

CORPORATE SOCIAL RESPONSIBILITY REPORT

2019



 浙江华友钴业股份有限公司
ZHEJIANG HUAYOU COBALT COMPANY LIMITED

About the Report

Menu

Scope of Report

The present report is the 5th corporate social responsibility report issued by Zhejiang Huayou Cobalt Co., Ltd. The information and data mainly cover various corporate social responsibility practices of the Company from January 1, 2019 to December 31, 2019. Based on the continuity and comparison of the report, some data and information are not limited to 2019. The scope and content of this report have not changed significantly from the period of the fourth report released in May 2019.

Preparation Principles

This report is prepared with reference to the GRI Standards issued by the Global Reporting Initiative (GRI), and the Environmental, Social and Governance (ESG) Reporting Guide, by combining the United Nations Sustainable Development Goals (UN SDGs) and ISO26000/GB/T36000-2015 (Guidance on Social Responsibility). This report conforms to the relevant requirements stipulated in the Notice of Shanghai Stock Exchange on Strengthening the Social Responsibility Assumption of Listed Companies and Issuing the Guidelines for Environmental Information Disclosure of Listed Companies released by Shanghai Stock Exchange.

Content Selection

In preparing this report, the Company followed the GRI Standard principles of stakeholders' participation, sustainable development background, substance, integrity, balance, comparability, accuracy, timeliness, clarity and reliability, and made representations from the perspectives of economy, society and environment. The Company also followed the reporting principles of importance, quantification, balance and consistency specified in the ESG Reporting Guide, disclosed relevant contents required in Parts A, B and C, and highlighted the Company's responsibilities in labor practice, human rights management, environmental management, business ethics management, responsible supply chain management, product responsibility and public welfare management. The data and information collection herein is carried out in accordance with the procedures required by GRI Standard, ESG Reporting Guide and the Company's existing workflow. To improve the credibility of this report, the Company commissioned Bureau Veritas for third-party report verification.

Release Mode

The report is released once a year in both print and online forms. The online version is available on our website (www.huayou.com). The report is prepared in both Chinese and English, and the Chinese version shall prevail in case of any ambiguity in understanding the text of the two versions.

Description of Reference

In this report, Zhejiang Huayou Cobalt Co., Ltd. is referred to as "Huayou Cobalt" or "the Company" which can refer to the whole group or Tongxiang Factory regarding production index design; Quzhou Huayou Cobalt New Materials Co., Ltd. is referred to as "Quzhou Huayou"; Quzhou Huayou Resource Regeneration Technology Co., Ltd. is referred to as "Resource Regeneration"; Huayou New Energy Technology (Quzhou) Co., Ltd. is referred to as "Huayou New Energy"; Quzhou Huahai New Energy Technology Co., Ltd. is referred to as "Huahai New Energy"; Congo Dongfang International Mining Sprl is referred to as "CDM"; La Miniere De Kasombo SAS is referred to as "MIKAS"; Huajin New Energy Materials (Quzhou) Co., Ltd. is referred to as "Huajin"; Zhejiang Huayou Posco New Energy Materials Co., Ltd. is referred to as "Huayou Posco"; PT. HUAYUE NICKEL COBALT is referred to as "Huayue"; Zhejiang Huayou Recycling Technology Co., Ltd. is referred to as "Huayou Recycling"; and Zhejiang Huayou Electric Power Technology Co., Ltd. is referred to as "Huayou Electric Power".

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The Chairman's Speech

2019 was a difficult year for Huayou and a year for Huayou to rise to the challenge, overcome the difficulties and make good achievements, which has laid a solid foundation for the completion of the 2020 goals and tasks and created favorable conditions for the realization of "13th Five-Year Plan" targets.

In 2019, we got through the severe challenges arising from industry adjustment and drastic market changes of cobalt new materials and lithium battery materials. Cobalt and copper production and sales set a record, major breakthroughs were made in product research and development, and operating income hit a new high; so that our position in the industry was further strengthened.

In 2019, we got through the severe challenges arising from heavy implementation, construction and development tasks of domestic and foreign projects. A number of self-built and cooperative projects in the DRC, Indonesia, Tongxiang and Quzhou have either been successfully promoted or completed; and the ecology of the entire industrial chain of lithium battery materials has basically taken shape.

In 2019, highlighting three major sectors of "environmental protection, safety and fire fighting", we further promoted the establishment of a responsible cobalt supply chain management system, participated several international summits and forums as invited, and successfully held the fourth Annual International Conference. Huayou is growing into a respected company.

All past efforts will contribute to a better future. For Huayou, 2020 is the closing year of the 13th Five-Year Plan, the key year to move towards "the Belt and Road Initiative" and the planning year of the 14th Five-Year Plan. Properly completing "13th Five-Year Plan" and planning for the "14th Five-Year Plan" are the mainstream throughout the year.

In 2020, we will improve our management ability in the changing management environment. We will focus on mainstream markets, mainstream customers, mainstream products, to improve the three major factors of quality, cost and benefit, proceed the competitive strategy of product leadership and cost leadership, fully implement the management idea of "expanding the market, stabilizing the operation, emphasizing research and development, and strengthening the guarantee", enhance the market development capability, scientific and technological innovation capability, safety and environmental protection capability, and value creating capability, and ensure the realization of the 13th Five-Year Plan targets.

In 2020, we will broaden our living space under the general trend of opening up and cooperation. So we will capture the new features of opening up and cooperation in the new era, adhere to the development mode of industrial agglomeration, enterprise cluster, zonation and integration, and make every effort to build Indonesia Huayue Project, to build the project into a modern manufacturing base with advanced technology and leading environmental protection, thus consolidating the Company's resource base and supporting the Company's future development.

In 2020, we will plan development strategies at the key stage of transformation and upgrading. At the turning point between the 13th Five-Year Plan and the 14th Five-Year Plan, and the key stage of the Company's transformation and upgrading, we shall conscientiously sum up the strategic practices of the 13th Five-Year Plan, thoroughly investigate the industrial planning of the 14th Five-Year Plan, pave way for future development from historical experience, master the progress direction in the environmental background, enhance the strategic management capability in strategic practices, and finally realize the Company's high-quality sustainable development.

When welcoming the arriving 2020 with full expectation, we met a sudden and menacing COVID-19 epidemic. We made decisive decisions, acted quickly and implemented various epidemic prevention measures, thus protecting the life safety and health of employees and ensuring the stable production and orderly operation of the Company. We firmly believe that, under the strong leadership of the Communist Party of China, we will overcome the epidemic, and that 2020 will be wonderful as well.

Walking on the bumpy road and Fighting under the dangerous circumstances.

Chairman of Zhejiang Huayou Cobalt Co., Ltd;

March, 2020

Introduction of Huayou



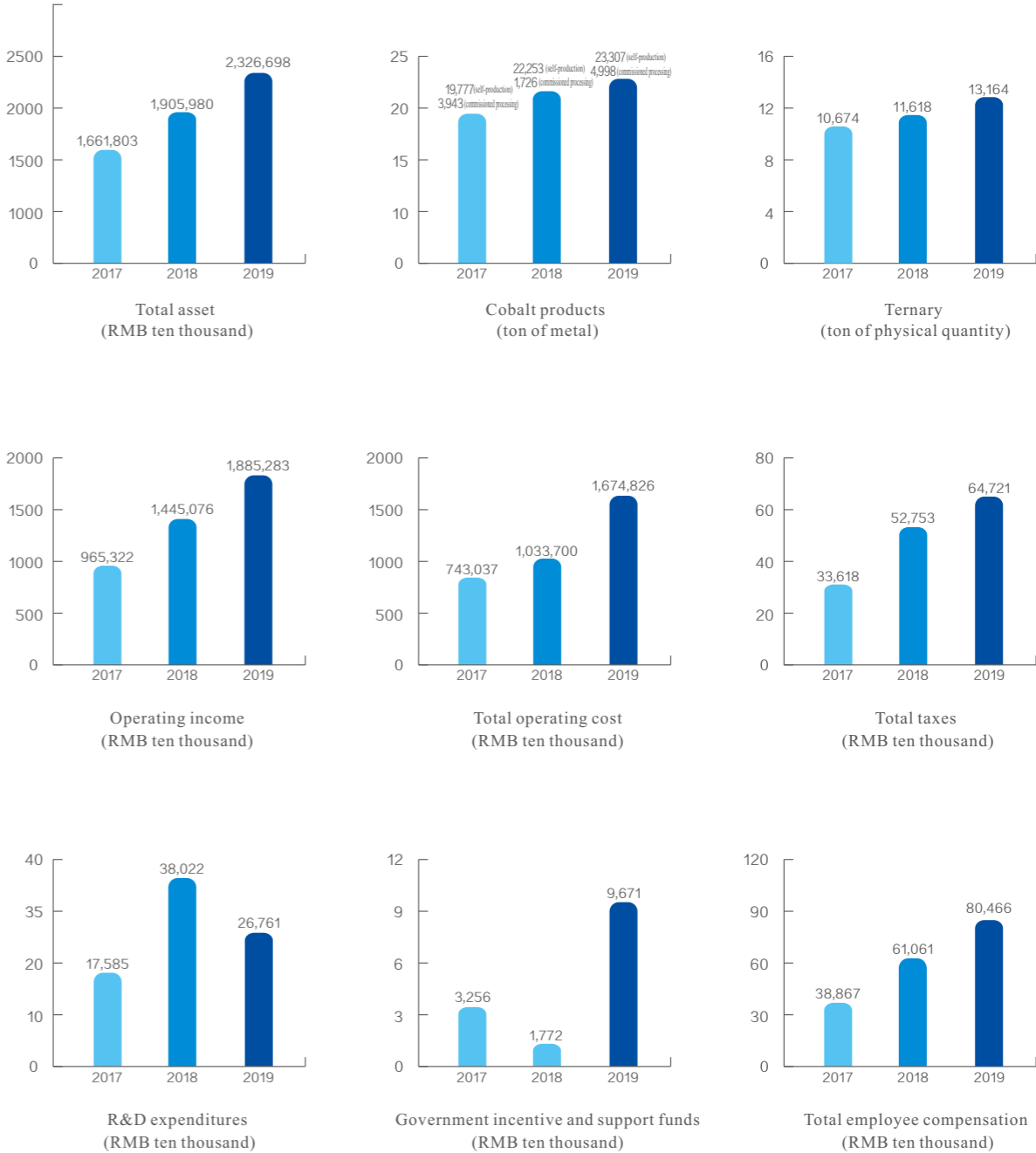
Introduction of Huayou

Zhejiang Huayou Cobalt Co., Ltd. (hereinafter referred to as "Huayou Cobalt" or "the Company") is a high-tech enterprise specializing in the manufacture of new energy materials for lithium battery, deep processing of new materials for cobalt and mining, processing and smelting of non-ferrous metals, such as cobalt and copper. The Company was established in 2002 and headquartered at No. 18, Wuzhen East Road, Tongxiang City, Zhejiang Province. Main products of Huayou Cobalt (including the holding joint venture company) are lithium cathode materials, precursors of lithium cathode materials, cobalt chemicals, copper and nickel metals, such as cobalt tetroxide, cobalt sulfate, nickel sulfate, cobalt chloride, cobalt hydroxide, electrolytic copper, and electrolytic cobalt. The Company was listed on the Shanghai Stock Exchange in 2015 with stock code 603799. Great Mountain Enterprise Pte. Ltd., the Company's largest shareholder, and Zhejiang Huayou Holding Group Co., Ltd., the second largest shareholder, are the Persons Acting in Concert. Over ten years of development and growth has enabled Huayou Cobalt to establish a spatial layout of "headquarters in Tongxiang, resource guarantee in Africa, manufacture base in Quzhou, and market in the world", and also a vertically integrated industry structure combining the mining, dressing, smelting and new materials' deep processing, which is guaranteed by self-owned mineral resources, centering on cobalt new materials and supplemented by copper & nickel products.





Business Review, 2017-2019



List of Honors Won in 2019

Award winner	Honorary title	Award unit
Huayou Cobalt	Key Talents Evaluation and Incentive Advanced Units (2018)	Tongxiang Municipal Committee of the Communist Party of China Talent Work Leading Group Office
Huayou Cobalt	Top Ten Highlighted Contributing Industrial Enterprises (2018)	CPC Tongxiang Municipal Committee; Tongxiang People's Government
Huayou Cobalt	Ten Best Cases of Zhejiang-Africa Economic and Trading Cooperation	[Department of Commerce of Zhejiang Province]
Huayou Cobalt	Top 20 Best Listing Companies of 2019 China Capital Annual Meeting A-Share	China Economic Net; China Business Network (CBN) Value Line Institute SSE Finance Office, the People's Government of Zhejiang Province People's Government of Huzhou City
Huayou Cobalt	2019 Cathode Raw Material Enterprise Heima Prize in 2019 China Cathode Material Industry Chain Selection	Wangcai New Media; Wangcai Cobalt Lithium Nickel; Wangcai Lithium Battery; Wangcai Electric Vehicle
Huayou Cobalt	2018 Top Ten Enterprises	Tongxiang Economic Development Zone (Gaoqiao Street)
Huayou Cobalt	2018 Top Ten Taxpayers	Tongxiang Economic Development Zone (Gaoqiao Street)
Huayou Cobalt	2018 Special Award of Merit for Investment Attraction	Tongxiang Economic Development Zone (Gaoqiao Street)
Huayou Cobalt	2018 Top Ten High-quality Cobalt Suppliers Enterprises in China's Cobalt and Lithium Industry Chain	Shanghai Metals Market Information Technology Co., Ltd.
Huayou Cobalt	Safety Production Standardization Level III Enterprise (Hazardous Chemical Production)	Emergency Management Agency of Jiaying
Huayou Cobalt	2018 Zhejiang Province Corporate Social Responsibility Outstanding Report Award	Zhejiang Association for Promoting Corporate Social Responsibility
Huayou Cobalt	Second Executive Director Unit	Zhejiang Promotion Association of Ecological Economy
Huayou Cobalt	China Association for the Promotion of Development Financing	Vice President Unit of China Association for the Promotion of Development Financing
Huayou Cobalt	2019 Top 30 Zhejiang Local Private Enterprises in Transnational Operation	Zhejiang Overseas Investment Enterprises Association
Huayou Cobalt	Vice President Unit of Zhejiang Chamber of Commerce, China Chamber of International Commerce	Zhejiang Chamber of Commerce, China Chamber of International Commerce
Huayou Cobalt	Top 100 Manufacturing Enterprises in Zhejiang Province	Zhejiang Provincial Enterprise Federation; Zhejiang Provincial Entrepreneur Association; Zhejiang Provincial Federation of Industrial Economics
Huayou Cobalt	Top 100 Fastest Growing Enterprises in Zhejiang Province	Zhejiang Provincial Enterprise Federation; Zhejiang Provincial Entrepreneur Association; Zhejiang Provincial Federation of Industrial Economics
Huayou Cobalt	Ranked 359 among Top 500 Private Enterprise in China Manufacturing Industries in 2019	All-China Federation of Industry and Commerce
Huayou Cobalt	China Top 100 Enterprises Award	China Business Top 100
Huayou Cobalt	Top 100 in Innovation Capability of High and New Technology Enterprises of Zhejiang Province 2019	Zhejiang Hi-tech Enterprise Association
Huayou Cobalt	Top 10 in New Material Technology Field of High and New Technology Enterprises of Zhejiang Province 2019	Zhejiang Hi-tech Enterprise Association
Huayou Cobalt	Second Vice President Unit	Zhejiang Automobile Industry and Technology Innovation Association

