



中国石化
SINOPEC



2017 Sinopec Corp.

Communication on Progress for Sustainable Development

New Era New Journey Powering a Better Life for You

Report Information

The 2017 Communication on Progress for Sustainable Development (hereinafter referred to "COP") is the twelfth sustainability report from China Petroleum & Chemical Corporation (hereinafter referred to as "Sinopec Corp.", "the Company" or "We"). The theme of this year's COP is New Era, New Journey: Powering a Better Life for You. The COP introduces our efforts promoting economic growth, social development and environment protection, and highlights how we responded to stakeholder expectations in 2017.

Report Description

This COP covers our business activities from 1 January to 31 December 2017. The information herein comes from internal data, materials from our subsidiaries, and official documents and statistical reports. The Company's Board of Directors approved the Report on March 23, 2018. The report is available in Chinese and English. If there is any conflict or inconsistency, the Chinese version shall prevail. The report can be downloaded at the website: <http://www.sinopec.com/listco/en/csr/pdf/zlkj.shtml>.

References

This COP is prepared in accordance with Ten Principles of the United Nations Global Compact (UNGC), the criteria of the Global Compact Advanced Communication on Progress, the Guideline on Environmental Information Disclosure by Listed Companies of Shanghai Stock Exchange (SSE), as well as the Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange (HKEx) and by reference to Global Reporting Initiative (GRI) Sustainability Reporting Standards.

Disclaimer

This COP includes certain forward-looking statements with respect to the results of our business operations and certain plans and conditions. All statements that address activities, events or developments that we expect will or may occur in the future, other than statements of historical fact, are forward-looking statements and by their nature involve risk and uncertainty. This means that actual results may differ materially from those indicated in the forward-looking statement due to a number of factors and uncertainties. The forward-looking statements are made by March 23, 2018 and the Company undertakes no obligation to update these forward-looking statements unless required by an appropriate regulatory authority.





Content

02 Board Statements

04 About Us

10 **Innovation-Driven**
Implementing New Concept of
Development

16 **Deepening Reform**
Being an Enterprise with Scientific and
Normative Governance in the New Era

24 **Promoting Green Development**
Progressing in Safety, Ecological and
Environmental Protection

36 **Pursuing Common Development**
Serving the People for a Better Life

48 **Advancing Openness and Win-Win
Cooperation**
Contributing to Community of a
Shared Future

54 Outlook

55 Key Performance

58 Index

62 Feedback

Board Statements



35 years ago, Sinopec was founded during the period of reform and opening up in China and has shouldered responsibilities of realising development, rejuvenating the petrochemical industry and improving people's life since then. Today, when stepping into a new era, we should remain true to our original aspiration and keep our mission firmly in mind. We will promote high quality development, develop high-end products, and embrace the tendency of electrification, market-orientation, digitalisation and 'greenisation', fostering drivers of growth and achieving comprehensive and sustainable development of Sinopec Corp.



Dear friends,

First of all, on behalf of the Board, I would like to express our heartfelt thanks for your attention and support.

2017 is a milestone in China history. Socialism with Chinese characteristics enters a new era while our people have ever-growing needs for a better life; a two-step approach should be taken to build China into a great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious, and beautiful by the middle of the century. The 2030 Agenda for Sustainable Development has been launched in full swing across the world. In particular, joint efforts have been made in material Issues such as addressing climate change and eradicating poverty.

Sinopec Corp. is committed to sustainability, protecting the environment and building a harmonious society. When realising the development, we commit

to contributing to our country, rewarding our shareholders, serving our community and benefiting our employees. We hope to present our confidence in realising the comprehensive and sustainable development and our efforts in the environment protection and social contribution during daily communication with stakeholders and through the Report.

Reform and development contributes to the real economy. China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development. In 2017, we pursued supply-side structural reform as our main task, focused on improving the quality and efficiency of our operations and satisfying people's individualised, diversified and escalating needs. We enhanced the exploitation of natural gas and non-conventional energy with Fuling shale gas field has built up an annual capacity of 10 billion cubic meters. We promoted the construction of refining chemical bases to focus

on the large-scale, integrated and centralised development of the industry. By upgrading the quality of refined oil, we supplied clean gasoline and diesel for vehicles qualifying National V and VI emission standards. We also took advantage of the sales network to provide customers with high quality oil products and diversified commodities, and attached more importance to developing fine chemicals, biochemicals and new materials. The Three Synthetic Materials are heading for high-end, green and ecological, and energy-saving upgrade.

In 2017, we paid RMB 328.3 billion of taxes and fees, declared RMB 60.5 billion of dividends to shareholders, provided society with 199 million tonnes of refined oil products and 78.5 million tonnes of chemical products.

Emerging business brings new momentum. Sinopec EPEC, the largest e-commerce platform for industrial products in China, has become the

only e-commerce platform for BRICKS countries, triggered more effective demands and built interconnected economic exchanges as well as a mutually beneficial environment along the “Belt and Road”. With utilising advantages of the refined oil products sales network by more than 20,000 service stores, non-fuel business has been a new growth point. Besides, we developed various businesses such as CNG, power battery business, as well as charging stations, gas stations and hydrogen stations.

Technological innovation provides “engine” for development. In 2017, we conducted the technological innovation centering on alternatives of upstream resources, natural gas development, restructure and upgrading of oil refining, “basic + high-end” structure adjustment in chemical segment, new strategic emerging businesses such as biomass energy, new energy and new materials, as well as the construction of intelligent pipelines and intelligent factories. Throughout the year, we won 2 National Technology Invention Awards and 3 National Science and Technology Progress Awards, applied for 5,876 patents and obtained 3,640 patents.

Green and low-carbon strategy promotes a green enterprise. We strengthened the risk management covering production safety, environmental protection and climate change. We implemented the Health, Safety, Security and Environment (HSSE) management system to guarantee production safety and secure employees’ personal safety and occupational health.

We also enhanced the quality & safety environment certification for contractors and suppliers as well as negative list management. To address climate change, we continuously reduced energy consumption and improved energy efficiency, promoted carbon dioxide capture, methane recovery and reduction, enhanced waste heat recycling and application of solar power, and achieved new progress in bio-jet fuels. Moreover, we continued to strengthen pollutant discharge management, biodiversity protection and soil remediation where we operate.

Openness and win-win cooperation build a harmonious society. Both the support of local people and our employees are indispensable in the development of the Company. We respect and guarantee human rights, oppose discrimination in all forms, and promote employees’ decent work. We value staffing and procurement localisation and drive the development of local society by paying tax, enhancing professional skill training, aiding infrastructure construction and education. Throughout the year, we invested RMB 128 million in targeted poverty alleviation focusing on infrastructure construction, industrial assistance, educational support and healthcare & medical service provision, etc. Every year, we carry out the “Warm Station” public welfare activity. Sinopec “Brightness” Lifeline Express has cured over 40,000 cataract patients in poverty free of charge for 13 consecutive years. We are open to social supervision through Sinopec Open Day, social supervisors and new media platforms.

Corporate governance lays a solid foundation for development. Beside with the rights of General Meeting of Shareholders, the Board of Directors, the Board of Supervisors and independent directors, in 2017, the Company revised the *Articles of Association* incorporating the role of the Party organisations into corporate governance. We further enhanced compliance and anti-corruption efforts to strengthen supervision, and create an open, just, transparent and honest development environment.

The sustainability of Sinopec Corp. is attributed to the support and trust of stakeholders. A company should remain true to the original aspiration and move forward bravely no matter what she will confront; the success of a business also needs to keep the mission firmly in mind and repay the society. Looking ahead, we will insist on comprehensively sustainable development, adhering to the concept of “big enterprise undertakes greater responsibility”, and powering for a better life for you!



Dai Houliang
Vice Chairman, President
March 23, 2018

About Us

Sinopec Corp. Overview



Exploration and Production

- Sinopec Corp. is a large Chinese petroleum and petrochemical enterprise.
- At the end of 2017, our proven petroleum and natural gas reserves totaled 1,599 million barrels and 6,997 billion cubic feet respectively.
- The national shale gas demonstration zone, Sinopec Fuling shale gas field with a production capacity of 10 billion cubic meters annually, is the largest shale gas field in the world outside North America.
- Our main oil and gas assets are located in China and we also have four projects located in Kazakhstan, Russia, Colombia and Angola respectively.

Refining

- Sinopec Corp. ranks first in global refining capacity.
- At the end of 2017, our primary distillation capacity of crude oil was 295 million tonnes annually. Our primary facilities are located in China and we also invest in a refining project in Yanbu, Saudi Arabia.
- In 2017, we processed 239 million tonnes of crude oil.

Marketing and Distribution

- Sinopec Corp. is equipped with comprehensive refined oil products sales network, with the number of service stations ranking first in the world.
- At the end of 2017, 30,633 service stations carried the Sinopec logo, and the total number of fuel cards reached 132 million.
- Non-fuel business becomes a new growth point.



Chemicals

- Sinopec Corp. is the first in China and fourth globally in ethylene production capacity. Our main products include synthetic resin, synthetic fiber and synthetic rubber. We invest in a joint venture project in Russia.
- We produced 11.61 million tonnes of ethylene in 2017.

Technology R&D

- Sinopec Corp. has the capacity and technology to build refining facilities at the ten-million tonnage level, and ethylene facilities at the million tonnage level.

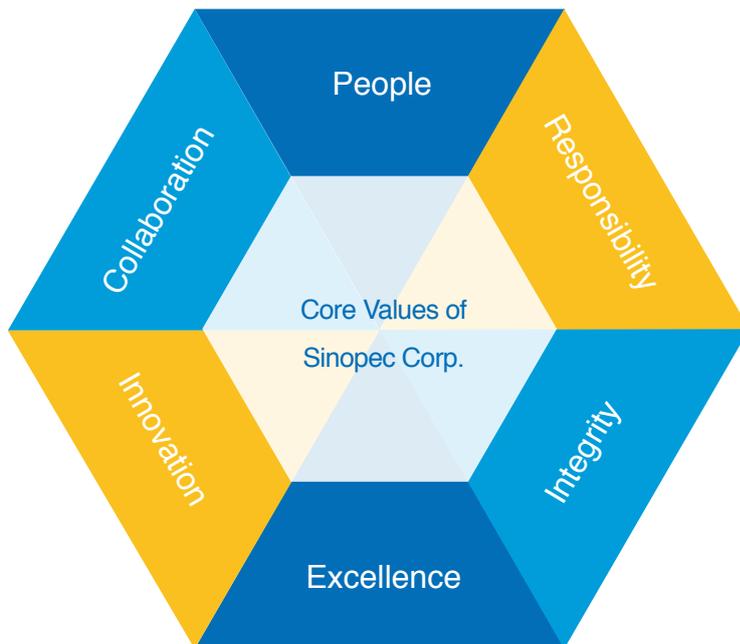
International Trade

- Sinopec Corp. is the largest trader of crude oil in China. In 2017, we traded 339 million tonnes of crude oil with 209 million tonnes imported.
- Sinopec Corp. owns 13 wharfs of more than 200,000 DWT, with a total capacity of 326 million tonnes.

Sinopec Corp. fulfils its responsibilities as a global corporate citizen by conducting business that serves society. We integrate a people-oriented approach to corporate culture and practices.

- Our diversified portfolio, including energy resources such as crude oil and natural gas, refined oil products such as gasoline, diesel and kerosene, and petrochemical products with thousands of varieties, contributes to social and economic development and satisfies hundreds of millions of families.
- We operate honestly and pay taxes in accordance with the law to contribute to national revenue and boost social development and prosperity.
- We commit to realising sustainable development of the Company and upholding stable and continuous dividend pay-out policy to return to shareholders.
- We focus on leading and cooperating with our partners along the upstream and downstream industrial chain, aiming to enhance sustainability and achieve win-win results.
- We guarantee employee rights, provide good working environment and optimise career development channels that show respect for our employees and promote decent work.
- We engage in local communities by safeguarding community safety, protecting the environment, participating in local economic development projects, carrying out poverty alleviation programmes and sharing our corporate development with local residents.

Core Values of Sinopec Corp.



