



中国中铁股份有限公司
CHINA RAILWAY GROUP LIMITED



2019 社会责任报告暨 ESG (环境、社会及管治)报告

本公司董事会及全体董事保证本报告内容不存在任何虚假记载、误导性陈述或重大遗漏，并对其内容的真实性、准确性和完整性承担个别及连带责任。

目录

Catalogue

2	报告编制说明 Preparation of this Report
4	董事长致辞 Chairman's Statement
6	关于我们 About us
12	管治篇 Governance
24	环境篇 Environment
40	社会篇 Society
68	专题一：践行“三个转变”重要指示 Topic 1: Implementing the Important Instructions of "Three Transformations"
76	专题二：坚决打好精准脱贫攻坚战 Topic 2: Resolutely Carry Out the Targeted Poverty Alleviation Campaign
86	专题三：高质量共建“一带一路” Topic 3: Joint Construction of the "Belt and Road" with High Quality
97	展望 Outlook
98	意见反馈 Feedback



报告编制说明 Preparation of this Report

报告范围：本报告为公司第12份社会责任报告，披露中国中铁股份有限公司及所属子分公司履行经济、公司治理、社会和环境方面责任的信息。典型案例均来自所属企业。报告时间跨度为2019年1月1日至12月31日，适当关注了2019年以前公司履行社会责任的情况。

发布周期：年度报告。

参考依据：

- 联合国全球契约颁布的“十大原则”
- 全球报告倡议组织《可持续发展报告标准》
- 中国国家标准GB/T36000-2015《社会责任指南》
- GB/T36001-2015《社会责任报告编写指南》
- GB/T36002-2015《社会责任绩效分类指引》
- 国务院国资委《关于中央企业履行社会责任的指导意见》
- 上海证券交易所《上市公司环境信息披露指引》
- 香港联合交易所《环境、社会及管治报告指引》

Reporting scope: This is CREC's 12th social responsibility report for disclosure of information on performance of economic, corporate governance, social and environmental responsibilities by China Railway Group Limited and its subsidiaries. All cases are from enterprises under CREC. With the time span of 1st January to 31st December of 2019, this report pays due attention to how the CREC fulfilled its social responsibility before 2019.

Reporting frequency: yearly report.

References:

The Ten Principles promulgated by the UN Global Compact
GRI (Global Reporting Initiative) Standards
Chinese National Standard GB/T 36000-2015: Guidance on Social Responsibility
GB/T36001-2015: Guidance on Social Responsibility Reporting
GB/T36002-2015: Guidance on Social Responsibility Performance Classification
SASAC of the State Council's Guiding Opinions on Performance of Social Responsibilities by Central Enterprises
Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange
The Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited

数据说明：报告披露的财务数据来自公司财务报告，如与公司年度报告有出入，以年度报告为准，其他数据来自公司内部统计。

称谓说明：为便于您的阅读，中国中铁股份有限公司在本报告中以“中国中铁”“公司”“我们”等方式进行表述。

改进说明：本报告根据利益相关方的反馈和当前国内外ESG领域热点议题，根据公司发展实际，分“管治篇”“环境篇”“社会篇”对公司履行企业社会责任及ESG各主要议题的绩效进行汇报。

本报告增设了践行“三个转变”重要指示、坚决打好精准脱贫攻坚战、高质量共建“一带一路”3个专题，充分展示公司积极担当央企责任，在国家可持续发展 and 构建人类命运共同体中发挥的作用。

报告承诺：本公司董事会及全体董事保证本报告内容不存在任何虚假记载、误导性陈述或重大遗漏，并对其内容的真实性、准确性和完整性承担个别及连带责任。

Explanation of the information: The financial information disclosed in this report is derived from the Company's financial statements. In case of discrepancy between this report and the Company's annual report, the latter shall prevail. Other information is derived from the Company's internal statistics.

Title description: To facilitate your reading, China Railway Group Limited is described as "CREC", "the Company" and "We/us" in this report.

Explanation of improvement: Based on the feedback from our stakeholders and the hot topics of different ESG areas in China and abroad, and in line with the status of development of the Company, we prepared this report in three chapters, the "governance section", "environment section" and "society section" to illustrate the Company's corporate social responsibility performance and major ESG topics.

Three special sections were added in this report, i.e., "Implementing the important instructions of 'three transformations', 'Resolutely fighting the battle for targeted poverty alleviation', and 'Joint construction of the 'Belt and Road' with high quality", fully demonstrating that the Company has actively fulfilled its responsibilities as a central enterprise and the role it has played in the sustainable development of China and the construction of community of shared future for mankind.

Undertakings in this report: The Board of Directors and all directors of the Company ensure that there is no false record, misleading statement or major omission in this report and they will bear individual and joint liabilities for the authenticity, accuracy and integrity of the contents.

董事长致辞 Chairman's Statement



2019年是中华人民共和国成立70周年，也是中国中铁发展史上极不平凡的一年。这一年，我们全面践行习近平新时代中国特色社会主义思想，牢记习总书记对中国中铁雄安新区建设者的殷殷期望，传承一代代中铁人对祖国和人民的担当和忠诚，不忘初心、牢记使命，全面实现了公司各项奋斗目标。这一年，我们抢抓市场机遇、乘势而上，主要经济指标再创历史新高。这一年，我们深入开展项目管理实验室活动，加速推进三级工程公司建设，企业治理效能大大提高。这一年，我们重组整合内部资源，不断优化经营布局和产业布局，企业改革持续深入。这一年，我们优质高效建设京张高铁、浩吉铁路、平潭跨海大桥、大柱山隧道等一大批重难点工程，企业品牌信誉不断提升。这一年，我们参与“一带一路”建设，积极推进雅万高铁、中老铁路、大马城等项目建设，公司国际化发展不断加快。这一年，我们持续做好定点扶贫开发及援疆援藏援青工作，坚决打赢精准脱贫攻坚战，扶贫帮困

2019, as the 70th anniversary for the founding of the People's Republic of China, is also an extremely unusual year in the history of CREC. In this year, we fully practiced Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, bore in mind general secretary Xi's ardent expectations towards all CREC participants in the construction of the Xiong'an New Area, and inherited the commitment and loyalty of China Railway's staff from generation to generation towards our motherland and people by remaining truth to our original aspiration and bearing in mind our missions, achieving all goals of the Company. In this year, we seized market opportunities and forged ahead, with major economic indicators reaching new record high. In this year, we further carried out laboratory activities for project management and accelerated promotion of construction by grade 3 project companies, with improving efficiency of corporate governance. In this year, we reorganized integration of internal resources and kept optimizing business layout and industrial layout, furthering reforms of the enterprises. In this year, we constructed with high quality and efficiency a great number of major difficult projects including the Jingzhang High-Speed Rail (京张高铁), the Haoji Railway (浩吉铁路), the Pingtan Cross-sea Bridge (平潭跨海大桥) and the Dazhushan Tunnel (大柱山隧道), thus enhancing the brand reputation of the enterprises. In this year, we participated in the "Belt and Road" construction and actively promoted the construction of projects including the Jakarta-Bandung High-Speed Rail (雅万高铁), the China-Laos Railway (中老铁路) and Bandar Malaysia (大马城), hence accelerating the Company's international development. In this year, we continued to perform targeted

成效显著。这一年，我们坚持发展依靠职工、发展为了职工、发展成果让职工共享，员工幸福感和获得感不断提升，形成了同心同向、共建共享的良好局面。

2019年1月，习近平总书记考察雄安新区时，勉励中国中铁京雄城际建设者：“城市建设、经济发展，交通要先行，你们正在为雄安新区建设这个‘千年大计’做着开路先锋的工作，功不可没。”这充分体现了我们为民族复兴筑路的责任和担当，充分展现了我们不畏艰难、自强不息的开路先锋气概。

2019年，中国中铁排名世界企业500强第55位，中国企业500强第12位。公司获得国家科技进步奖4项、国家技术发明奖1项、建筑工程鲁班奖10项，国家优质工程奖57项。

2020年，中国中铁将一如既往地忠实履行企业使命，在全面建成小康社会和构建人类命运共同体的实践中作出新的更大贡献！

董事长：张宗言
2020年3月

poverty alleviation while aiding Xinjiang, Tibet and Qinghai, achieving remarkable results in helping those in poverty and difficulties due to our steadfast resolve to win the tough battle of targeted poverty alleviation. Also in this year, we insisted on development relying on our employees, for our employees and sharing development results with our employees, with increasing sense of happiness and reward of our employees which in turn forged unity as well as co-building and sharing.

In January 2019, when general secretary Xi Jinping inspected the Xiong'an New Area, he encouraged staff of CREC who participated in the construction of the Jingxiong Intercity Railway, "Transportation must go first before city construction and economic development. You are making great contribution in acting as pioneers for this 'millennium plan' of constructing the Xiong'an New Area." This has fully reflected our responsibility and commitment for building the road towards national rejuvenation, and fully demonstrated our pioneering spirit of fearless of difficulties and restless self-improvement.

In 2019, CREC ranked 55th in the World's top 500 enterprises and 12th in top 500 Chinese enterprises. The Company won 4 prizes for National Progress in Science and Technology, 1 prize for National Technical Invention Award, 10 Luban Prizes for China and 57 prizes for National Quality Projects Award.

In 2020, CREC will continue to faithfully fulfill its corporate missions, making new and greater contributions in the realization of building a comprehensively prosperous society in all aspects and the construction of community of shared future for mankind!

Chairman of the Board: Zhang Zongyan
March 2020

》关于我们 About Us

公司简介 Company profile

中国中铁拥有120多年的历史渊源。以1894年山海关机器厂的成立为标志，中国中铁成为中国民族工业的先行者和铁路建设的开拓者。1909年参与建成了京张铁路，1912年建成了京奉铁路，开启了中国铁路建设事业的先河。

中国中铁于2007年分别在上海、香港两地上市。目前已发展成为集勘察设计、施工安装、工业制造、房地产开发及其他业务于一体的特大型企业集团，全球最大的建筑工程承包商之一。公司总资产10,561.9亿元，净资产2,454.7亿元。

公司经营范围覆盖到基础设施建设的各个领域，工程项目遍布中国除台湾省以外的各省市自治区以及全球90多个国家和地区，科技水平在诸多领域达到世界先进水平。

CREC has over 120 years of historical origin. With the establishment of the Shanhaiguan Machinery Plant in 1894 as a milestone, CREC has since become the forerunner of national industry and the pioneer of railway construction in China. We participated in and completed construction of the Jingzhang Railway in 1909, and completed construction of the Beijing-Harbin Railway in 1912, setting the precedent for China's railway construction.

CREC went listing respectively in Shanghai and Hong Kong in 2007. Currently it has developed into an extremely large enterprise group with survey and design, construction and installation, industrial manufacturing, real estate development and other business. It is one of the largest construction contractors in the world with total assets of RMB1,056.19 billion and net assets of RMB245.47 billion.

CREC's business scope covers all infrastructure construction fields, with projects spreading all over China's provinces and autonomous regions except for Taiwan and more than 80 countries and regions in the world. The technological level in many areas has reached the world's advanced level.



企业价值观 Corporate values



01

企业精神：勇于跨越 追求卓越

CORPORATE SPIRIT:

Brave to Overcome Difficulties and Pursuit for Excellence

02

核心价值观：诚信敬业 共建共享

CORE VALUE:

Honesty and Professionalism, Co-building and Sharing

04

企业使命：奉献精品 改善民生

CORPORATE MISSION:

Dedication to Excellent Products for Better People's Livelihood

03

企业宗旨：创新创效 优质发展

CORPORATE TENET:

Innovation and Efficiency for High Quality Development

05

企业愿景：国内领先 世界一流

CORPORATE VISION:

Leading in China and First-class in the World

社会评价

Assessment by the society

连续**14**年进入《财富》“**世界500强**”排名，列第**55**位；

Being named in “Fortune” for 14 consecutive years, ranked No.55 among Global 500 companies;

“**中国企业500强**”排名，列第**12**位；

Ranked No.12 among top 500 Chinese enterprises;

《工程新闻记录》（ENR）“**全球250家最大承包商**”排名，列第**2**位；

Ranked No.2 among ENR’s Largest Global Contractors;

连续**6**年被国务院国资委评定为业绩考核**A**类企业；

Accredited class A enterprises for performance appraisal by the SASAC of the State Council for six consecutive years;

首次荣获美国《机构投资者》评选的2019年度亚洲区“**最佳企业管理团队**”五大奖项；

Won 5 prizes in 2019 Asian “Best Corporate Management Team” selected by “Institutional Investors” of the United States;

《新财富》最佳第二届新财富**最佳IR港股公司**；

Won the Best IR Hong Kong Stock Company by New Fortune for the second year;

天马奖—中国主板上市公司投资者关系**最佳董事会**；

Won the Tianma Award - the “Best Board of Directors of China Main Board Listed Company for Investor Relation”;

金紫荆“**新中国成立70周年卓越贡献企业**”奖；

Golden Bauhinia “Outstanding Contribution Enterprise for the 70th Anniversary of the Founding of New China” Award;

金圆桌“**最佳董事会**”；

Golden Round Table - the “Best Board of Directors” by Directors & Boards;

“港股综合实力**100强**、营业额**10强**”。

Top 100 Hong Kong stocks & Top 10 turnover.

社会责任规划

Planning of social responsibilities

作为建筑行业的领军企业，中国中铁始终以成为企业社会责任的实践者、推动者和引领者为己任。自2008年起，开始着手建立科学、规范、系统、有效的企业社会责任管理体系，从公司总部到各子公司全面开展了一系列社会责任管理实践活动，以实现全面覆盖、充分履行、日臻完善、行业领先的社会责任目标，为社会持续提供不可替代的杰出贡献。

As a leader in the construction industry, CREC never forgets its mission of becoming a practitioner, promoter and pioneer of corporate social responsibility. CREC started to construct a scientific, standardized, systematic and effective corporate social responsibility management system in 2008, rolling out a series of social responsibility management activities covering its headquarters and subsidiaries in order to achieve the goals of comprehensive coverage, down-to-earth implementation, steady perfection and industrial leading, and make continuous and irreplaceable contributions to the society.



利益相关方沟通和关键议题重要性评估

Communication with stakeholders and materiality assessment

中国中铁通过与各利益相关方多渠道的沟通，积极了解其对公司履行企业社会责任的期望和要求，力求在提升自身ESG表现的同时，切实回应和满足利益相关方需求。

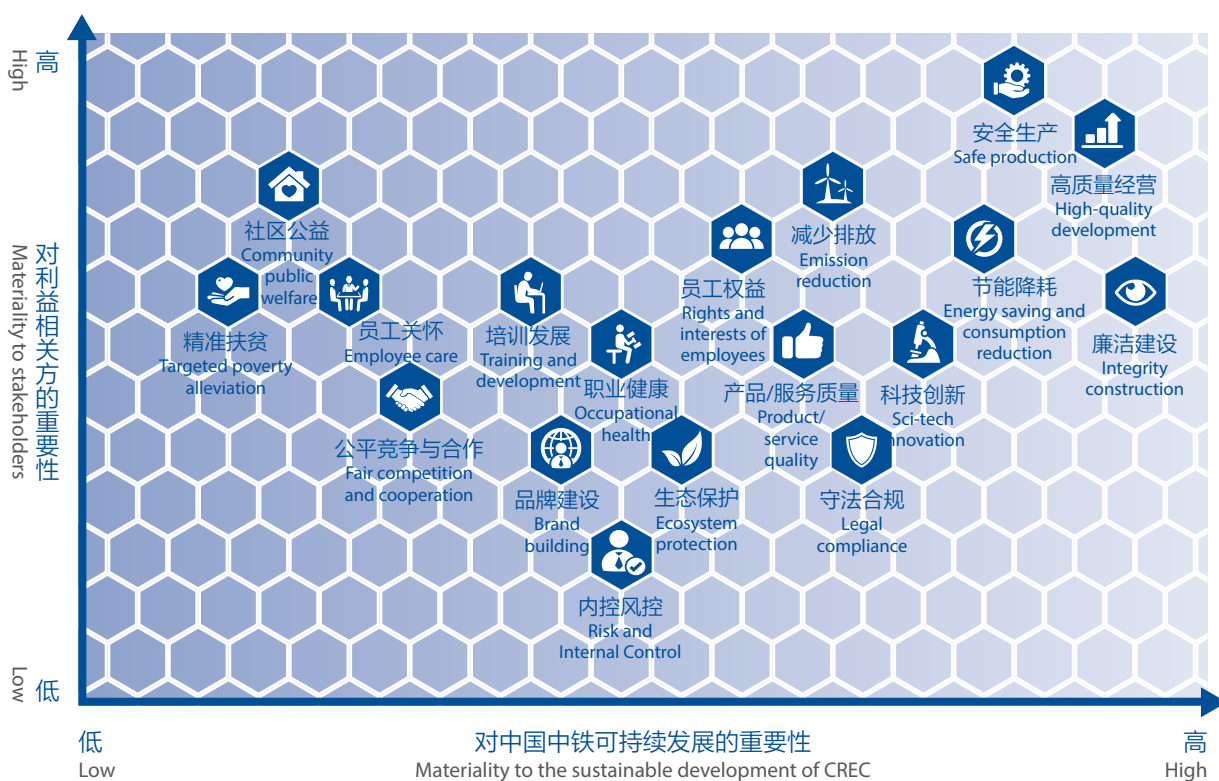
Through multi-channel communications with its stakeholders, CREC carefully listens to their expectations and requirements on our corporate social responsibility performance corporate social responsibility, aiming to quickly respond to and meet their needs while actively improving our performance.

	利益相关方说明 Description of Stakeholders	沟通方式或渠道 Communication Channels
政府及监管机构 Government and regulatory authorities	税务、环保、安全等部门、地方政府、证监会等监管机构 Tax, environmental and security authorities, local government, CSRC	政策执行、公文往来、信息报送、机构考察、参加相关会议、专题会议、日常工作会议、信息披露等 Implementation of policies, official documents, reporting, inspection, participating in relevant meetings, dedicated meetings, routine meetings, information disclosure
股东及投资者 Shareholders and investors	对中国中铁进行合法股权、债券投资的投资人 Investors with legal investments in the equity interests and securities of CREC	股东大会、企业年报、业绩发布、公司网站、信息披露、日常接待、电话答疑等 Shareholders' meeting, annual reports, results announcement, corporate website, information disclosure, visit reception, telephone inquiry
客户 Customers	通过购买中国中铁的产品或服务，与中国中铁有直接的经济关系的企业或个人 Enterprises and individuals with direct economic connections with CREC through buying its products or services	服务热线、售后服务、座谈与走访等 Service hotline, after-sales services, meetings and visits
供应商 Suppliers	向中国中铁合法提供产品或服务的企业或个人 Enterprises and individuals legally providing products or services to CREC	公开招投标程序、合同谈判、日常业务交流等 Public tenders, contract negotiation, daily business exchanges
合作伙伴 Partners	与中国中铁达成合作共识的企业或机构 Enterprises and individuals entering into cooperation with CREC	合作谈判、日常工作会议等 Cooperation negotiations, regular meetings
员工 Employees	与中国中铁签订正式劳动合同及常年服务于中国中铁业务的人员 Individuals entering into formal labor contracts with CREC and serving it full-time	工会、职工代表大会、员工手册、员工活动、员工培训等 Trade union, employee representatives' meeting, staff manual, staff activities, staff training
社区及公众 Community and public	运营所在地社区、社会公众、非营利组织等 Communities in which CREC operates, social public and non-profitable organizations	社区活动、员工志愿者活动、公益活动、社会事业支持等 Community activities, voluntary activities, public welfare activities, social cause support
高校及科研机构 Colleges and R&D institutes	与中国中铁建立合作关系的大学、学院、科研机构等 Colleges and R&D institutes in cooperation with CREC	公司招聘宣讲、员工进修、研讨会、学术交流等 Recruitment sessions, staff training, seminars, academic exchanges



在与利益相关方沟通的基础上，中国中铁对ESG实质性议题及行业热点议题进行了识别和重要性评估，将评估结果以关键议题重要性评估矩阵的方式呈现，并据此结果在本报告中对各项重要议题予以回应。

During the communication with its stakeholders, CREC identified material issues of ESG and hot topics in the industry and evaluated their materiality, with the results presented in a matrix of materiality assessment and responded all issues in this report based on the results.



管治篇

Governance

公司治理
Corporate Governance

合规管理
Compliance Management

反腐倡廉
Anti-corruption

审计监督
Audit Supervision

规范关联方交易
Regulating Related Party Transactions





公司治理 Corporate Governance

治理架构

Governance structure

公司董事会是公司的决策机构，对股东大会负责。截至报告期末，公司董事会由8名董事组成，其中执行董事3名，分别为董事长、执行董事、党委书记张宗言，执行董事、总裁、党委副书记陈云，执行董事、党委常委章献；非执行董事1名，由中央企业专职外部董事马宗林担任；独立非执行董事4名，分别为郭培章、闻宝满、郑清智、钟瑞明。董事会下设战略、审计与风险管理、薪酬与考核、提名、安全健康环保五个专门委员会，其中提名委员会和安全健康环保委员会委员外部董事占多数、审计与风险管理委员会和薪酬与考核委员会委员全部由外部董事担任。

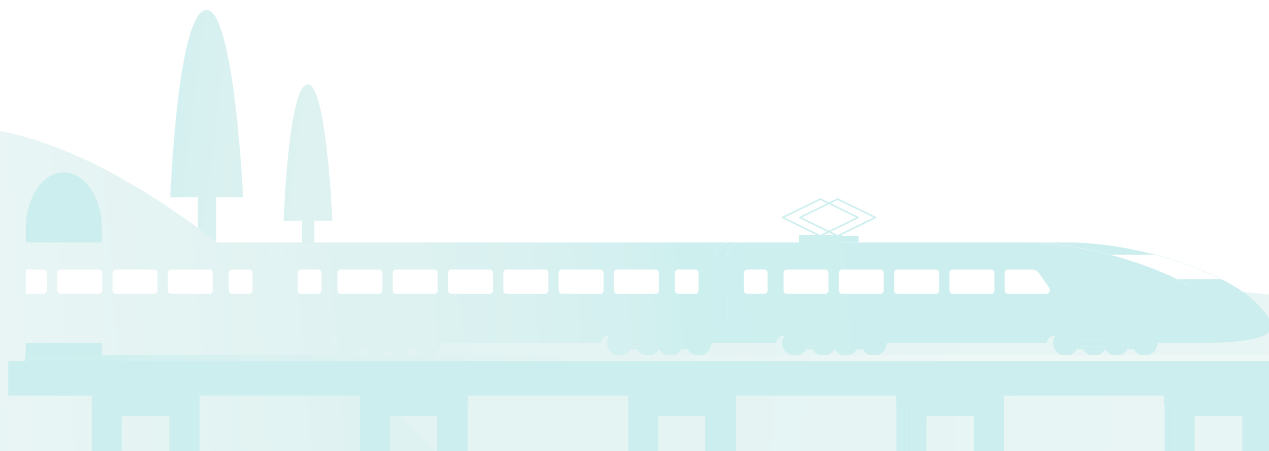
公司监事会是公司的监督机构，本着对股东负责的态度，认真对公司财务和公司董事、高级管理人员履行职责的合法合规性等进行监督。截至报告期末，公司监事会由5名监事组成，其中股东代表监事两名，分别为监事会主席张回家、监事陈文鑫，职工代表监事三名，分别为刘建媛，苑宝印，范经华。

公司经理层是公司的执行机构，组织生产经营日常工作，执行董事会决议和行使董事会授权事项决策权，定期向董事会报告生产经营情况、反馈决议执行情况。截至报告期末，公司经理层由9人组成，其中总裁1人、副总裁5人、财务总监1人、总工程师1人，总经济师1人、总法律顾问1人（兼任公司副总裁）。

The Board of Directors is the Company's decision-making body and is responsible for the general meeting. As of the end of the reporting period, the Board of Directors consists of 8 directors, including 3 executive directors, namely Chairman, executive director and Party Secretary Zhang Zongyan, executive director, President and deputy Party Secretary Chen Yun and executive director and standing committee member of the Party Committee Zhang Xian; 1 non-executive director, held by Ma Zonglin, a full-time external director of the central enterprises; and 4 independent non-executive directors, namely Guo Peizhang, Wen Baoman, Zheng Qingzhi and Chung Shui Ming. There are 5 special committees of strategy, audit and risk management, remuneration and assessment, nomination as well as safety, health and environment under the Board of Directors, among which the majority of members of the nomination committee and the safety, health and environment committee are external directors, and all the members of the audit and risk management committee and the remuneration and assessment committee are external directors.

The Supervisory Committee is the Company's supervisory body, and in a responsible manner to shareholders, carefully monitors the Company's finances and the legal compliance of the Company's directors and senior management in performing their duties. As of the end of the reporting period, the Company's Supervisory Committee is composed of 5 supervisors, including two shareholder representative supervisors, namely Zhang Huijia, Chairman of the Supervisory Committee, Chen Wenxin, Supervisor, and 3 employees' representative supervisors, including Liu Jianyuan, Yuan Baoyin, and Fan Jinghua.

The Management is the Company's executive body, which organizes the daily work of production and operation, executes board resolutions and exercises decision-making powers authorized by the Board of Directors, and regularly reports the production and operation to the Board of Directors and feedbacks the implementation of resolutions. As of the end of the reporting period, the Company's Management consists of 9 members, including 1 president, 5 vice presidents, 1 CFO, 1 chief engineer, 1 chief economic manager, and 1 general counsel (concurrently serving as the Company's vice president).



报告期内，为适应中国中铁市场化法治化债转股发行股份购买资产之标的资产过户完成后变更股本结构和注册资本的需要，以及《公司法》第四次修正和中国证监会《上市公司治理准则》《上市公司章程指引》等监管规则修订的需要，公司对《章程》进行了相应修订。为进一步规范监事会的议事方式和决策程序，促使监事会科学履职、合规运作，根据监管环境的变化和公司实际，对公司《监事会议事规则》进行了修订完善。

公司始终注重实现董事会成员多元化，以提升董事会决策效率和企业管治水平。根据沪港两地上市规则和监管规定，公司制定了《董事会成员多元化政策》，并遵照执行。公司董事会现任8名董事，其中3名执行董事具有丰富的建筑行业从业及管理经验，5名外部董事分别在电力行业、有色金属行业、银行金融业等领域有着丰富的从业及管理经验，董事会成员的设置与组成符合多元化政策要求，也满足企业发展需要。在董事会成员多元化背景下，公司董事会积极构建民主议事氛围，严格落实议案票决制，充分发挥董事会成员结构多元化的优势，保障每位董事能够积极利用各自丰富的专业知识和管理经验参与公司治理，并对重大事项独立发表意见、进行决策，使董事会决策能够更加全面的关注公司发展，使公司能够更加客观的制定战略、研究问题、防控风险，为提高公司治理水平，提高董事会决策科学性和有效性，维护公司整体利益和全体股东的合法权益，特别是保护中小股东利益发挥了重要作用。

During the reporting period, in order to meet the needs for changing the share capital structure and the registered capital of the CREC under the market-oriented and legal debt-to-equity issue of shares to purchase assets, and requirements stemming from fourth amendment to the Company Law and the Guidelines for the Articles of Association of Listed Companies and the Guidelines for the Articles of Association of Listed Companies issued by CSRC and other regulations, the Company has carried out the corresponding amendment of the Articles of Association. To further standardize the deliberation methods and decision-making procedures of the Supervisory Committee, and to promote the scientific performance and compliance of the Supervisory Committee, the Company's Rules of Procedure for Supervisory Committee were revised and improved in accordance with changes in the regulatory environment and the Company's actual situation.

The Company always pays attention to the diversity of board members to improve board decision-making efficiency and corporate governance. According to the listing rules and regulatory requirements of Shanghai and Hong Kong, the Company has formulated a "Board Diversity Policy" and implemented it in compliance. The Company's Board of Directors currently has 8 directors, of which 3 executive directors have extensive experience in the construction industry and management, and 5 external directors have extensive experience in practice and management in the power industry, non-ferrous metals industry, banking and finance and other fields. The establishment and composition of board members meet the requirements of diversified policies, and also meet the needs for corporate development. Under the background of the diversification of board members, the Company's Board of Directors actively builds a democratic deliberative atmosphere, strictly implements the voting system, and fully utilizes the advantages of diversified board members' structure to ensure that each director can actively make use of his or her rich professional knowledge and management experience to participate in corporate governance, and express opinions and make decisions on major issues independently, so that the Board of Directors can pay more comprehensive attention to the Company's development, and enable the Company to more objectively formulate strategies, research problems and prevent and control risks. In order to improve the level of corporate governance, it improves the scientific and effective decision-making of the Board of Directors, and safeguards the overall interests of the Company and the legitimate rights and interests of shareholders as a whole, in particular, it has played an important role in protecting the interests of minority shareholders.



2019年中期业绩推介会
2019 Interim Results Presentation



2019年第一次临时股东大会
2019 First Extraordinary General Meeting

决策程序

Decision-making process

公司自觉以习近平新时代中国特色社会主义思想为指导，各治理主体谨遵法度、勤勉尽责，各司其职、各负其责、协调运转、有效制衡的公司治理机制不断完善。为保障各治理主体决策程序依法合规有效开展，公司在充分发挥公司章程在企业治理中基础作用的同时，制定了《股东大会议事规则》《董事会议事规则》《董事会战略委员会议事规则》《董事会审计与风险管理委员会议事规则》《董事会薪酬与考核委员会议事规则》《董事会提名委员会议事规则》《董事会安全健康环保委员会议事规则》和《监事会议事规则》，为明确权责和保障科学决策提供了有效的制度依据。公司始终尊重决策程序严肃性，重大决策均在召开会议程序、议案提交程序、议案形式、会议组织程序、议案审议程序、议案表决程序方面切实做到“六个合规”，做到各治理主体对重大事项应议尽议，确保决策程序规范有序。

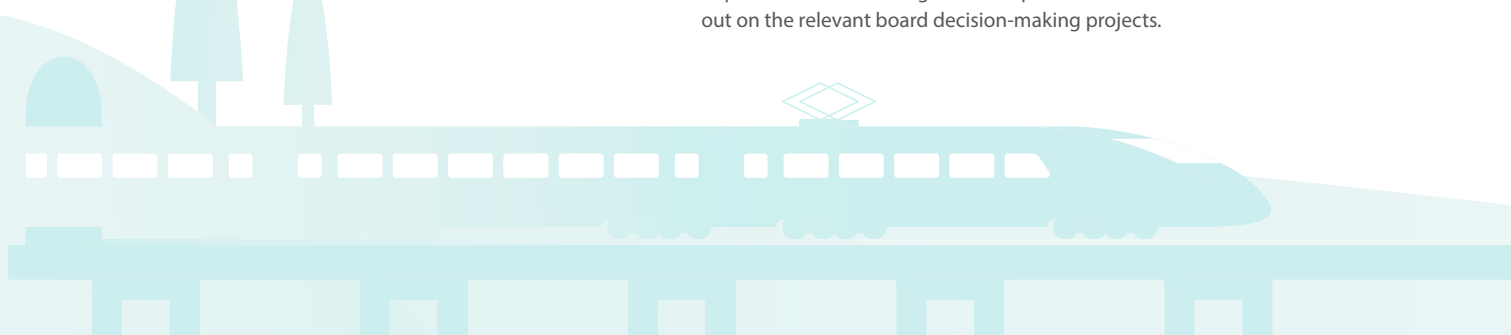
效果评估

Effective evaluation

公司制定《股东大会、董事会决议执行跟踪检查与评价办法》，对董事会决议执行跟踪检查与评价工作的组织机构和职责、信息反馈、检查、评价及结果运用进行了明确，建立了股东大会、董事会决议执行定期反馈机制和董事会授权经理层决策事项执行情况季度报告机制，为董事会充分了解决议执行情况，及时发现决策难点重点，提供了重要保障。报告期内，公司董事会听取经理层关于董事会决议执行情况报告4次，赴数控中心及上海、广西、贵州以及土耳其、克罗地亚、匈牙利等地区，针对董事会决议情况进行了现场调研检查，形成调研报告4份，完成决议执行检查评价6份，对有关董事会决策项目开展了有效的决议执行跟踪和“符合度”评价。

The Company consciously takes Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era as the guidance, and all corporate governance organs are conscientiously abiding by the law, diligently and dutifully, performing their own duties, shouldering their own responsibilities, coordinated operation, and effective checks and balances. In order to ensure the effective implementation of the decision-making procedures of various governance entities in accordance with laws and regulations, the Company, while giving full play to the fundamental role of the Articles of Association in corporate governance, has formulated the Rules of Procedure for Shareholders' General Meetings (《股东大会议事规则》), Rules of Procedure for the Board of Directors (《董事会议事规则》), Rules of Procedure for Strategic Committee of the Board (《董事会战略委员会议事规则》), Rules of Procedure for Audit and Risk Management Committee of the Board (《董事会审计与风险管理委员会议事规则》), Rules of Procedure for Remuneration and Assessment Committee of the Board (《董事会薪酬与考核委员会议事规则》), Rules of Procedure for Nomination Committee of the Board (《董事会提名委员会议事规则》), Rules of Procedure for Safety, Health and Environment Committee of the Board (《董事会安全健康环保委员会议事规则》) and Rules of Procedure for Supervisory Committee (《监事会议事规则》), providing an effective institutional basis for clarifying powers and responsibilities and ensuring scientific decision-making. The Company always attaches importance to the seriousness of decision-making procedures, and major decisions are made to achieve the "Six Compliances" in terms of conference convening procedures, proposal submission procedures, proposal formats, conference organization procedures, proposal review procedures, and proposal voting procedures to make sure that all governance organs should discuss major issues and ensure that the decision-making process is standardized and orderly.