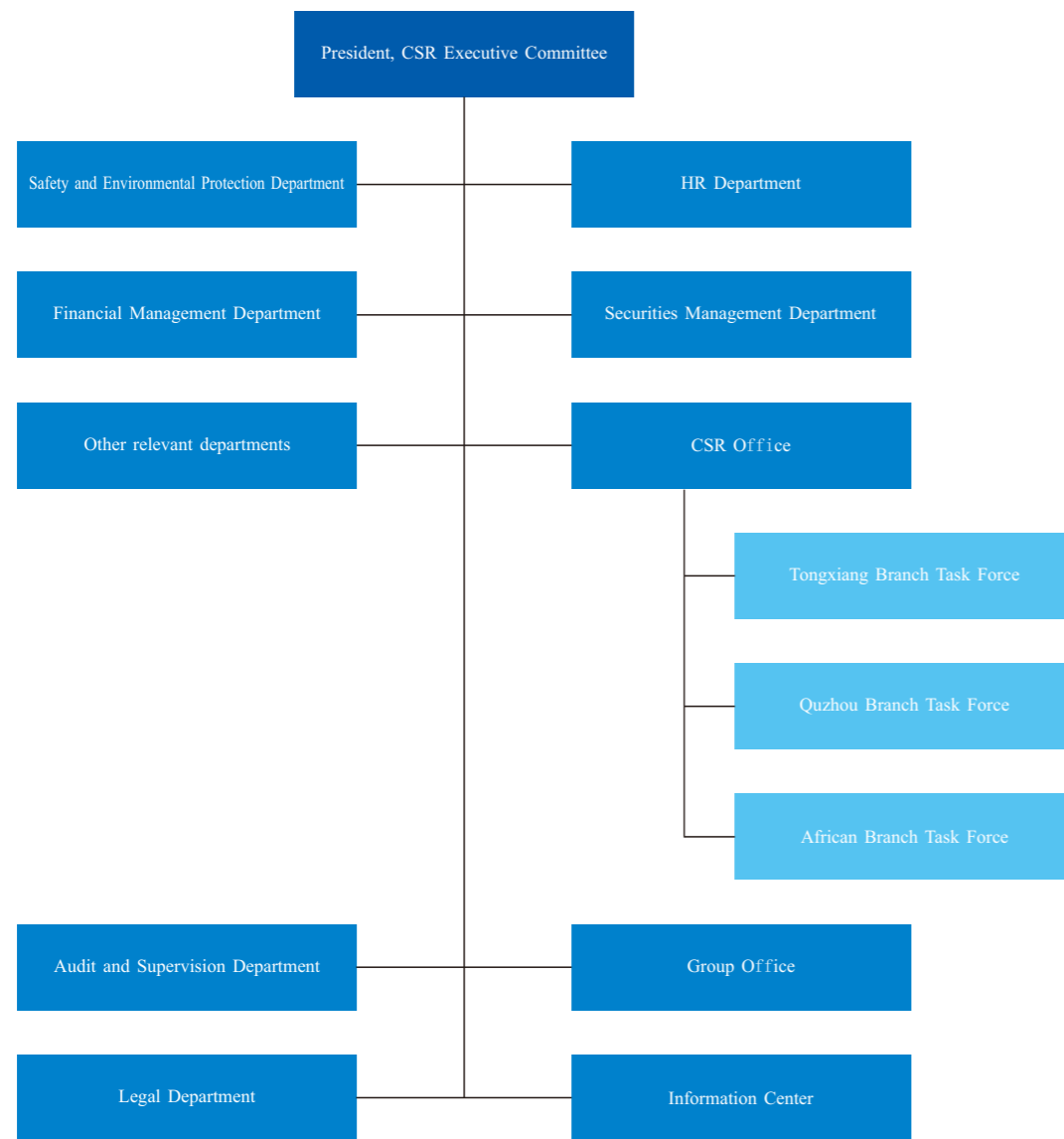
Award winner	Honorary title	Award unit
Huayou Cobalt	2019 Top Ten Highlighted Contributing Industrial Enterprises	CPC Tongxiang Municipal Committee; Tongxiang People's Government
Quzhou Huayou	2018 Quzhou Mayor's Special Award - Enterprise Investment Attraction Information	People's Government of Quzhou
Quzhou Huayou	Quzhou Municipal People's Government Quality Award 2018	People's Government of Quzhou
Quzhou Huayou	Second Prize of Social Contribution Award in 2018 Quzhou Mayor's Special Award	People's Government of Quzhou
Quzhou Huayou	Third Team Prize 2019 Quzhou Xin'an Cup Hazardous Chemicals Safety Production and Emergency Rescue Skill Competition	Bureau of Emergency Management of Quzhou; Quzhou Federation of Trade Unions
Quzhou Huayou	Quzhou Expert Workstation	Quzhou Municipal Committee of the Communist Party of China talent work leading group
Huayou Recycling	Typical Technology Cases for Recycling Retired Power Batteries in China	Alliance of Technological Innovation in Compulsory Resources Recycling Industry
Huayou Recycling	Vice President Unit	China Power Battery Recycling and Ladder Utilization Union
Huayou Recycling	2018-2019 Famous Resource Recycling Enterprise Award	China Electronic Energy Saving Technology Association New Energy and Energy Saving Automobile Industry Committee
Huayou Electric Power	2018-2019 Ladder Utilization Benchmarking Enterprise Award	China Electronic Energy Saving Technology Association New Energy and Energy Saving Automobile Industry Committee
Huayou New Energy	Third Prize of Zhejiang Excellent Industrial New Products (New Technologies) Project	Economy and Information Technology Department of Zhejiang, Zhejiang Provincial Department of Finance
Huayou New Energy	Second Prize for Excellent Technical Standard Award	National Technical Committee on Nonferrous Metals of Standardization Administration of China,
Huayou New Energy	Zhejiang Patent Gold Award	Zhejiang Provincial Market Supervision and Administration
Huayou New Energy	Municipal Key Enterprise Research Institute	Quzhou Science and Technology Bureau
Huayou New Energy	Provincial Enterprise Institute	Science Technology Department of Zhejiang Province
Huayou New Energy	Provincial High-tech Enterprise Research and Development Center	Science Technology Department of Zhejiang Province
Huayou New Energy	Zhejiang Excellent Manufacturer	Economy and Information Technology Department of Zhejiang
Huayou New Energy	Grade-III Safety Standardization Enterprise	Bureau of Emergency Management of Quzhou
Huayou New Energy	Zhejiang Digital Workshop Intelligent Factory	Economy and Information Technology Department of Zhejiang
Huajin	Quzhou International Investment Cooperation Demonstration Enterprise	Quzhou Business Bureau
Huajin, Huayou Posco	Zhejiang Major Industrial Projects	Zhejiang Provincial Development and Reform Commission, Department of Natural Resources of Zhejiang Province

Organization Governance



With the continuous expansion of the enterprise scale and the continuously explored industry, the Company is also increasingly influential at home and abroad. Becoming a responsible and respected enterprise has been put on the agenda. We will achieve proper corporate management to benefit the common people, give full play to our influence sustainably, emphasize corporate social responsibility, respond to national policies, and contribute to the common problems facing mankind.

Since the successful A-share listing of the Company in 2015, the Board of Directors of the Company has conducted corporate governance as a standard listed company. In 2016, as the company attached great importance to sustainable development, the Social Responsibility Office was specially set up and successively set up in the African regions. In addition to the Social Responsibility Task Force established in various industrial groups, an corporate social responsibility executive committee has also been set up, headed by the President and composed of leaders in charge of various relevant departments or department heads. The Corporate Social Responsibility Executive Committee is mainly responsible for the review of the corporate social responsibility strategic plan, the formulation of corporate social responsibility policies and principles, the release of corporate social responsibility (CSR) reports, the inspection and supervision of the promotion of corporate social responsibility plans. It is responsible for guiding the Responsible Mineral Supply Chain Office, determining the strategic direction of due diligence management, reviewing, supervising and approving relevant documents of due diligence management. It is also responsible for the implementing the resolutions of the Corporate Social Responsibility Executive Committee, preparing the Company's corporate social responsibility plan and work plan, coordinating related work on the Company's corporate social responsibility, performing daily management of corporate social responsibility work, compiling corporate social responsibility reports, and strengthening communication with stakeholders.



The Company has gradually formed its business philosophy in the process of operation, and established the belief of Huayou "Rooted in the China, Making Friends All over the World", the spirit of "Constantly Striving to Become Stronger in Pursuit of Excellence", the "opening up and insisting on keeping pace with the times", and the four principles of "being strategy-outlined, talent-oriented mechanism-driven and culturally-convoed". The Company has also formed the ideal of Huayou's career. That is, we must firmly focus on the "Two New Areas" of cobalt new materials and lithium new energy materials, take customers as the center to implement the competitive strategy of leading products and costs and the development ideas of Controlling the Resources Upstream, Developing the Markets Downstream, Enhancing the Capability in the Middle, and follow the strategic path of high-end products, industrial integration and operation internationalization, to constantly seize development opportunities, continuously improve our ability to control development, and become a global leader in new-energy lithium battery materials.

To support the Company's career vision, sustainable development strategies have been developed: 1. Safety and environmental protection is the top issues, compliance with laws and regulations, scientific management and user satisfaction; energy conservation, consumption reduction, cleaner production and up-to-standard discharge; people-oriented, prevention and control integrated, harmonious development. Minimize work-related accidents and diseases, and pay attention to providing workers with a safe and healthy working environment, improve the quality of products and services, ensure the continuity of production, enhance the stability and morale of workers. In the manufacturing process, adverse impacts on society, environment and natural resources shall be minimized while protecting public health and safety and sustainably improving the Company's environmental, health and safety performance. The role of industry leader shall be given full play, the Company shall advocate the concept of sustainable development jointly with suppliers and customers, and drive enterprises in the industrial chain to reduce the resource consumption and manufacture more environmentally friendly and renewable products. 2. Respect the labor and human rights of all employees; 3. Adhere to the highest form of business ethics.

When performing sustainable development work, the Company is mainly challenged by the increasing requirements of downstream enterprises for environmental protection, increasing pressure of environmental protection when the company expands its scale and fields, and the risk of child laborer in the supply chain. However, the Company's advantages in business ethics, human rights protection and labor practices are also becoming an opportunity for the Company to cooperate with its customers. For the risk of increasing environmental protection requirements, the Company mainly takes the following measures: (1) Promote the establishment of environmental management system for each subsidiary; (2) Strengthen the practice of circular economy, and establish recycling companies to recycle, reuse and recycle resources; (3) Improve the process, adopt new materials, and construction emissions and energy consumption; For the risk of child laborer in the supply chain, the Company mainly takes the following measures: (1) Conduct due diligence management of own supply chain; (2) Participate in industry solutions and actively prevent and control from the source.

In 2019, the Company, following the principle of being lean and efficient, adjusted and optimized the organizational structure, and improved the control system, which ensured the healthy operation of the Company's production, operations and other business activities. It also improved the structure of corporate governance and standardized the company operation.

The expansion of energy applications and the change of application mode have given birth to new-energy automobile. The core concept is to replace oil-fired generators with storage batteries, and thus promote the development of power battery industry. By the current view, this industry is basically featured by competitiveness and innovation. Competitiveness is mainly about the safety, cost performance and experience of batteries, and the recognition of consumers. Innovation means improving battery performance and reducing battery cost through technological progress. To improve competitiveness and enhance innovation power, it requires upstream and downstream interaction, and industrial chain cooperation of the battery industry; especially in the application of new technologies and the development of new materials, in-depth cooperation from resources, smelting, materials to batteries is necessary, to promote collaborative innovation, and to boost the development of new-energy automobile industry with high-quality and high-performance power batteries.

In the rapid development of new-energy automobile industry, we sense a worry in the industry: the upstream is worried about the stability of sales channels and lowered price; the downstream is worried about the support capacity of the supply chain and cost reduction. Such kind of worry has contributed to the opening up, cooperation and accelerated integration between the upstream and downstream. But it also shows that the new-energy automobile industry has not yet formed a stable, healthy and strong supply chain. Enterprises in the industry have the responsibility to create a healthy, safe, high-quality and sustainable supply chain through cooperation, to promote the healthy development of new-energy automobile industry.









Continuously optimizing and improving the corporate social responsibility system, and practicing the concept that build together win the future together promote the sustainable development of the Company more scientifically and efficiently.

Stakeholders' Participation and Materiality Analysis



Stakeholders' Participation

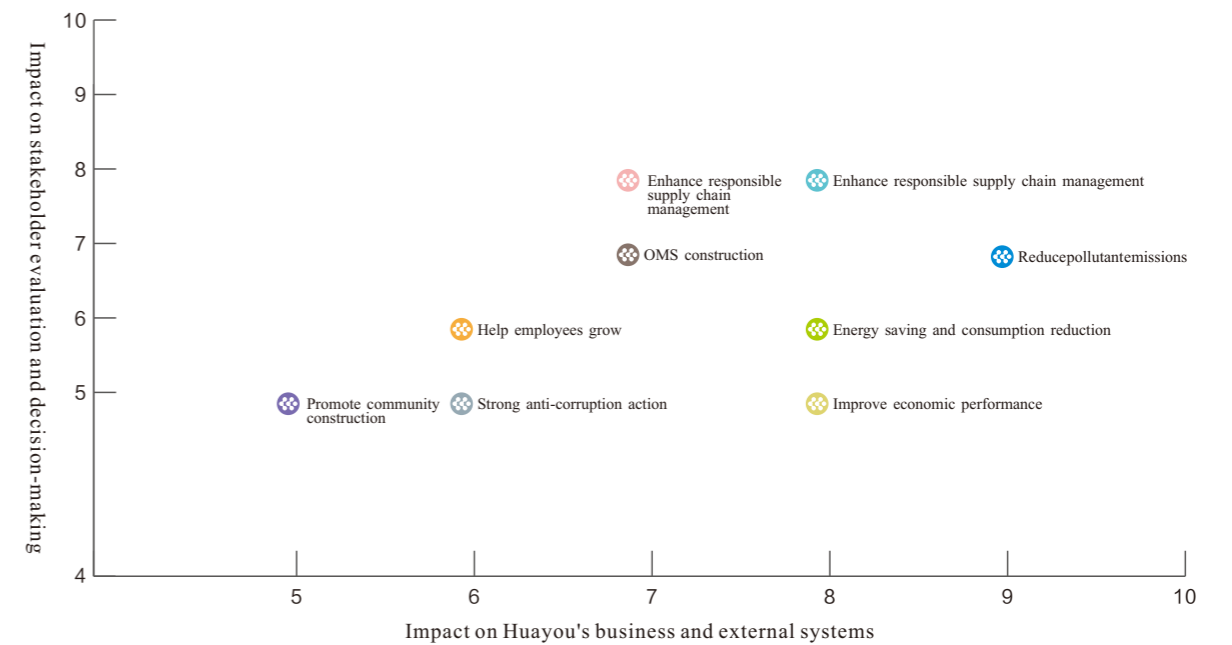
Since its establishment, the Company has attached great importance to sustainable development, as well as the cares and concerns of stakeholders. After the successful listing, the Company has increased the information transparency, communicated more closely with stakeholders, and continually met the expectations and needs of stakeholders. The Company has established various channels, such as telephone, mail, annual international conference, international forums, industry exchanges and visits, to strengthen communication with stakeholders.

Stakeholders	Communication method
 Customers	Mails, phone calls, field visits, teleconferences/video conferences, audits, questionnaires, annual international conference, web platforms
 Stockholders and investors	Financial reports, general meetings of shareholders
 Staff	E-mails, bulletin boards, annual summary and work conferences, intranet, web platforms
 Government and regulators	Phone calls, e-mails, meetings, documents, inspections, web platforms
 Suppliers and contractors	Supplier conferences, annual international conference, phone calls, e-mails, web platforms
 Media and NGOs	Telephone calls, documents, e-mail, meetings
 Trade associations/initiatives	Phone calls, e-mails, meetings
 Communities	Phone calls, visits, surveys

The Company analyzed the concerns of stakeholders obtained through these channels; by referring to the substantive issues of concern in 3C (mobile phone, computer, battery) and EV (electric vehicle) industries closely related to itself, the Company sequenced these substantive issues in combination with the actual operation of the Company, and then figured out the issues of this report and their priorities. To promote sustainable development management and timely acquire and respond the needs of stakeholders, we manage substantive issues in a targeted manner to facilitate an effective identification and improvement of relevant areas. Substantive issues include issues that have an impact on business operations and issues of concern to stakeholders. Huayou brings all issues into an issue matrix, which is respectively reflected by the impact on stakeholder evaluation and decision-making (vertical priority) and the impact on Huayou's business and external systems (horizontal priority).



