

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Corporate Social Responsibility Report

I. Promoting responsibility management

The Company strictly complies with the provisions of the *Environmental, Social and Governance Reporting Guide* as set out in Appendix 27 to the Listing Rules of the Hong Kong Stock Exchange, earnestly studies and proactively makes reference to the *Consultation Conclusions on Review of the Environmental, Social and Governance Reporting Guide and Related Listing Rules* published by the Hong Kong Stock Exchange in December 2019, and strengthens ESG management. The Board of Directors of the Company attaches high importance to the work on Environmental, Social and Governance ("ESG"), and is responsible to evaluate and determine the Company's ESG-related risks, ensuring the Company has established effective ESG risk management and internal control systems and formulated the Company's ESG management policy and strategy. The

Board also regularly reviews the Company's performance and approves the disclosure of ESG reports to ensure the Company's level in fulfilling ESG responsibility is persistently improved. We reported the work plan to the Board during the preparation stage of this report and also reported to the Board upon the finalisation of this report. This report was reviewed and approved by the Board.

The Company establishes an ESG working group which is managed by senior management, while the Corporate Strategy Department coordinates with relevant departments in the headquarters, provincial branches, professional companies and units directly under the headquarters participating in ESG reporting work. ESG working group is authorised to be responsible for implementing the Company's ESG strategies, promoting ESG performance management and monitoring information disclosure and relevant fundamental work.



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The Company established its own system of ESG Indicators, set up the information statistics system for ESG performance and refined procedures on ESG data's collection, review and application. In accordance with *A Step-By-Step Guide to ESG Reporting* issued by the Hong Kong Stock Exchange in 2018, the Company perfected its information disclosure and regulated the disclosure of detailed information on how the Company fulfills its responsibility in the aspect of ESG governance.

The Company promotes communication with its investors, customers, employees, government and regulatory institutions, communities and other stakeholders through various channels including announcements, reports, meetings, seminars, visits, service hotlines, questionnaires and events. The Company earnestly listens to the expectations and needs of the stakeholders, sorts out the opinions and suggestions from all parties and actively responds to the concerns raised.

Stakeholders' Expectations on the Company and Our Response

Stakeholders	Communication Mechanism and Method	Expectations on the Company	Our Response
Investors	<ul style="list-style-type: none"> • Statements and announcements • Reports and visits • Daily communication • Investor conferences 	<ul style="list-style-type: none"> • Value retention and appreciation • Regulating corporate governance • Operational risk prevention • Regulating information disclosure 	<ul style="list-style-type: none"> • Operate steadily and continue to create value for shareholders • Improve corporate governance level and continuously improve internal control system • Protect the rights of investors, especially small and medium investors, in accordance with laws • Strictly comply with the disclosure requirements of corporate information
Customers	<ul style="list-style-type: none"> • Customer service hotline • Account manager's visits • Customer surveys • Customer communication activities 	<ul style="list-style-type: none"> • Suitable and good business products • Enhancement of service quality • Tariff charges reduction • Harmful information prevention • Personal privacy protection 	<ul style="list-style-type: none"> • Promote business and products innovation • Promote transparent consumption • Set reasonable and preferential tariff charges • Regulate value-added service cooperation management • Protect customer information in accordance with laws

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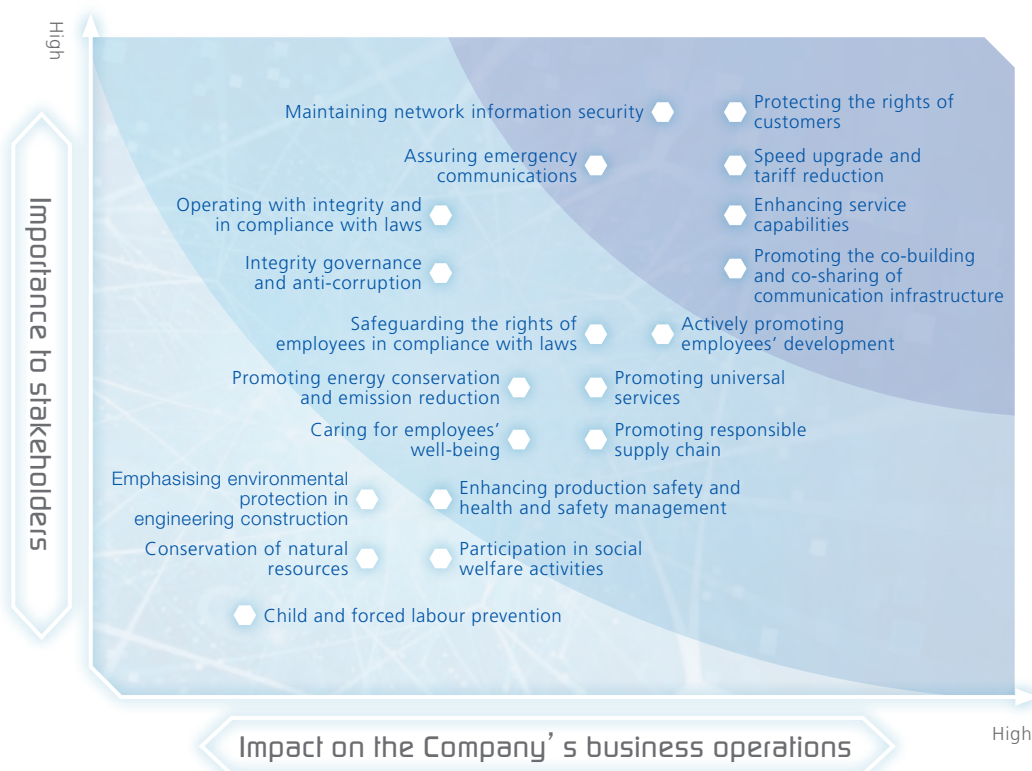
Stakeholders	Communication Mechanism and Method	Expectations on the Company	Our Response
Employees	<ul style="list-style-type: none"> Employee representative congress Employee-management conversations Employee opinion surveys Complaints and grievances 	<ul style="list-style-type: none"> Legal rights protection Realisation of professional development Management participation Caring for employees 	<ul style="list-style-type: none"> Regulate labour management Optimise income distribution and welfare protection mechanism Reinforce employee training and improve career development Count on the function of employee representative congress Improve work conditions
Government and Regulatory Institutions	<ul style="list-style-type: none"> Meetings Statements or reports Reports and visits 	<ul style="list-style-type: none"> Compliance with laws and regulations Government management requirement implementation Facilitation of industry development Promotion of Employment 	<ul style="list-style-type: none"> Govern the corporate in accordance with laws, and operate with integrity Pay taxes in accordance with laws, and foster employment opportunities Provide innovative informationalised products and services, promote high-quality economic development Actively provide advice and suggestions
Supply Chain	<ul style="list-style-type: none"> Business communication Business trainings Seminars or forums 	<ul style="list-style-type: none"> Equal and mutually beneficial cooperation Co-creation of value Promotion of industry development 	<ul style="list-style-type: none"> Cooperate with integrity, create mutual benefit and achieve win-win Actively create an industrial ecosphere and promote industry development
Peers	<ul style="list-style-type: none"> Forums or conferences Dispute coordination and resolution Special topic working groups Visits 	<ul style="list-style-type: none"> Lawful and fair competition Reinforcement in communication and cooperation and promotion of healthy development of the industry 	<ul style="list-style-type: none"> Actively communicate and exchange experience Promote inter-connection and inter-communication Actively engage in co-building and co-sharing

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Stakeholders	Communication Mechanism and Method	Expectations on the Company	Our Response
Community	<ul style="list-style-type: none"> Community communication activities Community co-build activities Social welfare activities 	<ul style="list-style-type: none"> Environment protection Telecommunications universal services Emergency communications assurance Assisting vulnerable groups 	<ul style="list-style-type: none"> Implement energy conservation and emission reduction as well as environmental protection measures Actively fulfill universal services obligation Maintain smooth communication Promote poverty alleviation and help the disabled and people in need

In accordance with the ESG subject areas contained in the ESG Reporting Guide, while taking into consideration the expectations and needs of stakeholders based on the characteristics of our business and the industry as well as the impact of our business operations on the economy, environment and society, the Company assesses ESG issues that are relevant and material to the Company's business operations from the dual perspectives of its importance to stakeholders and its impact on the Company's business operations, and selects and establishes a materiality matrix (see below) as the basis for the Company's ESG report's disclosure.



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The main issues of this report are presented in the following table:

Environmental, social and governance areas listed in the *Environmental, Social and Governance Reporting Guide* of the Hong Kong Stock Exchange

Main environmental, social and governance issues for the Company

Subject Area A: Environmental	
A1 Emissions	<ul style="list-style-type: none"> Promoting energy conservation and emission reduction
A2 Use of Resources	<ul style="list-style-type: none"> Conservation of natural resources
A3 The Environment and Natural Resources	<ul style="list-style-type: none"> Emphasising environmental protection in engineering construction Promoting the co-building and co-sharing of communication infrastructure
Subject Area B: Social	
B1 Employment	<ul style="list-style-type: none"> Safeguarding the rights of employees in compliance with laws Caring for employees' well-being
B2 Health and Safety	<ul style="list-style-type: none"> Enhancing production safety and health and safety management
B3 Development and Training	<ul style="list-style-type: none"> Actively promoting employees' development
B4 Labour Standards	<ul style="list-style-type: none"> Child and forced labour prevention
B5 Supply Chain Management	<ul style="list-style-type: none"> Promoting responsible supply chain
B6 Product Responsibility	<ul style="list-style-type: none"> Building advanced 5G Network Speed upgrade and tariff reduction Promoting universal services Maintaining network information security Assuring emergency communications Protecting the rights of customers Enhancing service capabilities
B7 Anti-corruption	<ul style="list-style-type: none"> Operating with integrity and in compliance with laws Integrity governance and anti-corruption
B8 Community Investment	<ul style="list-style-type: none"> Participation in social welfare activities

This report is a yearly report which covers the policies, measures and performance on the ESG-related issues of the Company and its subsidiaries (branches) for the period from 1 January 2019 to 31 December 2019 (reporting period).

This report actively complies with the requirements of the ESG Reporting Guide of the Hong Kong Stock Exchange in relation to the reporting principles of “materiality”, “quantitative”, “balance” and “consistency”. Based on the materiality principle, the Board of the Company determined the importance of ESG issues, and this report disclosed our communication with stakeholders, the identification process of the material issues and the materiality matrix. Based on the quantitative principle, the Company strived to quantify its ESG performance indicators as much as possible. The statistical standards, methods, assumptions and calculation tools, as well as the sources of conversion factors for quantifying the key performance indicators are all disclosed in this report. Based on the balance principle, this report strived to provide an unbiased picture of the Company’s ESG performance during the reporting period and avoided selection, omissions or presentation formats that may inappropriately influence the decision or judgement of the readers. Based on the consistency principle, the Company kept the statistical methods used for the data disclosed in this report consistent, and if there was any inconsistency, explanations were made.