Performance in 2017

Revenue (RMB)

2,360.2 billion

Taxes and fees paid (RMB)

328.3 billion

Social contributions (RMB)

457.4 billion

Net profits attributable to shareholders (RMB)

51.12 billion

Dividends declared (RMB)

60.54 billion

Dividends pay-out ratio

118.4 %

Total number of employees

446,225

Ethics training coverage

100 %

Safety training coverage

100 %

Donations (RMB)

151.88 million

Input in targeted poverty alleviation (RMB)

128.22 million

Patients cured under the Lifeline Express Programme (accumulative)

41,172

GHG emissions (CO₂-equivalent)

162.66 million tonnes

GHG reductions (CO₂-equivalent)

5.42 million tonnes

2017 Honours

Mr. Dai Houliang, Vice Chairman and President of Sinopec Corp., was elected member of the Chinese Academy of Engineering.

Sinopec Corp. received Special Contribution Award from Lifeline Express Council for the 13th consecutive years.

Sinopec Corp. received Level-A rating in the SSE's 2016 -2017 information disclosure assessment of listed companies.

EPEC, one of the e-commerce platforms of Sinopec Corp., was selected as Best Practice of Chinese Enterprise in Realising SDGs by the Global Compact Network China.

Sinopec Corp. was named Chinese Model of Low Carbon Performance and Responsible Enterprise by China News Service and *China Newsweek* for 7 consecutive years.

Sinopec Corp. received two National Quality Golden Engineering Awards, the highest honour for engineering construction quality in China.

Sinopec Corp. received Award for Listed Company with Best Investment Value during 13th Five-Year Plan and Best Board Secretary of Listed Companies at the 2017 China Securities Golden Bauhinia Awards.

Sinopec Corp. won Best Innovative Recruitment Practice Award at HR Selection Awards in Greater China 2017.

Sinopec Corp. was named Most Honoured Enterprise in the "Best Management Team in Asia in 2017" campaign, and Best Investor Relations, Best Analyst Day, Best Corporate Website and Best Investor Relations Professionals in the Asian energy industry by *Institutional Investor Magazine*.

Sinopec Lubricant won the 2017 C-BPI Golden Brand Award granted by China Brand Research Center of MIIT, and was named National Quality and Integrity Model Enterprise by China Association for Quality Inspection.

Stakeholder Engagement and Material Issues

The trust and support of our stakeholders is a fundamental approach of Sinopec Corp. to sustainable development. We make progress through our partnerships with all stakeholders jointly pursuing values such as prosperity, democracy, civility, harmony, freedom, equality, justice, the rule of law, patriotism, dedication, integrity and friendship. We promote a sustainable development based on economic growth, protecting the environment and building a harmonious society.

We have established a communication and feedback mechanism with our stakeholders.

- Through continued communications, discussions and reports with authorities, we outlined the issues which mattered most to them, including tax paying, innovation, safety, ecological protection and targeted poverty alleviation.
- Through performance conferences, meetings with investors, teleconferences, online interaction, and the E-platform of SSE, we outlined the issues which mattered most to them, including sustainable development, shareholder returns and climate change.
- Through daily communication, visits, interviews and surveys with customers, we outlined the issues which mattered most to them, including product diversification, quality and service.
- Through face-to-face communication with NGOs and rating agencies as well as questionnaires, we outlined the issues which mattered most to them, including risk management, human rights, safety, environmental protection, greenhouse gas emission and anti-corruption.
- Through Open-day activities, we outlined the issues which mattered most to communities, including protection of community residents' rights.

At the same time, we aligned our business operations with 17 Goals (SDGs) in the 2030 Agenda for Sustainable Development (The UN 2030 Agenda), and referred to the Recommendations Report issued by Task Force on Climate-related Financial Disclosures (TCFD), while tying features of the energy and chemical industry, and then outlined the following thirteen material Issues that we shall report.

13 Material issues

Sustainable development management	P06	Addressing climate change	P29-31
Risk management	P21	Energy conservation and emission reduction	32-34
Innovation	P10-15	Human rights protection	P40-41
Anti-corruption	P22-23	Occupational health	P27
Product quality and service	P45-46	Biodiversity	P35
Shareholder returns	P07	Social contribution	P42-43
Work safety	P27-28		

Innovation-Driven

Implementing New Concept of Development

Our challenges and opportunities

Innovation is the primary driving force for development; it is the strategic underpinning for building a modernised economy. The UN 2030 Agenda puts forward the requirement to stimulate innovation and efficient use of natural resources and energy. China advocates to develop a market-oriented system for technological innovation with enterprises as the main players, creating the synergy among enterprises, universities and research institutes and promoting commercialisation of technology achievements. China is also working on cultivating a large number of world-class scientific and technological leading talent and innovation teams.

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION





Topic: Scientists and Technologists Steer Innovative Development

We place innovation at the center of development and aim to cultivate a high-qualified and complete-majored research team to lead technological innovation and serve the Company's strategic development.

In 2017, Mr. Dai Houliang, Vice Chairman and President of the Company, was elected member of the Chinese Academy of Engineering, while Mr. Xie Zaiku, General Director of the Science and Technology Department, was elected member of Chinese Academy of Sciences. Asteroid No. 210292 has been named after Mr. Ma Yongsheng, Senior Vice President and Board Director. and member of Chinese Academy of Engineering.

At present, we have 4 State Key Laboratories, 5 National Engineering Research Centres, 2 National Energy R&D (Experiment) Centres and 2 State-Certified Enterprise Technology Centres. In 2017, the Company won 2 National Technology Invention Awards and 3 National Science and Technology Progress Awards, applied for 5,876 patents and acquired 3,640 granted patents. The fruitful achievements in technological innovation have laid a solid foundation for sustainable development of the Company.



Technological Innovation Contributes to Supply-Side Structural Reforms

We take innovation-driven strategy as one of the five major development strategies. Aligning with supply-side structural reforms, we deepen the scientific and technological mechanism reform, strengthen innovation incentives and focus on major science and technology projects, accelerate research on core technologies, strengthen frontier research and research on new field technologies, and promote transformation of technological achievements, further supporting and leading the Company to shift the growth models and to adjust the structure of development, and improve the quality and efficiency of its operations.

Promoting mechanism reform

In 2017, we improved major scientific and technological projects and chief leader responsibility pilot programme, strengthened project management, dividend incentives, classified personnel evaluation and talent growth channel building, to promote commercialisation of independent innovations. A mechanism with clear division of rights and responsibilities, and benefit sharing linked by intellectual property rights was formed to promote market-oriented allocation and efficient use of the relevant resources.

Focusing on cutting-edge technologies

In 2017, we conducted the technological innovation centering on the alternatives of upstream resources, restructuring and upgrading of oil refining, and adjustment of raw materials, products and industrial structure in the chemical industry. The Company increased investment in R&D in 10 cutting-edge fields, including oil and gas new pattern E&P, oil refining at molecular level, bio-based materials, new catalytic materials and new materials.

Focusing on green development

In 2017, several state key projects were approved and launched, including key technologies for clean gasoline and clean diesel to meet National VI emission standards, key technology for high-performance plant-based lubricants, high-throughput development and application of new green and efficient chemical catalytic materials, multi-functional coupling technology and demonstration for chemical flue gas treatment.

Promoting innovation incubation

We promoted the construction of Science and Technology Incubator focusing on "Innovation Space", "Cultivation in New Fields" and "Innovative Business Incubator" to accelerate transformation of technological achievements. The Company held the first "Sinopec Cup" Innovation and Entrepreneurship Competition totally with 561 project applications and established pilot companies focusing on new materials, new technologies and new business models.

Indicators	2015	2016	2017
Number of National Technology Invention Awards	2	4	2
Number of National Science and Technology Progress Awards	2	0	3
Number of patent applications	5,246	5,612	5,876
Number of granted patents	3,769	3,942	3,640
Total number of domestic and overseas granted patents	18,349	22,291	25,931
Investment in R&D (RMB billion)	5.65	5.93	6.42



Boosting Integration of Industrialisation and Informatisation to Upgrade the Traditional Manufacturing Industry

In 2017, we actively implemented the national strategy of “Made in China 2025” and “Internet Plus”, deepened the integration of industrialisation and informatisation, and vigorously proceeded the innovation and efficiency action plan of technology application through “Smart Manufacturing” and “Internet Plus”.

Intelligent pipeline management

Based on the national requirements for the treatment of oil and gas pipeline hazards and the lessons learned from the 11-22 Oil Pipeline Explosion happened in 2013, we realised the digitalisation and visualisation of long-distance and interplant pipelines covering more than 34,000 kilometers to prevent overstock of underground pipelines and safety risks caused by pipeline crossing.

Digital management Conduct digital processing of documents, design models, operating data and business data of pipeline construction and operation period, which enables to display pipeline information in a multi-dimensional way.

Integrity management Realise traceability of third-party construction, risk management and hazard treatment.

Operation management Conduct tiered management of warnings and transmitted the warnings automatically so that the headquarters, business divisions and

subsidiaries /branches can examine the pipeline operating parameters remotely.

Hidden hazards management Detect the distribution, location and environmental information of hidden hazards.

Emergency response Quickly locate emergencies, collect the information of surrounding and pipeline data, review surveillance videos on-site, find out nearby emergency resources, and quickly determine emergency solutions.



Intelligent plants construction

After constructing pilot intelligent plants in Sinopec Yanshan, Sinopec Zhenhai, Sinopec Maoming and Sinopec Jiujiang, we carried out upgrading programme in Sinopec Zhenhai and Sinopec Maoming and launched planning for 7 subsidiaries in 2017. The production management command centres (PMCC) in the plants helped realise management flattening, improve the on-site response efficiency, and raise the operation qualification rate from 90.7% to 99%. Intelligent plants establish real-time online monitoring points, quality analysis monitoring points and video surveillance points, integrate real-time data of processes, realise digital management and predictive maintenance of equipment, and improve the management in safety and environmental protection.

Informatisation of the logistics system

Centring on crude oil and refined oil products, we completed the overall design of integrated modern logistics management system and started the pilot projects. We also finished the development and application of the lubricant logistics management system and enabled product flow being tracked with the QR code.

2017 Honours

The pilot intelligent plant in Sinopec Maoming and the pilot intelligent gas field in Sinopec Puguang Oilfield were named as 2017 Intelligent Manufacturing Pilot Demonstration Projects by Ministry of Industry and Information Technology (MIIT).

The *Intelligent Plant Solution in the Petrochemical Industry* and EPEC, the e-commerce platform of Sinopec, were both listed as the pilot demonstration projects of 2017 Manufacturing and Internet Integration Development by MIIT.

The *Large-Scale Localised Intelligent Aromatic Plant Construction Project* was listed as 2017 Intelligent Manufacturing New Mode Application Project by MIIT.

Case study: Environment Digitalisation Draws Environmental-protection Map to Realise Pollution Control

Sinopec Jiujiang is a state-level intelligent manufacturing demonstration enterprise. The company's environment digitalisation enables display real-time and historical data of pollutant discharge points, and effectively prevents the disorderly discharge. It also checks environmental risks and management weaknesses through statistical analysis of pollutant process data, and immediately sends abnormal data to the responsible director. The company realises all-weather and whole-process monitoring of VOCs inside and outside the plants, and real-time uploading of data of national monitoring points, like sewage outlets, to online provincial and municipal relevant platforms. The operation rate and the data transmission rate are far superior to the national standards.



Deepening Reform

Being an Enterprise with
Scientific and Normative
Governance in the New Era

Our challenges and opportunities

The UN 2030 Agenda calls for ensuring access to affordable and clean energy, promoting economic growth, and reducing corruption and bribery. The world economy walked out of recession in 2017. With a 6.9% economic growth rate, China's economy has been transitioning from a phase of rapid growth to a stage of high-quality development, and the Chinese people have ever-growing needs for a better life. China gives priority to furthering supply-side structural reform, building integrity and enforcing the rule of law system.

