中石化炼化工程(集团)股份有限公司 SINOPEC ENGINEERING (GROUP) CO., LTD.

股票代码: 2386.HK



202 Environmental, Social and Governance Report

AT LEAST OF

About This Report

This Report is the eighth Environmental, Social and Governance ("ESG") Report ("the Report") of SINOPEC Engineering (Group) Co., Ltd. ("本公司" in Chinese and "SEG" in English) since going public. It mainly elaborates the practices and performance of the Group in the economic, social and environmental aspects in 2020.

Reporting Subject: SINOPEC Engineering (Group) Co., Ltd. (the "Company") together with its subsidiaries and branches (the "Group", "we" or "us").

Reporting Period: From 1 January 2020 to 31 December 2020 ("Reporting Period"), with some information and figures tracing back to earlier years beyond the stated Reporting Period in order to enhance the comparability and perspectiveness view of this Report.

Publication Cycle: This Report is published as the annual ESG report for the year of 2020.

Content Scope: This Report covers the important matters and performance of the Group in the environmental, social and governance aspects during the Reporting Period.

Sources of Information: Information is sourced from summaries and statistics of the Company documents, statistical reports as well as the performance reports of its subsidiaries. All information has been reviewed by the Company's senior management team. Some of the operational and financial data of this Report are cited from the Group's 2020 Annual Report. In the event of any discrepancy in data between this Report and the 2020 Annual Report, the information in the 2020 Annual Report shall prevail. Unless otherwise specified, the amount disclosed in this Report is denominated in RMB.

Compilation Guidelines: This Report is compiled based on the Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited (the "SEHK"). It also refers to the Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities issued by State-owned Assets Supervision and Administration Commission of the State Council of PRC, the GRI Sustainability Reporting Standards issued by Global Reporting Initiative (GRI), the Social Responsibility Guide (ISO 26000) issued by International Organisation for Standardisation, and the Guidelines on Corporate Social Responsibility Reporting in China (CASS-CSR 4.0) of Chinese Academy of Social Sciences.

Access to the Report: This Report is released in both printed and online versions. The online version is available for downloading at the website of SEHK at www.hkexnews.hk and at the column of social responsibility of the website of SINOPEC Engineering (Group) Co., Ltd. at www.segroup.cn.

Disclaimer:

This Report includes the forward-looking statements. Other than the historical facts, all events which may or will happen in the future and their description (including but not limited to, preconditions, goals, estimates and commercial plans) are included in the forward-looking statements. Due to the influence of external changing factors, the factual development result or trend in the future may be different from such statements. The forward-looking statements of this Report was made in April 2021. Unless otherwise required by the regulatory authorities, SINOPEC Engineering (Group) Co., Ltd. undertakes no obligation or responsibility to update these forward-looking statements.

This Report is prepared in both Chinese and English. In case of any discrepancy between the two versions, the Chinese version shall prevail.

Contents



Chairwoman's Statement



Board of Directors' Statement on ESG Governance



About Us



Green Development



Putting People First



Safety and Health Management



Supply Chain Responsibility Management



Building High-quality Projects

SEG

Building a world-leading technology-oriented engineering company

Developing a comprehensive service provider for the whole industry chain and whole life cycle of the energy and chemical industry



Chairwoman's Statement



The year 2020 was an extraordinary year in which we worked hard and struggled bravely. The COVID-19 epidemic broke out suddenly, leaving the global economy into recession and oil prices sharp oscillation and the Group also experienced unprecedented risks and challenges. Facing difficulties, we strengthened the coordination, continued to innovate, always put the safety and health of our employees in the first place, and use all resources to guarantee the "online and offline work", while taking the social responsibility in the fight against the epidemic. We are mindful of the customer's wishes, orderly and scientifically promote the resumption of work and production, protect the construction of key projects, and provide customers with warmer and more valuable services to tide over the difficult times together with customers. We coordinate epidemic prevention and control, as well as production and operation, adhere to technological innovation, bravely expand domestic and foreign markets, promote highquality development, turning challenges into opportunities, and difficulties into motivation, undergoing an extraordinary test, paying extraordinary efforts, and achieving hard-won extraordinary results.

In 2020, our revenue reached RMB 52.353 billion and net profit reached RMB 2.382 billion with a year-on-year growth of 9.1%. The amount of new contracts reached RMB 63.014 billion with a year-on-year growth of 20.4%. The dividend for the year reached RMB 0.300 per share with a year-on-year payout ratio of 56%.

our revenue reached RMB

52.353 billion

First of all, on behalf of the Board of **Directors of SINOPEC Engineering** (Group) Co., Ltd., I'd like to express my heartfelt gratitude to all shareholders and stakeholders for their concern and support for the Group.

Chairwoman

Sun Lili

net profit reached RMB



2.382 billion



a year-on-year 9.1% growth of

The amount of new contracts reached RMB



63.014 billion a year-on-year 20.4%



We always cherish the expectations and appeals of the government, shareholders, customers, employees, suppliers, business partners, communities, media, the public and all other stakeholders. We have taken initiative to undertake social responsibilities, created shared values with stakeholders and served as a contributor to the building of a beautiful and harmonious society.

Actively contribute clean energy to Protect the Environment

The Group has always been oriented by innovation, green, and zero-carbon to promote green technology transformation and application, actively contribute clean energy, comprehensively strengthen the building of green enterprise, promote the low-carbon transformation and upgrading of the petrochemical industry, help China achieve its carbon peak and carbon neutrality goals early and took practical actions to protect the blue sky and blue water. In the Reporting Period, the complete set of zero-salt wastewater treatment technology for coal chemical industry was successfully developed, the highly efficient green aromatics technology and the complete set of environmental protection technology for delayed coking continued to promote the green development of petrochemical industry, the Group has 3 projects which won the National Green Construction Design Award, and has won 81 awards relating to scientific and technological progress at provincial and ministerial level and above; we have made new achievements in promoting the engineering of VOCs waste gas treatment technology, contaminated soil remediation and green cleaning technology; in terms of technological breakthroughs in new and renewable energy, we are continuously making breakthroughs - the purification and supply technology of hydrogen used for fuel cell vehicles and passed the technical review organized by the Science and Technology Department of SINOPEC; we jointly established a R&D Centre of Carbon Neutral Green Technology to promote the construction of a carbon neutral industrial demonstration park.

Deliver High-quality Projects and Promote the Digital Transformation of the Industry

The Group regards engineering quality as its core competitiveness, constantly improves the building of the long-term quality management mechanism, standardizes quality management, strengthens quality supervision, restrains quality-related behaviour, and guides the sound development of quality-related work. In the Reporting Period, the Group has won 28 awards including national and provincial high quality engineering awards, design awards, and welding engineering awards. We were also continuously accelerating industry digital transformation and pushing forward the construction of the networking, digital, and intelligent platforms as per the new mode of "data + platform + application to actively empower the intensive and intelligent development of oil refining and chemical plants.

Strengthen Security Defence Line and Promote Supply Chain to Fulfil Responsibility

The Group continuously deepens the construction of the safety management system and improves the safety risk

prevention and control mechanism, and implements risk identification and control throughout the whole production and operation business processes of design, procurement, construction, manufacturing, research and development, and carries out the dynamic management throughout the whole process. In the Reporting Period, we continuously promoted the three-year action plan for consolidating the investigation and treatment of hidden dangers, and carried out the "online + offline" safety training and education, realising 36,000 safety training hours. The certification ratio of supplier QHSE system reaching 100%. The overall work safety of the Group continued to improve.

Care for the Health of Employees and Help Them Grow

The Group always adheres to the "people-oriented" concept, advocates happy work and healthy life. We respect and treat employees of different nationalities, ethnicities and beliefs equally, attach importance to employees' occupational health, physical health and mental health. During the epidemic, we paid great attention to the physical and mental health of employees, strengthened psychological intervention and guidance, and provided targeted care; we continued to optimize the talent development environment, implemented the talent strengthening project, continuously improved the training system to help employees grow rapidly, and continuously enhance the sense of gain, belonging and happiness.

Practise Enterprise Responsibilities to Aid in Poverty Alleviation and Fight against the Epidemic

The Group actively promotes the corporate citizenship building, firmly practices the concept of a community with a shared future for mankind. In terms of targeted poverty alleviation, the Group carries out the targeted poverty alleviation of various forms, such as poverty alleviation by developing industries, poverty alleviation by consuming products and services from poor areas, poverty alleviation through education and culture, in order to help the poor regions under the assistance out of poverty; in fighting against the epidemic, the Group sets up a comprehensive epidemic prevention and control mechanism, unblocks the channels for the guaranteed supply of epidemic prevention materials, actively supports domestic and overseas epidemic prevention and control provides humanitarian assistance for international business partners, and provides medical supplies to transfer the great love of helping and supporting each other in overcoming the current challenges.

Only in hard times can courage and perseverance be manifested. Only after polishing can a piece of jade be finer. The strategic layout of the country, the transformation needs of the industry, the development needs of our customers and the earnest expectation of our shareholders are the inexhaustible impetus for the development of the Group. In 2021, we will continue to focus on the development goal of "building a world-leading technology-oriented engineering company", constantly improve the ESG governance system, embrace responsibility with passion, and actively innovate to create a value chain with mutually coupled interests of stakeholders and to build a more sustainable future that is a win-win situation for all parties.

Board of Directors' Statement on ESG Governance

The Board of Directors of SINOPEC Engineering (Group) Co., Ltd. undertakes that the Company strictly complies with the disclosure requirements set forth in the Environmental, Social and Governance Reporting Guide of the SEHK.

This Report will also be released after being deliberated by the Board of Directors.

In 2021, the Group's Board of Directors will further improve the ESG governance system, and promote the continuous improvement of the Group's ESG governance level.



About Us

- Company Profile
- Management of Sustainable Development
- Risk Management
- Communication with Stakeholders and Identification of Key Topics

Company Profile

The Group is a leading energy and chemical engineering company in the PRC with strong international competitiveness and can provide domestic and overseas clients with overall solutions for petrol refining, petrochemicals, aromatics, coal chemicals, inorganic chemicals, pharmaceutical chemicals, clean energy, storage and transportation facilities. environmental protection and energy saving, among other industry sectors. The Group is an integrated service provider for the whole industry chain and the whole life cycle in energy and chemical industry and can provide overall industry chain services including engineering consulting, technology licensing, project management contracting, financing assistance, EPC (engineering, procurement and construction) contracting, as well as design, procurement, construction and installation, lifting and transportation of large equipment, precommissioning and start-up.

After nearly 70 years of continuous development, the Group currently has an academician of the Chinese Academy of Sciences, three academicians of the Chinese Academy of Engineering and more than 10,000 professionals. The Group has rich project management and implementation experience, and owns and cooperatively owns patents and know-how in core business areas. The Group has delivered on schedule hundreds of modern factories with enormous investment, complicated process, advanced technology and high quality to clients in more than 20 countries and regions around the world, established long-term and steady cooperative relationships with large energy and chemical enterprises at home and abroad, maintained an extensive and stable client base, and enjoys remarkable industrial influence and social reputation.

In the future, adhering to the development orientation of "Integrated Service Provider with Whole Industry Chain and Whole Life Cycle in Energy and Chemical Industry", the Group will base itself on the energy and chemical engineering construction industry, continuously broaden its business scope and extend its value chain, comprehensively improve the level of safe, efficient, green and lowcarbon service in the business chain through "differentiated development, international operation, digital transformation and intelligent upgrading", and create a new momentum in achieving the corporate vision of "building the world's leading technologyoriented engineering company".

The Group has 11 wholly owned domestic member enterprises: SINOPEC Engineering Incorporation, SINOPEC Luoyang (Guangzhou) Engineering Co., Ltd., SINOPEC Shanghai Engineering Co., Ltd., SINOPEC Ningbo Engineering Co., Ltd., SINOPEC Nanjing Engineering Co., Ltd., SINOPEC Fourth Construction Co., Ltd., SINOPEC Fifth Construction Co., Ltd., SINOPEC Tenth Construction Co., Ltd., SINOPEC Ningbo Technological Research Institute Co., Ltd., SINOPEC Heavy Lifting & Transportation Co., Ltd., SINOPEC Energy Conservation Technology Service Co., Ltd., as well as the two branches including Luoyang R&D Centre of Technologies of SINOPEC Engineering (Group) Co., Ltd. and SINOPEC Engineering (Group) Information Technology Branch.

On 23 May 2013, the Group was listed on the main board of the SEHK and successfully entered international capital market.

In 2018, the Company was elected as the Deputy Secretary-General of the Experts Committee of China Association of International Engineering Consultants. According to the U.S. Engineering News-Record (ENR), in 2020, the Company ranked 51st out of Top 250 Global Contractors, 70th out of Top 250 International Contractors, 47th out of Top 150 Global Design Firms and 82nd out of Top 225 International Design Firms. The overall strength and brand influence of the Group is constantly on the rise. Since the Group has outstanding performance in the industry and is recognized by the capital market, the Group won the "Best Infrastructure and Public Utility Company" award in the "Golden Hong Kong Stocks" Award Ceremony in 2020.

Unit: RMB '00 million



Economic Performance:

One-stop Business Solution



Organisational Structure



Management of Sustainable Development

In order to build into a prominent world-class technology-oriented engineering company, the Group is constantly improving its governance structure, organisation, work flows and performance evaluation, strengthening compliance and risks management. We also integrate anti-corruption into our key work to secure healthy and sustainable development of the Company.

Corporate Governance

The Group strictly abides by the Company Law of the People's Republic of China, and the Guidelines on the Bylaws of Listed Companies, Code of Corporate Governance for Listed Companies in China, Essential Provisions on the Bylaws of Companies Listed Abroad, and Special Provisions of the State Council on Stock Floatation and Listing Abroad by Limited Stock Companies issued by the China Securities Regulatory Commission (the "CSRC"), as well as the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("Listing Rules") and other relevant laws, regulations and provisions. We also constantly optimise the Group's governance structure. On the basis of clarifying the boundary of rights and responsibilities of Shareholders' Meeting, Board of Directors, Supervisory Committee, senior management team and other governing subjects, we always pay attention to the developments of domestic and foreign regulations, commit to establishing rules of governance and management system with clear rights and responsibilities, functions, supervision and counterbalance and coordinated operations, strive for the governance model with scientific decision-making, effective supervision and robust operation, strictly abide by the bottom line of compliance, control operational risks, and commit to continuous optimisation to enhance the overall level of governance of the Group.

We actively promote and implement the policy for the diversity of the members of the Board of Directors. When selecting and appointing candidates for director, the Nomination Committee considers various diversity factors, including (but not limited to) sex, cultural and educational background, professional development, service term, knowledge of the Company, as well as a wide range of personal traits, interests and values, according to the Company's business model and specific needs. As of the release date of the report, the Board of Directors has 7 directors, consisting of 3 executive directors, 1 non-executive director, and 3 independent nonexecutive directors. The Board of Directors considers that the current member composition has taken into account the diversity, experience and skill requirements of directors. At the same time, if the Nomination Committee member assesses the independence of independent non-executive directors, it will recommend the Board of Directors to increase the proportion of independent directors according to the needs of the Group, to introduce sufficient independent opinions to the Board of Directors. Currently, independent non-executive directors account for 43% of total board directors. The Board of Directors sets up the Audit Committee, the Remuneration Committee, the Strategy and Development Committee and the Nomination Committee, which, upon the appointment and authorization by the Board of Directors, effectively operate in accordance with their terms of reference, in order to protect shareholders' rights and interests and ensure the healthy development of the Group.



Diversified Board Structure

Corporate Governance Structure



See Corporate Governance chapter of 2020 Annual Report or Corporate Governance section on the Company's website for more information about corporate governance.

ESG Management

The Group incorporates the idea of sustainable development into the decision-making and operation of the Company, carefully fulfils the economic, social and environmental responsibilities and actively responds to and satisfies the appeals from the government, shareholders, employees, clients, business partners, the public and other stakeholders. In this way, it achieved development with stakeholders with mutual benefit and win-win results and won their recognition and trust, thus establishing a brand image of being a responsible enterprise.



In order to better manage the performance of the Group in environmental, social and governance aspects, the Company has established a Sustainable Development Committee to support the Board of Directors in formulating the Group's ESG strategy and to oversee the implementation of ESG initiatives. At the same time, the ESG working group is set up under the Sustainable Development Committee, with relevant departments and institutions carrying out ESG-related work and promoting the implementation of major topics of ESG; the departments and all subsidiaries (branches) of the Company shall, based on their own business and functions, take charge of the implementation of specific ESG work, report ESG performance annually as needed and disclose and report ESG information annually.



Risk Management

The Company has established a risk management and internal control system, and established the Risk Management Committee composed of the chairman, senior management and heads of functional departments to be responsible for the construction and operation of the Group's risk internal control management system and decision-making on major risk management matters; its subsidiaries accordingly set up the overall risk management leading group in charge of the soundness of the internal risk control management system and the effectiveness of the internal risk control management of the Company, to form a risk prevention and management mechanism that connects the upper and lower levels and collaborates horizontally. Besides, they conduct regular assessment and continuously monitor the effectiveness of the same to protect the overall interests of the Group and its shareholders, thereby promoting the sustainable development of the Group.

Each functional department of the Company and its member enterprises identify, analyse and evaluate the risk factors and risk points in various professional fields such as safety, quality, and anti-corruption in the production and operation process in a timely manner, and deeply integrate risk management with management systems such as the internal control system, QHSSE management system, and integrity and risk prevention and control system, and propose countermeasures and solutions and solidify them in the key internal control point, forming an overall risk management system for goal setting, risk identification, risk identification, risk response, risk supervision and improvement, in order to ensure that the risk factors that have a significant impact on the Group are fully covered and controlled.