For details of compliance with the ESG Reporting Guide of the Hong Kong Stock Exchange, please refer to the ESG Reporting Guide Index in this report.

II. Operating with integrity and in compliance with laws

China Telecom governs the corporate in accordance with laws and regulations, persists in operating in compliance with laws and integrity through abidance by relevant laws and regulations and industry regulations. We have established an all-rounded and seamless compliance system featuring, among others, internal control, audit supervision, anti-corruption and comprehensive risk management. The Company has established a sound, long-term and effective communication mechanism in order to regulate the disclosure of corporate information and is open to government supervision and public scrutiny.

In accordance with *Company Law of the People’s Republic of China*, *Accounting Law of the People’s Republic of China*, *Contract Law of the People’s Republic of China*, *Cybersecurity Law of the People’s Republic of China*, *Anti-Monopoly Law of the People’s Republic of China*, *Anti-Unfair Competition Law of the People’s Republic of China*, *Securities Law of the People’s Republic of China* and *Code of Corporate Governance for Listed Companies in China* published by the China Securities Regulatory Commission and other laws and regulations and the regulatory requirements governing internal control of listed companies in capital markets such as the United States and Hong Kong, the Company established its *Internal Control Manual* to ensure that the Company’s operation and management is in compliance with laws and regulations, the assets are secured, and the financial reports and relevant information are accurate and complete.

In compliance with the *Trademark Law of the People's Republic of China*, *Patent Law of the People's Republic of China* and other laws and regulations, the Company implemented systems and measures including *Guidance Opinions of China Telecom on Strengthening Intellectual Property Work*, *Operation Guidelines of Intellectual Property Management in Product Development*, *Administrative Measures on Trademark Management of China Telecom Group*, *Interim Measures for the Patent Management of China Telecom Group*. The Company established a sound intellectual property management system and strictly protected intellectual property rights. Focusing on the risk of intellectual property rights infringement, the Company issued risk alert in a timely manner and organised propaganda to promote the protection and requirements of use of intellectual property rights in respect of logos, pictures, fonts and audio-visual materials used in operation and management. The Company organises activities to promote the rule of law and governance annually, such as the "World Intellectual Property Day" and the "National Intellectual Property Rights Promotion Week", to raise the awareness on intellectual property rights among all employees. In 2019, the Company strengthened the exploration and landscape of patents in relation to 5G, artificial intelligence, Big Data, blockchain and other fields, conducted trainings on patents, strictly controlled the quality of patents and enhanced the protection of intellectual property rights of popular technologies.

The Company strictly executed the laws and regulations on integrity governance and anti-corruption and strengthened the development of systems, mechanisms and culture and other aspects in order to strictly prohibit the occurrence of any forms of corruption such as bribery, extortion, fraud and money laundering. The Company established and optimised five major mechanisms including anti-corruption

education and prevention, system monitoring, discipline and accountability, fault tolerance and correction, and inspection and check. We conducted integrity and discipline education, formulated code of conduct such as integrity manual, and opened a public WeChat account called "China Telecom with Integrity". We set up a whistleblowing postal mailbox, emails and hotline to address any report of whistleblowing allegations and relevant complaints against its employees as well as relevant criticism, opinions and recommendations on integrity construction and anti-corruption work.

In 2019, according to the laws and regulations and the requirements of regulatory authorities, in line with the changes in business operations, the Company continuously strengthened compliance management, perfected the *Internal Control Manual* and other rules and regulations and continuously assessed the implementation of rules and regulations, and timely rectified the problems once identified.

III. Providing high quality network assurance

China Telecom promoted the construction of fundamental network and new style fundamental infrastructure, promoted universal services and continuously worked on network "Speed Upgrade and Tariff Reduction", maintaining network information security and assuring emergency communications in order to provide high quality network assurance for customers and economic and social development.

Building advanced 5G Network

On the basis of the preliminary preparation groundwork of 5G technology trial and commercial launch preparation, we obtained the business operation permit for 5G networks in June 2019 and thereafter quickly promoted the 5G network construction. Meanwhile, we fully commenced the co-build and co-share cooperation with China Unicom on 5G base stations to expedite the progress of 5G network construction and concurrently achieved significant reduction in resources deployment. As of the end of 2019, the Company possessed more than 60,000 5G base stations with service capabilities and launched 5G networks in more than 50 cities nationwide.

The Company strived to promote the research and development of 5G technology, led a total of 42 5G international standardisation projects and works, independently researched and developed the network slicing management platform, edge computing business management platform, and open platform for capabilities, and released the radio frequency reference design of 3.5GHz 5G indoor small base station. The Company proactively promoted the 5G standalone (SA) mature industry chain and achieved the SA deployment based on IPv6 and cloud network integration as well as the inter-cooperation of 5G and 4G.

Promoting Speed Upgrade and Tariff Reduction

In 2019, the Company consolidated and improved the quality of 4G network, continued to enhance in-depth coverage level of 4G network and improved network quality, particularly in data traffic-intensive and voice-intensive zones such as high-speed trains, expressways, colleges and universities, high-density residential areas, high data traffic commercial

areas and subways by applying dynamic bandwidth expansion in our base stations on a monthly basis, thus providing a good experience to our customers. To achieve the full commercialisation of VoLTE service (calls based on 4G network), the Company further enhanced the fibre broadband coverage in urban cities and rural towns, and integrated customers' needs to actively deploy Thousand-Mbps fibre broadband network. The Company further reduced handset data tariff and achieved the target of reducing the average tariff of handset data by at least 20%. The Company actively carried out the "Upgrade Speed and Benefit Enterprises" activities and continued to reduce the standard tariff for Internet dedicated lines, and achieved the goals of reducing tariffs for dedicated lines for SMEs and broadband by 15% respectively.

Promoting universal services

The Company continuously promotes the construction of communication networks in rural areas. The Company has set up local services points for rural villages adapting to local conditions and proactively promoted informatisation applications and e-commerce development in rural areas to promote the prosperity of rural villages. The Company vigorously carries out network poverty alleviation by accelerating the promotion of universal service projects in remote and impoverished villages and improving the broadband access coverage in those areas. During the year, the fourth batch of universal services and the construction of around 4,500 4G base stations were completed ahead of schedule. In the parent company's targeted counties for poverty alleviation, namely Yanyuan and Muli Counties of Sichuan Province, Shufu County of Xinjiang Uygur Autonomous Region, Tianlin County of Guangxi Zhuang Autonomous Region, and in counties supported by the parent company, namely

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Banbar County of Tibet Autonomous Region and Jiuzhi County of Qinghai Province ("6 targeted counties for poverty alleviation and offer of support and assistance"), the Company achieved the coverage of fibre broadband and 4G network in all administrative villages ahead of schedule.

Maintaining network information security

The Company complies with the *Cybersecurity Law of the People's Republic of China* and other laws and regulatory requirements, conscientiously implements the requirements of the Ministry of Industry and Information Technology, Ministry of Public Security and other authorities on network and information security. We actively cooperate with government authorities, including to combat cybercrimes and decontaminate the cyberspace. In 2019, we separately established the Network and Information Security Management Department to further improve the network and information security management system by optimising the system mechanism, enhancing accountability and continuously improving the corporate network and information security capabilities. We also strengthened the daily monitoring

of network and information security, promoted technology and application research, enriched network and information security means, provided customers with a series of protection and services, such as anti-DDoS attack (distributed denial-of-service attacks), website security, domain name security and caller ID safety reminders, and actively discovered and intercepted adverse contents such as malicious links, malicious codes, fraud information and phishing websites transmitted through the network, striving to create and protect a clean cyberspace.

Assuring emergency communications

The Company is truly committed to the mission of providing safe and smooth communications assurance and is devoted to fight against a number of severe natural disasters such as earthquakes, typhoons, floods and landslides and to safeguard important events. In 2019, we successfully accomplished disaster relief and emergency telecommunications assurance for the forest fire in Liangshan Prefecture of Sichuan Province and Changzhi of Shanxi Province, the earthquake of 6.0 magnitude in Changning of Sichuan Province, the super typhoon named Lekima and the mudslide caused by torrential rain in



Telecommunication assurance for the 20th anniversary of Macau handover



Demonstration of 5G emergency telecommunication assurance

Wenchuan of Sichuan Province and Yanjin of Yunnan Province. We also successfully provided telecommunications assurance for important events including 70th anniversary of the Founding of the People's Republic of China, 20th Anniversary of Macao's Return to the Motherland, the 7th Military World Games, the Second China International Import Expo, the Second Belt and Road Summit, International Horticultural Exhibition 2019 Beijing China, Boao Forum for Asia, the Conference on Dialogue of Asian Civilisations and World Internet Conference. During the year, more than 69,000 personnel, 22,000 vehicles and 17,000 sets of emergency communication equipment were deployed for emergency communications.

IV. Providing heartfelt services to customers

China Telecom has a profound understanding of the customers' needs. While being dedicated to providing customers with various communication and information application businesses, the Company focuses on protecting customer rights, enhances the construction of service capability and promotes intelligent service, continuously improving service quality and service level.

Protecting the rights of customers in accordance with laws

The Company strictly conforms to the laws and regulations regarding consumer rights and interests such as *Law of the People's Republic of China on Protection of Consumer Rights and Interests* and *Advertising Law of the People's Republic of China*, dedicates to provide products and services in compliance with laws and regulations, performs compliance checks on advertisement campaigns and continuously standardises business tariff management. The Company listens to users' opinions

via channels like "Hotline 10000", online and physical stores, etc., and continuously carries out events such as "Customer Rights Day", "General Manager's Service Day" and "Listen to Hotline 10000".

The Company strictly complies with the *Cybersecurity Law of the People's Republic of China* and other laws and regulatory requirements, implements the relevant regulatory requirements of the government, continuously perfects the users' personal information protection management system, and strengthens the protection of users' personal information. In 2019, the Company thoroughly implemented the *Administrative Measures of China Telecom on Security Management of Personal Information of Users* and the *Administrative Measures of China Telecom on Information Security Management of Users* and other regulations and supervised enterprises at all levels to implement the division of responsibility on protection of users' personal information in order to ensure that business, operations and systems must thoroughly and unanimously protect information security. We pragmatically regulated behaviours of collecting, storing, transmitting, using and destroying user information and strictly controlled the authorisation permission rights for sales staff to access and edit customers account information in order to "collect information for a proper purpose, store and use the information properly, record the use of information, and investigate the abuse of power".

In response to customers' feedback on services, the Company actively promoted improvement and rectification. In 2019, the Company focused on the rectification of issues such as "complicated service packages which were difficult for the users to choose", "infringement of users' rights of marketing initiatives of value-added businesses", "harassment calls or spam messages which disturbed users" and "excessive collection and illegal use of users' personal information data", and

achieved remarkable results. Among which, the performance indicators such as the number of service packages for sale, the number of complaints on value-added businesses and the number of disputes involving unclear charges recorded a significant decrease compared to last year. Performance indicators such as the number of complaints of harassment calls and spam messages reported by Ministry of Industry and Information Technology as well as the rate of complaints by millions of users were at a relatively low level in the industry.