7 AFFORDABLE AND
CLEAN ENERGY



8 DECENT WORK AND
ECONOMIC GROWTH



16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS





Topic: Optimising the Articles of Association to Demonstrate Modern Enterprise Governance with Chinese Characteristics

The establishment and continuous development of Sinopec Corp. can be realised only with the concern and support of the country and the people, investors and other stakeholders both in China and overseas. Sinopec Corp. has been dedicated to ensuring social energy supply, contributing to local economic development where it operates, and meeting people's basic needs. The Company always attaches great importance to shareholder returns and implements a continuous and stable profit distribution policy. The annual dividend payout ratio in the past five years was above 40%, and the ratio reached 65% and 118% in 2016 and 2017 respectively.

In June 2017, we revised the Articles of Association based on the socialist system with Chinese characteristics and our governance practices, and stated the role of the Party organisations in corporate governance. The proposal was approved by the 2016 Annual General Meeting of Shareholders with approval rate of 99.96%.

When making decisions on significant matters such as direction of reform and development, key objectives, priority operational arrangements and appointment of the management personnel, the Board of Directors should seek advice from the Party organisation. The Party organisations and the members of the Party positioned in different departments play the leading role in the decision implementation and motivate the employees, which helps the management the enforcement of the Board decisions. Furthermore, the Party organisations strengthen supervision on the integrity and the duty performance of managers who are also the members of the Party. All of the above mentioned helps promote scientific decision-making, efficient enforcement and effective supervision.

Supporting the Real Economy through Supply-side Structural Reforms

In 2017, we focused on improving operation quality and efficiency and promoting supply-side structural reforms, made efforts in optimisation, cost reduction, market expansion, structure adjustment, reform, foundation consolidation and risk control, and achieved satisfactory results in various fields. The Company recorded a revenue of RMB 2,360.2 billion, a 22% YoY increase. The net profit attributable to shareholders was RMB 51.1 billion, a 10% YoY increase. Sinopec Corp. adhered to scientific and normative management and improved corporate governance to enhance its vitality, influence and risk resistance capacity.

Upstream segment

Adhering to the principle of efficient exploration and production and supported by technical innovation, we strengthened the fine adjustment of developed oilfields and tapping the potentials to increase the oil recovery ratio. The crude oil reserve replacement ratio reached 116%. We took steps to promote the production of natural gas and non-conventional energy to restructure our overall energy mix and to ease natural gas supply pressure in central and east China.

Refining segment

We promoted the construction of refining and chemical bases. Following the demand trend, we strengthened product structure adjustment from the supply side and developed refined oil products with high added value. We also accelerated the progress of bio-jet fuel, high-end graphite raw materials, and high-grade road asphalt. We took the lead in upgrading the quality of gasoline and diesel for vehicles to meet National VI emission standards in the “2+26” cities in Beijing-Tianjin-Hebei Region and surrounding regions, and launched “X-power 98” gasoline in Beijing, Jiangsu, Tianjin and Guangxi, providing high quality oil products for customers.

Chemicals segment

We exploited advantages in Three Synthetic Materials (synthetic resin and plastics, synthetic fiber and synthetic rubber) and R&D to moderately extend the industrial chain and provide tailored solutions for customers. We strengthened product structure adjustment focusing on high-end, green, and eco-friendly materials. In 2017, we launched new series of green propylene and butene copolymer products, promoted the application of new low-odor, small-sized and hollow polyethylene products and new eco-friendly, high-crystallised and high-impact polypropylene products, developed non-dyed fibers to alleviate textile dyeing pollution at the source and reduce wastewater discharge, optimised the performance of non-heavy metal polyester catalysts, increased production and sales of eco-friendly polyester, developed high-performance fiber, and achieved eco-friendly upgrading of all oil-filled SBS products.

Marketing segment

We strengthened the overall marketing of gasoline, especially high-grade gasoline, and provided high-quality and clean oil products to meet customer needs. Accurately based on diesel consumption characteristics and research on special needs of heavy truck drivers and long-distance drivers, we expanded the network of diesel special cards national-wide to provide high-quality products and convenient services. We provided solutions that satisfy the oil demand for logistics of major customers. We strengthened the integration of fuel and non-fuel business, and developed comprehensive services such as auto insurance and auto service to satisfy consumers diversified demand. In 2017, the number of fuel card reached 132 million. The total sales of refined oil products reached 199 million tonnes, a 2% YoY increase. We established 550 comprehensive service life posts and the profit of non-fuel business recorded a 48% YoY increase.



Green propylene and butene copolymer products are used in the manufacturing of feeding bottles, drinking cups and other household products. Compared to random ethylene and propylene copolymer products, they reduce soluble matter by over 50%, and help the clients reduce processing temperature by 15°C. New low-odor, small-sized and hollow polyethylene products, used for beverage bottles, cosmetics packages and medical package bottles, have lower odor and are more secure and reliable. The eco-friendly, high-crystallised and high-impact polypropylene products help improve vehicle safety and comfort.



Transformation Created New Momentum for Development

Natural gas business recorded strong growth

The *Energy Production and Consumption Revolution Strategy (2016-2030)* proposes to realise the continuous growth of low-carbon energy such as natural gas in 2021-2030, drastically reduce the use of high-carbon fossil fuels and increase the use of natural gas in key areas with air pollution prevention target. In order to meet the clean energy demand, in 2017, we strengthened rolling exploration and gas reservoir evaluation, increased the production, and improved the efficiency. The natural gas production gained a 19% YoY increase. Fuling shale gas field has built up an annual capacity of 10 billion cubic meters. There was a large-scale commercial discovery in Weiyuan area in southern Sichuan, where a new shale gas production base would be established.

Promoting e-commerce platform building

We integrated the vertical industrial chain and inter-enterprise supply chain, gathered data of material purchase system, chemical sales, lubricant and fuel oil, and established a uniform e-commerce and customer relation management (CRM) platform, realising the connection between product manufacturing and customer needs. In 2017, EPEC was listed as one of the eight key achievements of the BRICS. The trading volume on chememall.com increased by 470,000 tonnes, the refining sales business realised online operation and the CRM of oil products marketing was promoted.

Developing new energy markets

We promoted the new energy business to foster development momentum of the Company. In 2017 we exploited the CNG vehicle market, and explored gas supply business. Sinopec Yangzi achieved the pilot industrial production of dedicated resin for lithium-ion battery separator. Sinopec Marketing Company conducted research on construction of the battery charging and swapping network and built the first batch of stations in Beijing to meet needs of swapping-mode taxi drivers. We also promoted the development and application of hydrogen energy and formulated standards and plans for the construction of hydrogenation networks. Sinopec Guangdong Oil Products Co. started joint venture cooperation in Guangdong Yunfu to build hydrogen stations.

Risk Management

The Audit Committee under the Board of Directors inspects the effectiveness of internal control and risk management, and gives advice to the Board. We have established a comprehensive risk management working group and relevant departments are established to control and mitigate risks, including safety, environmental protection, climate change, finance, legal affairs, anti-corruption and overseas public safety. The management convenes the meeting annually to organise

identification, assessment and treatment of major and significant risks, compiles quarterly risk management reports, and formulates risk forestall measures.

The headquarters and the subsidiaries assess the risks and the final “risk list” is included in the internal control manual. We have established “Three Lines of Defence”, namely regular test of internal control responding units, daily supervision by risk/internal control departments and comprehensive

auditing and inspection. Each year, the headquarters organises subsidiaries to carry out risk management training, and subsidiaries conduct special training.

We realised effective risk management in 2017. The main risks and measures are presented in the relevant section of the Report.

Advancing the Law-based Operation

We strengthen construction of the legal risk management system and process and enhance the legal risk prevention. In 2017, the subsidiaries conducted legal risk identification and control of 1,105 business

processes and embedded with legal risk warnings and control focuses. We improved the legal risk warning system, compiled legal risk lists, and completed legal work guidance on environmental protection, labour

and employment, patents, technical secrets protection and overseas enterprises anti-corruption.



Strengthening Anti-Corruption

We comply with all national laws and anti-corruption regulations, and all laws and regulations in countries where we operate. We keep promoting the enforcement of anti-corruption measures and carry out punishment and prevention mechanism in order to ensure a clean Sinopec.

Continuously improving the anti-corruption system

Integrity is the ethics that the employees must follow. The Company formulates the *Code of Conduct*, *Implementation Rules of Gift Registration* and other regulations. Meanwhile, the management and employees who are the Party members must strictly abide by the regulations of the Communist Party of China, including *Several Clean Governance Guidelines for Leading Cadres*, *Code of Integrity and Self-Discipline*, and *Accountability Regulations*, etc. Each year, employees at key positions sign the *Business Ethics Agreement*, promising to abide by business ethics and adhere to integrity initiatives. The Company strengthens anti-corruption management of value chain with contractors, suppliers, etc. (For detailed information, please refer to P47 of the Report.)

Building an open and transparent corporate environment

In 2017, we linked the Business Information Disclosure System with systems covering ERP, contract management, expense reimbursement, e-commerce platform, e-tendering platform, EPEC and engineering management system, realised automatic extraction of most to-be-disclosed information, and inspected ten external operation businesses. In 2017, the Company disclosed about 4.18 million pieces of information, and contracts involved amounted to US 75.56 billion dollars and RMB 1.3 trillion.

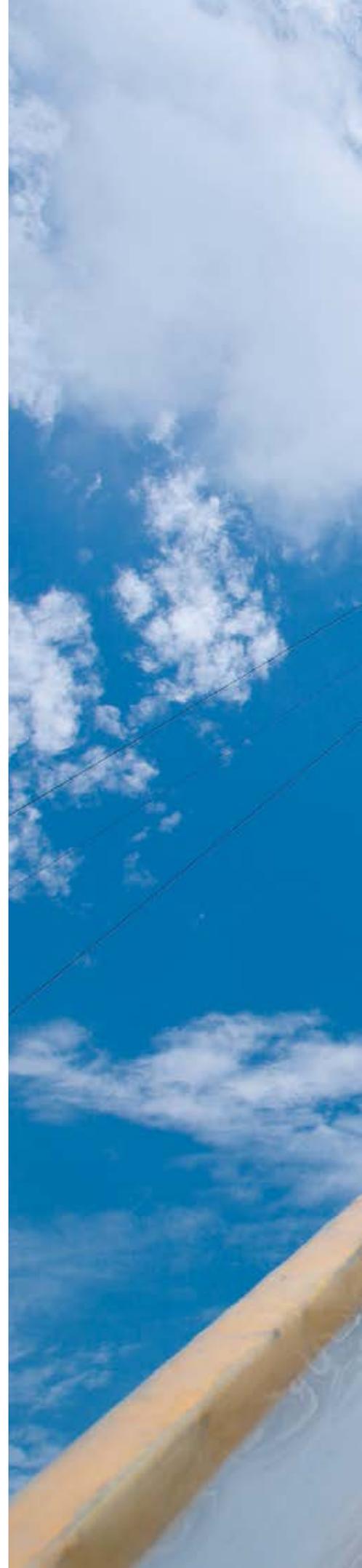
The integrity and risk control module was developed for the Business Information Disclosure System to display risky positions, risk levels and risk control measures. Online management was realised for information collection, evaluation, disposal, rectification and feedback.

