporting fraud cases. For the prevention of vengeance on whistleblowers, the Company’s “Administrative Measures on Petition Reporting System” includes protection provisions for whistleblowers, which clearly require that the information reported must be kept in strict confidence, and any infringement on the whistleblowers shall be investigated and punished in order to protect the legitimate rights and interests of the whistleblowers.

Integrity education

The Company attaches high importance to the training and education on anti-corruption and integrity promotion, by way of implementing integrity education for newly recruited employees, warning education and training on integrity practices, organising the “Integrity Zijin” campaign, requiring personnel holding key position to sign integrity responsibility statement, work and integrity reporting of managing cadres, incorporating anti-fraud terms in the supplier contracts and other approaches, in order to control the corruption risks. In 2019, the Company and its subsidiaries organised a total of over 220 warning and educational trainings on integrity practices. Members of the Company’s Board, Supervisory Committee, management, corporate managing cadres and staff in key positions in domestic and overseas subsidiaries participated such trainings for over 33,000 times, covering all the positions which are highly susceptible to corruption risks.



Warning and educational training on integrity practices organised by the Company



Parallel session of warning and educational training on integrity practices in subsidiaries



Supply chain management

The Company proactively follows the requirements relating to responsible supply chain of the Securities and Exchange Commission (“SEC”) of the United States, London Stock Exchange and other international institutions. It firmly prohibits the cooperation with suppliers having any association with terrorism or use of child labour, or those from regions with corrupted government or which violate international conventions, and voluntarily requires suppliers to comply with laws and regulations including labour law, environmental protection law and production safety law in their jurisdictions. Through formulating “Administrative Measures on Selection of Suppliers”, the Company clearly requires suppliers and subcontractors to fulfill respective social responsibilities in the aspects of environmental protection, production safety, social morality, business ethics, etc.

For the purpose of preventing product procurement from regions carrying on illegal practices , by way of revising the “Administrative System of Procurement and Sales”, “Practical Rules of Material Procurement Work”, “Practical Rules of Refining Material Procurement and Products Sale of the Company” and other regulations, the Company tracks the sources of products. In the meantime, it actively cooperates with clients in due diligence. During the reporting period, no products were identified of being procured from regions susceptible to illegal activities.

In Africa, COMMUS in the DR Congo stringently complies with the rules and regulations of the Group and international conventions, conducts production according to laws and regulations, and fully makes use of the sharing platform of the Group to regulate the procurement and supply channels. All of the major equipment and materials for infrastructure construction are purchased from compliant suppliers.

In Australia, Norton deploys specialised contract management personnel to supervise and evaluate suppliers and subcontractors, and assessed the safety, environmental protection and production conditions of major suppliers on a quarterly basis.

In Kyrgyzstan, Altynken requires itself and its suppliers to comply with the Labour Code, Code on Industrial Safety of Kyrgyzstan and other relevant laws and regulations in accordance with company’s policy. By regularly reviewing the supplier list and evaluating supplier performance, Altynken screened out 8 non-compliant suppliers in the year 2019.

Data of suppliers by location and channel				
Item	Unit	Data of 2019	Data of 2018	Data of 2017
Total number of suppliers	Number	4,923	4,513	7,375
Suppliers by channel	Number	453	179	224
Chinese suppliers	Number	4,495	4,444	7,186
Suppliers from other countries	Number	428	69	189



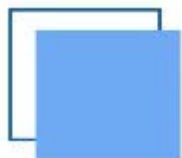
Product quality and customer services

The Company upholds the integrity management philosophy of “earning respect with high-quality products, achieving mutual benefits and win-win situation”. Through formulating “Administrative Measures of Product Quality Incidents”, “Survey Procedures of Customer Satisfaction” and other rules to guarantee the product quality and customer services, the Company provides eco-friendly, high-quality products which are up to standard to customers. The Company formulated the “Implementation Rules for Sales and Trading Business”, provides mechanism to address customers’ complaints, and devises and conducts customer satisfaction survey regularly. Based on investigations results and issues raised by customers, the Company formulates product improvement plans, and, when necessary, recalls and modifies defective products. The “Rules for Management of Intellectual Properties of Zijin Mining Group Co., Ltd.*” was also formulated to safeguard and prevent intrusion to customers’ intellectual property rights and privacy. The Company is a multi-business member of the Shanghai Gold Exchange, a member of Shanghai Futures Exchange and a member of China Gold Association. The technical parameters of the quality of gold bullion, silver bullion, copper cathode and zinc bullion produced by the Company all meet and exceed the technical indicators of national standards GB/T4134-2015 (gold bullion), GB/T4135-2016 (silver bullion), GB/T467-2010 (copper cathode) and GB/T470-2008 (zinc bullion).

The Company’s products of “ZIJIN” gold bullion and “ZIJIN” silver bullion are certified by the London Bullion Market Association (LBMA); “ZIJIN” A class copper and “ZIJIN” zinc bullion are registered as brands for settlement on London Metal Exchange (LME). On 1 April 2019, the Company developed and launched Zijin Gold Bullion Two-dimensional Barcode Anti-counterfeit System, in order to further enhance the quality traceability and anti-counterfeit function of the gold bullion products and protect the interests of customers. The system is promoted by the Shanghai Gold Exchange. During the reporting period, the Company did not receive any negative feedback in respect of products, and was selected by the Shanghai Gold Exchange as an advanced corporate unit which provides standard gold bullion for 12 consecutive years.

Data of products and customer services				
Item	Unit	2019	2018	2017
Amount of products recalled	Tonne	0	0	0
Passing rate of mineral products	%	100.00	100.00	100.00
Number of complaints	Number	0	0	0
Customer satisfaction rate	%	100.00	100.00	100.00
Wood materials used in product packaging	Tonne	144.01	242.20	298.20
Disposal of the wood materials used in product packaging	Mostly reused by the customers			
Wrappings of mineral concentrate products	Tonne	1,326.70	1,086.48	2,184.70
Disposal of the wrappings of mineral concentrate products	Mostly reused by the customers			

Note: Increase in the number of wrappings of mineral products was mainly due to the Company’s mergers and acquisitions, leading to an increase in production volume.



Scientific and technological innovation and comprehensive use of resources

The Company is persistent in development powered by scientific and technological innovation and raising the driving force for innovation. In 2019, the Company amended the “Practical Rules of Incentives for Science and Technology” for the purpose of encouraging subsidiaries to create value by technological and managerial innovations, and sharing the innovation achievements with value creators. In 2019, the Company invested RMB476 million in research and development. During the year, the Company applied for a total of 34 patents, of which 20 were invention patents. 10 invention patents were granted in total. 6 science and technology awards at provincial level or above were obtained. 15 scientific and technological transformation achievements in aggregate were conducted during the year, contributing more than RMB70 million of production efficacy. The technological innovation capability of the Company is steadily improving, significantly promoting the sustainable development of the Company.

The Company insists on mineral resources prioritisation strategy, and always considers mineral resources as the core and most crucial assets to be managed and used properly. The Company focuses on elevating the resources recovery and utilisation standards in various processes of mining, processing, refining, etc. The Company sticks to exploitation of both low- and high-grade ores, thick and thin deposits and scientific ore blending, strives to reduce ore loss to the greatest extent, increase ore recovery rate and lower the tailings grade. Study on cemented filling technique with tailings was proactively implemented, in order to utilise a large quantity of tailings as filling materials for underground filling, reduce discharge of tailings and save land resources.

In 2019, mines controlled by the Company consistently enhanced the management and control on the five rates, including mining loss rate, ore dilution rate, ore recovery rate, equipment operation rate, labour productivity rate, etc. In 2019, compared with 2018, the Company’s average ore recovery rate in domestic mining segment increased by 0.2%; average mining loss rate and ore dilution rate decreased by 4.86% and 4.98% respectively; and average equipment operation rate increased by 2.14%.



Duobaoshan Copper Industry in Heilongjiang realised effective separation of copper and molybdenum and solved the problems at project site by the application of “copper depression and molybdenum floatation” with sodium sulphide and “superfine grinding”. The grade of molybdenum concentrate reached 44% and the actual comprehensive recovery rate of molybdenum reached 65%, which increased annual profit of over RMB50 million. Longxing in Russia lowered the zinc proportion in copper concentrates and improved the copper grade and zinc concentrate recovery rate by technological upgrade in techniques and processes, which increased revenue by RMB30 million per annum. Ashele Copper in Xinjiang and Duobaoshan Copper Industry in Heilongjiang introduced IsaMill for re-grinding crude concentrate, evidently improving the mineral processing indicators and increasing annual efficacy by approximately RMB22 million. Xinjiang Jinbao implemented technological upgrade on high-pressure roll grinding and is expected to increase annual efficacy by RMB10 million after production commencement. Faced with decreasing mill feed grade, the processing plant of Altynken in Kyrgyzstan overcame the technological bottleneck, increased the ore recovery rate by 1.42 percentage points above the plan, and reached 105% of planned gold production volume.



ENVIRONMENTAL PROTECTION AND ECOLOGY

We adhere to the environmental protection and ecological philosophy of “green mountains and clear waters are our invaluable assets”. Setting “zero environmental and ecological incident” as the goal, the Company formulated “Zijin Mining Group Co., Ltd.* Responsibility System on Environmental Protection”, “Zijin Mining Group Co., Ltd.* Environmental Protection and Ecology Assessment Administrative Regulations”, “Zijin Mining Group Co., Ltd.* Emergency Plan for Environmental Incidents”, “Zijin Mining Group Co., Ltd.* Environmental Protection and Ecology Assessment Administrative Regulations,” “Zijin Mining Group Co., Ltd.* Guidance for Greening Work”, “Zijin Mining Group Co., Ltd.* Environmental Order Management Basic Regulations”, etc., strictly follows environmental protection laws and regulations of the regions where the Company’s projects are situated, for example, the “Environmental Protection Law of the PRC”, “Law on Environmental Protection” and “Law on Integrated Prevention and Control of Environmental Pollution” of Serbia, “Law on Environmental Protection of the Kyrgyz Republic” (as amended by No. 135 amendment in 2016), adheres to the best international environmental management practices, proactively implements various environmental protection projects, optimises emergency risk management, strengthens water resources management, cyanide management, biodiversity conservation, ecological rehabilitation and emission reduction. During 2019, the Company invested an aggregate of RMB725 million for environmental and ecological protection projects, representing an increase of RMB62 million compared with the same period in 2018.

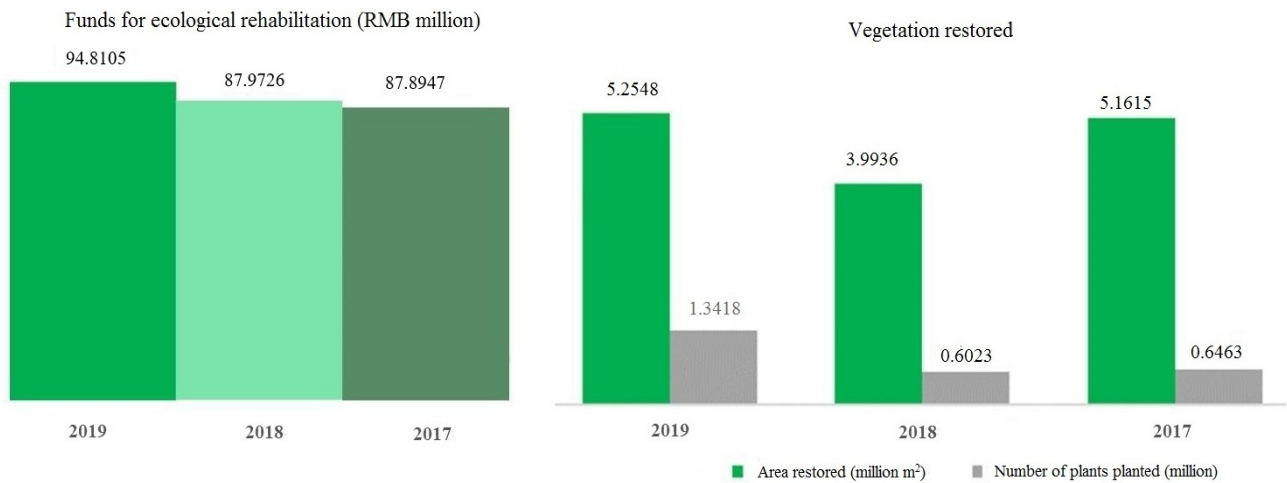
We actively promote the ISO 14001 environmental management system certification within the Group, take the initiative to carry out work on clean production and proactively develop green mines and green factories. As at the end of the reporting period, 16 enterprises passed the certification for environmental management system, while 26 subsidiaries carried out clean production review work. The Company has 9 green mines and 2 green factories at national level, and 3 green mines and 3 green factories at provincial level in China.

Information of enterprises which passed the certification

Enterprises which passed the ISO 14001 Environmental Management System certification	The Zijinshan Gold and Copper Mine of Zijin Mining Group Co., Ltd.*, Wuping Zijin Mining Co., Ltd., Xinjiang Habahe Ashele Copper Co., Ltd., Xinjiang Zijin Zinc Co., Ltd., Urad Rear Banner Zijin Mining Co., Ltd., Shanxi Zijin Mining Co., Ltd., Wenshan Malipo Zijin Tungsten Group Co., Ltd., Longnan Zijin Mining Co., Ltd., Luoning Huatai Mining Development Co., Ltd., Zijin Copper Co., Ltd., Jilin Zijin Copper Co., Ltd., Bayannur Zijin Non-ferrous Metals Co., Ltd., Zijin Mining Group Gold Smelting Co., Ltd., Luoning Zijin Gold Refinery Co., Ltd., Fujian Zijin Copper Co., Ltd., Serbia Zijin Bor Copper doo Bor
Certified green mines at national level of China	The Zijinshan Gold and Copper Mine, Wuping Zijin Mining Co., Ltd., Xinjiang Habahe Ashele Copper Co., Ltd., Guizhou Zijin Mining Co., Ltd., Xinjiang Jinbao Mining Co., Ltd., Luoning Huatai Mining Development Co., Ltd., Qinghai West Copper Co., Ltd., Yuanyang Huaxi Gold Co., Ltd., Shanxi Zijin Mining Co., Ltd.
Certified green mines at provincial level of China	Neimenggu Golden China Minerals Inc., Xinjiang Zijin Zinc Co., Ltd., Urad Rear Banner Zijin Mining Co., Ltd.
Certified green factories at national level of China	Zijin Copper Co., Ltd., Bayannur Zijin Non-ferrous Metals Co., Ltd.
Certified green factories at provincial level of China	Luoning Zijin Gold Refinery Co., Ltd., Jilin Zijin Copper Co., Ltd., Xinjiang Zijin Zinc Co., Ltd.

Ecological rehabilitation

We always adopt a conservative approach in the use of land, and rigorously follow the laws and regulations regarding prohibition of exploration and mining of mineral resources in natural reserves, scenic and historic areas, key ecological function zones, eco-sensitive zones, ecologically vulnerable areas, etc. Setting goals on effective land resource management, vegetation restoration on land surface, adopting water and soil conservation measures, containment of deterioration of geological environment of mines, improvement of production and living environments of mining areas and the surrounding regions, etc., the Company carries out monitoring work on geological environment of the mines, and obtains knowledge of dynamic changes in geological environment of the mines well. In addition, according to the current condition of geological environment and potential environmental issues of the mines, the Company compiles and regularly updates the “Proposal on Protection of Geological Environment of Mines and Land Rehabilitation”, combines the existing mine protection engineering work and adopts the principle of engineering measures and vegetation measures together to formulate preventive measures based on the potential hazards. Engineering measures are complemented by vegetation measures, and application of engineering measures are immediately followed by vegetation measures to carry out protection and restoration of geological environment of the mines. During the reporting period, the Group increased usable land area by 16.4739 million m², restored 5.2548 million m² of vegetation, planted 1.3418 million flowers and trees and spent RMB94.8105 million on rehabilitation.



Since the Company invested in the Bor Copper Mine in Serbia, greening and restoring work were stepped up. Greening work was carried out across 109,000 m² of land area within a year, with 42,000 tree saplings planted and RMB2.4018 million invested. Remarkable achievements were made.



Before Zijin Mining's investment



After Zijin Mining's investment

Biodiversity conservation

Base on the concept of “harmony between human and nature”, we highly emphasise on environmental protection work in the vicinity of our operation, and minimise the impacts of our prospecting, exploration, production and operation on ecology and biotic environment. The Company strictly abides by the “Wildlife Protection Law of the PRC”, “Regulations of Terrestrial Wildlife Protection of the PRC” and the wildlife protection laws of the countries where the projects are situated, forbids its staff to commit unauthorised and excessive picking of wild plants, hunting, killing, purchasing and eating of wild animals, attaches importance to the conservation of natural habitats of wildlife, and incorporates the idea into the Company’s “Code of Employees’ Conducts”. Before a project is established, we carry out pre-investigation and assessment on biodiversity. During project construction, we pay attention to the completeness and preservation of biodiversity in the respective regions, use as many low-noise equipment as possible to lower the disturbance on the wild animals in the surrounding areas. During operation, we manage the land damages caused by mines, dumping yards, tailings storages and other resource developing areas as well as large-scale infrastructure projects, carry out management and ecological rehabilitation in a timely manner, set up ecological function zones to conserve biodiversity. Besides, the Company promotes and organises its own staff and staff of subcontractors to participate in charitable activities in relation to ecological system conservation and rehabilitation including tree planting and fish releasing and breeding in the yearly events

like Arbour Day, Earth Day and Environmental Protection Month. It also organises self-initiated water patrolling to stop misbehaviour of catching fish being released to ensure the effectiveness of breeding and releasing.

At present, the Zijinshan Gold and Copper Mine has accumulatively released 1.61 million fish to the Ting River. The species of fish released include grass carp, carp, bighead carp and carassius auratus. The biodiversity conservation of the Ting River is hence strengthened. As the ecological environment of mines is gradually restored and improved, there are signs of animals returning to settle in the surrounding areas of mines. At Hunchun Zijin, the Zijinshan Gold and Copper Mine and Zijin Zinc in Xinjiang, precious and rare animals such as wild boars, pheasants, roe deers, northeast tigers and muntjacs were spotted.



The Zijinshan Gold and Copper Mine set up a botanical garden in 2011 to protect local vegetation. Several sections have been established in the garden including homegrown tree planting section, introduced plant section, flower and fruit section, bamboo scenic section, with more than 200 species of plants. For the purpose of assessing the biodiversity of the mining area and inspecting the effectiveness of protection, the Company and the Institute of Urban Environment of Chinese Academy of Sciences jointly carried out an investigation on impact of the Zijinshan on terrestrial and aquatic ecosystems in 2014. According to the results of the investigation, plants in 47 families, 96 genera and 104 species were planted during the ecological rehabilitation of the Zijinshan mining area, while amphibians in 7 families, 8 genera and 9 species, mammals in 9 species, reptiles in 7 species, common birds in 10 species, phytoplankton in 83 genera and 124 species, benthos in 21 genera and 27 species and fish in 71 species were found. Pythons, which are precious and rare protected animals, were also found.