The Company strengthened the compliance management of collection and use of personal information for corporate APP. In 2019, we formulated a series of policies such as *the Rules for the Collection and Use of Personal Information for APPs of China Telecom and the Administrative Measures for the Compliance Management on the Collection and Use of Personal Information of APPs for our Customers*, which effectively improved the compliance level of the APPs in terms of standard specifications, implementation and execution, education and training, technical support and establishment of a long-term mechanism. We comprehensively identified and checked the Company's self-developed APPs and carried out risk assessment and problem rectification. The Company organised compliance management trainings on topics related to the collection and use of personal information of APPs, carried out random inspections on the APPs, conducted assessments on a rolling basis and shut down, suspended or switched unqualified APPs. We improved compliance management efficiency by strengthening the construction of corresponding technical support measures, establishing a compliance management platform for corporate APPs to collect and use personal information, conducting technical inspections on the authorisations to use and collect personal information and regulating the manners of the Company's self-developed APPs to obtain personal information.

Enhancing services capabilities

Insisting on the customer-oriented principle, the Company improved service shortcomings and enhanced service quality and customer experience. A customer experience evaluation mechanism that covers the users' multi-dimensional experiences such as long-term, comprehensive, specific and instant experiences has been established. In 2019, in respect of individual customers, we focused on the launch of 5G services which brought good perception to the users. Following the principle of "whether 5G is good or not, users have the final say", the Company organised and offered full-process and full-scenario customer experience and arranged interviews with those users. We highlighted the usage scenarios from the customers' perspective, benchmarked against leading practices, collected real experience perception from the users, quickly responded to customers' problems and gradually promoted problem solving so as to achieve persistent enhancement of 5G perception. In respect of household customers, the Company formulated and implemented the services standards for Smart Family applications and promoted the transformation from installation and maintenance services to the delivery of integrated solutions for household informatisation. Meanwhile, the Company carried out user satisfaction evaluation on the installation and maintenance of the Smart Family applications and achieved a satisfaction rate of above 90%. In respect of government and enterprise customers, the Company strengthened collaborative services of cloud-network integration and enhanced the timely installation rate and timely repair rate of business dedicated lines and end-to-end services for Wi-Fi networking, so as to enhance the self-service capability.

The Company continuously enhanced its intelligent service capability through using AI (artificial intelligence). We continuously developed "Smart Hotline 10000" using artificial intelligence and Big Data

technologies, deepened the operation of artificial intelligence and increased the proportion of intelligent interactive services. In 2019, the “Smart Hotline 10000” customer service centres in 31 provinces achieved artificial intelligence interactions, and the intelligent voice navigation services accounted for 40% with a satisfaction rate of over 90%. The project of “unify empowerment with artificial intelligence technology and comprehensively improve the corporate services capabilities” was awarded “1st Class Achievement for Innovation in the Modernisation of Corporate Management in the Communication Industry” (16th Session) by China Association of Communication Enterprises. The Company strengthened the new media customer service capabilities, and the scale and service volume of new media users continued to increase. China Telecom’s customer service public accounts at Weibo and WeChat were awarded the “2019 Most Influential Second-tier New Media Account of State-owned Enterprises” by the news centre of the State-owned Assets Supervision and Administration Commission of the State Council.

According to the assessment conducted by the Ministry of Industry and Information Technology, in 2019, the rates of overall user satisfaction and the user satisfaction with the Company’s handset Internet access continued to maintain a leading position in the industry.

V. Caring for employees

China Telecom safeguards the interests of its employees in accordance with laws, attaches great importance to building harmonious labour relations, supports labour unions in carrying out their functions, encourages employees to participate in the management and actively helps employees to improve their capabilities, so that the Company and the employees can grow together.

Safeguarding the rights of employees in compliance with laws

The Company strictly complies with and implements the relevant laws and regulations regarding labour and protection of the employees’ rights and interests including *the Labour Law of the People’s Republic of China*, *the Labour Contract Law of the People’s Republic of China* and *the Trade Union Law of the People’s Republic of China*, and protects the rights and interests of employees with respect to labour rights, democracy rights and spiritual culture rights in accordance with the laws. The Company strictly implements *the Notice on Standardisation of Labour Management in Strict Compliance with the Labour Contract Law of the People’s Republic of China*, improves labour management, and conducts workforce employment in accordance with laws and regulations. The Company also ensures that all contract employees have their labour contracts



Caring for employees through various measures to stimulate employees’ vitality

signed and their remunerations and social security insurances paid in full and in a timely manner. The Company continually implements *the Notice on Issues concerning Labour Dispatch Management*, improves the business operation models and job role classification, clearly determines the employment form of each role, standardises the designated agreements signed with agency workers, checks and supervises these dispatch units and dispatch workers to sign employment contracts, and pays remuneration and social security insurances in a timely manner in order to protect the rights and interests of contract or agency workers. The Company adheres to principles of gender equality and equal pay for equal work, protects the privacy of employees in accordance with laws and implements the paid annual leave system. The Company prohibits child labour and forced labour in accordance with laws. In 2019, no child labour or forced labour was found. The Company supports the labour unions in carrying out their functions in accordance with laws, encourages employee participation in management and continuously establishes stable and harmonious relationship with the employees.

Promoting employees' development

The Company strengthens the development of the high-level professional teams. In 2019, we implemented the *High-Level Professional Talent Management Measures* and enhanced the development of the professional teams. The Company implemented the "Hundred, Thousand and Ten Thousand Professional Talents Project", appointed 1 China Telecom Scientist, 8 Chief Experts and more than 800 Senior Experts and promoted the building of the expert teams at provincial level companies in an orderly manner. The high-level professional talents tier of the Company has been preliminarily formed. We increased our efforts in cultivating our talents at

different levels and grades and carried out the training programs for high-end transformation talents named "Spark Programme" and "Prairie Fire Programme" in order to accelerate the cultivation of professional leading talents in the fields of 5G, cloud computing and Big Data. We also organised and carried out the professional knowledge update projects. The Company optimised its talent pool by recruiting fresh graduates and strengthened the cultivation of young technical talents. We innovated the mechanism for retaining and cultivating outstanding talents and provided opportunities for talents to pursue their career goals by adopting mechanisms such as talent special zone, talent workstation and "talent cloud" platform to support the Company's key projects, offering a platform for talents to develop their potential.

The Company strengthens employees' training. The Company fully exerted the online and offline training capabilities of China Telecom College and China Telecom Online College and developed training courses focusing on enhancing abilities for various job levels and skills for all positions. In 2019, we focused on the Company's key tasks such as cloud-network integration reform, business development of Smart Family applications, capabilities enhancement of Unit CEOs and targeted poverty alleviation. We achieved remarkable results with efforts to conduct various professional trainings online or offline where theories and practical applications are organically integrated. During the year, more than 700 internal trainers at the Company level and more than 400 internal trainers on probation at the Company level were recruited or re-appointed and more than 260,000 hours of lectures were delivered by the internal trainers at all levels. Our Online College continued to build a smart learning platform to accurately empower frontline employees. More than 130,000 people studied in the Online College and the average learning time per employee exceeded 18 hours.

The Company actively promotes skills and value enhancement of employees. In 2019, the Company revised the *China Telecom Employees' Honour System* to extensively enhance the honour incentives for our employees in diverse positions. The Company continuously deepened the featured reform model of three dimensional inter-driven forces comprising "sub-division of performance evaluation units, professional operation and top-down support", strengthened the integrated support for sub-dividing performance evaluation units and supported their business development. The Company strengthened the incentives to Unit CEOs and employees from various angles such as remuneration, career development, training and honours and encouraged them to fully develop their enthusiasm and skills and continuously improve their performance and personal values. We implemented the *Administrative Measures of China Telecom on Skills Competition* and other measures, continued to hold various types of work competitions, skills competitions and knowledge contests, fully mobilised the function of innovation workshops, guided the staff to improve their capabilities and quality and encouraged them to strive for innovations in their daily job. During the year, more than 26,000 innovation results or cases were recorded, and over 2,500 results were recognised and promoted. More than 200 employees were awarded the title of "Technical/Labour Master of the Group" and more than 1,500 employees were awarded the title of "Technical/Labour Pacesetter of the Group". By the end of 2019, a total of over 1,300 staff innovation workshops were built.

Enhancing production safety and health and safety management

The Company conscientiously and strictly implements the *Work Safety Law of the People's Republic of China*, fully fulfills the core responsibilities for corporate safety production, develops sound accountability systems, implements safety responsibilities at all levels, strictly implements safety production assessment and punishment system and continually solidifies the foundation of safety production management. The Company continually carries out supervision and assessment on the safety production of the professional categories and units, so as to timely eliminate hazards. The Company widely promotes publicity and education of relevant laws and regulations, internal policies and rules on production safety and persistently increases the employees' awareness on safety and emergency prevention techniques. The Company strengthened the safety management of engineering projects, strictly implemented licences obtaining system for special operation employees, perfected the accidents emergency drill and strengthened emergency drills. In 2019, there was no occurrence of severe work-related casualties and accidents.

The Company attaches great importance to occupational health and safety management and formulated the *Interim Provisions on "Simultaneous Execution of Three Aspects" of Occupational Safety, Hygiene Facilities and Main Construction Projects* and the *Interim Provisions on Personal Protective Equipment for Employees*, organising supervision and inspections on the work sites of our employees, supervising the design and installation units to design and install in accordance with the standards including for indoor lighting, noise, temperature and humidity and continuously improving the workplace environment and work conditions, thus effectively eliminating the occurrences of occupational illness. The Company conducts on-site inspections from time to time, urged units to allocate necessary protective equipment for workers in accordance with the relevant requirements and standards and supervised workers to wear and use the protective equipment properly. Every year, the Company provides free medical examinations for all employees and ensures the coverage ratio of medical examinations reaches 100%. The Company continuously conducts counselling activities concerning mental health of the employees and assistance work, and proactively helps the employees reduce their stress and pressures.