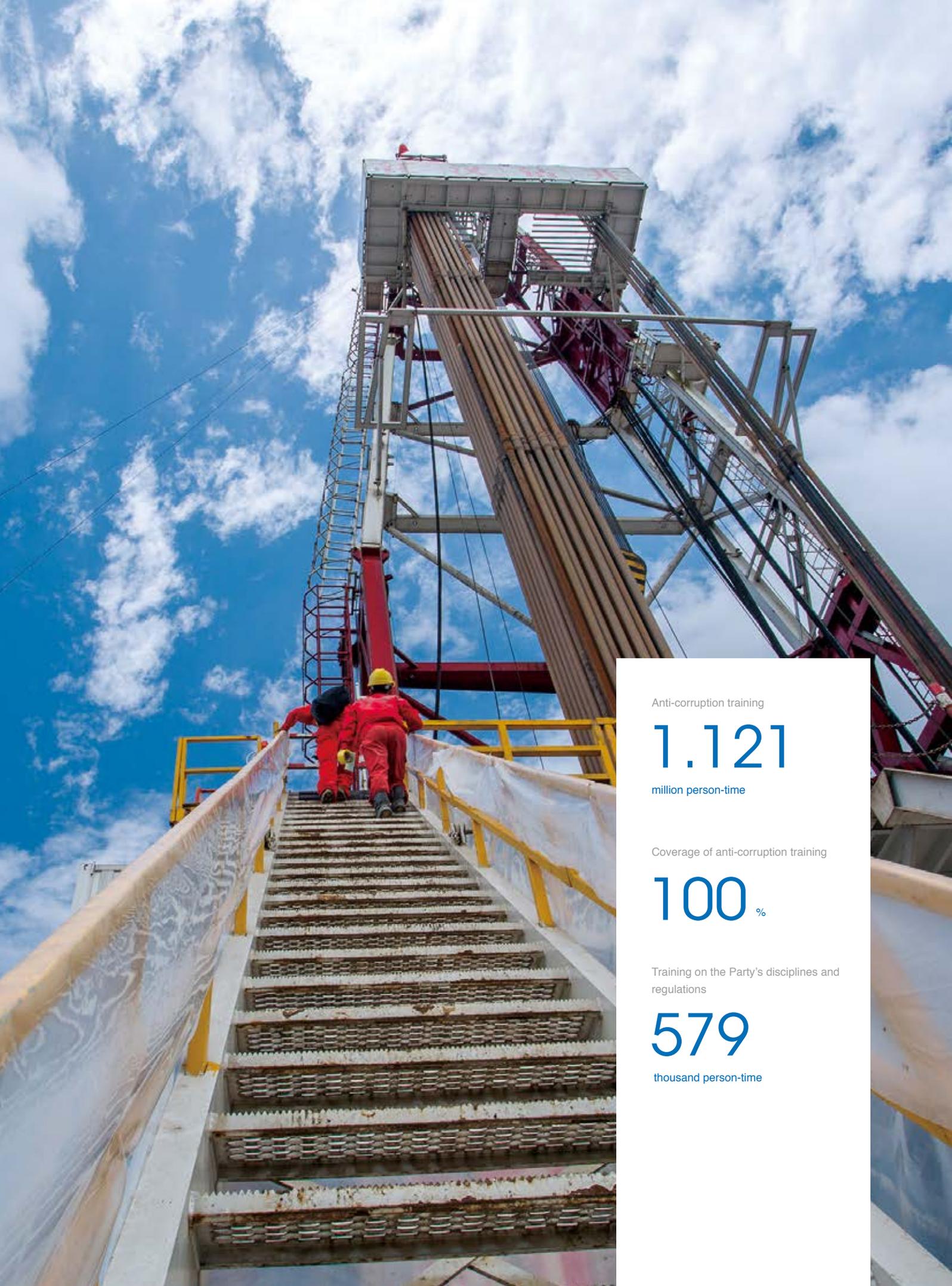
Setting up the hotline and inspection mechanism

We set up hotlines for employees to report corruption. The reported incidents will be registered and tackled, and the whistleblower's information is strictly confidential during the whole process. Independent departments are set up in headquarters and subsidiaries respectively to take charge of the supervision and inspection of corruption incidents.

Enhancing the anti-corruption awareness of all employees

We organise training on anti-corruption for senior managers, and online training on laws and regulations on integrity for employees every year, and compile corruption cases and hold seminars to strengthen anti-corruption awareness.





Anti-corruption training

1.121

million person-time

Coverage of anti-corruption training

100 %

Training on the Party's disciplines and regulations

579

thousand person-time

Promoting Green Development

Progressing in Safety, Ecological and Environmental Protection

Our challenges and opportunities

The UN 2030 Agenda calls for building sustainable cities and communities, addressing climate change, improving energy efficiency and protecting eco-environment. China promotes a revolution in energy production and consumption, and builds an energy sector that is clean, low-carbon, safe, and efficient to spur the development of energy-saving and environmental protection industries as well as clean production and clean energy industries. China encourages conservation and recycling of the resources, takes action on conserving water, cutting consumption of energy and materials, and proposes to promote a sound economic structure that facilitates green, low-carbon, and circular development.

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND





Topic: Upgrading the Quality of Refined Oil and Providing Clean Oil Products for the Society

China takes the quality upgrading of refined oil products as one of the measures to reduce pollutant emission and build a beautiful China. At the beginning of 2017, China demanded that gasoline and diesel for vehicles supplied in “2+26” cities (“2+26” cities refer to 28 cities which located in the air pollution transmission channels of the Beijing-Tianjin-Hebei Region, including Beijing, Tianjin, Hebei, Shanxi, Shandong and Henan, etc.) must keep accordance with National VI emission standards before September 2017. Sinopec Corp. has comprehensively upgraded the quality of gasoline and diesel for vehicles with National V emission standards, completed the oil products qualified with National VI emission standards upgrade work in advance, and supplied to “2+26” cities in China. The content of aromatics, olefine, sulphur and benzene are reduced in oil products, not only contributing to pollutant emission reduction, but also improving the engine's efficiency and vehicle operation performance.

The quality upgrade of refined oil is attributed to the continuous technological innovation and equipment upgrade of the company. During the period of upgrading oil quality with National V and National VI emission standards, Sinopec Corp. established, improved, revamped and expanded facilities to ensure the accomplishment of oil quality upgrade. In the meantime, Sinopec Corp. was committed to two key national R&D projects.

- The project of “Key technology for clean gasoline qualifying the National VI emission standards” started with the research in the impact of gasoline composition on engine power performance and emission behaviour, to upgrade the quality of gasoline in an environment-friendly way with lower cost.
- The project of “Key technology for clean diesel qualifying the National VI emission standards” aims to solve problems such as facility energy consumption and build the technical platform for upgrading the quality of diesel.



Advancing Work Safety and Public Security steadily

We strictly comply with laws and regulations including *Safety Production Law*, adhere to the idea that "development must not come at the expense of safety", and strictly implement the HSSE management system. Adhering to the safety concepts of "life upmost, safe development" and "prevention first, comprehensive management", we have established safety management systems in all

dimensions, which covering safety responsibility, safety behavior, safety training, risk management as well as management of hidden hazards, operations and occupational health. Following the principles of "ensuring the participation of all staff, using comprehensive process controls, conducting a full range of management, and performing all-day supervision", we build an emergency management and command system

and design a safety index appraisal system. We also enhance our identification, prevention and control of risks, and have taken steps to assess and manage potential safety hazards. We regularly introduce initiatives to increase employees' awareness on safety and to prevent accidents and protect our employees and local residents.

Production safety risk management and responds

The petrochemical industry has high inherent risks. Any potential equipment hazard, system deficiency or negligence will probably cause safety accidents. We pay high attention to production safety risk management, release and implement

Guidelines on Sinopec Safety Risk Assessment. Our subsidiaries annually evaluate safety risks, implement the risk governance of relevant positions and organise training of risk management to enhance management of major safety

risks and safety risk identification, improve supporting measures, optimise process safety management regulations, and strive to realise a safety supervision system with synergic governance.

Production safety management

Safety hazards detection and emergency management

In 2017, we conducted safety management focusing on hidden hazards detection and hazardous chemicals management, and compiled scene building plans for 17 enterprises in upstream, middle stream and downstream, covering responses or solutions to 21 major safety risks. These enterprises did cross-evaluation for over 1,500 plans, compiled the on-site emergency plan template, and enhanced the pertinence and effectiveness of emergency plans. We cooperated with local governments and companies in the industry to conduct emergency drills of different kinds and levels. Three accidents were reported in this year, and production and operation maintained stable.

Guaranteeing employees' occupational health

We pay high attention to occupational health. We have established Regulations on Sinopec Occupational Health Management and over ten specific occupational health institutional systems. 40 subsidiaries have established the QHSE system and/or the OHSAS 18001 system. In 2017, we invested about RMB 100 million to inspect, monitor and treat occupational hazards, including toxicants at 90,000 operation spots and dust at 4,000 operation spots. We continued to implement policies of employee health examination and rehabilitation with the examination rate reached 99%. For employees who were in an abnormal physical

state, we arranged health re-examination, position adjustment, occupational disease application and medical treatment, etc. We held two sessions of EAP training courses and conduct training for 100 professionals in 2017.

Contractor safety management

In 2017, we amended *Contractor Safety Management Regulations* and set the linkage between business volume and safety performance of contractors. The percentage of safety performance reached over 25% in tendering and bidding. We took special actions to improve contractors' performance on site to specify the duty division of engineering, equipment and safety departments,

strengthen the safety responsibility of supervisory organisations, and continued to implement the "dual supervisory" management of major and high-risk operations, and specified safety supervisory responsibility of construction contractors, supervisory organisations and the construction side.

Public safety management

We build and improve the public safety management system, which covers risk evaluation, training, security staff, traffic security, employee health, emergency disposal, rescue insurance, supervision and evaluation, etc. We annually evaluate public safety risks and release risk warning information. In 2017, the five overseas subsidiaries/projects conducted political risk identification and

sensitivity analyses of local operation countries or regions, formulated security measures, and increased training to improve employees' risk awareness and prevention capability. A third-party organisation was hired to provide overseas employees with services such as health risk evaluation, screening and treatment.

Network security management

In 2017, we enhanced network security management, improved the network safety accident reporting mechanism,

and increased efforts to conduct network safety drill to guarantee the E-operation.

Case Study: Enhancing Network Security to Guaranteeing Stable Operation

In May 2017, the blackmail virus broke out across the world. we instantly launched the emergency programme. Both the headquarters and subsidiaries drew on the information safety reporting and liaison mechanism to take joint actions, effectively prohibiting the outbreak in the Company. All production systems remained intact, which guaranteed the stable operation and management of businesses.





Proactively Addressing Climate Change

Sinopec Corp. implements the green and low-carbon development strategy, proactively tackles climate change issues, and persists in integrated management in energy conservation, emission reduction and carbon reduction. With these efforts, we strive to promote clean production, protect the environment, and build an environment-friendly enterprise.

Risk management of climate change

A global consensus has been reached on addressing climate change. The international, national and regional laws and regulations that stipulate greenhouse gas emission limits and the possibility of more strict rules in future will probably affect the global needs for fossil fuels, increase capital expenditure and affect profitability and strategic growth in the future. Meanwhile, extreme weather caused by climate change such as typhoon, hurricane or flood as well as sea level rise or drought may cause direct assets loss to corporate production and operation; supply chain disruptions triggered by climate change may exert indirect impacts.

The development of human society is closely related to energy supply. Without technological breakthrough, renewable energy cannot become the dominant and affordable energy; so fossil fuels will remain dominate in energy supply. As an energy and materials supplier, on one hand, Sinopec Corp. is dedicated to the development of main businesses, providing clean, high quality and affordable energy and petrochemical products. On the other hand, the Company pays high attention to climate change risks. Every year, the environmental management and protection department evaluates climate change risks, includes the risk list into the internal control manual (Please refer to the Page 21), conducts the research on greenhouse gas emission reduction, and proposes specific solutions.

Greenhouse gas emission management

We optimise energy structure, improve energy efficiency utilisation, and formulate target to control GHG emission. We have included both energy efficiency assessment and GHG assessment into the feasibility study of fix assets investment. Based on the characteristics of our current businesses, we have identified that energy conservation and efficiency improvement are the most important carbon reduction measures and advance the Energy Conservation Plan actively, with the result that the consumption of comprehensive energy per RMB 10,000 of production value is continuously reduced. We conduct GHG emission reduction by carbon dioxide capture and methane recovery in our oilfield and refining & chemical subsidiaries, and by reducing flaring emissions.

Energy efficiency management

We continue to implement the Energy Conservation Plan. In 2017, a total of 452 programmes were conducted, with the annual energy conservation expected to equal to 949,000 tonnes of standard coal. The Company added energy efficiency assessment during the construction projects assessment, proposed reasonable energy advises, and implemented the full-process energy conservation management. We completed the energy conservation testing work of large units and main power utility equipment/systems, and tapped energy saving potentials of 315,000 tonnes of standard coal. Sinopec Qingdao, Sinopec Guangzhou, Sinopec Zhenhai and Sinopec Maoming were awarded Leading Enterprise Models for National Energy Efficiency.