The Company formulated the "Measures for Follow-up Inspection and Evaluation of the Implementation of Resolutions of General Meeting and the Board Meeting", clarified the organizational structure and responsibilities, information feedback, inspection, evaluation and application of results of the implementation of the follow-up inspection and evaluation of the Board of Directors' resolutions. A regular feedback mechanism for the implementation of resolutions of general meeting and board meeting and a quarterly reporting mechanism on the implementation of decision made by Management authorized by the Board of Directors have been established. They provide an important guarantee for the Board of Directors to fully understand the implementation of the resolutions and timely discover the difficult points of decision-making. During the reporting period, the Company's Board of Directors listened to 4 reports from management on the implementation of the board's resolutions, and went to the data control center and Shanghai, Guangxi, Guizhou, Turkey, Croatia, Hungary and other regions to conduct on-the-spot investigation and inspection of the Board of Directors' resolutions, forming 4 research reports and completing 6 inspection and evaluation of the resolution implementation. Effective resolution implementation tracking and "compliance" evaluation have been carried out on the relevant board decision-making projects.



合规管理 Compliance Management

中国中铁始终坚持决策先问法、违法违规不决策的合规管理理念。作为国务院国资委开展合规管理体系建设试点工作的五家试点单位之一，首创“大合规”管理理念，创新性的构建了“三防一查”的合规风险管理机制和“三位一体”的合规部门管理模式，建立了横向到边、纵向到底的合规管理体系。2019年，公司研究制定了《合规手册（总册）》《合规手册（总部管理分册）》《海外业务合规管理指引》及其配套实施细则等制度，进一步完善了公司的合规管理制度体系。

2019年，公司在规章制度清理工作基础上，按照公司“大合规”体系建设要求，从满足合规要求的角度，以日常管理流程中的合规事项为重点，对公司总部共计211项管理流程进行了全面梳理，对每一项管理流程中需要重点关注的合规事项逐一进行审查，增加了合规关注要点的提示，通过流程再造推动公司风险、内控、合规管理体系的融合。

公司高度重视合规教育宣传和培训。2019年12月4日国家宪法日，公司领导班子成员和高管及各二、三级单位主要负责人参加宪法宣誓，所属41家二级单位、511家三级单位共计18,000人通过视频连线同步进行宣誓。2019年，全公司共组织各类合规专题培训839期，参培人数26,802人次。

CREC has always adhered to the compliance management concept of asking the law before decision-making and not making decisions in violation of laws and regulations. As one of the five pilot units of SASAC of the State Council to carry out the pilot compliance management system construction work of, the first “Great Compliance” management idea, innovative construction of the “Three Preventions and One Investigation” compliance risk management mechanism and the “Trinity” compliance department management mode established a compliance management system that horizontal to edge and vertical to the bottom. In 2019, the Company studied and formulated the Compliance Manual (General Volume) (《合规手册(总册)》), Compliance Manual (Headquarters Management Volume) (《合规手册(总部管理分册)》) and Guidelines for Overseas Business Compliance Management (《海外业务合规管理指引》) and its supporting implementation rules, which further improved the Company's compliance management system.

In 2019, on the basis of the clean-up of rules and regulations, in accordance with the requirements of the Company's “Great Compliance” system construction, from the perspective of meeting compliance requirements, the Company focused on compliance issues in the daily management process, and conduct a thorough revision to a total of 211 management processes in the Company's headquarters, reviewed the compliance items that need to be focused on one by one in each management process, and added hints on the key points of compliance, promoting the integration of the Company's risk, internal control and compliance management system through process reengineering.

The Company attaches great importance to compliance education publicity and training. On the National Constitution Day on 4 December 2019, leadership and senior management of the Company and the main responsible persons of the second- and third-tier units took the constitutional oath. A total of 18,000 members from 41 secondary and 511 tertiary units took the oath synchronously through video connections. In 2019, the Company organized a total of 839 training courses on various compliance topics, with 26,802 participants.



奖项
Awards

反腐倡廉 Anti-corruption

公司严格遵守《中华人民共和国刑法》《中华人民共和国反不正当竞争法》《中华人民共和国反洗钱法》《中央纪委关于严格禁止利用职务上的便利谋取不正当利益的若干规定》《中国共产党领导干部廉洁从政若干准则》和《中国共产党廉洁自律准则》等中国及海外业务所在国家或地区的法律法规，坚决禁止贿赂、勒索、欺诈及洗黑钱等行为。其中，《中华人民共和国刑法》明确了贪污贿赂行为的刑事责任；《中华人民共和国反不正当竞争法》规定，公司不得采用财物或者其他手段贿赂有关单位或者个人，以谋取交易机会或者竞争优势；《中共中央纪委关于严格禁止利用职务上的便利谋取不正当利益的若干规定》旨在针对当前查办违纪案件工作中发现的新情况、新问题，特别针对共产党员提出的党的纪律要求；《中国共产党领导干部廉洁从政若干准则》和《中国共产党廉洁自律准则》是党中央为加强党员领导干部廉洁自律工作采取的重要举措。上述法律法规对中国中铁廉洁建设工作具有重要指导意义。公司按照国资委的要求，制定了《海外合规管理办法》，该办法制定的要求符合ISO19600合规管理体系国际标准。

2019年，公司下发了《关于进一步明确若干财经纪律的通知》，在资金收支、融资和商业票据、担保、金融投资、项目财务管理、股权管理、会计核算、办公用房和捐赠、债权债务纠纷等9个方面共列出38项禁止行为。要求公司国内外相关工作人员不得以任何名义提供便利性付款。公司从总部到所属各级企业都设有纪检监察组织，负责反腐败方面的信访举报工作。各级纪检监察组织设有信访举报问题线索处置台账，对每一条问题线索都严格按照拟立案、初步核实、谈话函询、暂存、了解等五种处理方式进行处理，对经查实确有违法违规行为的依法进行处理。同时，要求相关工作人员严格遵守保密制度，保护举报人的安全。对于隐瞒问题线索或失密泄密的，将追究相关人员责任。

The Company strictly abides by the laws and regulations of countries and regions where Chinese and overseas businesses are located such as the Criminal Law of the People's Republic of China (《中华人民共和国刑法》), Anti-Unfair Competition Law of the People's Republic of China (《中华人民共和国反不正当竞争法》), Anti-Money Laundering Law of the People's Republic of China (《中华人民共和国反洗钱法》), Several Provisions of the CPC Central Committee for Discipline Inspection on Strictly Forbidding Seeking of Illegal Benefits by Taking Advantage of Duty (《中央纪委关于严格禁止利用职务上的便利谋取不正当利益的若干规定》), the Rules for Clean Governance of CPC Officials (《中国共产党领导干部廉洁从政若干准则》) and CPC's Code of Integrity and Self-discipline (《中国共产党廉洁自律准则》) and resolutely prohibits bribery, extortion, fraud and money laundering. Among which, the Criminal Law of the People's Republic of China specified criminal responsibility in terms of corruption and bribery acts; Anti-Unfair Competition Law of the People's Republic of China (《中华人民共和国反不正当竞争法》) prohibited the Company to bribe related institution or personnel with property or other approach in exchange for trade opportunity or competitive advantage; Several Provisions of the CPC Central Committee for Discipline Inspection on Forbidding Seeking of Illegal Benefits by Taking Advantage of Duty represented disciplinary requirements of the Party especially for Party members and cadres which was the new situation and issue found from current disciplinary violation investigation; the Rules for Clean Governance of CPC Officials and CPC's Code of Integrity and Self-discipline represented crucial measures adopted by CPC Central Committee for enhancing CPC officials' integrity and self-disciplinary duties. The abovementioned laws and regulations provided important guidance for integrity and self-disciplinary development work at China Railway. In accordance with the requirements of the SASAC, the Company formulated the "Overseas Compliance Management Measures" (《海外合规管理办法》), which was formulated under the requirements of the international standards of the ISO19600 compliance management system.

In 2019, the Company issued the Notice on Further Clarifying Certain Financial Disciplines (《关于进一步明确若干财经纪律的通知》), which listed 38 prohibited behaviors in 9 aspects, including capital receipts and payments, financing and commercial paper, guarantee, financial investment, project financial management, equity management, accounting, office space and donation, and credit and debt disputes, requiring that related domestic and overseas staff of the Company are not allowed to provide facilitation payment in any name. The Company has discipline inspection and supervision organizations from its headquarters to its subordinate enterprises at all levels, which are responsible for the reporting of letters and visits in the field of anti-corruption. Discipline inspection and supervision organizations at all levels have set up accounts for the handling of cases and clues reported through letters and visits, and handle each case and clue strictly in accordance with the five ways of filing cases, preliminary verification, conversation inquiry, temporary record keeping, and understanding, and deal with those who have been found to have violated the law and discipline in accordance with the law. At the same time, the relevant staff are required to strictly abide by the confidentiality system to protect the safety of whistleblowers. For those who conceal any case and clues or lose secrets, the relevant personnel will be held responsible.



反腐败工作联席会
Joint meeting on anti-corruption work



中铁一局领导干部廉洁从业专题教育
CREC No.1 Thematic education on integrity for leading cadres of CREC No.1

完善廉洁制度

Integrity system improvement

2019年为进一步完善落实中央八项规定精神具体措施，公司修订了《总部人员履职待遇、业务支出管理办法》《二级企业领导人员管理办法》《办公用房管理办法》《公务用车管理办法》，不断严明“十五个严禁”。层层签订《党风廉政建设责任书》，并制定《中国中铁领导人员廉洁从业承诺制度》《关于领导人员选拔任用廉洁从业结论性评价办法》等文件以从制度和管理机制上遏制贪腐的发生；深入开展企业领导人员和亲属违规经商办企业专项整治行动。针对十八大以后特别是十九大以后不收敛不收手的做法，坚决严肃查处。

In 2019, in order to further improve and implement the spirit and specific measures of the eight central regulations, the Company amended the Administrative Measures for the Performance of Headquarters Staff and the Management of Business Expenditure (《总部人员履职待遇、业务支出管理办法》), Administrative Measures for Leaders in Secondary Enterprises (《二级企业领导人员管理办法》), Administrative Measures for Office Buildings (《办公用房管理办法》) and Administrative Measures for Official Vehicles (《公务用车管理办法》) and constantly strictly stated the “Fifteen Prohibitions”. The Letter of Responsibility for the Construction of Party's Work Style and Clean Government (《党风廉政建设责任书》) has been signed at various levels, and documents such as the CREC Leader's Integrity Employment Commitment System (《中国中铁领导人员廉洁从业承诺制度》) and Conclusive Evaluation Methods for Leader Selection and Appointment of Integrity Employment (《关于领导人员选拔任用廉洁从业结论性评价办法》) and other documents to curb corruption through improvements in the system and management mechanism have been formulated to further carry out special rectification actions for enterprise leaders and relatives to run enterprises in violation of regulations. We resolutely and seriously investigate and deal with any wrongful practice carrying on after the 18th CPC National Congress, especially after the 19th CPC National Congress.

加强廉洁督导

Enhancing integrity supervision

在工程建设重点领域及关键环节，公司严肃查处违规招投标、违规选人用人、违规选用劳务队伍（供应商）、超合同结算等突出问题，对违规超结、超付费用进行清理，对违纪所得进行收缴；各级纪检组织开展“再监督”，找出管理漏洞，锁定薄弱环节，修订了《劳务分包企业管理办法》及《领导干部插手干预重大事项记录制度》等文件；加强境外项目风险调研，形成《中国中铁关于境外风险防控情况报告》。

2019年，国资委党委第五巡视组在公司开展了为期两个月的巡视工作。反腐败是巡视的重要内容之一。巡视组设置了专门值班电话和专门邮政信箱，重点受理关于违反政治纪律、组织纪律、廉洁纪律、群众纪律、工作纪律和生活纪律等方面的举报和反映。巡视组实事求是、客观公正地指出了中国中铁工作中存在的问题和不足。中国中铁针对这些问题进行了及时整改，依法依规对相关责任人进行了处理。

重视廉洁教育

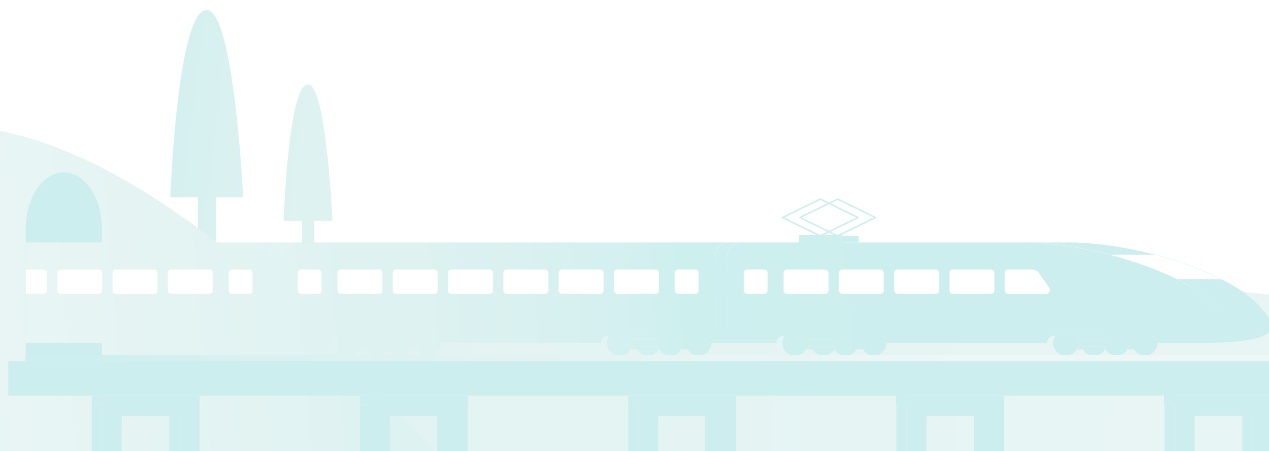
Emphasis on integrity education

2019年公司召开了历史上规模最大的警示教育大会，充分体现了公司全面从严治企的信心和决心。为强化员工廉洁意识，公司编印了警示教育读本《鉴戒》(2019)，在全公司范围内印发34,500余册；组织各单位购买并认真观看《党的十九大以来查处违纪违法党员干部案件警示录》和《叩问初心警示片》，以达到引以为戒、警钟常鸣的效果。

In key areas of engineering construction and key links, the Company seriously investigated and dealt with prominent issues such as illegal bidding, illegal selection of personnel, illegal employment of labor teams (suppliers), and settlement exceeding contract sum, and clears up the illegal oversettlement and overpayment, and confiscated the proceeds from violation of discipline; disciplinary inspection organizations at all levels will conduct “re-supervision” to identify management loopholes and lock on weak links, and revised the “Management Measures for Labor Subcontracting Enterprises” (《劳务分包企业管理办法》) and “Record System for Leading Cadres Intervening in Major Events” (《领导干部插手干预重大事项记录制度》) and other documents; strengthening overseas projects risk investigation and formatting the “Report on Overseas Risk Prevention and Control of CREC” (《中国中铁关于境外风险防控情况报告》).

In 2019, the fifth inspection team of the SASAC Party Committee carried out a two-month inspection at the Company. Anti-corruption was one of the main purposes of the inspection. The inspection team set up a special duty phone and a special post office box for receiving reports and reflections on violations of political discipline, organizational discipline, integrity discipline, mass discipline, work discipline and life discipline. The inspection team realistically and objectively and fairly pointed out the problems and deficiencies in CREC. China Railway has rectified these issues in a timely manner, and dealt with the relevant responsible persons according to law and discipline.

In 2019, the Company held the largest warning education conference in history, which fully reflects the Company's confidence and determination to comprehensively and strictly govern the enterprise. In order to strengthen the staff's awareness of integrity, the Company has compiled a staff alert booklet “Cautions” (《鉴戒》) (2019), and issued more than 34,500 copies throughout the Company; the Company organized all units to purchase and carefully watch the “Admonishing Documentary on Law and Party Rule Violation Cases Involving Party Members Investigated and Punished Since the 19th National Congress of the Party” (《党的十九大以来查处违纪违法党员干部案件警示录》) and the “Warning Video of Interrogation of Initial Heart” (《叩问初心警示片》) in order to give warning and constant alarm.



审计监督 Audit Supervision

建立审计制度 Audit system establishment

公司制定了《审计工作规定》《经济责任审计办法》《内部控制审计办法》《经济效益审计办法》《财务审计办法》《投资项目审计办法》《工程项目审计办法》《内部控制评价管理办法》《审计质量管理办法》等多项制度文件，建立了较为完善的审计制度体系，目前现行有效制度文件共计24项。

完善审计工作机制 Audit mechanism improvement

2019年，公司成立审计工作领导小组，强化公司审计工作的组织领导和统筹协调。制定并实施《关于深入推进企业审计工作改革的通知》，从完善审计工作机制、明确审计工作推动企业高质量发展的重要职责、突出审计工作重点、加强审计发现问题整改落实、夯实审计工作基础5个方面，提出深化企业审计工作改革的18项具体措施，推动公司审计工作改革向纵深发展。

公司贯彻落实《中央企业违规经营投资责任追究实施办法（试行）》（国资委37号令），积极推动违规经营投资责任追究工作体系建设，公司和所属企业相继完成了《违规经营投资责任追究实施办法》及实施细则的制定工作，同时成立了公司违规经营投资责任追究工作领导小组，加强对违规经营投资责任追究的统一领导，努力形成职责明确、流程清晰、规范有序的责任追究工作机制。

The Company has formulated the Rules for Auditing (《审计工作规定》), Measures for Auditing Economic Responsibility (《经济责任审计办法》), Measures for Auditing Internal Control (《内部控制审计办法》), Measures for Auditing Economic Benefits (《经济效益审计办法》), Measures for Financial Auditing (《财务审计办法》), Measures for Auditing Investment Projects (《投资项目审计办法》), Measures for Project Auditing (《工程项目审计办法》), and Measures for the Internal Control Evaluation Management (《内部控制评价管理办法》) and Measures for Auditing Quality Management (《审计质量管理办法》) and other system documents, and established a relatively perfect audit system. At present, there are a total of 24 effective system documents.

In 2019, the Company set up a leading group for audit to strengthen the organization, leadership and coordination of the Company's audit work. The Company formulated and implemented the Notice on Further Promoting the Reform of Enterprise Auditing (《关于深入推进企业审计工作改革的通知》), from 5 aspects including improving the audit mechanism, defining the important responsibility of audit work to promote the high-quality development of enterprises, highlighting the focus of audit work, strengthening the rectification and reform of audit problems, and strengthening the foundation of auditing. It put forward 18 specific measures to deepen the reform of enterprise auditing, so as to promote the reform of corporate auditing to develop in depth.

The Company has implemented the Implementing Measures for the Accountability for Illegal Operation and Investment of Central Enterprises (for Trial Implementation) (SASAC NO.37) (《中央企业违规经营投资责任追究实施办法（试行）》(国资委37号令)), and actively promoted the construction of a working system for the investigation of responsibility for illegal operation and investment. the Company and its affiliated enterprises have completed the formulation of the Implementing Measures for the Accountability for Illegal Operations and Investment (《违规经营投资责任追究实施办法》) and implementation rules, and set up a leading group for the investigation of illegal operation and investment responsibility. We will strengthen unified leadership over the accountability of investment responsibility for illegal business, and strive to form a accountability working mechanism with clear responsibilities, clear procedures, and standardized and orderly accountability.

建设审计信息系统

Audit information system establishment

公司按照优化顶层设计，融入公司信息化总体方案的要求，启动了审计信息系统（一期）建设。项目实施过程中，深入研讨总体功能规划、详细梳理功能需求，加强系统开发的过程督导，确保系统开发工作的顺利推进和按期上线。

In accordance with the requirements of optimizing the top-level design and integrating into the overall plan of the Company's informatization, the Company launched the audit information system establishment (phase I). In the process of project implementation, in-depth study of the overall functional planning, detailed carding of functional requirements, strengthen the process supervision of system development, to ensure the smooth progress of system development and launch online on schedule.



规范关联方交易 Regulating Related Party Transactions

公司严格执行证券监管机构对关联交易管理的相关规定，公司董事会及相关专门委员会严格遵循《公司章程》《关联交易管理办法》以及有关议事规则的要求，对公司关联交易事项进行审议，并定期对公司关联人名单、半年度和全年度的关联交易情况进行了审查，坚持从交易的必要性、定价的公允性、程序的合法性、是否符合股东利益等多角度进行考量。根据上海证券交易所《上市公司关联交易实施指引》关于“上市公司董事会应当规定其下设的审计委员会或关联交易控制委员会履行上市公司关联交易控制和日常管理的职责”和香港联交所关于关联交易管理的要求，公司下设董事会审计与风险管理委员会负责公司关联交易控制和日常管理，定期审查关联人名单和重大关联交易。同时，公司认真把握好证券监管机构关联交易与会计准则界定下的关联交易、香港联交所上市规则下的关联交易的差异，严格履行关联交易的决策程序和披露义务，确保公司关联交易事项规范公允。

The Company strictly implements the relevant regulations of the securities regulatory authorities on the management of related party transactions. The Company's Board of Directors and relevant special committees strictly follow the requirements of the Articles of Association, the Measures for the Management of Related Party Transactions and the relevant procedural rules, consider the Company's related party transactions, and regularly review the list of related party and the interim and annual related party transactions of the Company, insisting on considering the necessity for transactions, fairness of pricing, legality of procedures, and compliance with shareholders' interests. According to the "The board of directors of listed companies shall require its audit committee or related party control committee to perform the duties of controlling and daily management of related party transactions of listed companies" under the Guidelines for the Implementation of Related Party Transaction of Listed Companies issued by Shanghai Stock Exchange, and the requirements of the Hong Kong Stock Exchange on related party transaction management, the Company's audit and risk management committee under the Board of Directors is responsible for the control and daily management of related transactions of the Company, and reviews the list of related parties and major related transactions on a regular basis. At the same time, the Company carefully grasped the differences between connected transactions with securities regulatory authorities and connected transactions as defined by accounting standards, connected transactions under the Hong Kong Stock Exchange Listing Rules, strictly performed the decision-making procedures and disclosure obligations of connected transactions, and ensured that the Company's connected transaction matters are standardized and fair.



环境篇

Environment

环境管理架构

Environmental Management Structure

环境风险管控

Environmental Risk Management

排放物管理

Emissions Management

自然资源使用及保护

Use and Protection of Natural Resources

环境机遇

Environmental Opportunity





环境管理架构

Environmental Management Structure

以“生态优先、绿色发展”为导向，公司持续完善环境管理工作体系，明确环境保护管理工作模式。公司环境管理工作坚持“属地管理”“预防为主，防治结合”“谁污染谁治理”的原则，实行公司统一领导，各子、分公司逐级负责的管理模式，确保环境保护工作有序可控。在考核方面，公司认真执行能源资源节约与生态环境保护考核奖惩体系，强化考核目标，严肃生态环保问题问责。基于系统化的环境管理，公司获得华夏认证中心有限公司颁发的ISO14001环境管理体系认证。

Guided by “Ecological Priority and Green Development”, the Company continues to improve the environmental management system and clarify the environmental protection management mode. The Company’s environmental management work adheres to the principle of “Territorial Management”, “Prevention First, Combined with Prevention and Control” and “Who Pollutes, Who Controls”, and implements the management mode of unified leadership of the Company with subsidiaries and branches responsible for each level to ensure the orderly and controllable environmental protection. In terms of assessment, the Company conscientiously implemented the reward and punishment system for energy conservation and ecological environmental protection assessment, strengthened the assessment objectives, and seriously held accountability for ecological and environmental issues. In terms of the systematic environmental management, the Company obtained ISO14001 environmental management system certification issued by China Certification Center Inc.

环境风险管控

Environmental Risk Management

节约资源和保护环境是我国的基本国策。《中华人民共和国环境保护法》规定，一切单位和个人都有保护环境的义务，企业应当防止、减少环境污染和生态破坏；《中华人民共和国节约能源法》规定，任何单位和个人都应当依法履行节能义务；《建设项目环境保护管理条例》规定工业建设项目应当采用能耗物耗小、污染物产生量少的清洁生产工艺，合理利用自然资源，防止环境污染和生态破坏。上述法律法规对公司的环境风险管控方面提出要求，也明确了我们的工作重点和努力方向。2019年是公司“十三五”能源节约与环境保护工作的关键一年，公司严格遵守《中华人民共和国环境保护法》《中华人民共和国节约能源法》《建设项目环境保护管理条例》等对公司运营有重大影响的法律法规，深入贯彻习近平生态文明思想，树牢绿色发展理念，认真贯彻国家环境保护工作各项方针，落实工作部署和各项要求，扎实开展环境管理工作。根据在建工程、作业场所重点环境因素的识别与评估，公司制定落实项目环境管理工作计划，建立生态环保监控监测体系，加强运营过程中生态环境风险源管理及污染物排放控制，并持续加强生态环保工作督查。

Resource conservation and the environment protection is the fundamental policy of the nation. The Environmental Protection Law of the People’s Republic of China (《中华人民共和国环境保护法》) regulated all institutions and individuals are obliged to environmental protection, and enterprises should prevent and reduce pollution and ecology damage to the environment; the Energy Conservation Law of the People’s Republic of China (《中华人民共和国节约能源法》) regulated all institutions and individuals are obliged to save energy in accordance with the law; the Regulations on the Administration of Construction Project Environmental Protection (《建设项目环境保护管理条例》) regulated industrial construction project to adopt production plan with reduced energy consumptions and pollutants, reasonably make use of natural resource and prevent environmental pollution and ecological damage. The abovementioned laws and regulations required the Company in terms of environmental risk control as well as specified the key idea of our work priorities and directions. 2019 is an important year for the Company’s “13th Five-Year Plan” energy conservation and environmental protection work. The Company strictly abides by laws and regulations that has significant impact on the Company’s operation, such as the Environmental Protection Law of the People’s Republic of China, Energy Conservation Law of the People’s Republic of China and Regulations on the Administration of Construction Project Environmental Protection, thoroughly implements Xi Jinping’s thoughts on ecological civilization, establishes the concept of green development, conscientiously implements various national environmental protection policies, work arrangements and various requirements, and carry out environmental management work in a down-to-earth manner. According to the identification and evaluation of key environmental factors of projects under construction and workplaces, the Company formulates and implements the environmental management work plan for the project, establishes the ecological environmental monitoring system, strengthens the management of ecological environmental risk sources and pollutant discharge control in operation, and continuously strengthens the supervision and inspection of ecological environmental protection.

排放物管理 Emissions Management

公司制定并落实《施工安装现场环保管理办法》《建筑施工环保管理办法》《锅炉房环保管理规定》《废旧物资回收利用管理办法》《金属焊接与气割作业环保管理规定》《机械设备环保管理办法》《库房环保管理规定》《危险废物管理规定》《生产现场定置环境卫生管理规定》等规章制度，形成规范化的工作模式，采取有效措施，对排放物进行控制。

废气管理 Exhaust gas management

公司废气排放主要来自于锅炉燃气燃烧，钢结构加工过程中的冶炼、板材处理、喷砂、打磨及喷涂等工序，主要污染物为二氧化硫、氮氧化物、烟（粉）尘和挥发性有机物（VOCs）。2019年，公司各主要废气污染物均实现达标排放。

公司通过调整产能结构，并通过低氮改造燃气锅炉等方式，减少二氧化硫、氮氧化物的排放。在治理烟（粉）尘方面，公司在运输、存储、施工、生产等方面采取控制措施，通过覆盖、洒水、增加除尘设备、封闭作业等方式有效减少烟（粉）尘。2019年，公司所属多个工业生产基地完成全封闭作业车间专项改造。为治理VOCs，公司在生产线加装活性炭和过滤棉漆雾过滤系统，并按照VOCs治理标准对车间整体进行改造，目前公司所属山桥、宝桥本部均已完成此改造，VOCs控制取得了良好效果。

The Company formulates and implements Administrative Measures for Environmental Protection on Construction and Installation Sites (《施工安装现场环保管理办法》), Administrative Measures for Environmental Protection on Construction (《建筑施工环保管理办法》), Regulations on Environmental Management for Boiler Houses (《锅炉房环保管理规定》), Administrative Measures for the Recovery and Utilization of Waste Materials (《废旧物资回收利用管理办法》), Regulations on Environmental Management for Metal Welding and Gas Cutting Operations (《金属焊接与气割作业环保管理规定》), Administrative Measures for Environmental Management for Machinery and Equipment (《机械设备环保管理办法》), Regulations on Environmental Management of Warehouses (《库房环保管理规定》), Regulations on Management of Hazardous Wastes (《危险废物管理规定》), Regulations on Environmental Sanitation Management on Production Sites (《生产现场定置环境卫生管理规定》) and other rules and regulations to form a standardized working mode and take effective measures to control emissions.

The Company's exhaust emissions mainly come from the boiler gas combustion, smelting in the processing of steel structures, sheet processing, abrasive blasting, polishing and spraying and other processes. The main pollutants are sulfur dioxide, nitrogen oxides, smoke (powder) and volatile organic compounds (VOCs). In 2019, the Company's all major exhaust pollutants have achieved emission standards.

The Company reduced the emission of sulfur dioxide and nitrogen oxides by adjusting the structure of production capacity and reforming gas boilers with low nitrogen. In terms of controlling smoke (powder), the Company adopted control measures in transportation, storage, construction, production, etc., and effectively reduced smoke (powder) by covering, watering, adding dust removal equipment, and closing operations. In 2019, the Company's multiple industrial production bases completed the special renovation of the fully enclosed operation workshop. In order to control VOCs, the Company installed activated carbon and filter cotton paint mist filtration systems on the production line, and rebuilt the entire workshop in accordance with the VOCs governance standards. At present, the Company's Shanqiao and Baoqiao headquarter have completed the transformation, and VOCs control has achieved good results.

废弃物管理

Waste management

对于无害废弃物，公司以优化施工组织方案为主要措施，推行“四节一环保”的标准化、规范化的项目建设要求，加强无害废弃物的循环使用，践行节能降耗、降本增效。中国中铁高度重视废弃物的综合利用，无害废弃物综合利用率达98.9%。对于危险废弃物，中国中铁严格按照《危险废物管理规定》，聘用有危废处置资质的机构对危险废弃物，如工程设备产生的废机油等，进行统一回收处理，公司有害废弃物处置率为100%。

In respect of non-hazardous waste, the Company takes the construction organization plan optimization as the main measure, promotes the standardization and regulation as required in project construction by the “Four Conservations and One Environmental Protection”, policy strengthens the recycling of non-hazardous waste, and implements energy conservation and consumption reduction, cost reduction and effect increased. China Railway attaches great importance to the comprehensive recycle of hazardous waste, which achieved a comprehensive recycle rate of 98.9%. As regards hazardous waste, China Railway strictly follows the Regulations on Management of Hazardous Wastes and employs organizations with qualifications for hazardous waste disposal to recycle hazardous waste, for example, waste engine oil from engineering equipment, reaching the Company's hazardous waste disposal rate of 100%.

废水管理

Wastewater management

公司重视施工废水管理，设置三级沉淀池，对施工废水进行处理。公司不断加强施工现场的环保监管，定期对施工产生的废水生态环境污染源、风险点进行排查，每月对污染源和风险点进行台账更新，并制定相关部门和人员进行全过程监控、常态化监督。

The Company attaches great importance to the management of construction wastewater, and set up a three-stage sedimentation tank to treat the construction wastewater. The Company continuously strengthens environmental protection supervision at the construction site, regularly inspects the ecological and environmental pollution sources and risk points of waste water generated during construction, updates the account of pollution sources and risk points on a monthly basis, and assigns relevant departments and personnel for full process monitoring and normal supervision.