The Zijinshan botanical garden



Birds resting at the tailings storage of Hunchun Zijin



Breeding and releasing activity



Rescuing wild animals

Emergency management for environmental risks

The Company strictly follows the “Notice of Tentative Administrative Policy on the Issuance of Emergency Plan in Response to Environmental Incidents”, “National Environmental Emergency Response Plan” and the requirements of the countries where the projects are located, continuously optimises the emergency management mechanism for environmental risks, and enhance facilities and rescue teams. The Company and all of its subsidiaries have established coordinated mechanism for emergency, and developed master emergency plans and specific emergency plans, which are linked up with the “Emergency Plans for Environmental Incidents” of the Company and filed to environmental protection authorities of the respective regions. At the same time, rescue teams are formed and emergency drills and trainings are regularly held. Emergency response cards are prepared for personnel in different roles to enhance reaction of all staff for emergency environmental incidents.



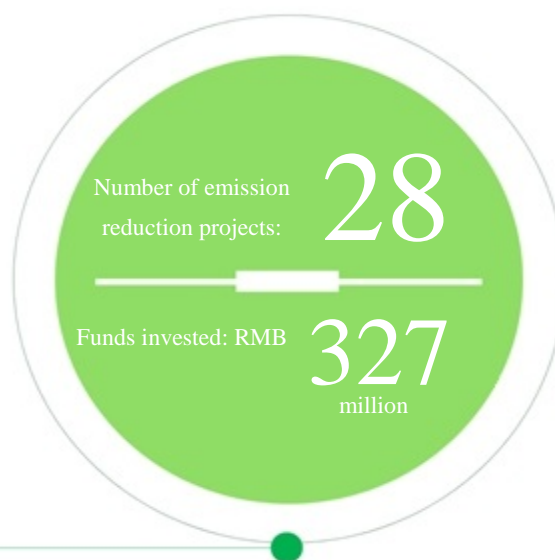
Emergency drill for leakage of sulphuric acid at refining plant



Emergency drill for flooding at tailings storage

Emission control

We are dedicated to using different ways including strengthening technological upgrade, introducing advanced equipment, raising comprehensive utilisation rate of resources to control pollutant emission, comply with emission standards of the places where the projects are situated and reduce the impacts on the environment. During the reporting period, the Company implemented 28 emission reduction projects and invested RMB327 million accumulatively throughout the year.



Wastewater discharge reduction

We rigorously execute and comply with the “Water Pollution Prevention Law of the PRC”, “Action Plan for Prevention and Control of Water Pollution” and the rules and regulations of the places where the overseas subsidiaries are situated, improve wastewater treatment techniques and relevant informatisation reform, use precise amount of catalysts to raise the effectiveness of the reactions, and raise the wastewater recycling rate. During the reporting period, the Company’s subsidiaries were in compliance with the standards on discharge of major water pollutants. As there was an increase in production capacity in the Company’s new and substantial projects including Zijin Bor and Heilongjiang Zijin Copper, the water pollutant discharge volume of COD, ammonia nitrogen and copper in total increased, while discharge of zinc in total decreased for three consecutive years.

Discharge of major water pollutants in the most recent three years						
Pollutant	2019		2018		2017	
	Tonne	10 ⁻⁸ tonne/RMB10,000 of income	Tonne	10 ⁻⁸ tonne/RMB10,000 of income	Tonne	10 ⁻⁸ tonne/RMB10,000 of income
COD	346.33	2,544.70	206.85	1,952.00	809.90	8,567.00
Ammonia nitrogen	14.43	106.03	6.82	64.30	35.83	379.00
Copper in total	0.60	4.41	0.11	1.04	1.13	11.90
Zinc in total	0.40	2.94	0.81	7.64	1.24	13.10

Note: The statistics in 2019 cover 34 branch companies (subsidiaries) in production within and outside the PRC while those of 2017 and 2018 cover 31 branch companies (subsidiaries) in production within and outside the PRC. The scope of total wastewater discharge volume only covers the Zijinshan Gold and Copper Mine as data of other mines are incomplete.



10

**wastewater treatment
systems have been set
up**



**Industrial water
recycling and reusing
rate reached**

91.5%

In order to raise the water resources utilisation rate and reduce pollutant discharge, the Zijinshan Gold and Copper Mine adopts measures such as segregating wastewater from clean water and rainwater from sewage under the principle of “prevention from the source, control at intermediate stage and meeting the standards at the final stage”. 10 wastewater treatment systems have been set up to reuse all the wastewater from the processing stage at the mining area. The recycling and reusing rate of different types of industrial water reaches 91.5%. In addition, for the purpose of recovering valuable metals inside wastewater effectively and reducing externally discharged water volume, the sodium sulphide treatment system of the Zijinshan Gold and Copper Mine was built to realise recovery of valuable metals in copper-containing solutions of higher concentration.

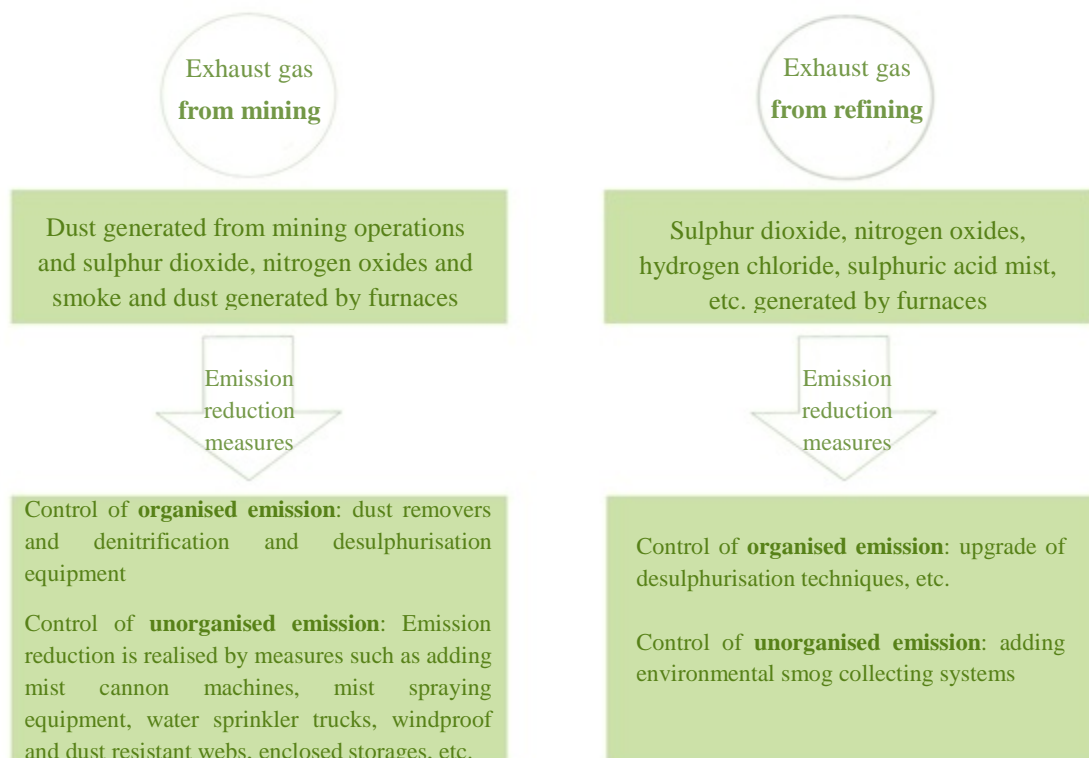
In 2019, 11.7278 million m³ of copper-containing acidic water and approximately 11,607 tonnes of copper metal were recovered respectively, generating RMB580 million of economic benefits. The Zijinshan Gold and Copper Mine strictly adheres to “Emission standard of pollutants for copper, nickel, cobalt industry” (GB25467-2010) in the external discharge of water. Levels of heavy metals such as Cu, Pb, Zn, Cd and As, ammonia nitrogen in the discharged water were far lower than the discharge standards, and a decreasing trend was observed over the years. Online monitoring systems are installed at the 6 standardised external discharge outlets for wastewater and 6 external discharge outlets for rainwater, which are simultaneously linked to the systems of provincial, municipal and county-level environmental protection authorities, and are operated and managed by independent qualified entities.



Wastewater treatment system of the Zijinshan Gold and Copper Mine

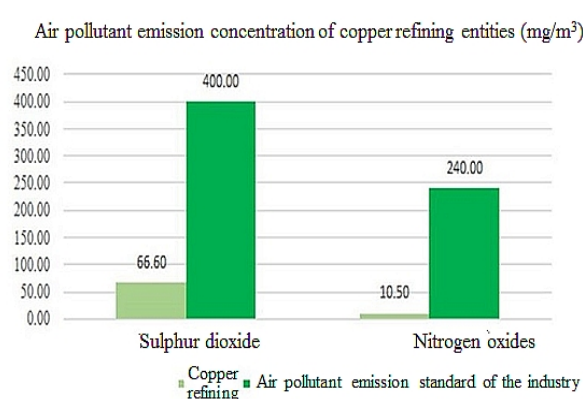
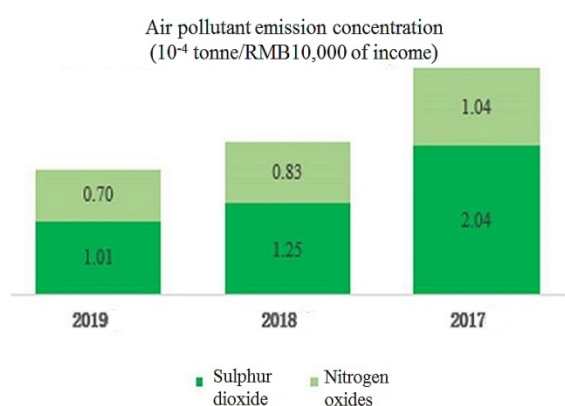
Air emission reduction

The Company's subsidiaries strictly comply with "Integrated emission standard of air pollutants" (GB16297-1996), "Emission standard of pollutants for copper, nickel, cobalt industry" (GB25467-2010), "Emission standard of pollutants for lead and zinc industry" (GB25466-2010), "Emission standard of air pollutants for boiler" (GB13271-2014) and other emission standards of the places where the projects are situated in the emission of major air pollutants. All of them comply with the emission limits. For further reducing the total emission volume of air pollutants, we fully promote super-low and ultra-low emission among the refining enterprises. Currently, the average emission concentrations of sulphur dioxide and nitrogen oxides of copper refining enterprises are far lower than the standards set out in "Emission standard of pollutants for copper, nickel, cobalt industry" (GB25467-2010) and "Integrated emission standard of air pollutants" (GB16297-1996), which are 1/6 and 1/24 of the standards respectively. After implementing super-low emission upgrade projects, the emission concentrations of particulates, sulphur dioxide and nitrogen oxides of gold refining entities are as low as 10mg/m³, 35mg/m³ and 100mg/m³ respectively, which is a leading performance in exhaust gas management in the Chinese gold refining industry.



Air pollutant emission in the most recent three years						
Type of pollutant	2019		2018		2017	
	Tonne	10 ⁻⁴ tonne/RMB10,000 of income	Tonne	10 ⁻⁴ tonne/RMB10,000 of income	Tonne	10 ⁻⁴ tonne/RMB10,000 of income
Nitrogen oxides	957.17	0.70	878.81	0.83	983	1.04
Sulphur dioxide	1,380.71	1.01	1,328.49	1.25	1,929	2.04
Sulphuric acid mist	48.39	0.03	-	-	-	-

Note: Statistics of 2019 cover 34 branch companies (subsidiaries) in production within and outside the PRC; statistics of 2017 and 2018 cover 31 branch companies (subsidiaries) in production within and outside the PRC.



Noise management

The Company's subsidiaries strictly follow the "Environmental Noise Pollution Prevention Law of the PRC" and the relevant laws and regulations of the countries where they are situated, and carry out assessment on the environmental impact of the noise on the region before construction commencement. In the production process, the noise generated mainly includes blasting noise from the mines, noise from machinery and equipment and noise from personnel, vehicles and other social activities in the region. For the purpose of reducing the impacts of noise pollution on external environment and human health, we try our best to use low-noise equipment, carry out regular repair and maintenance to prevent heightening of noise level caused by vibration of loosen parts in machinery and equipment; vibration reduction, noise absorption, use of sound-proof materials and other preventive measures are taken to reduce the noise generated during equipment operation; noise from delivery vehicles in the fields is mainly reduced by speed control, reduction of honking, etc. to ensure noise at boundary can meet the standard under the "Emission standard for industrial enterprises noise at boundary". Furthermore, field workers are equipped with necessary personal protective equipment like earplugs and ear protectors to prevent occupational disease.

For the detailed statistics of wastewater discharge, air emission and noise emission, please refer to the Company's 2019 Annual Report.

Waste management

We strictly follow the “Law of the People’s Republic of China on Prevention and Control of Environmental Pollution by Solid Waste”, “Standard for pollution control on the storage and disposal site for general industrial solid wastes”, “Standard for pollution control on the security landfill site for hazardous wastes” and the laws and regulations of the places where the overseas subsidiaries are situated, pay attention to managing waste generated from production and operation, and choose raw materials which cause lower harm, have lower toxicity and produce less waste for source reduction. In the technical aspect, we improve designs and operational conditions, etc. to optimise work process and raise the conversion rate of raw materials and production rate of products. At the end of the production process, we maximise recycle and reuse of resources to reduce waste generation. Currently, the Company is pushing ahead turning solid waste into resources for utilisation and striving to achieve “self-consumption of self-generated industrial waste” within the Group.

Treatment of mining waste

Waste rocks and tailings generated from mining

In 2019, the volume of waste rocks generated was 300.697 million tonnes and the comprehensive utilisation rate was approximately 15.26%. The waste rocks were mainly used for underground filling, restoration of slopes, building roads and tailings dams, etc.

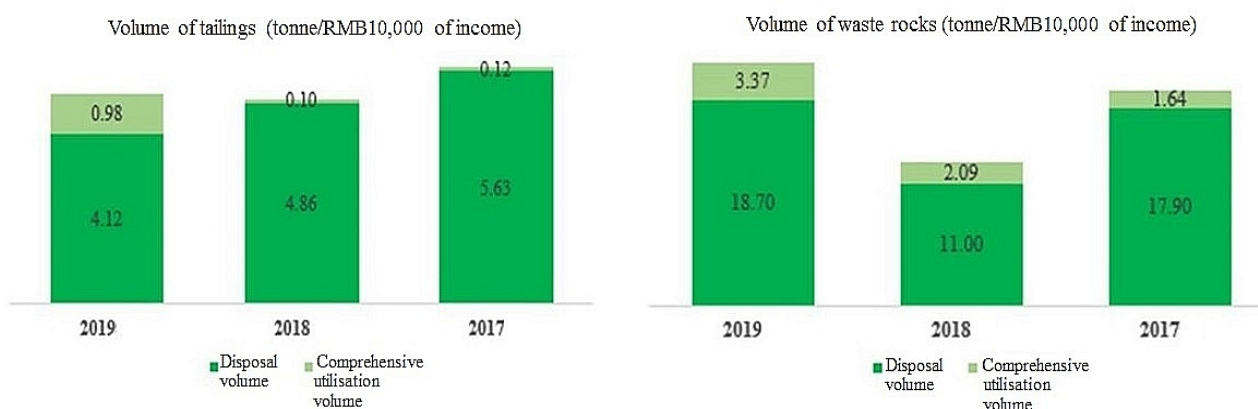
The rest were stored in waste rock storages or dumping yards, after which vegetation restoration were carried out pursuant to the plans.

In 2019, the volume of tailings generated was 69.4199 million tonnes and the comprehensive utilisation rate was approximately 19.14%. The tailings were mainly used as materials for construction, back-filling of goaves, building of tailings dams, etc.

The rest were conveyed to tailings storages for storage, the sub-dams were covered by mud and greenings were carried out in time.

Tailings storage management

Tailings having been fully utilised will be conveyed to the tailing storages. Tailings storages are important facilities for storing and disposing tailings and slags, and we are fully aware of their risks. For reducing the environmental risks caused by tailings storages, we strictly follow regulations of the relevant countries to approve and apply for approval on the design, construction and inspection of the tailings storages, regularly organise inspections on their operational safety, and carry out safety monitoring combining manual checking and online automatic monitoring systems. Dislocation, drying up, tailings dam water level, infiltration line and leakage of tailing storages are monitored to ensure the safety of the dams.



Disposal volume and utilisation volume of mining waste of the Company (substantial increase in 2019 was due to the Company’s business expansion)

Comprehensive utilisation and disposal of solid waste in the most recent three years							
Type of solid waste	Unit	2019		2018		2017	
		Disposal volume	Comprehensive utilisation volume	Disposal volume	Comprehensive utilisation volume	Disposal volume	Comprehensive utilisation volume
Tailings	Million tonnes	56.1349	13.2850	51.5323	1.0929	53.1990	1.1636
	Tonne/RMB10,000 of income	4.12	0.98	4.86	0.10	5.63	0.12
Waste rock	Million tonnes	254.8106	45.8864	116.7450	22.1081	169.2299	15.4687
	Tonne/RMB10,000 of income	18.70	3.37	11.00	2.09	17.9	1.64
Domestic refuse	Thousand tonnes	7.1		3.5		5.0	
	Tonne/RMB10,000 of income	5.22 X 10 ⁻⁴		3.30 X 10 ⁻⁴		5.27 X 10 ⁻⁴	

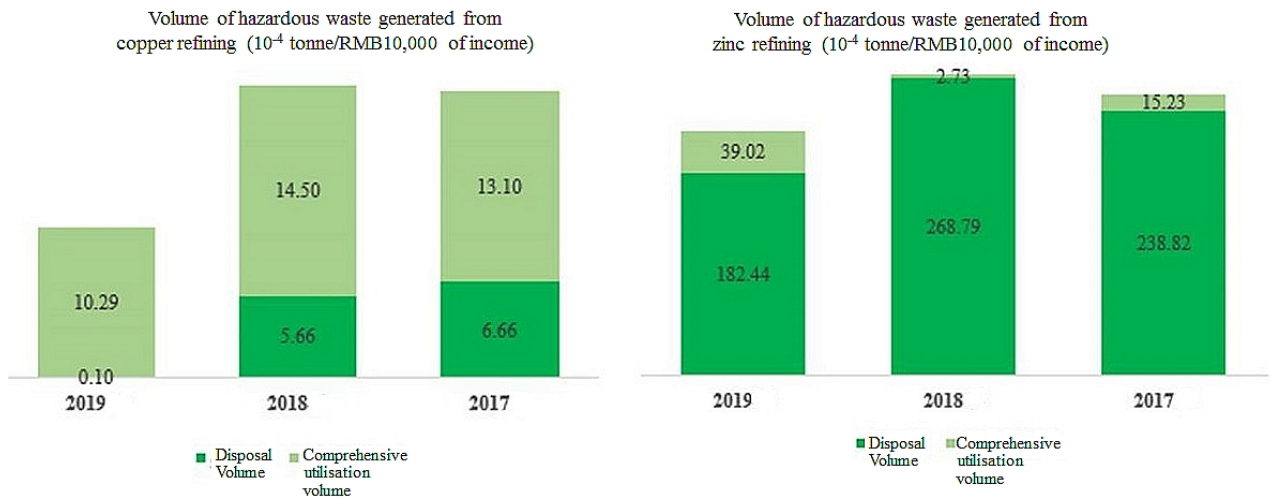
Notes: 1. Comprehensive utilisation: including the waste which was recovered and comprehensively utilised by the Company's enterprises or external parties; disposal: including the waste which was lawfully disposed of, retained or combusted by the Company's entities or external parties; 2. Statistics of 2019 cover 34 branch companies (subsidiaries) in production within and outside the PRC; statistics of 2017 and 2018 cover 31 branch companies (subsidiaries) in production within and outside the PRC.