Substantive Issues Analysis Matrix



Labor Practice and Human Rights

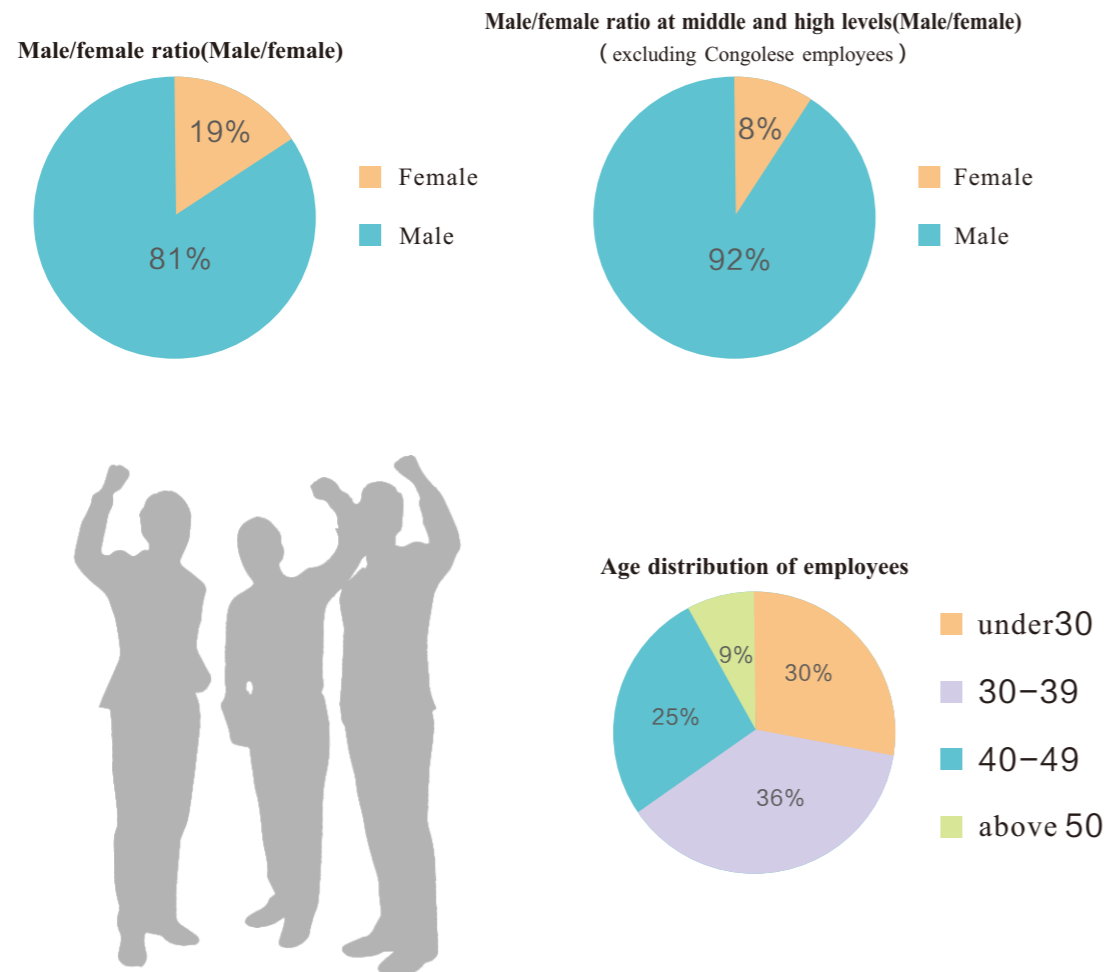


Diversified team

With the deepening internationalization of Huayou's business, the composition of employees has also become more diversified. The Company insists on the principle of "equality, fairness and impartiality" and provides employment opportunities for people of different nationalities, races, genders, ages and educational backgrounds. The Company has 6,936 employees from 4 different countries, different skin colors and 13 different nationalities, of whom 5,962 are male and 974 are female which accounts for 14.04%. There are 162 R&D personnel (accounting for 2.33%), 10 employees with doctoral degree, 213 employees with master's degree, 1,420 employees with bachelor degree, 1,226 employees with college degree, and 4,067 employees at and below high school degree. There are 2,238 employees aged below 30, 2,484 aged 30-39 and 1,751 aged 40-49. Among 310 middle-level and above management personnel, 31 are female managers, accounting for 10%. Foreign employees in the Company account for 30.69%, of which 2,746 are employees in African branches, and 2,127 are employees in Congo branches. So the localization rate of foreign employees is 77.46%. The Company employs one disabled person, accounting for 1.44 and had 1,975 new employees in 2019.

The excellent diversified workforce strongly supports the sustainable development of the Company. All employees work hard in own posts and contribute to Huayou's 100-year cause.

The Company respects and upholds the International Human Rights Law, strictly observes national and local laws, and establishes a standardized employment system.



Free choice of employment

The Company will objectively introduce the recruitment information, including the Company's profile, remuneration and benefits, working environment and labor protection, and basic conditions for office holding; so that job seekers can have an objective and true understanding of the Company and make choice freely. In 2019, the signing rate of the Company's labor contract was 100%.

Equal employment

Equal opportunities and no discrimination: The selection of job seekers can be given equal opportunities for job application as if the labor and employment conditions stipulated by the State are met. In any process of selecting candidates, there is no discrimination regardless of the race, skin color, nationality, religion, age, disability, sex, marital status, sexual orientation, discriminatory medical examination, membership in trade unions or political affiliation of job seekers.

Legal employment

Child laborer is strictly prohibited and various effective measures are taken to prevent misuse of child laborer (such as verification of identity documents and age); the use of debt (including debt slavery), slavery, prisons or indentured labor is strictly prohibited; and human trafficking is resolutely resisted. The Company did not employ or mistakenly recruit child laborer in 2019.

Standardized management

The Company continuously improves, optimizes the human resources management system, protects the legitimate rights and interests of employees, protects the health and safety of employees, against forced labor, and against occupational discrimination. In 2019, the Company had no discrimination event.

The Company issues labor practices and human rights policies, conducts annual policy reviews, continuously improves and optimizes relevant policies, commits to respect the labor rights and human rights of all employees, and requires our suppliers to respect the labor rights and human rights of all their employees. Specifically, in the free choice of employment and equal employment, legal employment, regulatory management and non-forced labor, working hours, remuneration and benefits, communication and complaints, freedom of association and collective bargaining were clearly stated.

With regard to the diversity of management culture, the company has formulated management systems and processes such as Local Employee Welfare Standards, Christmas Benefits for Local Employees and Education Allowance for DRC Employees in accordance with the different legal requirements and social and cultural characteristics of overseas companies, so as to effectively protect the legitimate rights and interests of overseas employees.

Employee Development and Care

The company is committed to providing an equal, fair, diversified working environment, everyone is treated fairly at work, regardless of race, age, sex, religion, beliefs and other factors, and fair opportunities for employment will be given based on the ability of employees.

The company insists on people-oriented, pays attention to personnel's ability promotion and the career development, provides the vocational training and the development channel for the staff, to realize common growth and development of both the company and staff's.

In 2019, Huayou's human resources efforts remained be strategy-oriented, problem-oriented and goal-oriented, with the focus on the four major themes of consolidating the foundation, reducing costs and increasing efficiency, innovation and change, and organizational empowerment. To implement the striver-oriented concept of human resources, Huayou in 2019 focused on promoting the existing team to improve the management quality, accelerating the integration and contribution of new cadres, and echelon talent training and selection of college students, to promote the steady growth of business operation with high quality, efficiency and effect.

As a training base for outstanding employees, Huayou Cobalt Management College realizes the precipitation, management, dissemination and innovation of enterprise internal knowledge, enables enterprise staff to know more knowledge at lower cost and learn more quickly, and cultivates an excellent team of internal trainers and tutors, which rapidly promotes the transformation of the enterprise into a learning enterprise and enhances the core competitiveness of the enterprise.

2017-2019 Statistics Table of Training Performance

Item	2017	2018	2019
Employee training hours (hours)	73,551	227,952	116,214
Average training hours for employees (class hours/person/year)	/	/	16.75
Employee Training Investment (RMB ten thousand)	199.6	188.2	145.4
Type of training course (item)	536	1,770	1,677
Percentage of employees reviewed for performance and career development (%)	100%	100%	100%

Huayou invested RMB 1.454 million in training in 2019. There are many kinds of training courses, involving 1,677 kinds of courses, which carry out various types of training and learning activities in the form of classroom teaching, network learning, case study, action learning, outreach training and so on. The combination of the original credit system management and online & offline training provides a strong guarantee for training resources, and implements the concept of common growth and common development of the company and its employees.



Training for Systematic Ability Improvement of Professional Manager



Company Safety Training

Career development of employees

In recent years, the Company has developed rapidly and its internal management has become more standardized. With the advancement of qualification system embellishment, the development channel has become more perfect and the development standards have become clearer, providing employees with more career development opportunities.

In 2019, the Company created an atmosphere of learning, evaluation and certification based on ability improvement and via skill certification, improved the ability improvement mode of professional technicians, and opened up a career development channel for technicians. In terms of external post titles, the Company organized 232 applicants for external professional titles (including 140 assistant engineers, 76 engineers and 16 senior engineers). In terms of internal post titles, the Company organized 289 applicants for internal post titles, with 218 applicants passing the certification (including 22 senior medium titles, 62 medium titles and 134 assistant titles). In terms of internal technical post evaluation and employment, The Company organized 54 applicants for technical post evaluation and employment, and 29 applicants passed promotion evaluation, thus their posts and incomes were promoted.



Technical Post Defense Meeting

Competence growth of employees

1. Post skill standards: The Company establishes a perfect normalized operation mechanism of standard building and standard performing of the first-line post skilled personnel, and set up 9 skill levels, namely, Junior I, Junior II, Medium I, Medium II, Senior I, Senior II, Technician I, Technician II and Senior Technician, to promote the steady growth of the post skilled personnel;

In 2019, Huayou Nonferrous Industry Group and New Energy Industry Group continued to carry out standard building and standard performing for skilled personnel for front-line posts, and gradually improved the job qualification system and skills evaluation standards for front-line posts.



Site of skill standard practical operation



Site of skill standard theory examination

2. Skill competition: The Company's skill competition has been held for 4 consecutive years, the organizational functioning has been continuously optimized and perfected, and an integrated workflow of training, evaluation and appraisal has been established. Through practice to promote learning and normalization to promote skills contest, the Company establishes a scientific hierarchical management mechanism, create an atmosphere to catch up with the super craftsmen, to help create a team of artisans. In 2019, there were totally 16 units that were divided into 9 competition areas with more than 200 participants, to test the skill level of employees in all aspects and gradually establish and perfect the internal competition standard system.



Forklift skill competition



Maintenance skill competition



Works of chef skill competition

Huayou's College Students Management

The rapid corporate development requires a steady stream of reserve forces. Huayou plans to recruit 500 students from key universities every year and culture them into grass-roots management talents and professional technical backbone through two-year training, counseling and post practices. During this period, they will go through diversified cultivation methods such as military training, team expansion, centralized training, sharing, exchange and counseling meetings, production site practice, department post experience, debriefing defense and assessment. The Company adheres to the cultivation concept of combining training with practices, to promote college students to "learn at work and become useful at post". In 2019, Huayou recruited 367 college students. Up to now, Huayou has recruited and trained thousands of college students.



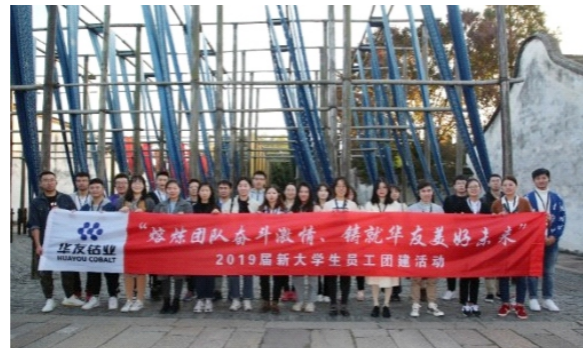
Military Training Logo Show



Military Training Additional Activities



Production Site Practice



Tour to Wuzhen, Team Building Activity



Mid-Autumn Festival Moon Cake DIY Activity



National Day Outing

Building a Cadre Team

In 2019, the Company hired Deloitte Consulting to the Group Headquarters for on-site guidance, and Deloitte Consulting has completed the company cadre management projects by stages; and the results cover six modules: cadre management outline, cadre standard system, cadre performance management, cadre term management, cadre talent inventory, and position and rank system. The system standard and framework for cadre management have been initially established, laying a solid foundation for the establishment of the cadre management system and providing institutional guarantee for the construction of Huayou Cadre Force. In 2019, the Group selected section-level 67 cadres and 11 department-level cadres through competitions, and conducted term assessment in strict accordance with the performance appraisal system.



Induction training of cadre competition



Training course on improving business speaking ability of business personnel-"business etiquette"



Line manager-employee relation skills upgrading training



Number of employees in Africa

At present, there are 2,746 Chinese and Congolese employees in the African Regional Management Headquarters, of whom 619 are Chinese and 2,127 are Congolese, with 2,634 male employees and 112 female employees.

In 2019, Huayou Resource further established and improved the training content and training system, and established and improved the team of instructors. It takes on-the-spot training, seminar and communication, case analysis, scenario simulation and other ways to improve the business skills and update the knowledge structure of employees.



Safety and environmental protection knowledge training for local employees in Africa



CDM safety knowledge skills training

Training and education of Huayou resources section

The Company pays attention to the localization construction and the DRC local staff's use and the raise, to give full play to the role of local management and key employees in the company's management. Combined with the characteristics of overseas human resources, the company further improved institution and system construction, including the Regulations on the Management of Skills Grade Assessment for Technical Positions of Local Employees (Trial) and the System of Position Grades for Local Employees, and established skills assessment and post promotion system in line with local laws, providing channels for the career development and post promotion of employees, and enabling employees to focus more on their future direction of development and efforts. At the same time, the Company recruited Chinese overseas students to join us. These measures further promoted the localization process of corporate management, and achieved good economic and social effects.

Introduction to job qualification system, employee career development channel and learning platform



In 2019, a total of 60 new college students joined Huayou Overseas Company. According to the Cultivation Plan for College Students formulated by the HR Department of the Group, combined with the actual situation overseas, and through one-to-one training and guidance by designated mentors, the Overseas Human Resources Department timely tracked the learning and growth of college students, and organized the assessment for the first three-month probation period and the fixed-post training phase, and timely fed back the assessment results to the employing department and the HR Department in the Group. After a six-month probation period, the college students graduated in 2019 have adapted to the change from students to social people, and better adapted to the overseas working environment.

cultivation of college students

Overview of Management Process and System for Employee Remuneration and Benefits in African Factory

Overview of special welfare

01

Overseas companies carried out wage adjustment in January 2019 and established a new post-rank wage system and post qualification assessment standards. In 2019, the average wage growth rate of Congolese employees was 49%, and wage income of employees was further improved on the basis of practicing the laws and regulations of the DRC.

02

Overseas companies continue to improve the salary and benefit management system. In addition to the basic salary, employees also enjoy cash rewards or subsidies, such as seniority bonus, monthly performance bonus, inter-regional transfer bonus; Other benefits cover Christmas benefits, transportation allowance, family allowance, housing allowance, children's education allowance, family death allowance, etc.

03

The Company provides free medical care for the employees and their families. The company has 3 Chinese doctors and nurses in the infirmary, and 3 doctors and 5 nurses from DRC. In 2019, it met the demand for 26,428 visits by DRC employees and their families, of which 6,886 (company employees and their family members) were assigned to hospitals contracted by the Company.