中铁上海工程局市政公司承建的上海白龙港污水处理厂污泥处理工程荣获中国土木工程詹天佑奖，其八座卵形消化池是国内目前建设在软土地基上单体规模最大、数量最多的双向有粘接预应力蛋形消化池工程，其总体规模位居亚洲第一

The sludge treatment project of Bailonggang Sewage Treatment Plant in Shanghai undertaken by CREC Shanghai Engineering Bureau Municipal Company won the China Civil Engineering Zhantianyou Award. Its eight oval digestion tanks are currently the two-way bonded prestressed egg-shaped digestion tank project constructed on soft ground with the largest single structures in both size and number in China, and its overall size ranks first in Asia

噪声管理

Noise management

公司要求所属工程项目现场必须配备噪声监控设备，对项目所产生的噪声进行实时监控，噪声控制情况符合国家有关标准。

The Company requires that its own project site must be equipped with noise monitoring equipment to monitor the noise generated by the project in real time, and the noise control conforms to relevant national standards.



生态环境管理

Ecological environment management

公司对在建工程项目、作业场所进行环境因素识别和评估，建立生态环保监控监测体系，加强生产过程中生态环境污染风险源及污染物排放控制，并加强对项目部生态环保工作的过程管控，规避环境风险。

The Company identifies and evaluates environmental factors for construction projects and operating sites, establishes an ecological environmental protection monitoring system, strengthens the control of ecological environmental pollution risk sources and pollutant emissions during the production, and strengthens the process control of ecological environmental protection in the project department to avoid environmental risks.

排放物及废弃物关键绩效指标
Key performance indicators on emissions and wastes

指标 Indicators	2019年数据 2019
二氧化碳总排放量（万吨） Total amount of CO ₂ emission (ten-thousand tonnes)	1,336.22
二氧化碳排放密度（吨/万元） CO ₂ emission density (ton/ten-thousand yuan)	0.19
氮氧化物排放量（吨） NO _x emission (ton)	3.01
烟（粉）尘排放量（吨） Smoke (powder) emission (ton)	21.26
挥发性有机物排放量（吨） VOCs emission (ton)	0.76
二氧化硫（吨） SO ₂ (ton)	0.10
有害废弃物总量（吨） Total amount of hazardous waste (ton)	170
万元单位有害废弃物排放量（公斤/万元） Discharge of hazardous waste per ten-thousand yuan (kg/ten-thousand yuan)	0.0020
无害废弃物总量（万吨） Total amount of non-hazardous waste (ten-thousand tonnes)	446.13
万元单位无害废弃物排放量（公斤/万元） Discharge of non-hazardous waste per ten-thousand yuan (kg/ten-thousand yuan)	55.60

注：

氮氧化物、二氧化硫、烟（粉）尘和挥发性有机物排放量均按排污许可证排放量计算。

Note:

Emissions of NO_x, SO₂, smoke (powder) and VOCs are calculated based on the emissions permits.

自然资源使用及保护 Use and Protection of Natural Resources

“绿水青山就是金山银山”，公司坚持节约资源和保护环境并重，努力建设“环境友好型、资源节约型”工程。公司制定了《中国中铁股份有限公司节能减排监督管理办法》《中国中铁股份有限公司环境保护管理办法》等一系列规章制度，开展节能减排与生态环境保护工作，提倡绿色办公理念，优化资源使用效率。

能源管理

Energy management

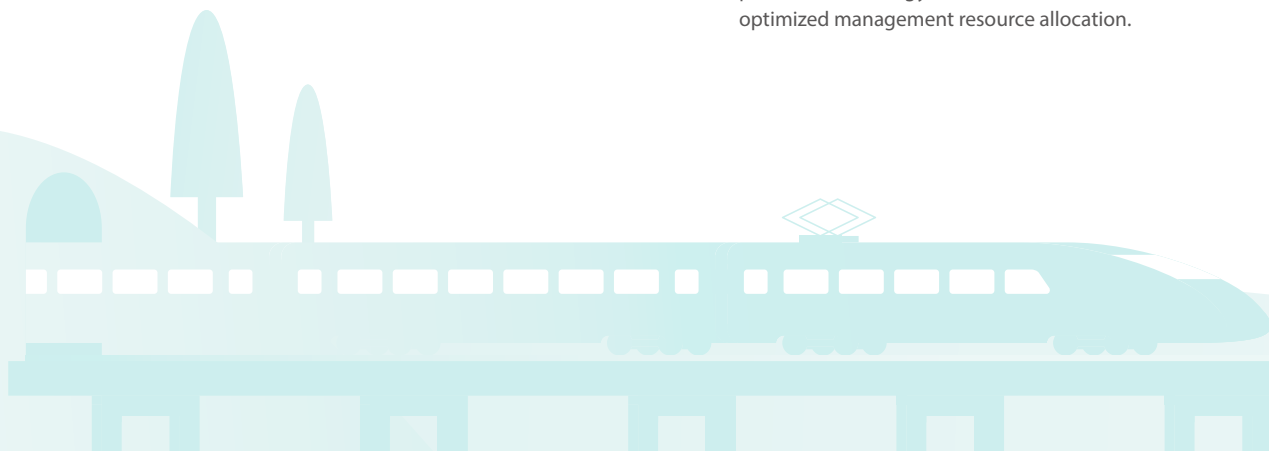
公司消耗的主要能源为施工及办公过程中的电力、汽油、柴油、天然气等。公司扎实推进节能增效工作，按照《节能减排监督管理办法》和《“十三五”节能减排规划》的要求，确定了2019年节能量化考核指标为万元营业收入（可比价）综合能耗在2018年的基础上下降3.20%。我们根据国资委对中央企业能源节约与生态环境保护工作的最新要求从调整管理组织架构、升级监测体系、下达考核奖惩指标、开展技术研发等方面全面部署并落实相关工作，综合能耗较去年同期下降3.25%，顺利达成节能减排年度工作目标。

- **高度重视能源节约与生态环境保护组织管理体系建设：**公司按照国资委要求和行业管理常态，将生态环保、节能减排业务统一整合至安全质量环保部，设置生态环保处，实行生态环保、节能减排统一管理，优化管理资源配置。

Lucid waters and lush mountains are invaluable assets. The Company attaches equal importance to the resource conservation and the environment protection, and strives to build “environment-friendly, resource-conserving” projects. The Company has formulated a series of rules and regulations, such as the Administrative Measures for Supervision and Management on Energy Conservation and Emission Reduction of CREC (《中国中铁股份有限公司节能减排监督管理办法》) and Administrative Measures for Environmental Protection of CREC (《中国中铁股份有限公司环境保护管理办法》), to carry out energy conservation, emission reduction and ecological environmental protection, promote the concept of green office and optimize resources use efficiency.

The main energy consumed by the Company is electricity, gasoline, diesel and natural gas during construction and office. The Company has solidly promoted energy conservation and efficiency improvement. In accordance with the requirements of the Administrative Measures for Supervision and Management on Energy Conservation and Emission Reduction of CREC (《节能减排监督管理办法》) and the “13th Five-Year Plan” for Energy Conservation and Emission Reduction (《“十三五”节能减排规划》), the Company has determined the quantitative assessment index of comprehensive energy consumption (comparable price) per ten-thousand yuan operating income generated in 2019 was reduced by 3.20% compared with 2018. According to the latest requirements of the SASAC on energy conservation and ecological environmental protection of central enterprises, we have fully deployed and implemented related work by adjusting the management organizational structure, upgrading the monitoring system, issuing assessment and punishment indicators and conducting technology research and development. The comprehensive energy consumption fell by 3.25% and successfully achieved the annual work target of energy conservation and emission reduction.

- **Highly focused on organizational management system construction for energy conservation and ecological environmental protection:** in accordance with the requirements of the SASAC and normal industry management practice, the Company places the works of ecological environmental protection, energy conservation and emission reduction business into scope of responsibility of the department of safety, quality and environment, and set up an ecological department, implemented unified management of ecological environmental protection, energy conservation and emission reduction, and optimized management resource allocation.



- **统计监测体系全面升级：**公司升级改造“中国中铁能源节约与生态环境保护信息系统”，实现新报表数据线上填报，提高了信息统计与监测效率。
- **严格落实节能减排考核奖惩机制：**公司于2019年初下达节能减排工作指标，要求各单位对指标进行分解并下达至各所属三级公司、项目部和指挥部，以考核促管理，并采取奖惩措施，促进节能减排工作积极性。
- **全面开展节能减排科技专项和节能低碳技术研发，高度重视工程项目绿色施工科技攻关及示范引领：**公司于2019年度持续开展中国中铁第五批节能低碳技术征集及评选工作，高精度沥青摊铺智能控制技术等92项技术列为中国中铁2019年度节能低碳技术，科技创新促进节能减排工程取得显著成效。
- **Comprehensive upgrade of statistical monitoring system:** the Company upgraded and improved the “CREC Energy Conservation and Ecological Environmental Protection Information System”, implemented new report data filling online, which improved the efficiency of information statistics and monitoring.
- **Strictly implementing the reward and punishment mechanism for energy conservation and emission reduction assessment:** the Company issued the energy conservation and emission reduction work indicators in early 2019, requiring all units to decompose the indicators and release them to their three-tier companies, project departments and headquarters to promote management through assessment, and adopt incentives and punishment measures to promote energy conservation and emission reduction.
- **Comprehensively carrying out research and development of energy-saving and emission-reduction technology special projects and energy-saving and low-carbon technologies, and attaching great importance to the research and demonstration of green construction technology for engineering projects:** in 2019, the Company continued to collect and appraise the fifth batch of CREC's energy-saving and low-carbon technologies. 92 technologies such as high-precision asphalt paving intelligent control technology were listed as CREC's 2019 energy-saving and low-carbon technologies. Technological innovation has promoted significant results in energy conservation and emission reduction projects.

水资源管理

Water management

根据国务院国资委2019年3月修订印发的《中央企业能源节约与生态环境保护统计报表》，公司完善统计监测体系，规范用耗水量统计核算口径，2019年全年耗新水量163,570.71万吨，万元收入用新水量（可比价）22.96吨/万元。

公司高度重视施工用水措施，研发使用节水型自动喷淋系统，收集使用天然降水或经回收处理的废水，用于混凝土养护、车辆冲洗以及抑制扬尘，从而加强对水资源的循环利用，提高废水回收利用率，有效节约水资源。

According to the “Statistical Statement on Energy Conservation and Ecological Environment Protection of Central Enterprises” (《中央企业能源节约与生态环境保护统计报表》) issued by the SASAC of the State Council in March 2019, the Company has improved its statistical monitoring system and standardized the statistical calculation of water consumption. In 2019, the annual consumption of new water is 1.6357071 billion tonnes, and the new water consumption (comparable price) per ten-thousand yuan income is 22.96 ton/ten-thousand yuan.

The Company attaches great importance to measures on water usage for construction, and develops and uses water-saving automatic sprinkler systems to collect and use natural precipitation or recycled wastewater for concrete maintenance, vehicle washing, and dust suppression, thereby strengthening the recycling of water resources and improving wastewater recycling rate, effectively saving water resources.



绿色办公

Green office

2019年，公司组织完成了总部无纸化会议系统的应用推广工作。总部无纸化系统支持计算机终端、手机及平板电脑等硬件设备的并行接入，以屏幕同屏、手写签批、资料分发共享等技术手段支撑无纸化会议的召开，实现了会前准备、会中管控、会后归档及统计分析等全流程数字化的建设目标。2019年，公司总部共召开无纸化会议143次，累计参会4,243人次，归档会议文件2,852份，累计共节省纸张119.08万张。

In 2019, the Company organized the application and promotion of the paperless conference system at the headquarters. The paperless system at the headquarters supports the parallel access of hardware devices such as computer terminals, mobile phones, and tablets. It supports the holding of paperless meetings with technical methods such as screen on the screen, handwritten signing and approval, and data distribution and sharing, achieving goals including pre-meeting preparation, meeting control, post-conference filing and statistical analysis. In 2019, the Company's headquarters held a total of 143 paperless meetings, with a total of 4,243 attendees, 2,852 meeting documents, and a total of 1.1908 million paper savings.

能源及资源消耗关键绩效指标
Key performance indicators for energy and resource consumption

能源/资源类型 Energy/resource type	指标 indicators	2019年数据 2019
直接能源消耗 Direct energy consumption	汽油(万吨) Gasoline (ten-thousand tonnes)	38.05
	汽油(吨/万元) Gasoline (ton/ RMB ten-thousand)	0.0047
	柴油(万吨) Diesel (ten-thousand tonnes)	130.43
	柴油(吨/万元) Diesel (ton/ RMB ten-thousand)	0.0163
	天然气(万标立方米) Natural gas (ten-thousand standard m ³)	5,769
	天然气(立方米/万元) Natural gas (m ³ / RMB ten-thousand)	0.7195
间接能源消耗 Indirect energy consumption	电力(万千瓦时) Electricity (ten-thousand kwh)	873,591
	电力(万千瓦时/万元) Electricity (ten-thousand kwh/ RMB ten-thousand)	0.0109
综合能源消耗 Comprehensive energy consumption	综合能源消耗(万吨标准煤) Comprehensive energy consumption (ten-thousand tonnes of standard coal)	363.2858
	综合能源消耗(吨标准煤/万元收入) Comprehensive energy consumption (ton of standard coal/ten-thousand yuan income)	0.0535
	综合能源消耗(万千瓦时) Comprehensive energy consumption (ten-thousand kwh)	2,956,783.13
	综合能源消耗(千瓦时/万元收入) Comprehensive energy consumption (kwh/ten-thousand yuan income)	435.44
水 Water	消耗新水总量(万吨) Total new water consumption (ten-thousand tonnes)	163,570.71

注：基于本公司业务性质，不适用于以每产量单位或每项设施计算能耗密度，采用万元营业收入（可比价）综合能耗计算和披露能耗密度。

Note: Based on business characteristic of the Company, it is not applicable to calculate energy consumption density using unit of production (UOP) or per facility, thus adopts comprehensive energy consumption (comparable price) per ten-thousand operating income to calculate and disclose energy consumption density.

生态保护

Ecological protection

在施工前期，公司组织专业机构开展环境影响评价，依据评估结果制定切实有效的保护方案，开展水土保持、生物多样性保护、植被保护等措施，做到生态环境保护与工程建设同步规划与同步实施。在施工过程中，公司注重生态保护的持续投入，使用环保设备，改进施工工艺和优化施工方案，减少对水、大气、植被和生物的影响。公司能源节约与生态环境保护信息系统定期采集生态环境监测数据，提升生态环保信息直观性和真实性。2019年，由公司领导带队开展生态环保检查7次，对全公司共计135个项目进行了专项检查，对存在生态环保隐患的单位进行了通报，并监督整改。截至2019年底，公司已竣工项目环评通过率达100%。

在土地利用方面，2019年公司认真贯彻《土壤污染防治法》，在工程项目施工初期就将生态恢复纳入项目管理，做好科学选址、规范弃碴、事先防护、积极消纳。每一个工点施工完后，确保用合适的土料覆盖地表，清理便道两侧施工弃物，恢复地面天然状态。对于施工过程中涉及的临时用地，公司严格编制与实施用地及复垦规划，注意对居民稠密区、自然保护区等环境敏感区域的保护，并在工程竣工后按照规定对土地进行恢复，最大限度保护生态环境。

在生物多样性保护方面，公司持续监测生物多样性影响，并采取有效措施，努力降低施工生产对生物种群造成的影响。

In the early stage of construction, the Company organized professional organizations to carry out environmental impact assessments, and based on the assessment results, to formulate effective protection programs, carry out measures such as soil and water conservation, biodiversity protection and vegetation protection, so as to achieve simultaneous planning and implementation of ecological environmental protection and engineering. During the construction, the Company continuously pays attention to the ecological protection by using environmental protection equipment, improving the construction process and optimizing the construction plan, so as to reduce the impact on water, atmosphere, vegetation and organisms. The Company's energy conservation and ecological protection information system regularly collects ecological monitoring data to improve the intuitiveness and authenticity of ecological protection information. In 2019, the Company's leaders led a team to conduct 7 ecological inspections, carried out special inspections on a total of 135 projects throughout the Company, notified units with hidden ecological risks, and supervised rectification. By the end of 2019, the environmental impact assessment approval rate of the Company's completed projects' reached 100%.

In terms of land use, the Company seriously implemented the Soil Pollution Prevention and Control Law (《土壤污染防治法》) in 2019, and incorporated ecological restoration into project management in the early stages of construction with scientific site selection, standardized abandonment, prior protection, and active consumption. After each construction site is completed, we ensure that suitable soil is covered, construction waste on both sides of the road is cleaned, and the ground is restored to its natural state. For the temporary land involved in the construction, the Company strictly compiles and implements land use and reclamation plans, pays attention to the protection of environmentally sensitive areas such as densely populated areas and nature reserves, and restores the land in accordance with regulations after the completion of the project to maximize the ecological environment protection.

In terms of biodiversity protection, the Company continuously monitors the biodiversity impact and takes effective measures to reduce the impact of construction production on biological populations.



1

案例 Case

2019年7月，中铁隧道局集团昌景黄高铁项目部在野外测量中成功救助了两只属于全球濒危物种的小雀鹰，并转交安徽省皖南国家野生动物救护中心。

In July 2019, the Changjinghuang High-speed Railway Project Department of China Railway Tunnel Bureau Group successfully rescued two little sparrow-hawk, a global endangered species, in field surveys, and transferred them to the National Wildlife Rescue Center in the south of Anhui Province.

环境机遇

Environmental Opportunity

公司已将绿色发展理念融入经营流程，对相关机遇时刻保持敏锐洞察，通过系统化的识别，公司在绿色规划与施工，清洁能源开发和环保产业建设方面不遗余力，为建设生态文明增砖添瓦。

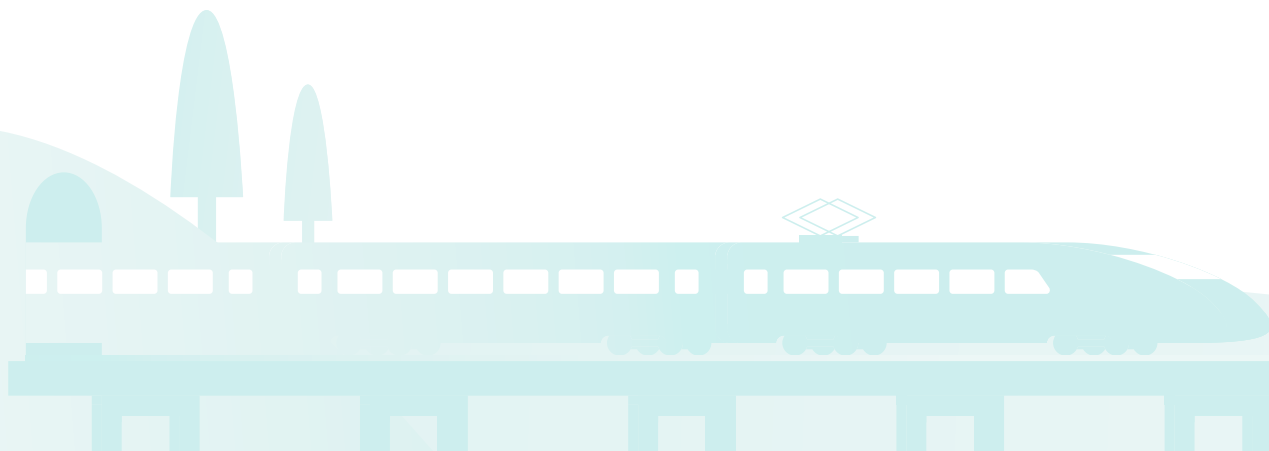
The Company has integrated the concept of green development into its business, and remains keenly aware of relevant opportunities. Through systematic identification, the Company spares no effort in green planning and construction, clean energy development and environmental protection industry construction, contributing to the construction of ecological civilization.



边坡绿化自动喷淋系统
An automatic spraying system for side slope greening



福清兴化湾海上风电场一期项目
Offshore wind farm phase I project in Xinghua Bay, Fuqing



绿色规划与施工

Green planning and construction

- **绿色规划：**为贯彻落实国家节能减排方针、政策，统筹部署股份公司“十三五”节能减排工作，编制《中国中铁股份有限公司“十三五”节能减排规划》，在规划中明确提出坚持推进公司所属各板块绿色发展的主要任务。公司根据国家“十三五”节能减排规划和绿色标准，深入贯彻绿色发展理念，推行绿色规划设计，引入全生命周期绿色设计模式，从源头上控制能耗，把绿色、低碳、生态设计理念融入到工程规划设计的全过程。2019年，公司组织开展铁路、公路、城市轨道交通及隧道工程专业的绿色施工及评价标准编写工作，该项工作以研究编制企业绿色施工及评价标准体系为依托，从技术标准体系、工程项目实施等各方面综合建立企业的绿色施工体系。
- **Green planning:** in order to implement the national energy conservation and emission reduction guidelines and policies, coordinate the deployment of the “13th Five-Year Plan” energy-saving and emission reduction work of joint-stock companies, compile the 13th Five-Year Plan for Energy Conservation and Emission Reduction of CREC (《中国中铁股份有限公司“十三五”节能减排规划》), we explicitly put forward the main tasks of adhering to the green development of the various segments of the Company in the plan. According to the national “13th Five-Year Plan” for energy conservation and emission reduction and green standards, the Company thoroughly implements the concept of green development, promotes green planning and design, introduces a full life cycle green design mode, controls energy consumption from the source, and integrates green, low-carbon, and ecological design into the entire process of engineering planning and design. In 2019, the Company organized the compilation of green construction and evaluation standards for railway, highway, urban track and tunnel engineering majors, which was based on the research and compilation of enterprise green construction and evaluation standard system. The green construction system of the Company is established in a comprehensive way covering the technical standard system, project implementation, etc.

1

案例 Case

中国中铁在京张高铁全线的设计过程中，注重融入绿色环保设计理念，采用多种方式努力把京张高铁打造成“安全、舒适、便捷、快速、节能、环保”的世界一流现代化高速铁路。如，对路基、桥梁、隧道及其他相关场地沿线采用内低外高、内灌外乔的多层立体绿化带；以隧道引入城区，降低铁路对周边环境的影响；采用跨区间无缝线路、声屏障和隔声窗等降噪减振设计。

In the design of the whole line of Jingzhang High-Speed Rail, CREC pays attention to integrating the design concept of green environmental protection, and strives to build the Jingzhang High-Speed Rail into a world-class modern high-speed railway with “safety, comfort, convenience, speed, energy-saving and environmental protection” in a variety of ways. For example, along the roadbed, bridge, tunnel and other related sites, a multi-layer dimensional green belt with low inside and high outside, shrub inside and arbor outside is adopted; the tunnel is introduced into the urban area to reduce the impact of the railway on the surrounding environment; noise reduction and vibration reduction designs such as cross-interval continuous welded rail, sound barriers and sound insulation windows are adopted.



- **绿色施工：**公司高度重视工程项目绿色施工科技攻关及示范引领，全面开展节能减排科技专项和节能低碳技术研发，推广节能低碳技术在施工过程中的研发和应用。
- **Green construction:** the Company attaches great importance to the research and demonstration of green construction technology for engineering projects, comprehensively develops energy-saving and emission-reduction technology projects and research and development of energy-saving and low-carbon technologies, and promotes the development and application of energy-saving and low-carbon technologies in construction.

1

案例 Case

公司所属的中铁上海局依托绿色施工科技示范工程建设，积极开展科技攻关，其单位承建郑万铁路梅溪河特大桥主桥钢桁拱肋劲性骨架吊装缆索吊方案，经多方论证、比选优化，最终确定采用斜拉扣挂缆扣分离双塔式，提高了周转材料利用率，实现了缆索系统与主桥拱座、交界墩、引桥连续梁同时平行施工，缩短工期6个月，极大降低资源及能源消耗。

Relying on the green construction science and technology demonstration project, the Shanghai Bureau of China of CREC, has actively carried out scientific and technological research, and its unit has undertaken the construction of the cable suspension scheme for the stiff skeleton of the steel truss arch ribs of the main bridge of Meixi River Bridge on Zhengwan Railway. Through multi-party demonstration, comparison and optimization, it is finally determined to adopt the double tower type of cable-stayed buckle and cable buckle separation, which improves the utilization rate of turnover materials. The parallel construction of the cable system with the arch seat of the main bridge, the junction pier and the continuous beam of the approach bridge is realized, the construction period is shortened by 6 months, and the resource and energy consumption are greatly reduced.



及时完成建设临时用地复垦工作
The reclamation of temporary construction land was completed in time



清洁能源开发

Clean energy development

公司一贯积极参与清洁能源开发项目，先后与西藏自治区政府、三峡集团、华电集团等签署战略合作协议，共同开发清洁能源。同时，在公司各主要施工项目上，积极研发推广使用地源热泵、光伏发电、热电冷三联供等清洁能源技术。在公司的城市开发运营和房地产开发业务中，通过与相关企业合作，实现清洁能源技术和资源使用平台的优势互补，确保中国中铁开发的区域及项目在清洁能源开发利用、节能环保、城市楼宇智能化、集中供暖供冷等领域达到世界先进水平。

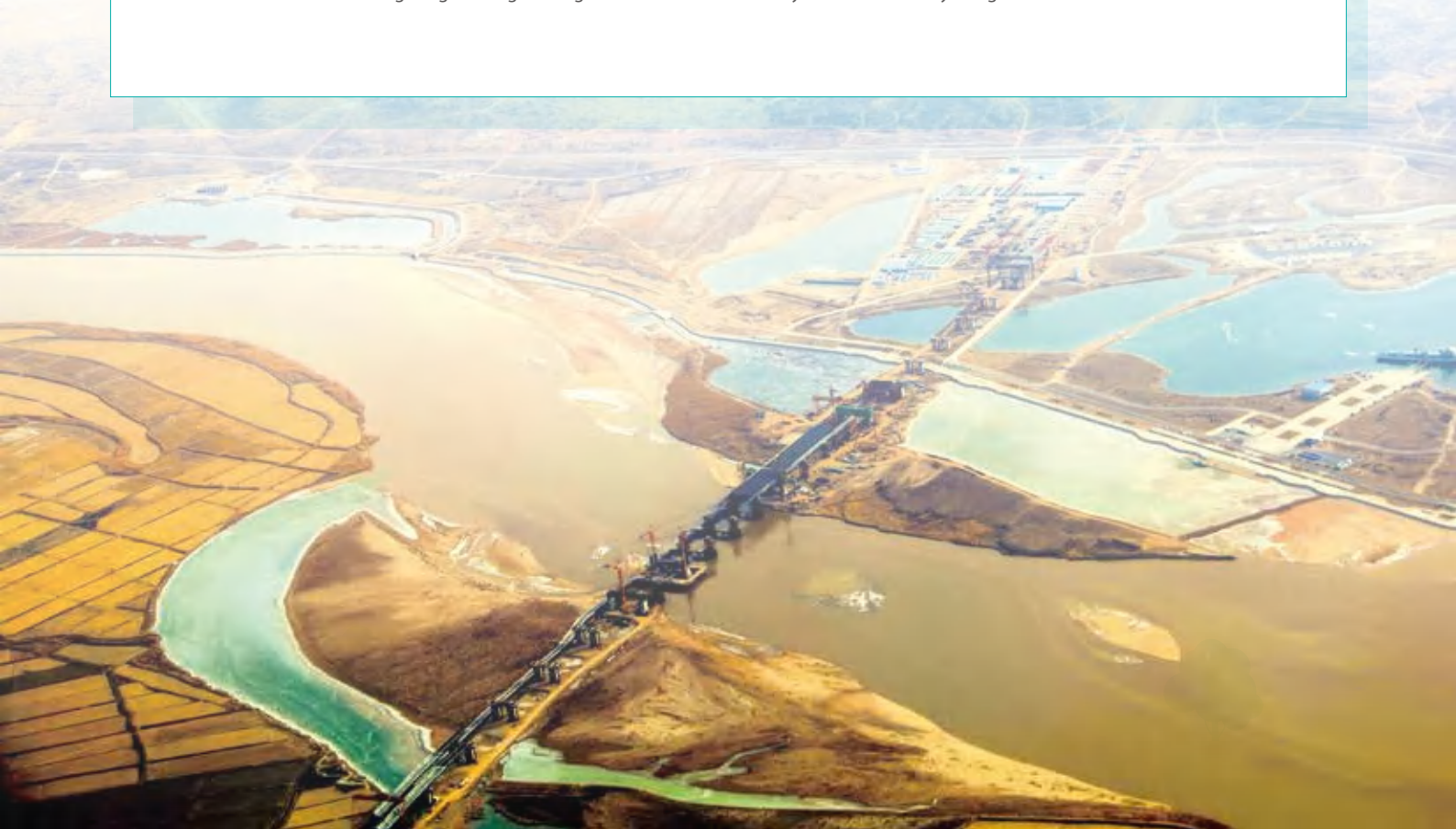
The Company has always actively participated in clean energy development projects, and has signed strategic cooperation agreements with the Tibet Autonomous Region Government, the Three Gorges Group, and Huadian Corporation to jointly develop clean energy. Meanwhile, in the Company's main construction projects, the Company has actively developed and promoted the use of ground source heat pumps, photovoltaic power generation, combined cooling heat and power and other clean energy technologies. In the Company's urban development operations and property development business, through cooperation with related enterprises, the complementary advantages of clean energy technology and resource use platforms are achieved to ensure that the regions and projects developed by CREC reach the world's advanced level in the fields of clean energy development and utilization, energy-saving and environmental protection, intelligent urban buildings, central heating and cooling, etc.

1

案例 Case

公司所属中铁大桥局与三峡集团联合建设了福清兴化湾海上风电场一期项目，该项目的14台风机全部安装完成，总装机容量为77.4兆瓦，单机容量为5兆瓦至6.7兆瓦，是国内首个大功率的海上风电机组风电项目。此外，2019年8月，由中铁大桥局承建的江苏盛东如东400兆瓦海上风电场已开工。

The China Railway Bridge Bureau of the Company and the Three Gorges Group jointly constructed the first phase of the Fuqing Xinghua Bay Offshore Wind Farm Project. All 14 wind turbines in this project have been installed, with a total installed capacity of 77.4 MW and a single unit capacity of 5 MW to 6.7 MW. It is the first high-power offshore wind turbine project in China. In addition, in August 2019, the 400 MW offshore wind farm construction in Shengdong Rudong in Jiangsu Province undertaken by the China Railway Bridge Bureau has started.



参与环保产业

Participation in environmental protection industry

公司认为在全球低碳经济转型的背景下，清洁技术和环保产业将具有十分良好的发展前景和商业机会。2019年，我们组建了水务环保行业的综合企业——中国铁工建设集团有限公司，下设水务、市政环保建设、智慧城市、生态环境、绿色资源开发五个子专业公司。中国铁工建设集团有限公司承建的合肥王小郢污水处理厂、上海浦东新区白龙港污水处理厂、贵阳市新庄污水处理厂、深圳市宝安区固戍污水处理厂、济南市径十路道路及环境建设工程分别荣获鲁班奖，成都污水处理厂等荣获国优金奖。中国铁工建设集团有限公司还主导总承包北运河通州段综合治理、北京市凉水河水环境综合治理、湖北省当阳市城乡污水综合治理、内江沱江流域水环境综合治理PPP项目。未来，我们将继续扩大在该领域的投入，为生态环保治理和基础设施建设添砖加瓦。

The Company believes that in the context of the global low-carbon economic transformation, clean technology and environmental protection industries will have very good development prospects and business opportunities. In 2019, we set up a conglomerate in the water and environmental protection industry, China Iron and Steel Construction Group Co., Ltd., with five sub-professional companies in water, municipal environmental protection construction, smart cities, ecological environment and green resource development. Wangxiaoying Sewage Treatment Plant in Hefei, Bailonggang Sewage Treatment Plant in Pudong New District, Shanghai, Xinzhuang Sewage Treatment Plant in Guiyang, Gushu Sewage Treatment Plant in Baoan District, Shenzhen, road and environmental construction projects in Jingshi Road in Jinan undertaken by China Iron and Steel Construction Group Co., Ltd. won the Luban Prize, Chengdu Sewage Treatment Plant and other National Excellent Gold Awards, respectively. China Iron and Steel Construction Group Co., Ltd. also leads the general contracting of the comprehensive treatment of the Tongzhou section of the north canal, the comprehensive treatment of the water environment of the Liangshui River in Beijing, the comprehensive treatment of urban and rural sewage in Dangyang City, Hubei Province, and the PPP project of the comprehensive treatment of the water environment in the Neijiang Reach of Tuojiang River. In the future, we will continue to expand our investment in this area, and contribute to ecological and environmental governance and infrastructure construction.