Disposal of refining waste

Solid waste generated from refining business mainly includes cyanide slags generated from gold refining, lead filter cakes, white smog and dust, arsenic filter cake, telluride copper slags and other hazardous waste generated from copper refining, and lead and silver slags, iron and vanadium slags and other hazardous waste generated from lead and zinc refining. In order to strengthen the standardised management of hazardous waste, the subsidiaries strictly follow "Standard for pollution control on hazardous waste storage" (GB18597-2001), "Multi-copy Receipt-based Administrative Policy on Hazardous Waste Transfer", "Notice in relation to Further Standardising Hazardous Waste Management of Zijin Mining Group Co., Ltd.*" (Zijin Ban [2016] No. 115) and other relevant regulations to carry out tasks including temporary storage, transit and safe disposal of hazardous waste properly. Besides, for the purpose of further reducing the hazardous waste volume generated from refining business and minimising environmental risks, based on increasing comprehensive utilisation of waste, we implement projects of turning waste into resources and harmless treatment on waste.

Comprehensive utilisation and disposal of hazardous refining waste in the most recent three years							
Type of hazardous waste	Unit	2019		2018		2017	
		Disposal volume	Comprehensive utilisation volume	Disposal volume	Comprehensive utilisation volume	Disposal volume	Comprehensive utilisation volume
Copper refining	Thousand tonnes	0.1	14.0	6.0	15.4	6.3	12.4
	10 ⁻⁴ Tonne/RMB10,000 of income	0.10	10.29	5.66	14.50	6.66	13.10
Lead and zinc refining	Thousand tonnes	248.3	53.1	284.9	2.9	225.8	14.4
	10 ⁻⁴ Tonne/RMB10,000 of income	182.44	39.02	268.79	2.73	238.82	15.23

Notes: 1. Comprehensive utilisation: including the waste which was recovered and comprehensively utilised by the Company's enterprises or external parties; disposal: including the waste which was lawfully disposed of, retained or combusted by the Company's entities or external parties; 2. Statistics of 2019 cover 34 branch companies (subsidiaries) in production within and outside the PRC; statistics of 2017 and 2018 cover 31 branch companies (subsidiaries) in production within and outside the PRC.



Sulphide precipitation technique is commonly adopted by the copper refining industry for treatment of arsenic-containing waste at present. The cost of engaging external parties to treat arsenic-containing waste generated is high and it creates relatively higher environmental risks. In order to solve the problem, the Company conducted self-initiated research and development on the technique of solidifying arsenic with crystallised iron arsenic, which is a leading technique in the industry. The technique can achieve water circulation within the system and zero wastewater discharge. In 2019, Zijin Copper, a subsidiary, invested RMB159 million to complete the copper refining resources comprehensive utilisation and harmless treatment project, realising industrial application of such technique, solving the problem of on-site harmless treatment of arsenic and generating favourable economic and environmental protection benefits. Wider application of such technique will soon be promoted at other refining subsidiaries.



Bayannur Zijin’s comprehensive resources utilisation and harmless treatment technological engineering project for slag from leaching of marmatite in hydrometallurgy commenced production on 29 September 2019. The project realises full recovery of valuable metals in the refining slags. The slags after recovery can be turned into general solid waste and used as construction materials, fully realising the goal of turning waste into usable resources.



Bayannur Zijin’s zinc refining project

Cyanide management

6 mining and 2 refining enterprises of the Company adopt gold cyanidation extraction technique and use cyanide for gold heap leaching. As the toxicity of cyanide will cause severe impacts on human body and wild animals, we strictly follow “Zijin Mining Group Co., Ltd.* Hazardous Chemicals Safety Management Standards” to carefully manage the safe use of cyanide, manage strictly the procurement, transportation, storage, collection and use of cyanide, formulate the “Specific Emergency Plan for Environmental Emergency Incidents Caused by Sodium Cyanide” and regularly carry out staff training and emergency drills. In 2019, the Company had no incident relating to leakage of cyanide. For the cyanide slags generated, we strictly implement “Technical specification for pollution control of cyanide leaching residue in gold industry” (HJ943-2018) to secure the safe disposal of cyanide slags, carry out harmless treatment on cyanide slags, lower the cyanide volume and reduce the environmental impacts of cyanide as much as possible.



In 2019, Luoning Zijin, a subsidiary of the Company, invested RMB15 million and completed its cyanide slag harmless treatment project. The project can lower the content of cyanide in cyanide slags, reduce environmental impacts and recover gold, a precious metal in the slags. Turning hazardous waste into resources and harmless use of hazardous waste are achieved.



Luoning Zijin cyanide slag harmless treatment project

Water resources management

Our water sources mainly include surface water, underground water, pit water and municipal water. For the purpose of conserving water resources, we strive to raise the utilisation rate of water resources by technological and managerial means. We actively promote the water saving technological upgrade projects of “substituting natural water with other water, reusing water at the middle of process, separating clean water from wastewater”, prioritise the reuse of industrial and domestic wastewater in production, sprinkling for restraining dust and greening. Besides, in order to protect the surface water and underground water systems of the regions where our projects are located, we specifically formulate water system monitoring plan, carry out anti-seepage work in areas affected by pollutants including solution tanks, tailings storages and dumps, and strengthen technological research on treatment and reuse of high salinity wastewater. Currently, our average reuse rate of wastewater attains above 90%. In 2019, there was no violation of laws and regulations regarding use and collection of water; the volume of newly drawn water was 40.2529 million tonnes and the water use intensity was 2.96 tonnes per RMB10,000 of operating income.



Response to climate change

In order to proactively respond to global climate change, we proactively respond to “China’s National Climate Change Adaptation Strategy”, affirm the Paris Agreement, coordinate and initiate climate change responding work, carry out scientific planning to balance the enterprise’s economic development, greenhouse gas emission control and accommodation of climate change. Through formulating the “Energy Management Policy of Zijin Mining Group Co., Ltd.*”, we establish energy management systems to ensure efficient use of energy, water and other raw materials among all of our subsidiaries. The subsidiaries also carry out energy saving work and submit to the Group monthly reports on production units’ energy consumption on a regular basis, in order to enhance the Group’s energy consumption management by stages, and to respond to global climate change. In 2019, we proactively implemented CO₂ emission reduction by vegetation and planting at abandoned land of mining sites, green office, equipment upgrade, etc.

Greenhouse gas emission data in the most recent three years

Indicator	Unit	2019	2018	2017
CO ₂ emission from combustion of fossil fuels	Tonne	1,628,488	692,288	445,704
CO ₂ emission from decomposition of carbonates	Tonne	53,765	43,590	12,107
CO ₂ emission from consumption of net purchased electricity and heat	Tonne	2,401,669	1,725,253	1,669,618
Total emission of greenhouse gases by the enterprise (electricity and heat included)	Tonne	4,042,916	2,458,384	2,125,244
Total emission of greenhouse gases by the enterprise (electricity and heat excluded)	Tonne	1,805,635	716,101	458,025
Total emission of greenhouse gases by the enterprise from the use of electricity generated from new energy outside electric grid	Tonne	5.28	4.60	0
Electricity purchased externally	Megawatt hour	5,346,431	2,520,479	2,307,058
Steam purchased externally	Tonne	15,237	0	530
Electricity generated from new energy purchased externally outside electric grid (wind energy, solar energy, etc.)	Megawatt hour	5.50	4.80	0
Natural gas	Cubic metre	4,864,497	3,194,633	5,069,343
Diesel	Litre	234,421,765	83,686,048	66,176,770
Liquefied petroleum gas	Litre	1,355	1,405	1,646
Heavy oil	Litre	3,796	5,318	5,310
Kerosene	Tonne	58	87	64
Gasoline	Litre	1,277,756	873,733	813,706
Others (coal)	Tonne	98,221	40,746	40,570
Equivalent comprehensive energy consumption	Tonne of standard coal	819,187	601,961	522,454

- Explanation: 1. The number of subsidiaries included in the statistics for the years 2019, 2018 and 2017 is 32, 24 and 17 respectively.
2. The above statistics include Zijin Mining’s wholly-owned and non-wholly owned mining and refining enterprises and exclude hotels, real estate companies, Zijin Construction and offices of headquarters and other entities.
3. A large increase in greenhouse gas emission in 2019 compared with 2018 was mainly attributable to increase in the number of companies included in the statistics and production expansion of certain mining subsidiaries after technological innovation.

SAFETY MANAGEMENT

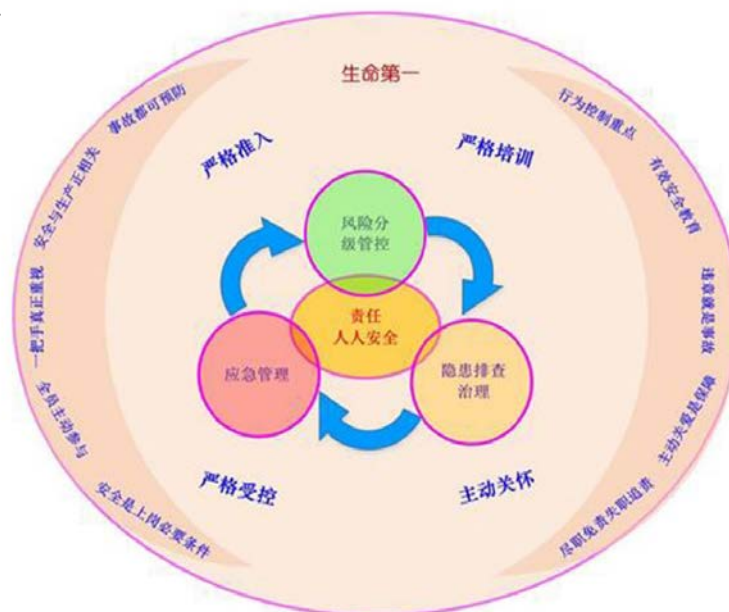


Safety management system

We firmly uphold the safety idea of “life comes first” and treat safety and health as the Company’s core values. To achieve safety risk management and control, the Company has built up an occupational health and safety management system and formulated “Zijin 10 Safety Rules”, “Red Line Management Regulations” and other rules. By innovating safety and management measures, strengthening process management and control, enforcing risk stratification control and management, hidden danger removal, inspection and management, setting three lines of defense for emergency response systems, the safety of staff, subcontractors and the communities in the places where the enterprises are situated are effectively guaranteed.

We insist on safety management in compliance with laws and regulations. The Company’s projects within the PRC rigorously follow the “Production Safety Law of the PRC” and other laws, regulations, specifications and standards. The Company’s projects outside the PRC rigorously follow the laws and regulations of the countries where they are situated, for example, “Labour Law” and “Occupation Safety and Health Law” of Serbia, “Labour Code” and “Mining Code” of the DR Congo, “Labour Code” of the Republic of Tajikistan, “Mines Safety and Inspection Act” and “Radiation Protection and Nuclear Safety Act” of Australia and other laws, regulations and standards on production safety of relevant countries.

In 2019, the Company invested an approximate total of RMB775 million in safety-related projects. The Company’s loss time rate per a million working hours, loss time and injury frequency rate per a million working hours and recordable incident rate per a million working hours (including subcontractors) were 251, 0.90 and 1.40 respectively. The Company’s Zijinshan Gold and Copper Mine, Zijin Copper, Urad Rear Banner Zijin, Shanxi Zijin, Zijin Gold Smelting, Ashele Copper, Fujian Zijin Copper, Wupin Zijin, Bayannur Zijin, Luoning Huatai, Zijin Construction, Jilin Zijin Copper, Zijin Bor in Serbia and other subsidiaries have passed the certification of OHSAS 18001 Occupational Health and Safety Assessment Series.



Zijin Mining’s safety management model

**Double preventive mechanism for stratified risk management and control
and removal, investigation and management of hidden dangers**

We comprehensively develop the double preventive mechanism for stratified risk management and control and removal, investigation and management of hidden dangers, which is operating effectively. Measures such as on-site, regular and occasional investigations at the subsidiaries, promoting “everyone is the safety officer” project, informatised early warning system, incident statistics and analysis, etc. are carried out in order to remove hidden dangers and prevent the occurrence of incidents.

Mechanised, automatised, informatised and intellectualised construction

To overcome the physical and psychological limitations of human, integrate all safety regulations of key businesses and further promote fundamental safety, the Company developed the all-personnel informatised safety management system on its own initiatives to realise early warning and early alarming of production safety risks for all positions and whole-process management and control. Pilot-run of the system was conducted at the Zijinshan Gold and Copper Mine, and replies of approval for provincial industrialisation and informatisation integration key project of Fujian, the PRC and Longyan Municipal Scientific Plan Project were obtained in 2019. During the reporting period, all subsidiaries continuously pushed forward mechanisation, automation and intellectualisation upgrades. For example, Ashele Copper and the Zijinshan Gold and Copper Mine have introduced mining and excavation equipment like electric single-arm hydraulic drilling jumbos, bolting jumbos, remote-controlled scrapers, Brokk robots, hydraulic crushers for rock drilling and excavation, scaling, shovelling and conveying, secondary crushing of huge rocks and other auxiliary operations respectively, reducing the safety risks of underground mining to a certain extent. Zijin Zinc, Duobaoshan Copper Industry in Heilongjiang, the Zijinshan Gold and Copper Mine and other open pits have adopted intelligent truck dispatching systems, resulting in effective risk control of transportation.



A bolting jumbo at the
Zijinshan Gold and Copper Mine



A Brokk robot at the
Zijinshan Gold and Copper Mine

Safety training



The Company organises various activities such as communication conferences for safety directors, training courses for internal safety trainers, safety promotion seminars, Production Safety Month, emergency drills, mutual learning and benchmarking of entities to provide specific knowledge on flood and geological disaster prevention, occupational disease prevention, safety and environmental protection training to staff, raising their knowledge on safety and environmental protection. The Company also arranges internal safety assessments aiming to ensure all the workers are qualified for their work. Staff can only work after passing the assessments and obtaining the permits.



Mobilisation meeting of
Production Safety Month



Emergency drill for construction
incident

Occupational health



We insist on the work direction of “prevention as the focus and combination of caution and management” to prevent occupational diseases, implement “three simultaneous” for occupational disease prevention at construction projects, prevent and control factors causing occupational hazards at the source and secure the health and interests of staff according to the laws. We require our mines and refining entities to formulate constant monitoring mechanism for positions with high risks of occupational diseases and hazards, define monitoring cycles and set up monitoring accounts. Occupational health check is regularly provided for staff, and every staff has his/her own file for occupational health monitoring purpose. Job rotation and change-of-shift mechanisms are enacted for personnel exposing to occupational disease to lower the risks of occupational hazards.

In order to reduce dust and noise and improve working environment, the subsidiaries adopt wet rock drilling, dust removers, noise suppressors, enclosed operating rooms, etc. to practically raise the passing rate of dust concentration and noise intensity at workplace, and provide the staff with a better working environment. For instance, Urad Rear Banner Zijin uses three-dimensional mine ventilation dynamic simulation software as an auxiliary decision-making tool for managing its mine ventilation system. The Zijinshan Gold Copper Mine, Wupin Zijin and other entities engage scientific research institutions to carry out projects including dust control research and optimisation of ventilation systems.



COMMUS, the Company's subsidiary, held the kick-off ceremony for "Production Safety Month". All staff solemnly made the following vow, "for the sake of happiness of the whole family and harmonious development of the enterprise, we guarantee to eliminate the three violations, remove hidden dangers, work in a diligent and responsible manner to secure safety".



Safety management of subcontractors

The Company includes subcontractors into its unified occupational health and safety management system, and implements the "Four Sames" unified management model comprising "same treatment, same management methods, same requirements and same improvement". In September 2019, the China Occupational Safety and Health Management On-site Meeting was convened in Habahe County, Aletai Region, Xinjiang. The experience of occupational health and safety management of the Company's subsidiary, Ashele Copper, was focused on and introduced in detail at the on-site meeting. "The Innovative Development Model of Ashele Copper's Occupational Health and Safety Management" research project was set up. Ashele Copper's successful way of managing the safety of subcontractors was promoted within the industry.



Occupational Safety and Health Management On-site Meeting

EMPLOYEE DEVELOPMENT

Focusing on compliance with law in our human resources management strategies, we strictly comply with the International Bill of Human Rights and abide by the Chinese and foreign laws and regulations regarding labour and employment including the “Labour Law” and “Employee Contract Law” of the PRC, “Labour Law of the Republic of Serbia”, “Labour Code of the Kyrgyz Republic”, “Labour Code of the DR Congo”, “Labour Code of the Republic of Tajikistan”, “Labour Code of the Russian Federation” and the “Australian Human Rights Commission Act”. “Basic Policy for Human Resources Management” is formulated and a series of supporting policies in relation to employee recruitment, resignation, duty management, attendance and leave are also issued. The contents of the policies include prohibition of the use of child labour and forced labour, protection of employees’ working hours, rights to rest and take vacations and other rights in line with local laws and regulations, so as to protect the basic rights of employees. During the reporting period, the number of employees averaged 32,392 per month (including foreign employees of overseas subsidiaries). 100% of the employees entered into labour contracts with the Group and 100% of the employees were covered by social insurance.



Employee rights

We focus on the importance on democratic management, participation and supervision of our employees. All PRC enterprises of the Group have established trade unions. The trade unions are responsible for negotiating and signing the “Employee Salary Collective Agreement” and “Employee Collective Labour Contract” with the Company on behalf of the employees. “Implementation Policy on Employee Recruitment Work”, “Management Policy on Attendance and Leave” and other rules are formulated as well in order to protect the legitimate interests of employees in terms of employment, salaries and benefits, rest and vacation, labour safety and health, social insurance and other aspects.



The subsidiaries of the Company obtain knowledge of and respond to the expectations and needs of employees through staff representative meetings and staff mailbox for protecting employees’ rights to know, participate, manage, vote and supervise, and promote a healthy and harmonious development for the enterprise.

Localisation and diversification

We adhere to localisation and diversification policies for employment, and treat employees of different nationalities, races, genders, religions and cultural backgrounds equally and fairly. In China, we rigorously implement localisation of employment and actively provide employment opportunities to impoverished ethnic minority groups in Xinjiang, Qinghai and Inner Mongolia to promote the development of national unity and progress. In oversea areas, we adopt a localised employment policy. The localisation rate of employees (local employees of the countries where the projects are situated) reaches 95%, alleviating the employment problem of the regions where the projects are located and also cultivating talents for the sustainable development of the local economy.