Caring for employees' well-being

The Company perfects the closed-loop management mechanism from gathering, analysing, processing and giving feedback to understand employees' needs and establishes communication channels such as seminars, surveys, visiting employees' family, frontline visits, face-to-face communication, reception visits, handling incoming mail or email, striving to enhance communication and to thoroughly

understand the thoughts, working and living conditions of employees as well as the hot topics and problems that the employees most care about. Enterprises at all levels actively helped the employees solve practical problems or difficulties through regularising visits, responding to hot issues, helping employees in need and other measures. We provided convenient services to employees and strengthened our care for outstanding model workers, young employees and outsourced employees. Over 15,000 employees who lived in hardship were helped during the year. The Company also provided sympathy allowances to 14 provincial companies in Sichuan, Zhejiang, and etc. which suffered from natural disasters such as earthquakes, typhoons and floods. The sympathy allowances were given to those affected families and frontline employees who helped with telecommunication recovery. The Company continually built and promoted "Four-Small", namely small canteens, small bathrooms, small washrooms and small activity rooms, in order to actively improve the dining and office environment of employees. During the year, the Company built more than 1,600 "Four-Small", operated, refurbished and maintained more than 4,400 "Four-Small". We also constructed oxygen supply facilities in the grass-root units at an elevation of 3,500 meters or above in five provinces or autonomous regions, i.e. Tibet, Qinghai, Sichuan, Gansu and Xinjiang. The Company organised the collection and selection of outstanding case studies for caring employees. Around 2,000 outstanding case studies were collected, of which 46 outstanding case studies were recognised and promoted. The Company continually built infant rooms according to the special needs of female employees, organised cultural and sports activities in which the employees were interested, assisting employees in achieving work-life balance and increasing their well-being.

VI. Practicing green development

China Telecom complies with the *Environmental Protection Law of the People's Republic of China*, the *Energy Conservation Law of the People's Republic of China* and other laws and regulations related to environmental protection, practises the concept of green development and proactively devotes itself to the establishment of ecological civilisation. The Company endeavours to build a green network, pushes forward green operation, sets up environmental indicators, analyses and releases collected performance data on a regular basis, proactively communicates with the society of its environmental protection actions and effectiveness and willingly opens itself to public scrutiny. In September 2019, the Company participated in the initiatives for tackling climate change led by GSM Association (GSMA). The Company is committed to actively disclosing energy and greenhouse gas (GHG) emissions and proactively saving energy and reducing emissions. There was no violation of environmental protection laws and regulations as well as no incident having a material impact on the environment caused by the Company during the year.

Promoting energy conservation and emission reduction

The Company implemented measures such as the *Administrative Measures of China Telecom on Energy Conservation and Emission Reduction*. With "dual control" on total energy consumption and energy consumption intensity as the basic requirement, through means like rules and regulations, work plans, communication and trainings, assessment and evaluation, energy saving promotion etc., the Company applies energy conservation and emission reduction requirements to link through various operational activities such as procurement, construction,

operation and office administration. The Company strengthened its efforts in monitoring measurements on energy consumption, promoted the upgrade, transformation and withdrawal of old and high energy-consuming equipment, insisted on preferring the use of energy-efficient and environmental-friendly technology and equipment, actively applied energy-saving technologies in the facilities of machine rooms and base stations, extended the coverage of the energy-saving technological application for fundamental ancillary facilities, and promoted innovation of management of energy conservation and emission reduction. The Company endeavours to reduce energy consumptions of all kinds as well as greenhouse gas emission.

In 2019, the Company compiled an energy saving rolling plan in relation to energy conservation and emission reduction for the next three years in the future in order to clearly define the goals and key measures of "dual control" on total energy consumption and energy consumption intensity and to strengthen the coordination and implementation of the work on energy conservation and emission reduction. We continued to optimise network structure and network resources and promoted the orderly elimination of inefficient equipment and the withdrawal of old equipment. We also intensified the promotion of sub-dividing performance evaluation units for energy consumptions and specified the persons in charge of grid electricity tariff management in accordance with the work requirements of "whoever manages the machine rooms, network and specialisations will be in charge of the electricity management" to further enhance the effectiveness of energy-saving management. The Company actively implemented and promoted new technologies of energy saving and emission reduction for facilities and equipment such as Internet data centre and air conditioners

in machine rooms. The Company continued to utilise the contractual energy management model and actively introduced social capital and technologies to carry out the reform of energy conservation and emission reduction. In 2019, the unit energy consumption per information flow was 4.91 kgce/TB, representing a decrease of 16.9% over last year. Due to the expansion of mobile network scale, the construction of 5G networks, and the rapid growth of cloud and IDC services, etc., total electricity consumption and overall energy consumption in 2019 increased by 14.1% and 11.3% over last year, respectively.

Conservation of natural resources

The Company promotes water conservation, strives to reduce water consumption per unit operating revenue, actively promotes and advocates water conservation by posting reminders regarding water conservation near water facilities and appliances. The Company continually strengthens the management on water usage, carries out sewage disposal and treatment, promotes the reuse of water, actively uses reclaimed water as an alternative source of water in place of tap water while meeting the requirements on use of water, promotes and popularise the use of water-saving appliances and performs regular checks and repairs on each part of the water supply system to prevent occurrences of water leakage and water wastage. In 2019, the total water consumption decreased by 1.22 million tons over last year, representing a decrease of 2.8% compared to last year while the water consumption per unit operating revenue decreased by 2.5% over last year.

The Company encourages paper saving by actively promoting reduction of paper use in operation and office facilities sites. The Company promotes measurements

on its paper use. The amount of paper used in 2019 was approximately 5,000 tons. The Company, from the perspectives of technology and regulations, actively encourages paper saving and reduces paper use. In 2019, we continually promoted electronic accounting files management, VAT electronic invoice, electronic bills and paperless operation, successfully launched a pilot system for e-reimbursement and filing of e-invoice and promoted automatic process of tax declaration in order to reduce the use of paper.

The Company enhances the recycling, disposal and utilisation of waste and used materials in order to conserve resources as much as possible and reduce environmental pollution. The Company strictly follows *the Law on the Prevention and Control of Environment Pollution Caused by Solid Wastes of the People's Republic of China* and other laws and regulations regarding waste disposal and utilisation and carries out waste disposal in accordance with regulatory requirements. The Company implemented the *Administrative Measures of China Telecom on Reverse Logistics and the Administrative Measures of China Telecom on Waste and Idle Recycling and Disposal*, specified the guidelines, division of responsibilities and management of the recycling and disposal of waste materials and the qualifications of recyclers, standardised the forms and procedures of disposal, and refined the approval authority and process of disposal decisions to effectively prevent disposal risks. The Company formulated the incentive policy for cleaning up idle materials which specified the incentive standards, and encouraged all levels of enterprises to actively dispose, recycle and utilise the waste and used materials based on actual circumstances and relevant regulatory requirements. In 2019, the Company continually enhanced the professional management of waste, promoted the recycling, utilisation and harmless disposal

of such waste and old materials such as batteries, copper cable and devices. Since traditional lead-acid batteries contain large amounts of heavy metal, waste acid, waste alkali and other electrolyte solutions, the batteries will pollute the environment if handled inappropriately. The Company, on the one hand, conducted overall on-site inspection of environmental protection practices of the battery supplier, and continually purchased green and energy-saving products such as lithium iron phosphate batteries; and on the other hand, the Company established a management system for battery recycling and disposal to prevent pollution to the environment. The Company arranged waste copper cables generated from the “Fibre Roll-out” campaign to third parties for recycling and disposal. The Company implemented wireline terminals closed-loop management and strengthened the recycling and reuse of equipment through measures such as refurbishment and cross provincial re-allocation, etc. Waste and used materials without recoverable value were properly disposed of in strict accordance with national regulations after taking full account of the environmental impact. In 2019, the Company recycled and disposed of various types of waste and used materials over 100,000 tons.

Emphasising environmental protection in engineering construction

The Company has taken proactive environmental protection measures regarding issues in telecommunications engineering construction responding to concerns of the government and the public, such as farmland protection, equipment pollution, construction impact and electromagnetic radiation to ensure compliance with the government’s regulatory requirements and to actively communicate with the public.

In the area of farmland protection, the existing residence and barren land will be preferred in site selection for base stations, in order to minimise the occupation of additional farmland as much as possible.

In the area of equipment pollution, non-polluting equipment with no noise and no electromagnetic radiation and free of pollutants is preferred.

In the area of construction impact, areas such as mineral reserves, forest, grasslands, wildlife habitats, natural and cultural relics, natural reserves and scenery areas are intentionally avoided when conducting routing roll-out deployment for fibre cables, so as to avoid changing the surrounding environment as much as possible.

In the area of electromagnetic radiation, the Company monitors and assesses the electromagnetic radiation around the base station, enhances communication with the community, opens itself to public scrutiny, strictly controls the quality of network equipment by imposing controls from the source and actively takes advanced technical means to refine the layout of base station, ensuring the emission standard is stricter than the national emission standards.

Promoting co-building and co-sharing of communication infrastructure

The Company earnestly implemented the implementation measures of promotion of co-building and co-sharing of telecommunications infrastructure promulgated by the Ministry of Industry and Information Technology and the State-owned Assets Supervision and Administration Commission of the State Council. We closely worked with other

telecommunications operators and China Tower Corporation Limited and actively promoted the co-building and co-sharing of communication infrastructures such as base stations, channels and pole lines, to effectively reduce repeated construction in order to protect the natural environment and landscape, and to reduce the land use, energy, and raw materials consumption. In 2019, the Company provided more than 23,000 kilometres of co-shared pole line, more than 1,300 kilometres of co-shared pipeline, and more than 700 sets of shared indoor distribution system.

VII. Promoting responsible supply chain

The Company strictly follows the *Bidding Law of the People's Republic of China* and procurement-related laws and regulations, implemented regulations such as the *Administrative Measures of China Telecom on Procurement*, consistently adhered to supply chain management concepts focusing on value-added, transparent and green procurement, committed to a trusted relationship with suppliers to achieve win-win situations and actively communicated with and encouraged its suppliers to fulfill social responsibilities

together. In 2019, under the organisation of the Committee of Corporate Social Responsibility of China Association of Communications Enterprises, the Company participated in the drafting of the industry standard of the *Social Responsibility Evaluation System of China Information and Communication Industry Enterprises* to encourage the information and communication industry to proactively fulfill their social responsibilities.

Regarding value-added procurement, the Company implemented the requirements such as the *Administrative Measures of China Telecom on Quality of the Purchased Materials* and the *Administrative Measures of China Telecom on Inspection for the Quality of the Purchased Materials* in 2019 in order to improve the mechanism for selecting and reviewing suppliers including pre-purchase inspections by reviewing suppliers' qualifications, conducting site visits and product evaluation reviews, and post-purchase inspections by testing the quality of the products upon arrival, quality checks, post-purchase review of suppliers and day-to-day evaluation. The Company continuously enhanced the application of procurement data from quality inspection and evaluation of suppliers in procurement evaluation so as to encourage the suppliers to improve their services and performance.

Regarding transparent procurement, in 2019 the Company strictly complied with requirements of regulations such as the *Administrative Measures of China Telecom on the Procurement Bidding and Tendering*, the newly revised *Administrative Measures of China Telecom on Tendering Agency* and *Administrative Measures of China Telecom on Tender Evaluation Expert and the Pool of Tender Evaluation Experts*, and the newly formulated *Regulations on the Participation of Suppliers in Procurement Activities of China Telecom*, and constantly promotes open bidding and transparent procurement. The Company ensured bidding process for 100% of the projects which it ought to have used bidding process for as required by law, encouraged bidding on a consolidated basis of small value projects and bidding with pre-qualification on service projects and carried out regular supervision and inspections. Public procurement rate and public bidding rate were further improved. The Company has established an information sharing mechanism of reported non-compliant and dishonest suppliers with major domestic operators so as to promote cooperation with suppliers in good faith.