应对气候变化 Tackling climate change

公司密切关注全球气候变化趋势和对公司业务所带来的影响，积极开展节能减排措施，投资利用清洁能源，减少自身温室气体排放。

The Company pays close attention to global climate change trends and the impact on its business, actively implements energy conservation and emission reduction measures, invests in the use of clean energy and reduces its own greenhouse gas emissions.

公司大力拓展以“生态修复、城市修补”为主要内容的城市双修、海绵城市、海域岸线综合治理等业务领域，积极适应因气候变化可能带来的极端天气、城市环境变化及可能发生的城市雨虹灾害等。

The Company vigorously expands business areas such as urban renovation with “ecological restoration and urban repair” as its main content, sponge cities and comprehensive management of seashore coastlines, and actively adapts to extreme weather caused by climate change, urban environment changes and possible urban rainbow disaster, etc.

1

案例 Case

公司参与了池州、镇江、岳阳、徐州、松原、日照等多地的“海绵城市”建设，采用透水铺装、种植屋面等技术手段，达到下雨时吸水、蓄水、渗水、净水，需要时将蓄存的水“释放”并加以利用，使城市在适应气候变化和应对雨水带来的自然灾害等方面具有良好的弹性，可以有效缓解城市热岛效应，解决城市内涝难题。

The Company participated in the construction of “sponge cities” in Chizhou, Zhenjiang, Yueyang, Xuzhou, Songyuan, Rizhao and other places. It adopted technical means including permeable paving, planting roofs to achieve water absorption, storage, seepage and purification when it rained. “Releasing” and using the stored water at proper times allows cities to have good resilience in adapting to climate change and responding to natural disasters caused by rain, which can effectively alleviate the urban heat island effect and solve urban waterlogging problems.



京新高速公路沿线防沙固沙成效显著
Significant success achieved in sand prevention and fixation along the Beijing-Xinjiang Expressway

社会篇

Society

创造价值

Value Creation

人力资本管理

Human Capital Management

维护员工权益

Safeguard of Staff's Rights and Interests

保障员工健康与安全

Employee Health and Safety Protection

关注员工成长与发展

Focusing on the Growth and development of Employees

产品责任

Product Responsibility

供应商管理

Supplier Management





创造价值 Value Creation

经济绩效

Economic performance

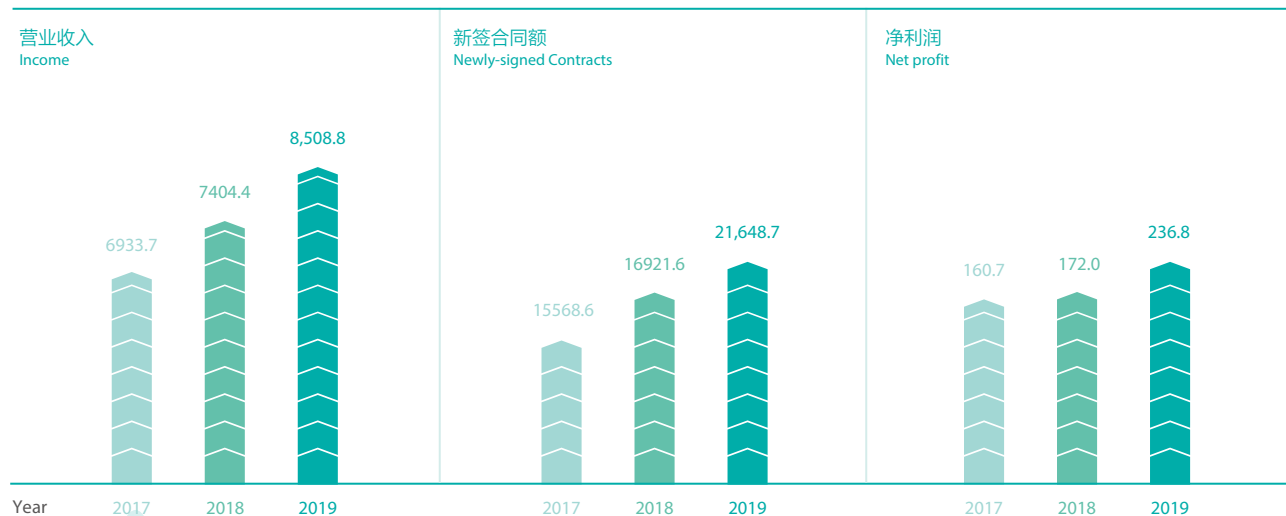
中国中铁致力成为国民经济发展的支柱。2019年，公司通过完成全球市场，特别是中国市场的铁路、公路、轨道交通、港口、市政、机场等基础设施建设，拉动了全球和地方经济增长，促进了经济发展和社会进步，不断为社会创造和积累优质物质财富。

2019年，公司新签合同额21,648.7亿元，同比增长27.94%；公司营业收入8,508.8亿元，同比增长14.92%；实现归属母公司净利润236.8亿元，同比增长37.68%，成为社会财富的重要创造者和社会经济发展的重要推动力量。

CREC is committed to becoming the pillar of national economic development. In 2019, the Company has completed the infrastructure construction in railways, highways, rail transit, ports, municipalities and airports in the global market, especially in the Chinese market, which has stimulated global and local economic growth, promoted economic development and social progress, and continuously created and accumulated high-quality material wealth for society.

In 2019, the Company recorded total value of newly-signed contracts of RMB21,648.7 billion, representing a year-on-year growth of 27.94%; total revenues of RMB8,508.8 billion, representing a year-on-year growth of 14.92%; realized net profit attributable to the parent company of RMB236.8 billion, representing a year-on-year growth of 37.68%, making CREC become the major creator of social wealth and an important driving force for social and economic development.

单位：亿元
Unit: RMB0.1 Billion



推动就业

Employment promotion

中国中铁始终把促进就业作为履行企业社会责任的一项关键内容。2019年，公司认真落实《集体合同》员工上岗就业承诺，想方设法促进企业下岗职工实现再就业。公司每年通过接收大中专毕业生、接收转业军人、人才市场引进等形式，为社会人才提供了大量就业机会。2019年，全公司新接收大中专毕业生13,502人，军转干部在京安置退役军人4人，得到国务院军转办肯定。

CREC always regards promoting employment as a key content in fulfilling corporate social responsibility. In 2019, CREC strictly implemented the staff employment commitment of Collective Contract, making every endeavor to promote re-employment of laid-off employees. Every year, the Company creates and provides large number of new jobs for the society through taking in graduates from junior college and technical secondary school, receiving demobilized army men and introducing from HR market. In 2019, the Company received a total of 13,502 new graduates from junior college and technical secondary school, and 4 demobilized army cadres were settled in Beijing, which was praised by Military Demobilization Office of the State Council.



2019年，全公司持续推进农民工实名制管理、工资专用账户、工资保证金和银行代发工资等措施，保证农民工工资按时且足额发放。同时，公司严格做好农民工岗前安全教育培训和现场操作技能培训，并对特殊工种全部进行岗前强化培训，不断提高农民工作业技能。

合作共赢

Win-win cooperation

中国中铁十分重视与国内外各类组织和大型企业的战略合作。公司在人才培养、资金管理、施工生产、材料供应、文化构建、科技创新、战略发展等方面，与各级政府、高校、社会组织、金融机构及其他相关企业等建立了稳固的战略联盟和密切的合作关系，促进了多方优势互补，实现了资源共享与协同发展。

2019年，公司充分利用在资金、技术、管理及人才等方面的优势，与天津市政府、贵州省政府、南京市政府、上海证券交易所、中国华电集团有限公司等企业签署了战略合作协议，为之后的深入合作奠定了良好基础。

In 2019, the Company continued to promote the management of real-name system of peasant workers, special wage account system, wage security payment and bank payoff system and other measures to ensure that peasant workers' wages are paid on time and in full. Meanwhile, the Company strictly carried out pre-job safety education and training to the peasant workers and on-site operation skill training, and gave intensive pre-job training for all special work posts to constantly improve their job skills.

CREC attached great importance to strategic cooperation with domestic and overseas organizations and large-scale enterprises. The Company has set up a broad strategic alliance and close partnership in talent training, fund management, construction and production, material supply, culture construction, technological innovation and strategic development, established stable strategic alliances and close cooperative relationships with governments, colleges and universities, social organizations, financial institutions and relevant enterprises, promoting all-round complementary advantages to achieve resource sharing and collaborative development.

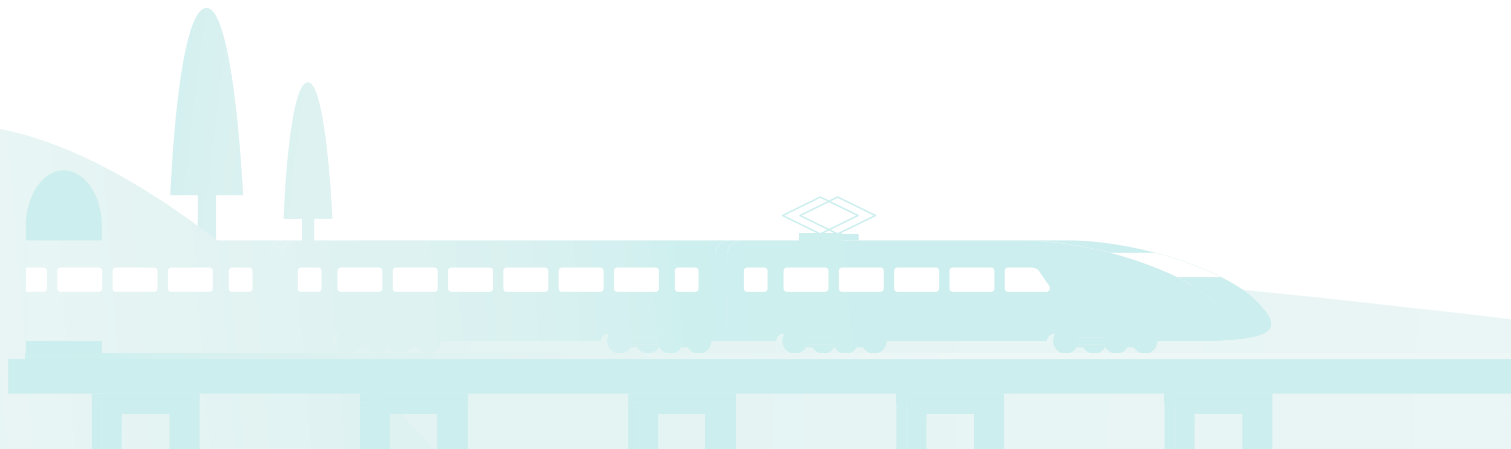
In 2019, the Company made full use of its advantages in capital, technology, management and talent reserve, and signed strategic cooperation agreements with Tianjin Municipal Government, Guizhou Provincial Government, Nanjing Municipal Government, Shanghai Stock Exchange, China Huadian Corporation and other enterprises, which laid a good foundation for future in-depth cooperation.



与南航签署战略合作协议
A strategic cooperation agreement was signed with China Southern Airlines



与贵州省签署战略合作协议
A strategic partnership agreement was signed with Guizhou Province



人力资本管理 Human Capital Management

公司秉持“以人为本、平等公正，团结协作、开放包容，追求企业与员工、与股东、与社会的共同发展、和谐共赢”的核心价值观，重视维护员工权益，保证员工健康与安全，注重员工成长与发展，致力于打造一流队伍，实现员工与企业的共同进步。截至2019年底，本公司共有在册员工中具有大专及以上学历的195,650人，具有本科及以上学历141,364人，具有博士学位270人，硕士学位141,364人。拥有高级职称33,284人（其中：正高级2,417人），中级职称64,290人，助理级72,881人。公司拥有各类专家1,918人，国家执业资格有20,536人。

The Company adheres to the core values of “people-oriented, equality and justice, unity and cooperation, openness and tolerance, pursuit of common development, harmony and win-win situation between the Company and employees, shareholders and society”, attaches importance to safeguarding employees’ rights and interests, and ensures employees’ health and safety, pays attention to the growth and development of employees, and is committed to building a first-class team to achieve the common progress of employees and enterprises. As of the end of 2019, the registered employees includes 195,650 people with college education level or above, 141,364 people with bachelor degree or above, 270 people with doctorate degree, and 141,364 people with master degree; 33,284 people with senior title (including: 2,417 people with professorate senior title), 64,290 people with intermediate title, 72,881 people with assistant title. The Company has 1,918 experts in various fields, and 20,536 people with national vocational qualification.

维护员工权益 Safeguard of Staff’s Rights and Interests

公司严格遵守《中华人民共和国劳动法》《中华人民共和国劳动合同法》《禁止使用童工规定》《女职工劳动保护特别规定》和运营所在地所在国的其它对公司员工管理有重大影响的法律法规。《中华人民共和国劳动法》和《中华人民共和国劳动合同法》要求公司以公平公正的原则招聘员工并应当与员工签订劳动合同，合同中详细载列（其中包括）雇佣期限和终止雇佣的理由。同时，该等法规亦要求公司依法自主确定本单位的工资分配方式和工资水平，依法按时支付员工薪酬，并保障劳动者休息休假的权利。《禁止使用童工规定》禁止用人单位招用不满16周岁的未成年人。《女职工劳动保护特别规定》旨在减少和解决女职工在劳动中因生理特点造成的特殊困难，从而保护女职工健康。该等法律法规对中国中铁完善用工管理制度，维护广大员工合法权益具有重大影响。本报告期内，我们未发现使用童工及强制劳工的事件。

The Company strictly abides by the Labor Law of the People’s Republic of China (《中华人民共和国劳动法》), the Labor Contract Law of the People’s Republic of China (《中华人民共和国劳动合同法》), Provisions on the Prohibition of Using Child Labor (《禁止使用童工规定》), Special Rules on the Labor Protection of Female Employees (《女职工劳动保护特别规定》) and other relevant laws and regulations in the countries of the places of operations that has significant impact on the employee management of the Company. The Labor Law of the People’s Republic of China and the Labor Contract Law of the People’s Republic of China regulated the Company to recruit employees under the principle of fair and just and should signs a labor contract with each employee, which contains provisions including employment term and reason of termination. Meanwhile, such laws and regulations also required the Company to independently confirm the allocation and principle of wage, pay employee salary in accordance with the law and safeguard their rights to have rest and leave; Provisions on the Prohibition of Using Child Labor prohibited institutions to employ workers minors under 16; Special Rules on the Labor Protection of Female Employees aimed to reduce and solve female employees special difficulties encountered during work because of the physical features in protection of their health. Such laws and regulations significantly influenced China Railway in terms of improving recruitment policies and maintaining rights and interests for all employees. During the reporting period, we did not find incidents of child labor or forced labor.

公司各级企业每年都召开一次职工代表大会，审议企业工作报告、职工提案征集处理报告和集体合同履行情况报告。职工代表于会上进行民主评议，进行提案发言。2019年，公司征集职工提案214个，并于当年全部处理办复。

公司工会积极推动民主管理，将民主管理纳入公司“三重一大”决策机制和内控流程，并参与涉及职工利益的政策制度的制定和评审。职代会闭会期间，工会召开3次代表团长联席会议，对《企业年金方案》《成立中国中铁精准帮扶基金议案》《精准帮扶基金管理办法》等重要事项进行了审议，选举了职工监事。

招聘与劳动合同管理

Recruitment and Labor contract management

公司在人才招聘方面坚持定期招聘应届毕业生和按需引进高端人才相结合的政策，按照既满足当前需要又考虑长远发展的思路，在知名院校采取专项引才政策，重点引进公司急需紧缺的高层次、高学历毕业生。针对企业急需且短期无法通过内部培养的高端人才，可通过人才引进绿色通道，采取“一人一策”，实行更加开放灵活的人才政策。

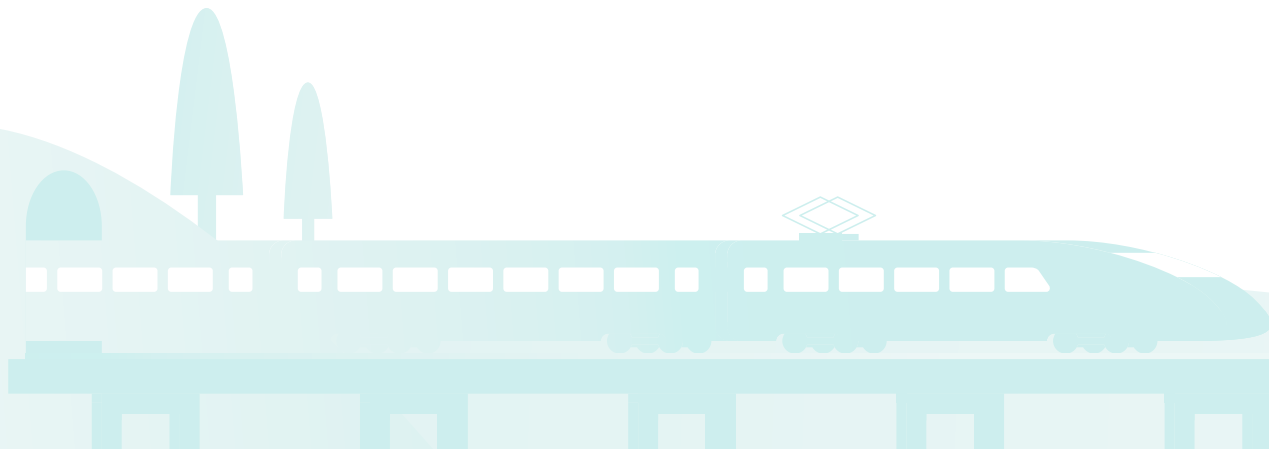
公司高度重视员工权益保护，坚持用工平等的管理准则，依法为员工平等提供多元化发展机会，不因性别、种族、宗教、年龄、国籍而歧视员工。公司依法与每位员工签订劳动合同，合同内容包含关于工资、员工假期、福利、培训项目、健康安全、保密义务和终止情形的条款，明确公司与员工的权利和义务，并严格执行，有效维护双方的合法权益。公司重视强化劳动合同管理，及时与涉及合同到期、变更、解除的员工办理相关手续。若员工因不能胜任岗位或严重违反公司规章制度等，双方将依法终止劳动合同。

Enterprises at all levels of the Company hold annual workers' congress to review the work report of the enterprise, the report on the collection and processing of employee proposals, and the report on the implementation of collective contracts. Employee representatives will conduct democratic evaluation and speak on proposals at the meeting. In 2019, the Company solicited 214 employee proposals and processed them all in the same year.

The Company's labor union actively promoted democratic management, incorporated democratic management into the Company's "Three Major and One Big" decision-making mechanism and internal control processes, and participated in the formulation and review of policies and systems involving employee interests. When the workers' congress was not in session, the labor union held 3 joint meetings of representatives and heads to consider important issues such as Enterprise Annuity Plan (《企业年金方案》), the Proposal for the Establishment of CREC Targeted Assistance Fund (《成立中国中铁精准帮扶基金议案》) and the Administrative Measures of Targeted Assistance Fund (《精准帮扶基金管理办法》), and elected workers' supervisors.

In terms of talents recruitment, the Company insisted on the policy that resorts to both recruiting fresh graduates on a regular basis and introducing high-end talents according to the needs. With the mindset to satisfy current need and for future development, and through the policy of talent acquisition on targeted expertise, the Company highlights on high level graduates with good educational background to cope with urgent need. In recruitment of high-end talents who meet the need but the enterprise is unable to provide through internal training in short period of time, it is possible to recruit through a green path of "one talent one policy", implementing the talent recruitment policy in a more welcome and flexible manner.

The Company attaches great importance to the protection of employees' rights and interests, adheres to the equal employment management principle, provides employees with equal opportunities for diversified development in accordance with the law, and does not discriminate against employees because of gender, race, religion, age and nationality. The Company signs a labor contract with each employee in accordance with the law. The contract contains provisions on wages, employee holidays, benefits, training programs, health and safety, confidentiality obligations and termination, clarifies the rights and obligations of the Company and employees, and strictly enforces and effectively maintains the legal rights of both parties. The Company attaches great importance to strengthening the management of labor contracts, and timely handles relevant procedures with employees involved in the expiry, change and termination of contracts. If an employee is unable to perform the job or seriously violates the Company's rules and regulations, both parties will terminate the labor contract in accordance with the law.



薪酬与福利

Remuneration and benefits

公司按照现代企业制度要求，不断完善科学合理、公平公正、规范有序的薪酬管理制度体系，注重发挥薪酬分配的激励和约束作用，吸引和保留企业核心人才，并保持薪酬水平的规范有序增长。在薪酬制度方面，公司制定了《中国中铁股份有限公司薪酬管理工作指导意见》《中国中铁加强员工收入能增能减市场化机制建设的指导意见》等文件，并依照相关文件为员工提供岗位工资、绩效工资和津贴。2019年，公司完善出台工资总额管理办法，落实国家及国资委“一适应，两挂钩，双对标”要求，建立健全与企业经济效益和人均营收及人工成本投入产出效率指标挂钩的工资决定和正常增长机制，加大工资与企业效益挂钩力度，并结合职工平均工资情况进行调控，营造积极向上的正向激励氛围。公司还拟订科技型企业股权和分红激励管理办法，明确实施条件和方法，理顺内部管理流程，从而建立科技型企业股权和分红激励管理机制。

公司切实保障职工合法社保权益，督促成员企业及时为职工缴纳养老保险、医疗保险、失业保险、生育保险、工伤保险及住房公积金。公司在境外机构和项目都设立了人力资源部（岗），按照当地劳动法和社保法等，制定属地化的劳工管理制度，明确规范当地员工招聘、合同签订、社保交纳、出勤管理、请假制度、薪酬标准、解聘流程等各环节要求。除前述法定福利外，公司积极推进有条件的成员企业为在职员工和退休员工提供自愿福利，这些福利包括为员工提供补充医疗保险计划和企业年金，减轻员工医疗和养老费用负担，提高员工重大疾病和养老保障水平，进一步维护员工权益。

In accordance with the requirements of the modern enterprise system, the Company continues to improve its scientific, reasonable, fair, impartial and standardized remuneration management system. It pays attention to the role of incentives and restraints in remuneration distribution, attracts and retains core talents of the enterprise, and maintains a regular and orderly increase in remuneration. In terms of the remuneration system, the Company formulated the Guidelines on Remuneration Management of CREC (《中国中铁股份有限公司薪酬管理工作指导意见》) and Guidelines on CREC to Strengthen the Establishment of Market Mechanism for Employee Revenue Variability (《中国中铁加强员工收入能增能减市场化机制建设的指导意见》) and other documents, and provided employees with post wages, performance pay and allowances in accordance with the relevant documents. In 2019, the Company improved the total salary management, implemented the “one adaptation, two linkages and double benchmarking” requirements of the State and the SASAC, and established and optimized remuneration linked to corporate economic benefits and per capita revenue and labor cost input-output efficiency indicators, increase the linkage between salaries and enterprise efficiency, and combine with the average salaries of employees to carry out regulation and control, to create a positive incentive atmosphere. The Company also formulates the administrative measures for equity and dividend incentives of technology-based enterprises, clarified the implementation conditions and methods, and straightens out the internal management process to establish a management mechanism for equity and dividend incentives of technology-based enterprises.

The Company earnestly protects employees' legitimate social security rights and urges member companies to promptly pay endowment insurance, medical insurance, unemployment insurance, maternity insurance, work injury insurance and housing provident fund for their employees. The Company has set up human resources departments (posts) in overseas institutions and projects, and formulated localized labor management systems in accordance with local labor law and social security law, which clearly regulates local employee recruitment, contract signing, social security delivery, attendance management, and leave systems, remuneration standards, termination procedures and other requirements. In addition to the afore-mentioned statutory benefits, the Company actively promotes qualified member companies to provide voluntary benefits for in-service and retired employees, including supplementary medical insurance plans and enterprise annuities for employees, reducing the burden of employees' medical and pension expenses, improving employees' major diseases and old-age security, and further safeguarding employees' rights and interests.

1

案例 Case

中铁香港（印尼）公司的印尼籍员工Ima一次突发急病，公司马上组织将其及时送医，并垫付医疗费用。该员工出院后公司让她在家调养，并组织工会到她家中慰问。得益于公司为其办理的医疗保险，Ima完全可以承担后续治疗的费用。

Ima, an Indonesian employee of China Railway Hong Kong (Indonesia) Company, had an acute illness, and the company immediately arranged to send Ima to the doctor in a timely manner and paid the medical expenses in advance. After the employee was discharged from the hospital, the company asked her to recuperate at home, and organized the union to visit Ima. Thanks to the Company's medical insurance, Ima can fully afford the cost of follow-up treatment.

在员工福利方面，2019年，公司全面开展“三让三不让”关爱员工工程，大力推动普惠服务，联手专业保险公司，为员工及家属提供专属团体优惠健康保险。在北京地区试点以来，已为3,000多名员工提供意外保障和重大疾病保障额度累计22.7亿元，有效增强了员工抵御重大疾病和意外风险能力。

2019年，公司深化项目部“幸福之家十个一工程”，扎实做好“三不让”帮扶、“两节”送温暖、暑期汛期员工服务慰问工作，开展了重点工程夏送清凉和调研慰问活动。全公司共支出“三不让”资金7,214万元，救助困难员工15,112人次；筹集发放“两节”送温暖资金1.59亿元，共走访慰问职工民工32万人次。

In terms of employee benefits, in 2019, the Company comprehensively launched a “three permissions and three prohibitions” project for caring for employees, vigorously promoted inclusive services, and teamed up with professional insurance companies to provide exclusive group discount health insurance for employees and their families. Since the pilot in Beijing, the Company have provided accident protection and major illness protection for more than 3,000 employees with a total of RMB2.27 billion, effectively enhancing their ability to resist major diseases and accident risks.

In 2019, the Company deepened “Ten Happy Projects of Happy Homes” of project department, did well in “three prohibitions” assistance, “two festivals” heart-warming and staff services and condolences during summer and flood seasons, and carried out key projects of summer cooling and investigated condolence activities. The Company spent a total of RMB72.14 million in “three prohibitions” activity and aided 15,112 employees in difficulty; it raised and distributed RMB159 million in “two festivals” activity for warm delivery and visited totally 320,000 workers.



为员工过集体生日
Group birthdays for employees



中铁上海局帮助困难员工脱贫解困
China Railway Shanghai Bureau helps employees in difficulty get rid of poverty and difficulties

关爱员工身心健康

Caring for employees' physical and psychological health

公司积极组织了一系列关爱员工身心健康活动。公司关注工地卫生建设，持续改善施工一线的卫生水平，为员工营造健康清洁的工作环境。公司通过先进女职工素质提升清华大学研修班、中铁惠园女子学堂等培训专门为女职工设置身心健康保障课程。所属部分单位还专门为女职工增加了额外体检项目。公司组织进行员工健康关爱书面调研、网上问卷调查和片区督导调研，召开员工帮助计划（Employee Assistance Program，EAP）推进视频会和交流研讨会。公司下发《关于加强员工健康关爱计划内部专员队伍建设的指导意见》，培训健康委员、内训师、督导运营师、健康关爱大使志愿者550人次，并举办EAP内训师授课观摩大赛，据统计，共有28万人次在线观看此次比赛。公司还搭建了线上心理自助、心理测试和心理咨询平台，开通了心理健康知识微课堂，首次组织10万多名员工线上心理健康测评。目前全公司共建立心灵驿站1,100个，开展心理咨询疏导活动1,228场次，电话和网络心理咨询1,587人次，受益者达12.7万人次。

The Company actively organized a series of activities to care for the physical and psychological health of employees. The Company paid attention to the hygienic construction of the construction site, continuously improved the sanitary level of the construction front line, and created a healthy and clean working environment for employees. Through advanced female staff quality enhancement training class of Tsinghua University, CREC Huiyuan women's school and other training specifically for female staff, the Company set up physical and psychological health protection courses. Some units of the Company also specially added additional physical examinations for female employees. The Company organized written research on employees' health care, online questionnaire survey and area supervision research, and held video conference and communication seminar on Employee Assistance Program (EAP) promotion. The Company issued the Guidelines on Strengthening the Construction of Internal Specialist Team of the Employee Health Care Plan and trained 550 volunteers of health committee members, internal trainers, supervising operators and health care ambassadors, and held the EAP internal trainers' teaching observation competition. According to statistics, a total of 280,000 people watched the competition online. The Company has also established an online psychological self-assistance, psychological testing and psychological counseling platform, launched a micro-class of mental health knowledge, and firstly organized online mental health assessment for 100,000 employees. At present, the Company has set up 1,100 staff soul shelters, conducted 1,228 counselling activities, 1,587 telephone and online psychological consultations, with 127,000 beneficiaries.



工地慰问

Paying a visit to a construction site



中铁上海工程局为蒙华铁路项目10对新人举办汉式集体婚

CREC Shanghai Engineering Bureau held a Chinese-style group wedding ceremony for 10 couples from the Western Inner Mongolia-Central China Railway Project

保障工作与生活平衡

Work-life balance guarantee

公司严格遵守国家劳动相关法律法规，认真执行《职工带薪年休假条例》及其他各类假期规定。《职工带薪年休假条例》规定企业等单位的职工连续工作1年以上的，享受带薪年休假；单位应当保证职工享受年休假；员工在年休假期间享受与正常工作期间相同的工资收入。我们认为遵守该等法律法规为维护员工休息休假权利，保证员工工作生活相平衡，调动员工工作积极性具有积极影响。2019年，公司修订《总部工作时间及假期管理办法》，对总部员工的工时假期管理工作进行进一步规范，从而保证员工的休息时间。对在法定节假日、公休假日工作和延长工作时间的职工，按照国家法律规定采取支付薪酬及加班工资或调休等方式保障员工权益。

我们注重员工劳逸结合，定期组织员工活动，帮助员工舒缓工作压力，丰富业余生活，提升员工凝聚力与归属感。2019年，公司组建了6个职工兴趣协会，以“我和我的祖国—庆祝新中国成立70周年”为主题，组织开展了乒乓球、羽毛球、手机摄影大赛和职工征文、线上答题、读书分享等活动。组织参加全国职工微影视大赛和中工网首届职工短视频大赛，有11个作品分别获得金奖、银奖和最佳奖。承办“与共和国同行”全国职工书屋主题阅读交流活动，全公司获2个优秀组织单位奖，2项全国工会最美职工书屋称号。

The Company strictly abides by related national labor laws and regulations, and earnestly implements the Regulation on Paid Annual Leave for Employees (《职工带薪年休假条例》) and various other vacation regulations. The Regulation on Paid Annual Leave for Employees (《职工带薪年休假条例》) provides that an employee is granted with paid annual leave with his/her term over one year in the enterprise; institutes are obliged to guarantee its employees of such paid annual leave; employees receive same amount of wage income as in the normal course of work. We consider that such laws and regulations have positive influence on safeguarding employee's right to take rest and leave, ensuring work-life balance and adjusting work motivation. In 2019, the Company revised the Administrative Measures for Working Hours and Holidays of the Headquarters (《总部工作时间及假期管理办法》) to further standardize the working hours and holidays management of employees at the headquarters to ensure the employees' rest time. For employees who work on statutory holidays, public holidays and work overtime, the Company protects the rights and interests of employees by paying salaries and paying overtime wages or implementing days-off pattern in accordance with national laws.

We pay attention to the combination of work and rest of employees, organize employee activities on a regular basis to help employees relieve work pressure, enrich their spare time and enhance their cohesion and sense of belonging. In 2019, the Company formed 6 employee interest associations, with the theme of "Me and My Motherland-Celebrating the 70th Anniversary of the Founding of New China", organized table tennis, badminton, mobile photography contests and employee essays, online question answering, reading sharing and other activities. The Company organized and participated in the national micro videos competition for employees and Worker.cn's first short video competition for employees, with 11 pieces of work winning gold, silver and best awards respectively. The Company undertook the themed reading communication activity of "Going Together with the Republic" of the national staff bookstore and the whole Company won 2 excellent organization unit awards, 2 titles of the most beautiful staff bookstore of the national trade union.