Employee training

We focus on the “people-oriented approach” as our employee development strategy. Guided by the internationalisation strategy, the Company has established a complete, well-structured and broad-ranging management system on career development, education and training comprising “Training Management Policy”, “Duty Management Policy”, “Artisan Nurturing Management Policy”, “Management Policy of Outstanding Young Talents”, and strives to provide better career planning for different kinds of employees. The Company has established career development channels for three types of talents who engage in administrative management, business management and technical profession, given full play to the personal value of employees, and enhanced the mutual growth of employees and the Company. The Company further enriches the knowledge of its employees and senior management through mining technician training courses, training courses for internal safety trainers, internationalised talent training camps, training courses for senior management, outstanding young talent training courses, etc. During the reporting period, trainings were provided to all senior management and base-level technicians.

Training courses for base-level technicians



Training course for senior management

Employee remuneration

We always adhere to the concept of “sharing achievements of development with employees”. We have formulated the “Remuneration Policy”, established a salary structure focusing on basic salaries and complementing it with performance bonuses, allowances and benefits, which is beneficial to employees’ development, and formulated a salary increment mechanism with points-based system. Meanwhile, on top of ensuring a highly competitive salary level, we continue to build a distinctive welfare system. In addition to statutory benefits, internal welfare programmes including flexible paid leave, housing benefit, festival allowances and supplementary medical insurance are implemented in the hope of providing the most attractive incentives to our employees.

Caring for employees

With the concept of creating a “Zijin Big Family”, through enriching the cultural life of employees, assisting the employees in need, organising fellowship activities for employees’ families, providing serviced apartments for employees and “nursery room with care” for breastfeeding female employees, building libraries, gym rooms, basketball courts, stadiums for badminton and table tennis, etc., we create a healthy and comfortable living environment for employees, enhance employees’ index of happiness and provide employees with greater sense of gain, happiness and accomplishment.



Variety show of staff organised by the Company



Serviced apartment for employees



Employees sports day organised by the Company



The “Zijin Cup” basketball competition for the geological exploration industry in China organised by the Company

Distribution structure of the Company's employees				
Item	Unit	2019	2018	2017
Total number of employees	Person	36,578	28,179	26,407
By type of employment				
Employed by the Company's headquarters	Person	2,825	2,667	2,632
Contract labour	Person	126	159	213
Employed by the subsidiaries	Person	33,627	25,322	23,339
By region				
In the PRC	Person	19,963	18,329	17,768
Outside the PRC	Person	16,615	9,401	8,639
By gender				
Explanation: Since some of our overseas enterprises are subject to personal data protection laws or do not have a complete profile of foreign employees, the total number of employees by gender is unavailable. The numbers of employees by gender below therefore do not add up to the Company's total number of employees. The figures below are based on data available to the Company.				
Male (in the PRC)	Person	15,423	14,939	14,644
Female (in the PRC)	Person	3,728	3,390	3,428
By age				
Explanation: Since some of our overseas enterprises are subject to personal data protection laws or do not have a complete profile of foreign employees, the total number of employees by age is unavailable. The numbers of employees by age below therefore do not add up to the Company's total number of employees. The figures below are based on data available to the Company.				
<30	Person	6,090	6,379	4,734
30-39	Person	12,729	10,077	8,262
40-49	Person	8,904	7,557	6,453
50-59	Person	5,947	3,552	3,219
60 or above	Person	806	303	249
Employee turnover rate	%	5.37	6.33	8.74

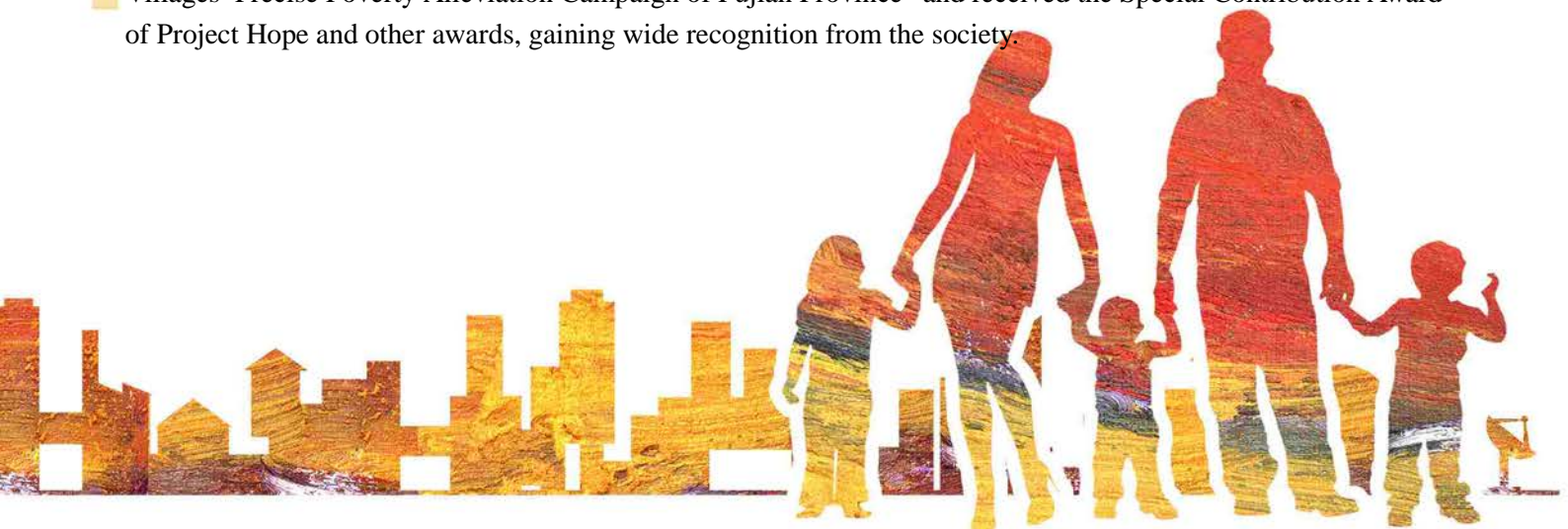
Note: 1. The above statistics exclude employees of the Group's associates and subcontractors. 2. Since some of the overseas enterprises are subject to personal data protection laws or do not have a complete profile of foreign employees, the analysis on gender and age structure of such enterprises' employees is therefore unavailable. 3. Employee turnover rate: turnover rate = number of employees resigned in the period/ [(number of employees at the beginning of the period + number of employees at the end of the period)/2] x100%. 4. As the Company's human resources system has not yet covered its overseas operations in full, the data collected from such operations may be inaccurate. Therefore, the relevant breakdowns of employee turnover rate and training-related statistics are excluded in this Report.

COMMUNITY DEVELOPMENT

Community investment



We always believe that corporate development is closely linked to the sustainable development of the community. We actively respond to the goals of the “2030 Agenda for Sustainable Development” of the United Nations. Through formulating policies such as the “External Donation Policy” and “Community Development Plan”, we require the subsidiaries to formulate community development plan in the aspects of poverty alleviation, education, medical care, industrial development, infrastructure construction, disaster relief, traditional culture and so on according to the culture, political conditions and customs of the regions where the subsidiaries are located. The community development plan will be implemented after the consideration of the Board of the Company so as to promote the harmonious development of the economy and society and make the Company an outstanding local corporate citizen. During the reporting period, we donated RMB178 million to the community in the form of cash or materials. The Company was awarded the honourable titles of “Top Ten Charity Enterprises in China”, “Advanced Enterprise of ‘One Thousand Enterprises Aiding One Thousand Villages’ Precise Poverty Alleviation Campaign of Fujian Province” and received the Special Contribution Award of Project Hope and other awards, gaining wide recognition from the society.



Precise poverty alleviation



In the PRC, the Company successfully implemented the “Shanghang County Elderly and Orphan Relief Project” for the ninth consecutive year, with an accumulated investment of more than RMB90 million. In April 2019, the Company was awarded the “Top Ten Charity Enterprises in China”, which was received by the Company for the second time since 2013.



In Asia, for every 1 ounce of gold produced, Altynken in Kyrgyzstan will inject USD7.50 into the local future development fund for community development. Since 2015, approximately RMB17.2191 million in total has been donated.

Industrial development



In Oceania, Porgera JV in Papua New Guinea actively participates in community development, invests in local hospitals, provides trainings on agricultural skills to local residents, and subsidises post-earthquake reconstruction, in order to help the local residents have better lives.



In Africa, Kamoja Copper SA in the DR Congo provides assistance to local chicken farming and vegetable growing business, providing employment opportunities to many local families, and effectively improving the living standards of the villagers.

Educational aids



In Europe, Zijin Bor in Serbia actively offers scholarships to local schools, carried out school infrastructure improvement and other community projects according to community traditions. In 2019, Zijin Bor donated USD137 thousand to the local communities.

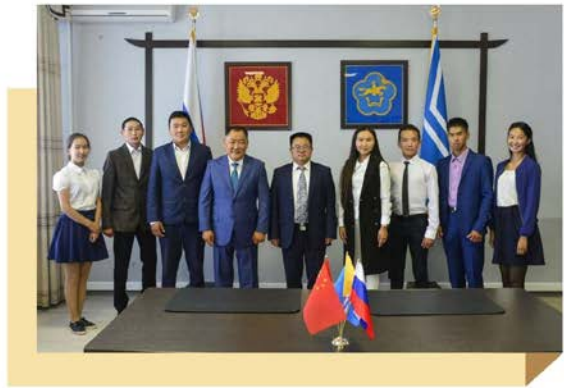


In Oceania, Norton in Australia provided a special sponsorship of AUD100 thousand for the Chinese language education project of Kalgoorlie Primary School, which facilitated cultural exchange between the two countries. It was commended by the local media.

In Africa, COMMUS in the DR Congo invests in infrastructure improvements such as roads, bridges, wells, libraries, and repairs power transmission towers for the community. In 2019, the Company paid various taxes and fees of approximately USD150 million in compliance with laws.



In Asia, Longxing in Tuva, Russia actively contributes to harmonious community development, poverty alleviation and relief, caring for patients and the disabled, making donations to build schools, providing educational aids, supporting sports development in Tuva, etc., which was highly commended by the president of Tuva. The Company has accumulatively contributed USD775 million to the host country since its entry to Tuva.



Resettlement

From 2017 to 2019, in order to improve the living condition of more than 2,100 residents in Jingmei Village which is adjacent to the Zijinshan mining area, we provided funds for relocation of the whole village. The project is close to completion.



The former residential site of Jingmei Village



Construction commencement of Jingmei Village new residential district

Established Zijin Mining Charity Foundation to create a public welfare platform

In order to conduct charitable activities in a more organised manner and to create a charitable public welfare platform for the mining industry, the Company solely invested RMB200 million in August 2012 to establish the Zijin Mining Charity Foundation (the “Foundation”) with the Ministry of Civil Affairs of the PRC. Upholding the cultural concepts of “love, attentiveness, sharing, harmony” as the corporate tenet and focusing on the purposes and service areas of poverty alleviation and relief, educational aids, environmental protection, disaster relief and so on, the Company carries out public welfare and charitable work in different fields and proactively spreads positive energy. In 2019, the Foundation carried out more than 50 public welfare projects in total and spent more than RMB30 million in charities, which was recognised by the administrative authority of the Ministry of Civil Affairs of the PRC. The Foundation successfully passed the annual inspection of the Ministry of Civil Affairs of the PRC for the year 2018 and was recognised as a charitable organisation. It received the “Self-discipline and Transparency Award” from the China Foundation Center, and the “Special Contribution Award of Project Hope” for the third consecutive year.



Self-discipline and Transparency Award



Special Contribution Award



Volunteers of the Foundation visiting an impoverished household

Established Zijin Mining College to cultivate talents for the mining industry

In order to promote the development of and provide outstanding talents to the mining industry, Zijin Mining College was jointly established by the Company and a “double first-tier” college in China, Fuzhou University, in 2007. The Company fully supports Zijin Mining College to provide education for more than 10 years. It has invested RMB150 million to build a teaching base, donated more than RMB20 million in educational aids, selected 6 batches of outstanding professional and core technological personnel as engineering teachers to participate in college teaching, as well as initiated the “Zijin Model” of “school development and education supported by the enterprise, school running process participated by the enterprise, the effectiveness of school running inspected by the enterprise”. This model was rated as “Excellent Engineer Education and Training Program” by the Ministry of Education of the PRC and awarded the “National Teaching Achievement Award (Higher Education) Second Class Award”, “National Education Reform and Innovation Excellence Award”, “Fujian Province Model Industrial College”, “Fujian Province Education Achievement Special Award” and other awards. The Zijin Mining Teaching Base donated by the Company was also rated as “National Engineering Practice Education Centre”. Since the establishment of Zijin Mining College, more than 2,000 high-quality talents were cultivated for the mining industry domestically and globally.



The chairman of the Company attended the graduation ceremony of Zijin Mining College and answered the questions from graduates



The Company donated RMB150 million for the construction of Zijin Mining College’s Shanghang Teaching Base

Established Zijin Secondary School to contribute to the community

In Shanghang County where the Company's headquarters is located and its surrounding mountainous areas, high-quality educational resources have become increasingly strained. Local demand for education and development is ever increasing. In order to give back to the local community residents, the Company invested in the establishment of a non-profit secondary school, Zijin Secondary School, in September 2018. Since its establishment, the school's teaching quality ranks top in the county.



Students of Zijin Secondary School

To satisfy the increasing need for school education of children from the local community, the Company launched a new campus building project for Zijin Secondary School in 2019. The planned land area is 156,000 square metres, with a total of 72 classes being planned to accommodate 3,600 students in total.

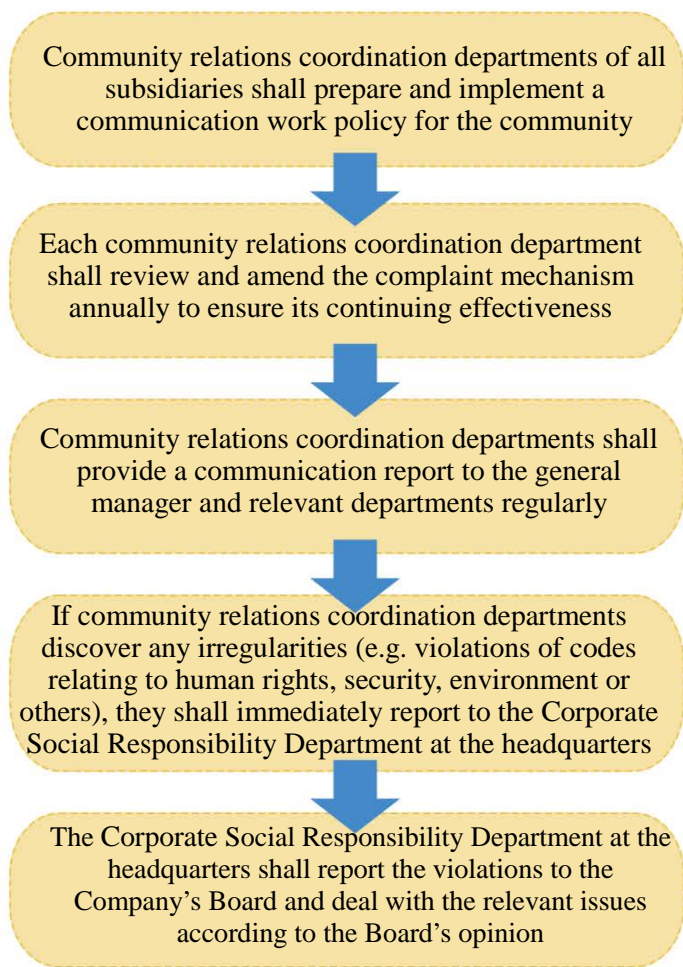


Cornerstone laying ceremony of Zijin Secondary School's new campus

Community communication and complaints

The subsidiaries of the Company span across different countries and are subject to the influence of different localities and cultures. Effective community communication is an effective way to gain trust from the local people and achieve harmony and mutual prosperity between the enterprise and the community. In order to ensure that the policy requirements regarding local communities' well beings are taken into account in the Company's operating activities, we have formulated the "Social Responsibility Policy of Zijin Mining Group Co., Ltd.*", pursuant to which all of the Company's subsidiaries are required to establish community relations coordination departments, and formulate and implement a communication and complaint mechanism in line with the community management policies of Zijin Mining according to their respective circumstances. The communication and complaint mechanism provides a reliable and feasible way for the stakeholders in the community to communicate with the enterprise, enabling the Company to provide feedbacks or address their demands. Effective management of demands ensures that enterprises can deal with stakeholders' concerns and issues any time as they arise and before serious risks develop.

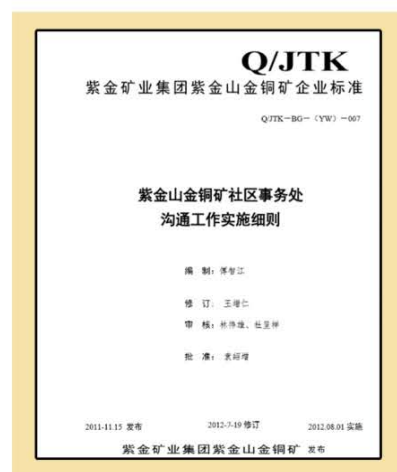
The Company's Corporate Social Responsibility Department arranges the members of community relations coordination departments of the subsidiaries to gather at the headquarters in China for receiving annual trainings related to sustainable development and social responsibility, the contents of which include human rights protection, community investment and various international conventions, in order to raise the subsidiaries' ability to fulfill its community responsibilities. During the reporting period, a total of 21 staff involving in community work from 10 and 2 subsidiaries within and outside China respectively were trained.



Zijin Mining's community communication and
complaint mechanism



The community relations coordination department of the Company's Zijinshan Gold and Copper Mine actively acquires knowledge of and records the community's demands in relation to environment, donations, human rights protection, relocation, employment and other aspects through formulating the "Community Communication Working Rules", and promptly processes and provides feedbacks to the residents of the community. This is to understand the expectations and needs of community stakeholders, form a long-term communication mechanism with community stakeholders, and jointly promote community progress and sustainable development.



Security and human rights

In accordance with international standards such as “Voluntary Principles on Security and Human Rights” (VPSHR) and “United Nations Guiding Principles on Business and Human Rights” (UNGP), the Company requires all of its subsidiaries to provide trainings to security personnel and security agencies, and at the same time specifies the implementation of the abovementioned principles in the security contracts. The Company compiled the “Zijin Mining Social Responsibility Risk Diagnosis Service and Internal Supervision on Responsibility Fulfillment Handbook” to conduct risk inspections on the subsidiaries. Focuses of the inspections include compliance with laws and regulations, human rights protection, quality environment and occupational health and safety, community development and communication, responsible supply chain, labour rights, disclosure of responsibility information and risks in other areas. Upon our review, all subsidiaries basically conform to the abovementioned two human rights principles.

The security projects of our businesses are based on actual needs, for example, for the purpose of preventing criminals from trespassing into mining areas for unauthorised mining or trespassing into plant areas for theft of metallic products. The health and safety of employees and the assets of the Company are hence secured.