Employee Remuneration and Benefits

Remuneration and benefits are the material guarantee of employees' right to subsistence and development. Huayou insists a competitive compensation level in the industry and the local region, so that employees can live a dignified life. According to the requirements of laws and regulations, the company implements the comprehensive working hour calculation system for grass-roots employees, the standard working hour system for management and technical personnel, and strictly controls the overtime hours to protect the rest rights and interests of employees; if employees work overtime on holidays, we will give overtime pay according to law and take time off for work overtime on Sunday. The Company provides employees with "social security packages and housing provident fund" social welfare guarantee, and sets up reasonable salary structure, including post salary, performance salary, skill allowance, management allowance, overtime pay, post allowance, night shift allowance, monthly performance bonus, annual performance salary and other subsidies. It not only embodies the reasonable return to employees' labor, but also encourages employees to continuously improve their professional ability, reflects the cultural concept of "high performance, high income; enterprise efficiency, income increase", and guides employees to strive for common development and growth with the enterprise. In addition to the benefits provided by statute, the Company offers a variety of special benefits, such as: providing employees with event condolences, talent apartment, rental subsidy, talent allowance, commercial medical insurance and other welfare systems.



Chen Xuehua, Chairman of the Board of Directors of the Company, consoles workers at the production line on first day of the lunar year



Chen Xuehua, Chairman of the Board of Directors of the Company, consoles staff of the central laboratory of technology building on first day of the lunar year

Statistics Table of Employee Compensation Benefit Performance Data

Item	2017	2018	2019
Ratio of minimum wage of grass-roots employees to local minimum wage (%)	151	157	178
Grass-roots employee compensation growth rate (%) (excluding DRC employees)	11.63	15	10.60
Basic wage ratio of men and women in the same position	1:1	1:1	1:1
Labor contract signing rate of employees (%)	100	100	100
Coverage rate of social security packages and housing provident fund for Chinese employees (%)	100	100	100
Benefit coverage for DRC employees (%)	100	100	100

The Company regularly holds special employee satisfaction or feedback surveys, such as the canteen questionnaire survey conducted by the Food Committee; but the Company did not conduct a comprehensive employee satisfaction survey in 2019. The staff turnover rate in 2019 was 14.78%.

Occupational health and safety management

The Company adheres to the people-oriented principle, strive to create a healthy, safe and comfortable working environment for employees, and perform its deserved corporate duties to protect the physical and mental health of employees.

The Company has unified leadership and centralized management over occupational health and safety management. Main leaders of each branch are fully responsible for the overall management of occupational health and safety and establishing an occupational health and safety management system, and setting up an EHS Committee to lead, organize, plan and coordinate the occupational health and safety management of each department of own branch. In accordance with the law and regulations, the Company implements the responsibility for production safety, adheres to the management goal of "safety first and prevention crucial", and continually improves the level of safety management, to prevent and reduce the occurrence of safety accidents, fulfill social responsibilities, and promote the harmonious development of the Company, employees and society.

01

Occupational safety

Through continuous optimization of process design, engineering technology and management control, primary maintenance and safe operation documents, and continuous safety knowledge training, the Company effectively controls potential risks encountered by workers in the workplace and provides workers with appropriate and well-maintained personal protective equipment.

After entering the factory area, all staffs must strictly follow relevant occupational health and safety management regulations.

02

Emergency preparedness

The Company will identify all possible sudden emergencies, conduct pre-identification and assessment of all kinds of emergencies and incidents, and minimize the negative impact of emergencies and incidents through implementing emergency plans and response procedures, including: Emergency report, employee information and evacuation steps, employee training and rehearsal, suitable fire detection and fire-fighting equipment, sufficient exit facilities and recovery plan.

All employees shall participate in accident emergency drills to master accident emergency rescue skills related to themselves.



03

Occupational safety

Through continuous optimization of process design, engineering technology and management control, primary maintenance and safe operation documents, and continuous safety knowledge training, the Company effectively controls potential risks encountered by workers in the workplace and provides workers with appropriate and well-maintained personal protective equipment.

After entering the factory area, all staffs must strictly follow relevant occupational health and safety management regulations.



04

Occupational safety

The Company identifies, evaluates and controls the health hazards to workers caused by dust, chemical, physical and other factors. While effectively controlling hazardous factors and implementing effective protective measures to protect workers' health.

05

Work with high requirement for physical strength

The Company identifies, evaluates and controls the impact of strong manual labor on workers, including manual material handling and repeated weightlifting, standing for a long time and highly repeated or heavy assembly work.

06

Machine protection

The Company conducts risk assessment of production equipment and other machines every year, and regularly performs hidden danger identification and treatment activities, to provide physical protection devices, linkage devices and barriers for machinery that may cause injuries to workers, and make correct maintenance.

07

Public health, food and accommodation

The Company conducts risk assessment of production equipment and other machines every year, and regularly performs hidden danger identification and treatment activities, to provide physical protection devices, linkage devices and barriers for machinery that may cause injuries to workers, and make correct maintenance.

Occupational Health and Safety Indexes, 2017-2019

Index	2017	2018	2019
Number of accidents causing damage to workers (times/year)	20	35	33
Deaths in service (person/year)	/	0	0
Occurrence of occupational diseases (times/year)	0	0	0
Annual accident-caused man-hours loss (hours/year)	/	12,316	30,668
Severity rate per million man-hours loss (Total man-hours loss/actual total man-hours) × 1,000,000	/	African branches: 91.17 Nonferrous Quzhou: 1,914.84 New Energy: 0 Resource Regeneration (August-December): 3,582.49 Joint-stock Company: 145.24	Quzhou Huayou: 6,355.36 Quzhou New Energy: 420.60 Huahai New Energy: 597.56 CDM:131.50 Huajin: 0 Huayou Posco 0 Huayou Cobalt: 2,488.72 Resource Regeneration:1,194.18 MIKAS:220.52
Injury accident rate per million man-hours (%) (number of accidents with man-hours loss /actual total man-hours) × 1,000,000	/	African branches: 2.49 Nonferrous Quzhou: 3.27 New Energy: 0 Resource Regeneration (August-December): 10.01 Joint-stock Company: 0.55	Quzhou Huayou: 3.16 Quzhou New Energy: 2.64 Huahai New Energy: 1.70 CDM:0.67 Huajin: 0 Huayou Posco 0 Huayou Cobalt: 5.1 Resource Regeneration: 9.46 MIKAS: 0.29
Occupational disease post physical examination coverage rate (%)		100	100
Total amount of safety investment (RMB 10,000/year)	3,272	5,045	4,484.09
Times of safety fines imposed by the Government (times/year)/amount (RMB/year)	/	0	0

Environment



Environment

Green manufacturing is the common ideal of Huayou staff, as well as the solemn commitment and practical action of Huayou staff as social citizens and world citizens. All-win harmony is the significance of developing a green Huayou.

We have always adhered to both production and environmental protection, and firmly follow the principle of "Four-Not": Not at the cost of environmental pollution, not at the cost of employee safety and health, not at the cost of wasting resources, not at the cost of outlawing.

We take various measures to promote resource conservation and environmental protection, resolutely follow the sustainable development, assume responsibility for environmental protection uttermost, and strive to create a resource-saving and environment-friendly high-tech enterprise. We also use our products and services to create a beautiful living environment for mankind, and try to achieve mutual coordination and promotion between environmental protection and enterprise benefits.

01、 Environment permit and report

The Company has obtained all necessary environmental permits, approvals and registration certificates, with regular maintenance and updating, and strictly abides by environmental protection laws and policies.

02、 Pollution prevention and resource conservation

The Company reduces and eliminates all types of consumption (strengthening technological development and practice, and continually reducing product unit consumption and pollutant emissions, including water and energy, various raw and auxiliary materials) at the source or through practices (such as improving production, maintenance and facility processes, replacing materials, saving natural resources, material recovery and reuse).

We educate and train our employees to adopt a greener and more environmentally friendly work mode and lifestyle, to reduce waste, save water and electricity, and thus reduce the impact on living environment.

We actively participate in community environmental improvement and tree-planting greening, to promote the social and ecological civilization construction in the region, and continuously improve environmental quality.

03、 Harmful substances

The Company identifies and controls the chemicals and other substances that are released to the environment and may result in danger, to ensure that all materials are treated, transported, stored, recycled, reused and disposed safely.

04、 Waste water and solid waste

Waste water and solid wastes generated from operation, industrial processing and health facilities should be classified, monitored, controlled and treated before discharging or treatment according to the requirement.

Through minimizing and recycling solid wastes in the manufacturing process and recycling waste battery materials in the industrial chain, circular economy and green development can be realized. In 2019, the Company had about 18,759.76t cobalt materials totally (recycled materials were separately measured), about 6,773.36t copper materials, and about 2,301.74t nickel materials (recycled materials were separately measured). Recovered cobalt materials (materials extracted from downstream products in the Company's application industry chain) were 1,023t, accounting for 5.17% of total cobalt materials; recovered nickel materials (materials extracted from downstream products in the Company's application industry chain) were 2,063t, accounting for 47.27% of total nickel materials.

By adopting the most reasonable process flow & equipment and lean manufacturing mode, the waste of raw and auxiliary materials, energy and water resources can be minimized, the material recovery rate can be improved, and the waste emission can be reduced.

05、 Air emissions

Air emissions such as volatile organic chemicals, dust particles, acid mist and other harmful substances generated by the Company during its operation shall be collected, monitored, controlled and treated as required before emission.

Providing customers with new energy materials needed by electric vehicle batteries, the Company can realize its vision of reducing air pollution.

06、 Product content control

The Company complies with all applicable laws, regulations and customer requirements regarding the prohibition or restriction of specific substances (including marks on regeneration and disposal).



Environmental protection management

1 An unintentional acid gas recovery fan was newly set up in the electro-deposit copper workshop in Africa branch to recover and neutralize the acid gas and then discharge it in an organized way.



Completed installation of acid gas recovery pipeline



Completed installation of acid mist fan

2 Waste gas treatment plants of Oxygen Pressure Line 3 that have been completed and put into operation in 1200t/a Hazardous Solid Waste Recycling Project of Quzhou Huayou under construction



3 High-salinity waste water desalination treatment facility (MVR Project) under Construction by Huajin New Energy Materials (Quzhou) Co., Ltd.



Environmental Indexes, 2017–2019

Index	2017	2018	2019
Outsourced electricity consumption (KWH/year)	183,870,000	310,535,906	648,022,665.5
Outsourced steam consumption (KJ/year)	25.22万吨	1,014,676,916,877	1,840,370,566,800
Natural gas consumption (NM3/year)	5,541,000	4,296,458	6,631,258
Consumption of ore raw materials (tons/year)	117,430	1,910,694	2,372,498
Water consumption (tons/year)	2,016,800	4,165,860	8,049,077.63
Recycling volume of water resources (tons/year)	/	2,373,706	4,843,467.11
Wastewater discharge (tons/year)	/	/	4,111,766.36
Material volume for recycling (tons/year)	200	/	19,171.22
Indirect GHG emissions from outsourced electricity, steam, natural gas and other energy sources (tons/year)	/	/	28,809,926.77
Direct GHG emissions from internal production processes (tons/year)	/	/	22,892.25
Total emissions of main pollution factors of waste gas on Pollutant Discharge Permit (tons/year)	/	/	88.4113
Reduced energy consumption (KJ/year)	/	/	15,926,979,200
Comprehensive utilization of wastes (tons/year)	89,800	/	15,926,995,791.75
Discharge and treatment amount of hazardous wastes (tons/year)	/	/	4102.815
Number of chemical leakage accidents (times/year)	0	0	11
Amount invested in environmental protection (RMB 10,000/year)	/	5,027	18,832.50
Certification of environmental management system	/	/	Quzhou Huayou: Yes; Quzhou New Energy: Yes; Huahai New Energy: No Huajin: No CDM: No Huayou Posco No Huayou Cobalt: Yes; Resource Regeneration: No MIKAS: No Proportion of certification 33.33%
Wastewater treatment discharge rate up to standard (%)	100	100	100
Exhaust gas emission rate up to standard (%)	100	100	100
Recovery feed used (tons/year)	/	/	14,400
Comprehensive utilization of wastes (cobalt-copper smelting slag) (tons/year)	/	/	38,791.05
GHG emission intensity data (tons/RMB 1 million)	/	/	129.52
Times/amount of environmental fines imposed by the Government	/	0	RMB 20,000 per time

Business Ethics



Integrity management has always been the most basic moral requirement in the business community, and it is also the cornerstone for the everlasting corporate development. Since its establishment, Huayou Cobalt has always adhered to the highest form of business ethics, and has continuously improved business ethics issues such as information security, anti-corruption, patent protection and information disclosure through its own practice.

Information security

With the continuous development of information technology, there are more and more threats to information security, and incidents such as "Wannacry Ransomware" emerge one after another in external enterprises. Once attacked, the enterprises will suffer incalculable risks and losses. To ensure the information security of the Group, the Information Center, relying on the overall situation of enterprise network and information data security, and through top-down design and comprehensive consideration, guarantees various security risk factors, actual environmental conditions, actual business management demands and information security strategic planning for the next 3-5 years, and has established a set of information security technology scheme framework system, including physical security, infrastructure security, application business security, business data security and O&M security.

1. Enhance employees' awareness of information security

With the deepening of information construction, especially as the information system is facing an open Internet environment, information security is trapped in a grim situation: there are various potential viruses, Trojan attacks, disclosure of confidential documents, etc. For these potential security threats, every employee shall change his idea, abandon the thought that "information security is none of my business" and clarify the misunderstanding that "information security can be protected with firewalls". Information security involves the information management department, and concerns the information privacy of each employee and the security protection of an enterprise. So departments at all levels shall strengthen the publicity of information security awareness, regularly carry out information security awareness training, and strive to promote information security awareness of all employees. The Company's information management department has incorporated external and internal information security awareness trainings into the training plans throughout the year.

2. Improve the organizational structure, and establish the information notification mechanism

Information security leaders and departments in charge shall be determined; special personnel shall be designated to assume the information security work; the Group Company shall establish an information security linkage mechanism, so that (1) whenever there is an important situation, it can be reported to superior competent department at any time; (2) any information security emergencies can be reported timely; (3) the announcement can be released timely.

3. Focus on business security to establish an all-round information security protection system

1 Strengthen network security management

1.1 The Group's network security management divides the entire network into Internet access domain, outreach service domain, data center domain, intranet office domain and O&M management domain according to different regions and locations, and adopts corresponding security strategies and protection measures for different security domains.

1.2 In the Internet zone, L2-7 layer firewalls and intrusion detection equipment are deployed to conduct in-depth security threat analysis and detection of Internet inlet and outlet traffic.

1.3 To strengthen the secure interconnection between the headquarters and branches, the Company adopts the access mode of operator dedicated line links for large branches and IPSEC-VPN or SDWAN for small and medium-sized branches for secure interconnection.

1.4 Additionally, a highly available architecture is adopted for all equipment in the Company's core areas to ensure that there is no SPOF of equipment or links, which will affect business continuity.

1.5 Internet behavior management is deployed in Internet outlet areas, to standardize employees' Internet behavior, strengthen the audit of employees' Internet behavior, and rationally distribute Internet traffic.

2 Reinforce system security

2.1 Through the deployment of a unified patch upgrade system, anti-virus system, storage backup system and disaster recovery system, the business system is evaluated, and a security strategy suitable for the business is established to comprehensively strengthen the security of the host and application systems.

2.2 A security inspection shall be conducted regularly on data center equipment and systems, with backup recovery tests for integrity and effectiveness of core business system backups, and switch reset tests for disaster recovery systems.

3 Intensify security audit monitoring

3.1 Several working systems shall be established and improved, such as the monitoring, backup recovery, emergency response, security audit, and security event reporting.

3.2 The operation status of computer room, network, host computer, application, data, etc. is monitored, to actively discover potential safety hazards and take timely measures to restore affected or interrupted application programs as soon as possible.

4 Strengthen the management of terminals and users

4.1 A Microsoft-based AD domain infrastructure platform is established, and domain management mode is adopted for the Company's computers, which realizes unified identity authentication of terminal users, standardization of terminal software, and collective issuance and management of computer security policies, reduces maintenance expenses of the Company's networks, and enhances terminal security protection for the Company.