Regarding green procurement, the Company actively encourages the supply chain to jointly respond to climate change, constantly promotes the application of green procurement indicators in the procurement process and preferentially purchases resource saving and environmentally friendly products. In 2019, we included environmental impact factors into the procurement evaluation and adopted environmental assessment standards such as ISO14000 Environmental Management System Certification, Environmental Impact Assessment Report issued by the government and the "Green Factory" list of the Ministry of Industry and Information Technology, so as to identify and control the products that may pose environmental risks during the production process and encourage suppliers to enhance their awareness and capability of environmental protection. Energy efficient power modules purchased in 2019 accounted for almost 100% of all the direct current power modules purchased and the unit energy consumption of the key professionally procured equipment such as mobile devices and air conditioners in machine rooms was 4% lower than that in 2018.

VIII. Participation in social welfare activities

The Company participates in social welfare activities. We implement the *Welfare Donations Law of the People's Republic of China* and other laws and regulations and the *Administrative Measures on Donation of China Telecom Group* under the principles of "voluntariness, clear responsibility, action within capabilities, honesty and trustworthiness", support the development of technology, education, culture, sports and health care through various ways, and actively help the vulnerable, disabled and disadvantaged. The Company encourages its employees to carry forward the spirit of volunteerism, and actively participates in volunteering activities of different kinds.

The Company deepened its engagement in poverty alleviation and support in targeted areas. Out of the parent company's 6 targeted counties for poverty alleviation and offer of support and assistance, five of them are located in deeply impoverished areas in "three districts and three prefectures", which increased the difficulties in poverty alleviation due to the severe difficulty

in natural conditions in these areas. The Company fully cooperated with the parent company to assign the cadre team to carry out poverty alleviation work in the 6 counties. The Company conducted poverty alleviation through projects focusing on network, informatisation, industry, employment, intelligence, social welfare and consumption in order to improve the living conditions in these areas, develop the economy and help local residents to alleviate poverty and increase income. During the year, the Company assisted in introducing more than RMB70 million worth of industrial investment, trained more than 6,000 grass-root cadres and technicians and directly purchased and helped to sell agricultural and sideline products amounting to nearly RMB100 million in poverty-stricken counties, achieving remarkable success in poverty alleviation. In addition, in 132 counties and 1,204 villages in some other provinces (autonomous regions and municipalities), the Company also cooperated with the parent company to assign full-time and part-time poverty alleviation cadres to thoroughly implement measures for poverty alleviation to help local people to combat and overcome poverty.



Young volunteers of Jiangxi Telecom participated in social service to care for left-behind children and elders

The Company actively alleviates poverty by leveraging on our competitive edges in network and informatisation so as to accelerate the development in less developed areas. While implementing telecommunications universal service projects, the Company offered discount packages for poverty alleviation through its 35,000 offline stores to help the deeply impoverished regions to accelerate the pace of poverty alleviation. The Company continually promotes the application of the Big Data Management platform for targeted poverty alleviation to all regions which makes it possible for the poverty alleviation administration authority to precisely manage at village, household and individual levels and to facilitate the measurement implementation. By the end of 2019, the Big Data poverty alleviation management platform was deployed to more than 1,030 counties in 16 provinces (autonomous

regions, municipalities), benefiting more than 39 million registered population living in poverty. The Company fully supported the construction of information platform in relation to the “Learning Mandarin at Preschools Stage” initiative of the State Council Leading Group Office of Poverty Alleviation and Development. The pilot project in Liangshan Yi Autonomous Prefecture in Sichuan Province was awarded the *2019 National Poverty Alleviation Organisation and Innovation Award*. We continued to support information system for poverty alleviation developed by the State Council Leading Group Office of Poverty Alleviation and Development and provided technical support to China Social Poverty Alleviation Websites to help the development of poverty alleviation activities. The Company continually promotes farmer cooperatives and assists the economy development in rural areas based on their actual needs.



Facilitated communications services in remote areas

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Human Resources Development Report

In 2019, our work on human resources has closely surrounded on the Company's requirements for high-quality development. We coordinated and promoted the optimisation of leadership structure, team building and the development of human resources mechanism, strengthened fundamental management and implemented the project of "Strengthening the Enterprise through Talents" in order to continuously improve human resources efficiency and provide sound organisational assurance and support for our talents for the corporate's sustainable and healthy development.

Strengthen senior management and executive team building

Combining the adjustment of leadership structure, we continued to promote younger cadre team and optimise the leadership structure of our provincial and prefecture-level branches. Through methods including selection and recruitment, job exchange programme and rotation, as well as succession and retirement, we adjusted our executive teams among headquarter departments, provincial branches, professional units and branch offices. A group of well-recognised cadres with superb qualities, distinguished capabilities and outstanding performance were selected and appointed to important management positions, hence the professional and age structure of our management teams became more reasonable. We increased our efforts on training excellent young cadres and development of excellent young cadres nurturing management system, established a database of excellent young cadres talents with unified management, hierarchical implementation and dynamic adjustment and strengthened the assessment, supervision and dynamic management of outstanding young cadres, so as to provide management talents assurance for the corporate's sustainable and healthy development.

Strengthen the supervision and guidance on staff selection and appointment

Adhering to the problem-oriented approach, we formulated a special rectification plan for staff selection and appointment issues identified in the special inspections and carried out in-depth rectification. We embedded special inspections of staff selections and appointments into the corporate's internal review. Specific measures were deployed, promoted, given feedbacks and implemented simultaneously with the internal review, so as to urge all units to rectify selection and appointment issues. Through such continuously deepened rectification, the Company further standardised the work on staff selections and appointments, improved the quality of staff selections and appointments, and created a better employment environment.

Continuously promote and implement the "Strengthening the Enterprise through Talents" project

The Company implemented the "Hundred, Thousand and Ten Thousand Professional Talent Project" and internally selected 1 China Telecom Scientist, 8 China Telecom Chief Experts and more than 800 senior technical and marketing experts. The pilot "Talent Zone" reform programme was conducted in the cloud computing branch of the Company. For the key research and development teams with independent core capabilities, we implemented a number of specific mechanisms for the "Talent Zone", such as team management, project classification, project assessment, incentive

scheme and incentive management. The Company further optimised system of professional workstations and implemented a mechanism of "Selecting the Superior and Eliminating the Inferior" for the workstation projects. The Company also established a pilot unified "talent cloud" platform, explored the "cloudification" mechanism of talent management and developed a single "system + data + mechanism" solution, achieving the labelling of talent expertise, the Internet-based evaluation and utilisation of talents, the marketisation of incentives and the customisation of training. The Company also achieved the precise management of talents through cross-border connection and modelling analysis of various types of talents and work information through systems and data.

Further strengthen human resources management and data foundation

In 2019, the Company continued to enhance the development of centralised human resources system and support key businesses and applications such as individual tax declaration and allocation of share appreciation rights. Meanwhile, the Company carried out core data governance for improving data completeness and accuracy and supported human resources operation analysis for providing support to the management for decision-making.

In 2019, the Company continued to promote intelligent human resources projects, focused on the positions of Smart Family engineers. The Company promoted the intelligentisation applications in all provinces in the aspects of precise portraits, position analysis, remuneration incentives, precise empowerment, matching of candidates and positions and appraising leading and outstanding employees as well as promoting the transformation of frontline installation and maintenance personnel to Smart Family engineers, which supported the development of key businesses of the Company.

Information of Employees

As at the end of 2019, the Group had 281,215 employees. The number of employees working under each classification and their respective proportions were as follows:

	Number of Employees	Percentage
Management, Finance and Administration	46,521	16.5%
Sales and Marketing	135,797	48.3%
Operations and Maintenance	87,943	31.3%
Research and Development	10,954	3.9%
Total	281,215	100.0%

Relationship between the Company and Employees

Corporate Democratic Management

The Company held the employee representative training class for year 2019, which further improved the performance capacities of employee representatives. The Company organised and convened the third meeting of the first session of the employee representative congress during which the Company selected and recognised 10 outstanding proposals, further promoting the corporate democratic management. Labour unions at all levels have standardised and implemented the rules of procedures of the employee representative congress and the system for collecting and handling proposals. All provincial companies have convened employee representative congresses to ensure the orderly participation of employee representatives in corporate governance.

Labour unions at all levels insisted on in-depth investigations of frontline employees' conditions and understood the thoughts, work status and living conditions of employees through methods such as attending forums, conducting visits and questionnaires, so as to report the thoughts and opinions of all the employees to the management of entities at all levels in a timely manner.

Competitions and Honours

Focusing on the key and difficult tasks in operation and production surrounding the promotion of the corporate's high-quality development, the labour unions together with the business departments jointly organised more than 10 company-level competitions including labour competition for concurrent enhancement of the quality of mobile and fibre networks as well as skills competition for cloud-network integration business support, which effectively promoted business development.

The Company received a total of 285 external honours in comprehensive and specific categories at national, provincial and ministerial levels, including 29 national honours and 256 provincial and ministerial honours. The number of honours reached a historical high again. The Company organised the "May 1st" recognition seminar during which the management of the Company met and discussed with the representatives of outstanding model employees. "May 1st" recognition seminars as a brand of the labour union brand had been held for seven consecutive years, which served as a motivation for all the employees of China Telecom to revere and learn from outstanding model employees, to love their jobs and work hard targeting being the first-class employees.

Innovation Workshops

The labour union of the Company conducted research on innovation workshops. The Company has established more than 1,300 innovation workshops for a number of varieties at all levels and achieved 14,500 innovation results. The Company also applied for more than 670 utility model patents and more than 240 invention patents. The Company started to select several outstanding innovation workshops at company level and planned to identify outstanding innovation results for replication and promotion throughout the Company. There were 4 innovation workshops named as the “Outstanding Innovation Workshops for the Model Workers and Craftsman” by the China National Defense, Postal and Telecommunications Labour Union.

Caring for Employees

Investing a total of RMB290 million in the development of “Four-Small”, namely small canteens, small bathrooms, small washrooms and small activity rooms, the Company built more than 1,600 “Four-Small”, and operated, refurbished and maintained more than 4,400 established “Four-Small”. The Company allocated RMB22 million for the construction of oxygen supply facilities for the grassroots units at an elevation of 3,500 meters or above in five provinces,

i.e. Tibet, Qinghai, Sichuan, Gansu and Xinjiang. The Company organised the collection and selection of outstanding cases of caring for employees. Around 2,000 outstanding cases were collected, of which 46 outstanding cases were selected for recognition and promotion. Labour unions at provincial level implemented over 250 initiatives for caring for employees including the improvement of the dining and office environment of employees and the respective caring for young employees and outsourced employees.