In China, we are mainly protected by the government. The police assigned by the government or security guards of the Company are responsible for the security of mining and plant areas. Outside the PRC, the enterprises hire security forces according to local security conditions and governmental requirements to provide security for enterprises and their employees.

LOOKING FORWARD TO THE FUTURE

Sustainable development is the perpetual pursuit of human society. In the future, we will work unremittingly together with the international community to achieve the sustainable development goals of the United Nations by 2030 and create a better future for all mankind!



VERIFICATION STATEMENT



Independent Verification Statement

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 2019 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 responsible 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, 2019 to December 31st 2019, 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, respectively are,
Headquarter of Zijin (Xiamen) address at Tower B, Zhonghang Zijin Square, No.1811, East Huandao Road, Siming District, Xiamen City, Fujian Province, the PRC.
Headquarter of Zijin (Shanghang) address at 1 Zijin Road, Shanghang County, Fujian Province, the PRC.
Zijinshan Gold and Copper Mine (Fujian) address at Shanghai County, Fujian Province, the PRC.

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

- Any information and contents beyond the reporting period of this Report;
- The financial data and information disclosed in this Report that have been audited by an independent third party are not verified again herein; and
- The environmental data and information disclosed in the Environmental Report of Zijin that have been audited by a third party are not verified again herein.

Limitations

- Due to COVID-19, this verification was performed at aforementioned sites, and no other 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, 2019 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:

- 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*
- Shanghai Stock Exchange: *the Notice on Strengthening Assumption of Social Responsibility by Listed Companies and Issuing the "Guidelines of Environmental Information Disclosure by Companies Listed on Shanghai Stock Exchange"*
- *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 is objective, consistent and clear; 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:

Materiality	Under the preparation of the Report, the appeals of investors and other stakeholders were sufficiently considered. The Report covers significant issues regarding the Company's economic, social and
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	environmental impacts and also the issues deemed important by the stakeholders and has responded to the substantial issues after having them prioritized.
Quantitative	Targets and KPIs of the substantial issues are measurable, total solid waste (such as tons of waste) with its intensity produced (such as waste per unit of output value), as well as waste by type and disposal method has been approximately presented in the Report.
Balance	During the process of preparing the Report, the balance of the Report was adequately considered, where both positive information and negative information are disclosed. For instance, the facts, result and the following up actions taken against the corruption case has been unbiased reported.
Consistency	In terms of overall information disclosure, the Report has considered the principle of consistency. With respect to isolated case, the statistical methods and dimensions of GHG (Greenhouse Gas) emission data does not reflecting a meaningful comparison, in spite of the statistical scope of data covers majority operation sites of the Company.

Recommendations on Continuous Improvement

- The Company is recommended, by reflecting on UN SDGs 2030, corporate environmental, social and governance (hereinafter referred to as ESG) development concept and identified substantial issues, to set more practicable ESG goals and review them regularly.
- The Company is recommended to maintain consistency in the scope of environmental data statistics, such as GHG emission data, by establish a standardized GHG inventory system to be gradually covered to all operation sites of the Company, so as to ensure that the GHG emission data can be measured and compared.

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
Sustainability Product Manager, TÜV SÜD

May 29th, 2020

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 OF THE REPORT



Rating Report of “Environment, Social and Governance Report of Zijin Mining Group Company Limited of 2019”

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 “Environment, Social and Governance Report of Zijin Mining Group Company Limited of 2019” (hereinafter referred to as “the Report”).

I. Rating Criteria

"Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises-General Mining Industry (CASS-CSR 4.0)" of the Chinese Academy of Social Sciences and "China Corporate Social Responsibility Report Rating Standards (2020) of Corporate Social Responsibility Report Rating Expert Committee of Chinese Enterprises

II. Rating Process

1. The rating team reviews and confirms the “Process Data Confirmation of Corporate Social Responsibility Report” submitted by the “Report” writing group and relevant supporting materials;
2. The rating team conducts evaluation on the preparation process and the content disclosed by the “Report”, and then drafts the rating report;
3. The Vice Chairman of the Rating Expert Committee, the leader of the rating team, and the experts of the rating team jointly sign the rating report.

III. Rating Results

Process (★★★★☆)

The Social Responsibility Department of the company takes the lead in establishing a report preparation team to promote the specific preparation work in a unified way. The functional departments and the subordinate enterprises are responsible for the data submission and information verification, and the board of directors is responsible for the final review of the Report. The Report is positioned as an important tool to respond to the information disclosure requirements of the regulatory authorities, strengthen the communication between stakeholders, improve the level of social responsibility management and enhance the reputation of the enterprise brand, with clear functional and value positioning. The company identifies the substantial issues based on the international and domestic standards, the corporate development strategies, the interviews over the investors and the questionnaires, prepare the Index System Scheme for Zijin Mining's Social Responsibility Risk Management, establish a regular information statistical verification mechanism, and enhance the accuracy of the report information. The company plans to publish the Report on the official website of the company and the website of the stock exchange, and presents reports in electronic, print and other formats, with excellent performance in the process.

Materiality (★★★★★)

The Report systematically discloses key issues in general mining industry such as the implementation of macro policies, the digital mine construction, the

occupational health management, safe production, environmental management system, environmental protection technology and equipment research and development and application, resources reserves, saving of land resources, reduction of emission of "three kinds of wastes", disposal of tailings and mining area ecological protection. The descriptions are made in details, with excellent performance in materiality.

Integrity (★★★★☆)

The main contents of the Report systematically disclose 83.74% of the core indicators of the general mining industry from the perspectives of "social responsibility management", "corporate governance", "environmental protection and ecology", "safe management", "employee development" and "community development", with excellent performance in integrity.

Balance (★★★★★)

The Report discloses "the quantity of the recalled products", "the number of complaints by the customers", "the employee turnover rate", "total recordable injury accidents per 1 million working hours" and other negative data, and describes the result of the "bribery case of the original general manager of Longnan Zijin" in details, implementing the warning education based on the cases and carrying out the improvement measures, with excellent performance in balance.

Comparability (★★★★★)

The Report discloses the comparison data of 72 key indicators for more than 3 consecutive years, including "total amounts of tax payment", "total number of suppliers", "investment in ecological restoration", "density of emission of the sulfur dioxide", "total number of the employees" and "the community donation" and compares horizontally with the same industry with respect to such data as the "Ranking 10th among the Global Nonferrous Metal Enterprises", "Ranking 1st among the Global Gold Enterprises", "Ranking 87th among the Fortune China Top 500 in 2019", with excellent performance in comparability.

Readability (★★★★★)

The Report systematically shows the annual accountability concepts, actions and results of responsibility issues such as the organizational governance, the environmental protection, the production safety, the employee development and the community harmony, and systematically responds to the expectations and demands of stakeholders. The design style is simple and fresh, the expression elements are flexible and diverse and the pictures and texts bring out the best in each other, thus improving the readability of the Report, with excellent performance in readability.

Innovation (★★★★☆)

The Report actively responds both to the requirements of the international standard of social responsibility and to the protection of biodiversity, security and human rights and other key issues in the international social communities, thus

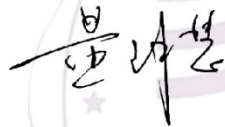
highlighting the global vision and value pursuit of the enterprise. The Annual Environmental Report of Zijin Mining Group Company Limited was prepared and released to systematically disclose the concept, actions and performance of fulfilling the environmental responsibilities, enrich the reporting system and lead the innovative performance.

Overall Rating (★★★★☆)

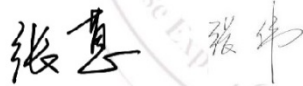
According to the rating team's assessment, the Environment, Social and Governance Report of Zijin Mining Group Company Limited of 2019 is of four and a half star rating, and it is a leading corporate social responsibility (CRS) report.

IV. Improvement Suggestions

1. Increase the disclosure of core indicators of the industry and improve the integrity of the Report;
2. Enhance the presentation form of the content and design of the Report, and enhance the readability of the Report.



Vice President of Chinese Expert
Committee on CSR Report Rating

Leader of the Rating Team Expert of
the Rating Team

Process Assessor Ren Jiaojiao, Zu
Zhinan

Date of Issue: April 27, 2020

Scan QR Code to View Enterprise Rating Files

APPENDIX

Index of issues in this Report

ESG reporting aspect	Relevant content	ESG reporting aspect	Relevant content	
A1: Emissions	Emission control-P.32 Wastewater discharge reduction-P.33 Air emission reduction-P.35 Waste management-P.37 Cyanide management-P.40 Greenhouse gas emission data-P.41	B3: Development and training	Employee development-P.46	
A1.1		B3.1	Employee statistics in the most recent three years-P.50	
A1.2		B3.2		
A1.3		B4: Labour standards	B4.1	Employee development-P.46
A1.4				
A1.5				
A1.6			B4.2	
A2: Use of resources	Scientific and technological innovation and comprehensive use of resources-P.27 Water resources management-P.40 Response to climate change-P.41	B5: Supply chain management	Supply chain management-P.25	
A2.1		B5.1		
A2.2		B5.2		
A2.3		B6: Product responsibility	Product quality and customer services-P.26	
A2.4				
A2.5	B6.1			
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		B6.3		
		B6.4		
B1: Employment	Employee development-P.46	B6.5	Anti-corruption and bribery-P.22	
B1.1		B7: Anti-corruption		
B1.2		B7.1		
B2: Health and safety	Safety management-P.42	B7.2	Community investment-P.51	
		B8: Community investment		
		B8.1		
		B8.2		

Opinion and feedback

Dear readers,

Thank you for reading this Report. To improve the Company's social responsibility work, enhance our performance of social responsibilities and its quality, we wish to hear your opinion and suggestions. Please spare some time to complete an evaluation of this Report for our further improvement. It would be appreciated if you could answer the questions in the list below and send your feedback to us:

1. What is your overall rating on this Report?
2. What is your opinion on the quality of information disclosed in this Report?
3. Which part(s) of this Report interest(s) you the most?
4. What other information do you think should be included in this Report?
5. Do you have any suggestion regarding our social responsibility work and the publication of social responsibility reports in the future?

Please feel free to leave us your contact details

Name/company name/industry:

Telephone number/email address:

Our contact:

Corporate Social Responsibility Department, Zijin Mining Group Co., Ltd.*

Address: Room 1410, Zijin Headquarters, No. 1 Zijin Road, Shanghang County, Longyan City, Fujian Province, the PRC

Telephone number: 0597-3998038 Postal code: 364200

Email address: zjky@zjky.cn or international@zijinmining.com

Access to this Report:

This report is originally prepared in Chinese language. Its electronic version can be downloaded from the website of Shanghai Stock Exchange (www.sse.com.cn) and the Company's website (<http://www.zjky.cn>).

Please visit our company website or follow our WeChat official account for more information of the Company.

Note: To have a more detailed and complete understanding of our environmental protection performance and operating results, please refer to the 2019 Annual Report of Zijin Mining Group Co. Ltd.* and 2019 Environmental Report of Zijin Mining Group Co. Ltd.* published on the official websites of the Shanghai Stock Exchange, the Hong Kong Stock Exchange and the Company.



Zijin Mining Group Co., Ltd.*

Address: Zijin Headquarters, No. 1 Zijin Road
Shanghang County, Longyan City, Fujian Province

Telephone number: 0597-3998038

Postcode: 364200



Part II. 2019 Environmental Report



紫金礦業集團股份有限公司
Zijin Mining Group Co., Ltd.

Zijin Mining Group Co., Ltd.*



2019 Environmental Report

March 2020

1 Highlights by the Board



Mr. Chen Jinghe, secretary to the party committee and chairman of Zijin Mining Group Co., Ltd.*

Ecology is an invisible asset of mining companies, the quality of which is inextricably linked to the health of the enterprise. Zijin Mining plays an active role in practising the development belief of “green mountains and clear water are our invaluable assets”, dedicates to being the pioneer of ecological civilisation development and strives to promote and realise the goal of “building an eco-friendly mining enterprise and developing a beautiful Zijin”. The eco-development roadmap of the Group is basically formed.

In 2019, Zijin Mining upheld a high degree of harmony and unity between mine development and ecological civilisation development, enhanced compliance with laws, comprehensive management, technological innovation, energy saving and emission reduction, environmental protection, land restoration and implementation of social responsibility work, innovated the project management model of “integrating five ore treatment processes into one” and coordinated the five development procedures of geological prospecting, mining, processing, refining and environmental protection. The quality of green mines and green factories continued to be enhanced. The ecological and environmental management system was gradually improved, and the Group realised the target of “zero environmental incident”.

Zijin Mining continuously carries out the subject responsibility of ecological and environmental protection based on the strictest standards. The emissions of all of the three major kinds of waste meet the targets, with certain emission indicators significantly better than the national standards. 16 major branch companies (subsidiaries) obtained the ISO 14001 environmental management system certification. The Company has invested a total of RMB725 million in environmental and ecological protection, restored 5.2848 million m² of vegetation and planted 1.3418 million plants of various kinds. At present, the Company owns 9 “green mines” at national level, 3 “green mines” at provincial level, 2 “green factories” at national level, 3 “green factories” at provincial level, 1 national industrial product eco-design model enterprise, 2 national industrial tourism demonstration sites, 1 national mine park and 1 national science popularisation education base.

The year of 2020 and the coming three years are critical for the new management team to lead the Company forward in achieving the overall goal of becoming an extra-large scale international mining group with high technology and efficiency, and striving for a leaping growth. Ecological civilisation development, being an important aspect in elevating the Company’s brand value and driving sustainable development of mining companies, generates tremendous social benefits and long-term economic benefits. Zijin Mining will adhere to the overall work roadmap of “deepening reform, achieving leaping growth and sustainable development”, firmly practise the concepts of innovative and eco-development with consistent effort and in an unwavering manner. The “Ecological Civilisation Development and Green Mine Construction Plan”, “Resolution in relation to Enhancing the Development of Green Mines” and “Specific Plan of Environmental and Ecological Protection” are thoroughly practised, in order to accelerate and promote the modernisation of ecological and environmental management system and capability, and explore a high-quality development path which prioritises the ecology and emphasises eco-development. The Company will craft a new brand card in safety, environmental protection, eco-development, and offer its own solution and contribution to develop a beautiful China and global eco-mining industry!



A glimpse of the Zijinshan Gold and Copper Mine National Mine Park



Panorama of Zijin Copper Co., Ltd.



Panorama of Xinjiang Jinbao Mining Co., Ltd.



Fujian Zijin Mineral Processing Chemicals Co., Ltd.



Fujian Zijin Copper Co., Ltd.



Wuping Zijin Mining Co., Ltd.



Panorama of Guizhou Zijin Mining Co., Ltd.



Heilongjiang Duobaoshan Copper Industry Inc.



Panorama of Xinjiang Habahe Ashele Copper Co., Ltd.



Panorama of La Compagnie Minière de Musonoie Global Société par Actions Simplifiée

2 Overview of the Company

2.1 Information of the Company

Zijin Mining is a sizeable multinational mining group focusing on exploration and development of gold, copper, zinc and other metallic mineral resources. With all of its total assets, operating income and aggregate profit before various types of taxes exceeding RMB100 billion respectively, the Company is one of the large mining companies in the PRC with the best efficiency and controlling the largest volume of metallic mineral resources, and one of the most competitive as well. The Company is entirely listed on the H Share market of Hong Kong (stock code: 2899) and the A Share market of Shanghai (stock code: 601899) successively. The rankings published by the Forbes Magazine in 2019 show that the Company ranked 889th in the list of “Forbes Global 2000: World’s Largest Public Companies”, in which the Company ranked 10th among the global non-ferrous metal corporations and 1st among global gold corporations. The Company occupied the 87th place in Fortune China 500 for the year 2019.

The Company’s resources reserve volumes and metallic product production volumes of gold, copper and zinc, which are its key products, are among the top three in the PRC mining industry. The Company’s major investment projects currently span across 14 provinces and regions in the PRC and 11 overseas countries, including the Zijinshan Gold and Copper Mine in Fujian Province, the Duobaoshan Copper Mine in Heilongjiang Province, the Porgera Gold Mine in Papua New Guinea, the Kolwezi Copper and Cobalt Mine in the DR Congo and the Bor Copper Mine in Serbia, the Buriticá Gold Mine in Colombia and other large-scale mines in production, and the super-large-scale, world-class and high-grade mines in construction including the Kamoa Copper Mine in the DR Congo, the Timok Copper and Gold Mine in Serbia. Among which, the Kamoa Copper Mine, with copper metal resources reserve volume of 43.69 million tonnes, is the largest copper mine in Africa and also the fourth largest copper mine in the world. Currently, the Company’s resources reserve volumes of gold, copper and zinc and production volume of mineral products from overseas projects represent over or nearly half of the total volume of the Group respectively, while profit from overseas projects contributes over one-third of the Group’s profit. The Company has become one of the Chinese enterprises with the largest controlled resource volumes of gold and other non-ferrous metals and production volumes of mineral products overseas.

The Company is committed to high-quality and sustainable development. Innovation is the Company’s core competitiveness, especially in the field of science and technology. The Company has the advantages of possessing abundant practical experience and leading technological comparative advantages in the industry in the aspects of geological prospecting, hydrometallurgy, comprehensive recovery and utilisation of low-grade refractory resources, large-scale engineering development and so on. It established the unique project management model of “integrating five ore treatment processes into one”, being one of the few multinational mining companies in the world which is equipped with autonomous system technology and engineering management capabilities. It always takes safety and

environmental protection as the lifeblood of its existence and development, fully promotes the development of eco-mines and ecological civilisation, and occupies a leading position in the industry in the aspects of comprehensive resources utilisation level and energy consumption indicators. The Company embraces the enterprise value of “creating wealth in harmony, balancing development of the corporation, the employees and the society” and the original aspiration and mission of “contributing to the society by the development of mining industry”, and proactively discharges its social responsibilities. It was awarded “China Charity Award” for three times.