4.2 A unified anti-virus system is established, and the unified anti-virus software is deployed for the Company's network-wide servers and office computers; so that the anti-virus status of network-wide network computers is under management and control.

4.3 To realize the protection of the Company's network perimeter, no illegal access is allowed, and real-name management of terminal IP is achieved. Effective access control is carried out on machines accessing the intranet, and legal clients can access the normal network after passing identity authentication and security policy check. However, computers that fail the authentication or security policy check will be put into the isolation zone or blocked from network access, and will be allowed to access network after the repair and becoming compliant.

Information disclosure

To properly complete the Company's information disclosure, ensure the truthfulness, accuracy, completeness, timeliness and fairness of information disclosure, the Board of Directors of the Company has formulated the Administrative Measures on Information Disclosure; and the Securities Management Department has formulated the Administrative Measures on Information Disclosure Suspension and Exemption, which stipulates that if the Company decides to suspend or exempt the disclosure of specific information, the Secretary of the Board of Directors shall be responsible for the registration, and after being signed and confirmed by the Chairman the securities department shall properly file and keep record. In strict accordance with the Rules Governing the Listing of Securities on Shanghai Stock Exchange and other relevant business rules, the Company has suspended or exempted the disclosure of its specific information. The Implementation Rules for Information Disclosure Management formulated by the Company's Securities Management Department is mainly applicable to all aspects of information processing such as collection, transmission, sorting out, classification, disclosure and assessment of information to be disclosed by the Company and its subsidiaries. Stipulating the preparation and submission of regular reports and interim reports by the Securities Management Department, the Rules also require other departments of the Company to report non-statutory disclosed information through OA process to the Securities Management Department and the Secretary of the Board of Directors for review before such information reported. Important information or items can only be disclosed after being reviewed by the Chairman. According to the Rules, after the quantity of major contracts signed by the Company's marketing, procurement, financial system and other important departments reaches the standard, the Secretary of the Board of Directors shall be informed in advance before the contract signing, and the formal contract shall be reported to the Secretary of the Board of Directors for filling before submitted to the President for approval and signing. The Securities Management Department shall compile and submit the statutory disclosed information according to the Rules, and reviews the information involved non-statutory disclosure in other departments. Among them, employees shall accept external interviews in strict accordance with the Regulations on Interviews with External Media. Information related to the Company's operation to be released on the Company's external promotion media shall be strictly subject to the Regulations on Propaganda Carriers. The Company shall submit project application materials and other information materials to government departments, banks and other external units, and shall strictly follow the Regulations on External Project Application. Participating in public activities to disclose information shall be strictly subject to the Information Management Measures.

Honesty and integrity

1. Construction of system culture

Huayou attaches great importance to the establishment of anti-corruption and anti-commercial bribery management system, and, formulates G00005 Code of Business Ethics and Conduct, G01344 Administrative Measures for Business Reception and Gift Reimbursement, G01609 Gift Management Methods, G01450 Management Method For Employee Receiving Gift Money and Gifts, G01201 Reporting Management System and G01613 Regulations on Prohibition of Business Cooperation with Units with Relatives, Friends or Business Interests Related to Company Cadres in compliance with all applicable laws and regulations of the country or region in which the operation is conducted and relevant international conventions and in accordance with characteristics of its own business. The Company also guides the performance of employees by opening their performance through the OA platform, requires employees to establish the awareness of honesty and discipline, implements it in all links of work, and strengthens the construction of compliance culture and business ethics.

2. Establishment of a supervision department

As the first-level department of the Group Headquarter, the Audit and Supervision Department is directly affiliated to the Group President. It is responsible for the overall management of the Group's internal audit, performing audit functions of the Group's subsidiaries, and controlling the three high-risk links (engineering construction, financial activities and economic responsibilities) through in-process supervision participation and post-event retrospective review. In terms of project construction, the Department is responsible for the contract review, payment review and completion settlement approval of the project, and the supervision of materials, verification certificate and acceptance during the construction period. Financially, the Department is responsible for auditing the annual budget and final accounts of the Company and its subsidiaries (branches) and their implementation, the implementation of various systems, integrity and rationality of internal control systems, the Company's economic benefits, related economic contracts, the Company's foreign investment, related assets & liabilities rights and interests, and other special matters. Its responsibilities also include auditing the economic responsibility of management cadres, implementing anti-corruption and anti-commercial bribery practices in subsidiaries around the world in a realistic, independent and objective manner, and severely punishing violations of laws and regulations. This not only purifies the management team of the Company, but also timely discovers management loopholes and then effectively protects the survival and development of the Company.

3. Prevention of conflicts of interest

At present, the international community generally believes that conflict of interest is an important source of corruption, and management and prevention of conflict of interest are the key strategy to effectively prevent corruption. Therefore, Huayou requests the Audit and Supervision Department to conduct commercial bribery investigations on business partners in accordance with the G01613 Regulations on Prohibition of Business Cooperation with Units with Relatives, Friends or Business Interests Related to Company Cadres in March and September of each year. As per the requirement, all suppliers shall sign a Letter of Undertaking for No Relatives, Friends or Business Interests in order to make clear relevant requirements such as anti-commercial bribery. During the two audits in 2019, no direct or indirect participation of the company's cadres in relevant suppliers was found, and no unqualified suppliers were found; Of the 15 suppliers selected in September, one of them held the expired Letter of Undertaking for No Relatives, Friends or Business Interests and had been requested for replacement.

4. Provision of reporting channels

Huayou has established a reporting system, broadened complaint channels, and encouraged informed reporting of violations, which fully mobilizes and brings into play the positive role of employees and stakeholders in reporting corruptions and commercial bribes, and has provided reporting telephone numbers and e-mail to all stakeholders through its official website. Audit and Supervision Department is responsible for receiving, investigating, approving and directing reports by the Group President. G01201 Reporting Management System clearly stipulates that all whistle-blowing information is strictly confidential; anonymous reporting is allowed. Information leaks, investigation obstructing and retaliation are strictly prohibited. For reporting information, the whistle-blower will be rewarded according to the value of the infringement, and the information of the whistle-blower will be kept secret. A total of six reporting events occurred in 2019, of which two were about corruption matters. At present, one has been settled and the other is under processing.

Reporting channels include:

- ① Reporting letter, mailing address: Audit and Supervision Department (Principal), Zhejiang Huayou Cobalt Co., Ltd., No. 18 Wuzhendong Road, Tongxiang City, Zhejiang Province;
- ② Reporting Tel: 0573-88589103;
- ③ E-mail: report@huayou.com;
- ④ Reporting box: Unpacking once a week (except holidays), the unpacking time is 9:30-10:30 every Monday morning.

Patent protection

In 2019, the Company applied for 31 patents

newly authorized 18 patents
(6 of which were invention patents and 12 utility model patents)

bringing the total number of valid patents to 87
(52 of which were invention patents and 35 utility model patents)

The Company applied two international PCT patents in 2019.

In 2019, the Company renewed PatSnap Patent Database and purchased two "Intellectual Property Consulting Services-Consulting-Technical Panoramic Analysis" projects to further strengthen the protection and management of intellectual property rights.

In 2019, Quzhou Huayou Cobalt New Materials Co., Ltd. passed the certification of intellectual property management system



Certificate of intellectual property management system certification

ZL200810121120.1 A Method for Preparing Cobalt Oxide, Nickel Oxide and Copper Oxide and ZL201611041988.1 A Method for Preparing Low-sulfur and Small Particle Size Nickel-cobalt-manganese Hydroxide won the 2019 Zhejiang Provincial Patent Gold Award.

Complaint mechanisms

<http://www.huayou.com/shensu.html>

Product Responsibility



The Company's production involves a wide application field. Quality of the products will directly or indirectly affect the interests of stakeholders; so it is incumbent upon the Company to establish a quality management system, strengthen product design, produce high-quality, healthy, safe and green products, and contribute to the sustainable development of mankind.

Quality Management System

In 2019, Huayou New Energy promoted the quality policy oriented by technological innovation and brand building, and officially obtained the certificate of (IATF16949: 2016) quality system certification issued by German TUV headquarters in December 2019. According to the system standards, the Company implements strict, systematic and comprehensive quality management in every link from feeding, process to product, and carries out various quality work solidly. For the key processes and key links that affect product quality, the Company implements key monitoring and testing, and adopts FMEA risk concept to ensure that each link can be effectively monitored and continuously improve the effectiveness of quality management system.



Certificate of IATF16949: 2016 Certification



Quzhou Municipal People's Government Quality Award 2018

In 2019, Quzhou Huayou continued to promote the quality policy oriented by customer demands. On the basis of steadily advancing ISO9001 quality management system, the quality management system IATF16949: 2016 for the automobile industry was introduced for strict, systematic and comprehensive quality management over each link of product realization. All quality work was carried out solidly; key monitoring and testing was implemented for key processes and key links that affected product quality to ensure that each link could be effectively monitored. The "systematization, precision, informatization and settlement" of quality management has been completed and phased results have been achieved. The Company has established a quality cost control to achieve a breakthrough from "0" to "1", and has applied for an advanced case of "seeking the best quality management results with quality cost as the breakthrough point" in Zhejiang Province. It was appraised as "2019 Top Ten Advanced Quality Management Method Demonstration Cases in Zhejiang Province", and won the "Quzhou Municipal People's Government Quality Award" in early 2019.

Supplier management

Implementing the Regulations on the Quality Management for Suppliers of Raw and Auxiliary Materials, Huayou New Energy carried out site audits and comprehensive evaluations of important suppliers for a total of 16 times in 2019 based the impact of incoming materials on product quality and the supply situation of the previous year. From standardized management, exception management, change management, process monitoring and measurement, it prompted suppliers to gradually establish a standardized quality management mechanism, and boosted the transformation of supplier quality management from "passive" to "active", effectively improving the quality of suppliers' products.

In 2019, the supplier access and evaluation management system was improved. According to the supply situation of incoming materials and user demands, Quzhou Huayou output the annual supplier audit plan, and totally completed 27 on-site supplier audits in 2019, thus comprehensively evaluating the supplier's quality assurance capability from system operation, abnormality management, change identification, process monitoring and measurement, laboratory management, feeding, warehousing, production process, finished product shipment control and other aspects. According to the Regulations on Access and Periodic Evaluation of Raw and Accessory Packaging Materials, the Company implemented the knock-out system management for suppliers, and developed special subjects to evaluate and improve the exclusive monopoly of suppliers. In 2019, the Company completed 14 exclusive supply improvements, with a total of 25 suppliers passing the audit and 2 failing the audit due to inability to provide system operation records or increased risk of supply capacity.

Incoming quality management

According to the procurement standards for raw materials, auxiliary materials, packaging materials and other materials, the Company implements various management procedures such as the Sampling Procedures, Acceptance Procedures for Raw and Accessory Materials/Packaging Consumables and Non-conforming Products Control Procedures. It samples and tests each batch of incoming materials and goods, and carries out acceptance following procurement standards to ensure that each batch of incoming materials can be effectively monitored.

Production process monitoring

To ensure the product quality, Huayou New Energy focuses on the production process and formulates operation process instructions, quality control plans, equipment operation procedures, and testing operation instructions for each post; so that the key control points in production processes can meet the specified requirements. Huayou New Energy makes full use of SPC (Statistical Process Control) process monitoring means to guide production, and takes timely measures when abnormalities are found. In the production process, a three-level supervision mechanism composing quality inspectors, technicians and team leaders is adopted to check the implementation of each process; and the quality data are promptly analyzed, reviewed and improved through daily and monthly regular meetings, thus ensuring the realization of scheduled quality objectives.

Quzhou Huayou has promoted TPM (Total Productive Maintenance) and hierarchical and grading equipment management, and has consolidated on-site basic management in strict accordance with the five principles of "fixed point, fixed period, fixed objective, fixed method and fixed person". Through lean manufacturing standardization - settlement of LPA hierarchical and classification audit standardization and building of model workshop, Quzhou Huayou strictly controls key control points in the production process, while creating an atmosphere for team management improvement and enhancing the production efficiency of the workshop.

Product quality and shipping management

Quzhou Huayou formulates internal control standards strictly in line with industry standards, and uses the SAP system for product warehousing management. In terms of product quality improvement, SPC (Statistical Process Control) improvement management was carried out in 2019, and total 53 key indicators were identified and incorporated into daily management. As a whole, the average value of product CPK (Process Capability Analysis Report Method) was increased by a gradient - the quantitative average value was increased by 20%, and the customer complaints of product stability and consistency was reduced by 43%. Additionally, a foreign matter management cycle promotion mechanism was established: Through the implementation of a series of management activities such as monthly plan-implementation-Quality Department inspection-monthly summary/evaluation-improvement and promotion/highlight promotion, the quality management level has been effectively promoted, the final annual target has been reached, and the foreign matter customer complaint has been reduced by 50%, ensuring that each batch of products can be delivered to customers on time and with good quality.

Customer complaint and satisfaction management

According to the Regulations on Customer Quality Information Processing, the Company timely collects all kinds of customer demands through multiple channels, and converts customer demands into internal shipment requirements to ensure that the quality requirements of shipped products continually meet customer requirements. For sold products, the customer usage is tracked through customer satisfaction surveys, daily communication and on-site visits, and the causes for abnormal product complaints reflected by customers are investigated promptly and the rectification report is replied to on time, to continuously improve customer satisfaction. According to feedback from third-party investigation agencies, the customer satisfaction in 2019 is 1.28 points higher than that in 2018.

Year	2017	2018	2019
Customer Satisfaction Index	84.02	82.28	83.56

RoHS/REACH regulation

According to the requirements of RoHS/REACH of customers, the company signs environmental material management agreements with relevant suppliers for excipients and packaging materials that affect the quality of products, and requires suppliers to provide RoHS inspection reports for the materials supplied. Products such as nickel-cobalt-manganese hydroxide and cobaltous sulphate produced by the company are managed and controlled for environmental substances throughout the production process according to the Management Methods for Environmentally Harmful Substances. Meanwhile, external inspection institutions such as SGS are entrusted regularly to carry out RoHS/REACH/halogen inspection. All inspection results of our products meet the requirements, and the inspection reports are timely fed back to the customers.

R&D achievements

1. New precursor products for lithium battery materials

1

4.45V-4.48V large-particle-size aluminum doped cobalt tetroxide new products: By controlling the differentiation of crystallinity of inner and outer layers of the crystal in the wet synthesis of cobalt carbonate, the density of product is improved, which solves the common technical problems in the industry, such as low TD, calcination cracking and micronizing due to particle surface damage. Product TD exceeds 2.5g/cm³, and there is no cracking under the 200-fold electron microscope, no obvious damage after material mixing. So the product has successfully entered the supply chain of high-end battery plants such as Hunan Shanshan, Tianjin MGL, Tianjin B&M and Pulead, and is used to prepare cathode materials, of 4.45V-4.48V high-voltage lithium cobalt oxides (LCO), thus effectively improving the electrical performance of LCO and creating value for customers.

2

4.45V-4.48V small-particle-size aluminum doped cobalt tetroxide new products: By reducing supersaturation at the initial stage of nucleation and increasing flow shear stress of reaction kettle, monodisperse seed crystal is prepared through forced dispersion, thus solving the technical problem of agglomeration of large particles in small-particle-size products. As the precursor of LCO cathode material, 3-6μm aluminum doped cobalt tetroxide with small particle size is mainly used together with large particle size products to increase the compaction density of cathode material, thus improving the energy density of battery. It is also used to prepare cathode material of 4.45V-4.48V high-voltage lithium cobalt oxides (LCO) and can effectively improve the electrical properties of LCO. Now it has passed the DWT certification of Tianjin B&M, Pulead and other customers.

3

New NCM65F/F1 precursor products mixed with high-end power type large and small particles: The Company has independently developed the international leading "HYRS NCM precursor synthesis technology" and successfully developed NCM65F and 65F1 high-end products with good sphericity and low impurity content. It also has built the first set of HYRS production line in China, which has realized mass production and successfully entered the HYPOSCOLGC supply chain. A 3-year 70,000t long-term order contract signed with LGC brings the product into domestic and foreign high-end markets, enhancing the Company's market competitiveness.