On the New Year’s Day, the Lunar New Year’s Eve and during Lunar New Year holidays, the management of the Company led several teams to visit retired employees and employees who lived in hardship and poverty and extended their sympathy regards to model workers, outstanding employees and frontline production employees of grassroots units in 12 provinces such as Yunnan. Labour unions of the Company distributed BestPay red packets to more than 30,000 employees who responsibly worked during the Chinese New Year and provided sympathy allowances to employees in 14 provinces such as Sichuan and Zhejiang which suffered from natural disasters. Prior to the National Day Holiday, the labour unions at all levels visited, among others, retired employees and model workers, and carried out a wide range of sympathy and greetings activities such as the “Five Must-Visit and Five Must-Greet”.

Labour unions at all levels promoted the construction of infant rooms, held more than 500 lectures on topics such as pregnancy and parenting and carried out more than 3,800 activities for female employees on International Women's Day. The labour unions selected outstanding articles in the fourth session of the "Scholar Family" reading activities and launched reading activities with the theme of "Reviewing Classics and Understanding China" through e-Surfing Reading. The labour unions cooperated with the Channel and Business Expansion Department to carry out "Elite Female" selection activities in which 100 outstanding store managers and channel managers were recognised.

The labour union of the Company held the 2019 "e-Surfing Cup" employee badminton match. The labour unions at all levels organised around 4,200 badminton activities in which nearly 200,000 person-times participated. Meanwhile, the Company actively teamed up to participate in various competitions organised by the Communication Sports Association and achieved excellent results.

Strengthening Human Capital

Supporting National Key Training Programme

In 2019, China Telecom actively undertook and participated in the national professional knowledge update projects for professional and technical talents. In June 2019, China Telecom held the knowledge update project seminar of the Ministry of Human Resources and Social Sciences – "National Advanced Training Class on e-Surfing Cloud Technology". Over 70 experts and technicians participants from national ministries and commissions, telecom operators, equipment manufacturers, universities and research institutes attended the seminar.

Efficient Operations of Online College

In 2019, China Telecom Online College launched the “China Telecom Smart Learning Platform” which comprehensively enhanced the Company’s training education and the intellectualisation of operational standard in training closed-loop management. Through the application of “China Telecom Smart Learning Platform” and “Dual Hundred Learning Circle”, the Company gradually achieved real-time push of key learning projects and precise deliveries of tailor-made training courses for employees of different positions. The Company also launched the “Sharing Class” platform to display courses, qualification of teachers and cases, which supported the sharing of quality training resources across the Company. Through the underlying structure, the content broadcasting capability and data file capability of online universities were fully open to support the localised application of intelligent human resources and business systems of provincial companies, which facilitated the intellectualisation of management and operation of talents training lines.

In 2019, China Telecom Online College had cumulatively supported more than 41,000 face-to-face training classes for which 1.33 million attendances were recorded. We had added over 8,800 online learning resources of various types, recorded 2.439 million learning hours and had a total of 132,000 learners. We also organised and held more than 910 online training classes for which 620,000 attendances were recorded.

Focusing on key business areas, China Telecom Online College organised various online learning activities such as gamified quizzes and special zone learning on topics including Big Data, cloudification, Smart Family and 5G, for which 1.04 million attendances were recorded. We provided WeChat precise push services targeted to group such as Smart Family personnel, new employees and cloudification personnel every week, which covered 1.8 million person-times.

Building up the Internal Training Team

The relevant professional departments of the Company completed the process of putting internal trainers on probation onto the permanent payroll and the re-appointment assessment of the internal trainers at company level who were recruited during the years from 2015 to 2018 as well as the recommendation of the internal trainers for the year 2019 at company level. In 2019, the Company recruited and re-appointed 34 internal trainers at company level under special recruitment, 678 internal trainers at company level and 406 probationary internal trainers at company level. 110 outstanding internal trainers and training administrators of the Company attended the 11th annual meeting held by the Company for training of internal trainers at the company level with the theme of "Spring is Back and Swallows Return".

Cultivating Professional Talents

We conducted large-scale talent trainings at different levels and grades. In 2019, we completed the first phase of the "Spark Programme" for the cultivation and transformation of professional and high-level talents in three professional fields including 5G, cloud computing and Big

Data and also commenced the second phase in December 2019. Meanwhile, to further promote the cultivation of the trainers and the nurturing model of the "Spark Programme", the Company organised six training sessions under the "Prairie Fire Programme" and a total of 549 people attended the training sessions.

In response to the needs of enterprise transformation and led by the "Strengthening the Enterprise through Talents" project, China Telecom actively promoted the knowledge update projects for professionals in its subordinate units. In 2019, the Company organised a total of 23 training sessions for backbone professionals at company level and 1,100 people attended the training courses, which effectively enhanced the professional capabilities of the backbone experts professionals.

Building Employees' Capacity

The first initiative of the Company is to promote the collaborative development of cloud business with high efficiency and synergy. Focusing on the "Cloudification" Project of the Company, we established a working team covering cross-department, cross-professional and cross-regional for the Cloudification Empowerment Project. The Company conducted 40



Management exchanged ideas with frontline network maintenance technical staff



Management shook hands with frontline outstanding employees

practical training sessions on cloudification scenarios and empowered more than 3,000 backbone employees in marketing, operation and maintenance of cloud products. The Company also held 5 training sessions for internal trainers on cloud-network integration and nurtured 184 professional internal trainers for cloud-network integration. The Company set up a cloudification special zone on the Online College and created 107 sets of learning materials including comprehensive case studies and special courses to form a learning map, laying a foundation for the Company to continuously enhance the scale and effectiveness of the cloudification special zone.

The second initiative of the Company is to continuously empower and promote the development of Smart Family capabilities. The Company established a cross-department joint working group, set up a linkage mechanism, designed the training plan for Smart Family engineers and Smart Family service specialists and promoted the transformation and upgrade of installation, maintenance and sales teams. The Company conducted 3 training sessions for internal trainers of Smart Family scenario sales and 8 training sessions for internal trainers of Smart Family engineers where 450 internal trainers were trained through the scenario-based training model. We held and organised 5 sessions of training camps to enhance the backbone capabilities for the Smart Family local network business and a total of 300 Smart Family backbone professionals attended the training. The Company carried out the annual certification of Smart Family engineers. The Company also completed the construction of Smart Family learning zone on the Online College which served as a platform for the training, communication and experience sharing in relation to the Company's Smart Family products. A total of 68 online courses were launched and upgraded in 2019 and 115,600 attendances were recorded.

The third initiative of the Company is to comprehensively enhance the overall coverage capabilities of our "Unit CEO" programme. In 2019, the Company organised a large-scale rotation training of "Unit CEO" for the fifth consecutive year. The Company held 25 training sessions for "Unit CEO" with a total of 1,160 participants. The Company also conducted 108 joint training sessions in six major regions in China with a total of 5,263 participants. The Company's "Unit CEO" curriculum system recorded 690,000 learning hours. The proportion of self-developed courses in the training program for "Unit CEO" was further increased while the coverage of "Unit CEO" training was further expanded.

Cultivating and Attracting Outstanding Young Talents

We continuously enhanced the mechanism for recruitment, management, cultivation and evaluation of our trainees. We organised spring internships, summer internships, day-to-day internships and other activities to expand the channels to attract outstanding young talents for campus recruitment. We also continued to carry out the Company's top college graduates cultivation programme and organised corporate-level outstanding graduates demonstration classes. In 2019, the Company conducted two sessions of corporate-level outstanding graduates demonstration classes which a total of 207 outstanding young employee representatives attended.

Recruitment

The Company recruits fresh university graduates and mature talents from the society. We organised a unified platform, unified advertising and publicity and unified information sessions in key universities for recruiting fresh graduates. In 2019, the Company recruited more than 7,000 new graduates. We normally provide an induction training of one to two months to fresh graduates after they join the Company in order to help them understand our corporate strategy, culture and business. In 2019, the Company formulated a standardised plan for new employees' induction training. Meanwhile, the Company continued to deepen the promotion and application of "New Employee Tutoring Mechanism" which won the ATD Excellence in Practice Award throughout the Company and strived to achieve the goal of assigning tutors to new employees upon commencement of their employment who would coach the new employees throughout the whole on-boarding process. In 2019, while vigorously cultivating the operation experts and the professional tutor team of the tutoring project, the Company also created and issued a set of excellent case studies which provided the best visualised examples for the tutors tutoring. For the recruitment of mature talents from society, units at all levels organised induction trainings in accordance with their business development needs.

To provide opportunities for employees' career development, the Company developed a comprehensive dual promotion channel. Promotion is based on the principles of fairness, justice, openness and transparency. The Company fully respects employees' rights of choice, knowledge and scrutiny.

In the recruitment and promotion processes, the Company treats all candidates and employees equally regardless of factors such as gender, age and race.

The Company strictly abides by the national regulations relating to employees' working hours and implemented the *Regulations on Paid Annual Leave for Employees* promulgated by the State Council and formulated the relevant policies in relation to employees' vacations and rest periods.

The Company strictly abides by the laws and regulations such as the *Labour Law of the People's Republic of China* and the *Labour Contract Law of the People's Republic of China* to regulate its employment and dismissal practices. The Company adheres to offering equality of remuneration and work for male and female employees and implements special regulations to protect female employees' rights and interests. There were no discriminatory policies or regulations, nor had there been any circumstance whereby child labour or forced labour was employed. The Company strictly abides by relevant labour laws and regulations in China and constantly improves the relevant employee management systems. Taking into account the actual circumstances of the Company, we also formulated relevant administrative measures.

Remuneration and Performance Management

Remuneration

The Company implements the differentiated remuneration distribution system under which positions are used as the foundation of distribution and remuneration is closely related to performance and contribution and is in alignment with the characteristics of different positions. The remuneration system mainly consists of post salary, performance salary, allowances and subsidies, insurance benefits, etc.. Meanwhile, we proactively explore remuneration distribution methods that meet business characteristics of different units and the development needs of the Company. We also encourage each unit to proactively explore and establish the medium and long-term incentive mechanism based on the principle of risk sharing and benefit sharing. We adhere to being efficiency-oriented in internal distribution and continue to optimise the internal remuneration distribution system by strengthening the development of mechanisms and systems and focusing on the innovation of systems and mechanisms. The remuneration distribution continues to tilt towards backbone talents and frontline staff so as to encourage employees to work more in order to be rewarded more, which leads to a win-win positive interaction between employees and the Company and contributes to the steady improvement of the Company's operating results.

Persisting in the optimisation and perfection of labour costs resources allocation, we establish a market-oriented remuneration mechanism and adhere to the performance-oriented principle in order to strengthen the link between the remuneration and contribution of employees. The increase in their performance results in increase in remuneration and vice versa. We fully mobilise the enthusiasm and initiatives of development of various units, encouraging everyone to adhere to "high contribution, high yield" and "early development, early benefit".