During the Reporting Period, the Group has formulated the Measures for Overall Risk Management of SINOPEC Engineering (Group) Co., Ltd. and the Administrative Measures of SEG for Reporting of Major Operation Risks Events, continuously consolidates the construction of institutional systems, and perfects the risk prevention and control mechanism.



Class of Risk	Solutions		
Safety Risks	 Implement dynamic management throughout the whole process, and enable risk identification and control to intersect the whole process of production and operation business such as design, procurement, construction, manufacturing, and research and development; Conduct the level-to-level management based on major risks, greater risks, general risks and low risks; Evaluate the safety risks caused by extreme environment and extreme weather in the production and operation links; Include the risk management work in the scope of safety production performance assessment of the Group. 		
Procurement Risks	 Establish procurement risk reporting and early-warning system, annual risk report, and irregular special risk reporting system; Manage the material procurement risks by classification, regularly improve and update the procurement risk list, track and monitor the risk management; Continuously supervise, inspect and improve the effectiveness and efficiency of procurement risk management. 		
Overseas Public Safety Risks	 Conduct risk identification, risk analysis, risk evaluation, and classification of the public security of countries (regions) where overseas institutions and projects are located; Inspect the risk assessment of overseas institutions and projects of the units dispatched by the Group on an irregular basis, and take the inspection results as the basis for year-end performance assessment. 		
Market Development Risks of Overseas Projects	 Collect and analyse risk events in accordance with politics, economy, culture, laws, public security, credit standing of the owner, funds and their sources, requirements of the owner, and bidding methods to determine the risk level of the project; Carry out project bidding quotation and risk management throughout the whole process of execution stage, and prepare project risk assessment reports through identifying, analysing and assessing risks and dealing with results. 		
Legal Risks	 Formulate the relevant systems, evaluation standards, and assessment methods for the management of legal risks of the Group, and prepare risk management reports; Establish, update and maintain the legal risk database; Identify, evaluate, prevent and control legal risks, and implement the legal risk responsibility system for key posts related to the business process. 		
Probity Risks	 Analyse, study and evaluate the probity risk information regularly, and give "red, yellow and blue" risk early warning for possible corruption; Sort out the functions and powers of risk-related posts, and study the possible probity risks of the posts; Propose prevention and control measures with strong pertinence, operability and practicality as per the manifestation, cause and rating of probity risk points; Adjust and improve the content and level of and measures for probity risks according to the self-examination, inspection and evaluation, and in combination with the adjustment of internal control system, transformation of operation mode, management process reengineering, and change of duties and authority. 		

Communication with Stakeholders and Identification of Key Topics

The Group has established diversified communication channels for stakeholders and maintains routine communication. During preparation of environmental, social and governance report, we carried out surveys of stakeholders through distribution of questionnaires and collected the expectations and appeals of stakeholders including the government, shareholders, clients, business partners, employees and communities etc. The survey result served as an important basis of information disclosure strategy and the key information disclosed in this Report is finalised based on essential analysis of the topics.

Appeals and Responses of Stakeholders

Stakeholders		Expectations and Appeals	Communication and Response	
	Government and Regulatory Authorities	Serve national development strategy Abide by laws Preserve and increase the value of state-owned assets Pay taxes in accordance with law	Actively implement national development strategy Carry out compliance management in accordance with law and realise stable operation growth Constantly increase tax contribution	
	Business Partners	Be honest and fulfil agreements Prevent and control risks Achieve win-win cooperation	Carefully execute contracts Strengthen operation risk management Strengthen strategic cooperation	
	Investors/ Shareholders	Satisfactory return Strict risks control Good credit rating Smooth information communication	Carry out stable operation and improve operation performance Standardise corporate governance and carry out operation in accordance with law Implement leading investor relationship management Keep adequate timely information communication	
	Experts	Benchmarking projects in terms of both safety and quality Green and low carbon development Promotion of industrial upgrading	Promote essential safety management Help construct green factories	
_ *	Clients	Be honest and fulfil responsibilities Information transparency Privacy protection Excellent products Quality services	Publicity activities Customer service hot line Questionnaire survey Interaction through official website, micro blog and WeChat	
ŤŤ	Employees	Protection of employee's rights and interests Co-growth Guarantee of compensation and benefit Health and safety Care for employees	Fair employment polity Complete compensation and incentives mechanism All-round employee training Diversified occupational development platform Healthy working environment Considerate humanistic care	
1 /1 T	Supply Chain	Win-win cooperation Co-development Resources sharing	Good cooperation relationship Smooth communication channels Execution of cooperative agreement in a careful manner Shared prospective study	
V	Environment	Environmental protection Greenhouse gas emission Discharge of waste Effective utilisation of resources Natural resources protection	Strengthen energy conservation and emission reduction Innovate environmental protection technologies Implement Green Enterprise Action Plan	
	Community	Promote local economic development Infrastructure construction Promotion of employment Charity Participation of community	Community support and guidance Communication with community Poverty alleviation Charitable donation Volunteer activities Public open day	
2	Public and Media	Openness and transparency of enterprise information Maintain good public relationship	Actively carry out news report and publicity Keep smooth communication channels with public and media	
圮	NGO	NGO support and cooperation Harmonious cooperation	Support NGO activities Strengthen communication with NGO	



Process of Identification of Key Topics

The Group assesses the important environmental, social and governance matters which related to our business from the two aspects of the importance of such topics to the stakeholders and to the Group respectively based on communication with stakeholders and the actual situation of the Company in accordance with the Appendix 27 Environmental, Social and Governance Reporting Guide of the Listing Rules and other international standards and form a matrix of key topics after screening to serve as the basis of the Company's ESG focuses and disclosure.



Results of Identification of Key Topics

The important topics include: health and safety, project quality, anti-corruption, overseas engineering business ESG performance, domestic engineering business ESG performance, responsibility management, resources utilisation, employee development and training and care for employees.



Corresponding table of UN's sustainable development goals for 2030*

UN's Sustainable Development Goals	Our Actions	UN's Sustainable Development Goals	Our Actions
1 ^{.5,839} ∱∦∳∲∦.Î	Carry out targeted poverty alleviation and provide assistance to Dongxiang Autonomous County of Gansu Province, Ruyang of Henan Province, and other poor areas in improving their living standards through poverty alleviation by developing industries, poverty alleviation by consuming products and services from poor areas, poverty alleviation through education and culture, poverty alleviation by constructing infrastructure, poverty alleviation by improving the medical service, and other similar projects.	2 ***** ****	Improve infrastructure such as water supply and roads etc. in rural areas and carry out poverty alleviation projects i.e. planting, cultivation, processing, online and offline sales based on local natural conditions in Dongxiang.
3 税好 邮用空稿社 ————————————————————————————————————	Ensure occupational health, physical health and mental health of employees; develop a mental health consulting platform, and provide necessary emergency medical equipment and drugs at construction site of project.	4 (CREST)	Carry out training on occupational skills for employees; assist in the construction of schools, aid in teaching materials, and improve the basic teaching environment in poverty- stricken areas.
5 (13)F#	Abide by the principle of gender equality; set up female employees committee and pay attention to physical and mental health and occupational development of female employees.	6 36350-40 125036	Develop technologies for comprehensive utilisation of waste water and improve the utilisation of water resources; carry out drinking water projects in poverty-stricken areas.
7 经济场期的 清洁振荡	Eliminate coal-burning facilities and adopt clean gas; develop clean energy technologies.	8 #m1/##0 627#85	Provide employees with stable employment, income and working environment; promote local economic development through investment, tax contribution and provision of employment.
9 Print offere Markota	Increase investment in scientific research and promote the industrial application of new technologies, new equipment and new materials.	10 ^{减少不平等}	No child labour or forced labour; no discrimination in any forms with regard to sex, religion and nationality etc.
	Improve infrastructure in rural areas; actively participate in epidemic prevention and control activities in domestic and foreign communities to promote social programs for public good.	12 <u>沈贵任</u> 消费和生产	Implement the responsibility management system for suppliers and subcontractors; purchase energy- saving and environmentally-friendly products.
13 ^{气候行动}	Research and develop low-carbon environmental protection technology and promote the transformation to clean energy; implement digital engineering to promote the smart transformation of the petrochemical industry.	14 *F±#	Pay high attention to protection of surrounding environment and avoid construction during breeding season, migration season and other ecologically sensitive period for fishes if the construction project involves lakes, rivers and seas.
15 ^{Ates}	Adjust the project construction time and construction methods, and pay high attention to protection of biological diversity.	16 ^{如平、正义与} 强大机构	Abide by commercial ethics, promote transparent purchase and implement anti-corruption measures.
17 (000000000)	Strengthen cooperation with domestic and overseas organisations and scientific research institutes and follow the "Belt and Road" Initiative.		

*See this Report for details

Topic 1: Cleaner Energy to Assist in Protecting the Environment

Tackling climate change has become a responsibility and challenge faced by all countries together in the world. In September 2020, at the General Debate of the 75th Session of the United Nations General Assembly, China announced that it will scale up its Intended Nationally Determined Contributions by adopting more vigorous policies and measures, and aims to have CO_2 emissions peak before 2030 and achieve carbon neutrality before 2060. In October 2020, the Fifth Plenary Session of the 19th CPC Central Committee further proposed the phased task arrangement, clarifying the timetable and roadmap for China's green and low-carbon development.

The green and low carbon development strategy with the goal of carbon peak and carbon neutral puts forward new requirements for the company's technology research and engineering transformation capability.

As a leading energy and chemical engineering company in China, the Group has made a series of significant technological innovations and rapidly formed green and efficient productivity in both the core business areas of refining and chemical industry and the new coal chemical technology field. New breakthroughs have been made in the fields related to the substitution of petroleum resources, including the diversification of olefin resources, natural gas purification and liquefaction, liquefied natural gas receiving stations, coal gasification, biofuels, biochemistry, green hydrogen production and hydrogen energy utilization.

The Group actively responds to the "Green Enterprise Action Plan", and in 2019, formulated the Green Enterprise Action Scheme for SEG, to build a clean, efficient and low-carbon, green enterprise before 2023 with the focus on six schemes including "green development", "green production", "green service", "green technology", "green energy" and "green culture".

In order to accelerate the breakthrough of a number of core technologies of new energy and renewable energy, the Group concentrates on innovation, constantly improves the joint innovation mechanism such as the "Ten Dragons" scientific and technological breakthroughs, accelerates the transformation of scientific and technological achievements, practically gives full play to the maximum efficiency of the industrial chain and innovation chain, and continuously promotes the integrated innovation of the hydrogen energy industrial chain. At present, the company has carried out work in green hydrogen production, gas hydrogen, liquid hydrogen In order to accelerate the breakthrough of a number of core technologies of new energy and renewable energy, the Group concentrates on innovation, constantly improves the joint innovation mechanism such as the "Top 10 key task projects" scientific and technological breakthroughs, accelerates the transformation of scientific and technological achievements. practically gives full play to the maximum efficiency of the industrial chain and innovation chain, and continuously promotes the integrated innovation of the hydrogen energy industrial chain. At present, the company has carried out work in green hydrogen production, gas hydrogen, liquid hydrogen storage and conversion, hydrogen fuel cell and other fields, and has built and delivered a number of hydrogen refueling stations. In addition, the Group is continuously promoting the formulation of national and industry standards for hydrogen energy production, storage and transportation, filling and other links

In 2020, the Technical Process Package for the Purification of Hydrogen Used for Fuel Cell Vehicles and the Supporting Technical Process Package for Hydrogen Master Stations developed by SINOPEC Luoyang (Guangzhou) Engineering Co., Ltd., a member enterprise of the Group, successfully passed the technical review organized by the Science and Technology Department of SINOPEC, which marks new breakthroughs in the "Top 10 key task projects in scientific and technological research", i.e. purification and supply technology for hydrogen used for fuel cell vehicles. Next, the first set of industrial application of these two technologies will be carried out in SINOPEC Guangzhou. These two technologies have laid the foundation for the Group to further expand green and low-carbon new business areas, and provide important support for the hydrogen energy industry chain including high-quality hydrogen production, storage, transportation and refuelling.

In the future, the Group will intensify efforts to tackle key issues in the fields of oil conversion, high-end materials and hydrogen energy industry chain core technologies, carry out equipment manufacturing and precise control development simultaneously in the process research and development, quickly form more market-influential technical achievements, and promote the green and safe development of the industry. We will focus on green and low-carbon development from a strategic and overall perspective, strengthen communication and cooperation with government departments, industry associations and research institutions, pool wisdom and innovation, promote the integrated development of new and traditional energy, and make important contributions to Chinese goal of "zero carbon".



SINOPEC Luoyang (Guangzhou) Engineering Co., Ltd., a member enterprise of the Group, has entered into a strategic cooperation framework agreement on the "Hydrogen Energy R&D and Application Project" jointly with Foshan Nanhai District People's Government and other two parties.

Topic 2: Fighting against the Epidemic through Concerted Efforts, and Highlighting the Sense of Enterprise Responsibility

In 2020, COVID-19 suddenly broke out and spread around the world. Facing the epidemic, the Group, with a highly responsible attitude, has established and improved prevention and control measures, carried out concrete and detailed prevention and control work, vigorously and orderly promoted the resumption of work and production, and helped restore the social and economic order.

Facing the epidemic, the Group and customers integrated symbiosis, overcome the difficulties together. More than 100 projects have been undertaken in more than 20 countries around the world, with more than 100,000 people working on the project site. In 2020, the Group adhered to scientific

epidemic prevention and control measures to create conditions for efficient and orderly resumption of work and production, and realized the construction and operation of the crude oil storage warehouse in only 8 months. A number of integrated refining and chemical projects, such as the Sinochem Refining and Chemical Corporation and the Sinochem Quanzhou Corporation, have been completed to a high standard, actively helping to improve the quality and efficiency of the petrochemical sector.

During the Reporting Period, the Group donated a total of nearly 160,000 masks, 2,200 pieces of medical supplies and 3.2 million yuan of condolence goods.



Establish a linkage mechanism for epidemic prevention and control



Build a regular epidemic defence line to prevent the spread of the epidemic



Open channels for ensuring supply of anti-epidemic supplies



Provide humanitarian assistance and promote overseas public health security We actively support the overseas epidemic prevention and control, and take overseas project camps as important "battlefields" for epidemic prevention and control, such as renovating and transforming project camps into mobile cabin hospitals and centralized medical quarantine points; meanwhile, we actively share experience in epidemic prevention and control, and donate epidemic prevention and control materials and provided medical supplies assistance to our business partners such as Italy, Spain, Kazakhstan, Saudi Arabia, Uzbekistan and Belgium to transfer the great love of helping and supporting each other in overcoming the current challenges.



Promote the resumption of work and production, and promote the stability of the global industrial chain

With a high sense of responsibility for the upstream and downstream of the industrial chain, we adhered to scientific measures to prevent and control the epidemic, created conditions for an efficient and orderly resumption of work and production, and completed a number of key projects with high standards, helping restore social and economic order.

We organically combine normal and precise prevention and control with local emergency disposal, implement grid management for all key links, and pay close attention to the whole process of epidemic prevention and control; for the characteristics of epidemic prevention and control at different stages, we respond urgently, regardless of the conditions; for projects that locate in places that have an epidemic, we take the initiative to suspend work, check all staff, isolate persons who are in close contact with the confirmed patients, suspected patients or asymptomatic infected persons, and conduct the nucleic acid testing for all staff to ensure

We establish a leading group for COVID-19 epidemic prevention and control led by the chairman in the first time, and successively establish 5 organizations for epidemic prevention and control of overseas projects and 3 working groups to coordinate epidemic prevention and control at home and abroad. The Group's headquarters, all units, and projects constitute a three-level management system, which clarifies the supervision responsibility and execution

subjects. We incorporate the epidemic prevention and control as a topic into the weekly

meeting to resolutely protect the life safety of domestic and foreign employees.

the stable situation of epidemic prevention and control.

We establish several special teams for domestic and foreign materials procurement, storage, and supply, and make every effort to coordinate anti-epidemic supplies and drugs and exchange needed goods based on the development trend of domestic and foreign epidemic.



Assistance in the Establishment of the World's Largest Meltblown Cloth Production Line in 27 Days

|Keyword: Speed|

Meltblown cloth is the core raw material to produce masks, and the construction of a meltblown cloth production line has become an important link for opening the entire industrial chain of mask production. The Group actively and effectively leveraged its professional advantage, and its member enterprise, SINOPEC Nanjing Engineering Co., Ltd., undertook the task of constructing the meltblown cloth production line. The conventional plan for the installation of meltblown cloth project needs about eight months, while, under the epidemic situation, SINOPEC Nanjing Engineering Co., Ltd. only took 27 days, i.e. from 29 February on which the on-site public works started to 26 March, to realize the interim delivery of installation with high standards in advance, which helped the production line go into operation, perfectly demonstrating the "Speed of SINOPEC Nanjing Engineering Co., Ltd.", and making due contributions to the epidemic prevention and control with practical actions.







|Keyword: Power|

The COVID-19 response is not only a "fight against the epidemic" that needs to be fought hard, but also an economic battle that needs to be laid out as soon as possible. The group actively conduct crucial effect action, give full play to the organization, organization youth team in the new epidemic prevention and control and charge in the construction of key projects in the first, adhere to the science of epidemic prevention and control measures to create conditions for high efficiency in order to return to work and production, built a high standard of made a number of key projects, restoring power of social and economic order.