4

New high-performance power type NCM60E1 precursor products: Through the latest international leading Batch process independently developed, in-depth research has been carried out on particle surface morphology uniformity, atmosphere protection control product BET, synthesis-process reduction of Na, S, washing equipment and drying equipment, and NCM60E1 precursor product has been successfully developed. It is planned to open up Huayou →LGC →mass industry chain to enter the international high-end customer supply chain.

5

New power type small particle size NCM5 series precursor product: Four models of small particle size 5 series precursors 523L, 523H, 523M and NCM550936 have been developed, with regular morphology, high purity and concentrated particle size distribution. It can be prepared into secondary particles for mixing of large and small particles, and can also be prepared into monocrystal for exclusive use. Among them, monocrystal Cathode is advantaged by high compaction density, good cycle performance, high stability, safety and the like, and is currently a hot spot in product development and application. Two invention patents have been applied for related technologies. According to expert appraisal, 523L is at the leading level in China and has passed the new product appraisal and acceptance on November 5, 2019.

6

New precursor products for high-performance power battery cathode materials: This project is a provincial key research and development project. It adopts wet homogeneous coprecipitation process, designs a filter and washing integrated machine, a continuous drying rotary kiln and a precision filter, and combines two-stage electromagnetic deferrization technology to synthesize precursors NCA-P, NCM622-P and NCM811-P. This project is quite innovative in the synthesis process, granular control and anti-oxidation process design, with 7 invention patents applied for relevant technologies, one utility model patent, one software copyright registration and two scientific and technological achievements in Zhejiang Province registered. This project passed the acceptance of the provincial expert panel on July 25, 2019.

7

New NCM622 precursor product: Through precise control of the proportion of main content components, particle size distribution, metal foreign matters, etc., NCM622 ternary precursor with high physical quality is obtained by CSTR synthesis process. The product is characteristic of high compaction density, narrow particle size distribution, low impurity content, etc., and is well praised by high-end customers. Two invention patents have been applied for relevant technologies and two software copyrights have been registered. Experts have identified this product as at the leading level of similar products in China.

2. New and Green Smelting Technology

1. High-efficiency multi-element high-efficiency separation and purification technology for lithium battery waste: Through resolving-separation, wet leaching, purification and separation, production of lithium and sodium products, and other technological processes, all-metal recovery of cobalt, nickel, manganese and lithium in lithium battery waste is realized. The recovery rate is high, products all meet the standard of battery grade products, and the water circulation utilization rate of the system exceeds 95%. Now the production scale has reached a treatment capacity of 26,000t/a waste battery powder. All kinds of products are transformed into the source of lithium battery preparation, which is of great significance for stabilizing the price of lithium batteries and promoting the sound development of the whole lithium battery industry. Further, this protects non-renewable resources and reduces the environmental pollution caused by waste batteries.

2. New technology for recovering manganese from manganese sulfate waste liquid by short-range method: The short-range method is adopted to recover manganese from the waste liquid of manganese sulfate; and battery-grade manganese sulfate so produced is used to prepare battery material of NCM precursor. Compared with the traditional process, this process is advantaged by shorter process flow, absence of new pollution, absence of slag discharge, and improves production efficiency; so that the annual efficiency increase of low-cost manganese treatment is expected to reach RMB 20 million. Now, one invention patent has been applied for this technology.

3. New technology for oxygen pressure leaching of lithium battery waste: High-temperature acid pressure leaching technology is adopted to recover cobalt, nickel, manganese, lithium and other valuable metals from battery slag. Compared with traditional high acid plus reduction technology, it has high production efficiency, high metal recovery rate, low metal content in leaching slag, and less slag discharge, and can create economic benefits of 10 RMB million per year.

3. Establishment of retired power battery recovery system

1. Safety inspection of retired power batteries: When the retired power batteries are delivered, battery packs shall be confirmed for their safety status and then classified (A/B/C) by referring to "historical data" and "on-site technical inspection", to provide a corresponding safety factor basis for the packaging and transportation of such battery packs.

2. Battery pack storage and transportation: A special safety iron box and a double-layer explosion-proof box for retired power batteries have been developed and completed, which match the packaging and transportation of battery packs with high safety risks. The research, development, investment and use of such special packing boxes are cutting-edge in the industry. Additionally, in strict accordance with the Regulations on the Administration of Hazardous Article Transportation, the special transport vehicle for Category-9 dangerous goods is used to transport the battery pack to ensure the safety of the battery pack transportation.

3. Automated safe warehousing: Automated safe warehousing is based on the grade-II fire rating of Class C buildings that conforms to relevant national standards. The warehouse as a whole adopts an automatic fire alarm spray system, and 50% of the shelf storage space is equipped with independent safe storage boxes, which is currently the warehouse with the highest safety factor in the industry. The safe warehousing system is original and first used in the industry.

4. Automatic and safe dismantling of retired power storage batteries: An automatic and safe dismantling line has been built. The dismantling equipment system adopts international advanced intelligent equipment and modern information technology, breaking through the technical barriers in automatic production and safe production, and becoming a benchmark in the automatic dismantling industry. It is of great significance to realize the safety and environmental protection of automatic disassembly of retired power storage batteries.

5. Tracing information management system: A special tracing information management system has been developed and used as a hub to establish a tracing system, which has realized the information management for recycling, transportation, warehousing, production, sales and other links, has met the relevant requirements of tracing management for recycling power batteries of new-energy automobile, and has been equipped with the information tracing capability. It is an important part of power battery tracing management throughout their life cycle to ensure that the sources can be traced, the whereabouts can be traced and the nodes can be controlled.

6. Recycling network establishment: More than 50 "collection type" and "centralized storage" recycling service outlets have been completed in China, initially covering 6 major regions. Through the network layout, domestic automobile manufacturers are assisted in completing the network establishment responsibility for recycling retired power batteries, which is conducive to the healthy development of new-energy automobile industry.

Quality Spring Thunder Action

To further create a quality culture atmosphere for the whole company, all employees are mobilized to participate in quality construction, normalize the standardized management of production sites, and pool the wisdom and efforts of everyone to solve quality and production problems. So the second Huayou Nonferrous Metal "Spring Thunder Action" was planned to be carried out in 2019. This activity included four forms: "Spring Breeze and Rain" quality propaganda, "QCC Project Improvement" activity, "Still Standing" knowledge competition and "100-day Battle" special activity.

The basic knowledge of quality management is strengthened through a series of quality knowledge training, and such quality knowledge competition activities could not only verify the training effect, but also enhance the quality awareness of the company's staff and improve the company's quality control ability.

Through the establishment of the QCC Group, the Company makes concerted efforts to solve the problems encountered in production and management. In 2019, the "QCC Project Improvement Activity" was held in two phases, with 25 projects closed, and reducing costs and increasing efficiency by RMB 17.277 million/year. It effectively promoted intangible achievements such as process standard optimization, product stability improvement and customer evaluation improvement, and helped the Company to save production costs, improve product quality and optimize management processes.



Knowledge competition



100-day Battle Benchmarking Learning



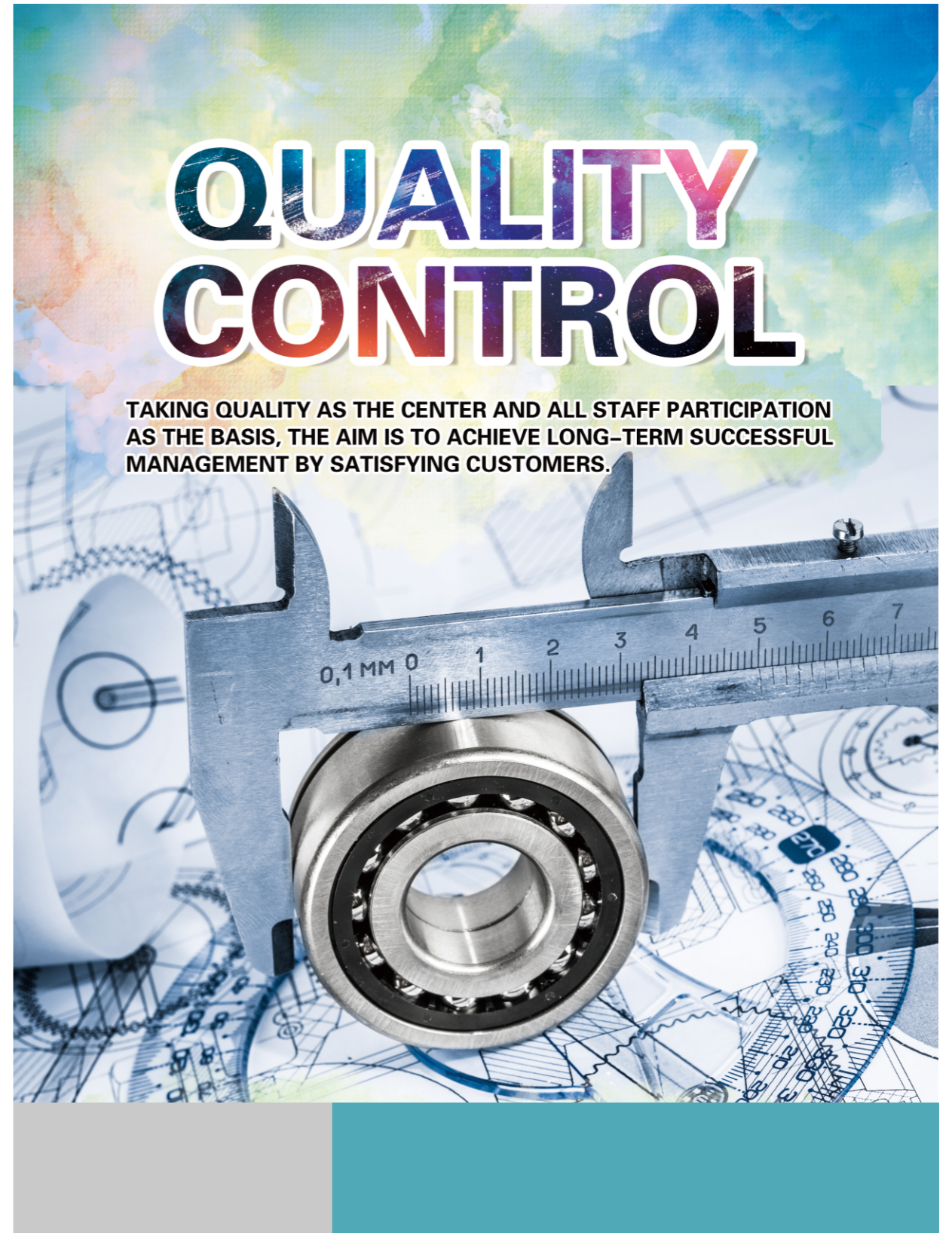
Opening Speech by Xu Wei
Vice President and General Manager of Quzhou Huayou



Results Conference for QCC, 100-day Battle



Opening Ceremony and Signing Ceremony of Spring Thunder Action



Responsible Supply Chain



The awareness of responsible consumption is increasingly stronger. The traditional purchasing emphasis factors are no longer confined to "good quality and low price". Consumers are paying more and more attention to the fact that whether the source of products is environmentally friendly, conforms to ethical standards and human rights standards. So shaping and maintaining responsible supply chains is of vital importance to international companies. Through internal corporate social responsibility construction, the Company communicates its own corporate social responsibility policies to suppliers, and supervises and helps suppliers to shape and maintain their own responsible supply chain.

In 2019, with the help of the Procurement Management Department, the Corporate Social Responsibility Office conveyed the Company's code of conduct for supplier corporate social responsibility and the Company's corporate social responsibility policies to several suppliers, and conducted a questionnaire survey on key suppliers. Additionally, the Company's Quality Control Department, in conjunction with colleagues from the Social Responsibility Office and other relevant departments, conducted on-site evaluation of key suppliers.

In view of the concern and care of multiple external stakeholders about the construction of the Company's cobalt supply chain, the Company made the following statements in 2019.

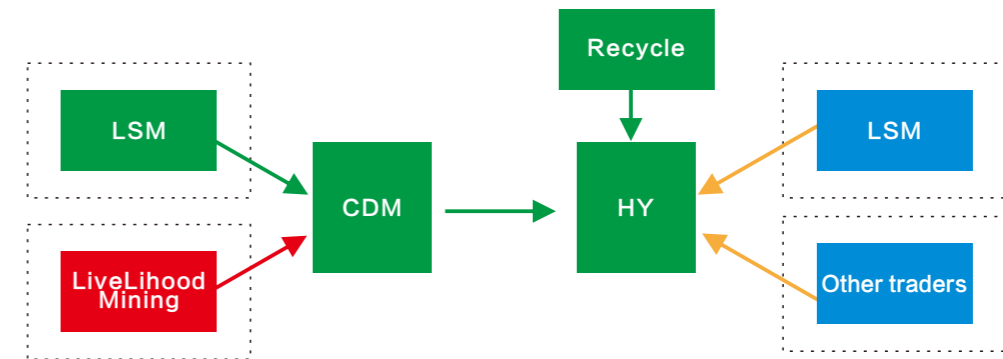
Huayou Cobalt has actively participated in the learning, introduction and implementation process of cobalt supply chain due diligence management since 2016. In accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (hereinafter referred to as the "OECD Guidance") and the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains (hereinafter referred to as the "Chinese Guidance"), the Company has established the industry's first cobalt supply chain due diligence management system and related procedure documents, including Huayou Cobalt Chain Due Diligence Management Procedure and Huayou Due Diligence Management Policy on Responsible Global Cobalt Supply Chain. In addition, the Company has set up a social responsibility office directly managed by the President, and a Corporate Social Responsibility Executive Committee at the Group level (hereinafter referred to as the "Committee" and the "Social Responsibility Management Committee"). The Committee organized the mapping, risk identification and assessment, and risk mitigation plan formulation of Huayou Cobalt Supply Chain, and passed the industry's first independent third-party audit for due diligence management of Cobalt Supply Chain in 2017.



• Responsible Supply Chain Complaint Mechanism

The due diligence management of Huayou Cobalt is mainly divided into two parts. The first is Huayou Group cobalt supply chain due diligence management which mainly carries out due diligence management on suppliers through the "five-step method" to collect relevant information on suppliers and their raw materials, including raw material mining, transportation, processing and other links, carries out risk assessment on suppliers, formulates and implements risk mitigation plans, etc. The second is cobalt supply chain due diligence management for ASM, which mainly eliminates and mitigates risks through the responsible mining system, including three points: first, the source of mineral aggregate shall be clear, including the legitimacy of the mining area, supplier compliance, etc; second, mineral risk control shall be conducted, which mainly requires the mining area to control all kinds of risks in the ASM process, including prohibiting children from entering the ASM area through effective ways to eliminate the risk of child laborer; third, the mineral shall be traceable, which mainly means that the mineral can be tracked for relevant information from mining to smelter processing.

In 2019, Huayou Cobalt continued the due diligence management of cobalt supply chain in accordance with due diligence management procedures. The raw material supply chain map of Huayou Cobalt is as follows:



Situations of main risk assessment and mitigation are as follows:

The Company owns LSM mines. Huayou manages it in strict accordance with due diligence management requirements. Mechanized mining is adopted and child laborer is strictly prohibited from entering the mine areas. Further, human-rights abuses, occupational health and safety and other aspects are controlled, and the site environment is continuously improved; so the risks are relatively low.

Recycled materials, according to the OECD Guidance, are mainly confirmed that the raw materials are recycled materials or waste materials, with relatively low risk. For suppliers who are unwilling to provide feedback, Huayou will conduct communications, investigations and evaluations. If they remain uncooperative, mutual cooperation will be suspended.

Outsourced raw materials include LSM and large traders. Information is collected and evaluated through documents such as KYS (Know Your Suppliers). LSM companies generally has own mines, mine through mechanized means, and have own policies on human rights, occupational health and safety, environment, etc. The management of mining sites is relatively good, and the risks of child laborer and human-rights abuses are low. For suppliers who are unwilling to provide feedback, Huayou will conduct communications, investigations and evaluations. If they remain uncooperative, mutual cooperation will be suspended.