Performance management

The Company has established a relatively comprehensive performance evaluation system for all of its employees. Branches at all levels have established employees' performance evaluation teams which are led by the respective general managers of the relevant branches and have formulated evaluation methods for deputies, functional departments, subordinate units and employees. The Company improves its employee evaluation and incentive mechanism and the related scrutiny and supervision system to ensure fair and reliable performance evaluation results. At the same time, we further optimise and improve the performance evaluation system and implement performance evaluation by categories of business units, deputies, mid-level cadres and employees at all levels, enhancing the specificity of the performance evaluation.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Afterword

Since the beginning of 2020, the outbreak of the novel coronavirus (COVID-19) epidemic impacted not only the society, production and daily lives, but also the business development and network construction of the Company. The Company took prompt actions and the management of the Company strengthened overall planning and leadership. Based on local conditions, entities at all levels implemented various epidemic prevention and control and organised various measures for resumption of work and production in accordance with relevant laws and regulations, proactively fulfilling corporate social responsibilities.

The Company devoted full efforts to provide telecommunications assurance in those areas which were severely affected by the epidemic. The Company immediately initiated epidemic prevention response mechanism, mobilised the Group's manpower and resources, allocated epidemic prevention supplies and focused on assisting emergency support work for severely-affected regions in Hubei and Wuhan. The Company's Hubei branch strived to provide telecommunications assurance for local governments and the medical and healthcare industry, ensured



Dedicated to telecommunication assurance work during the epidemic period



Ensured food and drinking water supply for frontline employees at Wuhan Leishenshan Hospital and other locations

the overall stable operation of the medical and healthcare dedicated network and cloud platforms across the province, and assured the smooth operation of 12345 and 120 hotlines. We quickly launched 5G communication for Wuhan Huoshenshan Hospital and Leishenshan Hospital, and promptly completed the entire-process delivery of the two hospitals' core systems. We rapidly completed the network coverage of newly-built hospitals in areas such as Huanggang and Xiaogan and successfully accomplished important assurance tasks such as the video connection between the

state leaders and hospitals in Wuhan as well as long distance telemedicine counselling for hospitals. In addition, the Company's Hubei branch strived to enhance network coverage through various means to cater for the network access needs of vast majority of returning students in rural areas, offering sound support for the continuity of education amid school suspension. We swiftly completed the bandwidth expansion of IPTV, cloud platforms and Internet data centre (IDC) in a timely manner and offered free services such as cloud conference, cloud office and cloud storage of course materials for education authorities, universities, teachers and students across the province.



Installed shield for employees at service counters and distributed personal protective equipment to employees

We enhanced employee care and strived to protect the health and safety and wellbeing of our employees. The Company set up a working team for employee care and provided guidance for entities at all levels to strengthen employee care for frontline employees and employees of specific groups. We also raised sympathy allowance through multiple channels to resolve the difficulties faced by employees in key regions of epidemic outbreak, and allocated and arranged specific funds for condolence related to the epidemic. We actively coordinated our efforts to solve the employees' difficulties in daily lives and set up a psychological care hotline to help employees relieve their psychological anxiety.

We fully leveraged advantages on cloud-network integration and promoted a number of integrated information services to support the epidemic prevention and control and resumption of work and production. Given the requirement for epidemic prevention and control and the new demand for informatisation of enterprises, we provided informatisation services including e-Surfing Cloud, Cloud

Conferencing, Cloud Livestream, Cloud Classroom, Cloud Dam, e-Surfing Push-to-Talk, e-Surfing Webcam and e-Surfing Speaker to facilitate epidemic prevention and control, promoting the safe and orderly resumption of work and serving the society and the public.

We strived to provide excellent customer services. The Company promptly launched more than 20 service initiatives such as non-termination of services, public service and welfare messages, quick activation for key assurance functions and caller display name cards in a timely manner. We also strengthened service management and enhanced online service capabilities through electronic channels. The customer service centre "Hotline 10000" implemented a work-from-home policy and we steadily promoted the resumption of operation of physical stores on the basis of implementing epidemic prevention measures at differential regional and hierarchical level, so as to ensure customer services would not be interrupted and customer perception is maintained and assured. We also strengthened network information security to protect users' personal information.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2019	Year 2018
Emissions	Scope 1: Direct greenhouse gas emissions ¹	million tons CO ₂ e	0.21	0.28
	Scope 2: Indirect greenhouse gas emissions ¹	million tons CO ₂ e	13.34	11.75
	Total greenhouse gas emissions ¹	million tons CO ₂ e	13.55	12.02
	Greenhouse gas emissions per unit operating revenue ¹	tCO ₂ e/million yuan	36.07	31.88
	Sewage emissions ²	million tons	35.38	36.42
	SO ₂ emissions ³	tons	68.01	65.69
	Waste disposal amount	tons	105,765.21	101,917.88
	Waste storage batteries disposal amount	tons	17,896.33	11,397.72
	Waste telecommunications equipment disposal amount	tons	14,802.23	10,201.40
	Waste cables disposal amount	tons	62,233.17	67,891.16
	Waste terminals disposal amount	tons	1,190.06	625.63
	Other waste disposal amount	tons	9,643.42	11,801.97
	Domestic waste emissions ⁴	tons	23,434.58	21,711.10
	Electricity consumption	100 million kwh	195.01	170.96
Use of Resources	Natural gas consumption	million m ³	9.23	9.21
	Coal consumption	10,000 tons	0.51	0.49
	Gasoline consumption	10,000 tons	4.39	6.28
	Diesel consumption	10,000 tons	1.38	1.73
	Purchased heat consumption amount	GJ	1,338,157.37	1,464,480.69
	Overall energy consumption ⁵	tce	2,544,048.55	2,285,326.69
	Overall energy consumption per unit of information flow	kgce/TB	4.91	5.91
	Overall energy consumption per operating revenue	kgce/million yuan	6,770.88	6,059.89
	Power consumption per carrier frequency at base stations	kwh/carrier frequency	1,100.65	678.31
	Water consumption	million tons	41.63	42.85
	Water consumption per unit operating revenue	tons/million yuan	110.78	113.61
	Coverage rate of energy-saving technology at telecommunications equipment room	%	70.76	67.85
	Reclaimed water consumption	tons	53,685.43	44,574.97
The Environment and Natural Resources	Investment in energy saving and emission reduction	million yuan	636.11	674.36
	Times of video conferencing	–	35,672	39,406

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2019	Year 2018
Product Responsibility	4G international roaming countries and regions	–	174	158
	Domestic administrative village fibre broadband coverage	%	94	92
	Domestic administrative village 4G network coverage	%	94	91
	Internet backbone interconnection bandwidth	Gbps	8,416.00	5,886.00
	International interconnection bandwidth	Gbps	8,766.76	5,640.64
	Call drop rate of mobile communication ⁶	%	0.10	–
	Call completing rate of mobile communication network ⁶	%	97.57	–
	Call completing rate for access line	%	92.45	92.35
	Packet loss rate of broadband Internet ChinaNet backbone network	%	0.03	0.06
	Degree of satisfaction of mobile Internet users ⁷	points	81.91	78.92
	Degree of satisfaction of mobile voice users ⁷	points	82.68	83.80
	Degree of satisfaction of fixed Internet users ⁷	points	79.46	79.86
	Degree of satisfaction of access line users ⁷	points	87.58	84.98
	Percentage of in-time response to customer repair reports	%	99.16	98.80
	Degree of satisfaction of international customers	points	91.40	90.40
	Number of newly acquired patent authorisation	–	472	520
	Number of newly acquired invention patent authorisation	–	452	490
	Number of phishing and fraud websites blocked	–	13,144	12,283
Anti-corruption	Anti-corruption education programmes organised	–	25,457	20,242
	Attendance of anti-corruption education and trainings	person-times	799,356	782,658

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2019	Year 2018
Employment	Percentage of employees participating in labour union	%	100	100
	Percentage of female employees at management level	%	19.97	19.63
	Total number of employees ⁸	–	281,215	280,747
	Total number of full-time employees ⁸	–	274,172	–
	Total number of part-time employees ⁸	–	7,043	–
	Percentage of employees aged 30 and below ⁹	%	12.19	–
	Percentage of employees aged 30 to 49 ⁹	%	68.42	–
	Percentage of employees aged 50 and above ⁹	%	19.39	–
	Percentage of male employees	%	67.89	67.83
	Percentage of female employees	%	32.11	32.17
	Percentage of employees of ethnic minorities	%	6.97	6.44
	Percentage of local employees hired in Hong Kong, Macau, Taiwan and overseas branches	%	44	43
	Total number of newly-hired employees	–	12,350	9,641
	Percentage of newly-hired male employees	%	58.96	58.88
	Percentage of newly-hired female employees	%	41.04	41.12
	Number of resigned employees	–	4,205	4,704
	Percentage of male employees among resigned employees	%	64.49	64.90
	Percentage of female employees among resigned employees	%	35.51	35.10
	Total number of dismissed employees	–	264	253
	Percentage of male employees among dismissed employees	%	70.83	66.80
	Percentage of female employees among dismissed employees	%	29.17	33.20
Health and Safety	Death rate in accidents per 1,000 employees	%	0	0
	Injury rate in accidents per 1,000 employees	%	0	0
	Loss of working days due to work-related injury	–	0	0
	Number of participants in safety emergency drills	person-times	272,542	258,598
	Number of participants in health and safety trainings	person-times	362,174	415,361
	Participation rate of employee health checkup	%	100	100

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Table of the ESG Indicators

Issues	Name of Indicators	Units	Year 2019	Year 2018
Development and Training	Training expenses per employee	yuan/person	3,076.81	2,630.99
	Number of internal trainers	–	8,844	10,799
	Number of training participants	10,000 person-times	55.76	51.42
	Number of senior management trained	person-times	564	456
	Number of middle-level management trained	person-times	82,842	73,846
	Number of general employees trained	person-times	474,193	439,853
	Number of male employees trained	person-times	361,199	338,644
	Number of female employees trained	person-times	196,400	175,511
	Number of employees passed skill certification exams	person-times	26,668	19,387
	Number of employees enrolled in online college	10,000 persons	13.24	14.88
	Average training time per employee	hours/person	29.12	25.03
	Average training time per senior management	hours/person	52.15	54.07
	Average training time per middle-level management	hours/person	44.63	35.40
	Average training time per general employee	hours/person	27.28	23.53
	Average training time per male employee	hours/person	29.03	26.16
	Average training time per female employee	hours/person	29.31	22.81
	Average training time in online college per employee	hours/person	18.42	27.95
Community Investment	Number of registered employee volunteers	10,000 persons	6.62	5.96
	Total service time of volunteers	10,000 hours	61.86	53.11
	Number of participants in volunteering activities	10,000 person-times	11.80	10.45
	Number of volunteering activities	sessions	9,854	8,791
	Volunteer service activities input amount	million yuan	15.18	13.86
	Number of participated pole line co-built	kilometres	7,357	3,268
	Number of provided pole line co-shared	kilometres	23,062	20,291
	Number of participated pipeline co-built	kilometres	6,665	5,207
	Number of provided pipeline co-shared	kilometres	1,309	1,346
	Number of participated indoor distribution system co-built	–	7,356	6,094
	Number of provided indoor distribution system co-shared	–	721	927
	Personnel involved in emergency communication support	person-times	69,817	87,046
	Number of emergency communication equipment dispatched	set-times	17,979	17,379
	Number of emergency communication vehicles dispatched	vehicle-times	22,014	22,780
	Number of emergency public service messages sent	million pieces	79.09	37.48

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Table of the ESG Indicators

Notes:

1. Greenhouse gas is measured based on the Greenhouse Gas Protocol – Enterprise Accounting and Reporting Standards of World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), the 2006 IPCC Guidelines for National Greenhouse Gas Inventories of Intergovernmental Panel on Climate Change (IPCC) and the Fourth Assessment Report 2007 of Intergovernmental Panel on Climate Change (IPCC), etc.