Intimate Friends from All over the World Make Concerted Effort to Fight against the Epidemic

|Keyword: Great Love|

The COVID-19 epidemic has swept the world, and the overseas situation is complex and severe. The Group quickly established a rapid response and emergency mechanism for the prevention and control of overseas COVID-19 prevention and control, deployed relevant work in advance, promptly implemented the prevention and control measures, perfected the epidemic reporting system, made early preparation and early prevention, publicized and popularized the epidemic prevention and control knowledge, and improved the self-protection awareness of overseas employees. Meanwhile, the Group provided humanitarian assistance for friendly international business partners in the hardest-hit areas in a timely manner, donated tens of thousands of surgical masks to Italy, Spain, Kazakhstan, Saudi Arabia, Uzbekistan, Belgium and other partners. urgently contacted more than 10 but less than 20 suppliers of anti-epidemic supplies that meet EU certification and relevant standards to support international business partners to fight against the epidemic, and helped Kuwait rebuild mobile cabin hospitals. In line with the concept of "a community with a shared future for mankind", the Group took actual actions, promoted mutual trust with international business partners, consolidated strategic partnership, and established a good corporate brand image of SEG in the international engineering market.





Donation of Medical Supplies



Training on the Knowledge of the Epidemic Prevention and Control



Daily Health Monitoring



Assistance to Kuwait in Reconstructing Mobile Cabin Hospitals

Green Development

- Emissions Management
- Resource Utilisation
- Protection of Biological Diversity and Natural Resources

02

H₂°

• Tackling Climate Change

Emissions Management

A1 Genera disclosure
A1.1
A1.2
A1.3
A1.4

The Group strictly obeys the Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, Law of the People's Republic of China on the Prevention and Control of Water Pollution, Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Law of the People's Republic of China on the Prevention and Control of Ambient Noise Pollution and other national laws and local regulations of China as well as the laws and regulations on environmental protection in the country where the project is located such as the General Environmental Law and Environmental Protection Standard, etc. of Saudi Arabia.

No material lawsuit or corresponding penalty occurred to the Group in the Reporting Period due to environmental violations.

Emission from the Group is mainly produced during engineering construction, including greenhouse gas, construction wastewater, dust, and construction waste. During the project construction, the Group has been emphasising green and environmental protection and blending it into the whole process of engineering construction. The Group adheres to the principle of "conservation and environmental protection" during the construction. Through "standardized procurement and modular construction" and taking the recycling as the carrier, the Group vigorously advocates the repair and recycling as well as the energy conservation and emission reduction, which further improves the utilisation efficiency of resources and reduces the greenhouse gas emission, construction dust effusion and solid waste discharge, thus improving the ambient environment.

To build green projects and form green enterprises, in 2019, the Group began to implement the "Green Enterprise Action Plan", formulated detailed implementation scheme and evaluation methods as well as guidelines, and determined the time schedule and requirements for the formation of green construction sites. During the Reporting Period, 57 projects of the 8 member enterprises have obtained the title of Green Construction Sites.

Meanwhile, we also actively encourage member enterprises to carry out ISO environmental management system certification. As of the Reporting Day, 11 member enterprises of the Group passed the environmental management system certification. At the same time, we also actively encourage our member companies to carry out ISO environmental Management System Certification. As of the Reporting Period, 11 enterprises of the Group have passed the environmental management system certification, among which our member company, the SINOPEC Engineering Incorporation, has performed extremely well at the ISO management system conversion and pass the authoritative certification by Lloyd's Register.



Green Enterprise Action Plan

2020 Percentage of Completed Green Construction Sites

Percentage of Completed Green Construction Sites



2022

2023

Percentage of Completed Green Construction Sites

90%

Content:

- Six 100%: 100% enclosure around the construction site, 100% coverage of bare soil and material stack, 100% washing of vehicles in and out, 100% hardening of roads on construction site, 100% wet process for earth-rock excavation and 100% airtight transportation of slag cars;
- Reduced discharge of solid wastes: 100% compliance disposal rate of general solid wastes and hazardous wastes;
- Compliance treatment or standardized discharge of production and domestic wastewater;
- Build green and digital factories to reach the domestic first-class environmental protection level in the petrochemical engineering industry and build an environmental protection benchmarking enterprise of SINOPEC.

Build environmental management system

The Group has built the environmental management

system and established HSSE Management Committee to form the Waste Discharge Control Procedure, Dust Control Procedure and other operation control procedures and assessment mechanisms. Requirements are expressly made on ecological environmental protection issues, emergent environmental incident countermeasures and entrusted disposal of hazardous waste, etc.

Perfect environmental management system



During the Reporting Period, the Company has formulated the Provisions on the Management of Environmental Protection, revised the Measures for the Evaluation of Green Construction Sites Related to Engineering Sector, and organized the compilation of the Guidelines for the Evaluation of Green Engineering Company.

Implement the Green Enterprise Action Plan

The Group keeps implementing the Notice on Comprehensive Implementation of Green Enterprise Action Plan and the Green Enterprise Action Scheme for SEG, as well as the Scheme for the Formation of Green Enterprises prepared by member enterprises.

Conduct training on environmental protection



Regularly interpret regulations and requirements on environmental protection to the project management staff and subcontractors; analyse typical cases of environmental violation to enhance consciousness of law abidance.

Reinforce supervision and inspection



Carry out special inspection regularly on dust preventive measures and hazardous chemical storage and use on the construction site, and accomplish closed-loop management in terms of the rectification of existing problems in order to prevent environmental pollution incident.

Handle solid waste by rule

Classify, collect and dispose solid wastes by rule; implement the measures to reduce solid waste; and



the backfill materials for foundation and subgrade to realise resource recycling;

Collect general solid wastes produced during construction in a timely manner and recycle wastes as much as possible; classify and clear those without recycling value to the location designated by the employer. It is forbidden to discard the solid wastes randomly;

Build a temporary repository for hazardous waste management; place hazardous wastes separately based on their type and classification; set standard identification, and hand over the hazardous wastes regularly to a qualified third party for disposal by rule or contact the employer for concentrated recycling and disposal.

Strictly control wastewater discharge

Collect the sewage generated during the excavation of foundation pits, pressure testing of equipment and pipelines, and water flushing, and adopt air cushion pools and other disposal measures to meet the recycling standard, such as humidifying operation;

Directly discharge administrative office wastewater to the municipal pipeline after cesspool treatment.

Strictly control construction dust and exhaust emissions on construction and operation sites

Equip the construction sites with rigid fences and effective dedusting measures, such as

coverage, segmented operation, construction on selected time, watering and rinsing of ground and vehicles, etc.;

Equip sprinkler, car wash pool, fog gun and mobile welding dust collection equipment on the project site;

Stop construction with dust on gale weather and take effective measures for dust prevention;

Set speed limit for vehicles entering or leaving the construction sites, harden or sprinkle the roads to guarantee moist ground and reduce dust arising raised by vehicles.

Eliminate outdated operation methods, and adopt measures such as sealing and dust removal in operation workshops to reduce pollutant emissions.





The general information of emission by the Group in the Reporting Period is listed as follows:

Type of Emission	Unit	2020	2019	2018
Total volume of greenhouse gas emission	Ton of CO_2 e	115,798.39	179,010.08	142,966.18
Scope I total volume of greenhouse gas emission	Ton of CO ₂ e	52,728.27	116,439.97	—
Scope II total volume of greenhouse gas emission	Ton of CO_2 e	63,070.12	62,570.11	_
Greenhouse gas emission per unit of revenue	Ton of CO₂ e/RMB Hundred Million	221.19	342.53	304.06
Output of hazardous wastes	Ton	879.10	1,336.62	637.70
Emission density of hazardous wastes	Ton/RMB Hundred Million	1.68	2.56	1.36
Treatment rate of hazardous wastes	%	100	100	100
Output of harmless wastes	Ton	62,267.67	64,405.38	63,805.71
Emission density of harmless wastes	Ton/RMB Hundred Million	118.94	123.24	135.70
Emission density of harmless wastes	%	100	100	100
Total volume of wastewater	Ton	4,338,861.09	3,387,082.81	1,347,263.59
Density of wastewater	Ton/RMB Hundred Million	8,287.70	6,481.09	2,865.36

Note: 1. The emission of greenhouse gas was calculated based on the GHG Protocol-Enterprise Calculation and Reporting Standard issued by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) and the Fifth Assessment Report 2013 and the Calculation Method and Reporting Guideline of Greenhouse Gas Emission by Other Industrial Enterprises (Pilot) issued by the Intergovernmental Panel on Climate Change (IPCC), in which the electronic greenhouse gas emission factor was selected based on the Datum Line Emission Factor for Chinese Regional Power Grid in Annual Emission Reduction Project 2019 issued by the Ministry of Ecology and Environment; 2. The output of hazardous wastes was calculated based on the statistical ledger of the production system of the Group; 3. Harmless wastes are mainly the household garbage, the waste metal, the office waste paper, and waste packaging etc. and the total emission of the household garbage was calculated as per 0.8kg/person/day, and the proportion of remaining harmless wastes is converted in light of actual situation; 4. The density-related data was calculated according to the emission/ production divided by operating revenues.

Case

Complete Set of Technology for the Environmental Protection of Delayed Coking Promotes Green Development of Petrochemical Industry

The project of "Complete Set of Technology for the Airtight Decoking, Transportation and Storage of Safe and Environment-friendly Delayed Coking" led by SINOPEC Luoyang (Guangzhou) Engineering Co., Ltd., a member enterprise of the Group, with full independent intellectual property of SINOPEC, won the Scientific and Technological Progress First Prize and is at the international leading level. This project aimed to develop the dust pollution, tail gas pollution, potential safety problems and other problems existing in the petroleum coke processing in the delayed coking unit, realising the airtight, clean and safe production operation of whole process of petroleum coke processing. Various environmental protection indicators meet the requirements of the Petroleum Refining Industrial Pollutant Discharge Standard (GB31570) and the Stench Pollutant Emission Standard (GB14554), thus improving the image of delayed coking unit with serious pollution, improving the safety and environmental protection level, and achieving significant social benefits.



Promote the Engineering of VOCs Waste Gas Treatment Technology to Protect the Environment

VOCs is one of the characteristic pollutants of petrochemical industry. In order to accelerate the engineering application of waste gas research and development and help protect the environment, the SINOPEC Tenth Construction Co., Ltd. of the Group has built a technology cooperation platform of scientific research institutes, integrated advanced process technologies and built a number of standardized, efficient and high safety VOCs treatment projects by utilizing its advantages in engineering, high standard design, construction and advanced equipment selection. During the Reporting Period, the environmental treatment project of low-temperature methanol washing tail gas of Qilu Petrochemical Engineering Company's Second Chemical Fertilizer Plant, which was constructed by the SINOPEC Tenth Construction Co., Ltd., was successfully delivered and started up at once, and all indicators fully met the design and specification requirements



Resource Utilisation

A2 General disclosure A2.1 A2.2

Green

design

Realisation of effective utilisation of resources is one of the major contents for enterprises to fulfil the duties of environmental protection. The Group took the initiative to implement the Law of the People's Republic of China on Conserving Energy, Law of the People's Republic of China on Promoting Clean Production, Ordinance on Civil-Building Energy Conservation and relevant policies on energy conservation to exploit the advantages of the Group's whole industrial chain in engineering construction. In the planning, design, consultation, construction and commissioning services for petrochemical engineering, the Group promoted the research, development and application of new energy, new technology and new equipment and was dedicated to building green projects and green factories to realise energy conservation and cost reduction. Meanwhile, the Group actively optimised the energy consumption structure, eliminated the use of coalfired boilers, and promoted clean and efficient gas-fired boilers, thus improving the energy consumption efficiency and reducing the waste of water resources.

During the Reporting Period, the Group's 3 projects won the National Green Construction Design Award, making positive contributions to the low-carbon development of the petrochemical construction industry.

- Promote the idea of green design, dig deep into the potential of resource recycling from all processes in the project design phase, follow the principle of "optimal overall energy utilisation", and adopt new process, new technologies and new equipment to realise waste heat recovery and gradient utilisation of residual pressure to improve resource and energy utilisation rate and reduce water, electricity and other resources consumption to the utmost extent;
- Select environmental effective catalyst to raise reaction efficiency;
- · Design solid waste reduction device and wastewater and exhaust gas treatment unit as support to reduce the emission of "three wastes" from the source;
- Promote the use of zero-discharge technology in engineering to reduce the consumption of fresh water; Utilise renewable resources to develop and optimize the industrial production technology of fuel ethanol, to reduce production cost and improve competitiveness and economy.



- . Use water-saving appliances to put an end to long-running water;
- Turn off lamps and computers when leaving, and rationally set air-conditioning temperature;
- Recycle and utilise heat and cold energy of air conditioners in office areas.
- Perform energy-saving transformation on lamps in office areas;
- Promote OA paperless office system;
- Promote teleconference system;
- Implement paperless meetings;
- Advocate use of durable goods and try to reduce the purchase of disposables.
- · Encourage green commuting, regulate service car management and advocate one vehicle for multiple purposes.



- . Establish thorough systems on energy and resource management on construction site to regulate material consumption and transportation scope for the purpose of resource conservation:
- Repair the old and utilise waste to recycle temporary facilities on the site, such as material warehouses, tool boxes, and board houses;
- Prioritise energy-saving, effective and environmental friendly construction facilities, equipment and tools recommended by the country and industry;
- Eliminate outdated facilities and equipment on schedule, and maintain energy-consuming equipment, machinery and tools in a timely manner.



3 projects achieved the second-class in the evaluation of green construction design of national engineering construction projects

- Syngas Debottleneck Modification Project of SINOPEC Great Wall Energy and Chemical (Ningxia) Co., Ltd.
- Technological Transformation Project of Annual Output of 8,000 Tons of High-purity and Low-energy Consumption Polysilicon Materials of Inner Mongolia Erdos Polysilicon Industry Co., Ltd.
- · Yan'an Coal Oil and Gas Resources Comprehensive Utilization Project

The resource consumption performance of the Group in the Reporting Period is generally presented as follows:



Note: 1. The comprehensive energy consumption data in the table were calculated based on the General Rule for Calculation of Comprehensive Energy Consumption; 2. Density- related data in the table were calculated by the consumption divided by the operating revenue; 3. Engineering projects the Group delivered to clients did not involve the use of packaging materials.



Complete Set of Technology for Zero Discharge Treatment of High Salt Wastewater of Coal Chemical Industry Successfully Developed

Facing the pressure of tightening environmental protection policies, coal chemical wastewater is a bottleneck for clean development of the industry due to its large output, complex composition and difficulty in treatment. In order to promote the fast development of the coal chemical industry, the "Zero Discharge Treatment Technology for High Salt Wastewater from Coal Chemical Industry", which was participated by member companies of the Group, was successfully developed during this Reporting Period.

In recent years, the technology has been successfully applied to the SINOPEC-Anhui Province Coal Chemical Cooperation Project, which is different from the wastewater treatment of conventional oil refining and chemical projects. Due to higher environmental requirements, all the wastewater from the plant and system are required to be treated and reused, achieving the purpose of maximizing the comprehensive utilization of resources and realizing the "zero discharge of sewage".



The success of this technology has realized the zero discharge of high salt wastewater and the resource utilization of NaCl and Na₂SO₄by fractionated crystallization, which makes the zero discharge treatment technology of China's coal chemical industry reach the international leading level.

Case

Energy Performance Contracting Mode Is Beneficial to the Efficient Utilisation of Industry Resources

The Group has been committed to the practice and promotion of energy performance contracting in the petrochemical industry, providing professional services from multiple levels such as energy assessment, audit, optimization and management. In January 2020, the energy performance contracting project of aromatics energy saving transformation and low-temperature hot water comprehensive utilization of SINOPEC Jinling Branch Co. Ltd. established and invested by SINOPEC Energy Conservation Technology Service Co., Ltd., a member enterprise of the Group, completed the interim delivery. After the project was put into use, the energy consumption of the aromatics unit decreased significantly, with a total reduction of 1,766 kilogram of standard oil/hour, equivalent to a reduction of 25.8 kilogram of standard oil/hour in the energy consumption of the aromatics unit. The preliminary estimated annual benefit is about RMB40 million per vear.



Since its establishment, the energy conservation company has implemented 49 energy performance contracting projects in total, which can reduce the emission of 105,000 tons of standard coal and 270,000 tons of CO_2 each year, making an important contribution to promoting the efficient utilisation of resources in the petrochemical industry.

Efficient Green Aromatics Technology Continues to Help Petrochemical Industry Clean Production

During this Reporting Period, the third-generation aromatics technology, which represents a higher level of technology, is under construction in Jiujiang Petrochemical Limited. The high-efficiency and environment-friendly aromatics technology, which was developed by the SINOPEC Engineering Incorporation, has achieved remarkable energy-saving and emission reduction performance and has significantly improved the efficiency of product separation and aromatics resource utilization, with the emission of "three wastes" far below the permitted targets: 12.5 mg/m³ of sulfur dioxide and 43 mg/m³ of nitrogen oxide, far below the national standards of 100 mg/m3 of sulfur dioxide and 150 mg/m³ of nitrogen oxide. The COD concentration and oil content of effluent are also lower than the national standards; the reduction of solid waste emission was 98% with a single unit reducing solid waste emission by about 2000 tons per year, which was at the leading level around the globe.