Greenhouse gas emission (carbon dioxide equivalent)

5.42 million tonnes

Carbon capture

270 thousand tonnes

Methane recovery

220 million cubic metres

Carbon capture and utilisation

We continue to conduct carbon dioxide capture and recovering among our oilfield and refining & chemical subsidiaries. In 2017, the refining & chemical subsidiaries captured 270,000 tonnes of carbon dioxide, of which, 190,000 tonnes were used by the oilfield subsidiaries for flooding.

Methane recovery and emission reduction

We increase efforts in methane recovering from associated gas, test oil and gas, oil gathering and transportation systems. We strengthen daily routine management of pipeline storage and transportation facilities, optimise pipeline operation and assign rational operation period to reduce methane release during construction. In 2017, 4.26 million cubic metres of methane emission was reduced in pipeline storage and transportation. The oilfield subsidiaries implemented recovery measures for natural gas during production and testing processes, casing gas and oil tank gas when necessary and possible. A total of 220 million cubic metres of methane was recovered, which equals to reduction of 3.3 million of carbon dioxide emission.

- For oil wells/stations far away from the oil gathering and transportation network, vehicle-mounted CNG or LNG facilities are used for recovery.
- A part of oil wells/stations adopt connecting pipes (or makeshift pipes) to enter the oil gathering and transportation network for recovery.
- Adopting production technologies such as “testing during entrance” and “earlier entrance” to recover natural gas during the testing process.
- Adopting oil and gas multiphase flow, oil jacket connecting unit or casing gas recovery unit, low-power gas generator and supercharger to recover casing gas.
- Adopting oil airtight gathering and transporting process and large tank pumping unit to recover oil tank gas.

Flaring reduction

We pursue zero flaring when ensuring safety operation and strictly prohibit indiscriminate emission and flaring. On the premise of safety operation, upstream enterprises optimise discharge programme in new projects. Refining enterprises formulate specific regulations on emission and recovery management;

they integrate flaring management system into technique and equipment management systems of every unit, and establish the supervision and assessment mechanism. Chemical enterprises work on flaring elimination and take measures such as stable unit operation, operation optimisation, leak source elimination and increasing recovery facilities

to reduce emissions and improve flaring recovery. In 2017, we realised 430,000 tonnes of flaring recovery through ethylene and aromatics units etc. Sinopec Yanshan takes the lead to realise routine flaring elimination.

Developing renewable energy

We explore and experiment industrial application of solar power. In 2017, the Company conducted three distributional photovoltaic power generation projects. We made new progress of Sinopec Bio-jet Fuel No.1 with Boeing 787 Passenger Plane of HU497 Flight of Hainan Airlines accomplishing transoceanic fly. Sinopec Zhenhai has initiated the 100,000 tonnes/year bio-jet fuel hydrogenation facility construction project and

plans to complete intermediate handover by the end of 2018. In future, we will coordinate domestic and international bio-materials and market network, and enhance cooperation with airlines and leading enterprises domestic and overseas to actively develop non-grain bio-fuels, striving to become a leader in bio-fuel industry in China.



Engagement in Chinese carbon market

On December 19, 2017, China announced to launch the national carbon market and first initiate the trading system in power generation industry. Accordingly, all of our captive power plants will be included in the market. It is expected that the trading system will be expanded to the refining and chemical industries in future which will involve all the refining and petrochemical subsidiaries of the Company.

We have established the carbon assets information system and completed carbon accounting and verification for equipment in our subsidiaries. To prepare for the national carbon market trading system, we sorted out all of our captive power plants, measured carbon emission data, and determined the list of enterprises to be included in the market. We conducted CCER projects development aiming to reduce the carbon quotas cost. In 2017, all the subsidiaries participating in the pilot carbon trading programme completed the carbon quota in time. The carbon trading volume reached 1.35 million tonnes, with carbon trading turnover of about RMB 19 million.



Enhancing Environmental Protection

Environmental risks and countermeasures

The construction of ecological civilisation is highlighted to a new strategic level in China. The Chinese government proposes that “stringent laws and regulations ought to be observed to protect the ecological environment”, successively issues laws and regulations on air, water and soil, etc. and enhances supervision. Correspondingly, environmental protection standards and pollutant discharge volume have become increasingly strict, thus proposing higher requirements for environment management of Sinopec Corp.

We have always paid high attention to environmental protection. We strictly obey *Environmental Protection Law* and other related laws and regulations on air, water and soil pollution prevention. We have built

relevant management system, enhancing the headquarters' role in guiding and supervising as well as the subsidiaries' role in enforcement.

In 2017, we implemented the new standards in refining and petrochemical industry, completed the treatment of sewage and flue gas, and actively conducted the comprehensive treatment of VOCs. We finished the compilation and amendment of emergency plans for environmental emergencies and heavy pollution weather, complying with the relevant national requirements. According to the national pollution permit and self-monitoring technology guidelines in relevant industries, we modified the self-monitoring plan, and implemented new requirements of sewage, flue gas and noise,

and disclosed the results. We further regulated environmental management of construction projects, enhanced assessment, and implemented “three-simultaneity” management (environmental facilities shall be designed, constructed and put into operation simultaneously with the main construction). All of the newly-built projects have obtained approval from the authorities. Meanwhile, some subsidiaries which are listed as key pollutant discharge unit have disclosed environmental information as required. Details may be referred to the websites of local governments. In 2017, the expenditure of environmental protection of Sinopec Corp. was about RMB 7.85 billion.

Actively reducing flue gas emission

Sinopec Corp. constantly works on emission reduction of main pollutants and upgrades catalytic cracking, sulphur recovery units, the heating furnaces and coal-fired boilers in refining and chemical subsidiaries to meet ultra-low gas emission requirements. We also carry out the prevention and control of air pollution in Beijing-Tianjin-Hebei region and their surrounding regions and revamp the coal-fired boilers in eastern China to reach ultra-low gas emission level.

Case Study: Addressing the Problems and Enhancing Environment Management Measures

On April 5, 2017, Sinopec Yanshan was detected to have problems in exhaust emission treatment and electronic data accounting when the Ministry of Environmental Protection conducted inspection.

Responses:

On April 6, 2017, a meeting was held specifically for the incident at Sinopec headquarters. Causes were investigated and rectification measures were implemented. The persons in charge were dismissed from their positions. The management decided to assign six teams to supervise subsidiaries within the area of “2+26” cities since April 10.

Yanshan sorted out the environmental protection work of all units focusing on “Three Wastes” emissions. Approximately RMB 800 million had been invested, VOCs treatment projects covering tank field gas and boiler revamp had been completed and 46 automatic VOCs monitoring sites were built. After this, Yanshan built wetland park in Niukouyu Ecological Center where the operation site was located, covering 80,000 square meters of area. In November 2017, the park was opened to the public for free.



Case study: Enhancing Oil & Gas Recovery

Sinopec Jiangsu Oil Products Co. itemises recovery inspection on oil and gas depots and stations. Apart from entrusting a third party to do relevant tests, Jiangsu increases efforts in daily self-examination, strengthens the daily maintenance of recovery units, tracks recovery progress monthly, reports the results quarterly. In 2017, 7,796 tonnes of oil and gas was recovered through recovery units, achieving ecological and economical results.

Actively reducing solid waste discharge

We strictly implement solid waste pollution prevention and treatment measures. The Company classifies, treats and disposes solid waste according to principles of “reduce the quantity, turn into resources and dispose harmlessly”. Our oilfield subsidiaries take measures to prevent slurry falling onto the ground in the process of well drilling, and recycle waste slurry from drilled wells in ecologically vulnerable areas. The detritus is utilised for general hardening,

brickmaking and hardening roads, realising harmless treatment and resource reuse. The refinery and petrochemical subsidiaries implement sludge drying projects and demonstration projects of utilisation of refinery waste catalyst, oil sludge and excess activated sludge. We strictly observe rules on hazardous waste transfer and strengthen protection measures during transportation.

Industrial water intake declined (YoY)

1.27%

Water conservation

12 million cubic metres

Strengthening water resource management

We strengthen water utilisation management by taking diverse measures to reduce water consumption, including controlling industrial intake, improving utilisation efficiency and recycling ratio, and increasing utilisation of unconventional water resources.

We implement water utilisation plans and release the annual industrial water intake index to subsidiaries and organise them to conduct water efficiency benchmarking activities. For enterprises, segments, regions and businesses with too fast growth in water intake, we timely issue early-warnings and circulate the notice of assessment.

We reduce comprehensive loss rate of water utilisation and the subsidiaries adopt measures to improve water recycling rate considering own features. They actively carry out utilisation of reclaimed water from sewage treatment plants, sea water and brackish water.

In 2017, the industrial water intake declined by 1.27 % YoY and save 12 million cubic metres of water. Sinopec Zhenhai, awarded the leading enterprise in water efficiency performance by four ministries such as NDRC and MIIT, etc.; is the only pioneer in ethylene industry in China; Sinopec Yizheng was awarded the leading enterprise in water efficiency performance in Jiangsu Province.

Case Study: High Chlorine Ion Formation Water Reused for Farm Irrigation

Sinopec Southwest Oil & Gas Company adopted self-developed technology to treat high chlorine ion formation water during gas production and turn chlorine ion into salt. After treatment, the contents of chlorine ion, COD and suspended substance in external discharge all reach standards. By the end of 2017, the high chlorine ion formation water treatment capacity of West Sichuan Gas Field reaches 1,060 cubic metres per day and over 65,000 tonnes of industrial salt has been produced. The condensate water index reaches the first class emission standards and can be reused for farm irrigation.

Case Study: Technological Innovation in Pollution Treatment and Water Conservation

Sinopec Corp. values innovation in water conservation technology. As one of the earliest enterprises to recycle industrial sewage in petrochemical industry in China, Sinopec Zhenhai has been granted eight national invention patents. Four other technologies fill the blank in water conservation technology and equipment in domestic oil refining industry. Sinopec Zhenhai has built three sewage recycling units, with the total capacity of 31,200 cubic metres per day. By the end of 2017, over 76 million cubic metres of discharged sewage has been recycled, the amount of water conserved equaling to seven West Lakes, a famous lake in Hangzhou city.

Protecting Biological Diversity

We comply with all laws and regulations such as the Environmental Protection Law and Convention on Biological Diversity and integrate biological diversity protection in assessment, decision making, production and operation of project construction. For the projects that may affect the environment, we evaluate the impact by assessing ecological reserves, forests and wetlands as well as fauna and flora, and formulate measures to mitigate or eliminate the impact during the preliminary project appraisal process, construction and operation. In 2017 our subsidiaries assessed biological diversity in major projects, analysed the impact on the fauna and flora in Ecological Red Line Areas, forests and wetlands, and then implemented the environmental friendly project plan.

Case Study: YASREF Protects Local Mangroves

Joint venture project Yanbu Aramco Sinopec Refining Company Ltd. (YASREF) actively protects mangroves along the Red Sea near the production area. In pipeline direction and construction, specific design and construction plans were formulated to avoid the pipeline construction project affecting or damaging local mangroves in natural reserves.

Soil Remediation

The E&P subsidiaries analyse impacts on the environment in whole lifecycle covering construction, operation and discarding period of exploration and production, and formulate ecological impact prevention and treatment plans. They build the long-term mechanism for discarded well blocking treatment and soil remediation, including conducting technological verification and risk evaluation of discarded wells, formulating blocking treatment measures and realising treatment timely to ensure environmental protection.

Case Study: Sinopec Fuling Shale Gas Company Conducts Land Restoration

Sinopec Fuling Shale Gas Company takes land conservation measures such as pad drilling design, with the result that single well land occupation is 30% less than the normal. After completing platform construction, the company works on plantation restoration, water and soil maintenance and soil restoration, with the land conservation rate of about 57%. Newly reclaimed land, ranging large areas and with low content rate of rock, are regarded as prime land. The Bureau of Land and Resources of Fuling District, Chongqing examined the newly reclaimed land, identifying that the land met Completion Standards on Land Reclamation Quality, engineering construction complied with relevant rules and achieved good land utilisation.