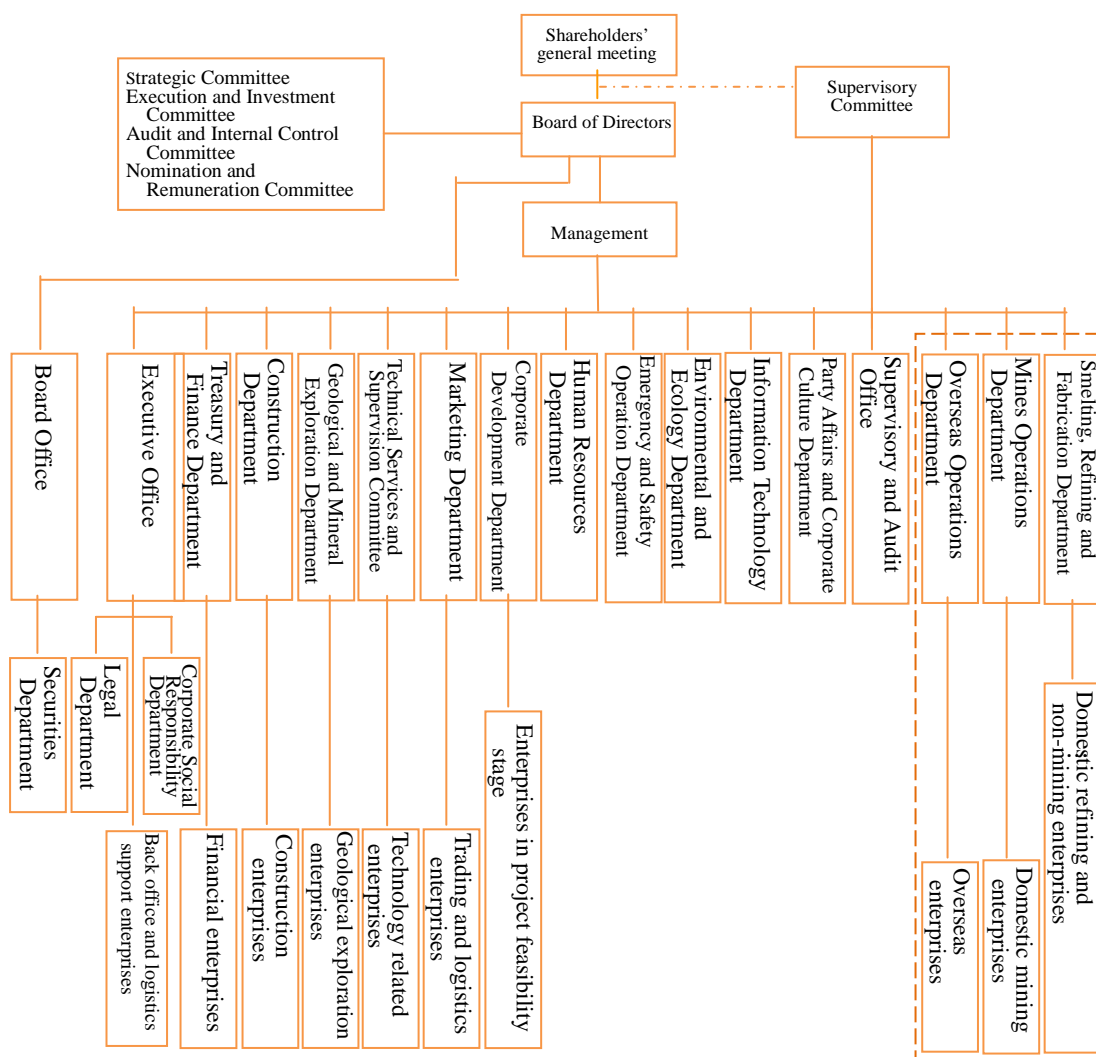
The Company proactively echoes to the national strategy of the “Belt and Road Initiative”, insists on innovation and development, internationalisation, project upsizing and asset securitisation, endeavours to become an extra-large scale international mining group with high technology and efficiency, and assists the economic development of China and the world by providing high-quality mineral raw materials.

2.2 Enterprise culture

- Corporate tenet: Found business on mining, make contribution to the country and the people
- Mission: Assist the economic growth of China and the world by providing quality mineral resources and become an important force in the global metal and mining markets
- Vision: Become a globally important gold and metallic raw material producer, gain broad recognition from mining counterparts, stakeholders and employees worldwide
- Strategic goals: Build an extra-large scale international mining group with advanced technology and efficiency, constantly create value for the society and investors, and benefit our employees and stakeholders at the same time
- Value: Create wealth in harmony, balance development of the corporation, the employees and the society
- Corporate spirit: Found the business by overcoming hardships with exploratory and innovative spirits
- Operational philosophy: Earn respect with quality products, achieve mutual benefits and win-win situation
- Operational belief: People-oriented, strive for excellence
- Rules for employees: Integrity, diligence, cooperation and friendship
- Policy on environmental protection and safety: Life comes first, environmental protection takes priority

2.3 Organisational structure

The organisational structure of Zijin Mining is as below.



Organisational chart of Zijin Mining Group Co., Ltd.*

2.4 Zijin's products

The Company is a multi-business member of the Shanghai Gold Exchange, as well as a member of the Shanghai Futures Exchange. The technical parameters of the quality of gold bullion, silver bullion, copper cathode and zinc bullion produced by the Company all meet and exceed the technical indicators of national standards GB/T4134-2015 (gold bullion), GB/T4135-2016 (silver bullion), GB/T467-2010 (copper cathode) and GB/T470-2008 (zinc bullion). The Company's "ZIJIN" brand gold bullion, "ZIJIN" brand silver bullion and "ZIJIN" brand copper cathode received the title of "Famous Brand Product of Fujian Province"; "ZIJIN" brand zinc bullion also received the title of "Famous Brand Product of Inner Mongolia". In particular, "ZIJIN" brand gold bullion and "ZIJIN" brand silver bullion have already passed the certification of the London Bullion Market Association (LBMA); and the quality of "ZIJIN" brand grade-A copper and "ZIJIN" brand zinc bullion obtained official and global recognition as they are registered as brands for settlement on the London Metal Exchange (LME). In 2019, 100% of the products delivered by the Company reached the passing grade.



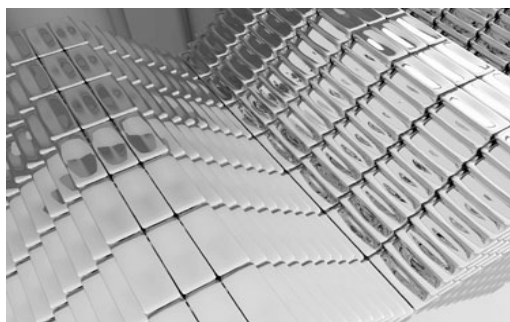
Gold bullion



Copperplate



Zinc bullion



Silver bullion

2.5 Highlights of Zijin



On 14 February 2019, Zijin Mining organised the 2019 safety and environmental protection work conference, at which the president, Mr. Lan Fusheng, emphasised that Zijin shall build a new brand upon “eco-development” and production safety.



On 22 February 2019, “‘Going out’ Risk Management Forum of Fujian Enterprises” was held in Fuzhou. Mr. Chen Jinghe, the chairman of Zijin Mining, delivered a speech themed “‘Going-out’ is an important choice for Chinese enterprises to realise sustainable development”, in which he shared the knowledge and experience of Zijin Mining in its “going-out” expedition. The speech received much attention from guests and media participating in the forum.



On 16 March 2019, President Aleksandar Vučić of the Republic of Serbia visited Zijin Bor and met with Mr. Lan Fusheng, the president of Zijin Mining, and other personnel. President Vučić highly recognised the remarkable progress which Zijin Bor had achieved since it was taken over by the new management team.

On 7 May 2019, Mr. Ning Jizhe, the Deputy Officer of National Development and Reform Commission and head and secretary to the party committee of the National Bureau of Statistics of China, visited Zijin Mining with other personnel for thorough research and study. Mr. Ning pointed out that Zijin Mining has imposed high standards on itself, followed strict standards and invested substantially in safety and environmental protection, achieved remarkable results in comprehensive utilisation of resources, intellectual metallurgy, eco-metallurgy and “going out” under the “Belt and Road Initiative”, and taken a leading role in the industry.

On 16 May 2019, Forbes published the rankings of “Forbes Global 2000: World’s Largest Public Companies in 2019”, in which the Company moved up 58 places to the 889th place as compared with 2018. Among which, the Company ranked 10th among the global non-ferrous metal enterprises, 1st among the global gold enterprises and 1st among the Chinese non-ferrous metal enterprises.



From 29 to 30 May 2019, the China Mining Annual Meeting for 2019 was convened in Beijing. Mr. Lan Fusheng, the president of Zijin Mining, shared Zijin Mining’s overseas investment experience in recent years at the forum of “Geological prospecting and mining investment in ‘Belt and Road Initiative’ international industrial capacity cooperation”.

On 2 September 2019, China Enterprise Confederation and China Enterprise Directors Association published the ranking of “Top 500 Chinese Enterprises”. Zijin Mining ranked 44th among the top 100 multinational Chinese companies and 20th in the multinational index, being the only Fujian company on the list. In the “2019 Top 500 Chinese Enterprises” ranking released at the same time, Zijin Mining ranked 181st.



From 5 to 9 September 2019, Serbian government officials and media groups visited Xiamen, China to attend the “2019 China International Fair for Investment & Trade and Belt and Road Investment Congress”. They inspected the headquarters of Zijin Mining, the Zijinshan Gold and Copper Mine and Zijin Copper in multiple batches. The Serbian representatives gained a more systematic and clearer understanding of Zijin Mining and believed more firmly that the Serbian government made the right decision in choosing Zijin Mining as the strategic partner of the Bor Mine.



From 9 to 11 October 2019, 2019 (the 21st) China Mining Conference and Exhibition was convened in Tianjin Meijiang Convention and Exhibition Center. The chairman of Zijin Mining, Mr. Chen Jinghe, led a delegation to attend the conference. Mr. Fang Qixue and Mr. Xie Xionghui, the Company’s vice presidents, gave speeches respectively at “senior management forum” and “eco-mining and sustainable development forum” to share the high-quality development experience of Zijin Mining with Chinese and foreign guests.



On 6 December 2019, the new Minister of Mines of the DR Congo, Mr. Willy Kitobo Samsoni, led a delegation to conduct a special research and study in COMMUS. He commended that COMMUS is a clean, neat, modernised, garden-styled plant.



On 25 December 2019, China Foundation Center published the “2019 China Foundation Transparency Index (FTI)”. Zijin Mining Charity Foundation received the Self-discipline and Transparency Award for attaining full scores in China Foundation Transparency Index for two consecutive years.

On 30 December 2019, Zijin Mining convened the second extraordinary general meeting in 2019 at the headquarters, during which the change of term of the Board and the Supervisory Committee was completed. The seventh term of the Board and the Supervisory Committee held their first meetings respectively, and Mr. Chen Jinghe was elected as the chairman of the

Board of the seventh term. A new term of management was appointed, and Mr. Zou Laichang was appointed as the president of the Company. Mr. Lin Shuiqing was elected as the chairman of the Supervisory Committee of the seventh term.

3 Environmental management

3.1 Environmental protection beliefs

Environmental protection belief: green mountains and clear water are our invaluable assets.

Principle on environmental protection: life comes first, environmental protection takes priority.

Concepts of environmental protection and development: never pursue economic development at the expense of the environment.

Concepts of environmental protection and existence: environmental safety is the inviolable bottom line of the enterprise.

Concepts of environmental protection and production: use natural resources in a reasonable manner and develop circular economy emphatically.

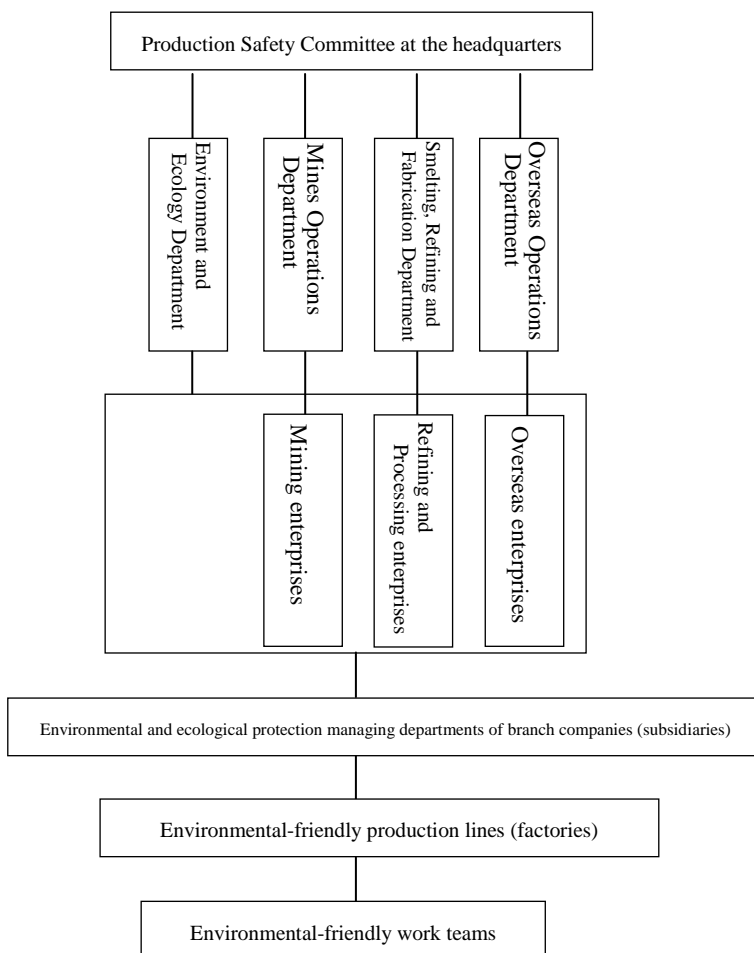
3.2 Environmental management hierarchy and environmental protection targets

3.2.1 Environmental management hierarchy

The Company's environmental protection management system, highly organised and specialised, comprises the headquarters of the Group, branch companies (subsidiaries), production lines (factories) and work teams. The Company set up the Production Safety Committee (the "Safety Committee") at the headquarters, with the president of the Company being appointed as the chief officer and divisional vice presidents being appointed as the deputy chief officers. The director of safety and environmental protection is responsible for the daily management of safety and environmental protection affairs of the Company. At the headquarters of the Company, the Environment and Ecology Department, which has a number of subordinate offices, namely the Environmental Monitoring Office, Ecology and Water Conservation Office, General Office and International Environmental Protection and Ecology Office, was established to handle the daily affairs relating to environmental protection and ecological management, and provide guidance for, inspect and supervise the environmental protection management of the branch companies (subsidiaries). The Company's headquarters has established the Mines Operations Department, Smelting, Refining and Fabrication Department and Overseas Operations Department, which manage the daily environmental and ecological protection work of the entities of their respective sectors. Each of the branch companies (subsidiaries) has their own dedicated administrative department to manage the specific affairs relating to environmental protection. Under these branch companies (subsidiaries), there are responsible personnel or administrators to oversee the environmental protection and ecological management of production lines (factories).

Monitoring, inspection and assessment systems have been established in each of the branch companies (subsidiaries), which are also required to engage assessment institutions with CMA qualification to monitor the discharge of major and special pollutants regularly according to monitoring plans. The Group proactively promoted the ISO 14001 environmental management system certification. By strengthening “6S” management of work sites, maintaining good environmental order and improving work site conditions, the harmony between staff and the environment is realised.

Environmental protection management policies: The Group has 6 major environmental protection management policies, namely, the “Responsibility System on Environmental Protection”, “Environmental Protection and Ecology Assessment Administrative Regulations”, “Administrative Regulations on Environmental Protection and Ecological Inspection”, “Emergency Plan for Environmental Incidents”, “Guidance for Greening Work” and “Environmental Order Management Basic Regulations”. Each branch company (subsidiary) has formulated its corresponding environmental protection management policies.



Organisational chart of Zijin Mining’s environmental protection management institutions

3.2.2 Environmental protection targets and progress

(1) Major targets for control

The Company invests the full amount in environmental protection according to relevant requirements, improves the basic facilities for environmental protection, ensures compliance with the discharge limits on three major kinds of waste, and encourages the obtaining of certification on environmental management systems and review on clean production; strictly enforces the “three simultaneous” policy for environmental protection and water conservation; improves the approval formalities for environmental protection and water conservation, applies for pollutant discharge permits and discharges pollutants in compliance with the permits; pushes forward automatic online monitoring system for environmental protection and reduction in the discharge volume of major pollutants, and achieved the goal of zero environmental incident. In addition, the Company continues to push ahead the development of ecological civilisation policies such as “Ecological Civilisation Development and Green Mine Construction Plan (2013-2020)”, “Resolution in relation to Enhancing the Development of Green Mines” and “Zijin Mining Specific Plan on Environmental and Ecological Protection for Years 2018-2020” in order to continue the development of green mines and green factories, and proactively develops garden-styled mines and plants.

(2) Progress

All branch companies (subsidiaries) conscientiously follow environmental protection laws and regulations. The discharge of various types of pollutants is in compliance with regulatory standards. Solid waste is safely disposed of and comprehensively utilised. No emergency environmental incident occurred in 2019. During 2019, Zijin Mining invested RMB725 million in total in environmental and ecological protection, among which, RMB94.8105 million was used for ecological restoration, 5.2848 million square metres of vegetation were restored and 1.3418 million plants of various kinds were planted. The Company currently has 9 and 3 green mines at national level and provincial level respectively, 2 and 3 green factories at national level and provincial level respectively, and 1 national industrial product eco-design model enterprise at national level. The roadmap for eco-development of the whole Group begins to take shape. In 2019, Zijin Copper was selected as a “Leading Enterprise of Eco-development in China’s Non-ferrous Metal Industry”, and was selected as one of the enterprises in the first batch of national industrial product eco-design model enterprises; West Copper was granted the “Environmental Social Responsibility Award for 2019” by the Ministry of Ecology and Environment of the PRC; the Zijinshan Gold and Copper Mine, Fujian Zijin Copper and Zijin Copper were granted the title of Hazardous Waste Standardised Management Demonstration Units from the respective supervisory Ecology and Environment Bureaus.

3.3 Certification of environmental management systems

The Company actively applies for ISO 14001 environmental management system certification. The Company’s 16 branch companies (subsidiaries), namely the Zijinshan Gold and Copper Mine, Wuping Zijin Mining Co., Ltd., Xinjiang Habahe Ashele Copper Co., Ltd., Xinjiang

Zijin Zinc Co., Ltd., Urad Rear Banner Zijin Mining Co., Ltd., Shanxi Zijin Mining Co., Ltd., Wenshan Malipo Zijin Tungsten Group Co., Ltd., Longnan Zijin Mining Co., Ltd., Luoning Huatai Mining Development Co., Ltd., Zijin Copper Co., Ltd., Bayannur Zijin Non-ferrous Metals Co., Ltd., Zijin Mining Group Gold Smelting Co., Ltd., Jilin Zijin Copper Co., Ltd., Fujian Zijin Copper Co., Ltd., Luoning Zijin Gold Refinery Co., Ltd. and Serbia Zijin Bor Copper doo Bor have obtained certification for their environmental management systems.