ASM is the focus and difficulty of global attention. The main risks include Child labor, mine collapse, human-rights abuses, occupational health and safety risks. At present, the ASM areas controlled by Huayou include Kasulo and Kamilombe. The Company still carries out control as per the mode and standard of responsible mines, including entrance guard inspection management, personnel arrangement for site routing inspection, site management of cooperatives and ASM associations, mine pit safety assessment, etc. Additionally, Huayou cooperates with third-party organizations to carry out site supervision and improvement projects to continuously improve the environment of ASM areas.

However, due to the weak overall infrastructure and management in the DRC, the control of ASM areas still requires improvement. Also, given the high precipitation in the rainy seasons and the large mobility of miners, the on-site control and occupational safety in the mining area shall still be continually strengthened.

Huayou Cobalt organizes its relevant departments to discuss and formulate risk mitigation plans for problems in the process of risk identification and assessment, and tries to communicate with suppliers.

In March 2019, Huayou accepted the due diligence management pilot audit of the Responsible Cobalt Initiative (RCI). The audit evaluated Huayou cobalt supply chain due diligence management, pointed out the problems in the implementation process, and proposed suggestions for improvement. Further, the audit unit provided suggestions for improvement of the audit standard itself.

Huayou Cobalt and Quzhou Huayou are both RMI's Active Cobalt Refiners with Smelter ID CID003225 and CID003255 respectively. In October 2019, Huayou accepted the due diligence management pilot audit of the Responsible Mining Initiative (RMI). During the whole audit process, Huayou and RMI had many communications and exchanges, giving feedback on common problems in the industry and the particularity of cobalt supply chain. The Company, after receiving the audit report in February 2020, immediately formulated corrective and preventive measures, and submitted CAP (Corrective Action Plan) within the specified time.

In 2019, Huayou received a total of four due diligence management audits from the audits and customers.

Huayou Cobalt actively communicates with various external units, downstream enterprises and industry organizations on due diligence management while carrying out internal cobalt supply chain due diligence management, to promote the full development of due diligence management of supply chain.

In November 2019, the Organization for Economic Cooperation and Development (OECD) released a comprehensive analysis report on due diligence management and opportunities for copper and cobalt supply chains in the DRC in Kolwezi City of the DRC.

Main opinions include the followings:

1) Haut-Katanga Province and Lu Alaba Province shall not be considered as conflict areas; 2) Given the widespread risk of corruption in the large-scale mining industry, it is misleading to claim that the supply chain is "clean", sustainable or responsible simply because no ASM materials and small-scale mining materials are purchased, without provision of evidence indicating full due diligence management; 3) To build a more responsible supply chain, companies and governments shall take actions to carry out due diligence management in a more comprehensive and detailed way, while placing more emphasis on risk mitigation. More report contents can be downloaded from the OECD website.

From November 10 to 16, 2019, the Organization for Economic Cooperation and Development (OECD) cooperated with the Responsible Cobalt Initiative (RCI) and invited several international institutions (such as the Responsible Mining Initiative (RMI) and Sustainable Driving (SD)) and their members to the DRC to carry out cobalt supply chain due diligence management training, field investigations and stakeholder conferences.

As a pilot project of RCI, Huayou Cobalt has demonstrated its good practice of cobalt supply chain due diligence management in the DRC, mechanized mines and smelters, normalized ASM areas, agricultural demonstration parks and built vocational and technical training schools.

On June 15, 2019, Huayou Cobalt received official confirmation from the Global Battery Alliance (GBA) that Huayou's application procedure had been approved by its Council. Therefore, Huayou Cobalt became a full member of the Global Battery Alliance.



Responsible Cobalt Initiative (RCI) and Responsible Mining Initiative (RMI)

- 1) In 2019, RCI and RMI signed a memorandum of understanding on cooperation to jointly promote due diligence management of responsible cobalt supply chain;
- 2) From March 4 to 6, Huayou Cobalt passed the RCI's pilot audit on cobalt supply chain due diligence management.
- 3) From October 16 to 18, Huayou Cobalt Industry passed the RMI's pilot audit on cobalt supply chain due diligence management.

London Metal Exchange | LME:

Responsible Purchasing-London Metal Exchange White Paper: In October 2018, LME released a white paper outlining new initiatives to trade branded responsible metal procurement on its platform.

On July 16, the London Metal Exchange (LME) announced that it had officially incorporated electrolytic cobalt produced by Huayou Cobalt (Quzhou) Factory into the LME good delivery brand.

Cobalt Supply Chain Due Diligence Management Cooperation Project | CSR MOU

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Two downstream companies in the industry, Fairphone and Signify (Philips Lighting), formally cooperated to join Huayou cobalt supply chain due diligence management project to create a more responsible and sustainable cobalt supply chain through more DRC ASM demonstration projects and community livelihood projects.

In October 2018, BMW, a traditional European automobile company, signed a cobalt supply chain social responsibility contract with Huayou, and introduced cobalt products under the Huayou Cobalt due diligence management into BMW supply chain through the DRC ASM projects.

Huayou Cobalt were challenged by many difficulties in the process of actively carrying out due diligence management, which requires the industry to jointly promote and solve the following items:

Promotion and coordination of due diligence management: Some suppliers have established own CSR system, so they do not give feedback to the due diligence management system documents issued by Huayou or only give feedback about own CSR documents, resulting in non-conformities in the due diligence management audit. The main reason is that the requirement of due diligence management has not been promoted by the industry as a whole, and upstream suppliers fail to fully understand and cooperating.

Chain of custody documentation collection: According to the due diligence management standards, suppliers are required to provide regulatory documents for the entire transportation route from the mine to Huayou Company; but general trade business only requires transportation documents from the port of shipment to the port of arrival. Further, due to the miscellaneous and confidential nature of the business, suppliers do not cooperate with the work at present, resulting in non-conformities in the due diligence management audit.

In 2020, Huayou Cobalt will continually promote the cobalt supply chain due diligence management system and gradually strengthen the supply chain due diligence management, especially the standardized management of ASM. We expect our suppliers to make the same commitment, actively promote the overall supply chain due diligence management, to mitigate and eliminate risks in the supply chain, and jointly create a responsible social management ecosystem!

Public Welfare



The Company's development is closely associated with the strong community support. The community growth also needs the Company's help. Maintaining close relations with the community where the Company operates plays an important role in the global development of the Company. In 2019, domestic branches of the Company, with the theme of boosting the enterprise development and building harmonious enterprises, strictly followed working spirit of the Party Committee at the higher level and the Federation of Trade Unions, focused on the Company's production and operation objectives and tasks, and gave full play to the functions of the trade union; so those branches carried out a series of mass activities close to the grassroots and serving employees, greatly improving the influence of the Company and the coagulative power of employees, with an annual donation amount of RMB 1,213,372. Overseas branches of the Company insisted pragmatic public welfare. Facing the community and serving the locals, they effectively solved the hot and difficult concerned issues of community, actively participated in public welfare charity, carried out various activities such as almsgiving for the needy, donations to schools and improving people's livelihood. Those branches truly implemented the Company's responsible investment philosophy, contributed to the development of local social undertakings, promoted local economic development, and publicized the good image of Chinese enterprises. The annual donation amounted USD 456,314.18.



During the rainy season in the DRC, due to the low-lying terrain of KAMATETE and KAWAMA Villages, when the rain is heavy, flood peaks are easily formed in many places of both villages, which bring forth stagnant water to pour into houses, and destroy houses or living and production materials, causing certain losses to the villagers. CDM is very concerned about the disaster situation of the villagers. To control the flood and save villagers from property losses, CDM immediately organized the Social Responsibility Office, the Safety and Environmental Protection Department and the Engineering Department to conduct on-site investigation and formulate flood drainage plans. It also funded the construction of a drainage ditch of 2km long, 0.7m wide and 0.5m deep for KAMATETE Village and a drainage ditch of 2km long, 1m wide and 1m deep for KAWAMA Village. After the completion of ditches, flood disasters during the rainy season were effectively curbed and the livelihood of villagers were more secure.



KAMATETE Solar Water Well Handover in 2019



In June 2019, some housing foundations near the service road on the west of the village were infiltrated by water, affected villagers sought the CDM for help, and CDM provided its assistance as soon as it was invited. CDM first provided living supplies to the affected villagers. After careful investigation and analysis of the site, CDM found the water level in the swampland beside the village continually rose due to poor drainage, and the stagnant water in the swampland overflowed and seeped into the service road and the foundation of nearby houses due to the low terrain of KAWAMA Village. The seeped water flowed to the Village along the service road and flowed out of the Village along the natural ditch of the Village. Given that the poor drainage of stagnant water in the swampland will objectively exist for a long time, if the stagnant water cannot be effectively diverted, the impact on the village may linger for a long time; so CDM funded the construction of a drainage project for the village. CMD planned to build a drainage canal between the swampland and the service road on the west of KAWAMA Village, and to renovate, widen and deepen the ditches in and downstream of KAWAMA Village, to drain the confluent water in the swampland to the downstream of the village through water channels and ditches in the village, thus completely solving floods there.



Drainage ditch in KAMATETE



A section of drainage canal in KAWAMA Village



Flooded house and road water-logging before construction



Drainage canal beside road after construction



Drainage ditch in the Village



Leveled road

The drainage project was finally completed in early October. CDM organized two return visits for acceptance, and the drainage project realized good effects. The water level in swampland was lowered by digging drainage ditches; introducing the water originally flowing to the village along the service road to the outside of the village eliminated the danger of swampland water soaking the foundation of nearby houses. The existing natural ditches from the village to the highway culvert were manually excavated, widened and deepened, which was conducive to saving KAWAMA Village from floods. Concrete covers were provided on ditches in front of household doors to facilitate villagers to pass through. Stone masonry was used to reinforce and backfill the parts that were severely washed out in the rainy season at the corners, thus ensuring the safety of villagers' houses and property. Through repairing the road between KAWAMA Village and the swampland, the problem of muddy and potholed roads was solved, which was convenient for villager to travel and vehicles such as motor vehicles and motorcycles in the village to pass through. Adding flood discharge ditches ensured smooth discharge of flood along the outside of the village during the rainy season, and avoided the impact of floods on houses due to flowing to the village. During the construction of drainage projects, a considerable number of villagers (up to 70 villagers) were temporarily employed for the construction; and the completion not only protected the villagers from floods, but also increased their income.



Police station before renovation



Police station after renovation

In September 2019, CDM funded the renovation of 3 houses, 1 pharmacy and 1 police station for KAWAMA Village respectively.



Pharmacy before renovation



Pharmacy after renovation



House under construction



House after renovation



KASAPA road repaired by CDM

During the construction, CDM insisted on giving priority to the local construction units in surrounding communities and employing local villagers. Under the supervision and guidance of CDM, all construction projects have achieved the expected results; both parties have also established a harmonious partnership, which supported the development and progress of local township enterprises, helped villagers rebuild their homeland, and brought convenient facilities and economic benefits to the villagers.

Community development and improvement is a responsibility of the Company, which is not only the requirement for the Company to create values, but also the embodiment of the Company to give back to the society. CDM organized the public welfare activity themed "Caring Community and Families", to actively contribute to improving the people's livelihood in the community. One was to set up CDM Fellowship to select students from neighboring schools every year, subsidize their admission fees and help them ease their schooling difficulties, encouraging them to keep on studying hard. Second, CDM and INPP (National Vocational Training School of the DRC) organized the establishment of KAWAMA Village Adult Vocational and Technical Training Project, provided assistance to the training project to the best of its ability. Accurately connecting to labor market demand, CDM provided labor skills training suitable for employment in the DRC, vigorously promoted the two-way connection of training projects with the enterprises in Congo, enhanced the high-level employment of villagers, increased labor income, improved living standards, and drove the formation of a labor force with a skill structure and skill level that matched economic development, especially the development of foreign capital economy, to promote the upgrading of labor force structure, alleviate the shortage of skilled workers, and serve the local economic development. Third, CDM donated maize meal, edible oil, edible salt, washing powder, chemical fertilizer, vegetable seeds, agricultural instruction manuals and other living and production materials to KAWAMA villagers, and provided agricultural technology training for villagers to help them master and improve their planting and breeding skills, so that they could strive for a better life.

"Caring Community and Families" Theme Public Welfare Activity



Subsidizing Tuition Fees



Joint INPP to Launch KAWAMA Village Vocational and Technical Training Project



"Caring Community and Families" Theme Public Welfare Activity



CDM-aided Basketball Cour



Basketball Court Handover Ceremony

CDM Chinese and Congolese doctors carried out free clinical treatments with the main examination items including malaria and typhoid fever, and distributed relevant therapeutic drugs. After the free clinical treatments, patients receiving treatment were also paid a return visit. MOM clinic doctors presented CDM employees certificates on behalf of KAWAMA villagers to show recognition and gratitude.



KAWAMA Village Free Clinical Treatment



Group photo of CDM Chinese and Congolese doctors and MOM Clinic doctors



Return visit on rehabilitated villagers in free clinical treatment



CDM is donating school supplies to children in Kamatete District and Kawama Village



CDM is donating New Year's suppliesto KAMATETE School



CDM is donating teaching supplies to students and teachers in 11 KAWAMA schools



CDM regularly donates supplies to Kolwezi Nunnery School



CDM subsidizes outstanding students and their parents from Kolwezi to Travel to China - Group photos in front of ancient Chinese architecture

The PE527 Development Committee, jointly initiated by CDM, local governments and community representatives, is a coordination and executive body dedicated to community mediation, strengthening exchanges, supporting public welfare and promoting the development of various local undertakings. The PE527 Development Committee focuses on the platform service function, carries out social responsibility work based on the community well-being, and strives to make greater efforts for the development of various undertakings in the community. To better serve various tasks, CDM funded the construction of PE527 Development Committee Office. Since the establishment of the KAWAMA District and KAMATETE District Development Committees, CDM has "come in" the demands of the village, and let the company's care "go out", which strengthened the cooperation and exchange between the company and villagers, non-governmental organizations, etc., and improved the service and practical ability of public welfare activities. The Development Committee played an important role in excluding the difficulty and anxiety, and promoting community harmony.



CDM-donated Development Committee Office

Drinking water has always been a major problem in MAPEMDO Village. Before the construction of solar water wells, villagers need to fetch water at the water source five kilometers away, which is not only a long journey but also a bumpy road. The limited funds in the village, high cost of drilling wells and shortened young labor force cannot support the construction of water wells in the village. Therefore, MIKAS, after learning about the relevant situation and solve the difficulties of villagers, has set up a capital project to build solar water wells for them. For the moment, solar water wells have the best quality, the highest efficiency and the strongest security in the region. Therefore, our company adopted solar energy wells and devoted to fetching high-quality drinking water. Finally, it only took us two months to complete the water wells, providing the villagers clear drinking water upon the completion. This public welfare cause has been praised by the KAMBOVE Village Head and all villagers; and the good practices of Huayou have been publicized through media coverages.



MIKAS-funded Solar Water Well in Village



Photos taken by local reporters at the donation ceremony



MIKAS is donating cement and rain cloth to MATENBWE Village



MIKAS is donating desks and chairs to MWANGAZA School



MIKAS is donating fitness equipment to KIWEWE Community



MIKAS is donating fitness equipment to MWANGAZA School

Though there is a lot of land in the villages near KAMBOVE area, most of them is deserted; short of funds, many villagers cannot afford to buy chemical fertilizers and urea for planting crops, resulting in a lot of barren land. MIKAS donated chemical fertilizers and urea to MAPEMDO Village and MATENBWE Village based on the vital interests of those villagers.



MIKAS is donating fertilizer and urea to MAPEMDO Village

At the same time, MIKAS also donated buckets to nearby villages for each household to store water, as well as chickens and rabbits to the MAPEMDO Village, and medical funds to children in KAMBOVE Town, so that they can have the financial basis to receive treatment and avoid the diseases.

Nearly 100 children from a local kindergarten in Luben is visiting SHAD Farm



SHAD Farm will accept several interns from Luben University every two months. They come to the farm to learn technology on the spot in vegetable areas and animal husbandry areas, and are provided with food every day.