Scope I: direct greenhouse gas emission includes the greenhouse gas emission from use of natural gas, coal, kerosene, gasoline and diesel.

Scope II: indirect greenhouse gas emission includes the greenhouse gas emission from purchased electricity and heating power, where the electricity emission factors shall refer to the base line emission factors of regional power grids in China released by National Development and Reform Commission, Department of Climate Change.

Total greenhouse gas emission shall be the sum of Scope I (direct greenhouse gas emission) and Scope II (indirect greenhouse gas emission).
2. The quantity of sewage emission is measured based on water consumption, and the wastewater discharge coefficient shall be based on GB50318-2017 Code of Urban Wastewater Engineering Planning of the National Standards of the PRC and relevant documents of National Bureau of Statistics of the PRC.
3. SO₂ emissions is calculated with the method of the State-owned Assets Supervision and Administration Commission of the State Council of the PRC.
4. The quantity of domestic waste emission is measured based on the per capita household waste output coefficient as specified in the guidance released by the State Council of the PRC.
5. Overall energy consumption is calculated with the energy statistics calculation method applied by National Bureau of Statistics of the PRC.
6. CDMA network data was used for call drop rate of mobile communication and call completing rate of mobile communication network in 2018 and 2017. VoLTE data was used after the full commercial launch of VoLTE (based on 4G network calls) business in 2019. The data disclosed this year is not comparable to the corresponding data disclosed in previous years.
7. The 2019 results of “degree of satisfaction of mobile Internet users”, “degree of satisfaction of mobile voice users”, “degree of satisfaction of fixed Internet users” and “degree of satisfaction of access line users” are consistent with the 2019 national telecom service quality satisfaction evaluation by the Ministry of Industry and Information Technology.
8. The total number of employees includes the total number of contract workers, labour dispatch and re-employed employees, of which, contract workers are counted as full-time employees, and labour dispatch and re-employed employees are counted as part-time employees. The numbers of full-time and part-time employees are disclosed starting from this year.
9. During the year, the indicators of the percentage of employees of different age groups were adjusted. The “percentage of employees aged 30 and below”, “percentage of employees aged 31-50” and “percentage of employees aged 51 and above” disclosed in 2017 and 2018 were adjusted to “percentage of employees aged below 30”, “percentage of employees aged 30-49” and “percentage of employees aged 50 and above”. The data disclosed this year is not comparable to the corresponding data disclosed in previous years.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Independent Assurance Report

Deloitte.

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Independent Assurance Report

To the Board of Directors of China Telecom Corporation Limited (the "Board of Directors"):

We have been engaged by the Board of Directors of China Telecom Corporation Limited ("China Telecom") to perform a limited assurance engagement on its *Environmental, Social and Governance* performance indicators (see "table of the ESG indicators") in the *Corporate Social Responsibility Report and Human Resource Report ("The Report")* in *Environmental, Social and Governance Report ("ESG report")* of 2019 annual report for the period from 1 January 2019 to 31 December 2019.

Responsibilities of the Board of Directors

The Board of Directors is responsible for preparing *The Report* in accordance with *Environmental, Social and Governance Reporting Guide ("ESG Reporting Guide")* issued by Hong Kong Stock Exchange, and its presentation (including reporting guidelines, limitations, reporting data and relevant identification procedures).

The Board of Directors is also responsible for determining China Telecom's objectives in respect of with Environmental, Social and Governance ("ESG") performance and reporting, including identifying stakeholders and relevant material issues, establishing and maintaining appropriate ESG performance management system and internal control system for obtaining performance information in the report, and maintaining sufficient records.

Our Responsibilities

In accordance with the agreed terms with China Telecom, we are responsible for performing a limited level of assurance engagement on the ESG indicators (see "table of the ESG indicators") in the Report, and expressing an opinion on the ESG indicators. Our work is only for the Board of Directors, and for no other purposes. We do not assume responsibility or accept liability to any other person or third parties for our work or the contents in this Report.

Our Independence and Quality Control

We conducted our engagement in accordance with the independence and other ethical requirements in the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants. We maintains a comprehensive system of quality control applying *International Standard on Quality Control 1*.

Basis of Our Work

We conducted our work in accordance with *International Standard on Assurance Engagements 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* issued by the International Federation of Accountants. We planned and performed our engagement to obtain all the information and evidence which we considered necessary to form conclusions.

Procedures, Scopes and Limitations of Our Work

Our work performed includes interviewing personnel responsible for the Report, analysing information, and other steps to collect evidences. Specifically our procedures include:

- Interviewing management and staff responsible for the ESG indicators, to understand the process for determining the applicable controls.
- Establishing acknowledgement of the ESG indicators regarding the Report with China Telecom to perform this limited assurance engagement.
- Analysing sampled data, and performance claims, reviewing its consistency with our work results, and assessing the effectiveness of the control on the report preparation procedure.
- Implementing assurance procedures at the head office and the selected 2 branches in Sichuan and Inner Mongolia based on the results of risk analysis;
- Assessing the consistency of the key financial data in the Report with the data in the audited financial statements.

Limited assurance conducts process to confirm the credibility of information, and its scope is smaller than that of reasonable assurance. Our work performed is not for the purpose of expressing an opinion on the effectiveness of China Telecom's internal control.

We performed our limited assurance engagement at headquarter and 2 branches of China Telecom in Sichuan and Inner Mongolia. We did not carry out such engagement at any other branches and subsidiaries of China Telecom, nor interview with external stakeholders. Moreover, historical data and financial information are not within the scope of our work.

Our Conclusions

Based on our work performed, nothing has come to our attention that would lead us to believe that there is any material misstatement related to the ESG indicators in the 2019 Report.

This is translation of the Chinese language version of the Independent Assurance Report. If there is any conflict between the Chinese and English version, the Chinese version will prevail.

Deloitte Touche Tohmatsu Certified Public Accountants LLP

23 March 2020



ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Appendix – ESG Reporting Guide Index

Aspect	Description of Indicators	Page
A1: Emissions	<p>General Disclosure</p> <p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p> <p><i>Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Hazardous wastes are those defined by national regulations.</i></p>	109-110
	A1.1 The types of emissions and respective emissions data.	129
	A1.2 Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	129
	A1.3 Total hazardous waste produced (in weight or volume) and, where appropriate, intensity (e.g. per unit of production volume, per facility, per official employee).	129
	A1.4 Total non-hazardous waste produced (in weight or volume) and, where appropriate, intensity (e.g. per unit of production volume, per facility, per regular employee).	129
	A1.5 Description of measures to mitigate emissions and results achieved.	109-110
	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	109-110

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Appendix – ESG Reporting Guide Index

Aspect	Description of Indicators	Page
A2: Use of Resources	General Disclosure	110-111
	Policies on the efficient use of resources, including energy, water and other raw materials.	
	<i>Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.</i>	
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	129
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	129
	A2.3 Description of energy use efficiency initiatives and results achieved.	110-111
A3: The Environment and Natural Resources	A2.4 Description of whether there is any issue in sourcing water, water efficiency initiatives and results achieved.	110
	A2.5 Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	Not Applicable ¹
	General Disclosure	110-112
	Policies on minimising the issuer's significant impact on the environment and natural resources.	
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	110-112

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Appendix – ESG Reporting Guide Index

Aspect	Description of Indicators	Page
B1: Employment	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	105-108, 124-125
	B1.1 Total workforce by gender, employment type, age group and geographical region.	117, 131
	B1.2 Employee turnover rate by gender, age group and geographical region.	131
B2: Health and Safety	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	107-108
	B2.1 Number and rate of work-related fatalities.	131
	B2.2 Lost days due to work injury.	131
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	107-108
B3: Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. <i>Note: Training refers to vocational training. It may include internal and external courses paid by the employer.</i>	106-107, 120-123
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	132
	B3.2 The average training hours completed per employee by gender and employee category.	132

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Appendix – ESG Reporting Guide Index

Aspect	Description of Indicators	Page
B4: Labour Standards	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	105-106, 124
	B4.1 Description of measures to review employment practices to avoid child and forced labour.	105-106, 124
	B4.2 Description of steps taken to eliminate such practices when discovered.	105-106, 124
B5: Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chains.	112-113
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	112-113
B6: Product Responsibility	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	100-105
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable ²
	B6.2 Number of products and service-related complaints received and how they are dealt with.	103-104
	B6.3 Description of practices relating to observing and protecting intellectual property rights.	100
	B6.4 Description of quality assurance process and recall procedures.	Not applicable ²
	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	103-104

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

| Appendix – ESG Reporting Guide Index

Aspect	Description of Indicators	Page
B7: Anti-corruption	General Disclosure Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	99-100
	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	100
B8: Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	114-115
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	114-115
	B8.2 Resources contributed (e.g. money or time) to the focus area.	132

Notes:

1. The indicator of "packaging materials used for the finished products" is not relevant to the business practice of the Company. Through the identification of material issues, the Company mainly reported the recycling and reusing of the resources such as storage batteries, cables, terminals are that mainly use in operations and services. For more details, please refer to "VI. Practicing green development" of Corporate Social Responsibility Report.
2. The indicator of "recalling products" is not relevant to the practice of the Company. Through the identification of material issues, the Company mainly reported on maintaining network information security, assuring emergency communications and protecting the rights of customers in accordance with laws. For more details, please refer to "III. Providing high quality network assurance" and "IV. Providing heartfelt services to customers" of Corporate Social Responsibility Report.

In 2020, while proactively responding to the impacts of novel coronavirus (COVID-19) epidemic on the economy and society, the Company will thoroughly embrace new development philosophies featuring innovation, coordination, green, openness and co-sharing. The Company will continually increase communication and cooperation with stakeholders, strengthen technological innovation and business innovation and build new generation network and information infrastructure with great efforts. Promoting deep integration between information technology and various sectors and industries, we strive to improve the quality of services provided to various types of customers so as to facilitate high-quality economic development and accomplish the building of well-off society.