At present, the second-generation high-efficiency and green aromatics technology has been successfully applied in Yangzi Petrochemical Limited and SINOPEC Hainan Refining & Chemical Co. Ltd. in China, and has successfully gone abroad to Saudi Arabia, Indonesia, Belarus and other countries.

Protection of Biological Diversity and Natural Resources

A3 General disclosure A3.1

Case

The Group strictly obeys the Environmental Protection Law of the People's Republic of China and relevant regulations on environmental protection of the place where the project is operated to positively fulfil the duties of domestic and foreign environmental protection. During project construction, the Group took into full consideration the possible impacts on the biological diversity, environment and natural resources, and proposed targeted response measures and restoration solutions; meanwhile, we actively develop ecological restoration technology, and carry out industry technical exchange and cooperation to jointly promote the clean transformation of the petrochemical industry.

Carry out the ecological construction to reduce surface disturbance and damage Follow the ecological construction concept in the construction, fully consider the environmental sensitivity of the area where the project is located and the requirements on the protection of species, adjust the construction operation time to actively avoid construction during fish breeding season, migration season and animal migration season, rationally arrange the material storage yard to reduce the overlay of the ground vegetation, improve the construction scheme to reduce the surface disturbance, and improve the "three wastes" treatment measures to avoid the random discharge of waste water and residue;

Introduce local species to protect endangered animals and plants For disturbing the surface, we strictly implement the soil and water conservation plans, and introduce tree species suitable for local growth to increase the survival rate of species; transplant and protect ancient and famous trees which are under protection in the construction area of the project;

Carry out civilized construction and respect local culture and customs Take into full consideration the impact of construction noise on the surrounding community environment, and monitor the noise of the factory boundary. In order to reduce the impact of the project on the surrounding community residents, we try to avoid affecting the living environment of residents in the surrounding communities during the project site selection, design, and construction, and respect the local culture and folk customs;

Enhance the R&D and reserve of soil and groundwater remediation technology The Group actively promotes the development and reserve of soil remediation technology, and has formed a complete site technology system including bioremediation and phytoremediation, and actively advocates "Nature-based Solution" (NBS) to promote the construction of "clean water, blue sky and unpolluted land";

Actively carry out industry technical exchange and cooperation The Group actively cooperates with domestic and foreign scientific research institutes to explore the market for contaminated sites and groundwater remediation in the petrochemical industry; meanwhile, it holds the relevant technical seminars to share advanced technological achievements and governance experience.

Remediation of Polyether Contaminated Soil in Tianjin

In recent years, SINOPEC Fifth Construction Co., Ltd. of the Group has deemed environmental protection and energy conservation business as the key cultivation business for corporate transformation and upgrading. It has successively repaired and treated contaminated soil and groundwater of three large sites, including Beijing Coking Plant and Beijing Guanghua Xincheng, with high standards, and created multiple "No. 1 in the Country", has obtained the Class-A qualification of Environmental Protection Engineering Professional Contracting, and was certificated as the Guangdong High-tech Enterprise and Guangdong Provincial Engineering Technology Centre of Energy Conservation and Environmental Protection Soil Pollution Control. In the Reporting Period, the SEG Soil Treatment Centre, with SINOPEC Fifth Construction Co., Ltd. as the executive subject, successfully won the bid for the site pollution remediation and treatment project in the Dongli Plant of the Polyether Department of Tianjin Petrochemical. There are a total of 19 types of soil pollutants and 20 types of groundwater pollutants in Tianjin. The remediation technology is complicated, and the construction Co., Ltd. researches new technologies to speed up the construction progress and reduce the repair cost through refined management. As of the Reporting Day, the Tianjin Petrochemical polyether project has completed 70% of the in-situ remediation construction, and various soil remediation and water treatment indicators have reached the standard.





Case Green Cleaning Technology Helps Prevent Soil and Groundwater Risks at Gas Stations

During the Reporting Period, the "Integrated Green Cleaning Technology for Small and Medium-sized Storage Tanks" independently developed by the Group's member company SINOPEC Fifth Construction Co., Ltd was awarded as "2020 Petroleum and Petrochemical Good Technology" and successfully released by the China Federation of Chemical Industry and Science Association Enterprises in Haikou, Hainan, to promote transformation of scientific and technological achievements. The technology changes the traditional cleaning mode, optimizes the tank cleaning procedure, adds oil-containing wastewater treatment unit and oil and gas recovery treatment unit, avoids the safety and environmental protection risks of the operation process, realizes efficient and low-consumption cleaning, and reduces the labor intensity and operating costs of operators.

During the Reporting Period, the technology has been successfully applied in the

gas station impermeability renovation old tank disposal project of the Guangdong region, with a total of 1,525 gas stations and 5,691 buried oil tanks cleaned in Guangdong Province. The successful application of this technology has made an important contribution to accelerating the impermeable transformation of underground oil tanks at gas stations and reducing the risk of soil and groundwater contamination.

Tackling Climate Change

A4 General disclosure A4.1 Tackling climate change has become a global consensus. The Chinese Government has put forward the climate action goals of "striving to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060". The Group's parent company, SINOPEC Corporation, also signed the Declaration on Peaking Carbon Dioxide Emissions and Achieving Carbon Neutrality of Chinese Petroleum and Chemical Industries to jointly promote the clean and low-carbon development of energy structure. Meanwhile, the Corporation has also signed strategic cooperation letters with the Energy Research Institute of the National Development and Reform Commission, the National Centre for Climate Change Strategy Research and International Cooperation, and the Low Carbon Energy Laboratory of Tsinghua University to initiate research on carbon peaking and carbon neutrality strategy pathways, and to formulate the Corporation's carbon peaking and carbon neutral strategies, targets, roadmaps and safeguard measures.



As an important engineering service provider and technology patent licenser in the petrochemical industry, the Group pays extra attention to climate change and actively tackles it. We have improved our ability to handle emergency in climatic disasters, reduce the impact of climate change on engineering project construction to the minimum and improve the adaptability to climate change by establishing thorough emergency response mechanisms. Meanwhile, we also attach importance to the research and development and utilisation of low-carbon technologies, and actively cooperate with domestic and foreign scientific research institutes to promote the low-carbon development of the petrochemical industry. The Group extensively relies on the joint R&D Centre of Carbon Neutral Green Technology jointly established by the Institute of Process Engineering of the Chinese Academy of Sciences and SINOPEC Yanshan Petrochemical Company, makes use of our experience and advantages in engineering technology innovation and engineering transformation to promote the construction of a carbon neutral industrial demonstration park and join hands to promote the lowcarbon development of the petrochemical industry. During the Reporting Period, the Group obtained several patents, such as A Process Method for Conversing CO₂ Deoxidized by Coke to Methanol and Method for Evaluating the Carbon Footprint of Products in the Production Process of Paraxylene and Its Application. The implemented energy performance contracting projects boosted a conservation of 105,000 tons of standard coals in the industry, and reduced 270,000 tons of carbon dioxide emission.

	Potential Climate Risks and Opportunities	Coping Strategies
Operation	The increase in the number of extreme weather events, such as typhoon and rainstorm, will affect the construction of the projects.	 Establish a thorough management system against climatic changes, such as the Management Regulation on Typhoon Prevention and Management Regulation on Flood Control, and prepare the Contingency Plan for Natural Disasters to establish an emergency response mechanism for flexible prevention; Establish the headquarters for typhoon, flood and natural disaster prevention to specify the duties of relevant units (departments) and guide relevant units to implement the regulations and requirements to effectively conduct the prevention management; Prepare and store enough goods, equipment and transportation vehicles, etc. against disasters and conduct regular check to ensure qualified and effective goods and intact equipment for scheduling by demand; Carry out drills on flood and typhoon prevention before
		typhoons and flood season to improve emergency treatment ability.
1111	To cope with climate change, China is accelerating the transformation of the energy structure, and new entrants in the clean energy sector continue to increase, forming a competitive pattern. Technological innovation in the transformation of the petrochemical industry to a low carbon and energy saving economic mode will increase the corresponding R&D costs and investment expenditures of the Group.	 Promote the R&D and application of new energy, new technology and new equipment in the planning, design, consulting, construction and commissioning of petrochemical engineering; Carry out energy-saving consulting, energy-saving evaluation, energy-saving technology promotion, energy-saving training, carbon inventory, etc., as well as research on technical standards and specifications, carbon standards, carbon footprints and carbon quotas; Actively cooperate with domestic and foreign scientific research institutes to promote the conversion and utilisation of carbon dioxide.
Policy	The government is accelerating the layout of new and renewable energy sources such as hydrogen, wind, solar, geothermal and biomass energy, which is conducive to the market promotion and application of energy conservation and renewable energy technologies.	 Through relying on the "Green Enterprise Action Plan" of SINOPEC Group, formulate the Implementation Scheme for Green Enterprise Action to fully practice the idea of green development and promote the effective utilisation of resources and energy; Research and develop hydrogen separation and manufacturing technology depending on oil and gas resources of refinery plans of SINOPEC; Accelerate the industrial application of low-cost and high-efficiency renewable energy technologies; Strengthen technical cooperation, track and carry out relevant research, actively seek business partners, and expand technology sources to lead industry development with regard to the production of chemical raw materials from crude oil, chemical utilization of natural gas, acquisition of cheap hydrogen resources and industrial development, and utilization of CO₂.

Putting People First

- Building Diversified Teams
- Putting an End to Child Labour and Forced Labour
- Supporting Employees' Development
- Better Cares for Employees

Building Diversified Teams

B1 General disclosure B1.1 B1.2 The Group strictly obeys the Labour Law of the People's Republic of China and the Labour Contract Law of the People's Republic of China and relevant local laws and regulations where our operations are located such as the Labour Law of Saudi Arabia, and adheres to the principle of voluntary and equal employment. By signing formal labour contracts with employees, the rights and interests of employees are fully guaranteed in multiple aspects including recruitment, unemployment, promotion, working hours, vacation, salary and welfare, diversity, discrimination prevention and equal opportunities. We maintain the right of employees to know, to participate and to supervise and oppose any form of child labour, forced labour and other illegal employment forms to build equal and diversified teams of employees.

During the Reporting Period, there was no child labour, forced labour or other violations or lawsuit incurred by employment issues in the Group.

Equal Employment, Diversity and Recruitment Policy

We pay attention to the diversified composition of employees and assess the job qualifications of professionals from compliance, attitude, performance, competence and other aspects to guarantee all employees are entitled to equal employment opportunities. We insist to put an end to any discrimination based on sex, age and other factors. We have taken multi-channel recruitment policies and channels including campus recruitment, social recruitment and internal recommendation, etc. We have treated all applicants equally during recruitment and have not set any discriminative conditions for specific race, skin colour, nationality, language, ethnicity, faith or physical disability, etc. We advocate diversity among employees.

Overseas employees are a vital part of our employee teams. They support the Company's international development strategy. The Group cares about the career development, skill training and health and safety of foreign employees. We keep promoting "internationalisation of talents and localisation of employment" to respect cultural fusion and motivate the initiatives of foreign employees, creating values for the Company's overseas business layout and meanwhile realising result sharing. In international projects, the Company boots localisation of overseas employment by participating in job fairs held by local chamber of commerce, etc.

During the Reporting Period, the total number of contract employees of the Group reached 17,301, the total number of outsourcing labours was 223, and the new employees were 743, with the male and female employee loss ratios of about 0.9% and 0.2% respectively.



Salary and Welfare

The Group adheres to the idea of "Pay for Value, Post and Performance" on salary distribution and implements the competitive distribution system that matches the wage level on the market. The Group established the benefit-oriented wage mechanism, formulated the mid- and long-term incentive plans for backbones, built a thorough performance assessment mechanism, sufficiently played the leading role of distribution under assessment, and meanwhile executed the work efficiency linked assessment, linked the completion of indexes to total salary, reinforced restriction on single index incentive, and encouraged employees to share value results with the Group while making benefits.

The Group established a thorough employee welfare system. While paying five social insurances and one housing fund for employees in accordance with the law, the Group increased supplementary medical insurance, recuperation subsidy, heatstroke prevention subsidy and other supplementary welfare. Besides, the Group paid personal accident insurance for employees dispatched overseas. Moreover, the Group respected the right of vacation among employees and guaranteed their statutory festivals and holidays, marriage and funeral leave, maternity leave, late childbirth leave, breastfeeding leave and other paid leaves. As for the minority employees, we respect their religious belief and customs, such as working days off for Muslim on Fast Breaking.

In addition, the Group pays extra attention to the lawful rights and interests of female employees. We established the female staff committee to protect the implementation of regulations on maternity, childbirth and breastfeeding leave and the policy of regular physical examination. We also pay attention to the physical and mental health and career development of female staff by providing them with continually improving labour environment and conditions.

Prohibiting the Use of Child Labour and Forced Labour

B4 General disclosure B4.1 B4 2 The Group prohibits any form of forced labour and strictly avoids child labour, forced labour and other illegal employment. The Group strictly obeys the international, national and local codes, regulations and ordinances to guarantee rational working hours, set working days off for overtime and avoid compelled or forced labour.

Supporting Employees' Development

B3 General disclosure B3.1 B3 2 The Group firmly holds the idea of "talent as the primary resource, primary capital and primary impetus", adheres to the "people-oriented and win-win for both individual and enterprise" talent development policy, and implements the strategy of "talent reinforcing enterprises". While developing itself, the Company does not forget to satisfy the development needs of employees. By building multi-level and comprehensive training management systems, enriching training contents and applying new training methods, the Company endeavours to put training and learning in the whole process of employees' career, so that employees can reserve knowledge and experience for their growth and development. The Company improves the comprehensive quality of employees to let them meet the job requirements and adapt to long-term development of the Company.

Talent Development

The Group thoroughly implements the project to reinforce enterprise with talents, and closely around the SINOPEC development pattern of "One Foundation, Two Wings and Three Growth Points" and the goal of building a world-leading technology engineering company, constantly strengthens the construction of high-quality professional talent team, and formed five categories of professional fields, including scientific research technology, professional management, emerging business, skill operation and international business. The Group helps employees grow rapidly and expand their room for career development through multi-level talent training models to realise joint development between their individual value and the Company.

In 2020, the Group further improved the selection and employment system. According to the institutional

requirements of the Group and the actual situation of the Group's cadre team, the Group has revised and improved the selection, appointment, assessment and evaluation systems for middle-level managers to further strengthen the construction of young cadres at the source, and participated in the exercise plan for "arranging about 300 outstanding young managers at the middle level and about 3,000 outstanding young cadres and talents in the Group for communication and cultivation" of the SINOPEC Group. As of the Reporting Day, the Group had 4 academicians of the Chinese Academy of Sciences and Chinese Academy of Engineering, 1 expert of national outstanding contribution, 46 persons entitled to special government allowance, 1 national candidate for the "Ten Million Talents Project", and 5,383 persons with senior professional and technical qualification or above

Implement the project to reinforce enterprise with talents The Company formulated the Action Scheme for SEG to Reinforce the Enterprise with Talents and the Three-Year Rolling Plan for SEG to Reinforce the Enterprise with Talents (2018-2020), forming detailed roadmap on reinforcement of enterprises with talents;

Establish the rating system for standard talents Establish the evaluation system for standard international talents composed of professional classification, position qualification and international quality and ability evaluation. For example, in terms of professional classification, form the Core Professional Classification of Petrochemical Engineering Talent Database and Main Job Classification of Petrochemical Engineering Talent Database in combination with the actual situation of the Company;

Get through talent promotion channels Formulate the Administrative Measures for the Posts in SEG Headquarter (Pilot), optimize the conditions for talent selection, improve relevant regulations and measures for talent growth channel to form the management regulation of expert management, performance assessment and talent growth channel, etc., realising cross- promotion and horizontal mobility among talents on the three sequences of business management, professional technology and skilled operation, and further expanding room for employee career development;

Promote employee work shift system Expand occupational breadth of employees to cultivate high-quality versatile talents;

Build "apprenticeship" talent training mechanism Accelerate young talent training and inheritance of good style, experience and technique to promote growth of employees on post;

Implement talent training mechanism through overseas projects Assign good employees to overseas construction projects to help them further know the international business processes and to improve cross-cultural communication skills, realising the objective of training international talents with "skilful techniques, commercial knowledge, foreign language skill and management ability".
Employee Training

The Group treats the construction of high-quality talent teams as its long-term development strategy and is dedicated to building a "learning, service-oriented and innovative" organisation based on the comprehensive improvement of employee quality. In 2020, to establish the mechanism for internal knowledge precipitation and sharing, the Company formulated the Measures for the Management of Internal Trainers of SEG. During the Reporting Period, a total of more than 210 people were selected into the internal trainer database. Meanwhile, the Company gave full play to the advantages of online training, and adopted such training modes as online video courses and live online courses, achieving good results.

In the Reporting Period, the Group inputted RMB 36.84 million to train 36,555 person-times. The total training hours reached 937,000 hours, averaging 54.17 hours of training per employee. Among them, the average training hours for per male and female employee were 57.01 and 46.33 respectively; the average training hours for per senior employee, mid-level employee and ordinary employee were 45.00, 58.53 and 51.48 hours.