公司EAP团体心理辅导走进西藏米拉山工地
The Company's EAP Group organized a psychological counseling session at the Mira Mountain construction site in Tibet

保障员工健康与安全 Employee Health and Safety Protection

一直以来，公司高度重视员工的健康与安全，我们严格遵守《中华人民共和国安全生产法》《中华人民共和国职业病防治法》《中华人民共和国消防法》及《工伤保险条例》等相关法律法规和运营所在地所在国的其它对公司员工健康与安全有重大影响的法律法规，努力为员工提供健康安全的工作环境。上述法律法规旨在保障员工生产作业中的健康与安全，减少工伤事故，保护劳动者的合法权益。中国中铁作为工程施工类企业，如何保证安全生产、降低工伤事故是公司最为关注的领域之一，我们认为在生产运营中严格遵守该等法律法规对公司可持续发展至关重要，并不断在此领域强化管理。

安全生产 Safety production

公司始终将“保持安全生产的稳定局面，为社会提供安全优质的建筑产品，为公众提供安全愉悦的周边环境，为员工创造安全健康的工作条件”作为履行社会责任的重要方面。我们从落实安全责任、完善安全管理体系、强化安全施工管理、加强安全保障、开展安全教育培训五个方面，全方位强化安全生产，保障员工工作安全。

公司制定了项目“零事故、零伤害”和企业本质安全的长远目标，认真落实《安全生产管理“十三五”规划》，制定了《2019年安全生产、工程质量、环境保护和职业健康监督管理工作要点》，明确了全年工作思路和工作目标，并开展落实。公司安全生产管理情况与高管薪酬挂钩，是国务院国资委对公司年度业绩考核和公司主要负责人任期考核的重要内容。2019年，公司进一步加大安全生产管控力度，全年未发生重大及以上安全生产事故，较大安全事故件数、责任事故件数均低于上级考核指标，确保了中华人民共和国成立70周年大庆期间安全生产无事故，实现了安全质量稳定可控的奋斗目标。

在承包商安全生产管理方面，公司对劳务（专业）承包商实施负面清单管理。公司在评标过程中，要对投标方的安全生产管理能力进行明确评估。

All along, the Company attaches great importance to the health and safety of employees. We strictly abide by the relevant laws and regulations, such as the Production Safety Law of the People's Republic of China, The Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases, The Fire Control Law of the People's Republic of China and The Regulation on Work-Related Injury Insurances as well as other laws and regulations of the Countries where the operation is located that significantly influence employees' health and safety, and strive to provide employees with a healthy and safe working environment. Such laws and regulations aim to safeguard employees' health and safety during production work, reduce work-related injury and protect labor rights. China Railway, as an enterprise engaged in construction work, the most concerned area of the Company is to ensure production safety and decrease work-related incidents. We consider that strictly abiding by the laws and regulations during production and operation is utterly important for the Company's sustainable development and continue to intensify management in this area.

CREC is constantly taking "to maintain The stable condition of safe production, to provide the society with safe and good-quality architectural products, to provide the public with a pleasant environment and create safe and health working conditions for the staff" as an important aspect of its social responsibility. We strengthen safety in production and ensure the safety of employees in the following five aspects: implementing safety responsibility, The improving safety management system, strengthening safety construction management, strengthening safety equipment protection and carrying out safety education and training.

The Company has formulated the long-term goals of the project "zero accident and zero injury" and the essential safety of the enterprise, and has conscientiously implemented the "13th Five-Year Plan" for Production Safety Management, and formulated Safety Production, Engineering Quality, Environmental Protection and Occupational Health in 2019 Supervision Management Essentials and the work ideas and objectives for the whole year are clearly defined and implemented. The Company's production safety management is linked to the remuneration of senior management, which is an important part of the SASAC's annual performance evaluation of the Company as well as the evaluation of term of office of the Company's major responsible person. In 2019, the Company further strengthened the safety production management and control. There were no major or above production safety accidents throughout the year. The number of relatively major safety accidents and liability accidents were lower than the superior assessment indicators, ensuring safety production without accidents during the 70th anniversary of the founding of the People's Republic of China and achieving the goal of steady control of safety and quality.

In terms of contractor safety management, the Company implemented negative list management for labor (professional) contractors. In bid evaluation, the Company shall clearly evaluate the production safety management ability of the bidder.

落实安全责任

Implementing safety responsibility

公司设有安全生产（质量）委员会，统筹负责公司安全生产各项工作。委员会设主任2名，由股份公司党委书记、董事长，股份公司总裁担任；设副主任1名，由分管安全质量的副总裁担任；委员若干名，包含股份公司领导班子其他成员和高管、安全生产总监、高级专家、总部相关部门负责人。从公司总部到项目部，各级组织都设有安全生产总监和安全生产监督部门。

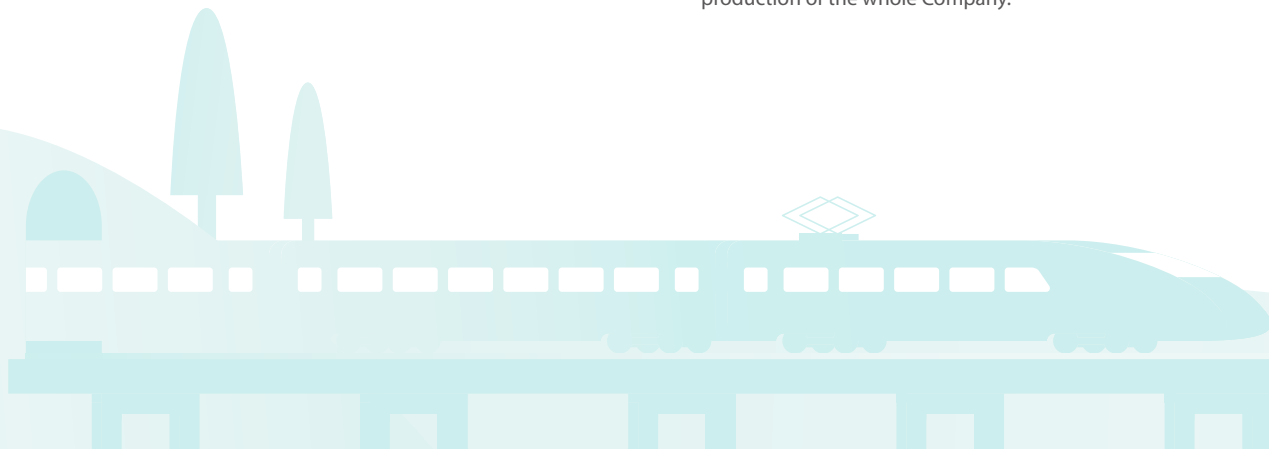
2019年，公司研究下发了《关于建立安全生产述职机制的通知》，进一步完善企业安全生产考核评价体系，督促安全生产第一责任人和分管负责人履职尽责。同时，公司于2019年部署开展为期三年（2019年3月–2021年12月）的安全生产责任“落实年”活动，通过开展安全生产“管”“监”责任大宣贯大培训活动、安全生产“管”“监”责任落实专项检查活动、筑牢安全生产管理基础专项行动、生产安全惯性事故防控专项行动、本质安全保障能力提升行动等五大主题活动，进一步推动安全生产“管”“监”系统责任落实，不断提升企业和项目本质安全保障能力。

2019年，公司共组织各类安全质量大检查7次，检查共覆盖34家二级企业和158个项目。5月中下旬，由公司两位主要领导分别带队，对重庆、青岛片区在建项目开展了安全生产大检查，并分别召开了片区安全质量检查及管理现场会，对安全生产大检查情况、典型事故案例等进行了通报，主要领导就进一步做好安全质量工作提出了明确要求。8月9日–9月28日，公司全部领导及高管带队15个安全质量检查组，按“齿轮推动、层级覆盖”原则，对34家二级单位以“一局、一处、一项目”的方式开展了全方位、系统性安全质量大检查，确保公司安全生产形势持续稳定。

The Company has a production safety (quality) committee, which is responsible for all aspects of the Company's production safety. The committee has 2 directors, which are held by the Company's Party Secretary and chairman, and the president of a joint-stock company; the deputy director is held by the vice president in charge of safety and quality; several members including the members of the joint-stock company's leadership team and senior management, director of safety production, senior expert, head of relevant departments at headquarters. From the Company's headquarters to the project department, organizations at all levels have safety production directors and production safety supervision departments.

In 2019, the Company researched and issued the Notice on Establishing Production Safety Reporting Mechanism (《关于建立安全生产述职机制的通知》) to further improve the Company's safety production assessment and evaluation system, and urged the first person in charge of production safety and the person in charge to perform their duties. At the same time, the Company deployed an activity of "Years of Implementation" for production safety responsibility which lasts for three-years (from March 2019 to December 2021) in 2019. Through carrying out a large-scale training campaign on the "Management" and "Supervision" responsibility in production safety, implementing special inspection activities in the "Management" and "Supervision" responsibility in production safety, building a solid foundation for basic special operation of production safety management, special operation on prevention and control of inertia accidents in production safety, special operation on improvement of essential safety guarantee and other five major thematic activities, we further promoted the implementation of responsibility for the "Management" and "Supervision" system of production safety, and continuously improved the essential safety guarantee capabilities of enterprises and projects.

In 2019, the Company organized a total of 7 safety and quality inspections, covering a total of 34 secondary enterprises and 158 projects. In mid-to-late May, two main leaders of the Company led teams to conduct safety inspections on projects under construction in Chongqing and Qingdao, and held on-site safety quality inspection and management site meetings respectively. The results of the safety inspections and typical accident cases were reported, and the main leaders set clear requirements for further improving safety and quality work. From 9 August to 28 September, the Company's all leaders and senior management led 15 safety and quality inspection teams, according to the principle of "gear promotion and hierarchical coverage", carried out omni-directional and systematic safety and quality inspection on 34 second-level units in the way of "one bureau, one place and one project" to ensure the continuous stable safety production of the whole Company.



完善安全管理体系

Safety management system Improvement

公司深入贯彻《中共中央国务院关于推进安全生产领域改革发展的意见》，认真落实GB/T28001标准，各级生产部门把生产要素系统（组织指挥、技术保障、资源配置）的常态管控作为安全生产的基础，采取有效措施，加强安全生产的源头管控和预防预控。同时，公司运用顶层设计、制度建立、监督检查等手段对安全生产情况进行纠偏，建立起层层预防、纠偏补充的多重保障体系，真正形成安全生产的长效机制，提高企业和项目本质安全保障能力。

2019年，公司全面强化安全生产风险分级管控，针对安全风险辨识评估清单，明确二级公司、三级公司、项目部等各层级安全风险管控等级、范围、重点和责任人，明确落实每一处重大安全风险和重大危险源的安全管理与监管责任，严格落实风险控制方案和措施，强化风险管控技术、制度的刚性落实与执行。

公司在每年年初、项目开工前、重要节假日等时间节点，采用作业条件危险性评价法(LEC)、专家调查法、是非判断法、安全检查表分析等方法，开展全方位、全流程的风险辨识评估，并通过安全教育培训、技术交底、更新公示等方式将风险源和管控措施告知从业人员。把风险辨识评估、分级、管控等内容作为项目安全策划的重要组成部分。对危险性较大的分部分项工程，由工程技术人员编制专项施工方案，对超过一定规模的危大工程，还要组织专家论证会对专项施工方案进行论证和报批，确保施工方案、施工措施安全可靠。

在应急管理方面，公司制定了《安全质量、生态环境及灾害事故（事件）应急预案》，各单位根据实际情况和条件，采用桌面演练、功能演练和全面演练三种方式进行应急演练。2019年6月“安全生产月”期间，公司广泛组织开展了应急演练活动。

The Company thoroughly implemented the Opinions of the CPC Central Committee and the State Council on Advancing the Reform and Development of the Work Safety Field and earnestly implements the GB/T28001 standard, and production departments at all levels took the normal management and control of production factor systems (organization and command, technical support, resource allocation) as the basis for production safety, and took effective measures to strengthen source control and prevention and pre-control of production safety. At the same time, the Company used top-level design, system establishment, supervision and inspection to rectify production safety, established multiple layers of prevention, rectification and supplementary multiple guarantee systems, truly formed a long-term mechanism for production safety, and improved the essential safety guarantee of enterprises and projects.

In 2019, the Company comprehensively strengthened the management and control of safety in production risk, and in terms of the list of safety risk identification assessments, identified the safety risk management levels, scopes, priorities, and responsible persons at all levels including second-tier companies, third-tier companies, project departments and etc., implemented the safety management and supervision responsibility of every major safety risk and major hazard source, strictly implemented risk control plans and measures and strengthened the rigid implementation and execution of risk control technology and system.

At the beginning of each year, before the start of the project, important holidays and other points in time, the Company adopts LEC, expert investigation method, right and wrong judgment method, safety check list analysis and other methods to carry out omni-directional and full-process risk identification and assessment, and to inform employees of risk sources and control measures by means of safety education and training, technical disclosure, update and publicity, etc. The Company regards risk identification, assessment, grading, management and control as an important part of project safety planning. For partial projects with greater risks, engineers and technicians shall work out special construction plans, and for large and dangerous projects exceeding a certain scale, it is necessary to organize expert discussion meetings to demonstrate and apply for approval of the special construction schemes to ensure that the construction plan and construction measures are safe and reliable.

In terms of emergency management, the Company has formulated the Emergency Plan for Safety, Quality, Ecological Environment and Disaster Accidents (Events) (《安全质量、生态环境及灾害事故（事件）应急预案》）。Each unit adopts desktop drills, functional drills, and comprehensive drills to perform emergency drills based on actual situations and conditions. During the “Safe Production Month” in June 2019, the Company extensively organized emergency drills.

强化安全施工管理

Strengthening safe construction management

公司加强施工技术管理工作，与施工企业签订《安全质量责任书》，推进科学施工，持续优化策划，合理安排资源配置，坚决杜绝盲目赶工期、抢进度，做到手续不齐全不施工、地质条件不清楚不施工、安全措施不落实不施工、人员培训不到位不施工、隐患不排除不施工。项目过程中，随时做好施工图审核与勘探设计复核工作，对实际地质与设计图纸不符等问题要及时向设计方及业主方反馈，及时落实变更方案，排除重大安全质量隐患。

The Company strengthened the construction technology management, entered into the Safety and Quality Responsibility Letter with the construction enterprise, promoted scientific construction, continuously optimized planning, rationally arranged resource allocation and resolutely avoided blindly rushing the construction period and progress, and no construction was carried out without complete formalities, clear geological conditions, safety measures, well-trained personnel, and eliminating hidden dangers. During the course of the project, the Company is ready to review the construction drawings and the exploration design at any time. In the event of discrepancies between the actual geology and the design drawings, the Company shall promptly report back to the designer and the owner, implement the change plan in time, and eliminate major safety and quality risks.

加强安全设备保障

Strengthening security equipment protection

公司进一步加强安全生产关键技术装备的研发推广力度，推动信息化、机械化、智能化技术和装备在危险工艺和关键环节上的应用，加强现代信息技术与安全生产的深度融合和推广应用。

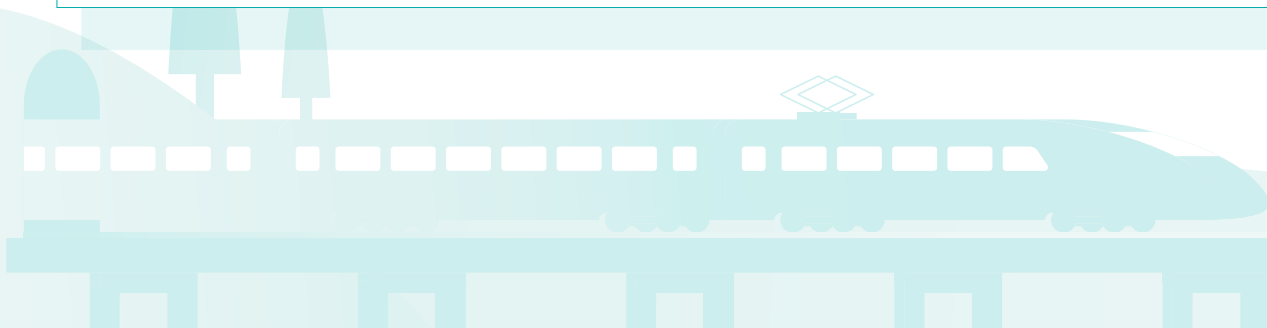
The Company further strengthened the research and development and promotion of key technology and equipment for safe production, promoted the application of informatization, mechanization, intelligent technology and equipment in dangerous processes and key aspects, and strengthened the further integration and promotion of modern information technology and safety production.

1

案例 Case

在北京丰台站建设中，公司运用建筑信息模型（Building Information Modeling，简称BIM）技术提高既有线施工安全系数。基于BIM模型建设，对现场构筑物、既有线路、接触网等位置，脚手架、模板搭设，大型机械布置和工作范围等进行分析，通过可视化模拟和碰撞检查，评估施工进度中工作空间的可用性和安全性，预估施工现场安全事故发生的概率和程度，提前作出规避或预防方案，有效地提高工作效率，排除安全隐患。

In the construction of Beijing Fengtai Station, the Company used Building Information Modeling (BIM) technology to improve the safety factor of existing cable construction. Based on BIM construction, analysis of on-site structures, existing lines, contact nets, etc., scaffolding, formwork erection, large-scale mechanical layout and working range, etc., were carried out, evaluating the availability and safety of the working space in the construction, predicting the probability and degree of accidents at the construction site and making evasion or prevention plans in advance through visual simulation and collision inspection to effectively improve work efficiency and eliminate potential safety hazards.



开展安全教育培训

Carrying out safety education and training

公司不断完善项目安全教育培训体系，持续推广应用安全教育培训微课堂，编写和补充质量通病预防课件，利用多媒体安全培训工具箱对现场作业人员进行培训，实现安全教育培训的趣味化、信息化、系统化和规范化以及培训内容的多样化、专业化。2019年，公司利用多媒体安全培训工具箱共组织培训34.8万人次，合计183.5万学时。公司所属各单位持续开展层级安全质量教育培训活动，全年共计开展教育培训10.7万次，培训人员192.4万人次，提升了全员安全素质。2019年，公司在首都经济贸易大学合作举办了“中国中铁－首经贸安全生产高级管理人员研修班”，来自公司所属各单位共计66名高级管理人员参加了培训。此外，我们举办了注册安全工程师继续教育及考核辅导、安全生产“三类人员”考核续期等11期培训班，共有1,565人参加培训，有效提升了参培学员的综合能力。

The Company continuously improves the project safety education and training system, continuously promotes the application of safety education training micro-classes, compiles and supplements quality common disease prevention courseware, and uses multimedia safety training toolbox to train field operators to realize the fun, informatization, systematization and standardization as well as diversification and specialization of training. In 2019, the Company used the multimedia security training toolbox to organize training for a total of 348,000 people, totaling 1.835 million class hours. The units affiliated to the Company continued to carry out safety and quality education and training activities at various levels. A total of 107,000 training sessions were conducted throughout the year, and 1.924 million people were trained, improving the safety quality of all employees. In 2019, the Company co-sponsored the “CREC – CUEB’s Safety Production Senior Management Seminar” at the Capital University of Economics and Business. A total of 66 senior management from various units of the Company participated in the training. In addition, we held 11 training courses including continuing education and assessment counseling for registered safety engineers, and renewal assessment of the “three categories of personnel” in safety production. A total of 1,565 people participated in the training, which effectively improved the comprehensive ability of trainees.



八达岭长城站封顶
Capping of the Badaling Great Wall Station

职业健康

Occupational health

公司严格遵循《中华人民共和国安全生产法》《中华人民共和国职业病防治法》等法律法规。2019年，公司下发《关于进一步加强职业健康工作的通知》，并落实建设项目职业病危害预评价、全员职业健康教育培训、职业危害因素告知、完善健康体检档案、配备合格劳动保护用品、加强过程监督检查等工作。

公司加强职业病危害申报、监测、告知和警示工作，按照国家“职业病危害因素分类目录（2015年）”所列职业病的危害因素进行识别，及时、如实向项目所在地或公司注册地卫生行政主管部门主动申报并接受监督。公司坚持每年对职业病危害因素进行检测，每三年进行一次职业病危害评价。2019年，公司未发生职业病事件。

The Company strictly abides by laws and regulations such as the Production Safety Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases. In 2019, the Company issued the Notice on Further Strengthening Occupational Health and implemented the pre-assessment of occupational disease hazards for all construction projects, occupational health education and training for all employees, notification of occupational hazard factors, improvement of health examination files, provision of labor protection supplies up to standard and the strengthening of process supervision and inspection.

The Company strengthens the declaration, monitoring, notification and warning of occupational disease hazards, identifies them according to the Catalogue of Categorized Occupational Disease Hazard Factors (2015), promptly and truthfully reports to the competent public health authority at the location of projects or the Company's registration and accepts the supervision. The Company insists on the detection of occupational disease hazards every year and the evaluation of occupational hazards every three years. In 2019, there were no occupational disease incidents in the Company.



承包商劳工管理

Labor management of contractors

公司把承包商的劳工管理作为准入条件，并作为评价要素纳入对承包商的日常评价和年度评价。公司与承包商签订的合同明确了劳务安全与劳工权益等条款，要求劳务承包商依照公司要求，落实安全生产与职业健康保障措施，为劳工提供安全就业环境和生产条件。公司为劳工提供工伤保险和意外伤害保险，定期对劳工开展安全卫生教育，最大限度地减少安全事故与职业危害。

公司下发《加强境外安全生产管理工作的通知》，要求把包括承包商员工在内的境外全体员工的安全放在首位，把境外单位统一纳入企业安全生产管理体系，并结合项目所在国有关规定设置安全生产专职机构，配置安全生产监管人员。公司提出了制定境外安全生产发展规划、加强境外项目安全生产管控、强化安全生产标准化管理、运用安全信息化技术、保障安全投入、加强安全培训、开展风险管控和隐患排查、提升应急处置能力、依规应对安全事故等9项加强境外安全生产的举措。

The Company regards the labor management of contractors as an entry condition and includes it as an evaluation element in the daily evaluation and annual evaluation of contractors. The contract entered into between the Company and contractors clarified the labor safety and labor rights and other provisions, requiring the labor contractors to implement safety production and occupational health protection measures in accordance with the Company's requirements to provide laborers with a safe employment environment and production conditions. The Company provides workers with work injury insurance and accident insurance, and regularly conducts safety and health education for workers to minimize safety accidents and occupational hazards.

The Company issued the Notice on Strengthening Management of Overseas Safety Production, which requires that the safety of all overseas employees, including contractor employees, be given the highest priority, and that overseas units be integrated into the enterprise's safety production management system and set up a production safety special institution and deployed safety production supervision personnel in accordance with the relevant regulations of the country where the project is located. The Company has put forward 9 measures to strengthen overseas production safety, such as formulating overseas production safety development plans, strengthening production safety management and control of overseas projects, strengthening production safety standardization management, applying safety information technology, ensuring safety operation, strengthening safety training, carrying out risk control and hidden danger investigation, improving emergency handling capacity, and dealing with safety accidents in accordance with regulations.



关注员工成长与发展

Focusing on the Growth and development of Employees

公司大力实施“人才强企”战略，把人才资源视为企业的第一资源，努力做到人才资源优先开发、人才结构优先调整、人才投入优先保证、人才制度优先创新。2019年，公司印发了《关于加强人才队伍建设的指导意见》，逐步构建以品德、业绩和贡献为主的分类考核评价体系。进一步规范了动议、推荐、考察、决定等员工晋升程序。公司从组织员工培训、职业技能评选、鼓励资格认证三个方面为员工职业成长与发展提供系统地支持。

The Company vigorously implements the strategy of “strengthening the enterprise with talents”, regards human resources as the first resource of the enterprise, and strives to give priority to the development of human resources, the priority adjustment of the talent structure, the priority guarantee of talent input, and the priority innovation of the talent system. In 2019, the Company issued the Guidelines on Strengthening the Construction of Talent Teams, and gradually built a classification assessment system based on morality, performance and contribution to further standardize employee promotion procedures such as motions, recommendations, inspections and decisions. The Company provides systematic support for employees’ career growth and development from three aspects: organizing employee training, vocational skills selection, and encouraging qualification certification.

组织员工培训

Organizing employee training

2019年，公司持续开展“补钙、筑基、提能”三位一体培训，对220多名党委管理干部进行了培训，组建宣讲团赴海外开展宣讲，各单位组织宣贯活动2万余次；部署开展了“学用结合”调研活动，召开了理论研讨会，形成研究成果1,061篇。同时，公司深入推进职工教育培训，组织开展了“十大杰出青年”、女职工素质提升“百千万”工程等一系列评选表彰活动，共培训各级各类人才30余万人次，有力促进了员工队伍能力素质提升。

In 2019, the Company continued to carry out the three-in-one training of “replenishment, foundation building and energy enhancement”, trained more than 220 Party management cadres, organized a preaching delegation to conduct overseas preaching, and each unit organized more than 20,000 preaching activities; the research activities of “combination of learning and use” were held, and theoretical seminars were held, and 1,061 research results were formed. At the same time, the Company further promoted employee education and training, organized a series of selection and commendation activities such as the “Top Ten Outstanding Youths” and the “hundreds to thousands” project to improve the quality of female employees, training a total of more than 300,000 people at all levels and vigorously improved the quality of the workforce.



组织员工学习

A learning session was organized for employees



电气化大讲堂：“一带一路战略与中国企业国际化”专题讲座

Electrification colloquium: Themed seminar on “Belt and Road Strategy and Internationalization of Chinese Enterprises”

职业技能评选

Vocational skills selection

2019年，公司推选入选全国重点领域创新团队1个，全国勘察设计大师1名、中青年科技创新领军人才1名，铁道行业青年人才托举工程人选1人，茅以升铁道工程师奖8名。培养选树了最美奋斗者巨晓林、窦铁成等一大批先进典型。向社会展示了中国中铁优秀人才的风采，弘扬了公司员工的工匠精神。

In 2019, the Company elected 1 national innovation team in key areas, 1 national survey and design master, 1 middle-aged and young scientific and technological innovation leader, 1 railway young talents entrusted engineering candidate, and 8 staff were awarded the Mao Yisheng Railroad Engineer Award. The Company has cultivated and selected a large number of advanced models such as the most beautiful strugglers, Ju Xiaolin, Dou Tiecheng, etc., to demonstrate the society the outstanding talents of CREC and to promote the craftsmanship of its employees.



技能大赛
Skill competition



技能竞赛闭幕
Closing of the skill competition

鼓励资格认证

Encouraging qualification certification

公司鼓励员工进行专业相关资格认证，并设有工程、会计、经济、政工多个系列的专业技术职务人员晋升评审委员会，按照公司有关规定对申报上述系列高级专业技术职务人员进行资格评审。2019年，公司认真组织开展高级职称评审、技能鉴定、高技能人才评价和特级技师评审工作，评审通过高级职称4,793人，高级技师702人、特级技师通过92人，工匠技师2人。

The Company encourages employees to carry out professional related qualification certification, and has a series of professional technical staff promotion review committees in engineering, accounting, economics and political work, in accordance with the Company's relevant regulations to apply for the above series of senior professional technical staff qualification evaluation. In 2019, the Company carefully organized the evaluation of senior titles, appraisal of skills, appraisal of high-skilled personnel and appraisal of premium technicians. It appraised and approved 4,793 staff with senior titles, 702 senior technicians, 92 premium technicians, and 2 craftsman technicians.

产品责任 Product Responsibility

中国中铁秉承“不断增强企业核心优势，发挥龙头企业示范带动作用，做中国建筑行业的领跑者；走全球发展道路，提升企业国际影响力，建设引领全球基础设施发展的综合型企业集团”的企业愿景，已发展成为集勘察设计、施工安装、工业制造、房地产开发、资源矿产、金融投资和其他业务于一体的特大型企业集团，公司致力于奉献精品工程、精良产品和精益服务，目前工程项目遍布中国除台湾省以外的各省市自治区以及全球90多个国家和地区。

CREC adheres to the vision of “continuously strengthening the core advantages of enterprises, giving play to the leading role of leading enterprises, and being a leader in the Chinese construction industry; taking a global development path, enhancing the Company’s international influence, and building a comprehensive enterprise group leading the development of global infrastructure”, has developed into a large-scale enterprise group integrating survey and design, construction and installation, industrial manufacturing, real estate development, resources and minerals, financial investment and other businesses. The Company is committed to dedicating high-quality engineering, excellent products and lean services. The Company’s current engineering projects cover all provinces, municipalities and autonomous regions in China except Taiwan Province, and more than 90 countries and regions around the world.

产品质量保证 Product quality assurance

公司秉承“百年大计，质量第一”的方针，按照“政府监督、社会监理、企业自控、用户评价”的工程质量监督模式，建立健全工程质量保证体系与组织体系。在质量管理方面，公司认真贯彻实施ISO9000体系标准和《质量管理体系文件》《质量程序文件》《工程质量管理暂行办法》等文件办法。此等标准和文件的实施对于中国中铁确保工程品质和工程质量具有重要指导意义。强化施工过程管控，加强施工过程中的自检、互检和交接检验工作，以确保施工工程质量始终处于受控状态，从而使工程质量达到有关规范、标准和合同要求。

The Company adheres to the “hundred-year plan with quality priority” policy, in accordance with the “government supervision, social supervision, enterprise self-control and user evaluation” project quality supervision and management model, and establishes and improves the project quality assurance system and organizational system. In terms of quality management, the Company conscientiously implements ISO9000 system standards, and documents and measures such as Quality Management System Documents, Quality Procedure Documents, and Project Quality Supervision and Management Measures. The implementation of these standards and documents is of important guiding significance for China Railway to ensure project quality. The Company strengthened the control of the construction process, and strengthened the self-inspection, mutual inspection, and handover inspection during the construction process to ensure that the quality management of the construction project is always under control, so that the project quality meets relevant specifications, standards and contract requirements.



宜昌市庙嘴长江大桥——全景鸟瞰
The Miaozi Yangtze River Bridge in Yichang—A panoramic bird's eye view

中国中铁全面开展质量安全通病预防及整治工作。股份公司统一部署，对在建工程施工质量通病进行排查整治，发现问题和隐患要迅速按照定人、定期、定岗、定责、定点的“五定”原则整改，重大隐患及时上报，及时处置，坚决将工程质量隐患消灭在开通运营之前。对于纳入2019年度开通的项目，股份公司将继续授权中铁科研院对隧道工程质量进行100%检测，确保隐患消除在运营之前。

公司进一步推广项目管理实验室成果，持续加强安全质量标准化建设。指导各单位和项目把优秀的管理制度、管理流程、管理模式、管理做法广泛应用到各管理层级，并根据实际情况不断完善、持续改进，充分发挥管理效能。把安全质量管理的各项要求嵌入工程建设各个环节的管理标准、技术标准和作业标准中，把标准细化到每个工种和每道工序，成为施工作业的强制性规范和评价标准，固化作业程序，达到闭环管理。

2019年，公司修订《中国中铁杯优质工程评选办法》以规范优质工程评审工作流程，通过深入开展工程创优活动，从而推动企业和施工现场加强工程质量管理，最终确保工程质量水平的持续改进与提高。

2019年，公司获得的国家级工程质量奖数量创历史最好成绩，有7项工程获国优金质奖，在建筑央企中排名第一；有10项工程获中国建设工程鲁班奖；57项工程获国家优质工程奖；西成高铁和云桂铁路、鹦鹉洲长江大桥分获FIDIC (International Federation of Consulting Engineers, FIDIC) 杰出项目奖与优秀项目奖，中国中铁是本届FIDIC奖评选全球获奖最多的企业。



滨海站站房外正立面
The facade of the station building of Binhai Station

CREC has comprehensively carried out The prevention and rectification of common quality and safety problems. The joint-stock company made unified arrangements to investigate and rectify the common defects in the construction quality of projects under construction, and the problems and hidden dangers should be quickly rectified in accordance with the “five fixed” principles of fixed personnel, fixed time, fixed post, fixed responsibility and fixed locations. Major hidden dangers are reported and dealt with in a timely manner, and the hidden dangers of project quality are resolutely eliminated before projects are put into operation. For projects included in the starting in 2019, the Company will continue to authorize the CREC Research Institute to conduct 100% inspection of tunnel engineering quality to ensure that hidden dangers are eliminated before operation.

The Company further promotes the results of the project management laboratory, continues to strengthen the standardization of safety and quality, guides all units and projects to apply excellent management systems, management processes, management modes and management practices to various management levels, and to continuously improve and optimize according to actual conditions, and give full play to management effectiveness. The Company incorporates the requirements of safety and quality management into the management standards, technical standards and operating standards in all aspects of engineering construction, and refines the standards into each post and process, becoming mandatory specifications and evaluation standards for construction operations, and solidified operating procedures to achieve closed-loop management.