Statements from stakeholders

“ At the beginning of gas field construction, many villagers worried that too much of their land would be occupied. Now they don't worry anymore. The reclaimed land by Fuling Shale Gas Company has been leveled, ranges large areas, and is covered with thick mud layer with good soil quality, which can achieve harvest to increase the income of villagers. So the land is welcomed by villagers.

”

— Yuan Daiyu, Vice Director of Shale Gas Construction Office in Jiaoshi Town

Shared Development

Serving the People for
a Better Life

Our challenges and opportunities

The UN 2030 Agenda proposes to eradicate poverty in all forms, eradicate hunger, ensure inclusive and quality education for all, and create opportunities of decent life and equality for all human beings. China has been launching the unprecedented fight against poverty and intended to eliminate absolute poverty in the next three years. The practices to guarantee and improve living standards through development, prioritise education development, improve the quality of employment and raise income, as well as strengthen the social security system.





Topic: Conducting Targeted Poverty Alleviation to Benefit the People

Advocating "Big enterprise undertakes greater responsibility", Sinopec Corp. adheres to the concept of benefiting the people with corporate development, and conducts targeted poverty alleviation to eradicate poverty. Centering on infrastructure construction, industrial development, education support, Labour training and medical healthcare, we help impoverished areas and local people to improve their capability of sustainable development and aim to realise a picture of poverty alleviation with targeted objects, targeted programme planning, targeted utilisation of funds, targeted measures based on households, targeted personnel based on village and targeted poverty elimination effect.

In 2017, we increased efforts to implement the "Five Batches of People" project to eradicate poverty by developing production, relocation, ecological compensation, education, as well as by guaranteeing basic living standards. RMB 128 million was allocated for targeted poverty alleviation, helping 27,759 registered people out of poverty and aiding 3,146 students. Meanwhile, the headquarters continued to conduct Tibet and Qinghai aid programmes investing RMB 26 million and carrying out 9 programmes.



2017 Honours for Poverty Alleviation

- Zhongke Refining & Chemical Co. and Sinopec Zhanjiang Dongxing were awarded Outstanding Units in Guangdong Province.
- Sinopec Yangzi was awarded Outstanding Unit in Jiangsu Province.
- Sinopec Liaoning Oil Products Co. was awarded Outstanding Unit in Liaoning Province.
- Sinopec Xinjiang Oil Products Co. was awarded Outstanding Work Team in Xinjiang Uygur Autonomous Region.
- Sinopec Northwest Oil Field Co. was awarded Outstanding Group in Xinjiang Uygur Autonomous Region.
- Sinopec Hainan was awarded Outstanding Unit for Publicity in Hainan Province.
- Sinopec Hainan Oil Products Co. was awarded Outstanding Unit and the employee was awarded Outstanding Person in Hainan Province.
- Sinopec Baling and Sinopec Changling were awarded Outstanding Unit and Grade I Unit respectively in Yueyang City.
- Sinopec Shanxi Oil Products Co. was awarded Outstanding Unit in Xinzhou City.
- Sinopec Northwest Oil Field Co. was awarded Outstanding Primary-level Organisation in Aksu District.
- Sinopec Jiujiang was awarded Outstanding Primary-level Organisation in Xiushui County.
- Sinopec Tibet Oil Products Co. was awarded Outstanding Organisation in Luolong County, Changdu City.
- Ningyuan Company of Sinopec Hunan Oil Products Co. was awarded Outstanding Work Team in Ningyuan County.

Targeted Poverty Alleviation Work Statistics 2017

Unit: RMB 10,000



12,453
Funds

369
Goods and materials converted



27,759
Number of registered poor people lifted out of poverty

Input Breakdowns

Poverty elimination through industrial development

Categories of poverty alleviation programmes through industrial development

- Poverty alleviation through agriculture and forestry development
- Poverty alleviation through assets income
- Poverty alleviation through tourism development
- Poverty alleviation through science and technology development
- Poverty alleviation through e-commerce
- Others

275

Number of poverty alleviation programmes through industrial development

3,202

Investment in poverty alleviation programmes through industrial development

13,907

Number of registered poor people lifted out of poverty

Poverty elimination through labour transfer

Investment in professional skill training 62

Number of participants of professional skill training (person-time) 4,316

Number of registered poor people helped with finding jobs 1,669

Poverty elimination through relocation



4,275

Number of relocated people helped with finding jobs

Poverty alleviation through ecological protection

Programme name

- Conduct ecological protection and construction
- Develop ways for ecological protection and compensation
- Set up ecological charity posts
- Others



105

Investment

Poverty elimination through education

305

Investment in aiding students

3,146

Number of students who received aid

596

Investment in education resources in poverty-stricken areas

Poverty alleviation through social programmes

4,926

Investment in targeted poverty alleviation programmes

1

Investment in coordinated poverty alleviation in East and West China

158

Charity funds for poverty alleviation

Poverty alleviation through healthcare



865

Investment in medical and healthcare resources in poor areas

Other programmes

261

Number of programmes

2,157

Investment

13,852

The number of registered poor people lifted out of poverty

Guarantee basic living standards

27

Investment in left-behind children, women and senior people

386

Number of left-behind children, women and senior people assisted

48

Investment in assisting poor people with physical disabilities

513

Number of people with disabilities assisted

Our Principles for Human Rights

We comply with all related laws and regulations on human rights and *Chinese Human Rights Action Plan*. We strictly obey related legal requirements of prohibition of child labour in countries and regions where we operate. We respect employees' right of personal freedom and right to leave, respect rights and interests of female employees

and minor nationalities, oppose forced labour and forbid discrimination in all forms. We protect employees' rights and interests by enhancing social security and negotiation, and providing decent work. Moreover, we attach importance to communication with local people, and actively participate in local public welfare to serve local people.

Sharing Development with Employees

Employees are valuable assets of Sinopec Corp. We value common development with employees and provide necessary resources and favorable working environment for our employees to realise their career development according to related laws and regulations such as *Labour Law* and

local rules. We enhance employee culture construction and help employees solve problems. Moreover, we provide talent development channels and cultivate talents for all posts covering operation management, professional skills and technical operation.

Employee guarantee system

We establish the system of the workers' congress to guarantee employees' right, through which, the employees provide suggestions, review and supervise the management, and vote for the issues that related to them. We follow the principle of "equality, voluntariness and consensus", sign labour contracts with employees, and ensure compliance fulfillment of such contracts. We also build the salary system based on performance and the enterprise annuity system for employees. According to national and local regulations, we provide basic social insurance for employees, covering local elderly care insurance, medical insurance, employment injury insurance, maternity insurance and unemployment insurance. We strictly comply with laws and regulations in countries and regions where we operate, guarantee employees' rights to work, rest and take leave, and formulate the annual leave rewarding system to encourage employees to enjoy their right to take leave.

Caring for employees

We start from cultural construction to enhance employee team building. Based on employees' needs, the Labour Unions of all level establish clubs such as calligraphy, drawing, shooting, Ping-Pong ball and basketball, etc. At the same time, we set up and improve the assistance and relief work system, and optimise measures for helping employees in need. In 2017, for employees from our subsidiaries that have been shut down due to operating difficulties, we arrange for employment in other subsidiaries or external companies, with a total of 5,931 employees were helped to find new job opportunities.

Statement of Stakeholders

“ The Sinopec assistance and relief mechanism has helped me get through hard times. I truly feel the caring and warmth from the Company. In coming years, I will work harder to contribute to my company. ”

— Employee Wang Xi

Valuing employees' career development

We adhere to the concept of talent development and promote talent training of all kinds to boost employees' career development.

Expanding talent development channels

In 2017, we expanded development channels for professional and technical talents, improved the talent selection and appraisal mechanism, and expanded the talent appraisal information platform, providing support for talent development. We initiated expert engagement work

in all business sectors to propel pioneering expert and youth talent team building. In 2017, 159 employees were awarded the title of professorate and 640 employees were awarded the title of senior technician.

Enhancing career development and training

In 2017, the headquarters trained 4,292 person-time in high-level personnel training focusing on strategy and key objectives. We carried out series of programmes, including training for managers and seminar on innovation to enhance the new managers' capacity. The total training for senior management personnel reached 1,822 person-time. We organised training programme for the reserve young and middle aged managers with 100 person-time participation. We held experts training projects in upstream fields and refining and chemical fields with 1,205 person-time participation. We also carried out chief technician training and skilled talents training in 10 types, including

oil-gas gathering and transporting, catalytic cracking, etc. with 245 people participating. We conducted training on transnational operation and risk prevention for overseas project managers, with 920 person-time participation. All subsidiaries carried out diverse training in different levels and fields, with off-job training 328,000 person-time and various basic skill training 386,000 person-time. The online training practice of the Company was awarded Best Recommendation and Best Courseware at China E-Learning Forum & Exhibition (CEFE) 2017.

Protecting rights and interests of female employees

We value employee diversity and gender equality. In 2017, the percentage of female employees reached 35.9 % and the percentage of female employees in operation management positions reached 12.76 %. We establish the Female Employee Commission of the Labour Union to strengthen protection during production, and constantly improve labour environment and working conditions for them. We also implement regulations on female employees' leave during maternity and lactation periods as well as the regular examination system, and care for their physical and mental health.



Serving Society

We insist that corporate development should benefit the people. Following the principle of achieving shared growth through discussion and collaboration, we actively participate in local public welfare and community building. In 2017, the Company invested RMB 6.65 billion to facilitate local community, culture and education, and medical and hygiene development.

Promoting volunteer service

We combine youth voluntary services with main businesses, draw on coordination between provinces and enterprises instead of single enterprise's effort, and promote voluntary service through new media such as blog and WeChat as well as traditional media. The volunteering

spirit has become a new fashion of Sinopec youth. Since 2013, Sinopec gas stations themed "Ten Thousand Gas Stations in One Hundred Cities" have conducted voluntary services such as caring for left-behind children and lonely elderly, community service and bookhouse. The subsidiaries

have been successively awarded honours of excellent voluntary service programmes among central SOEs, excellent volunteers of SOEs and provincial excellent volunteers.

Implementing "Warm Station" public welfare activity

Every year, we implement "Warm Station" public welfare activity to assist those heading home in winter. Before

the Spring Festival in 2017, we had served over 400,000 people heading home providing over 900 tents, 512

break rooms, 812 lounges, hot water, hot porridge, medicine and medical service for free.

Lifeline Express lightening patients' life

In 2017, Sinopec "Brightness" Lifeline Express entered Kashgar in Xinjiang, Baishan in Jilin, and Guilin in Guangxi. We also donated two cataract treatment centres respectively in Guilin and Yulin in Guangxi province, providing surgery service for 3,126 cataract patients.



Since 2004, Sinopec Corp. has provided free surgery service for cataract patients in poverty. Up to now, the Company has been awarded Special Contribution Award from China Lifeline Express Foundation for 13 consecutive years for its contribution to helping cataract patients. By the end of 2017, the Company has accumulatively donated over RMB140 million, cured over 40,000 cataract patients free of charge, and donated one Sinopec Brightness Life Express, one Ophthalmic Microsurgery Training Centre in Xinjiang and 18 Sinopec Cataract Treatment Centres, successively providing treatment service for poor patients in 33 regions of 18 provinces.



Utilising the advantages to assist people in need

Based on our businesses and professional teams, we have made active contributions to development of local communities.

Every summer, Sinopec Marketing Company conducts oil supply station activities for farmers along villages. Green channels are developed to

provide 24-hour oil supply service; oil stations are set up to deliver oil with small vehicles to farmers, and volunteers are also organised to deliver oil to villages. All these efforts facilitate fueling for farmers and help farmers with big harvest. Other subsidiaries provide contingency assistance service for society. Sinopec

Shengli establishes the emergency commanding centre for oil spilling incidents with marine authorities and industrial organisations and allocates marine full-time guardian team ready to response to ensure social rescue and contingency assistance work.



Case Study: Help local company clean oil leakage

In January 2017, Sinopec Shengli received a rescue request from local authority as an oil ship from one company was leaking at Dongying Port. The company instantly made response according to emergency rescue procedures of Sinopec Corp, established the on-site commanding group and deployed the emergency plan with the local company involved and local authority. Five ships were assigned to implement 45 patrol tours with 289 emergency rescue personnel. The rescue work lasted for 23 days, helping the local company complete the work on safety protection of the oil leakage ship, fire monitoring and oil spilling control.