Formulate the Administrative Measure for Training of Employees of SINOPEC Engineering (Group) Co., Ltd. and Bylaws on Implementation of Training of Employees of SINOPEC Engineering (Group) Co., Ltd. Headquarter to promote the talent training system building in the Company;

Establish an education and training centre to have developed a series of training courses for employees of different sequences and job grades based on their career development planning to improve employees' business theories and job skill quality in a targeted manner;

We established the full-time and part- time teacher resource base of the Company to promote sharing and inheritance of internal managerial experience and knowledge information and to boost good teacher resources sharing;

Provide employees with various training courses, including new staff training, management training, professional skill improvement training and qualification and certification training, etc., to facilitate the career development of employees on all posts;

Adopt "online", "offline" and other training methods and take advantage of Internet training, simulate training, remote education and electronic education, etc., and meanwhile flexibly choose multi-media, field observation, practice, experience exchange, contest, assessment and other approaches based on different training subjects and contents to effectively improve the training benefits.



Case Implement Rotation Training Plans for Young Cadres

To strengthen the training of young cadres and accumulate energy for the Group's development, the Construction Co., Ltd of the Group has launched the "Young Cadre Rotational Exercise Program", in which young cadres from various departments are sent to the front line of production and difficult positions to refine their wills and improve their quality.

In the past three years, more than 50 young cadres have been selected and sent to the front line of construction of large-scale projects such as Zhenhai Refining, Hainan Ethylene and Gulai Refining, as well as to the front line of the market and overseas subsidiary companies to take up the positions of project manager and design manager of engineering projects. These young cadres receive all-round training through deep participation in the implementation of engineering projects, and continuously improve the comprehensive coordination ability, problemsolving ability and business level



Better Cares for Employees

B1 General disclosure

The Group attaches great importance to caring about employees' work and life as well as humanistic care. We take the initiative to solve the practical difficulties for employees and spare no effort to hold warm-giving activities as our true care for their life. For instance, visits are organised to hospitalised staff, poverty-stricken staff and female staff giving childbirth, and funeral arrangements and condolences are provided to the direct relatives of employees to extend sincere care for the employees, improving their happiness and sense of belonging. Meanwhile, the Group organises rich and diversified recreational and sports activities for employees to provide them with opportunities to showcase different talents.

Assistance to Employee

The Group comprehensively implements the Administrative Regulation of SINOPEC for Aid and Relief, the member enterprises establish the working system on aid and relief, sets up mutual aid fund and holds the "grassroots and tenthousand households visiting" activity to provide detailed and practical aid to employees under poverty and special circumstances, subdivides the aid objects into employees in extreme poverty, employees in difficulty, employees having serious diseases, employees having accidents, employees whose children receive student subsidies, and employees under other circumstances, and investigates and publicizes the same quarterly to achieve "assistance provided for people really in difficulty"; carries out "mutual aid plan" to organise employees to "contribute love and donate in a day", provides subsidies for poverty-stricken and seriously ill employees, and organises employees to donate blood without compensation to help employees with emergency needs pull through; takes the initiative to promote the "loving mom's cabin" plan to provide female staff with heart-warming services, and provides them with insurance and security, paying attention to their physical and mental healthy.

Case Loving Mothers' Hut

The SINOPEC Shanghai Engineering Co. Ltd., a member of the Group, created the "SSEC Mothers' Hut" to provide convenience for female employees during breastfeeding. The hut is equipped with sofas, tables, refrigerators, breast pumps, sterilizers, air purifiers and other equipment to meet the needs of female employees during certain physiological periods such as breastfeeding, providing a clean, private and convenient space.



Case Care for Overseas Employees

In 2020, since the overseas epidemic situation continues to be tense, resulting in overseas employees unable to return home from abroad normally, which brought great pressure to overseas employees and their families. The Group provided assistance, condolences and psychological counselling for overseas employees, their family members and the family members of employees in extreme poverty. For instance, the Group organised the training on the use of anti-epidemic supplies, carries out knowledge lectures on the epidemic prevention and control, lectures on the mental health and mental counselling and online inquiry, applied APP to carry out psychological counselling; optimised staff accommodation, strengthened canteen and logistics management, and improved staff living conditions. Meanwhile, we focused on the actual needs of employees in trouble due to the epidemic, visited the families of overseas employees, and assisted and aided the employees in difficulty and the stay-at-home children of the employees by providing them with anti-epidemic supplies and daily necessities.





Recreational and Sports Activity

The Group adhered to the idea of "healthy life and happy work" and took the initiative to build recreational and sports activity platform for employees. During the special period of epidemic, we organized online parent-child activities, which not only enhanced the communication between parents and children, but also made employees understand each other better and feel the warmth of the Group. We have formulated the Articles of Association and administrative measures for the special interest group of the recreational and sports committee of the Company's trade union. After the domestic epidemic situation was basically stabilized, the Group prudently carried out recreational and sports activities in light of the epidemic prevention and control policies, to enhance employees' confidence in fighting against the epidemic; meanwhile, through implementing the long-term mechanism of "grassroots and ten-thousand households visiting" and carrying out the "family culture" construction, the Group improved the staff activity rooms and libraries of each project department, which were equipped with recreational and sports equipment, improving the working and living environment. We enhanced the sense of gain, belonging and happiness of employees of employees through closer sharing and communication with them.



Fun Games



Orienteering



"Growing Up with Kids" Parent-child Activity

Safety and Health Management

MAFETY HELMET

SAF

- Safety Management
- Health Management

A

Safety Management

B2 General disclosure B2.1 B2.2 B2.3 Work safety is the foundation of sustainable development of the Group. The Group strictly obeyed the Law of the People's Republic of China on Work Safety, Administrative Measure for Architectural Construction Permits, Measure for Implementation of Fire Safety Responsibility System, the Special Equipment Safety Law of the People's Republic of China, the Regulations on the Management of Hazardous Chemicals, the Regulations on Emergency Response to Work Safety Accidents and local laws and regulations on work safety of the places where our operations are located. The Group implemented the general requirement of "work safety before, above and over all", firmly established the idea of "life first, safety first", and stuck to the red line of safety. We implemented a three-year action plan for special rectification of work safety, spared no effort to ensure major safety risks under control, and established a long-term mechanism for work safety, greatly improving the management level of work safety.

Safe Operation

The Group has established a thorough safety responsibility management system and established safe development idea and red line consciousness during project management, improving work safety priority, reinforcing implementation of responsibilities, strictly pursuing responsibilities, treating risk control as key focus, and exercising essential safety management. In 2020, in the backdrop of the raging global epidemic, we rose to the challenge and made concerted efforts to comprehensively sort out the safety management system, strengthen risk control and implement the supervision governance, and carried out various education and training activities in which we promoted training through supervision and inspection, promoted rectification through cases, and promoted improvement through practical operations. We totally inputted RMB141 million on work safety including safety protective facilities and equipment, safety protective gears, work safety publicity, education and training, etc. to build firm safety results.

During the Reporting Period, 11 member enterprises of the Group passed the certification of the ISO45001 Occupation Health Safety Management System, and realised 295,000,000 safe working hours, with the LTIR (benchmarked against per 200,000 working hours) of 8.18%. There were no non-productive death incidents or public safety incidents in the Group throughout the year, and the overall work safety of the Group was stable and controllable.

We totally inputted on work safetymillion on work safety





Deepen safety responsibility management system **Comprehensively promote the safety responsibility management system:** The Group has established a work safety management committee and professional sub-committee comprised of members of the Board of Directors and the Supervisory Committee and main leaders of member enterprises in overall charge of safety management of the Group; the member enterprises have established corresponding work safety management committees based on their own business characteristics to specify the safety responsibility of posts at all levels. Meanwhile, the Group enabled the members of leading group of the Group and the responsible persons of functional departments to carry out the safety contracting work, clarified the safety post responsibility level by level, and supervised the assessment implemented by various units, forming a "vertical to the bottom, horizontal to the edge" management mechanism;

Promote management of safety objectives: The Company has formulated the annual safety objectives and indexes and decomposed them to the member enterprises in HSSE Letter of Responsibility. The member enterprises decomposed and implemented them from level to level based on the general objective of work safety and assessed the completion of safety objectives on schedule;

Improve safety management system: The Group has formulated the Safety Risk Management Regulation of SINOPEC Engineering (Group) Co., Ltd. (Pilot), Emergency Management Regulation of SINOPEC Engineering (Group) Co., Ltd., Safety Management Regulation for Risky Operation of SINOPEC Engineering (Group) Co., Ltd., Rules for Emergency Management, Rules for the Management of Production Safety Accidents (Incidents), Rules for the Production Change Safety Management, and other management regulations, measures and implementing rules to further prevent safety risks.



Establish safety performance assessment management mechanism



Exercise essential safety, and promote science and technology to "boost" safety



Regulate construction risks



Implement safety risk evaluation and level-tolevel administration



Reinforce safety supervision and inspection

The Group has formulated the Administrative Measures for the Organizational Performance Assessment, Measures for HSSE Management Assessment, and Administrative Measures for HSSE Accountability. It conducts organizational performance assessment quarterly, and assesses the key work carried out by each unit. The safety performance assessment results link up with the organizational performance and appraisal of each unit and the redemption of the risk mortgage of the principal leader.

Regulate safety design standard: The Company has formulated the Management Manual on Essential Safety Design of Engineering Projects to set the standards and requirements for safety designs and exercise "essential safety" from the source;

Promote science and technology to "boost" safety: To overcome the difficulties in safety management during the epidemic period and constantly enhance the risk management and control of direct operations at the same time, the Group took the initiative to try to transmit the safety video surveillance of key construction operations, operations in confined space and high-risk demolition operations in real time through the regulation mode of "Internet + security", realising remote supervision and inspection through voice interaction to prevent and put an end to various accidents to the greatest extent. Meanwhile, we took the initiative to apply new technologies, such as the technology for green cleaning of storage tanks, to reduce the risk of operating in confined spaces.

Pay close attention to the management of high-risk operations: Strictly implement operation licensing management on temporary electric operation, high-place operation, lifting operation and other dangerous operations, and strictly fulfil the approval procedure; meanwhile, make closed-loop rectifications of problems found in the investigation of hidden dangers one by one;

Carry out safety analysis on dangerous operations: Identify dangers and harmful factors and formulate control measures before dangerous operations to ensure operation safety;

Regulate field safety signs: Set up prohibition, warning and other safety signs on the construction sites based on the practical case to lead and warn the field operators to prevent accident.

Dynamically promote safety risk evaluation: The Company has formulated the administrative measure for risk evaluation and established the mechanism to regularly identify risks. The member enterprises have formulated the Administrative Measure for Safety Risks, Safety Risk Identification and Evaluation Procedure and other regulations based on their own business characteristics, dynamically evaluated hazard sources and risk points in such aspects as the design safety, production safety, public safety and staff health, and determined different control responsibilities and control measures based on different risk levels, formed regional risk distribution maps, and updated them month by month to periodically achieve early warning and announcement of risks.

Establish thorough safety supervision mechanism: Build a professional safety supervision squad and prepare the Safety Inspection Outline. The safety supervision squad was given sufficient power to assess safety, order shutdown on site, and penalize violations in a timely manner, etc. to reinforce frontline safety supervision;

Carry out diversified forms of supervision and inspection: Combine key supervision by the Group headquarters and self-inspection and self-correction by member enterprises. Carry out supervision and inspection in such means as "going straight to the grassroots and straight into the scene without sending any notice, making any announcement, listening to any report, arranging any escort or reception", remote video, follow-up checks, special inspection, self-inspection and self-change to ensure the implementation of the supervision and inspection. During the epidemic period, we innovated in the inspection mechanism, and adopted the online supervision for Gulei and Shandong LNG projects for the first time to ensure risks under control.

Reinforce safety risk closed-loop management: Trace and promote rectification of problems by issuing risk rectification notice, reporting and exposing problems found during supervision at levels of the Company and member enterprises, and analysing the prominent problems and management causes on the safety committee, etc. to realise closed-loop management.



Emergency management

Establish thorough emergency management mechanism: The Group has established an emergency management centre, and the member enterprises have accordingly established a thorough "three-level" emergency management mechanism and formulated the emergency management regulation, comprehensive contingency plan, on-site handling plans, emergency response procedure and emergency treatment card on key posts;

Carry out emergency training and drill: Improve the popularisation of emergency common sense by contingency plan cards, key emergency process posts and portable transformation, etc. and study typical accident to improve safety consciousness; regularly organise comprehensive and professional emergency drills, evaluate emergency organisation, resources, procedures and practical operation level, and enhance emergency treatment ability continually.



assessment

Assess abidance of relevant safety laws regularly: The Group has established the list of application of safety- related regulations based on the areas where the domestic and foreign projects are operated, assessed the abidance of applicable clauses based on the implementation on site, and raised measures for correction and improvement concerning the partial noncompliant items.

Highlight overseas operation safety

Strictly obey local laws and regulations: While the international businesses keep developing, the Group strictly obeyed the overseas local laws and regulations on safety and meanwhile formulated the Administrative Measure for Overseas Public Security of SINOPEC, Standard for Evaluation of Overseas Public Safety Risks of SINOPEC and other

Improve management mechanism: HSSE management mechanism and "HSSE Committee" were established for overseas projects of the Group to specify the duties and working mechanism of the committee for overall safety management of overseas projects;

administrative measures based on the local practical cases;

Carry out overseas safety risk evaluation: We evaluate the dynamic risks of overseas projects and formulate effective precautionary measures based on the practical case of projects;

Reinforce overseas HSSE inspection and audit: Established overseas public security supervision working team to perform itinerary inspection on safety management of overseas petrochemical projects.

ase Innovation in "Cloud" Safety Supervision Model

In 2020, the rampant COVID-19 epidemic had a great impact on the safety management of projects. To this end, Ningbo Engineering Company, a member enterprise of the Group took the initiative to try to apply the regulation mode of "Internet + security" to promote the "Cloud Construction", onsite "Cloud Supervisor" and other intelligent management modules. In particular, the "headset visual remote collaboration terminal" was firstly used in the maintenance and dismantling operation sites, and can transmit safety surveillance video of key construction operations, operations in confined space, high-risk demolition operations, and other operation conditions to the control centre in real time, realising remote supervision and inspection through voice interaction to prevent and put an end to various accidents to the greatest extent.



se Intelligent Demolition Operations Reduce Safety Risks

The petrochemical plant dismantling is characterized by flammability, explosiveness, large volume of work and high safety risks. In order to ensure "zero accident, zero injury and zero pollution" in the dismantling process and achieve the goal of "high standard, high quality and high efficiency", the Group's member company, the SINOPEC Fifth Construction Co., Ltd., integrated modern technology into the dismantling operation, adopting AR intelligent platform, 5G global remote control system and cold dismantling, load shifting and other innovative technologies and new techniques to optimize the site operation, which can further reduce the operation risk, improve the efficiency of dismantling operation and achieve intelligent and safe dismantling.





Safety Training and Publicity

The Group extremely focuses on safety training and publicity. As for the safety risks and hidden dangers during project management and construction, the "online + offline" approach is adopted to carry out safety training on all directions through cases, simulated training, visualized training and other diversified forms. The Group firmly lays the "three foundations" on safety, enhances the safety consciousness among all staff and improves safety skills, laying solid foundation for the on-going stability and good trend of work safety.

In 2020, in terms of safety training, we put more emphasis on the combination of theory and practice, highlighted the training on management ability and practical ability, and provided trainings for 200 high-risk operation inspectors, such as scaffolding, lifting, and temporary electricity inspectors, promoting the standardization of safety inspection; we organised overall coverage training for more than 5,000 team leaders and safety managers, which improved the awareness and ability of grassroots leaders; we conducted professional training on heat treatment, etc. and provided the repeated trainings and renewal of certificates for 438 welding quality inspectors, ensuring the stable operation of the projects. Based on the actual situation, each unit also carried out various education and training activities in which we promoted training through supervision and inspection, promoted rectification through cases, and promoted improvement through practical operations, improving the quality and ability of the operation team.

In the Reporting Period, the Group organised 120 safety trainings of all kinds participated by 11,000 person-times totally, with the safety training hours of 36,000 hours.

the Group organised safety trainings of all kinds participated 120 by person-times totally 11,000 the safety training hours of hours 36,000

42

ase Build Safety Training Base to Strengthen Safety Education

In order to improve the management ability and safety skills of the staff and solidify the safety "three bases", the Group's member company, SINOPEC Fifth Construction Co., Ltd., has developed and built a theoretical training area, a practical training area, a mock training area and other five functions, involving aerial work, lifting and hoisting, confined space and other 30 many types of practical training modules. Training students can experience immersive education and training through physical operation and display, simulated field operations, accident experience, virtual simulation training and other ways to further deepen the understanding of safety knowledge and perceptual understanding of accident lessons, thereby improving the safety awareness, safety operation and management skills of employees.

At the same time, the company also actively assumed social responsibility and cooperated with local schools to launch safety education and study activities during the Reporting Period, integrating safety education in specific situations, allowing children to experience and practice in scenarios that resonate with them, remembering how to protect themselves in case of danger, and truly playing a learning effect.





e "Online + Offline" Training

During the epidemic period in 2020, relying on SINOPEC network academy, Tencent conference, live streaming on DingTalk, and internal network platform, etc., the Group shared the basic knowledge and skills, international standards and relevant cases of international construction projects and carried out the safety management according to the requirement of "keeping learning in spite of the suspension of classes, and carrying out trainings on schedule", achieving the goal of synchronizing the training progress with the plan. With the gradual control over the epidemic, to further highlight the management and practical capabilities of grassroots safety managers, we provided trainings for 200 high-risk operation inspectors and more than 5,000 team leaders, effectively ensuring the safe and stable operation of construction projects. we provided trainings for high-risk operation inspectors



team leaders







Health Management

B2 General disclosure

Staff health plays an important role for the foundation of enterprise development. We follow the SINOPEC Staff Health Management Regulation to promote the management model of comprehensive health for all staff, which was to realise the mutual promotion and synchronous improvement of occupational health, physical health and mental health of all staff with occupational health as the foundation. Besides, the Group exercises the people-oriented idea to guarantee the heath rights of employees.