In 2019, the Company revised the “Selection Method of CREC’s Quality Project Cup” to regulate the quality project review process. Through in-depth project excellence activities, the Company and the construction site are promoted to strengthen project quality management, and ultimately ensure continuous improvement and optimization of the project quality level.

In 2019, the number of national-level engineering quality awards won by the Company was the best in history, and 7 projects won the National Excellent Gold Award, ranking first among central enterprises in construction industry; 10 projects were awarded Luban Prize for China Architecture Project; 57 projects were awarded the National Quality Engineering Award; the Xi’an-Chengdu High-Speed Railway, Yunan-Guizhou Railway, and Yingwuzhou Yangtze River Bridge won the International Federation of Consulting Engineers (FIDIC) Outstanding Project Award and Award of Merit. CREC is the globally most awarded company in this FIDIC Award.



中铁青岛世界博览城会议中心综合体项目侧视图
A side view of the China Railway Qingdao World Expo City Convention Center complex project

知识产权管理

Intellectual property management

中国中铁坚持以发展需求为目标，严格遵守《中华人民共和国专利法》和《中华人民共和国商标法》，认真推行和落实《企业知识产权管理规范》国家标准，按照《企业知识产权管理规范》(GB/T29490-2013)，全面提高公司知识产权的创造和运营能力，促进知识产权流的通和利用。公司修订发布《中国中铁专利管理办法》，完成工法、专利信息科技管理信息系统的在线填报工作，做到知识产权管理的全面覆盖。公司注重专利、工法、标准的布局，对自主知识产权的关键技术给予重点支持，构建支撑企业发展和提升企业竞争力的专利储备，使企业在市场竞争中占据有利地位，并积极对具有创新性的重要技术和产品进行专利的申请，及时对公司的知识产权加以保护。对于未经授权使用公司专利及商标的企业或个人，公司将依法保护自身权益。

隐私和数据保护

Privacy and data protection

中国中铁全面保护客户商业敏感信息和个人隐私。公司认真贯彻习近平总书记关于“网络安全为人民，网络安全靠人民”的重要指示，落实“四个坚持”的重要原则，进一步规范公司网络信息安全工作，保障信息系统的正常、高效、安全运行。公司严格遵守《中华人民共和国网络安全法》及公安部下发的《关于紧急排查整改重要数据和公民个人信息安全泄露安全隐患的通知》等法律法规。我们认为该等法律法规要求公司落实网络安全，保护客户隐私和数据安全，对公司相关运营环节管理具有指导意义和重要影响。2019年3月公司组织制定和发布了《网络信息安全管理办法》，通过该办法落实各项网络信息安全管理策略和技术措施，保证了公司网络信息和数据资源的安全。公司于2019年4月组织开展了网络安全漏洞排查整改专项工作，通过专业的网络安全设备、软件和技术开展自查工作，对在公有云和企业外部运行的信息系统纳入排查监管，对扫描发现的安全漏洞和风险隐患100余项，通报所属单位并要求立即整改，把网络安全事故苗头消灭在萌芽状态。

CREC adheres to development target, strictly abides by the Patent Law of the People's Republic of China and The Trademark Law of the People's Republic of China, earnestly implements and implements the national standards of Specifications for the Administration of Intellectual Property Rights of Enterprises, comprehensively improves the Company's ability to create and operate intellectual property rights, and promotes the flow and use of intellectual property rights according to the Specifications for the Administration of Intellectual Property Rights of Enterprises (GB/T29490-2013). The Company revised and issued the Patent Management Measures of CREC to complete the online filing of construction methods and patent information technology management information system to achieve comprehensive coverage of intellectual property management. The Company pays attention to the layout of patents, construction methods and standards, and gives key support to key technologies of independent intellectual property rights. It builds a patent reserve that supports the development of the enterprise and enhances the competitiveness of the enterprise, so that the enterprise occupies a favorable position in market competition, and actively applies for patents on important innovative technologies and products, and protects the Company's intellectual property rights in a timely manner. For enterprises or individuals who use the Company's patents and trademarks without authorization, the Company will protect its rights and interests in accordance with the law.

CREC comprehensively protects customers' business sensitive information and personal privacy. The Company conscientiously implements the important instructions of General Secretary Xi Jinping on "network security is for the people, network security depends on the people", implements the "Four Adherences" important principles, further standardizes companies' network information security management, and guarantees the normal and efficient secure information system in operation. The Company strictly abides by the relevant laws and regulations such as the Cybersecurity Law of the People's Republic of China (《中华人民共和国网络安全法》) and the Ministry of Public Security's Notice on Emergency Investigation and Rectification of Important Data and Citizen Personal Information Security Leakage and Hazards (《关于紧急排查整改重要数据和公民个人信息安全泄露安全隐患的通知》). We consider the laws and regulations require the Company to implement network security and protect privacy and data of customers, which provided guidance and has a significant impact on The management of relevant operational aspects. The Company organized and issued the Administrative Measures for the Management of Network Information Security (《网络信息安全管理办法》) in March 2019, through which various network information security management strategies and technical measures were implemented to ensure the security of the Company's network information and data resources. The Company organized a special task for the investigation and rectification of network security vulnerabilities in April 2019. Through professional network security equipment, software and technology to carry out self-inspection work, the Company inspected and supervised the information systems running in the public cloud and external, scanned more than 100 security loopholes and hidden dangers. The Company notified its subordinate units and demanded immediate rectification to eliminate the network security accidents in the bud.

重视客户沟通

Attaching importance to customer communication

中国中铁始终坚持“精益求精，持续改进”的总体思路，坚持以人为本的理念，以对国家、对人民、对企业高度负责的态度，不断提高服务质量。公司高度重视与客户的沟通，积极营造良好的客户关系，并认真对待客户的投诉与建议，妥善处理有关问题。公司与各地方政府、大型企业等客户签订战略合作协议或服务协议时，都会明确定期联系沟通机制和法律适用及争议解决条款。

CREC always adheres to the general idea of “striving for excellence and continuous improvement”, adheres to the people-oriented concept, and continuously improves the quality of services with a highly responsible attitude towards the country, the people, and the enterprise. The Company attaches great importance to communication with customers, actively builds good customer relationships, and seriously treats customers' complaints and suggestions, and properly handles related issues. When the Company enters into strategic cooperation agreements or service agreements with various local governments, large enterprises and other customers, it will clearly specify regular communication mechanisms and legal application and dispute resolution clauses.

1

案例 Case

中铁装备集团加强售后服务体系建设，为客户提供全生命周期“管家式”售后服务。2019年，自主研发上线了掘进机远程监控服务平台——“装备云”，可以通过新一代信息技术，为客户提供远程实时监控、故障诊断、地面沉降监控、智能数据分析、虚拟交互、虚拟教学实训等服务。

China Railway Equipment Group strengthens the establishment of after-sales service system and provides customers with “housekeeping” after-sales service throughout the life cycle. In 2019, the independently developed remote monitoring service platform for roadheaders -- “Equipment Cloud” was launched, which can provide customers with remote real-time monitoring, fault diagnosis, ground subsidence monitoring, intelligent data analysis, virtual interaction, virtual teaching and training and other services through the new generation of information technology.



供应链管理 Supplier Management

建立公平运行机制

Fair operation mechanism establishment

公司建立健全供应商管理体制机制，按照“统一注册、分类管理、动态评价、择优汰劣”的原则进行供应商公开招募、准入评审和考核评价，建立战略、优质、合格供应商名录并进行动态管理，持续优化供应商结构和层级；公司严格开展供应商资质审查，通过对供应商的技术、质量、服务、价格、能力、信誉等方面进行详细评审，必要时开展实地考察，遴选优质供应商，优化供应商资源，拓宽采购渠道，打造高质量采购价值链；公司实行阳光采购，倡导公平竞争，搭建了全公司统一的采购电子商务信息化平台——中国中铁采购电子商务平台（即鲁班电子商务网），公开采购信息、固化采购流程，充分利用采购电子商务平台开展各类产品和服务上网采购，促进采购活动公开化、透明化。

The Company established and optimized a supplier management system, conducts public recruitment, admission review and supplier evaluation in accordance with the principles of “unified registration, classified management, dynamic evaluation, and selection of the excellent”, and established a strategic, high-quality and qualified supplier list and carried out dynamic management to continuously optimize the supplier structure and hierarchy; the Company strictly conducts supplier qualification review, through a detailed review of suppliers’ technology, quality, service, price, capability, reputation and other aspects, conducting site inspections when necessary, selecting high-quality suppliers, optimizing supplier resources, and expanding procurement channels, to create a high-quality procurement value chain; the Company implemented sunshine procurement, promoted fair competition, and established a unified procurement e-commerce information platform for the whole Company, CREC Procurement E-commerce Platform (namely Luban E-commerce Network), which publicizes procurement information and solidifies procurement processes, made full use of the procurement e-commerce platform to carry out online purchases of various products and services, and promoted open and transparent procurement activities.

禁止贿赂等非法活动

Prohibition of bribery and other illegal activities

公司实行抵制商业贿赂承诺制，在供应商管理制度中明确要求各类供应商在办理注册申请时须签署《供应商承诺书》，承诺遵守国家反腐败相关法律法规，守法诚信；公司开展各类采购活动时，均在采购文件中明确各类供应商须严格遵守国家反不正当竞争法等相关法律法规，禁止贿赂等非法活动，成交供应商还应签署廉洁协议书并严格履约；公司建立供应商不良行为负面清单，并将贿赂员工行为列入供应商重大不良行为认定标准，对存在相应不良行为的供应商，公司将对其采取限制交易措施，在一定期限内禁止其参与公司新的采购活动，引导供应商廉洁经营；2019年，公司依规对部分违反廉洁规定的供应商进行了限制交易管理，营造了公平竞争的采购环境。

The Company implements a commitment system to resist commercial bribery. In the supplier management system, various suppliers are explicitly required to sign the Supplier Commitment Letter when they apply for registration, and they should promise to abide by national laws and regulations related to anti-corruption and adhere to law-abiding and integrity; When the Company carries out various procurement activities, it is clear in the procurement documents that all types of suppliers must strictly abide by relevant laws and regulations such as the national Anti-Unfair Competition Law and prohibit bribery and other illegal activities. Suppliers should also sign integrity agreements and strictly implement the agreement; The Company established a negative list of supplier bad behaviors, and included bribery of employees in the suppliers’ major bad behavior identification standards. For suppliers with corresponding bad behaviors, the Company will take measures to restrict transactions and prohibit them from participating in the Company’s new procurement activities within a certain period of time, and guide suppliers to operate incorruptly. In 2019, the Company carried out restricted transaction management on some suppliers that violated the integrity regulations in accordance with the integrity agreement, and created a fair competition procurement environment.



推动供应商履行社会责任

Promoting suppliers to fulfill their social responsibilities

公司建立供应商准入及评价管理体系，开展合格供应商准入评审，审查供应商诚信经营、安全生产、环境保护等情况，对合格供应商实行供应目录管理。开展供应商日常评价和年度评价，对供应商所提供的原材料质量、环境保护措施等进行综合评价，将评价结果纳入供应商年度考核。

在与供应商签订的合同中，明确了劳务安全、维护农民工权益、环境保护等方面的约束性条款，要求供应商积极落实职业安全卫生保障措施，加大安全管理投入，持续改善安全设备设施，为农民工提供安全就业环境和生产条件；对农民工开展安全卫生教育和培训，积极防止劳动过程中安全事故的发生，最大限度地减少职业危害；认真落实国家有关工伤保险和意外伤害保险的规定，把农民工纳入保险范围之内；进一步落实农民工劳动报酬的支付规定，通过建立农民工工资专用账户制度、保证金制度、代发工资制度等，确保农民工工资按时足额发放到位。通过签订合同，公司监督供应商保障劳务安全、维护农民工权益、保护环境，引导其履行社会责任。

The Company established a supplier access and evaluation management system, conducted a qualified supplier access review for supplier integrity management, production safety, environmental protection, etc., and implemented supply directory management for qualified suppliers. We carried out daily evaluations and annual evaluations of suppliers, comprehensively evaluated the quality of raw materials provided by suppliers, environmental protection measures, etc., and incorporated the evaluation results into the annual evaluation of suppliers.

In the contract with the supplier, the binding clauses on labor safety, safeguarding the rights and interests of peasant workers, and environmental protection were specified. The supplier was required to actively implement occupational safety and health protection measures, increase investment in safety management, and continue to improve safety equipment and facilities to provide a safe employment environment and production conditions for peasant workers; the Company conducted safety and health education and training for peasant workers, actively prevented safety accidents during the work process, and minimized occupational hazards; we earnestly implemented national regulations on work injury insurance and accident insurance, and included peasant workers in the insurance coverage; we further implemented the provisions for the payment of peasant workers' labor remuneration, and ensured that peasant workers' remuneration were paid in full and on time by establishing a special account system, a security system, and a payroll system. By signing contracts, the Company supervised suppliers to ensure labor safety, safeguarded the rights and interests of peasant workers, protected the environment, and guided them to fulfill their social responsibilities.



社区投资

Community Investment

中国中铁在自身发展的同时高度重视回馈社会，积极主动承担社会责任，活跃在抗灾抢险第一线，鼓励员工参与志愿活动，支持基础教育，重视中华文化的传承和保护，为构建和谐美好社会持续贡献力量。

While developing, CREC attaches great importance to giving back to the society, takes the initiative to assume social responsibilities, actively participates in the front line of disaster relief, encourages employees to participate in voluntary activities, supports basic education, puts emphasis on the inheritance and protection of the Chinese culture, and makes continuous contributions to the construction of a harmonious and beautiful society.

抢险救援

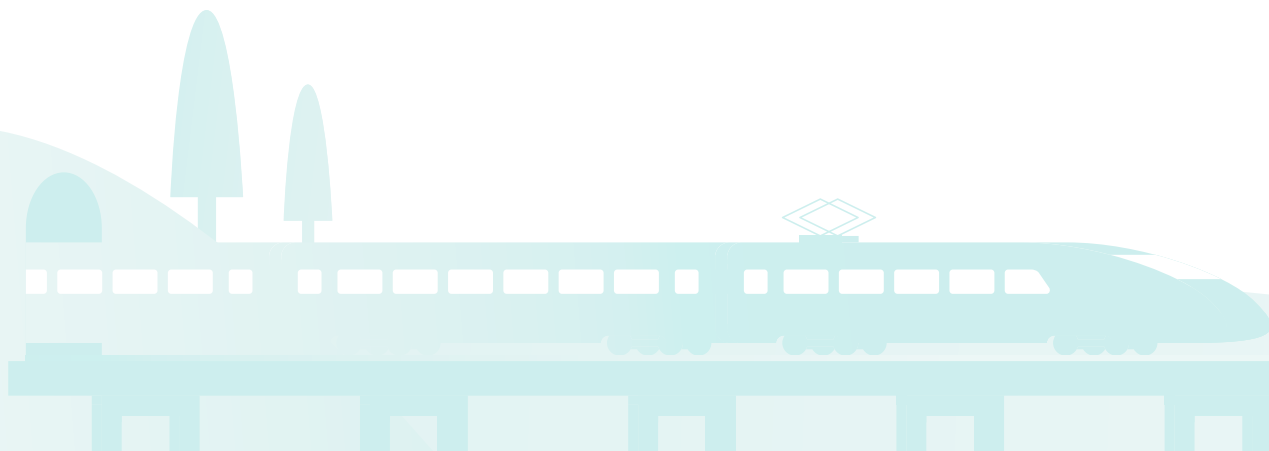
Emergency rescue

公司继续加强三支国家专业救援队建设，修订了《安全质量、生态环境及灾害事故（事件）应急预案》，并持续推进昆明队、贵阳队基地建设和救援装备升级改造，全面系统开展补充救援人员、完善指挥系统、健全协调机制、配套基础设施、完善规章制度、加强培训演练和构建保障体系等工作，有效提升专业救援能力。受应急管理部委托，公司编制了隧道施工企业以及国家隧道应急救援队应急预案范本，于2月28日在国家应急救援中心网站正式发布，成为国家级专业应急预案；还组织编制了建筑施工中央企业应急预案范本，12月上旬已提交国家应急救援指挥中心。

The Company continued to strengthen the construction of three national professional rescue teams, revised the Safety Quality, Ecological Environment and Disaster Accident (Emergency) Emergency Plan, and continued to promote the construction of Kunming and Guiyang bases and the upgrade of rescue equipment, and comprehensively carried out supplementary rescue personnel, improved command system, optimized coordination mechanism, supporting infrastructure, amended rules and regulations, strengthened training exercises and built a support system, etc., effectively developed professional rescue capabilities. Entrusted by the Ministry of Emergency Management, the Company prepared the emergency plan template for the tunnel construction enterprise and the National Tunnel Emergency Rescue Team, which was officially released on the National Emergency Rescue Center website on 28 February and became a national-level professional emergency plan. The central enterprise emergency plan template for construction was formulated and submitted to the National Emergency Rescue Command Center in early December.

2019来，中国中铁所属各单位及昆明、贵阳两支专业救援队分别参加了四川宜宾抗震救援、贵州水城特大山体滑坡抢险救援、成昆铁路扩能工程山洪抢险救援等5次抢险救援工作，营救被困人员18名（自救援队成立以来累计营救128名），突显中国中铁专业应急救援队伍的能力和实力。

Since 2019, the units affiliated to CREC and two professional rescue teams in Kunming and Guiyang have participated in five rescue operations including Sichuan Yibin earthquake relief, Guizhou Shuicheng mega landslide rescue, Chengdu-Kunming railway expansion project mountain flood rescue, etc. 18 trapped people (128 people rescued since the establishment of the rescue team) were rescued, highlighting the capabilities and strength of CREC's professional emergency rescue team.



社区服务

Community service

中国中铁长期以来坚持“地企文明、和谐共建”的工作思路，广泛开展拥军优属，支持军警建设，志愿服务敬老院、医院、街道、社区、学校等地方单位，以实际行动履行企业社会责任。

2019年，全公司共组建了1,130多支志愿服务队，投入志愿服务1.6万余人次，开展各类志愿服务活动近4,300次，帮扶人数超过4.2万人次，大力弘扬社会道德风尚，积极构建和谐社会。

教育和文化

Education and culture

中国中铁通过教育捐赠和金秋助学等形式，不断加大基础教育的支持力度。2019年公司共发放助学金797万元，资助职工（民）工子女3,308人次。

2019年公司积极参与文物保护和修复工作，完成了“世界现存最大石刻坐佛像”——四川乐山大佛的抢救性修复工作，并受到国内外媒体的报道。

2019年，公司承建的京张高铁八达岭长城站主体结构顺利封顶。该车站的地下站部分位于北京八达岭长城山体下方102米处。为了做好对长城的保护，项目施工中我们采取了精准微爆破、静态微爆破、预应力锚杆、实时监测等技术，最大限度减少山体扰动，最大程度地保护了文物古迹。

CREC has always insisted on the work ideas of “local corporate civilization and harmonious construction”, widely supported the army and gave preferential treatment to the families of the army men and martyrs, supported military and police construction, offered volunteer services to gerocomium, hospital, street office, community, school and other local institutions, fulfilling its corporate citizenship responsibility with actual actions.

In 2019, the whole Company totally set up more than 1,130 volunteer service teams that offered volunteer services for over 16,000 persons, and carried out various volunteer service activities for more than 4,300 times, with over 42,000 persons receiving the help. It vigorously carried forward the social morality, and actively built a harmonious society.

CREC has continued to increase its support for basic education through educational donations and Golden Autumn Education Sponsorship (金秋助学). In 2019, the Company issued a total of RMB7.97 million in student grants to support 3,308 children of employees and peasant workers.

In 2019, the Company actively participated in the protection and restoration of cultural relics, and completed the rescue repair work of the Leshan Giant Buddha in Sichuan, the “largest existing stone sculpture of Buddha in the world”, which was reported by domestic and foreign media.

In 2019, the main structure of the Beijing-Zhangjiakou High-Speed Rail (京张高铁) Badaling Great Wall Station was successfully capped. The underground part of the station is located 102 meters below the Great Wall of Badaling in Beijing. To well protect the Great Wall, we have adopted technologies such as precision micro-blasting, static micro-blasting, pre-stressed anchors, and real-time monitoring during project construction to minimize mountain disturbance and protect cultural relics and monuments to the greatest extent.



专题一：

践行“三个转变”重要指示

Topic 1: Implementing the Important Instructions of “Three Transformations”

推动中国制造向中国创造转变

Promoting the Transformation from
Made in China to Created in China

推动中国速度向中国质量转变

Promoting the Transformation from
Chinese Speed to Chinese Quality

推动中国产品向中国品牌转变

Promoting the Transformation from
Chinese Products to Chinese Brands







2014年5月10日，习近平总书记在视察中国中铁装备集团时，提出要“推动中国制造向中国创造转变、中国速度向中国质量转变、中国产品向中国品牌转变。”5月10日中国品牌日由此诞生。5年来，我们始终牢记习总书记的嘱托，认真贯彻落实“三个转变”重要指示。

On 10 May 2014, when General Secretary Xi Jinping inspected China Railway Equipment Group, he proposed to “promote the transformations from Made in China to Created in China, from China’s Speed to China’s Quality, and from Chinese Products to Chinese Brands.” And China Brand Day was born on May 10th. For the past five years, we have always kept in mind the entrustment of General Secretary Xi and carefully implemented the important instructions of the “Three Transformations.”

推动中国制造向中国创造转变

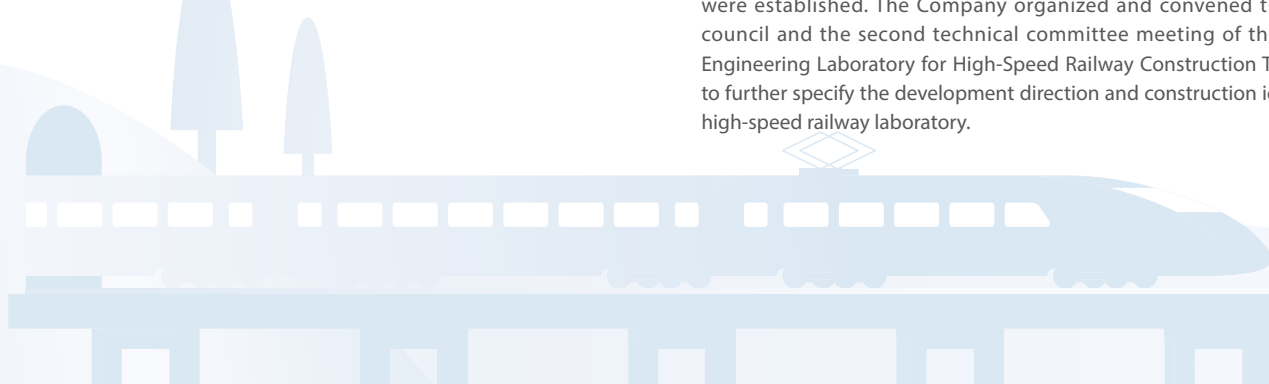
Promoting the Transformation from Made in China to Created in China

完善创新体系

Innovation system improvement

2019年，公司制定发布了《专业研发中心管理暂行办法》《科技成果转化管理办法》。对科技创新平台建设进行专项调研和督促，提出国家级、省部级和公司级研发平台建设的政策建议。对《科技成果转化奖励管理办法》作出补充规定，提高对企业新获得认定国家级创新平台的奖励力度，进一步推动国家级创新平台建设。2019年，新增国家地方联合工程研究中心1个，为数字轨道交通技术研究与应用国家地方联合工程研究中心；新增5个国家认定的技术中心和19个省部认定的技术中心；新组建了5个专业研发中心。公司组织召开了高速铁路建造技术国家工程实验室第十二次理事会及第二次技术委员会会议，进一步明确高铁实验室发展方向和建设思路。

In 2019, the Company formulated and issued the Interim Administrative Measures for specialized R&D Centers (《专业研发中心管理暂行办法》) and the Administrative Measures for the Transformation of Scientific and Technological Achievements (《科技成果转化管理办法》), conducted special research and supervision on the construction of scientific and technological innovation platforms, and put forward policy recommendations for the construction of national-, provincial and ministerial- and company-level R&D platforms. The Company made supplementary provisions on the Administrative Measures for the Scientific and Technological Achievement Awards (《科技成果转化奖励管理办法》) to increase the incentives for enterprises newly accredited as national innovation platforms and further promote the construction of national innovation platforms. In 2019, a new national and local joint engineering research center was added, which is a national and local joint engineering research center for digital rail transit technology research and application; 5 new national recognized technology centers and 19 new provincial recognized technology centers were added; 5 new specialized R&D centers were established. The Company organized and convened the twelfth council and the second technical committee meeting of the National Engineering Laboratory for High-Speed Railway Construction Technology to further specify the development direction and construction ideas of the high-speed railway laboratory.



2019年，公司围绕建筑行业关键核心技术，开展科研攻关。立足川藏铁路、沪深中跨江通道等重难点工程，开展超大跨度公铁两用桥梁（1,500m级）合理结构体系研究、超大直径岩石隧道掘进机关键技术、超大跨蛭壳型暗挖地下洞库建造与服役期安全保障关键技术研究等课题研究。总部支持科研经费增至1亿元，川藏线专项支持经费1亿元。

引领科技进步

Leading technological progress

2019年，公司共获得国家科技进步奖4项、技术发明奖1项，詹天佑奖14项，获省部级科技成果奖328项；获得授权专利2,065项，其中发明专利311项，“隧道联络通道用盾构机及其联络通道掘进方法”获得第二届中国专利奖金奖，“整体式无砟轨道”“具备防抬梁和防落梁功能的双曲面球型减隔震支座”“一种用于盾构机刀盘的可转动辐条”等3项专利获得优秀奖；获得省部级工法542项。

截止2019年12月31日，公司拥有“高速铁路建造技术国家工程实验室”“盾构及掘进技术国家重点实验室”“桥梁结构健康与安全国家重点实验室”三个国家实验室及7个博士后工作站，1个国家地方联合研究中心，23个省部级研发中心（实验室），18个国家认定的技术中心和98个省部认定的技术中心；组建了20个专业研发中心。参股建设川藏铁路国家技术创新中心。

截止2019年12月31日，企业累计荣获国家科技进步和发明奖120项，其中特等奖5项、一等奖16项，詹天佑奖140项，荣获省部级科技进步奖3,472项；国家级工法166项，省部级工法3,070项；通过省部级科技鉴定的科技成果1,504项。

In 2019, the Company carried out scientific research around the key core technologies of the construction industry. Based on the important and difficult projects such as the Sichuan-Tibet Railway and the Shanghai-Shenzhen-Zhongshan cross-river bridge, the researches on the reasonable structural system of super-long-span highway-railway bridge (1500m class), the key technology of super-large diameter rock tunnel boring machine, the key technology of construction of super-long-span razor clam shell-type underground cavern and the safety guarantee during service period were carried out. The headquarters supported the increase of scientific research funding to RMB100 million, and the special support funds for the Sichuan-Tibet line to RMB100 million.

In 2019, the Company won 4 National Scientific and Technological Progress Awards, 1 Technological Invention Award, 14 Zhan Tianyou Awards and 328 Provincial and Ministerial-Level Scientific and Technological Achievement Awards; a total of 2,065 patents were granted, including 311 invention patents, “Shield Machine for Tunnel Contact Passage and its Tunneling Method” won the Gold Award of the 20th China Patent Award, 3 patents, “Integral Ballastless Track”, “Hyperboloid Spherical Shock Isolation Bearing with Anti-lifting Beam and Anti-falling Beam Function”, “Rotary Spokes for Cutter Head of Shield Machine” won Excellent Awards, and won 542 provincial and ministerial-level construction methods.

As of 31 December 2019, the Company had three national laboratories including “State Engineering Laboratory of High-Speed Railway Construction Technology”, “State Key Laboratory of Shield and Tunneling Technology”, “State Key Laboratory of Bridge Structure Health and Safety” and 7 post-doctoral workstations, 1 national local joint research center, 23 provincial and ministerial-level R&D centers (laboratories), 18 national recognized technology centers and 98 provincial and ministerial recognized technology centers; the Company had set up 20 professional R&D centers and invested in the construction of the Sichuan-Tibet Railway National Technology Innovation Center.

As of 31 December 2019, the Company had won a total of 120 National Science and Technology Progress And Invention Awards, including 5 Special Awards and 16 First Awards, 140 Zhan Tianyou Awards, and 3,472 Provincial and Ministerial-Level Science And Technology Progress Awards; 166 national-level construction methods, 3,070 provincial and ministerial-level construction methods; 1,504 scientific and technological achievements that have passed provincial and ministerial-level scientific and technological appraisal.



截止2019年12月31日，公司现拥有专利12,707项，其中发明专利2,843项，Patent Cooperation Treaty (PCT)专利16项。其中2019年，获授权专利2,065项，其中发明专利311项，PCT专利4项。

As of 31 December 2019, the Company had 12,707 patents, including 2,843 invention patents and 16 Patent Cooperation Treaty (PCT) patents. Among them, in 2019, 2,065 patents were granted, including 311 invention patents and 4 Patent Cooperation Treaty (PCT) patents.

截至2019年12月31日，公司拥有国家级工法166项，省部级工法3,070项。2019年5月，公司专家严金秀当选国际隧道和地下空间协会(Underground Space Association, ITA)主席。

As of 31 December 2019, the Company had 166 national-level construction methods and 3,070 provincial and ministerial-level construction methods. In May 2019, the Company's expert Yan Jinxiu was elected chairman of the International Tunnelling and Underground Space Association (ITA).

2019年国家科技奖励获奖情况
National Science and Technology Awards in 2019

序号 S/N	项目名称 Name of Project	奖种 Type of Award	获奖等级 Grade of Award
1	高速列车－轨道－桥梁系统随机动力模拟技术及应用 Stochastic Dynamic Simulation Technology and Application of High-Speed Train-Track-Bridge System	技术发明奖 Technical Invention Award	二等 Second Prize
2	长大埋深挤压性围岩铁路隧道设计施工关键技术及应用 Key Technology and Application of Design and Construction of Grew Buried and Deep Squeezed Surrounding Rock Railway Tunnel	科技进步奖 Science & Technology Progress Award	二等 Second Prize
3	河谷场地地震动输入方法及工程抗震关键技术 Earthquake Input Method for River Valley Sites and Key Technologies for Engineering Earthquake Resistance	科技进步奖 Science & Technology Progress Award	二等 Second Prize
4	强风作用下高速铁路桥上行车安全保障关键技术及应用 Key Technologies and Applications for Safety Guarantee of High-speed Railway Bridge Entry under Strong Wind	科技进步奖 Science & Technology Progress Award	二等 Second Prize
5	高速铁路高性能混凝土成套技术与工程应用 High-Speed Railway High-Performance Concrete Technology and Engineering Application	科技进步奖 Science & Technology Progress Award	二等 Second Prize

全面创新发展

Comprehensive innovation and development

公司坚持以科技创新为核心的全面创新发展。2019年制定了《关于进一步贯彻落实习近平总书记“三个转变”重要指示精神推动企业创新发展的意见》，提出了公司管理创新和科技创新主要任务清单。其中管理创新任务13项，科技创新任务20项。

2019年，公司持续深入推进管理实验室活动，制度建设与业务基础管理不断加强，基层创新创造热情有效激发，全年公司评出管理创新成果奖74项；14项成果获国家级管理创新奖，其中《特大型施工企业基于四级责任矩阵的工程项目全要素成本管理》获一等奖。

The Company adheres to comprehensive innovation and development centering on technological innovation. In 2019, the “Opinions on Further Implementing the Spirit of the Important Instruction of General Secretary Xi Jinping’s ‘Three Transformations’ Important Directions to Promote Enterprise Innovation and Development” (《关于进一步贯彻落实习近平总书记“三个转变”重要指示精神推动企业创新发展的意见》) was formulated, and a list of the main tasks of the Company’s management innovation and technological innovation was proposed, including 13 tasks of management innovation and 20 tasks of scientific and technological innovation.

In 2019, the Company continued to further implement its management laboratory activities, strengthened system construction and business basic management, and enthusiastically and effectively stimulated grassroots innovation and creation. During the year, the Company awarded 74 Management Innovation Achievement Awards; 14 achievements won National Management Innovation Awards, of which the “Total Factor Cost Management of Construction Projects Based on Four-Level Responsibility Matrix for Super Large Construction Enterprises” (《特大型施工企业基于四级责任矩阵的工程项目全要素成本管理》) won the First Award.