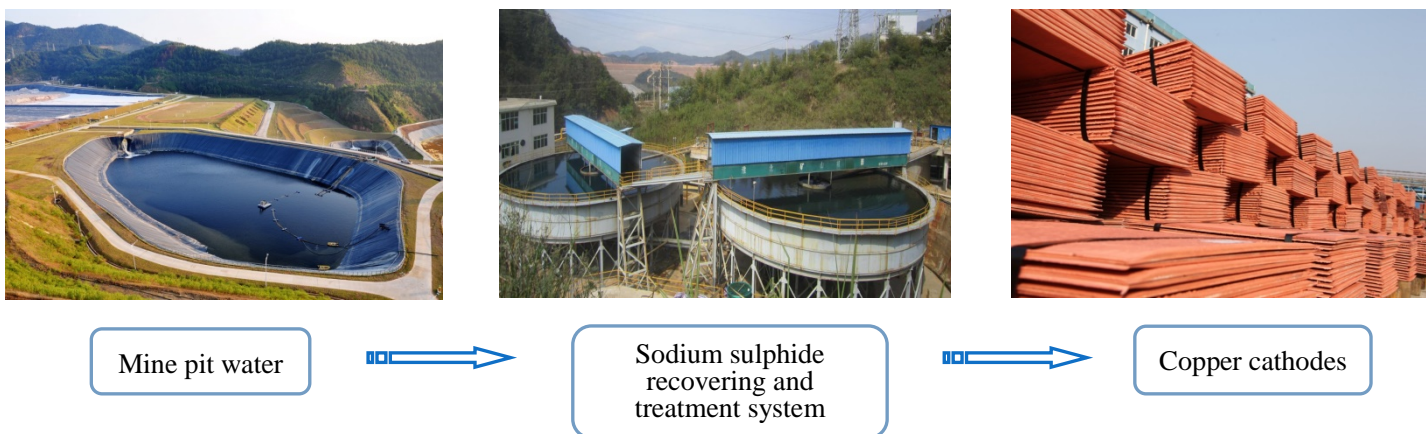
3.4 Development of circular economy

Upholding eco-development as the core strategy of the enterprise, the Company develops circular economy with technological advancement and innovation, and applies its scientific research achievements to facilitate comprehensive utilisation of crude ores, tailings, furnace slags and other resources. The Company also promotes comprehensive recovery of various kinds of valuable elements from solid waste materials and establishes effective systems for reusing resources.

In particular, the Company’s smelting subsidiary, Zijin Copper Co., Ltd., sets a good example on the development of circular economy. The high-purity copper cathodes produced by Zijin Copper are directly supplied to the enterprises engaging in fine processing of copper materials in Minxi district, and its overall energy consumption is better than advanced national standard. Other measures of Zijin Copper include directly transporting sulphuric acid, the by-product, to manufacturers of phosphorus and fluorine chemical products in local areas; using steam furnace to convert waste heat from production process into steam to generate electricity; selling furnace slag, gypsum residue and other solid waste to downstream cement and construction material producers; through carrying out treatment at the end materials comprehensive recovery unit, rare and precious metals such as gold, silver, platinum, palladium, selenium, bismuth, etc. in the anode slime are recovered; and reusing industrial wastewater as cooling water for production. With established systems for improving

allocation and recycling of resources, Zijin Copper Co., Ltd. is able to effectively control pollution from the source and make best use of the resources.

The Company’s Zijinshan Gold and Copper Mine always insists on maximising the use of resources. It has received the title of “Advanced National Mining Enterprise for Reasonable Development and Utilisation of Mineral Resources”, and is among the state’s first demonstration bases for comprehensive utilisation of resources. The gold mine of the Zijinshan Gold and Copper Mine has comprehensively utilised a large volume of low-grade gold ores and gold-containing waste rocks, and the copper mine has successfully overcome the difficulties in utilising low-grade copper sulphide ores, and comprehensively utilised copper- containing waste rocks. Moreover, huge investment has been made in the separation of clean water from used water and comprehensive recovery and reuse of copper-containing acidic water. In 2019 alone, the Zijinshan Gold and Copper Mine recovered 11.7278 million m³ of copper-containing acidic water and approximately 11,607 tonnes of copper metal, generating RMB580 million of economic efficacy and realised considerable ecological and economic benefits.



3.5 Management of hazardous chemicals

The branch companies (subsidiaries) of Zijin Mining strictly manage the safety of hazardous chemicals in procurement, transportation and production processes, as well as their storage and use in accordance with the relevant policies for safety management of hazardous chemicals. Major sources of danger of the equipment, facilities or venues which produce, operate, store or use hazardous chemicals are identified. The main types of hazardous chemicals involved in the operation of the Company’s branch companies (subsidiaries) are sodium cyanide, sulphuric acid, liquid ammonia, hydrochloric acid and sodium sulphide, and no substances prohibited by national laws, regulations and international conventions are used. All of the hazardous chemicals are stored in dedicated warehouses, dedicated storerooms or other dedicated locations. The designs of such places comply with national and industrial standards, with clear display of safety warning labels, and are under the management of specialised personnel. Where the amount of hazardous chemicals in storage is likely to become a major source of danger, the receiving, distribution and retention of such chemicals must be under the supervision by two designated personnel; in respect of highly toxic

chemicals, a “five doubles” policy is implemented, according to which the oversight of two supervisors would be required for the inspection, retention and distribution of such chemicals; double locks are used and double records are kept for such chemicals.

3.6 Environmental information disclosure

Since the Company becomes publicly listed, it has strictly complied with the “Guidelines for Environmental Information Disclosure of Listed Companies (Consultation Paper)”, “Administrative Policy on Disclosure of Environmental Information (Tentative)” and “Policy on Disclosure of Environmental Information by Enterprises and Public Institutions (Ministerial Order No. 31)” issued by the Ministry of Ecology and Environmental Protection of the PRC and the CSRC, in the formulation of its corporate environmental information disclosure policy. Environmental information of the enterprise is disclosed regularly on the Company’s website to enable a stronger supervision by the public on the enterprise’s environmental practices, protect the right to know of investors and shareholders and raise their environmental protection awareness. The Company issues social responsibility report and environmental report annually, which disclose the Company’s basic information, eco-development concepts, environmental protection measures, sustainable development, energy management, environmental management and compliance with environmental protection laws and other environmental protection related information. Since the financial year 2016, Environmental, Social and Governance Reports in compliance with the requirements of the “Environmental, Social and Governance Reporting Guide” of the Hong Kong Stock Exchange have also been published annually.

3.7 Training on environmental protection

In order to enhance the knowledge and understanding of the latest national environmental protection policies of environmental protection management personnel at various levels, in July 2019, the Company invited experts and professors in the field of environmental protection to provide environmental protection educational training for the year 2019 at the Company’s Shanghang headquarters, and arranged 18 live video-conferencing venues in Xiamen and other branch companies (subsidiaries) outside Fujian Province. Over 300 participants attended the trainings in total. The contents of the trainings mainly included ecological and environmental law enforcement, ecological rehabilitation of mines, water and soil conservation laws and policies, solid waste management policies, etc., which provided useful guidance to enterprises on environmental protection management. The branch companies (subsidiaries) also organised special training sessions on environmental protection based on their own production and operation conditions, in order to enhance study of the latest environmental protection policies in the new situations, and raise the environmental protection standards.

Furthermore, the Company provided special trainings on environmental and ecological protection for new staff and conveyed Zijin’s environmental and ecological protection

philosophy for raising the environmental and ecological protection awareness of all staff. Approximately 500 participants attended the 4 sessions in total.



Training on environmental protection management organised by the Company's headquarters in 2019



Themed sessions provided to new employees on environmental protection and ecology at the Company's headquarters in 2019

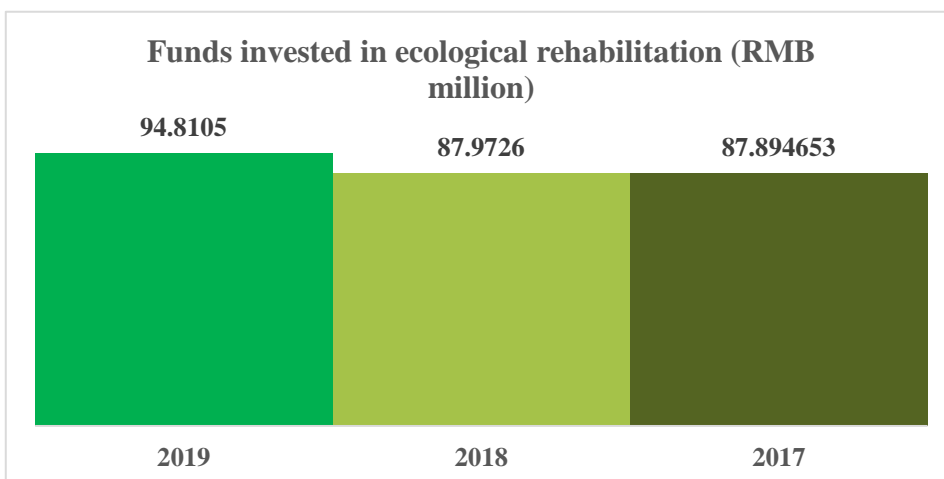
3.8 Biodiversity conservation and ecological rehabilitation

The Company places high importance on biodiversity and ecological rehabilitation work. It forbids unauthorised and excessive picking of wild plants and hunting, killing, purchasing or

eating of wild animals, with particular emphasis on conservation of the natural habitats of wildlife. A dedicated session of “protecting wild animals and plants” is included in the “Code of Employees’ Conduct”.

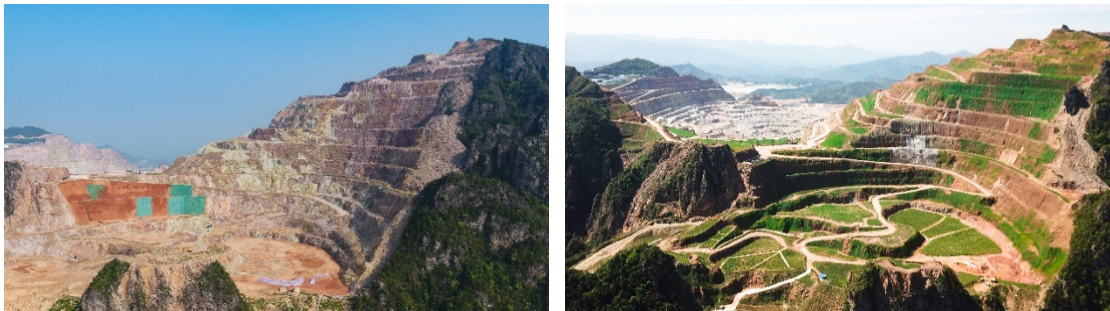
In 2019, along with the Earth Day, World Environment Day and other activities, the Company launched the thematic campaign of “Let’s take actions to build a beautiful Zijin” at the headquarters and subsidiaries. Through various types of promotional and educational activities relating to wildlife conservation such as voluntary tree planting, signature campaigns for protection of wild animals and plants, displaying notice boards to arouse concern for endangered species, circulating proposals on wildlife protection, etc., knowledge of environmental protection and wildlife conservation was shared out widely. Meanwhile, to pursue “harmony between human and nature”, the Company strictly forbids the construction of any production facilities inside natural reserves, origins of drinking water, national forest parks and other areas with ecological functions.

The Company always adheres to the principles of “planning ahead and acting promptly to benefit early”, “less disturbance, less interference and less singularity”, “more input, more actions and more innovation” for ecological rehabilitation, in order to progressively improve and build up a stable ecological system. Taking into account various factors including geological environment conditions of mines, social and environmental conditions, existing geological hazards and types of geological environment, scale of distribution, level of stability, characteristics of geological activities, etc., the mining entities compile and regularly update the “Proposal on Protection of Geological Environment of Mines and Land Rehabilitation”, orderly carry out land rehabilitation and vegetation restoration work at dumping yards, tailings storages, waste rock dumps and other bare areas. In addition, certain mining and refining entities fully utilise the edge and corner areas and conduct reasonable planning to meticulously restore vegetation and set up ecological fruit and vegetable gardens, tea farms, botanical gardens, etc. according to local conditions. The ecological diversity is enriched, and the environment of the mining areas is enhanced. During 2019, the Company restored 5.2848 million m² of vegetation, planted 1.3418 million flowers and trees and invested RMB94.8105 million in ecological rehabilitation in total. An aggregate of RMB725 million was spent on environmental and ecological protection projects throughout the year.





Comparison of effectiveness of greening and vegetation restoration before and after Zijin invested in the Bor Copper Mine in Serbia



Comparison before and after conducting vegetation restoration at the open-pit area of the Zijinshan Gold and Copper Mine



The botanical garden and flower and fruit garden of the Zijinshan Gold and Copper Mine after conducting improvement work at the dumping yard



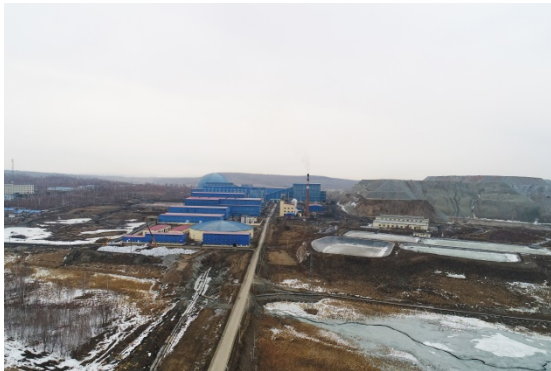
Comparison before and after vegetation restoration at the slag dumping yard of the Zijinshan Gold and Copper Mine



Comparison before and after construction and greening at Heilongjiang Zijin Copper



Comparison before and after slope greening by West Copper in Qinghai



Comparison before and after Duobaoshan Copper Industry's eco-mine development



Comparison before and after Shanxi Zijin's eco-mine development



Comparison before and after greening at the surroundings of Zijin Zinc's mining area



Comparison before and after greening at the entrance of the laboratory of Hunchun Zijin's production and technological department



Ecological fruit and vegetable garden of Jilin Zijin Copper



Zeravshan's apple orchard



Zijin's staff releasing wild animals which accidentally entered the mining areas



Biodiversity conservation activities held by the Zijinshan Gold and Copper Mine and Hunchun Zijin



Youth League members of Zijin Mining participating in tree planting and afforestation activities, growing a “Zijin Youth Forest” together



Tree planting and afforestation activities held by Zijin Copper and Yuanyang Huaxi

4 Handling of substantial environmental protection issues

In 2019, the branch companies (subsidiaries) of Zijin Mining were not involved in any general or above-general emergency environmental incident, environmental pollution related dispute or verified group complaint on environmental protection issues.

5 Compliance with environmental protection laws and regulations

5.1 Environmental impact assessment and implementation progress of the “three simultaneous” policy

In 2019, the Company continued to strengthen supervision and management over the environmental impact assessments and inspections at the conclusion stage of its new transformation or expansion projects. In accordance with the regulatory requirements on environmental impact assessment of the regions where the projects are situated, the Company conducted environmental impact assessments, and strictly implemented the “three simultaneous” policy of environmental protection, so as to ensure smooth progress and compliance with relevant laws of the construction projects. During the reporting period, 20 projects of the branch companies (subsidiaries) of the Company obtained approvals for environmental impact assessment and 11 projects passed the environmental protection self-acceptance check at the conclusion stage.

Implementation status of environmental impact assessment and “three simultaneous” policy of branch companies (subsidiaries) of the Company in 2019

Number	Name of enterprise	Name of construction project	Approval status of environmental impact assessment report (table)			Status of completion and environmental protection acceptance check
			Time of approval	Approval authority	Approval document number	
1	Zijinshan Gold and Copper Mine	30,000 cubic metres acidic copper-containing water environmental protection treatment system	19 June 2018	Longyan City Environmental Protection Bureau	Long Huan Shen [2018] No. 68	Self-acceptance check completed in August 2019
		Transformation and expansion project of Dadongbei tailings storage	9 December 2019	Longyan City Ecology and Environment Bureau	Long Huan Shen Pi [2019] No. 31	Under construction
2	Zijin Copper Co., Ltd.	Alteration of comprehensive copper resources utilisation and harmless treatment project	27 September 2019	Longyan City Ecology and Environment Bureau	Long Huan Shen [2019] No. 379	Under construction
		Production expansion and transformation project (400 thousand tonnes copper refining project)	19 April 2019	Longyan City Ecology and Environment Bureau	Long Huan Shen [2019] No. 144	Under construction

3	Urad Rear Banner Zijin Mining Co., Ltd.	Comprehensive recovery project for tailings of the Miaogou Lead and Zinc Mine with an annual mining and processing volume of 200 thousand tonnes	4 September 2019	Bayannur City Ecology and Environment Bureau	Wu Hou Huan Shen Biao [2019] No. 13	Under construction
4	Bayannur Zijin Non-ferrous Metals Co., Ltd.	Industrial wastewater intensive treatment and comprehensive utilisation project	19 January 2018	Bayannur City Environmental Protection Bureau	Ba Huan Shen Biao [2018] No. 1	Self-acceptance check completed in December 2019
		New enclosed coal storage project	12 July 2019	Urad Rear Banner Ecology and Environment Bureau	Wu Hou Huan Shen Biao [2019] No. 8	Self-acceptance check completed in December 2019
5	Heilongjiang Duobaoshan Copper Industry Inc.	The Tongshan Mine mining project	30 April 2019	Department of Ecology and Environment of Heilongjiang	Hei Huan Shen [2019] No. 30	Under construction
6	Jilin Zijin Copper Co., Ltd.	Transformation project of environmental gas circulation system at smelting section and air emission purification system at sulphurisation section	17 July 2019	Hunchun City Ecology and Environment Bureau	Hun Huan Jian (Biao) Zi [2019] No. 25	Under construction
		Production expansion and transformation project (copper-containing complex gold concentrate of 2,000 tonnes per day)	25 December 2018	Department of Environmental Protection of Jilin Province	Ji Huan Shen Zi [2018] No. 76	Self-acceptance check completed in June 2019
7	Luoning Zijin Gold Refinery Co., Ltd.	Harmless treatment of cyanide tailings slags project	11 October 2018	Luoyang City Environmental Protection Bureau	Luo Huan Shen [2018] No. 016	Self-acceptance check completed in May 2019
		Construction project of Yangyu tailings	4 November	Luoning County Ecology and	Ning Huan Jian [2019]	Under construction

		storage	2019	Environment Bureau	No. 19	
8	Luoyang Kunyu Mining Co., Ltd.	300,000t/a mining and processing project of the Shanggong Gold Mine area (five permits combined into one)	31 January 2018	Environmental Protection Department of Henan Province	Yu Huan Shen [2018] No. 20	Self-acceptance check completed in September 2019
		Shanggong Gold Mine processing plant expansion and transformation project	11 April 2019	Department of Ecology and Environment of Henan Province	Yu Huan Shen [2019] No. 14	Under construction
9	Xinjiang Zijin Zinc Co., Ltd.	Additional 15,000t/d low-grade resources and waste rocks comprehensive utilisation and technological upgrade project for processing plant of the Wulagen Zinc Mine	24 April 2019	Department of Ecology and Environment of Xinjiang Uyghur Autonomous Region	Xin Huan Huan Ping Han [2019] No. 498	Under construction
		Additional 15,000t/d low-grade resources and waste rocks comprehensive utilisation and technological upgrade project for tailings storage of the Wulagen Zinc Mine	17 April 2019	Department of Ecology and Environment of Xinjiang Uyghur Autonomous Region	Xin Huan Huan Ping Han [2019] No. 463	Under construction
		Xinjiang Zijin Zinc's vehicle repairing section project - used motor oil storage construction project	13 July 2019	Kizilsu Kyrgyz Autonomous Prefecture Ecology and Environment Bureau	Ke Huan Ping Han [2019] No. 32	Under construction
10	Guizhou Zijin Mining Co., Ltd.	Tailings extraction project for large and small mudflat at the tailings storage of the	9 July 2019	Department of Ecology and Environment of Guizhou	Qian Huan Shen [2019] No. 55	Under construction