During the epidemic period in 2020, the Group promptly established a leading group for epidemic prevention and control and an overseas epidemic prevention and control working group in overall charge of domestic and overseas epidemic prevention and control and distribution of medical supplies, and built a "bulwark" for staff health by remote diagnosis through interrogation and nucleic acid testing and other methods; meanwhile, we paid attention to the mental health of employees, carried out psychological surveys and psychological consultations, strengthened the Employee Aid Plan (EAP), and gave humanistic care to increasingly safeguard the staff health.

Occupational Health

The Group has been upholding the policy of "prevention first and combining prevention with control", adhering to the idea of "health and safety first", and strictly obeying the regulations on occupational health in the country and region where the project is located, such as the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, Administrative Measure for Occupational Health Examination, Administrative Regulation on Occupational Health Supervision in Workplaces, Guideline for Occupational Hazards Prevention and Control in Construction Industry in China, and the Labour Law of Kuwait, Safety Precautions against Occupational Injuries and Diseases, Medical Assessment in the Event of Occupational Injuries and Diseases, and other regulations in Kuwait.

No case of occupation disease is found in the Group in the Reporting Period.

Improve occupational health management system The Company has formulated the Administrative Measure for Occupational Health, Administrative Regulation on Labour Protection Fee, Administrative Regulation on Personal Labour Protective Gears, Administrative Regulation on Labour Protective Gears on Construction Site and other administrative regulations;

Identify influence factor of occupational disease on construction site occupational disease during construction according to Guideline for Occupational Hazards Prevention and Control in Construction Industry (GBZ/T 211- 2008), perform periodical detection and inform the operators truthfully;

Distribute occupational health protective gears by rule Distribute quality personal protective gears to operators, such as protective suit, protective goggles, protective gauze mask, protective face mask, protective gloves, insulated shoes, earplug, cold protective clothing, washing supplies etc., and supervise them to use correctly;

Carry out occupational health training Regularly organise training on operators concerning pre-job and on-duty occupational health knowledge to ensure that they are equipped with necessary occupational health knowledge and use occupational health protective facilities and personal protective gears correctly, and stop those who fail the training and assessment from working on post;

Organise occupational health examination and establish occupational health monitoring archive Organise pre-job, on-duty and off-duty occupational health examination in a targeted manner based on the age, post and location of the employees, and inform the employees of the results in writing.

Physical Health

To safeguard the health rights of domestic and foreign employees and promote the overall health of employees, the Group has formulated the Administrative Measures for Staff Health, Administrative Regulation on Health of Overseas Employees, Guideline for Health Risk Evaluation of Overseas Employees, Guideline for Cardiovascular and Cerebrovascular Diseases Risk Prevention and Control of Overseas Employees, and other management systems and guidelines, clarifying the department responsible for health management, and forming a thorough staff health management system. We adhere to the principle of "early detection, early intervention, and early treatment", and incorporate health management funds into the annual budget to ensure the effective implementation of staff health management.

Carry out physical examination

8

Regularly carry out employee health status assessment and measurement of physical fitness, refine staff physical examination items to screen health high-risk personnel, strengthen health monitoring of key personnel, and track and re-examine the staff health;



-

Regularly organise cardiopulmonary resuscitation training and health promotion lectures to popularize knowledge of healthy lifestyles and disease prevention;

Carry out health lectures and training



Strengthen food and water safety

Provide drinking water that meets sanitary standards, and strengthen catering hygiene management to prevent food poisoning;

Prevent and control the COVID-19 epidemic

*

During the epidemic period, strengthen the disinfection of office areas, carry out the daily reporting of health condition, implement employee health monitoring logs and activity track records, and effectively prevent and control infectious diseases:



Purchase personal injury accident insurance

Purchase personal injury accident insurance for dispatched employees and employer liability insurance.

Establish emergency treatment points



Provide medical personnel, automated external defibrillators (AED), electronic sphygmomanometer and other medical devices, as well as emergency medicines to ensure the initial emergency treatment of sudden illnesses;

Carry out Cardiopulmonary Resuscitation Skills Training for Employees and Set up Emergency Medical Treatment Point

To further improve first-aid skills and first-aid knowledge, and combine theory and practice, Ningbo Engineering Company, a member enterprise of the Group, provided the cardiopulmonary resuscitation trainings on the project site, and carried out 5 on-site trainings for Zhejiang Petrochemical Project, Zhenhai Engineering Project, Gulei Project, and Xiangshan Factory Project. Employees passing the training examination were granted with an emergency rescue certificate issued by the American Heart Association (AHA). At present, more than 700 employees of Ningbo Engineering Company have mastered multiple first-aid skills and obtained the AHA first-aid certificate with a qualified rate of 100%, accounting for 23% of the total employees, and exceeding the proportion of 15% of employees with emergency treatment ability stipulated in the Administrative Regulation of SINOPEC on Employee Health. This training further improved the self-rescue and rescue capabilities of general staff in an emergency. In addition, to improve the capability of initially handling emergency on the site, Ningbo Engineering Company has deployed AED equipment and emergency medical devices in the Group's office building, largescale project sites and other areas where personnel are concentrated, and set up medical treatment points and assigned medical personnel on the large-scale project sites to further enhance emergency disposal strength and to protect the health of employees.



Mental Health

The Group promotes the Employee Aid Plan (EAP) to help employees solve their occupational and mental health problems, cares about the conditions of employees beyond work, finds and relieves the unsafe and unhealthy behavioural pattern and bad mental state in life in a timely manner, guides and promotes self-health management among employees.

The epidemic prevention and control in 2020 is deemed as a battle against the COVIE-19 and a mental battle. The Group has been putting the physical and mental health of employees in the first place, protects the lives and health of all employees including foreign employees, and takes the initiative to effectively conduct the psychological counselling and assistance for employees. The Group has established a regular contact system for employees and "one-to-one" voluntary aid mechanism for families of overseas employees, and carried out psychological assistance and psychological adjustment by providing overseas employees with online psychological stress relief videos, relaxation music and mental health instruction manuals and by providing online training by professional psychology teachers, so as to improve employees' psychological coping ability and safeguard physical and mental health.

Case Enhancing Mental Health Assistance

In the Reporting Period, Shanghai Engineering Company, a member enterprise of the Group, established the EAPs psychological consulting platform, opening an "EAP column" to published psychological consulting posters and psychological micro-journals on a regular basis for publicity and guidance. We strengthen the management of special programs for the mental health of overseas employees assigned to the construction site of Saudi air separation project of the Group and employees assigned to project sites, and take the initiative to understand appeals of the staff, and share psychological counselling knowledge and psychological counselling hotlines to ease the anxiety of on-site employees, to guide the staff to work in an orderly manner, and to promote the orderly implementation of projects. We constantly pay attention to the situation of employees' families and establish volunteer teams. We are ready to provide necessary help and support for employees' families at any time in cooperation to tide over the tough times.

In addition, since the outbreak of the epidemic, the Group's member company, the Fourth Construction Company, was the first to cooperate with related consulting companies to open a psychological counseling hotline to provide professional psychological assistance services for employees, and carried out more than 20 online live lectures and mini-classes, which were well received by employees.





Supply Chain Responsibility Management

Supplier ManagementSubcontractor Management

The Group, strictly holds the principle of fair procurement, strictly controls the fairness of the process of selecting suppliers and meanwhile continues to promote the standardisation and informatisation of procurement to ensure a compliant, transparent, fair and just procurement process. For suppliers and subcontractors with which the Group has established cooperative relations, we have signed the Responsibility Agreement for Honest Practice with them to prevent commercial bribery, regulate transaction, in an effort to maintain fair competition, and strive to build a positive and transparent material supply ecology.

Having fully considered suppliers' performance in environment, society, governance, etc., we formulated management regulations, including the Regulation on Supplier Access Management, the Measures on On-site Inspection of Supplier Management, the Measures for the Management of Dynamic Quantitative Evaluation of Supplier Performance to Guide Ordering, the Regulation on Supplier Management, in order to prevent ESG risks at the supply chain level; meanwhile, we realised the collaborative management of the contractors, suppliers (manufacturers), supervisors and owners of projects over the process of material manufacturing and the quality of engineering materials through an MSP platform (visual quality monitoring platform for material manufacturing), thus achieving the traceability of the whole life cycle.

Supplier Management

B5 General disclosure

Green procurement serves as an important part of the Group's "Green Enterprise Action Plan", and is incorporated into the Green Enterprise Action Scheme for SEG to promote the implementation of the idea of green procurement. The Group takes the initiative to use products stipulated in the Recommended Catalogue of Energy-saving Mechanical and Electrical Equipment (Products), and prohibits the procurement of obsolete, backward and energy- consuming materials expressly ordered by China; meanwhile, the Group specifies the energy consumption indicators of equipment and pumps, and purchases equipment, motors, materials and other materials that meet the quality, green and energy conservation requirements.

As of the end of the Reporting Period, suppliers that have established service relationship with the Group increased by 81 to 2,956; E&E suppliers increased by 2 to 658; file suppliers increased by 91 to 430; overseas suppliers increased by 24 to 314.



*engineering & exploration



Subcontractor Management

B5 General disclosure
B5.1
B5.2
B5.3
B5.4

The Group attaches great importance to the management of ESG risks of subcontractors. We have formulated the Measures for Subcontracting Management, Administrative Measures for Strategic Subcontractors, Regulations on the Subcontractor Assessment Management, Regulations on the Subcontractor Site Management, Regulations on the Subcontractor HSE Management, and Regulations on the HSSE Management, to regulate the management of subcontractors over the environmental, safety, social and other risks during their implementation of domestic and overseas projects and to promote them to fulfil their responsibilities.

During the Reporting Period, 553 subcontractors passed the certification of environmental management system (ISO14001), quality management system (ISO9001), and occupational health safety management system (ISO45001) system, with the certification ratio of 100%. Meanwhile, QHSE system audit was carried out on 127 subcontractors.



Set out procedures for reviewing the environmental and social risks in subcontractors' warehousing:

Fully consider whether the warehousing subcontractors have major safety, quality and environmental accidents or other violations of laws and regulations; subcontractors prohibited from establishing the relationship with the Group are listed in the "blacklist of contractors";

Implement subcontractor level-to-level management, and strengthen the cultivation of strategic subcontractors:



The Group conducts the level-to-level management over subcontractors who enter the subcontractor resource pool by profession. The Group concretely divides the subcontractors into strategic subcontractors, main subcontractors and general subcontractors. In accordance with the Management Rules for Annual Evaluation of Construction Subcontractors, the Management Rules for On-site Assessment of Construction Subcontractors, the Management Rules of Upgrading and Downgrading of Construction Subcontractors, and other management systems, the Group evaluates the comprehensive performance of subcontractors in terms of safety, environmental protection, technology, quality, progress, and integrity, etc. as the basis for promotion and exit. For strategic subcontractors, we adopt the key cultivation strategy, dynamically evaluate their operational effectiveness of QHSE system, and optimize the allocation of subcontracted resources, to ensure the safety, quality, and stable delivery of construction projects.



Review the QHSE management system of subcontractors:

The Group regularly organises internal review of subcontractors and third-party professional institutions to carry out the review, and issues professional technical reports. For problems found in the review, the Group supervises subcontractors to make close-loop rectification;



Conduct training for subcontractors, and strengthen HSE risk control:

Formulate the Management Measures for Skill Examination of Admission Personnel of Subcontractors and build an online examination platform to train subcontractor personnel for the on-site construction of projects in high-altitude operation, hot work, special vehicles, etc. according to the needs of project construction, thus improving the control of quality, safety and environmental protection from the source.



Carry out Special Inspection on Subcontractors

In the Reporting Period, the Group organized a major equipment inspection on three key construction projects: Luoyang Project, Maoming Project, and Gulei Project. This inspection involved 10 member enterprises in 17 project sites in total, and mainly focused on the management and use of the subcontractors' equipment. In this inspection, we have identified 304 problems in total, and supervised the relevant rectifications in a timely manner, effectively improving the equipment management level of the subcontractors.



Case

Building Highquality Projects

- Strict Control of Quality of Projects
- Promotion of Digital Transformation and Technological Innovation
- Expansion of Overseas Business

Strict Control of Quality of Projects

B6 General disclosure B6.1 B6.2 B6.4 The Group is always committed to creating "model projects" and "excellent projects" and targeting national high-quality projects to ensure the "stability, long service life and excellent performance" of equipment after it is put into operation, which is also regarded as our core competitiveness. The Group strictly abides by the Construction Law of the People's Republic of China, the Regulation on the Quality Management of Construction Projects, and other relevant laws, regulations, technical standards and regulatory requirements on project quality where operations are located such as the Road Construction Law of the Kingdom of Saudi Arabia.

The Group has established a sound quality management system, optimised the project management mechanism and system, defined job responsibilities, monitored the process of projects, guaranteed the delivery quality of each project in an all-round way, benchmarked first-class standards, constantly improved the project management, and established a good brand image and market reputation of the Group, greatly enhancing the Group's competitiveness around the globe. In 2020, Shandong Liquefied Natural Gas (LNG) Phase-I Project, the Supporting Wharf Engineering of SINOPEC (Hong Kong) Yangpu Refined Oil Bonded Warehouse Project, and Yangpu Port Shentou Port Area Shenbei Sangang Chinan Bulwark Project won the national quality project award.

1 project undertaken by the Group won the Silver Award of National High Quality Projects, **17** projects won the provincial and ministerial quality project awards, **5** projects won the provincial and ministerial excellent design awards, **5** projects won the Excellent Welding Project First Prize, **6** projects won the Excellent Welding Project Award, and **4** projects won the National Excellent QC Achievement Second Prize.

During the Reporting Period, **11** member enterprises of the Group passed the certification of the ISO9001 quality management system. The Group witnessed no quality incident or material quality complaint, with the qualified rate of unit engineering quality reaching **100%**.

Establish a quality management responsibility system The Group has established a quality management responsibility system for engineering projects covering all member enterprises and levels, defining the functional responsibilities of all companies, functional departments, project managers and related posts;

Implement quality target management The Group has formulated the Management Measures for Quality Target to strengthen project quality management, such as setting up the compliance rate of single project, one-time welding pass rate, and other quantitative indicators; the Group has formulated the documented quality control plan and project quality management regulations in combination with the requirements of the project contract and the characteristics of the project, periodically inspected the completion of the target, and completed all the annual quality target indicators in 2020.

Deepen the establishment of the quality management system The Group has established the Measures for Quality Management, Implementing Measures for the Quality Management System, Management Measures for Construction Procedures of Engineering Projects, Management Measures for Construction Standards and Specifications, and International Project Management Manual, and revised the Management Measures for Welding Procedure Qualification Record (PQR) of Overseas Projects in 2020 to further deepen the quality management system;

Establish a database of quality management experts Give full play to the professional advantages of experts to improve the quality control capability and services of the Group;

Strengthen on-site quality management of projects We have compiled implementation details, including the Petrochemical Engineering Project Quality Inspection Practical Series (2020 Edition), List of Quality Control Points for Projects, the Management Measures for Quality Inspection and the List of Partial Project Inspection, for key nodes of project management, thus further standardising the quality, procedures and process of construction;

Carry out solid quality verification and inspection The Group has established a reporting mechanism for quality control, in an effort to conduct quality inspection over all processes, materials used, accessories and parts as well as products finished through daily inspection, independent inspection, cross-project inspection and other modes, thus realising early detection, early treatment and early settlement when quality problems occur. In 2020, to strengthen quality verification in the process of project execution, we ensured that equipment and performance meet quality requirements by on-site inspection, unannounced inspection, third-party verification and other means;

Strengthen the control over the design quality process Compile the Procedures for Control over the Design Quality to clarify the quality requirement for the design planning, design input, design control, design output and design changes;

Improve the mechanism for solving project quality problems Formulate management measures and control procedures, including the Management Measures for Quality Accidents, the Regulations on the Management of Quality Accidents, the Management Measures for Reward and Punishment on Quality, the Management Measures for Non-conforming Products, the Control Procedures for Non-conforming Products, and the Management Procedures for Rectification and Rectification Measures; set the management target of project quality complaints and establish a hierarchical handling mechanism to supervise and solve complaints; formulate special rectification measures and correction and prevention measures for the links with recurring problems in projects, and educate construction and technical personnel, drawing inferences about other cases from one instance to avoid reoccurrence; establish a case base of construction quality to learn from cases;

Hold quality feedback activities Formulate the Management Measures for Customer Satisfaction Survey and the Management Measures for Quality Feedback and actively hold supervision and review and customer feedback activities in design, general project contracting, construction, etc. to accept the supervision of the owners. In 2020, the member enterprises of Group further standardized customer information processing and satisfaction measurement, and compiled the Procedures for Income-related Contract Closure and Customer Feedback, Regulations on the Customer Management of Overseas Projects, Procedures for Customer Satisfaction Measurement, Working Procedures after Project Delivery and other regulations to realize the process management of customer feedback;

Promote continuous quality improvement Formulate the Working Procedures for Continuous Improvement to formulate improvement measures for work objectives, cost of measures, systemacticness and contingency, improved performance, customer satisfaction and reputation, etc.