推动中国速度向中国质量转变

Promoting the Transformation from Chinese Speed to Chinese Quality

着力质量提升，推进品质革命

Focusing on quality improvement and advancing the quality revolution

公司不断加强质量精准化管理，分层次、分行业实施全面质量管理(Total Quality Management, TQM)，积极推动企业ISO9001质量管理体系换版升级。积极引入卓越绩效管理等先进质量管理方式，开展标准化技术和工艺改造，建立工艺参数及质量在线监控系统。同时开展与国内外优质产品的质量比对，鼓励以用户为中心的微创新，改善用户体验，激发消费潜能，满足绿色环保、可持续发展、消费友好等需求。2019年，公司所属的8家企业被中国建筑业协会认证中心评选为“质量管理优秀企业”。

The Company continuously strengthens quality precision management, implements Total Quality Management at different levels and industries, and actively promotes the upgrade of the Company's ISO9001 quality management system. We actively introduced advanced quality management methods such as superior performance management, carried out standardized technology and process transformation, and established process parameter and quality online monitoring systems. At the same time, we carried out quality comparisons with high-quality products at home and abroad, encouraged user-centered micro-innovation, improved user experience, stimulated consumer potential, and met the needs of green environmental protection, sustainable development, and consumer-friendly. In 2019, 8 companies affiliated to the Company were selected as "Excellent Quality Management Enterprises" by the China Construction Industry Association Certification Center.

保证产品质量，建设精品工程

Ensuring product quality and building quality projects

2019年，公司参建的北京冬奥会重要配套工程京张高铁、世界最长重载铁路浩吉铁路等一大批重点项目开通运营或顺利竣工，习近平总书记对京张高铁开通运营作出重要指示，让我们备受鼓舞。我们将继续砥砺前行，推动中国速度向中国质量转变。

In 2019, a number of key projects such as the Beijing-Zhangjiakou High-Speed Rail, the important supporting projects for the Beijing Winter Olympics, and the Haolebaoji-Jian Railway, the world's longest heavy-haul railway that the Company participated in, were put into operation or successfully completed. We are encouraged by General Secretary Xi Jinping's important instructions on the opening and operation of the Beijing-Zhangjiakou High-Speed Rail. We will continue to forge ahead and promote the transformation from China's Speed to China's Quality.

公司2019年度获鲁班奖10项、国家优质工程奖57项。公司已累计荣获鲁班奖185项，国家优质工程奖348项。

In 2019, the Company won 10 Luban Awards and 57 National Quality Engineering Awards. The Company has totally won 185 Luban Awards and 348 National Quality Engineering Awards.



长春市北郊污水处理厂扩建及提标改造工程新建厂区西侧鸟瞰
A bird's eye view of the west side of the new plant area of the Beijiao Sewage Treatment Plant extension and upgrading project in Changchun

2019年度中国中铁鲁班奖工程榜单 2019 CREC Projects of Luban Awards List

序号 S/N	工程名称 Project Name
1	宜昌市庙嘴长江大桥 Yichang Miaozi Yangtze River Bridge
2	兰渝铁路西秦岭隧道工程 West Qinling Tunnel Project of Lanzhou-Chongqing Railway
3	长春市北郊污水处理厂扩建及提标改造工程 Expansion and Bid Raising Renovation Project of Changchun Beijiao sewage treatment Plant
4	哈尔滨站改造工程(站房、雨棚部分) Harbin Railway Station Reconstruction Project (Station Building and Canopy)
5	滨海站 Binhai Station
6	中铁青岛世界博览城会议中心综合体项目 CREC Qingdao Cosmopolitan Exposition Convention Center Complex Project
7	新建长沙至昆明铁路客运专线湖南段雪峰山一号隧道 New Xuefengshan No.1 Tunnel in Hunan Section of Changsha-Kunming Railway Passenger Dedicated Line
8	湖南省吉首至茶洞(湘渝界)公路矮寨特大悬索桥 Ai Village Oversized Suspension Bridge of Jishou-Chadong (Hunan-Chongqing Boundary) Highway in Hunan Province
9	泰州长江公路大桥 Taizhou Yangtze River Highway Bridge
10	玻利维亚乌尤尼35万吨/年钾盐制造厂工程 Uyuni 350,000 tonnes/year Potash Production Plant Project in Bolivia

推动中国产品向中国品牌转变

Promoting the Transformation from Chinese Products to Chinese Brands

品牌建设体系

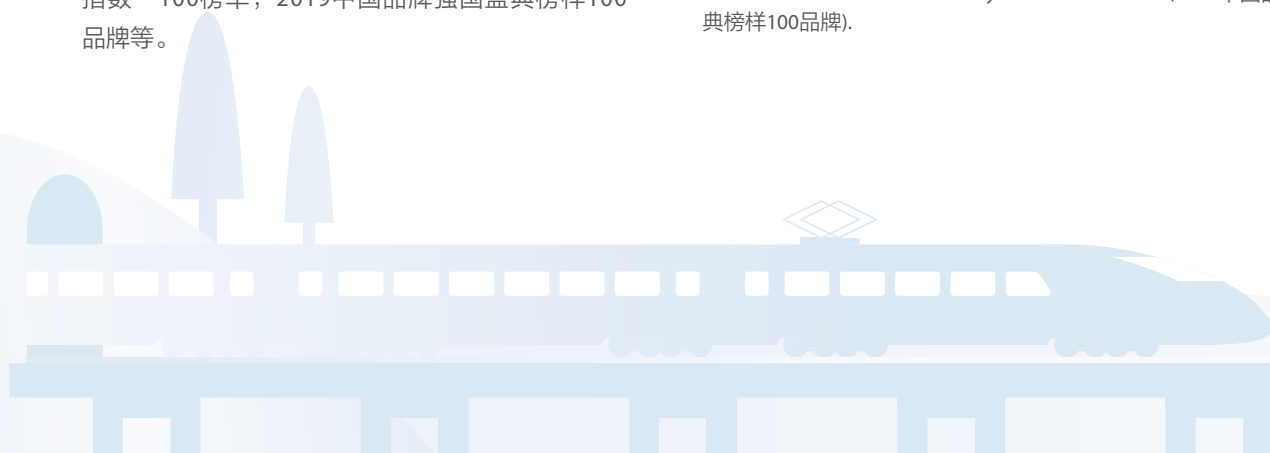
Brand building system

2019年，中国中铁进一步优化企业品牌和产品品牌架构，探索形成以提升质量、科技创新、全球合作、精神传承和责任担当为核心内涵的中国品牌建设模式，积极创造、传播、维护中国品牌形象。

2019年，中国中铁入围“中国品牌发展(企业)指数”100榜单，2019中国品牌强国盛典榜样100品牌等。

In 2019, CREC further optimized the corporate brand and product brand structure, explored the formation of a Chinese brand construction mode with the core connotations of quality improvement, technological innovation, global cooperation, spiritual heritage and responsibility, and actively created, disseminated and maintained the image of Chinese brands.

In 2019, CREC was shortlisted in the China Brand Development (Enterprise) Index 100 List (中国品牌发展(企业)指数“100榜单”), and the 2019 China Brand Powerful Grand Ceremony Model 100 Brands (2019中国品牌强国盛典榜样100品牌).



诚信经营

Business integrity

公司始终重视企业信用管理，全面兑现了各项合同承诺，把诚信履约贯穿于企业生产经营活动始终，无不良经营行为。

2019年下半年铁路施工企业信用评价中，中铁三局、中铁上海工程局、中铁四局、中铁一局被评为A级。其中，中铁四局已经第26次获评铁路施工企业信用评价A级，是获得A级企业次数最多的单位；中铁三局在此次评级中获得第一名，已累计22次获评A级。

2019年，全公司如期保证了京张高铁、浩吉铁路、昌赣高铁、成都地铁等一批重点工程相继建成。

The Company always attaches great importance to the corporate credit management and fully fulfills all the contractual commitments. It always implements the principle of integrity performance throughout the enterprise's production and operation activities without bad business practices.

In the credit evaluation of railway construction enterprises in the second half of 2019, CREC No.3, CREC Shanghai Engineering Bureau, CREC No.4, CREC No.1 were rated Grade A. Among them, the CREC No.4 has been awarded the Grade A credit rating for railway construction enterprises for the 26th time, which is the unit that has received the most times of Grade A enterprises. The CREC No.3 won the first place in this rating, having been rated Grade A for a total of 22 times.

In 2019, the Company assured the completion of a number of key projects such as the Beijing-Zhangjiakou High-Speed Rail, the Haolebaoji-Jian Railway, Nanchang-Ganzhou High-speed Railway and Chengdu Metro.

投资者沟通

Investor communication

公司高度重视与投资者的沟通。2019年，公司充分发挥投资者热线、IR邮箱、上证E互动平台作用，利用召开业绩发布会、接待投资者来访、召开年度股东大会、现金分红说明会、参加投资峰会等多种形式与广大股票和债券投资者进行沟通交流，认真倾听和妥善处理股东和投资者意见和建议，并以投资者关心问题为导向推动公司管理提升，塑造资本市场良好形象。

The Company attaches great importance to the communication with investors. In 2019, CREC fully leveraged the functions of the investor hotline, IR email, and the Shanghai Stock Exchange (SSE) E interaction platform, communicated with stock and bond investors in various forms such as convening performance release conferences, receiving investors during their visits, holding annual shareholders' meeting, cash dividend briefing and participating in investment summits to carefully listen to and properly handle the opinions and advice from shareholders and investors, and promoted the improvement of the management of the Company with a focus on the concerns of investors to build a good image in the capital market.



专题二：

坚决打好精准脱贫攻坚战

Topic 2: Resolutely Carry Out the Targeted Poverty Alleviation Campaign

精准扶贫规划

Targeted Poverty Alleviation Planning

年度精准扶贫概要

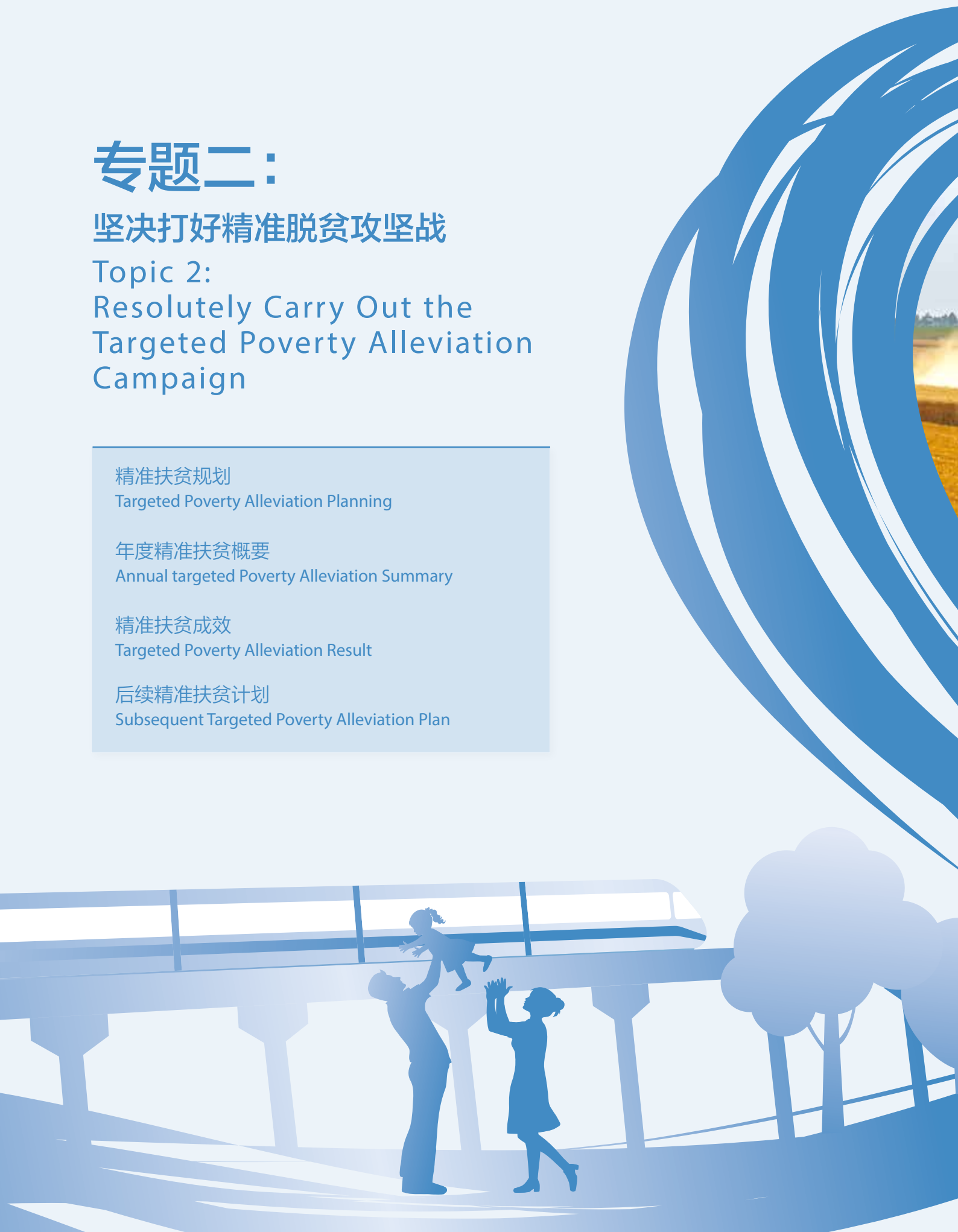
Annual targeted Poverty Alleviation Summary

精准扶贫成效

Targeted Poverty Alleviation Result

后续精准扶贫计划

Subsequent Targeted Poverty Alleviation Plan





精准扶贫规划

Targeted Poverty Alleviation Planning

2019年，中国中铁以《关于中央企业全力支持打赢脱贫攻坚战三年行动的指导意见》为指导，认真贯彻落实党中央、国务院扶贫办、国资委的决策部署，进一步加大投入力度，聚力精准施策，以增派挂职干部、产业帮扶、就业扶贫为主要抓手，全力支持决战决胜脱贫攻坚。一是召开全公司扶贫开发工作视频会议。主要领导出席会议并讲话，传达党中央有关精神，落实有关具体要求，切实加强对全系统扶贫开发工作管理统筹力度，充分发挥公司系统优势，上下联动、形成合力、尽锐出战。二是持续做好调研督导工作。公司主要领导、分管领导择期带队赴定点帮扶县进行调研督导，看望挂职干部，查看重点援建项目推进情况，了解贫困县委、县政府脱贫攻坚及巩固脱贫成果工作开展情况，为下一步工作提供思路和建议方案。三是继续加大扶贫资金投入力度，全面完成国务院扶贫办考核工作任务。

2019年，公司结合实际、创新方法，开创扶贫开发工作新局面。一是开展优秀挂职干部评选表彰工作。二是开展中国中铁专家赴定点贫困县帮扶活动，充分发挥中国中铁工程技术专家在乡村规划、设计咨询、工程建设方面的专业优势，为贫困县的建设出谋划策。三是策划中国中铁扶贫日（10月17日）主题活动。四是开发劳务用工信息系统。针对贫困县劳动力就业现状及中国中铁用工需求，采用信息化手段，搭建中国中铁劳务用工信息平台，实现用工需求与供给之间无缝对接，大力助推贫困县劳务用工输出工程，通过“一人就业、解决全家脱贫”难题。

In 2019, under the guidance of the "Guideline on Central Enterprises Fully Supporting to Win the Three-year War Against Poverty" (《关于中央企业全力支持打赢脱贫攻坚战三年行动的指导意见》), CREC conscientiously implemented the decision-making arrangements of the CPC Central Committee, the State Council Leading Group Office of Poverty Alleviation and Development and the SASAC, further increased its investment and focused on precise measures, with the increase of cadres on duty, industrial assistance and poverty alleviation through employment as the main focus, and fully supported the decisive battle against poverty. First, we convened a video conference on poverty alleviation development of the whole Company. The main leaders attended the meeting and delivered speeches, conveyed the relevant spirit of the CPC Central Committee, implemented the specific requirements, strengthened the overall management and coordination of the system-wide poverty alleviation development, gave full play to the advantages of the Company's system and linked all levels to form a joint force to fight as hard as possible. Second, we continued to work well in research and supervision. The main leaders and subordinated leaders of the Company led teams to the designated counties for investigation and supervision, visit the cadres on duty, check the progress of key assistance projects, understand the poverty alleviation efforts of Party committees and governments in poverty-stricken counties and consolidate the achievements in poverty alleviation, and provide ideas and suggestions for the next stage of work. Third, we continued to increase funding for poverty alleviation and fully completed the assessment task of the State Council Leading Group Office of Poverty Alleviation and Development.

In 2019, the Company combined reality and innovative methods to create a new situation in poverty alleviation development. First, we carried out the selection and commendation of outstanding cadres on duty. Second, we carried out assistance activities for CREC experts to designated poverty-stricken counties, gave full play to the professional advantages of CREC engineering and technical experts in rural planning, design consultation and engineering construction, and made suggestions for the construction of poverty-stricken counties. Third, we planned the themed activity of CREC Poverty Alleviation Day (October 17). Fourth, we developed the labor employment information system. In view of the current employment situation of labor force in poverty-stricken counties and the employment demand of CREC, the information platform of labor employment of CREC was built by means of information technology, so as to realize the seamless connection between labor demand and supply, and vigorously promote the labor export project in poverty-stricken counties, and solve the problem of "employment for one person and lifting the whole family out of poverty".



年度精准扶贫概要

Annual targeted Poverty Alleviation Summary

2019年，中国中铁及所属18家二级单位参与扶贫开发工作，合计投入专项资金12,366余万元，帮助建档立卡贫困人口近3,932人脱贫，成效显著。中国中铁对口帮扶的三个贫困县已全部脱贫摘帽。公司把工作重点转移到巩固脱贫攻坚成果上来，持续加大力度，通过产业帮扶、教育帮扶、培训扩能、劳动力输出等措施，构建脱贫长效机制，脱贫工作质量明显提升，超额完成扶贫责任书各项指标任务。向定点帮扶县投入扶贫专项资金7,440万元，引进帮扶资金91.62万元，培训基层干部93人，培训技术人员合计4,659人，购买贫困地区农产品666.78万元，帮助销售贫困地区农产品94.73万元。公司采取的主要扶贫举措包括：

一是投入帮扶资金创历史新高。2018年8月桂东县脱贫摘帽、2019年3月汝城县脱贫摘帽、2019年4月保德县脱贫摘帽。2019年我们持续加大投入力度，投入扶贫专项资金7,440万元，比去年多投入3,125.1万元。共投入7,000万元分别支持桂东县X006线跳鱼栏坳至增口改扩建项目、汝城县职教新城二期学生宿舍楼项目、保德县中国中铁幸福大道附属工程。三个项目围绕产业发展、教育培训、农产品外运等关键要素，积极构建长效机制，长期惠及当地老百姓。投入资金300万元，支持三县教育等常规项目建设。为第一书记共配套资金90万元，支持第一书记加强基层组织建设。投入50万元支持开发“精准扶贫就业管理信息系统”。

In 2019, CREC and its 18 subordinate units participated in poverty alleviation development, investing special funds of more than RMB123.66 million in total to lift nearly 3,932 poor people out of poverty with remarkable results. The three poverty-stricken counties assisted by CREC have all been lifted out of poverty. The Company has shifted the focus of its work to consolidating the achievements of poverty alleviation, and has continuously intensified its efforts to build a long-term mechanism for poverty alleviation through measures such as industrial assistance, educational assistance, training capacity expansion, and labor export, and the quality of poverty alleviation work has been significantly improved. It overfulfilled the targets and tasks of the poverty alleviation responsibility statement. The Company has invested special funds of RMB74.40 million for poverty alleviation in designated aid counties, introduced aid funds of RMB916,200, trained 93 grass-roots cadres, trained a total of 4,659 technical personnel, purchased RMB6.6678 million of agricultural products in poverty-stricken areas and helped sell a total of RMB947,300 of them. The main poverty alleviation measures taken by the Company included:

First, the investment of aid funds has reached a record high. The Company helped Guidong County, Rucheng County and Baode County lift out of poverty in August 2018, March 2019 and April 2019, respectively. In 2019, we continued to increase investment, investing special funds of RMB74.40 million for poverty alleviation, RMB31.251 million more than last year. A total of RMB70 million was invested to support the reconstruction and expansion project from Tiaoyu Lan'ao (跳鱼栏坳) to Zengkou on X006 line in Guidong County, the student dormitory building project in Phase II of vocational education new town in Rucheng County and the ancillary project of CREC Xinfu Avenue in Baode County. Centering on key elements such as industrial development, education and training, and outward transportation of agricultural products, the three projects actively build a long-term mechanism to benefit the local people for a long time. The Company has invested RMB3 million to support the construction of education and other conventional projects in the three counties. A total of RMB900,000 was allocated to the first village branch secretary to strengthen the building of grass-roots organizations. RMB500,000 was invested to support the development of the "targeted poverty alleviation employment management information system".



中国中铁“精准帮困专项基金”揭牌仪式
The inauguration ceremony of the China Railway "Special Fund for Targeted Poverty Relief"



中国中铁“精准帮困专项基金”成立
The China Railway "Special Fund for Targeted Poverty Relief" was established

二是搭建农产品销售平台，全面推动消费扶贫。利用中国中铁大平台，在总部召开贫困县特色农产品展销会，推动全系统消费扶贫。与中铁置业集团策划开展“中国中铁精准扶贫进社区”活动，利用中铁置业集团在建、销售楼盘，将贫困县优质、健康、绿色的农产品“端”上业主餐桌。积极牵头与北京首农集团联系，推动贫困县优质特色农产品上架首农集团农产品超市，2019年全年，全系统共消费农产品831.75万元。

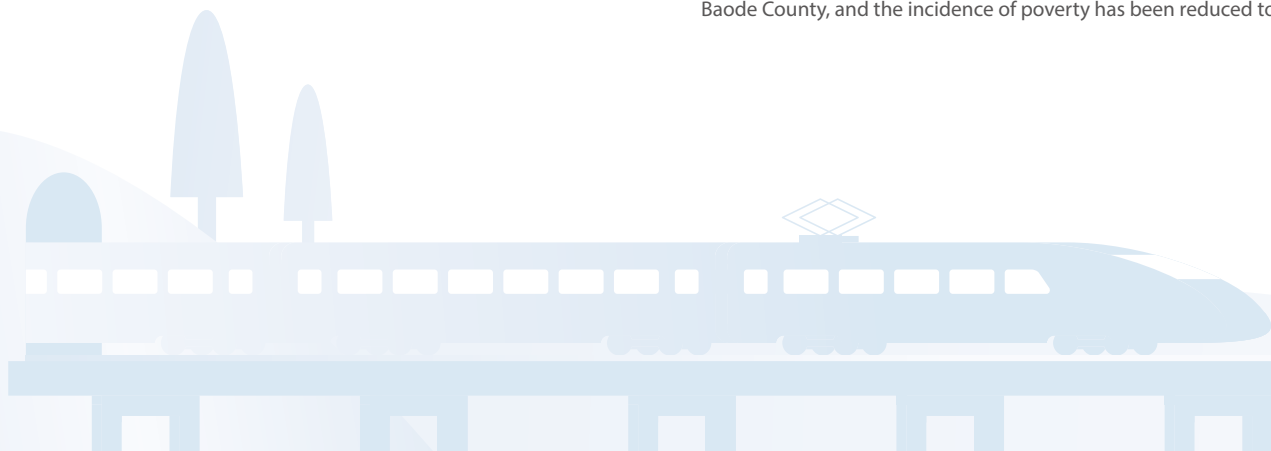
三是积极开展培训、劳务输出工作。通过挂职干部“师带徒”“上讲台”等方式，开展多期知识培训及实操课程，培训基层干部93人。通过汝城县“人人有技能”精准扶贫送技能下乡活动、保德县“保德好司机”活动、桂东县“一技在手，就业不愁”活动，三县实际培训技术人员合计4,659人。“人人有技能”培养工程被教育部评为“终身学习品牌项目”。主动与广东、深圳用人市场对接，共输送460多人外出就业。

四是助力解决“两不愁三保障”突出问题。持续坚持“扶贫先扶智”理念，把教育扶贫作为彻底稳定脱贫的重要抓手。2019年投入资金100.4万元，资助三县贫困新生和在校大学生1,209名。投入10万元帮助桂东县沅江一完小更新多媒体教学设备，投入10万捐赠保德县11所偏远乡村学校留守儿童累计336套羽绒服。聘请我公司员工“全国劳模、大国工匠”白芝勇为汝城县职业教育培训中心客座高级讲师，并成立了工作室，助推当地教育。保德县韩家川乡獐窝村第一书记刘小营邀请中铁三局中心医院体检医疗队为全村常住村民进行免费体检，树立村民健康管理理念。通过持续努力，桂东县累计实现脱贫41,995人，贫困发生率降至0.31%。汝城县累计实现脱贫61,773人，贫困发生率降至0.46%。保德县累计实现脱贫34,042人，贫困发生率降至0.12%。

Second, a sales platform for agricultural products was built and comprehensively promoted poverty alleviation through consumption. Making use of the CREC platform to hold exhibitions of characteristic agricultural products in poverty-stricken counties at the headquarters to promote system-wide consumption poverty alleviation. Planning with China Railway Real Estate Group to carry out the activity of “CREC Targeted Poverty Alleviation into the Community”, making use of the buildings under construction and sales of China Railway Real Estate Group to bring high-quality, healthy and green agricultural products from poverty-stricken counties to the owners’ table. Actively taking the lead in liaising with Capital Agribusiness Group (CAG) (北京首农集团) to promote high-quality characteristic agricultural products in poverty-stricken counties to be listed in CAG agricultural products supermarket. In 2019, the whole system consumed agricultural products total in RMB8.3175 million.

Third, training and labor export were actively carried out. Through “teachers lead students” and “go to the podium”, we have carried out multiple periods of knowledge and practical training courses, and trained 93 grass-roots cadres. Through the targeted poverty alleviation activity of “everyone has a skill” in Rucheng County, “good drivers in Baode” in Baode County and “a good hand makes a good job” in Guidong County, a total of 4,659 technical personnel were trained in the three counties. The “everyone has a skill” training project was rated as the “Lifelong Learning Brand Project” by the Ministry of Education. We have taken the initiative to dock with the employment markets of Guangdong and Shenzhen, sending a total of more than 460 people to go out for employment.

Fourth, we helped solve the outstanding problem of “no worry about food and clothing with compulsory education, basic medical services and housing guaranteed (两不愁三保障)”. We continued to adhere to the concept of “educational supports first in poverty-relief” (“扶贫先扶智”), and regarded poverty alleviation through education as an important starting point for complete and stable poverty alleviation. We invested RMB1.004 million in 2019 to support 1,209 poor freshmen and college students in the three counties. We invested RMB100,000 to help Huojiang First Primary School in Guidong County update multimedia teaching equipment, and donated RMB100,000 to 11 remote rural schools in Baode County for left-behind children with a total of 336 sets of down jackets. We hired our Company’s “National Model Workers, Great Country Craftsmen” Bai Zhiyong as a visiting senior lecturer in vocational education training center in Rucheng County, and set up a studio to promote local education. Liu Xiaoying, the First Party Secretary of the Tuanwo Village, Hanjiachuan Township, Baode County, invited the medical team of the Central Hospital of the third Bureau of CREC to conduct a free physical examination for the permanent villagers of the village to establish the concept of health management. Through continuous efforts, a total of 41,995 people have been lifted out of poverty in Guidong County, and the incidence of poverty has been reduced to 0.31%. A total of 61,773 people have been lifted out of poverty in Rucheng County, and the incidence of poverty has been reduced to 0.46%. A total of 34,042 people has been lifted out of poverty in Baode County, and the incidence of poverty has been reduced to 0.12%.





中国中铁与保德县政府签署精准扶贫援建项目协议
China Railway and the Baode County Government signed an agreement on a targeted poverty alleviation reconstruction assistance project



中国中铁精准扶贫重点援建项目签约仪式
The signing ceremony for the key targeted poverty alleviation reconstruction assistance project of China Railway

五是加强对外交流开阔工作视野。出席中国建筑业企业扶贫攻坚推进大会，公司工会主席刘建媛应邀参加会议，并做交流发言。参与中央七套“手挽手，精准扶贫央企在行动”节目拍摄活动，扶贫领导小组成员裴清宁作为特邀嘉宾，介绍中国中铁参与扶贫开发工作的有关情况，充分展示了中国中铁作为中央企业的责任担当，播出后，引起社会强烈反响。同时积极与中国扶贫基金会对接，引入无偿援助资金58万元。

六是研发“精准扶贫就业管理信息系统”，畅通就业渠道。中国中铁投入专项经费研发了“精准扶贫就业管理信息系统”，有效对接保德、汝城、桂东三个定点扶贫县贫困劳动力就业工作。目前，“就业信息平台”已在保德、汝城、桂东三县初步调试到位，并在中国中铁部分单位推广上线，求职人员信息和就业岗位信息已陆续输入，系统内在册人员10,086人，企业已发布可对接岗位437个，实现了企业用工和贫困户就业线上双选。

Fifth, we enhanced foreign exchanges to broaden our horizons. Liu Jianyuan, the chairman of the Labour Union of the Company, was invited to attend and delivered a speech at the conference on promoting poverty alleviation work of enterprises in the PRC construction industry. Pei Qingning, a member of our poverty alleviation steering group, participated in, as a special guest, the filming for “Hand in Hand, Undertaking Targeted Poverty Alleviation Commitment by State-owned Enterprises” program to be broadcasted via CCTV-7, and introduced the poverty alleviation development work of CREC, which fully demonstrated the responsibility shouldered by CREC as a state-owned enterprise. After broadcasting of the program, we received strong responses from the society. Meanwhile, we introduced gratuitous aiding funds of RMB580,000 through actively connecting with China Foundation for Poverty Alleviation.

Sixth, we developed a “targeted poverty alleviation employment management information system” to smoothen the path for employment. CREC has invested a special fund in the development of the “targeted poverty alleviation employment management information system”, which effectively connected the employment of poor workers from the three fixed-point poverty alleviation counties, including Baode, Rucheng and Guidong. Currently, such “employment information system” has completed initial debugging in Baode, Rucheng and Guidong, and has gone online in part of the divisions of CREC with successive input of the information on jobs and job applicants. 10,086 people have registered in such system, while 437 jobs have been released by the enterprises. Such system achieved the online two-way selection by both the enterprises and impoverished job applicants.