Strengthening Public Communication

Enhancing communication with local residents

We value communication with local residents. Our subsidiaries have accumulatively held 3,193 sessions of Sinopec Open Day for six consecutive years. A total of 62 enterprises have successively been open to welcome 122,000 people to have a factory tour. In 2017, the Company held 491 sessions of Sinopec Open Day in 30 subsidiaries in 24 cities, welcoming 25,000 participants. During project implementation, the Company evaluates possible environmental impacts, collects public opinions by means of newspaper and online notification, announcements or questionnaire surveys, and compiles feature reports to submit to the Ministry of Environmental Protection for review, public notification and approval.

Accepting supervision from society

We hire external group including college professors, social commentators, securities analysts and consumer representatives as social supervisors. And by communicating public opinions regularly, we welcome social supervision to provide constructive suggestions to the management and the operation.

Establishing media platforms

We establish official microblog and WeChat accounts to communicate with netizens, release news, and convey petrochemical knowledge. By the end of 2017, the followers of Sinopec in Microblog and WeChat had reached 2.16 million.

Building international communication platforms

In 2017, we carried out the activity of "Sinopec in the Eyes of International Media". We organised communication meetings to promote mutual understanding. The followers of the Sinopec official Facebook account were increased to about 600,000 from the original 10,000 in 2016. The followers of our official Twitter account were increased to about 20,000. We continued to support Global Compact Network China, held and attended 2017 China Business Summit on Achieving SDGs, sharing our experience with other Chinese enterprises and pursuing the sustainable development jointly.

Promoting Win-win Cooperation in the Value Chain

Advancing win-win cooperation with customers

Enhancing quality management

We strive to practice the quality goals of “Quality first and quantity sufficient, customer satisfaction”. In order to guarantee the quality of external refined oil, Sinopec Marketing Company establishes the quality management system aligned with GB/ T19001 standards and set up the quality inspection mechanism and a negative list. Integrating different industry standards, Sinopec Lubricant establishes the quality management system based on ISO 9001 to meet special requirements of customers from different industries for product and service quality. In 2017, Sinopec Lubricant produced 34,540 batches of lubricant grease. The qualified rate reached 100 percent according to the delivery inspection.

Providing satisfying service for customers

We explore the potentials of oil station network and expand services such as automobile service, insurance, fast food and advertisements, and promote the new business model of “internet + sales + service” to offer diversified services, providing convenience for customers; we enlarge cross-border e-commerce business to provide overseas customers with a large quantity of high-quality products. For Sinopec chemical products sales, the links between production, sales and research are closely connected and the MPRC (marketing, production, research and customers) team is established to provide customised service for customers.

Since 2008, Sinopec Marketing Company has conducted questionnaire surveys among customers. Through the survey, comments and suggestions on products and services are collected. The main content of the questionnaire covers 20 appraisal questions in five parts including employee service, fuel card service, service environment, oil products quantity, quality and safety, and convenience store service. In 2017, Sinopec Chemical Sales Company distributed 3,549 questionnaires, and the feedback rate reaches 89%. After the survey, customers’ feedback on individualised needs for product packaging and performance were sent to the manufacturing subsidiaries. Sinopec Lubricant continued to entrust a third party to investigate the overall customer satisfaction among three customer groups, i.e. companies, retailers and distributors.

Case Study: Touching Customers with Thoughtful Service

On the night of June 19, 2017, Sinopec Lubricant received an emergency call from a customer. The customer explained that his ship ran into malfunction in air compressor because of high temperature and suspected that the incident was caused by oil product quality. The company instantly established a technical service team containing marketing, technical support and product R&D personnel to inspect the problem on site. After eliminating the cause of oil product quality, the team helped the ship owner remove equipment faults, safeguarding his business not to be affected.

The ship owner expressed that “Although the malfunction was not caused by oil product quality, you take it as your own responsibility and quickly figured out the real cause. I really appreciate it! You not only have good products, but also care for customers’ real needs. Sinopec Lubricant is a partner worth trusting and deserves respect and long-term cooperation.”

Item	2017
Customer satisfaction for refined oil products(%)	84
Customer complaint settlement rate in refined oil product sales (%)	100
Customer satisfaction for chemical products (%)	92
Customer complaint settlement rate in chemical product sales (%)	100
Customer satisfaction for lubricant (%)	85
Customer complaint settlement rate in lubricant sales (%)	100

Protecting customers' privacy

We value protection of customer information. We have strict regulations on administration authorities to avoid customer information leakage. In 2017, we formulated the network security protection plan, improved the data centres protection, and organised information system maintenance and self-inspection. We also strengthened training of confidentiality management regulations to improve employees' awareness of customer privacy protection.

Promoting win-win cooperation in the industry

While making efforts in self-development, we also facilitate industrial standards formulation. In 2017, we participated in draft compilation of five national standards for intelligent factories in petrochemical industry, which were approved by the MIIT in the first stage. Based on the planning and construction practice of intelligent factories, 61 standards of four categories and 39 templates of four categories were designed, preliminarily formulating the national standardisation system for petrochemical industry in China. Based on Sinopec's practices, we participated in formulation and amendment of 17 laws and regulations, including *Energy Law*, *Labour Contract Law*, *Soil Pollution Prevention and Control*, *Water Pollution Prevention and Control*, *Environmental Protection Tax Law*, *Regulations on the Administration of Environmental Protection in the Exploration and Development of Offshore Petroleum*, *Anti-smuggling Regulations*, *Regulations on the Administration of Construction Project Environmental Protection*, and *Regulations on Safety Production Law*, and proposed over 50 suggestions to related governmental departments.

Promoting win-win cooperation in the value chain

We advocate the pursuit of shared values with our contractors, suppliers, purchasers and operators and build an open, just, transparent and honest value chain. By promoting the use of our construction project E-trading system, we can monitor business operations, management, trading, assessment and appraisals via an online supervision system.

Improving management capability of safety & environmental protection in the value chain

We have established the project quality monitoring system and realised 100 % monitoring of project construction. We promote supplier HSE management, and have integrated ISO 14000 and ISO18000 accreditation, establishment of production safety emergency management system and labour protection measures, and emissions and waste disposal into the standards of review. We also include related qualifications for green and low-carbon enterprises into bidding invitation and evaluation standards to urge suppliers to improve environmental protection awareness and capability. In 2017, the accreditation rate of suppliers by the QES (quality, environment and safety) management system reached 26.7%, increasing 1.9 percentage points YoY.

Sinopec Marketing Company examines contractor safety management work on site and helps contractors implement rectification measures for management loopholes and hidden safety hazards to improve contractors' safety management. The company conducts operation inspection among contractors, enhances contractors' safety management during transportation, and timely informs them of the inspection results, assisting to implement rectification work. The company also convenes safety training for contractors, and organises contingency drills for contractors to improve their response capability.

Enhancing the supervision and appraisal mechanism

We increase efforts in appraisal of engineering projects. We retain “Veto Power” over engineering projects in which relatively serious accidents (incidents) of quality, safety and environmental responsibility occur or corruption incurred legal liabilities happen. For suppliers who break clean operation regulations, we abolish their trading qualification and forbid them to have trading transactions with Sinopec Corp. within three years. We implement hierarchical management and dynamic appraisal of materials procurement, and adjust supplier grading monthly to urge suppliers to boost their service capability. In 2017, 1,835 items of materials inventory owned by 994 suppliers were upgraded while 580 items of materials inventory owned by 52 suppliers were downgraded.

Providing training for supply chain partners

We regularly convene training for suppliers, focusing on supplied resources management, tendering and bidding management systems as well as the honest operation concept. We also promote the construction of HSE drill training base in large projects. In 2017, the total training for suppliers was over 3,000 person-time.

Item	2015	2016	2017
Percentage of contractors certificated by the QES management system (%)	100	100	100
Percentage of suppliers certificated by the QES management system (%)	19.4	24.8	26.7



Openness and Win-Win Cooperation

Contributing to Community of a Shared Future



Our challenges and opportunities

The UN 2030 Agenda calls for global partnerships for sustainable development. Economic globalisation provides strong power for global economic growth and promotes commodity and capital flows as well as science and technology and cultural progress. China gives equal emphasis to "bringing in" and "going global", pursues the Belt and Road Initiative as a priority, and follows the principle of achieving shared growth through discussion and collaboration to form globally-oriented networks of trade, investment and financing, production, and services. With these efforts, China hopes to make economic globalisation more open, inclusive, beneficial balanced so that the benefits are shared by all, offerings Chinese wisdom and Chinese approaches for global sustainability.

17 PARTNERSHIPS
FOR THE GOALS





Topic: Sinopec EPEC Builds Global Partnership

The businesses of Sinopec Corp. cover 66 industries out of 96 industries in China. Based on the new model of SC2B (Supply Chain to Business) e-commerce operation featured by internet + supply chain, Sinopec Corp. actively implements open cooperation and development strategies; relying on industrial foundation, Sinopec Corp. builds EPEC e-commerce platform for industrial products. In 2017, EPEC was listed as the only e-commerce platform for industrial products to BRICKS countries, the pilot demonstration project of Chinese manufacturing and internet integrated development, and one of the eight core achievements of BRICKS Council for Industry and Commerce. EPEC is listed as one of Best Practices in Building Global Partnership in achieving SDGs by the Global Compact Network China.

Building interconnected industrial ecological network

The 66 industries covered by Sinopec Corp. are respectively supported by one supply chain. Every supply chain links hundreds of entities, forming an industrial ecological network, where Sinopec Corp. is located in the centre. Through EPEC, Sinopec Corp. promotes vertical and horizontal collaboration in the network, thus realising the maximisation of values created and contributing to entity economy growth.

Cooperate with neighbouring countries for shared prosperity

EPEC actively fulfills the Belt and Road Initiative, promotes "Made in China" to go global and brings in prime products, and realises communication

between people through trading and capital financing & investment, adding new driving forces to shared sustainability. In April 2017, EPEC launched the international business platform to help more enterprises from different countries to enter each other's market and facilitate people to have easy access to superior products and services, meeting people's growing needs for a better life.

Providing professional procurement

With professional background, expert teams and strict access & appraisal standards, EPEC has launched the service index appraisal system, and formulated the dynamic quality appraisal of goods and services, the supplier star-classification assessment mechanism and the product trial assessment mechanism, which cover 56 major categories of materials such as bulk raw materials, professional equipment, refined raw materials, and special materials, providing society with trustworthy and high quality products and services.

Value-added service facilitates partners' sustainability

Relying on data of business orders, payable accounts to Sinopec Corp. and to its suppliers, EPEC helps suppliers apply for bank financing and provides credit support service. Meanwhile, EPEC helps suppliers apply for bank financing and provides credit support service. EPEC launches services covering logistics, manufacture supervision, insurance, finance and account settlement, etc. and provides society with value-added services such as third-party procurement and tendering, third-party payment, bid data analysis, credit ratings and market promotion.

Core data (by the end of 2017)

42.82 million products in 2.46 million categories

45,500 registered enterprise members

128,000 registered users

The accumulative turnover reached RMB 181.7 billion

RMB 3.7 billion was applied for financing based on credits

Operated in 43 countries and regions including the USA, Brazil and Germany, etc.

Cooperated with 20 suppliers and 260 purchasers from 38 countries or regions along the Belt and Road

Overseas Development Offers New Development Opportunities

We implement the strategy of going global and actively conduct overseas operation, promoting development of local economy, as well as upgrading of manufacturing industry chain and improvement of employment rate. The Company invests in 4 oil and gas exploration and extraction projects in Kazakhstan, Russia, Columbia and Angola, and 6 refining & chemical and warehousing logistics projects in five countries including Holland, Singapore, Saudi Arabia, Russia and the United Arab

Emirates. At present, the Company has overseas annual production capacity including 7.5 million tonnes of oil refining, 1.16 million cubic metres of warehousing, 80,000 tonnes of lubricant grease and 10,500 tonnes of ABR. The Company continues to deepen trading cooperation, with the annual imported crude oil reaching 209 million tonnes and the trading volume reaching 339 million tonnes in 2017.