College interns in the farm

In early October 2019, Lukuni invested in charitable donations. The farm was provided nearly 80 packs of vegetable seeds for public welfare, including eggplant, Chinese cabbage and chili. Moreover, with the small varieties of local vegetable and limited technology, the crops could not develop there. After that, SHAD further enhanced exchanges with local residents, spread agricultural technology and promoted agricultural development in the DRC.

GRI Index

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102-4	Location of operations		5-7
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102-32	Highest governance body's role in sustainability reporting		12
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303-2	Water sources significantly affected by withdrawal of water		Not Applicable
303-3	Water recycled and reused		40
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304-2	Significant impacts of activities, products, and services on biodiversity		Not Applicable
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304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		Not Applicable
GRI305:Emissions			
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305-2	Energy indirect (Scope 2) GHG emissions		40
305-3	Other indirect (Scope 3) GHG emissions		Not mentioned
305-4	GHG emissions intensity		40
305-5	Reduction of GHG emissions		40
305-6	Emissions of ozone-depleting substances (ODS)		Not mentioned
305-7	Nitrogen oxides (Nox), sulfur oxides (SOx), and other significant air emissions		Not mentioned
GRI306: Effluents and Waste			
306-1	Water discharge by quality and destination		40

306-2	Waste by type and disposal method		40
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306-5	Water bodies affected by water discharges and/or runoff		Not Applicable
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401-3	Parental leave		Not mentioned
GRI402:Labor/Management Relations			
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GRI403:Occupational Health and Safety			
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403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities		34-35
403-3	Workers with high incidence or high risk of diseases related to their occupation		Not mentioned
403-4	Health and safety topics covered in formal agreements with trade unions		Not mentioned
GRI404:Training and Education			
404-1	Average hours of training per year per employee		17
404-2	Programs for upgrading employee skills and transition assistance programs	SDG8	18-26
404-3	Percentage of employees receiving regular performance and career development reviews		17
GRI405:Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	SDG10	16-17
405-2	Ratio of basic salary and remuneration of women to men	SDG8	28
GRI406:Non-discrimination			
406-1	Incidents of discrimination and corrective actions taken	SDG10	16
GRI407:Freedom of Association and Collective Bargaining			
407-1	Operations and supplies in which the right to freedom of association and collective bargaining may be at risk		16

GRI408:Child Labor			
408-1	Operations and supplies at significant risk for incidents of child labor	SDG8	None
GRI409:Forced or Compulsory Labor			
409-1	Operations and supplier at significant risk for incidents of forced or compulsory labor	SDG8	None
GRI410:Security Practices			
410-1	Security personnel trained in human rights policies or procedures		All of them
GRI411:Rights of Indigenous Peoples			
411-1	Incidents of violations involving rights of indigenous peoples		None
GRI412:Human Rights Assessment			
412-1	Operations that have been subject to human rights reviews or impact assessments		53
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412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening		53
GRI413:Local Communities			
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GRI414:Supplier Social Assessment			
414-1	New suppliers that were screened using social criteria		52
414-2	Negative social impacts in the supply chain and actions taken		52-54
GRI415:Public Policy			
	Political contributions		None
GRI416:Customer Health and Safety			
416-1	Assessment of the health and safety impacts of product and service categories		45-51
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		None
GRI417:Marketing and Labeling			
417-1	Requirements for product and service information and labeling		45-51
417-2	Incidents of non-compliance concerning product and service information and labeling		None
417-3	Incidents of non-compliance concerning marketing communications		None
GRI418:Customer Privacy			
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data		43
GRI419:Socioeconomic Compliance			
419-1	Non-compliance with laws and regulations in the social and economic area		None

ESG Reporting Guide


Part A: Introduction	Page
1. This Guide comprises two levels of disclosure obligations: (a) mandatory disclosure requirements; and (b) "comply or explain" provisions.	Not Applicable
2. Mandatory disclosure requirements are set out in Part B of this Guide. An issuer must include such information for the period covered by the ESG report.	Not Applicable
3. "Comply or explain" provisions are set out in Part C of this Guide. An issuer must report on the "comply or explain" provisions of this Guide. If the issuer does not report on one or more of these provisions, it must provide reasons in its ESG report. For guidance on the "comply or explain" approach, issuers may refer to the "What is 'comply or explain'?" section of the Corporate Governance Code and Corporate Governance Report ("Corporate Governance Code") in Appendix 14 of the Main Board Listing Rules.	Not Applicable
4. (1) An issuer must disclose ESG information on an annual basis and regarding the same period covered in its annual report. An ESG report may be presented as information in the issuer's annual report, or in a separate report. Regardless of the format adopted, the ESG report should be published on the Exchange's website and the issuer's website. (2) Where the ESG report does not form a part of the issuer's annual report, to the extent permitted under all applicable laws and regulations and the issuer's own constitutional documents, an issuer is not required to provide printed form of the ESG report to its shareholders irrespective of whether such shareholders have elected to receive the issuer's corporate communication electronically or otherwise under rule 2.07A. (3) The issuer must notify the intended recipient of: (i) the presence of the ESG report on the website; (ii) the address of the website; (iii) the place on the website where it may be accessed; and (iv) how to access the ESG report. (4) Notwithstanding the above, the issuer shall promptly provide a shareholder with a printed form of the ESG report upon its specific request. (5) Where the ESG information is not presented in the issuer's annual report, the issuer should publish such information as close as possible to, and in any event no later than four months after the end of the financial year to which such information relates.	Not Applicable
Overall Approach	
5. This Guide is organised into two ESG subject areas ("Subject Areas"): Environmental (Subject Area A) and Social (Subject Area B). Corporate governance is addressed separately in the Corporate Governance Code.	Not Applicable
6. Each Subject Area has various aspects ("Aspects"). Each Aspect sets out general disclosures ("General Disclosures") and key performance indicators ("KPIs") for issuers to report on in order to demonstrate how they have performed.	Not Applicable
7. In addition to the "comply or explain" matters set out in this Guide, the Exchange encourages an issuer to identify and disclose additional ESG issues and KPIs that reflect the issuer's significant environmental and social impacts; or substantially influence the assessments and decisions of stakeholders. In assessing these matters, the issuer should engage stakeholders on an ongoing basis in order to understand their views and better meet their expectations.	Not Applicable
8. This Guide is not comprehensive and the issuer may refer to existing international ESG reporting guidance for its relevant industry or sector. The issuer may adopt international ESG reporting guidance so long as it includes comparable disclosure provisions to the "comply or explain" provisions set out in this Guide.	Not Applicable
9. The issuer may seek independent assurance to strengthen the credibility of the ESG information disclosed. Where independent assurance is obtained, the issuer should describe the level, scope and processes adopted for assurance clearly in the ESG report.	Not Applicable
10. The board has overall responsibility for an issuer's ESG strategy and reporting.	Not Applicable
Complementing ESG discussions in the Business Review Section of the Directors' Report	Not Applicable
11. Pursuant to paragraph 28(2)(d) of Appendix 16 of the Main Board Listing Rules, an issuer's directors' report for a financial year must contain a business review in accordance with Schedule 5 to the Companies Ordinance. The business review must include, to the extent necessary for an understanding of the development, performance or position of the issuer's business: (i) a discussion of the issuer's environmental policies and performance; (ii) a discussion of the issuer's compliance with the relevant laws and regulations that have a significant impact on the issuer; and (iii) an account of the issuer's key relationships with its employees, customers and suppliers and others that have a significant impact on the issuer and on which the issuer's success depends. This Guide should complement the content requirements of the directors' report, as it calls for issuers to disclose information in respect of specific ESG areas.	Not Applicable

Part B: Mandatory Disclosure Requirements	Page	
12. A statement from the board containing the following elements:		
Governance Structure		
(I) a disclosure of the board's oversight of ESG issues; (ii) the process used to identify, evaluate and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets. Note: The board statement should include information on the issuer's current ESG management approach, strategy, priorities and goals/targets and an explanation of how they relate to the issuer's businesses.	12	
Reporting Principles		
13. A description, or an explanation on the application of the following reporting principles in the preparation of the ESG report: Materiality: The threshold at which ESG issues determined by the board are sufficiently important to investors and other stakeholders that they should be reported. The ESG report should disclose: (i) a description of significant stakeholders identified; (ii) the process and results of the issuer's stakeholder engagement (if any); and (iii) the criteria for the selection of material ESG factors. Quantitative: KPIs in respect of historical data need to be measurable. The issuer should set targets (which may be actual numerical figures or directional, forward-looking statements) to reduce a particular impact. In this way the effectiveness of ESG policies and management systems can be evaluated and validated. Quantitative information should be accompanied by a narrative, explaining its purpose, impacts, and giving comparative data where appropriate. Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used for the reporting of emissions/energy consumption (where applicable) should be disclosed. Balance: The ESG report should provide an unbiased picture of the issuer's performance. The report should avoid selections, omissions, or presentation formats that may inappropriately influence a decision or judgment by the report reader. Consistency: The issuer should use consistent methodologies to allow for meaningful comparisons of ESG data over time. The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.	About the report	
Reporting Boundary		
14. A narrative explaining the reporting boundaries of the ESG report, describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About the report	
Part C: "Comply or explain" Provisions		
Subject Areas, Aspects, General Disclosures and KPIs		
A. Environmental		
General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Hazardous wastes are those defined by national regulations.	36	
Aspect A1: Emissions		
KPI A1.1	The types of emissions and respective emissions data.	40
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	40
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	40

Aspect A1: Emissions	KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	40
	KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	39–40
	KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	36–37
Aspect A2: Use of Resources	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials. Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.		36
	KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	40
	KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	40
	KPI A2.3	Description of energy use efficiency and a description of target(s) set and steps taken to achieve them.	39–40
	KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency and a description of target(s) set and steps taken to achieve them.	36–37 39–40
	KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	36
Aspect A3: The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impacts on the environment and natural resources.		36
	KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	36
Aspect A4: Climate Change	General Disclosure Policies on measures to identify and mitigate significant climate-related issues which have impacted, and those which may impact the issuer.		37
	KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact the issuer, and the actions taken to manage them.	40
B. Social			
Employment and Labour Practices			
Aspect B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.		26
	KPI B1.1	Total workforce by gender, employment type (i.e. full- or parttime), age group and geographical region.	16
	KPI B1.2	Employee turnover rate by gender, age group and geographical region.	28
Aspect B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.		28

Aspect B2: Health and Safety	KPI B2.1	Number and rate of workrelated fatalities occurred in each of the past three years including the reporting year.	34
	KPI B2.2	Lost days due to work injury.	35
	KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	28–34
Aspect B3: Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.		17–26
	KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	18
	KPI B3.2	The average training hours completed per employee by gender and employee category.	17
Aspect B4: Labour Standards	General Disclosure Information on:(a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.		16
	KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	16
	KPI B4.2	Description of steps taken to eliminate such practices when discovered.	No violation
Aspect B5: Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.		52–53
	KPI B5.1	Number of suppliers by geographical region.	Not mentioned
	KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	46、 52
	KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	53
	KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, how they are implemented and monitored.	52
Aspect B6: Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer		45
	KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	None
	KPI B6.2	Number of products and service related complaints received and how they are dealt with.	47
	KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	43–44
	KPI B6.4	Description of quality assurance process and recall procedures.	47
	KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	47

Aspect B7: Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.		42
	KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	None
	KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	42-43
	KPI B7.3	Description of anti-corruption training provided to directors and staff.	43
Community			
Aspect B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.		56, 57
	KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	55-75
	KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	55



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INDEPENDENT ASSURANCE STATEMENT

Introduction and objectives of work

BUREAU VERITAS has been engaged by Zhejiang Huayou Cobalt Co., Ltd. (hereafter referred to as "Huayou Cobalt ") to conduct an independent assurance to 2018 Corporate Social Responsibility Report (hereafter referred to as "the Report") of Huayou Cobalt. This Assurance Statement applies to the related information included within the scope of work described below. This information and its presentation in the report are the sole responsibility of the management of Huayou Cobalt. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent verification statements according to the objectivity and reliability of the disclosure of information on the basis of the collection, analysis and management process of the report.

Scope of work

- Data and information included in the report for the report period from 2019.1.1 to 2019.12.31;
- Appropriateness and robustness of underlying reporting systems and processes, used to collect, analyse and review the information reported;
- The assessment team visited Huayou Cobalt head-quarters (located in No.18 Wuzhen E. Rd. Economic Development Zone of Tongxiang, Zhejiang Prov. P.R. China) and Quzhou Huayou Cobalt New Material Co.,Ltd.,Huayou New Energy Technology (Quzhou) Co.Ltd.(all located in No.18,Nianxin Road ,Hi-tech Industrial Park(Phase II), Quzhou, Zhejiang Province, P. R.C), BV did not visit other site and its stakeholders.
- Excluded from the scope of our work is any assurance of information relating to:
 - Activities outside the defined assurance period;
 - Positional statements (statements of beliefs, goals, future intention and future commitment);
 - Much of the operating financial data in this Report is taken from Huayou Cobalt Annual Reporting and accounts, which is separately audited by an external auditor and therefore excluded from the scope of the Bureau Veritas assurance.

Methodology

As part of its independent assurance, Bureau Veritas undertook the following activities:


- Interviews with relevant personnel of Huayou Cobalt;
- Review of documentary evidence produced by Huayou Cobalt;
- Audit of sampled CSR performance data;
- Assessment of data and information systems for collection, aggregation, analysis and review.

Our work was conducted against Bureau Veritas' standard procedures and guidelines for external Assurance of Sustainability Reports, based on current best practice in independent assurance. For this assignment, we have used the verification rules and instructions IASE3000, AA1000 and GRI. The work was planned and carried out to provide reasonable, rather than absolute assurance and we believe it provides a reasonable basis for our conclusions.

Our Conclusions

On the basis of our methodology and the activities described above, it is our opinion that: The revised information included in the report are objective, reliable and free from material mistake or misstatement;

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Certification

Objectivity
The information and data presented in the report is objective and reliable. Huayou Cobalt uses information system to collect and sort operation, HR, safety and environmental data. Through on-site verification, the evidence provided by Huayou Cobalt is reliable and traceable.

Completeness
The Report covered Zhejiang Huayou Cobalt Co., Ltd. and its wholly owned and holding subsidiaries. It focus on " Organization Governance ", " The Stakeholders' Participation/Materiality Analysis ", " Labor Practice and Human Rights ", " Environment ", " Business Ethics ", " Product Responsibility ", " Responsible Supply Chain ", " Public Welfare " and also disclosure corporate social responsibility management, economic responsibility, and community responsibility which stakeholders concerned issues.

Materiality
According to CSR requirements of SASAC and Shanghai Stock Exchange, by reference to GRI and ISO26000 standards requirements, Huayou Cobalt identified and disclosed reasonably nonferrous metallurgy industry involving key CSR issues and key information.

Statement of independence, impartiality and competence
Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Society responsibility and Environmental management with almost 190 years history in providing independent assurance services. No member of the assurance team has a business relationship with Huayou Cobalt. We have conducted this verification independently, and there has been no conflict of interest.

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2020-04-23

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2020-04-23

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Reader Feedback

Dear Readers,

Greeting!

Thank you very much for reading the 2019 Corporate Social Responsibility Report of Zhejiang Huayou Cobalt Co., Ltd. If you have any ideas or suggestions for this report, please fill in the following feedback form and send us your feedback form by mail, fax or email. We greatly appreciate your valuable opinions!

Name: _____ Contact phone: _____ E-mail: _____

1. Which section do you think provides important information for you?

- Introduction of Huayou Organization Governance The Stakeholders' Participation&Materiality Analysis
- Labor Practices and Human Rights Environment Business Ethics
- Product Responsibility Public Welfare Responsible Supply Chain Management

2. How do you think about this report?

- Legibility Good Fair Bad
- Integrity Good Fair Bad
- Balance Good Fair Bad
- Layout design Good Fair Bad
- Overall impression Good Fair Bad

3. Do you have any suggestion for our next annual report?

4. Please contact us:

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