精准扶贫成效

Targeted Poverty Alleviation Result

单位：万元 币种：人民币

指标

数量及开展情况

一、总体情况

其中：1. 资金

12,366

2. 物资折款

1,537

3. 帮助建档立卡贫困人口脱贫数(人)

3,932

二、分项投入

1. 产业发展脱贫

其中：1.1 产业扶贫项目类型

采购受扶地砂石料、以购代捐、代贫困户入股
村集体经济产业/施工修建(捐赠)/种养殖业

1.2 产业扶贫项目个数(个)

24

1.3 产业扶贫项目投入金额

4,361

1.4 帮助建档立卡贫困人口脱贫数(人)

3,315

2. 转移就业脱贫

其中：2.1 职业技能培训投入金额

135.96

2.2 职业技能培训人数(人/次)

5,252

2.3 帮助建档立卡贫困户实现就业人数(人)

905

3. 易地搬迁脱贫

其中：3.1 帮助搬迁户就业人数(人)

55

4. 教育脱贫

其中：4.1 资助贫困学生投入金额

285

4.2 资助贫困学生人数(人)

2,942

4.3 改善贫困地区教育资源投入金额

3,028.5

5. 健康扶贫

其中：5.1 贫困地区医疗卫生资源投入金额

5.42

6. 生态保护扶贫

其中：6.1 项目名称

6.2 投入金额

7. 兜底保障

其中：7.1 帮助“三留守”人员投入金额

4.25

7.2 帮助“三留守”人员数(人)

380

7.3 帮助贫困残疾人投入金额

17.50

7.4 帮助贫困残疾人数(人)

20

8. 社会扶贫

其中：8.1 东西部扶贫协作投入金额

275

8.2 定点扶贫工作投入金额

9,162.48

8.3 扶贫公益基金

3

9. 其他项目

其中：9.1 项目个数(个)

8

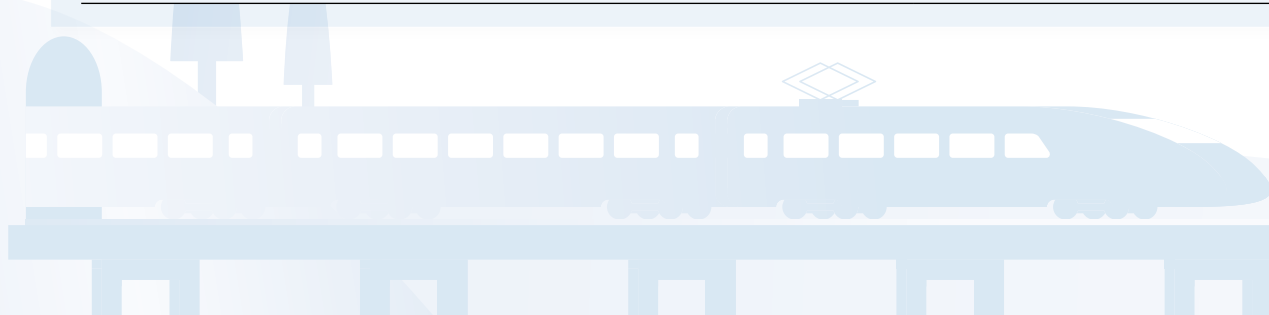
9.2 投入金额

122.18

9.3 帮助建档立卡贫困人口脱贫数(人)

277

9.4 其他项目说明

上海局对外援建乡村道路建设项目1个，
10万元。集团内部扶贫项目1个，
帮扶困难职工27人，43.5万元。

单位：万元币种：人民币

指标

数量及开展情况

三、所获奖项（内容、级别）

1. 中铁北京局荣获乡村振兴示范村建设奖杯 级别：局级
2. 中铁二局王忠获评四川省优秀驻村工作队队员 级别：省级
3. 中铁获帮扶工作组先进集体 级别：县级
4. 中铁四局驻安徽省颍上县杨湖镇汪李村扶贫工作队荣获安徽省属单位脱贫攻坚先进集体荣誉称号 级别：省级
5. 中铁四局驻安徽省颍上县杨湖镇汪李村扶贫工作队第一书记兼队长张坤荣获“中国中铁优秀扶贫干部”、“中国中铁劳动模范”称号 级别：股份公司级
6. 中铁四局驻安徽省颍上县杨湖镇汪李村扶贫工作队第一书记兼队长张坤荣获“颍上县杨湖镇优秀共产党员”称号 级别：乡镇级

Unit: Ten-thousand Yuan Currency: RMB

Indicators

Quantity & Implementation

I. General

Including: 1. Fund 12,366

2. Materials converted into cash 1,537

3. Number of registered impoverished people relieved from poverty under the help offered (person) 3,932

II. Investment Breakdown

1. Poverty alleviation through industrial development

Including: 1.1 Type of industrial projects for poverty alleviation

Procurement of gravel materials from the area under help, purchase instead of donation, stock purchase in rural collective economy on behalf of impoverished households, construction by donation, planting and husbandry

1.2 Number of industrial projects for poverty alleviation 24

1.3 Amount of investment in industrial projects for poverty alleviation 4,361

1.4 Number of registered impoverished people relieved from poverty under the help offered (person) 3,315

2. Poverty alleviation through transferred employment

Including: 2.1 Amount of investment in occupational skill training 135.96

2.2 Number of persons receiving vocational skill training (person/time) 5,252

2.3 Number of registered impoverished people getting employed under the help offered (person) 905

3. Poverty alleviation through relocation

Including: 3.1 Number of employment for relocated household (person) 55

4. Poverty alleviation through education

Including: 4.1 Amount of investment in financing needy students 285

4.2 Number of poor students financed (person) 2,942

4.3 Amount of investment in improving the educational resources in poverty-stricken areas 3,028.5

5. Poverty alleviation through health

Including: 5.1 Amount of investment in the medical and health resources of poverty-stricken areas 5.42

Unit: Ten-thousand Yuan Currency: RMB

Indicators	Quantity & Implementation
6. Poverty alleviation through ecological protection	
Including: 6.1 Name of Project	
6.2 Amount of investment	
7. Baseline security	
Including: 7.1 Amount of investment in helping the elderly people, women and left-behind children in rural areas	4.25
7.2 Number of elderly people, women and left-behind children in rural areas helped (person)	380
7.3 Amount of investment in helping needy disabled people	17.50
7.4 Number of needy disabled people helped (person)	20
8. Poverty alleviation through society	
Including: 8.1 Amount of investment in coordinated eastern-western poverty alleviation	275
8.2 Amount of investment in fixed-point poverty alleviation	9,162.48
8.3 Public welfare fund for poverty alleviation	3
9. Other projects	
Including: 9.1 Number of projects	8
9.2 Amount of investment	122.18
9.3 Number of registered impoverished people relieved from poverty under the help offered (person)	277
9.4 Description about other projects	CREC Shanghai Bureau aided one external project of construction of rural roads with an investment of RMB100,000. The Group had an internal poverty alleviation project, with an investment of RMB435,000 and aiding 27 needy employees.

III. Awards received (nature and level)

1. CREC Beijing Bureau was awarded the Prize for Construction of Pilot Revitalized Village. Level: bureau-level
2. Wang Zhong from CREC No. 2 was appraised as an Excellent Member of the Team Stationed in Village in Sichuan Province. Level: provincial-level
3. CREC was accredited as an Advanced Entity in Poverty Alleviation Assignment. Level: county-level
4. The poverty alleviation team of CREC No. 4 stationed in Wangli Village, Yanghu Town, Yingshang County, Anhui Province was awarded the honored title of Advanced Team in Poverty Alleviation Work by Anhui Provincial Enterprises. Level: provincial-level
5. Zhang Kun, the first secretary and leader of the poverty alleviation team of CREC No. 4 stationed in Wangli Village, Yanghu Town, Yingshang County, Anhui Province, was awarded the titles of "Excellent Poverty Alleviation Cadre of CREC" and "Model Labor of CREC". Level: joint stock company level
6. Zhang Kun, the first secretary and leader of the poverty alleviation team of CREC No. 4 stationed in Wangli Village, Yanghu Town, Yingshang County, Anhui Province, was awarded the title of "Excellent Communist at Yanghu Town, Yingshang County". Level: town-level



后续精准扶贫计划 Subsequent Targeted Poverty Alleviation Plan

2020年为脱贫攻坚收官之年，中国中铁认真贯彻落实党中央脱贫攻坚精神，尽锐出战、攻坚克难、共同决胜2020，实现全民奔小康。一是严格落实国务院扶贫办考核具体要求，做好规定动作，抓好具体工作落实。二是持续做好调研督导工作。公司主要领导、分管领导择期带队赴定点帮扶县进行调研督导。三是继续加大扶贫资金投入力度。根据对口扶贫县援助项目申请情况，2020年计划再投入扶贫资金不低于5,000万元。四是组织开展对口扶贫工作的监督检查。扶贫办牵头组成检查组。对2019年扶贫工作及资金使用情况进行检查。五是结合企业实际，创新工作方式方法，重点抓好2020年度重点援建项目立项落地实施、“精准扶贫就业管理信息系统”全面推广、“农村老人日间照料中心”建设等工作。

2020 is the ending year for the poverty alleviation battle. In this regard, CREC will earnestly implement the spirit of the CPC Central Committee in respect of the poverty alleviation battle and strive hard to overcome difficulties and win the battle in 2020, thereby achieving a well-off society. First, we will strictly implement the specific assessment requirements of the State Council Leading Group Office of Poverty Alleviation and Development by focusing on the regulation of operations and the implementation of detailed work. Second, we will continue the efforts in research, investigation and supervision work. The Company's major leaders and division leaders will lead their respective team to visit, when appropriate, the designated counties poverty alleviation for research and supervision. Third, we will continue to increase investment in poverty alleviation funds. Based on the progress of application for pairing up assistance of impoverished counties, an additional poverty alleviation fund of no less than RMB50 million is planned to be invested in 2020. Fourth, we will organize supervision and inspection of pairing up assistance. The State Council Leading Group Office of Poverty Alleviation and Development will take the lead to establish an inspection team, which will inspect the poverty alleviation work and use of funds in 2019. Fifthly, we will, by having regard to the actual situation of the enterprise, adopt innovative working methods and approaches to ensure the approval for and implementation of the key construction-aiding projects in 2020, the comprehensive promotion of the "targeted poverty alleviation employment management information system", the construction of "daily care center for the elderly in villages", etc.



公司党委书记、董事长张宗言一行慰问贫困户
Zhang Zongyan, the Company's party committee secretary and chairman, and his group visited the poverty-stricken households

专题三：

高质量共建“一带一路”

Topic 3: Joint Construction of the “Belt and Road” with High Quality

秉持共商共建共享原则

Upholding the Principles of Joint Consultation,
Construction and Sharing

坚持开放、绿色、廉洁理念

Adhering to the Philosophy of Openness,
Greenness and Integrity

实现高标准、惠民生、可持续目标

Achieving Targets of High standard and Sustainable
Development Benefiting People's Livelihood







2019年，中国中铁积极参与共建“一带一路”倡议和“互联互通”工程，全力推动中国铁路“走出去”。全公司国际业务实现新签合同额178.59亿美元，完成营业收入65.72亿美元。截至2019年底，中国中铁全系统在98个国家和地区设立335个境外机构。境外在建工程项目和设计项目以及产品加工总数579个，其中境外在建工程项目469个，设计项目80个，道岔产品加工30大项。在建项目合同总额为428.1亿美元。在Engineering News-Record (ERN)全球最大250家国际承包商中排名第18位。

In 2019, CREC actively participated in the joint construction of the “Belt and Road” initiative and the “interconnection” project, promoting in full effort the “going out” of CREC. The Company’s international business achieved a new contract value of US\$17.859 billion, representing an operating income of US\$6.572 billion. As of the end of 2019, the whole system of CREC set up 335 overseas institutions in 98 countries and regions. The total number of overseas projects under construction as well as design projects and products processed was 579, including 469 overseas projects under construction, 80 design projects and 30 turnout products processed. The total contract amount of projects under construction was US\$42.81 billion. CREC ranked 18th among 250 global largest international contractors listed by Engineering News-Record (ERN).

》秉持共商共建共享原则

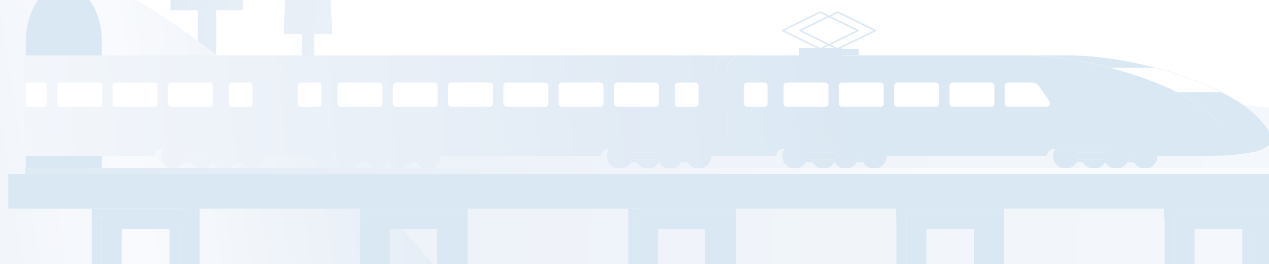
Upholding the Principles of Joint Consultation, Construction and Sharing

深化国际合作

Furtherance of international cooperation

2019年，中国中铁借助第二届“一带一路”高峰论坛、上海进博会、中非经贸博览会等国际合作的重要平台，加强与各国政府、企业的沟通合作，推动项目落地实施。同时，加大走出去步伐，积极参与金砖经贸论坛、中阿国家工商峰会以及B20议题工作组、中国中东欧国家联合商会等多双边合作机制，为中国企业发声，参与行业发展规则制定。在第三方市场合作方面，公司已在丹麦、意大利、法国、澳大利亚、波兰、新加坡等市场和包括万喜等在内的世界知名建筑商建立了稳固的合作关系。

In 2019, CREC strengthened communication and cooperation with governments and enterprises of various countries to promote the implementation of projects through important international cooperation platforms such as the Second Belt and Road Forum, the China International Import Expo in Shanghai and the China-Africa Economic and Trade Expo. Meanwhile, the Company accelerated the pace of going out by active participation in numerous bilateral cooperation mechanisms such as the BRICS Business Forum (金砖经贸论坛), the China-Arab Business Summit (中阿国家工商峰会), the B20 Task Force (B20议题工作组) and the China and Central and Eastern European Union Chamber of Commerce (中国中东欧国家联合商会) to speak for Chinese companies and participate in the formulation of industry development rules. In respect of third-party market cooperation, CREC has established stable cooperation relationship with world-renowned builders including Wanxi in markets including Denmark, Italy, France, Australia, Poland and Singapore.



属地化经营

Territorial operation

中国中铁从经营理念、人才队伍、法律制度、文化建设等各项工作入手，不断提升海外市场的属地化管理水平。目前已形成了以埃塞俄比亚、肯尼亚、坦桑尼亚、南非为代表的东南非市场，以马里、加纳、科特迪瓦、摩洛哥、埃及为代表的西北非市场，以安哥拉、刚果（金）为代表的中非市场，以印尼、老挝为代表的东南亚市场，以巴新、斐济为代表的南太平洋市场，以塔吉克斯坦、乌兹别克斯坦为代表的中亚市场和以委内瑞拉、巴西为代表的拉美市场等一批特色鲜明的属地化区域市场。

CREC continued to improve the territorial management of overseas markets by starting with tasks such as operation philosophy, talent team, legal system and cultural construction. Currently there formed a group of distinctive territorialized regional markets which include the East and South African market representing by Ethiopia, Kenya, Tanzania and South Africa; the Northwest African market representing by Mali, Ghana, Côte d'Ivoire, Morocco and Egypt; the Central African markets representing by Angola and Congo (DRC); the Southeast Asian market representing by Indonesia and Laos; the South Pacific market representing by PNG and Fiji; the Central Asian market representing by Tajikistan and Uzbekistan; and the Latin American market representing by Venezuela and Brazil.

文化交流沟通

Cultural exchange and communication

中国中铁积极推进属地化管理，注重与当地民众融合，通过联合孔子学院和驻在国大学共同举办“中华文化大讲堂”等系列活动，充分发挥文化的桥梁、影响和引领作用，向世界讲好中国故事，促进优秀文化“走出去”，为“一带一路”民心相通贡献力量。

CREC actively promoted territorial management with a focus on integration with local people. Through the organization of a series of activities such as the “Chinese Culture Colloquium” by the Confucius Institute jointly with universities of host countries, CREC fully played the role of bridging, influencing and leading cultures, told the world a good Chinese story, promoted the “going out” of excellent culture, and contributed to the connection of hearts and minds of the people along the “Belt and Road”.



中老铁路“友谊之桥”青年文化交流活动
China-Laos Railway “Bridge of Friendship” Youth Cultural Exchange Activity

1

案例 Case

2019年10月，中国中铁中老铁路项目建设指挥部协同有关参建单位与老挝苏发努冯大学孔子学院在琅勃拉邦共同举办了“共建中老铁路，共筑美好家园‘中老铁路’友谊之桥”青年文化交流活动。来自老挝琅勃拉邦市、乌多赛省、波乔省、万象省等省市的40余名青年选手参加了中文演讲、老挝传统才艺表演等活动。

In October 2019, the Construction Headquarters of CREC's China-Laos Railway Project coordinated relevant participating units with the Confucius Institute at Souphanouvong University in Laos to jointly organize youth cultural exchange activities including the "Joint Construction of the China-Laos Railway for the Joint Construction of a Beautiful Homeland" and "China-Laos Railway, the Bridge of Friendship". More than 40 young contestants from the cities and provinces of Laos including the city Luang Prabang and provinces like Udousas, Pocho and Vientiane participated in activities such as Chinese speeches and traditional talent performances in Laos.

2

案例 Case

2019年，中铁一局马来西亚公司联合马来亚大学孔子学院、马来西亚博特拉大学举办第二届“中华文化大讲堂”。公司中外籍员工、孔子学院和博特拉大学师生共50余人参加。此次活动包含学画国画、踢毽子比赛、汉服体验3个环节，让学员们从“文”到“武”、从“静”到“动”全方位体验中华文化的魅力。

In 2019, CREC No.1 Malaysian Company together with the Confucius Institute at the University of Malaya and the Universiti Putra Malaysia hosted the second "Chinese Culture Colloquium". More than 50 persons including Chinese and foreign employees of the Company as well as teachers and students from the Universiti Putra Malaysia participated in the occasion. Activities included three segments, i.e., learning Chinese painting, shuttlecock competition, and experience of apparels from the Han Dynasty, allowing students to have a comprehensive experience of the charm of Chinese culture in an all-round way from culture to martial arts and from peace to dynamic.



中华文化大讲堂活动
Chinese Culture Colloquium Activity

坚持开放、绿色、廉洁理念 Adhering to the Philosophy of Openness, Greenness and Integrity

推动绿色基础设施建设

Promoting construction of green infrastructure

中国中铁积极推动境外项目绿色建筑，强调因地制宜，特别是对所在国政治、经济、文化、民生影响重大的基建项目，更是以建设精品样板工程、廉洁示范工程为目标，强化健全合作、协商、共赢、共享的工作机制，严格落实完善环境保护措施，通过科学管理和技术进步，最大限度地节约资源、减少和避免对环境产生负面影响的施工活动。2019年，中国中铁境外项目获得省部级以上优质工程奖11项、管理创新奖2项、技术发明奖19项，其中20个项目获得绿色标准化工地称号。

CREC actively promotes the construction of overseas green projects, with emphasis on measures tailored to local conditions, specially infrastructure projects that have significant impacts on the politics, economy, culture, and people's livelihood of the host countries, and particularly aiming at building excellent model projects and integrity demonstration projects to strengthen and improve the working mechanism of cooperation, negotiation, win-win and sharing, strictly implementing and improving environmental protection measures, and maximizing saving of resources to reduce and avoid construction activities that have negative impacts on the environment through scientific management and technological progress. In 2019, CREC's overseas projects won 11 quality engineering awards of provincial and ministerial-level or above, 2 management innovation awards, and 19 technology invention awards, including 20 projects which won the title of green standardized construction sites.

1

案例 Case

中国中铁中老铁路项目成立专门环保领导小组，制订特别生态环保方案，着重强调水环保的宣传和教育工作，并严格执行环境保护目标责任制。

A special environmental protection leading group was established for CREC's China-Laos Railway project, and a special ecological environmental protection plan was formulated with emphasis on the publicity and education of water environmental protection and the strict implementation of the environmental protection target responsibility system.

2

案例 Case

中国中铁孟加拉帕德玛大桥项目严抓垃圾分类，严格定期检测废水排放，采用专业设备检测防控噪音，委托专业公司对钢结构车间、机械设备密集作业区间等场所进行空气质量检测，各类废水、废气的排放严格符合标准。

For CREC's Padma Bridge Project in Bangladesh, Garbage classification was strictly implemented, discharge of waste water was strictly and regularly monitored, and professional equipment was used to detect and control noise. Professional companies were commissioned to conduct tests of air quality in places such as steel-structure workshops, machinery and equipment-intensive working areas, while discharge of various types of waste water and exhaust gas strictly complied with standards.

强化依法合规管理

Strengthening management in compliance with laws and regulations

2019年，中国中铁进一步加强外事及境外安全管理，修订相关外事管理办法，持续推动境外合规体系建设，进一步完善海外业务合规管理制度，研究制定《海外业务合规管理指引》《合规手册》，围绕生产经营重点工作，制定《工程项目合同管理法律合规风险防范指引》。立足境外重点国别市场，配合国家部委开展相关国别市场营销环境研究，编写相关国别报告，指导所属企业依法合规开展海外经营业务。

截至2019年底，中国中铁境外工程项目雇佣当地员工45,967人。为维护 and 保障本国劳动者的权益，中国中铁境外机构和项目根据经营生产情况，设立人力资源部（岗），按照当地劳动法和社保法等相关法律法规，研究制定属地化的当地劳工管理制度文件，明确规范当地员工招聘、合同签订、社保交纳、出勤管理、请假制度、薪酬标准、解聘流程等各环节要求。

In 2019, CREC further strengthened foreign affairs and overseas safety management by revising relevant administrative measures for foreign affairs and ongoing promotion of overseas compliance system establishment to further improve overseas business compliance management systems, studied and formulated the Guidelines for Overseas Business Compliance Management (《海外业务合规管理指引》) and Compliance Manual (《合规手册》), and formulated the Guidelines for Prevention of Legal Compliance Risks in the Management of Engineering Project Contracts (《工程项目合同管理法律合规风险防范指引》) with a focus on key tasks in production and operation. Based on overseas key country-specific markets, CREC conducted research on the business environment of country-specific markets in cooperation with ministries and commissions and prepared relevant country-specific reports for guiding affiliated enterprises to carry out overseas business operations according to laws and regulations.

As of the end of 2019, CREC's overseas projects employed 45,967 local employees. To safeguard and protect the rights and interests of local workers, CREC overseas institutions and projects have set up human resources departments (posts) according to their operating and production conditions, and studied and formulated documents of localized labor management systems according to relevant laws and regulations such as local labor law and social security law to clarify all aspects of regulatory requirements including local staff recruitment, signing of contract, social insurance contribution, attendance management, leave application policies, salary standards and termination procedures.



保障海外项目安全

Ensuring the safe operation of overseas projects

2019年，中国中铁海外项目坚持生命至上、安全第一，树牢安全发展理念，提高政治站位，强化红线意识和底线思维，坚持问题导向，坚持标本兼治，保障安全投入，通过全公司共同努力，确保了公司海外项目安全生产状况保持稳定。

公司在海外项目全面部署2019年安全质量重点工作，明确安全生产、工程质量、环境保护的责任目标。印发《关于加强境外项目安全生产管理工作的通知》，突出重点领域，深入开展层级安全质量大检查。通过开展安全生产“管”“监”责任大宣贯大培训活动、安全生产“管”“监”责任落实专项检查活动、筑牢安全生产管理基础专项行动、生产安全惯性事故防控专项行动、本质安全保障能力提升行动等五大主题活动，进一步推动安全生产“管”“监”系统责任落实，确保安全生产形势持续稳定。

遵守项目所在地职业病有关法律法规，坚持依法依规做好职业健康工作，本着以人为本、健康工作的原则，落实建设项目职业病危害预评价、办理工伤保险、全员职业健康教育培训、职业危害因素告知、完善健康体检档案，对当地工人进行艾滋病检测 and 常规体检、配备合格劳动保护用品。

In 2019, CREC adhered to the policy of supremacy of life and safety-first for its overseas projects. Bearing in mind the safe development philosophy, the Company enhanced its political threshold and strengthened red line awareness as well as bottom-line thinking to maintain problem-oriented solutions of both symptoms and root causes to guarantee safe investment, ensuring the stable and safe production of overseas projects of the Company through concerted effort of the whole Company.

For priorities of safety and quality for its overseas projects in 2019, the Company made a comprehensive arrangement to clarify the targets of responsibilities for safe production, project quality and environmental protection. The Notice on Strengthening Safety Management of Overseas Projects (《关于加强境外项目安全生产管理工作的通知》) was issued to highlight key areas for in-depth safety and quality inspections. Through the five major thematic activities including large-scale promotion, implementation and training activities on the responsibilities of “management” and “supervision” of production safety; special inspection activities on implementing the responsibilities of “management” and “supervision” of production safety; special actions for enhancing foundation of production safety management, special actions for prevention and control of frequent production safety accidents and enhancement of intrinsic safety assurance capabilities, implementation of responsibilities for the safety production “management” and “supervision” system was further promoted, hence ensuring ongoing maintenance of production safety.

CREC complied with the relevant laws and regulations on occupational diseases in where the projects are located, and was committed to undertaking the task of occupational health according to laws and regulations. On the people-oriented and healthy work principle, the Company implemented pre-assessment of occupational disease hazards for construction projects, maintained work-related injury insurance, hosted occupational health education and training for all employees, kept them informed of factors of occupational hazards, enhanced archives of health inspection, conducted AIDS testing and regular checkups for local workers, and equipped them with qualified labor protection supplies.



孟加拉国“梦想之桥”——帕德玛大桥架设主桥钢梁
Main bridge steel beams were erected on the “Bridge of Dreams”, the Padma Bridge, in Bangladesh

实现高标准、惠民生、可持续目标

Achieving Targets of High standard and Sustainable Development Benefiting People's Livelihood

中国技术带动当地发展

Chinese technologies driving local development

中国中铁充分发挥全产业链优势，采用设计、采购、施工加融资的EPC+F (Engineering, Procurement, Construction and Financing)模式，为业主提供从投资、勘察设计、施工建设到运营维护全周期的服务。中国中铁通过“卓越国际教育培训中心”平台，依托中国中铁在全球轨道交通领域的勘察设计、工程咨询、工程总承包项目，累计完成了覆盖亚洲、非洲、欧洲、美洲、大洋洲100多个国家1,700余人次的培训。

中国中铁在境外项目实施过程中，组织对当地管理及技术人员进行技术培训，累计在亚吉铁路、亚的斯轻轨项目培训运营维护管理人员1,905人次，其中2019年培训运营维护管理人员633，火车司机34名；中老铁路、雅万高铁、孟加拉帕德玛大桥铁路连接线、孟加拉帕德玛大桥等重点项目，2019年组织对当地管理及技术人员进行技术培训27,420人次。

优质工程助推当地经济

Quality projects boosting local economy

中国中铁依托境外重点工程，努力打造出企业与项目所在国之间的发展之路、绿色之路、廉洁之路、友谊之路、幸福之路，为高质量推动“一带一路”建设做贡献。

CREC gave full play to its advantages of whole industry chain by adopting the EPC+F (Engineering, Procurement, Construction and Financing) mode of design, procurement, construction and financing to provide the owners with all-round services from investment, survey and design, construction to operation and maintenance. Through the platform of “Excellent International Education and Training Center” and relying on CREC’s survey and design, project consultation and general contracting projects in area of global rail transit, the Company has completed training of over 1,700 staff in total in more than 100 countries covering Asia, Africa, Europe, America and Oceania.

During the implementation of overseas projects, CREC organized technical training for local management and technical staff, training a total of 1,905 operation, maintenance and management staff for the Ababa-Djibouti Railway and Addis Ababa Light Rail Project, among them 633 operation, maintenance and management staff as well as 34 train drivers were trained in 2019; in key projects such as China-Laos Railway, Jakarta-Bandung High-Speed Rail, Padma Bridge Railway Connecting Route in Bangladesh, Padma Bridge in Bangladesh, technical training was organized for 27,420 local management and technical staff in 2019.

leveraging on its key overseas projects, CREC is striving for the construction of the road to development, greenness, integrity, friendship and happiness between the Company and the countries where the projects are located, contributing to the high-quality promotion of the “Belt and Road” construction.



1

案例 Case

中老铁路承载着老挝从内陆“陆锁国”到“陆联国”梦想。2019年，中国中铁项目部为当地提供就业岗位1,682个，在当地采购超过15,370万美元，大力助推了当地经济发展。

The China-Laos Railway carries Laos' dream of shifting from an inland "landlocked country" to a "land connected country". In 2019, CREC Project Department provided 1,682 local jobs and made purchases of more than US\$153.7 million locally, greatly promoting local economic development.

2

案例 Case

2019年，中国中铁雅万高铁项目为当地提供就业岗位2,895个，在当地采购超过24,700万美元。

In 2019, CREC's Jakarta-Bandung High-Speed Rail Project provided 2,895 local jobs and made purchases of more than US\$247 million locally.

3

案例 Case

2019年，中国中铁孟加拉帕德玛铁路连接线项目为当地提供工作岗位3,113个，在当地采购材料超过45,000万美元，与至少100家当地公司签订了相关服务协议。

In 2019, CREC's Padma Railway Connecting Route Project in Bangladesh provided 3,113 local jobs, purchased local materials of more than US\$450 million, and entered into relevant service agreements with at least 100 local companies.

公益事业惠及当地人民

Public welfare undertakings benefiting local people

中国中铁致力于塑造中国企业“有实力、负责任”的良好形象，积极履行企业社会责任，主动参与东道国抢险救灾，开展形式多样的物资援助和社会捐助等公益事业。

CREC strived to shape the good image of a “powerful and responsible” Chinese enterprise by actively fulfilling its corporate social responsibility, taking the initiative to participate in emergency rescue and disaster relief of host countries and engaging in public welfares undertaking such as various forms of material assistance and social donations.

1

案例 Case

中老铁路开工以来，中国中铁在抓好项目建设的同时，主动帮助地方政府和百姓解决实际困难，改善他们的生活环境和条件，累计为沿线进行电力改造约65千米，修建道路743公里、便桥34座、水渠7.38公里、水井15口，新建蓄水池1个。

Since the commencement of the construction of the China-Laos Railway, CREC, while focusing on project construction, has taken the initiative in helping the local government and people solve practical difficulties and improve their living environment and conditions. CREC has totally carried out some 65 kilometers of power refurbishment, repaired and built 743 kilometers of roads, 34 bridges, 7.38 kilometers of water channels, 15 wells and a new reservoir.

2

案例 Case

2019年3月10日，埃塞俄比亚航空公司客机坠毁，中国中铁埃塞俄比亚公司接到救援通知后，立即组织救援队伍和机械设备，配合埃塞俄比亚航空公司全力开展救援工作。经过一天两夜的连续奋战，中国中铁救援人员不仅出色完成了救援任务，还在地下20米深处找到了失事飞机的黑匣子。

On 10 March 2019, when a passenger plane of Ethiopian Airlines crashed, CREC in Ethiopia, upon receipt of the rescue notification, immediately organized a rescue team with mechanical equipment to carry out rescue work in cooperation with Ethiopian Airlines. After one day and two nights of continuous fighting, CREC's rescue team not only beautifully completed the rescue mission, but also found the black box of the wrecked plane 20 meters underground.



展望 Outlook

2020年，中国中铁将以习近平新时代中国特色社会主义思想为指导，坚持稳中求进工作总基调，坚持新发展理念，坚持高质量发展，以优化治理体系、提升治理能力为抓手，统筹推进稳增长、促改革、强创新、调结构、严监管、防风险，着力做优经营链、做精管理链、做强产业链、做实价值链、做大动能链，增强企业竞争力、创新力、控制力、影响力和抗风险能力，努力建设具有全球竞争力的世界一流企业，为决胜全面建成小康社会做出新的更大贡献。

2020年，中国中铁将进一步发挥行业龙头企业履行社会责任的表率作用，全面深化社会责任管理，拓展社会责任领域，丰富社会责任内容，提升社会责任实践水平，与利益相关方共同携手，为推动全社会的发展进步而不懈努力！

In 2020, CREC will take Xi Jinping's socialist ideology with Chinese characteristics in the new era as the guidance, adhere to the general tone of steady progress, new development concept and high-quality development, and optimize the governance system and enhance governance capacity as the starting point for overall planning. We will make overall plans to promote steady growth, promote reform, strengthen innovation, adjust the structure, strictly supervise and guard against risks. We will strive to optimize the management chain, refine the management chain, strengthen the industrial chain, strengthen the value chain, expand the kinetic energy chain, enhance the competitiveness, innovation, control, influence and anti-risk ability of the enterprise, and strive to build a world-class enterprise with global competitiveness to make new and greater contributions to building a well-off society in an all-round way.

In 2020, CREC will further play an exemplary role of an industry leading enterprise to fulfill social responsibilities, comprehensively deepen the social responsibility management, expand the social responsibility fields, enrich the social responsibility contents, enhance the social responsibility practices, cooperate with its stakeholders to make unremitting efforts in order to promote the development and progress of the whole society!



意见反馈 Feedback

感谢您在百忙之中阅读中国中铁股份有限公司2019
社会责任报告暨ESG（环境、社会及管治）报告。

报告在编写过程中难免存在瑕疵和疏漏之处，我们
十分愿意倾听您的意见和建议，再一次向您对本公
司的支持和帮助表示衷心感谢。

Thank you for taking time out of your busy schedule to read the 2019
Social Responsibility Report and the Environmental, Social and Governance
Report of China Railway Group Limited in your busy schedule.

There are inevitable flaws and omissions in the compilation process of the
report. We are very willing to listen to your comments and suggestions. We
express our sincere thanks for your support and help to the Company once
again.





中国中铁股份有限公司
CHINA RAILWAY GROUP LIMITED



中国中铁官方微信



中国中铁官方微博

股票代码：A 股 601390 H 股 390
Stock code：601390SH 390HK



本报告以环保纸张印制
This report is printed by using environment protection papers.