Project Quality Objectives

- The qualification rate of unit engineering quality is 100%;
- The evaluation rate of the design technical scheme determined in the project implementation plan or execution plan is 100%;
- Both the rate of supervising the manufacturing of Class-A materials and the inspection rate of equipment and materials in storage are 100%, and the rate of qualified acceptance of materials in storage is more than or equal to 98%;
- One-time pass rate for radiographic welding test is more than or equal to 96.1%, and the one-time pass rate for radiographic welded junction test is more than or equal to 91.5%.
- The one-time pass rate for inspection on A and B types of engineering projects is more than or equal to 98%;
- The success rate for one-time commissioning of EPC general contracting projects is 100%;
- No reported quality incident or material quality complaint occurred

Promoting the Application of Welding Robots, Casting Quality Engineering

In order to solve the problems of relatively old welding equipment and the high cost, low efficiency and high dependence on manual labour issues of welding technologies, the Group's member company, the SINOPEC Fifth Construction Co., Ltd., together with scientific research institutes, conducted joint research and development on the application of "trackless guided all-position crawling welding robot" project in tank and pipeline welding in oil and gas and chemical industries. The research and development was successfully completed at the Group's Nanjing project site for industrial application testing. The test showed that the application of the trackless guided all-position crawling welding robot welding can greatly improve welding efficiency, reduce construction costs and avoid hidden quality problems. During the Reporting Period, the trackless guide all-position crawling welding robot has been widely used in the Zhongke refining and chemical integration project, making an important contribution to the creation of high-quality projects.



Case

Case

Shandong Liquefied Natural Gas (LNG) Phase-I Project Won the National Quality Project Award

In the Reporting Period, Shandong Liquefied Natural Gas (LNG) Phase-I Project constructed by Luoyang (Guangzhou) Engineering Company as a general contractor, a member enterprise of the Group, won the National Quality Project Award. This award established in 1981 is the earliest cross-industry and cross-professional national quality award with the highest standards in the field of engineering construction in China recognized by the State Council. Winning this award means that the overall project construction level of the first LNG receiving station has ranked among the advanced level in China on the basis of high starting point and high challenge of independent design and construction.









Promotion of Digital Transformation and Technological Innovation

B6 General disclosure B6.3 B6.5

Promotion of Digital Transformation

The Group constantly accelerates the digital transformation, and makes overall planning for promoting the construction of networked, digital, and intelligent platforms based on the new model of "data + platform + application" through relying on emerging technologies such as artificial intelligence, big data, cloud computing, and blockchain, realising the integration of digital technology and business management. The Group enhances the modular design and modular construction capacity building to promote the innovation in the production organization mode and operation management mode, realising optimized resource allocation and efficient production coordination, and promoting the improvement of quality and efficiency and green development of enterprises. During the epidemic period, the Group played an important role in helping companies quickly resume work and production and coordinating the increase in production of anti-epidemic supplies.

The digital delivery capability and level of the Group takes the leading position in the industry, and its member enterprise,

SINOPEC Engineering Incorporation, has taken the lead in completing the preparation of the Standard of Digital Delivery for Petrochemical Engineering, which is deemed as a national standard, and guided the corresponding application. Meanwhile, the Group obtained the Integration of Informatization and Industrialization Management System Certificate issued by the Ministry of Industry and Information Technology of State Council, and was approved by the National Archives Administration of China as a pilot unit of "Digital Archives (Room)". In the Zhenhai Refining and Chemical Project, the digital delivery of the Implementation Rules for Digital Delivery of Petrochemical Engineering collaboratively prepared by the member enterprise, Ningbo Engineering Company, and the ebullated-bed residue hydroconversion unit with the processing capacity of 2.6 million tons per year completed by Luoyang (Guangzhou) Engineering Company made great contributions for Zhenhai Refining and Chemical Project to promote the intensive and intelligent development of production.

Case Digitalization Empowers World-class Refining and Chemical Base

ZhongKe Refinery & Petrochemical Integration Project is an important refining and petrochemical base in a new era. Member enterprises of the Group are committed to building a "world-class, modern, and digital first-class factory", and spare no effort to promote the synchronous construction of digital factory and physical factory and delivery by phase to achieve phased results through intelligent collaborative design platforms, providing a basic platform and conditions for the construction of intelligent factories. The SINOPEC Engineering Incorporation of the Group as the overall responsible company for the digital delivery of the project, and the member enterprise Luoyang (Guangzhou) Engineering Company is the overall responsible unit for the design of the whole plant, successively completed the digital delivery of 31 sets of plants and ancillary projects.





Remote Decision-making Coud Platform Helps Petrochemical Enterprises Realize High-efficient Production

The SINOPEC Engineering Incorporation, a member enterprise of the group, has established the "desktop remote decisionmaking support system for refining and chemical plants", which can provide one-to-one remote diagnosis, improve online and offline collaborative services for petrochemical enterprises, so as to maximize the production benefits of the whole process. During the epidemic period, the platform played an important role in helping petrochemical enterprises to efficiently produce disinfectants and other anti-epidemic materials.

Case



Promotion of Technological Innovation

The Group, in accordance the Company's overall strategic plan, continues to adjust and deepen the target, mission and measures of the Company's technical work, proactively supports national major scientific and technological projects, undertakes major scientific and technological projects entrusted by SINOPEC Corporation, gives full play to professional advantages, studies specialised topics and boosts the development of the industry. Besides, it also continuously strengthens the cooperation with the SINOPEC research institute, pushing the transformation and industrialisation of scientific and technological achievements to move forward.

During the Reporting Period, the Group invested RMB 2.175 billion in scientific and technological research and development and won 81 awards relating to scientific and technological progress at provincial and ministerial level and above.

Fruitful Scientific and Technological Innovation

National Science and Technology Advancement Award Second Prize (1)

 Development and application of the complete set of technology for ultra-low sulphur emission and resource utilisation of sulphur-containing waste gas from refining units





SINOPEC Scientific and Technological Progress Second Prize (4)

 Technical development of large-scale ethylene key system transformation
 Development and application of large-scale styrene reactor and vertical combined heat exchanger

 Industrial application of treatment of coal-toglycol wastewater by biological fluidized bed
 Development of post management, post analysis and setting, and other tools

SINOPEC Scientific and Technological Progress First Prize (3)



- SINOALKY sulfuric acid alkylation process technology and its industrial application
- Development of a complete set of technology for producing high-quality base oil by hydrocracking - hydroisomerization dewax
- Complete set of technology for the airtight decoking, transportation and storage of safe and environmentfriendly delayed coking

SINOPEC Technological Invention Third Prize (5)



- Development and application of the combined technology(RCDS) of solvent extraction and selective hydrodesulfurization
- Development of the production of special hydrogenation heat exchanger from 200,000 normal cubic metres of coal
- Technical optimization of wet-moulding equipment for 90 tons of sulphur per hour
- Development of technology for condensing air preheater of heating furnace
- Application of big data analysis in the early warning and forecasting of corrosion of high-pressure heat exchanger system in the hydrogenation unit

Strengthening of Intellectual Property Protection

The Group strictly conforms to the Patent Law of the People's Republic of China and laws and regulations on intellectual property protection where operations are located. The Group has formulated regulations including the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Patents, the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Proprietary Technology, and the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Classification and Compensation of Classified Technical Personnel, and revised the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Protection of Intellectual Property Rights and the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Technical Confidentiality Agreement in 2020, so as to further protect the Group's legal intellectual property rights at the same time. All these aim to protect the Company's patents and proprietary technology, raise the confidentiality awareness of technical personnel, and prevent the Company's intellectual property from being infringed.

During the Reporting Period, the Group has completed 614 new patent applications, authorised 333 patents, owned 3,240 Chinese patents and issued 162 all kinds of technical standards.

Emphasis on Privacy Protection and Information Security

The Group follows the requirements of the Contract Law of the People's Republic of China and never disclose trade secret between the parties to contracts. Where transformation of scientific and technological achievements is involved, we keep the technology secret in accordance with Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements; on the aspect of use of advertisement and labels, we strictly abide by the Advertisement Law of the People's Republic of China and relevant laws and regulations of local places where the business operation is located, including the Commercial Data Law and Regulations of Saudi Arabia, so as to provide true accurate information for clients; on the aspect of brand construction, the Group has prepared VI Manual and Use Instructions to standardise the use of brand and marks.

On the aspect of information security, the Company has formulated the Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Information Security, Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Cyber Security Level Protection, Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Information and Digitization, and Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Information and Digitization, and Management Measures of SINOPEC Engineering (Group) Co., Ltd. for Computer Equipment, and required all clients related to the documents to adopt document encryption measures to strictly prevent data leakage. We adopt management measures of closing U port and encrypting U disk for all devices involving technology and related sensitive information, and improve the management of information security and privacy protection.

Expansion of Overseas Business

The Group has been endeavouring to push forward the development of markets alongside it. It has also been making full use of the coordinated advantages of the Company's industrial, technological and business chains, promoting advanced engineering technology and management concepts, providing customers with technological consultation, feasibility study and financial arrangement, and putting in place the planned "one-stop solution for the whole", making every effort to promote the oil refining and petrochemical-related technology, engineering, equipment and services to "go global" at a high level, and creating the third "Chinese business card", which gave an impetus to the coordinated development of host country's economy, environment and society and enhanced the international brand image and social reputation of the Company.

Meanwhile, the Group takes the initiative to establish good and stable cooperative relationship with world-class engineering companies, design institutes, and strategic partners to draw on each other's strengths and jointly develop markets.

Anti-corruption

Anticorruption

B7 General disclosure B7.1 B7.2 B7.3 The Group seriously abides by laws and regulations against bribery, extortion, fraud and money laundering, including the Criminal Law of the People's Republic of China, the Anti-unfair Competition Law of the People's Republic of China, the Company Law of the People's Republic of China and the Interim Provisions on Banning Commercial Bribery.

In 2020, the Group constantly improved the integrity supervision system, deepened political supervision, effectively implemented daily supervision, and focused on promoting the coverage and collaboration of discipline inspection and supervision, audit supervision, and inspection supervision. We adjusted the supervisory emphasis in light of actual situation at different stages, kept in mind the concept of "prevention and early warning in advance" as our starting point, restricted and supervised the exercise of power, prevented post risks, strengthened system construction, and carried out integrity risk investigation, to formed an effective integrity risk prevention and control mechanism for key areas, key projects, key departments, key post, and key links, and to create a sound environment of cleanness and doing business.

During the Reporting Period, the Group witnessed no lawsuits concerning corruption.

Deepen the coverage and collaboration of the supervision system The Group has established and formed the "five-in-one" system of "general supervision", including, the overall supervision, special supervision, functional supervision, daily supervision, as well as the democratic supervision. In 2020, we further deepened the integration and coverage of the "general supervision" system to promote the intra-Party supervision to coordinate with other types of supervision and play its role with them toward the same purpose;

Improve the system for fighting anti-corruption and upholding integrity The Company has formulated the System of SINOPEC Engineering (Group) Co., Ltd. for Anti-fraud Management, Implementing Measures of SINOPEC Engineering (Group) Co., Ltd. for Prevention and Control of Integrity Risks and other 11 management systems. In particular, in the Reporting Period, we issued the Management Measures of SEG for the Registration for Handing in Gifts Received in Domestic Contact, and revised the Rules of Procedure of the CPC SINOPEC Engineering (Group) Co., Ltd. for the Discipline Inspection Committee;

Carry out in-depth supervision and inspection of integrity Organize member enterprises of the Group to conduct self-inspection of integrity risks, clarify risk categories and levels, and formulate targeted preventive measures one by one; identify 212 integrity risks through comprehensive sorting out overseas integrity risk points, formulate 258 prevention and control measures, revised and improved 45 relevant systems; carry out joint inspections and special inspections around key projects such as "Gulei Project" and "Zhongke Project";

Open a reporting and punishment mechanism Launch corruption reporting channels available for all, e.g., setting up a reporting mailbox in the office building and making public the reporting telephone number and email address, accept, keep clear about and check reports and feedback in a timely manner for timely, fair and effective solutions;

Carrying out multi-level integrity education and training activities We have carried out various forms of integrity education activities for the Board of Directors, management and employees, to improve the integrity and self-discipline awareness of the employees and the ability to resist corruption.

Carry out Integrity Education Activities of Different Levels

To further enhance the integrity and self-discipline awareness of the majority of cadres and employees, the Group proactively carries out the construction of a clean and honest administration and anti-corruption education. In August 2020, we organised the Group's directors, senior executives and middle-level managers to watch the warning education films to warn managers to resist corruption and prevent degeneration based on the principle of checking erroneous ideas at the outset and doing no evil deeds no matter how trivial it is, with a view to realising that the management "cares about the politics, strictly obeys disciplines and follows the rules"; at the same time, to give full play to the warning, deterrence, and education role of typical cases, we compiled education textbooks on typical cases, and held activities of fighting anti-corruption, upholding integrity and popularizing law education with the theme of "abiding by laws and disciplines, strengthening work style, and promoting development" to guide cadres and employees to draw lessons from them.



Harmonious Community

- Epidemic Prevention and Control
- Targeted Poverty Alleviation

The Group, bearing in mind the concept of "benefiting from the society and serving it in return" as its starting point and target, actively practices the concept of "a community with a shared future for mankind", and serves and benefits the community.

Epidemic Prevention and Control

B8 General disclosure B8.1 B8.2

In implementing measures for the epidemic prevention and control, the Group took the initiative to participate in the battle for epidemic prevention and control in local communities, led employees to participate in voluntary blood donations, donations of anti-epidemic supplies, and clean-up of community sanitation, and organised the procurement and promotion of products in epidemic areas to solve the problem of product sales after the resumption of production in the epidemic areas. Meanwhile, the Group proactively assisted business partners, donated supplies, shared experience in epidemic control and prevention, and won wide acclaim.

In 2020, the Group donated about 460,000 pieces of supplies such as masks to business partners in Italy, Spain, Kazakhstan, Saudi Arabia, Uzbekistan and Belgium; it has also donated about RMB1.15 million of anti-epidemic supplies in total.

Case Bravely Rise to the Challenge through Thick and Thin

During the critical period when the situation of epidemic prevention and control keeps moving towards the good direction and the return - trip travel peak appeared, 15 young volunteers from SINOPEC Nanjing Engineering Co., Ltd of "SINOPEC Love" actively asked for the battle assignment, and promptly responded to the call of the Nanjing Municipal Committee of the Communist Youth League, choosing to "go upstream". They applied UAVs to participate in environmental sanitation and disinfection in public areas of the community, and prepared anti-epidemic supplies and daily necessities for community residents. They also guarded the first checkpoint of "preventing the coronavirus from spreading and entering within a region" in the front line of epidemic prevention and control in Nanjing South Railway Station, guiding arriving passengers to line up orderly and depart after temperature measurement, and dispersing the flow of people leaving the station to avoid crowds of passengers. During the volunteer service period, the volunteers totally devoted themselves and braved fatigue and hardship, thus making great contributions to the epidemic prevention and control.



Emergency Allocation of Important Supplies to Help Shanghai Fight the COVID-19

During the COVID-19 epidemic in 2020, the SINOPEC Luoyang Engineering Co. Ltd., a member of the Group, urgently allocated boiling bed separation equipment, which was to be used in the DMTO project of Bohaihua in Tianjin, to actively support the renovation of the wastewater treatment facilities of Shanghai Public Health Centre and facilitate the study of virus isolation from patients with COVID-19, fully supporting the prevention and control of the epidemic in Shanghai.

Case



Case Miles Apart but Close at Heart

With the epidemic spread, the countries where numerous important business partners and customers are located have become key countries for epidemic prevention and control. In particular, the epidemic spread in Kuwait has been very severe. The Group took the initiative to cooperate with the Kuwaiti Government in support the conversion of the project camp in Kuwait into a mobile cabin hospital. This mobile cabin hospital can admit about 1,700 people for treatment or observation, which can greatly ease the pressure of treatment and centralized medical quarantine and observation of COVID-19 patients in Kuwait. Meanwhile, the Group proactively responds to support anti-epidemic supplies. On the basis of ensuring compliance, the Group shortened the logistics time, reduced the procurement and mailing process, smoothly shipped anti-epidemic masks overseas, and urgently contacted more than 10 suppliers of anti-epidemic materials in line with the EU certification and corresponding standards for our Europe customers to support them in the fight against the epidemic.



Targeted Poverty Alleviation

B8 General disclosure B8.1 B8 2 2020 is not only a year of achieving the goal of completing the building of a moderately prosperous society in all respects, but also a year of decisive victory for the elimination of poverty. The Group thoroughly implements the requirements of the Guiding Opinions on Carrying out Poverty Alleviation by Consuming Products and Services from Poor Areas in A Deep-going Way to Assist in Eradicating Poverty and the Implementation Plan of SINOPEC for Carrying out Poverty Alleviation by Consuming the assistance mechanism, and innovating the work model, to give full play to the overall advantages. The Group implements targeted policies for poverty alleviation in various forms, such as poverty alleviation by developing industries, poverty alleviation by consuming products and services from poor areas, poverty alleviation through education and culture, poverty alleviation by constructing infrastructure and poverty alleviation by improving health care to help the assisted object out of poverty. It also dispatched poverty alleviation ambassador to coordinate resources to help the target city to achieve poverty alleviation, fully demonstrating the sense of enterprise responsibility in eradicating poverty.