		Shuiyindong Gold Mine		Province		
11	Xinjiang Habahe Ashele Copper Co., Ltd.	No. IV construction-used sand ore project in Jiamankuoyitasi, Kuleibai Township, Habahe County	5 August 2019	Altay Region Ecology and Environment Bureau	A Di Huan Han [2019] No. 113	Self-acceptance check completed in November 2019
12	Longnan Zijin Mining Co., Ltd.	10,000 t/d mining and processing project of the Liba Gold Mine	5 December 2019	Department of Ecology and Environment of Gansu Province	Gan Huan Shen Fa [2019] No. 30	Under construction
13	Luoning Huatai Mining Development Co., Ltd.	Slag storage project of the Luyuangou Gold Mine (Changling and Liegou slag storage yard project)	28 August 2019	Luoning County Ecology and Environment Bureau	Ning Huan Ran Biao [2019] No. 07	Under construction
14	Xinjiang Jinbao Mining Co., Ltd	Construction project of windproof and dust resistant net for iron ore powder container	15 May 2018	Fuyun County Environmental Protection Bureau	Fu Huan Deng Zi [2018] No. 5	Self-acceptance check completed in May 2019
		Transformation and expansion project of wastewater treatment plant	18 November 2019	Altay Region Ecology and Environment Bureau	A Di Huan Han [2019] No. 192	Under construction
15	Yuanyang Huaxi Gold Co., Ltd.	450t/d mining and processing expansion project of Yuanyang Huaxi Gold Co., Ltd. (amended)	28 February 2017	Department of Environmental Protection of Yunnan Province	Yun Huan Shen [2017] No. 11	Self-acceptance check completed in January 2019
16	Fujian Zijin Copper Co., Ltd.	Energy saving technological upgrade project of Fujian Zijin Copper	16 July 2018	Longyan City Environment Protection Bureau	Long Huan Shen [2018] No. 88	Self-acceptance check completed in July 2019
17	Fujian Jinshan High-abrasive Material Co., Ltd.	Rolling steel ball production line project	16 July 2019	Longyan City Ecology and Environment Bureau	Long Huan Shen [2019] No. 265	Self-acceptance check completed in October 2019
18	Kuitun Tongguan	Intensive treatment project for externally	31 October 2019	Ili Kazakh Autonomous	Ili Huan Han [2019] No.	Under construction

	Metallurgical and Chemical Industry Co., Ltd.	discharged water		Prefecture Ecology and Environment Bureau	20	
19	Wenshan Malipo Zijin Tungsten Group Co., Ltd.	Hidden dangers rectification project for the flood drainage system of Yanjiao tailings storage	2 July 2019	Malipo Sub-bureau, Wenshan Prefecture Ecology and Environment Bureau	Ma Huan Shen [2019] No.10	Under construction

5.2 Application status of pollutant discharge permits

As at 31 December 2019, all copper refining and lead and zinc refining branch companies (subsidiaries) of the Company applied for and obtained new version of pollutant discharge permits from local environmental protection administrative authorities in accordance with their respective refining industry and the approved technological specifications.

Pursuant to the requirements of local environmental protection administrative authorities, mining enterprises and precious metal refining enterprises will prepare the necessary information for applying for new pollutant discharge permits and will complete the application for new version of pollutant discharge permit as scheduled in accordance with “Administrative Measures for Pollutant Discharge Permits (Tentative)”, “Catalogue of Classified Management of Pollutant Discharge Permits for Stationary Pollution Sources (2019 Edition)” and other laws and regulations.

5.3 Emission of pollutants within regulatory limits

In 2019, according to the supervisory monitoring reports about the sources of pollution and regular monitoring data of the enterprises issued by environmental protection monitoring agencies delegated by the branch companies (subsidiaries), the wastewater, air emission and noise at plant boundary produced by the branch companies (subsidiaries) received standardised management, and their emission was stable and within regulatory standards.

Key pollutants discharged by the Company in 2019

Type of pollutant	Pollutant emission factor	Unit	2019
Water pollutant	COD	Tonne	346.33
	Ammonia nitrogen	Tonne	14.43
	Zinc in total	Tonne	0.40
	Copper in total	Tonne	0.60
Air pollutant	Sulphur dioxide	Tonne	1,380.71

	Nitrogen oxides	Tonne	957.17
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Note: Statistical data of 2019 include both the operating entities within and outside the PRC

5.4 Payment of environmental protection tax

In 2019, the branch companies (subsidiaries) strictly followed the declaration system of environmental protection tax and paid the environmental protection tax in full amount according to the laws.

5.5 Regulating discharge outlets and automatic monitoring

5.5.1 Regulating discharge outlets

Signboards displaying the name of pollutant discharging entity, type of the outlets, reference number of the outlets, key pollutants discharged from the outlets, etc., are placed at the gas and wastewater discharge outlets and major sources of noise of the branch companies (subsidiaries).

5.5.2 Automatic monitoring of discharge outlets

The Company requires its branch companies (subsidiaries) to strictly carry out online monitoring and supervision. Professional independent institutions are engaged for operating and maintaining major online monitoring instruments for gas and wastewater discharge outlets to ensure the stable operation of online monitoring and achieve real-time networking with provincial, municipal and county-level environmental protection authorities.

5.6 Treatment and disposal of general industrial solid waste and hazardous waste

The major kinds of industrial solid waste generated from mining and processing operations are waste rocks and tailings. In order to raise the comprehensive utilisation rate of resources, apart from using the waste rocks in underground filling or storing in waste rock dumps, most of the enterprises have conducted comprehensive utilisation project on waste rocks in order to use the waste rocks for project construction or recovery of valuable metals. Apart from lawful storage of tailings at tailings storages, a number of the Company's enterprises are experienced in applying the technique of back-filling with tailings. They have built filling stations to use the tailings for back-filling of goaves. The objectives are to relieve the pressure of tailings storages, effectively control and manage the underground goaves, and secure production safety.

The main solid wastes from refining business include cyanide slag generated from gold refining, lead filter cake, white smoke and dust, arsenic filter cake, telluride copper slag and other hazardous wastes generated from copper refining, and lead and silver slags, iron and vanadium slags and other hazardous waste generated from lead and zinc refining. In order to further lower the environmental risks, refining enterprises carry out recycling and harmless treatment projects to raise the comprehensive utilisation of waste. Luoning Zijin invested RMB15 million in a cyanide slag harmless treatment project to reduce the cyanide volume in cyanide slags. Bayannur Zijin invested RMB216 million in comprehensive resources utilisation and harmless treatment technological project for slag from leaching of marmatite in hydrometallurgy in order to realise full recovery of valuable metals in refining slags. Zijin Copper invested RMB159 million in the copper refining resources comprehensive utilisation and harmless treatment project to achieve the harmless disposal of arsenic-containing smoke, dust and sludge.



The comprehensive resources utilisation and harmless treatment technological project for slag from leaching of marmatite in hydrometallurgy of Bayannur Zijin entered into the production stage on 29 September 2019. After the project reaches the designated production capacity, full recovery of valuable metals in the refining slag can be achieved, turning hazardous waste into general solid waste which can be used as construction raw materials. Turning waste into usable resources can be realised.



The copper refining resources comprehensive utilisation and harmless treatment project of Zijin Copper entered into pilot production stage on 15 December 2019. The harmless disposal technology of arsenic-containing smoke, dust and sludge, which is developed by Central South University and Zijin Mining and Metallurgy Research Institute and has an independent intellectual property right, is adopted in the project. Its mineralisation technique, ferric

arsenate technique and equipment have no reference model home and abroad. It is the first industrial application of harmless disposal of arsenic-containing materials home and abroad, meeting the latest and strictest domestic harmless disposal requirements for arsenic-containing materials in China.

In 2019, the branch companies (subsidiaries) of the Company safely disposed of or comprehensively utilised general industrial solid waste and hazardous waste. Details of which are set out below.

Major pollutants discharged by the Company in 2019

Nature of solid waste	Type	Unit	2019	
			Disposal volume	Comprehensive utilisation volume
General solid waste	Tailings	million tonnes	56.1349	13.285
	Waste rock	million tonnes	254.8106	45.8864
	Domestic refuse	thousand tonnes	7.1	-
Hazardous waste	HW48 non-ferrous metal smelting waste	thousand tonnes	248.4	67.1
	Used motor oil	thousand tonnes	0.409	0.666

Note: Comprehensive utilisation: including the waste which was recovered and comprehensively utilised by the Company's enterprises or external parties; Disposal: including the waste which was lawfully disposed of, retained or combusted by the Company's enterprises or external parties.

5.7 Implementation of clean production

The Company extensively promotes the use of high-efficiency, low-energy consumption production methods within the Group, encourages upgrade of production techniques, elimination of outdated capacities, and elimination and reduction of pollutants from the source. The Company also actively carries out clean production according to the requirements of local administrative authorities. At present, all of the Company's domestic mines and refining enterprises in production passed the clean production assessment. During the reporting period, Zijin Copper passed the second round of clean production assessment and evaluation on 2 February 2019; Jilin Zijin Copper passed the first round of clean production assessment and evaluation on 28 February 2019; Hunchun Zijin passed the fifth round of mandatory clean production assessment and evaluation in November 2019; Zijin Zinc in Xinjiang passed the first round of clean assessment and evaluation on 6 December 2019.

5.8 Formulation and implementation of environmental risk and emergency response policies

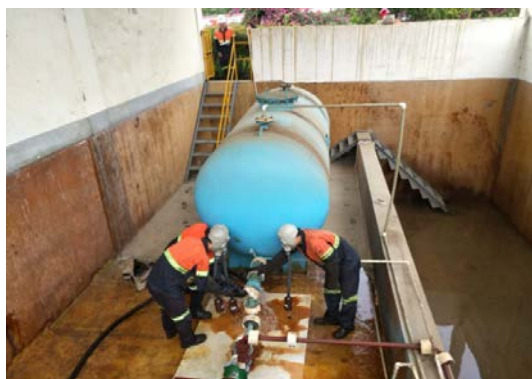
Zijin Mining attaches great importance to environmental risk and emergency response work. In December 2018, the Company amended the “Zijin Mining Group Co., Ltd.* Emergency Plan for Environmental Incidents” to enhance the pertinence and operability of the plan. The branch companies (subsidiaries) have implemented environmental risk assessment and formulated their respective emergency plans for environmental incidents and various types of special emergency plans according to their production techniques, pollution-intensive production processes and environmental risks pursuant to the relevant requirements of emergency plan for emergency environmental incidents of the countries or regions where they are situated. The emergency plans are reported and filed to the local environmental administrative authorities according to the regulations. Furthermore, each branch company (subsidiary) has established its own emergency relief division led by the general manager of the enterprise and regularly organises emergency drills on different environmental emergency incidents, so as to enhance the abilities in prevention and handling of emergency environmental incidents as well as employees’ actual implementation ability.



Special emergency drill for sulphur dioxide leakage held by Zijin Copper



Emergency drill for used motor oil leakage held by Jilin Zijin Copper



Emergency drill for nitric acid leakage held by Guizhou Zijin



Emergency drill for liquid ammonia leakage held by Fujian Zijin Copper



Emergency drill held by Luoning Huatai



Emergency drill held by Luoning Zijin



Comprehensive emergency drill for safety and environmental protection held by Zeravshan



Emergency rescue drill for tailings pool flood control held by Xinjiang Jinbao



The ambulance team of the Zijinshan Gold and Copper Mine passed the assessment of superior quality standard

5.9 Promotion for environmental protection



On 16-17 May 2019, Zijin Zinc successfully held the 2019 Xinjiang Mining Development cum Eco-mine Construction Summit Forum, demonstrating its achievements of eco-development in southern Xinjiang, participating in eco-development events and sharing eco-construction experience together with more than 200 enterprise representatives from Xinjiang, and jointly contributing to the development of eco-mine construction.



On 21 May 2019, Zijin Mining organised a charitable education campaign for science popularisation on the 50th Earth Day with the theme of “Cherish the beautiful earth and protect natural resources” in Zijin Secondary School.



In June 2019, the 27th International Conference of Ecological Truth and Environmental Research was held at Jezero Hotel of Zijin Bor in Serbia. More than 80 environmental experts and scholars from 15 countries participated in the conference. Zijin Bor introduced Zijin Mining’s environmental protection concepts to the guests, advocated eco-development, emphasised that the Company never pursues enterprise development at the expense of the environment, and that it will be committed to environmental protection innovation and technological application to develop eco-mines in the long run. The experts and scholars participated in the conference expressed their appreciation for the eco-development concepts advocated by Zijin Mining.



In July 2019, Rakita in Serbia continued to carry out the annual environmental protection activity with the theme of “Cleaning the Brestovac River”, and organised an educational session and a quiz on environmental protection for local teenagers and children.



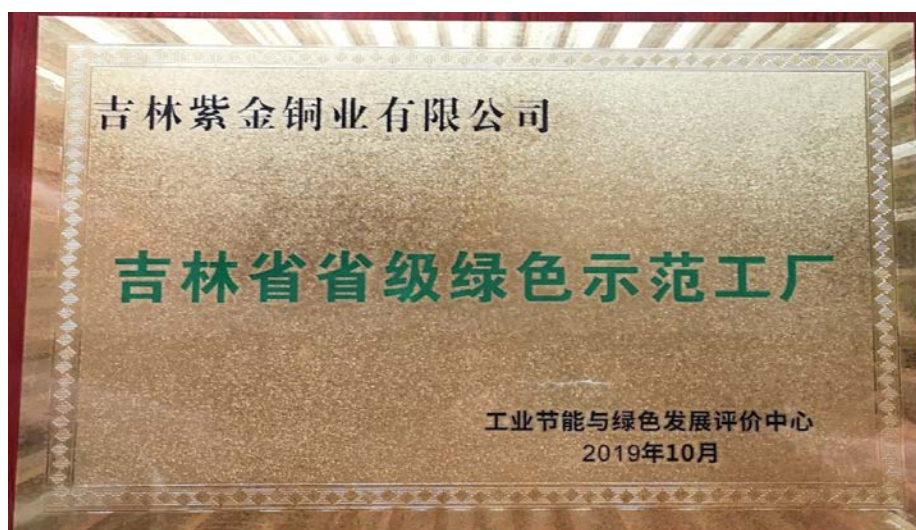
From 5 June to 4 July 2019, Zijin Mining organised the ninth “Environmental Safety Month” campaign with the theme of “Let’s take actions to build a beautiful Zijin”. Each branch company (subsidiary) of the Company carried out a series of activities including environmental protection quiz games, fish breeding and releasing, emergency drills for emergency environmental incidents and environmental protection knowledge training.

5.10 Awards received for environmental protection

In March 2019, the Zijinshan Gold and Copper Mine, Zijin Copper Co., Ltd. and Fujian Zijin Copper Co., Ltd. were awarded the title of “Enterprise with Standardised Treatment of Hazardous Waste” for the year 2018 by Shanghang Ecology and Environment Bureau of Longyan City.



In March 2019, Qinghai West Copper Co., Ltd. was awarded the honourable title of “Environmental and Social Responsible Enterprise of 2019” by China Environment News. On 11 June 2019, China Environment News specifically reported West Copper’s achievements for carrying out ecological and environmental protection work on a plateau at an altitude of more than 4,100 metres.



In 2019, a total of 9 enterprises of Zijin Mining were included in the list of national green mines, namely Guizhou Zijin, Ashele Copper, the Zijinshan Gold and Copper Mine, Wuping Zijin, Xinjiang Jinbao, West Copper, Shanxi Zijin, Yuanyang Huaxi and Luoning Huatai; and 3 enterprises were selected as provincial green factories, namely Zijin Zinc in Xinjiang, Jilin Zijin Copper and Luoning Zijin.



In November 2019, Zijin Copper was selected as the first batch of national industrial product eco-design model enterprise by the Ministry of Industry and Information Technology of the PRC. In December 2019, Zijin Copper was awarded the title of “Leading Enterprise of Eco-development in China’s Non-ferrous Metal Industry in 2019”.

In December 2019, West Copper was included on the list of national green mines in 2019, which was one of the 11 mining enterprises in Qinghai Province being included on the list.



In December 2019, Alтынкен received a gratitude award from the State Inspection Office for Environmental and Technical Safety of Tokmok District in recognition of its achievements in ecological and environmental protection.

6 About the report

6.1 Information of the Company's branch companies and subsidiaries covered in the 2019 Environmental Report

The information disclosed in this report covers the operational or production-type branch companies (subsidiaries) of the Company (including branches, wholly-owned and non-wholly owned subsidiaries), which engage in mining, processing and refining businesses.

6.2 Period covered by the 2019 Environmental Report

This report covers the period from 1 January 2019 to 31 December 2019.

6.3 Third-party verification on environmental data disclosure

This report was prepared in accordance with the requirements of the "Guidelines for Environmental Information Disclosure of Listed Companies" and "Guideline for Drafting on Corporate Environmental Report (HJ 617-2011)". Upon third-party verification by Beijing Larkworld Environmental Technology Incorporated Company, and review by the Production Safety Committee of the Company, the report was submitted to the Board of Directors for approval and public disclosure.

6.4 Warranty and commitment to enhance the accuracy and reliability of the 2019 Environmental Report

Zijin Mining hereby warrants that the information disclosed in this report are truthful, accurate and reliable.

6.5 Form of publication of the 2019 Environmental Report

The 2019 Environmental Report of Zijin Mining Group Co. Ltd.* will be published on the Company's official website. The report can be read online or downloaded at www.zjky.cn.

6.6 Opinion and feedback channels

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7 Conclusion

The year 2020 marks the 10th anniversary of the “7.3” emergency environmental incident of Zijin Mining. Zijin people take the shameful lesson by heart, but also face the past squarely and bravely. A “warning stele” was erected at the spot of the incident, and every July is designated as the “Environmental Safety Month” of the Company. Only hardships would reveal one's perseverance and courage; only polishing would make a jade shine. Zijin Mining always upholds the ecological and environmental protection belief of “green mountains and clear water are our invaluable assets”, attaches great importance and actively promotes eco- and high-quality development.

Zijin Mining issued the “Plan for Comprehensively Enhancing Eco-Mine Development”, and set up “Special Fund for Eco-mine Development” to fully push forward eco-mine development. A batch of mines including the Zijinshan Gold and Copper Mine and the Xinjiang Ashele Copper Mine were promoted as the models of national green mines. At present, Zijin Mining has become a crucial participant in eco-development under the “Belt and Road Initiative” and an important enterprise implementing internationalisation and sustainable development in the mining industry.

Faced with adversities, we will always remember our original aspiration; blooming in spring and harvesting in autumn, we will build on the past and move forward into the future. “Contributing to the society by the development of mining industry” is the original aspiration and mission of Zijin people, while a shared eco-development is the core value of Zijin people.

In 2020, Zijin Mining will continue to implement its eco-development belief, focus on development of ecological civilisation and harmonious community, devote to the “Belt and Road Initiative” and accelerate the pace of internationalised development. The Company will continue its endeavour in achieving ecological and environmental protection based on high standards, explore the solutions to global ecological and civilisational development of the mining industry, and overcome difficulties and challenges to build up a community with shared future!