Poverty Alleviation by Developing Industries

Through establishing the "local government + enterprises + scientific research units + cooperatives + farmers" mode of poverty alleviation by developing industries, the Group builds the engineering of "bettering blood making function" for local farmers, such as building a whole industrial chain of agricultural products from planting, purchasing, processing, packaging to sales, building poverty alleviation workshops, supporting the development of aquaculture, constructing the photovoltaic grid-connected, developing homestay tourism projects, etc., to drive local farmers onto the fast lane of poverty alleviation.

Case Sending Out Poverty Alleviation Ambassadors to Help Build a Colorful Dongxiang

The Dongxiang Autonomous County of Linxia Hui Autonomous Prefecture in Gansu Province is an extreme poverty area where people have experienced difficulties in road access, water supply, housing, medical care, schooling and income generation. In February 2013, General Secretary Xi Jinping inspected Dongxiang and proposed to "bring water, fix roads and build a new countryside so that poor people can get rid of poverty and live a well-off life as soon as possible."

As a responsible enterprise, the Group responded positively and poverty alleviation ambassadors to Dongxiang as a poverty alleviation cadre to carry out assistance work, helping Dongxiang County to step into a well-off society at the same time as the whole country. The climatic characteristics of Dongxiang County's Bulenggou watershed are precisely the suitable and advantageous area for guinoa cultivation. A "blood-making" project for local farmers was set up through the industrial poverty alleviation model of local government + enterprise + scientific research unit + cooperative + farmers. Farmers received timely and comprehensive training guidance, realized the whole process of tracking services for quinoa planting and production in Dongxiang County, and planted more than 10,000 mu of quinoa in four towns in Dongxiang County in 2020 with a good harvest, and actively connected to the poverty alleviation exhibition and marketing platform through the new mode of consumer poverty alleviation to help farmers increase their income; implemented photovoltaic poverty alleviation, and built 390 kW in Qiaolu Village, Dashi Township, which has been successfully connected to the grid and will generate electricity for 20 years and will increase the collective economic income of the village and strongly contribute to the pace of poverty alleviation in the area; the implementation of the zero drinking water project to comprehensively solve the problem of drinking water safety; the implementation of employment assistance, holding special job fairs to help thousands of unstably employed college and university graduates in Dongxiang County achieve stable employment; the implementation of health poverty alleviation, through the Internet to set up the Beijing Youmai Health Medical has set up a remote consultation platform with Dongxiang County People's Hospital through the Internet to enable veteran experts from Peking Union Medical College Hospital to provide face-to-face diagnosis for patients in Dongxiang County, so that people in need can see and afford to see a doctor.

2020 is the closing year of building a moderately prosperous society in all aspects. We focus on 25 villages and poor people in 6 townships in the Bulenggou basin through targeted assistance and multiple mistakes. Step by step, we have changed the old face of Dongxiang County into a new face and create a happy and beautiful life for the people of Dongxiang.



Multiple Measures Adopted Simultaneously for Helping Dongxiang Change Fundamentally



The Group sent Mr. Jiao Jianguo to Dongxiang as a poverty alleviation cadre to carry out assistance work

Poverty Alleviation by Consuming Products and Services from Poor Areas

Through establishing the e-commerce sale platforms for agricultural and by-products, the Group assists village-run enterprises and farmers in selling various agricultural and by-products, and invites professionals to provide technical support. At the same time, the Group proactively organises farmers to participate in SINOPEC's commodity exhibitions for poverty alleviation, promotes characteristic agricultural products, and expands the market for agricultural and by-products to increase farmers' income.



Development of New Online and Offline Approach for Poverty Alleviation in Ruyang, Henan

Poverty Alleviation through Education and Culture

To improve weak links concerning the education and culture in poverty-stricken areas, the Group, through providing assistance in construction of schools and aiding teaching materials, etc., constantly improves the educational infrastructure in the assisted areas to create a good learning environment; at the same time, it has carried out the "Growing up with Academician's Spirit" activity to inspire the children to study hard; in addition, the Group takes the initiative to set up special technical training classes in assisted areas to cultivate rural professional technical forces and further enhance the endogenous momentum for poverty alleviation.



Aid in Education and Establishment of A Series of Training Classes for Targeted Poverty Alleviation to Help Dongxiang Realise Dream

Case Carrying out Activities of Helping Students with Love

Since it has twinned with Miaowan Village, Santun Town, Ruyang County, the SINOPE Luoyang Engineering Co. Ltd. has attached great importance to the work of precise poverty alleviation. The education of Miaowan Primary School has always been a key task in poverty alleviation. During the Reporting Period, the SINOPE Luoyang Engineering Co. Ltd. sent rich education resources to the children, and also carried out the activity of "Growing up with Academician's Spirit", telling a short story about Academician Chen Junwu's patriotism, study spirit, determination to serve the country, meticulous and rigorous personality, and extensive hobbies, inspiring the children to set up ambitious goals, study hard and strive for the future.



Case "Good Books for Growth" Donation Activity

During the Reporting Period, the Group held a donation activity called "Good Books for Growth", during which staff members actively participated and practiced social responsibility, collecting a total of 1,761 books, with a wide variety of books donated, including science, history, culture, literature, astronomy and other contents.

Although the employees are far away from the children who need help, but these books can send their greetings. With full of encouragement and blessings, books are disinfected and packed in boxes, loaded and shipped across thousands of miles to deliver warmth and hope to the young students in Hetian, Xinjiang, to help them know more about the world and create a bright future.



Poverty Alleviation through Constructing Infrastructure

Improving infrastructure such as transportation and water conservancy in impoverished areas is an important measure for poverty alleviation. The Group has completed numerous heart-winning projects by assembling all forces in combination with the weak links in infrastructure construction in assisted areas. For instance, the Group built the village roads and cultural squares, constructed drinking water projects, repaired drainage channels, carried out the river regulation, and built new rural residential areas, which improved the local traffic conditions and basic living conditions.

Poverty Alleviation by Improving Health Care

Poverty alleviation by improving health care is a key measure to eradicate poverty. The Group took the initiative to implement the poverty alleviation project by improving health care, provided aid in establishing "love cabin" for community health supplies in assisted areas, assisted in the establishment of village-level medical centres, and built platforms for remote consultation, realising high-quality medical resources going to the grassroots. The Group helped local poor people approach to better medical and health services, to prevent them from falling or slipping back into poverty due to illness.



Establishment of Village-level Medical Centre and Assist in the Construction of "Love Cabin"



Vision for the Future

2021 is the first year of the "14th Five-Year Plan", and the first year of the Group starting to fully implement the world-leading development strategy. We will fully implement the new concept of development, and concentrate on making scientific & technological innovations, tackling tough problems, creating benefits, reforming the management and preventing risks, and gather strength to start a new journey of building a world-leading technology-oriented engineering company.

Adhere to the technology leading strategy, and deepen the establishment of green enterprises. We will focus on industrial transformation and upgrading, pursue advanced petrochemical technology, step up efforts to tackle tough problems in the fields of oil conversion, highend materials and key core technologies of the hydrogen industry chain, and promote the transformation of scientific research achievements into projects; further deepen the implementation of the green enterprise action plan, enhance the mechanisms and measures for climate risk mitigation and response, strengthen the biodiversity protection measures in the areas where the projects are located, select advanced process control and end-of-pipe treatment technologies, reduce "three wastes" from production, and accelerate the establishment of green engineering enterprises.

Improve the safety governance system, and strengthen the long-term safety mechanism. We will further deepen and improve the safety governance system, strictly implement the contracting of major risk points, promote the implementation of responsibilities, implement highrisk operation plan reporting and dynamic early warning mechanism, formulate operation risk control standards, advance system improvement and effective operation; fully deepen and promote the Three-year Action Plan for Special Rectification of Work Safety, and carry out special rectification activities such as high-place operations and operations in confined spaces; intensify inspections, enhance the hazard investigation and management, sort out and formulate a "negative" list of serious violations, and fully implement closed-loop management; enhance training, continuously improve the quality and capabilities level by level through training, technological competition in military skills, business competitions, etc., persistently promote the sustained stability and improvement of the Group's work safety. Accelerate digital transformation, and create highquality projects. Fully promote the digital engineering construction with "information integration" for business management, "platform integration" for project management and "construction visualization" for construction management. Through connecting a digital engineering platform by contract, we will realize multi-discipline integrated design, automatic association of procurement information, timely monitoring over equipment manufacturing and visual simulation of construction, improve the overall efficiency of design and construction integrated optimization, construct and deliver physical factories and digital factories at a higher level in parallel, create high-quality projects, and actively assist digital transformation.

Adhere to the people-oriented principle, and persistently promote the construction of a harmonious enterprise. We will constantly deepen the great health strategy for the employees, protect employees' physical and mental health, and reduce occupational hazards from the source; adhere to regular epidemic prevention and control measures, prevent the employees from cluster infections and the spread of the epidemic; fully understand the employees' expectations and demands, safeguard employees' legitimate rights and interests, and help the poor employees and families; thoroughly implement the strategy of developing enterprise by talent management, constantly optimize the talent development environment, improve the cultivation system, enhance the reserve of outstanding young talents, continuously heighten the employees' happiness, and persistently promote the construction of a harmonious enterprise.

Shoulder corporate social responsibility, and become an excellent corporate citizen. We will contribute to the society by taking actual actions according to new situation and requirements; meanwhile, we will continue to assist in poverty alleviation an epidemic prevention to fulfil the corporate social responsibilities.

Looking forward to the future, we will gather strength with goals, stimulate vitality with innovation, create value with hard work, and work together to make new and greater contributions to the sustainable development of the company and peaceful co-existence of the stakeholders.

Appendix

ESG-GRI Index

Classification	SEHK	GRI	Disclosure Media
	General disclosure Those involve the emission of waste gases and greenhouse gases, the discharge of pollutants into water and land, and the generation of hazardous and harmless wastes: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer.	305-1、305-2、 305-4、305-5、 306-2	P21-22
	A1.1 Type of emissions and relevant emission data.		P23
A1 Emissions	A1.2 Total emissions (ton) and density (if applicable) (calculated on basis of each generation unit or each facility) of greenhouse gases directly generated (scope 1) and indirectly generated by energy (Scope 2).		P23
	A1.3 Total amount (ton) and density (if applicable) (calculated on basis of each generation unit and each facility) of hazardous wastes.		P23
	A1.4 Total amount (ton) and density (if applicable) (calculated on basis of each generation unit and each facility) of non- hazardous wastes.		P23
	A1.5 Description of the emission targets set and steps taken to achieve them.		To be disclosed in the future
	A1.6 Description of measures of disposing of hazardous and non-hazardous wastes, and description of the waste reduction goals established and steps taken to achieve them.		To be disclosed in the future
	General disclosure Policies of effective use of resources (including energy, water and other raw materials).	- 302-1、302-2、 - 302-3、302-4、 306-2	P24-27
	A2.1 Total consumption (in 1,000 kwh) and density (calculated on basis of each generation unit or each facility) of direct and/ or indirect energy by type (e.g. electricity, gas or oil).		P25
A2 Use of	A2.2 Total water consumption and density (calculated on basis of each generation unit or each facility).		P25
resources	A2.3 Description of benefit goals of use of energy established and steps taken to achieve them.		To be disclosed in the future
	A2.4 Description of any problem in gaining applicable water sources, benefit goals of use of energy established and steps taken to achieve them.		To be disclosed in the future
	A2.5 Total amount (ton) of packaging materials used for finished goods and amount per generation unit (if applicable).		Not Applicable
A3 Environment	General disclosure Policies on reduction of significant impacts caused by the issuer on the environment and natural resources.	_ 304-1、304-2、 304-3	P27-28
and natural resources	A3.1 Description of significant impacts of business activities on the environment and natural resources, and actions that have been taken on control of relevant impacts.		P27-28



Classification	SEHK	GRI	Disclosure Media
A4 Climate change	General disclosure Policies for identifying and coping with major climate-related issues that have and may have an impact on the issuer.	201-2	P29
	A4.1 Description of major climate-related issues that have and may have an impact on the issuer and the response actions.		P29
B1 Employment and labour conventions	General disclosure Those involve remuneration and dismissal, recruitment and promotion, working hours, holidays, equal opportunities, diversity, anti-discrimination and other treatment and benefits: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer.	102-7、102-8、 401-1、401-2、 405-1	P31-32
	B1.1 Total numbers of staff by sex, type of employment (such as full-time or part-time), age and region.		P31
	B1.2 Loss rates of employees by sex, age and region.		P31
B2 Health and safety	General disclosure Those involve access to a safe working environment and protection of staff from occupational hazards: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer.	- 403-2	P39-46
	B2.1 Number and ratio of deaths due to work in the past three years (including the reporting year).		Recommended disclosure, to be disclosed in the future
	B2.2 Number of working days lost due to work injury.		P39
	B2.3 Description of occupational health and safety measures adopted, and corresponding implementation and inspection methods.		P39-44
B3 Development and training	General disclosure Policies for improving staff's knowledge and professional skills in performing their duties. Description of training activities.	- 404-1、404-2 -	P33-35
	B3.1 Proportion of employees to be trained by sex and type (e.g. senior management, middle management).		P35
	B3.2 Average hours for completion of training for each employee by sex and type.		P34
B4 Labour standard	General disclosure Those involve prevention of child labour or forced labour: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer.	409-1	P32
	B4.1 Description of measures for review of recruitment practices to prevent child and forced labour.		P32
	B4.2 Description of steps taken to eliminate any breach of regulation discovered.		P32

69

Classification	SEHK	GRI	Disclosure Media
B5 Supply chain management	General disclosure Environmental and social risk policies for managing supply chains.		P48-50
	B5.1 Number of suppliers by region.		P50
	B5.2 Description of customary practices on employment of suppliers, number of suppliers subject to practices and corresponding implementation and inspection methods.		P49
	B5.3 Description of customary practices on identification of environmental and social risk in each link of the supply chain, and corresponding implementation and inspection methods.		P49-50
	B5.4 Description of customary practices on promoting the use of environmentally friendly products and services in priority at the time of selecting suppliers, and corresponding implementation and inspection methods.		P49-50
B6 Product responsibility	General disclosure Those involve health and safety, advertising, labelling and privacy and remedies of products and services provided: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer.		P52-57
	B6.1 Percentage of products to be recycled due to safety and health matters in all products that have been sold or delivered.		P52
	B6.2 Number of complaints received about products and services and corresponding responses.		P52
	B6.3 Description of customary practices on safeguarding and protecting intellectual property rights.		P56
	B6.4 Description of quality inspection procedures and product recycling process.		P52-53
	B6.5 Description of protection of consumers' information and privacy policies, and corresponding implementation and inspection methods.		P57
	 General disclosure Those involve the prevention of bribery, extortion, fraud and money laundering: (a) Policies; and (b) Information on compliance with relevant laws and regulations that have a significant impact on the issuer. 	- 102-17、205-1、 _ 205-2、205-3 _	P59
B7 Anti-corruption	B7 Anti-corruption		P59
	B7.2 Description of preventive measures and reporting procedures, and corresponding implementation and inspection methods.		P59
	B7.3 Description of anti-corruption trainings provided for directors and employees.		P59
B8 Community investment	General disclosure Policies for understanding the needs of the community under operation and ensuring the interests of the community taken into consideration in its business activities through community participation.	- 203-1、415-1 -	P16 P62-66
	B8 Community investment		P16 P62-66
	B8.2 Resources used for category of devotion (e.g. money or time).		P61-62



Reader's Feedback Form

Thank you for reading the Group's Environmental, Social and Governance Report for the year of 2020. To strengthen communication with you and other stakeholders and continuously improve the Group's performance of environmental and social responsibility as well as preparation of social responsibility reports, we would appreciate it if you share your opinions and suggestions with us. Look forward to your feedback in the following methods:

Tel.: +8610-5673-0522

E-mail: seg.ir@sinopec.com

Mailing address: Building 8, Shenggujiayuan, Shenggu Middle Road, Chaoyang District, Beijing, the PRC

Zip code: 100029

Contact person: Company Office (Office of the Board)

Please fill in this feedback survey of this Report: 1. What is your overall evaluation? • Excellent • Good • Fair • Bad

2. What is your impression on the clarity, accuracy and completeness of the information and data?	• Excellent	∘ Good	∘ Fair	∘ Bad
3. What is your impression on the comprehensiveness of the economic responsibility undertaken by the Group?	○ Excellent	∘ Good	∘ Fair	∘ Bad
4. What is your impression on the comprehensiveness of the environmental responsibility undertaken by the Group?	○ Excellent	∘ Good	∘ Fair	∘ Bad
5. What is your impression on the comprehensiveness of the social responsibility undertaken by the Group?	○ Excellent	∘ Good	∘ Fair	∘ Bad
6. What is your impression on the convenience of the design and typesetting?	 Excellent 	$\circ \text{ Good}$	$\circ {\rm Fair}$	\circ Bad
7. Which part needs improvement most? $\hfill \circ$ Governance \circ Safety \circ Service \circ Supply Ch	nains o Staff	Environ	ment o \$	Society

8. Is there any content that you are interested in but has not been disclosed yet? Please write it down here if there is any:

9. Comments and suggestions on the Group's social responsibility and report preparation:

中石化炼化工程(集团)股份有限公司 SINOPEC ENGINEERING (GROUP) CO., LTD.

Address : Building 8, Shenggujiayuan, Shenggu Middle Road, Chaoyang District, Beijing, the PRC Zip code : 100029 Tel : +8610-5673-0522 Fax : +8610-5673-0500 Web: http://www.segroup.cn



This report is made of environmental paper