Implementing Localised Operation

The overseas subsidiaries value localised operation and drive development of local economy and improvement of local people's life. Under the framework of building international talent pool and recruiting local employees, adhering to labour policies that advocate equality, freedom

and zero discrimination, we provide jobs for local people, protect employees' legitimate rights & interests and safety, and hold professional skill training for local employees. We fully respect the local traditions and religious belief.

Facilitating local development

Adhering to the principles of integrity, standardised operations, win-win cooperation, and serving the local communities and making contributions to local economy, we persist in honest tax payment, and promote local economic and social development.

The overseas subsidiaries attach importance to localised procurement and staffing. In 2017, staff localisation rates of Columbia's Mansarovar Energy Project, and Russian UDM maintained above 99%. Localised procurement rates

of Arman, one subsidiary of Kazakhstan CIR, and BOL, a joint operation company, respectively reached 96% and 89%, while average localised staffing rate exceeded 95%, driving the development of local oil and gas industry. The joint venture KOA was awarded Best Labour Contract by the Ackermann government of Kazakhstan. In Yasref, the percentage of employees with Saudi Arabia nationality reached 82%, a relatively higher level of staff localisation compared with other enterprises.



Enhancing local employees' capability

CIR holds various training of professional skills, industrial safety, occupational safety and environmental protection. In 2017, KKM company organised 471 person-time of business training and 359 person-time of industrial safety training; Arman organised 64 person-time of various training. UDM establishes a set of collaborative training model covering high school, college and enterprise, and adds special course of oil industry to provide students with more job opportunities. UDM also holds youth science and technology forums and professional skill competitions to promote exchanges of science and technology outcomes among employees and improve employees' career development.



Winners at UDM Youth Forum



Trainees of the 6th training course for key positions of overseas employees participate in research tours of domestic oilfields, refining & chemical, engineering and sales enterprises

Enhancing local environmental protection

The environmental management compliance rate reached

100%

We conduct surveys on legal compliance in environmental management in countries where businesses are located. We comprehensively sort out laws and regulations on management of "Three Wastes", protection of water resources, biological diversity and land protection, etc. The environmental management compliance rate reached 100%.

The subsidiaries of CIR value environmental protection and annually revise the environmental protection plan of air, water, underground resources and biological diversity. They conduct environmental monitoring according to laws and standardise waste management regulations and waste disposal plans. In 2017, the subsidiaries invested \$1.12 million in environmental protection; neither major environmental accident nor environmental fine occurred throughout the year. Arman and KOA obtained the certification of ISO 14001:2004 environmental protection management system. Every year, Arman hires a third party to monitor and inspect flora and fauna in oilfields and strictly protects the ecological environment of oilfields from damage. The 15,000-tonne waste generated by the oilfield of BOL was all treated for recycling. KOA planted 5,400 saplings to restore the original oilfield landform. In 2017, Arman and KKM were respectively awarded Certifications of Ecological Protection "Responsibility-2017" for Small and medium-sized Enterprises in Kazakhstan.

UDM implements the ISO 14001 standards and the OHSAS 18001 standards. For five consecutive years, no severe environmental pollution, ecological deterioration nor soil spilling incident occurred. The emission level is better than the industrial standards.

Conducting Public Welfare to Benefit Local harmonious Development

All the overseas subsidiaries focus on development of local communities and increase efforts in infrastructure construction to guarantee livelihood, which covers education, medical care, culture and traffic.

The subsidiaries of CIR take active part in public welfare. KKM participates in targeted poverty alleviation to help lift disabled people out of poverty, donates fund to support local children’s education, and helps maintenance of local orphanages; KOA helps disadvantaged groups and provides subsidies to local orphanages; every year, UDM sets up charity fund in the annual operation plan, helps local children with education and traffic safety, and assists construction of sports and recreation sites for local residents. In 2017, UDM won the honour of Enterprise with the Most Fulfillment of Social Responsibility in Russia.

An appreciation letter from local residents to KOA

Honorable Lynette Nurhodshalouray,

As the Constitution Day and Eid al-Adha draw closer, please allow me to present festival greetings to you and your staff in KOA!

We sincerely extend our gratitude to KOA for all the public welfare activities for local communities. Especially the Hope Project activity offers our children a happy summer vacation. The elderly in local communities are deeply touched by the caring and assistance provided by you.

On behalf of all villagers, I would like to wish KOA get more achievements in future!



- R.K. Uhlgeneshebajef , Director of Kumrerre Joint Village

An aerial photograph of a large industrial complex, likely a power plant or refinery, situated along a curved coastline. The facility features several large, multi-story buildings, a prominent tall smokestack with red and white stripes, and various pipes and structures. A large body of water is visible to the left, and a road or railway line runs along the edge of the site. The sky is clear and blue.

Outlook

When stepping into a new era, the principal contradiction facing Chinese society has evolved to be that between unbalanced and inadequate development and the people's ever-growing needs for a better life.

At the same time, all parties have been taking actions to promote the implementation of the 2030 Agenda for Sustainable Development.

Inheriting the enterprise mission of Powering a Better Life for You, we will continue practicing the five key development strategies (value-oriented, innovation-driven, integrated resource allocation, open cooperation, and green and low-carbon growth), and focus on better meeting people's individualised, diversified and escalating needs. We will make active response to stakeholders' expectations, deepen the supply-side structural reform and practice green development. While committing to be a model to guide and drive the energy production and consumption revolution, improve supply quality, rejuvenate the real economy, and develop a modernised economy, we will strive to achieve comprehensive and sustainable development by developing the industry and benefiting the people, and build a highly responsible and respectable leading enterprise in the industry.

Key Performance

Economic performance

Indicators	2015	2016	2017
Total assets (RMB billion)	1,447.3	1,498.6	1,595.5
Total liabilities (RMB billion)	657.7	666.1	741.4
Revenue (RMB billion)	2,020.4	1,930.9	2,360.2
Net profits attributable to shareholders of the Company (RMB billion)	32.28	46.42	51.12
Dividends declared (RMB billion)	18.16	30.15	60.54
Dividends pay-out ratio (%)	56.4	64.9	118.4
Taxes and fees paid (RMB billion)	327.4	316.1	328.3
Oil and gas production (mmboe)	471.91	431.29	448.79
Crude oil production (mmbbls)	349.47	303.51	293.66
Natural gas production (bcf)	734.79	766.12	912.50
Refinery throughput(million tonnes)	236.49	235.53	238.50
Ethylene output (thousand tonnes)	11,118	11,059	11,610
Total sales volume of oil products (million tonnes)	189.33	194.84	198.75
Chemical sales volume (million tonnes)	62.87	69.96	78.50

Safety performance

Indicators	2015	2016	2017
Employee occupational health examination coverage (%)	98.9	98.9	99
Health check-up and health file coverage (%)	98.9	98.9	99
Number of newly diagnosed cases of occupational diseases	6	19	21
Safety training coverage (%)	100	100	100
Number of deaths	7	2	3

Society

Indicators	2015	2016	2017
Social contribution per share (RMB/share)	3.542	3.606	3.778
Social contributions (RMB billion)	428.8	436.6	457.4
Total number of employees	351,019	451,611*	446,225*
Number of new employees during the reporting period	2,633	17,897*	21,887*
Number of attrition	18,361	19,144	26,128
Percentage of female employees (%)	29.46	35.95*	35.9*
Percentage of female managers (%)	26.74	12.88*	12.76*
Collective contract coverage (%)	100	100	100
Social insurance coverage (%)	100	100	100
Annuity coverage (%)	100	76.89*	73.90*
Percentage of employees with membership of labour union (%)	100	100	100
Donations (RMB million)	111.85	132.88	151.88
Number of patients cured under the Lifeline Express Programme	3,286	3,248	3,126
Contributions to cultural education, community development and medical service (RMB million)	6,754	6,584	6,652

* Social contribution per share is calculated according to the definition in the Guideline on Environmental Information Disclosure by Listed Companies of SSE.

We reformed the employment system in 2016 and changed the statistics methods and dimensions of staff data. The data of number of female employees, percentage of female employees in operation management posts, and enterprise annuity coverage were adjusted accordingly.

Number of new employees: the number of contract employees who are newly employed, transferred and introduced (the number of new employees for common posts in sales subsidiaries such as oilers reached 19,048 in 2017), excluding the number of those hired in dispatch system.

Number of attrition: the reduction in the number of contract employees who retire, die or are transferred from the Sinopec system (excluding the organic-unit reduction caused by business transfer and joint venture cooperation, etc.).

Environmental performance

Indicators	2017
Energy conserved (thousand tonnes of standard coal)	882
Consumption of comprehensive energy per RMB 10,000 of production value (tonne of standard coal)	0.496
Crude oil consumption (million tonnes)	1.41
Natural gas consumption (billion cubic metres)	3.35
Electricity consumption (billion kWh)	28.86
Coal consumption (million tonnes)	15.08
Industrial water intake (million cubic metres)	936
Greenhouse gas emission (million tonnes CO ₂ -equivalent)	162.66
Direct	123.05
Indirect	39.61
Greenhouse gas emission based on segment (million tonnes CO ₂ -equivalent)	-
E&P segment	30.55
Refining and chemical segment	129.49
Marketing segment	2.62
CO ₂ emission reduction (million tonnes CO ₂ -equivalent)	5.42
CO ₂ capture (thousand tonnes)	270
Methane recovery (million cubic metres)	220

- * The Company conducts GHG emission (direct and indirect) accounting and verification according to ISO14064-1:2006 standards, covering six gases including carbon dioxide, methane (CH₄), nitrous oxide (N₂O), hydro fluoro carbons (HFCs), perfluorinated compounds (PFCs) and sulphur hexafluoride (SF₆). The Company is currently verifying the relative GHG emission data of the year 2017 and as at the date of disclosure, the verification hasn't yet been finished.

According to the requirements of *Environmental Social and Governance Reporting Guide* of HKEx, listed companies should disclose the data of discharges into water and air emissions, and total hazardous waste and non-hazardous waste produced, water consumption intensity, and total packaging material used for finished products.

(1) Concerning the four main pollutants including COD and ammonia nitrogen in externally discharged waste water as well as sulfur dioxide and nitrogen oxides in external air emissions, the *Announcement on Issuing the Catalogue of Repealed Regulatory Documents* issued by the Ministry of Environmental Protection in November 2017 abolishes the calculation methods of the main pollutants specified by *Announcement on Issuing the Calculation Method of Emission Reduction in Main Pollutants during the 12th Five-Year Plan* and *Announcement on the Calculation and Supervision Methods of Main Pollutants during the 12th Five-Year Plan*. Our subsidiaries have been applying for pollutant permits according to new regulatory documents such as *Implementation Plan of Pollutant Permit*, *Directory of Solid Waste Discharge Permits (2017 Version)*, and *Technical Specification for Application and Issuance of Pollutant Permit in Petrochemical Industry*. We can only calculate pollutant discharge data according to the pollutant permits of our subsidiaries. At present, the work on pollutant permit application has not been completed in some subsidiaries of Sinopec Corp. As a result, we are not able to disclose the data of discharges into water and air.

(2) Concerning hazardous and non-hazardous wastes, according to the new requirements of *Directory of National Hazardous Wastes*, we have been working on identification and assessment of solid waste and unifying statistics methods and dimensions of all kinds of solid wastes. At present, we cannot calculate the data of total hazardous waste and non-hazardous waste produced.

(3) Concerning water consumption intensity, since Sinopec Corp. has a wide range of businesses in upstream and downstream industry chains, including oil & gas exploitation, refining, chemicals, marketing and international trade, etc., we cannot calculate water consumption density.

(4) Concerning the total packaging material used for finished products, since Sinopec Corp has dozens of subsidiaries and covers a wide range of businesses, which use various packaging materials such as iron, steel, wood, plastics and woven bags, and various packaging types such as barrels, boxes and bags in different sizes; part of the packages can be recycled; we cannot calculate total packaging material used for finished products.

Index

The Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange Checklist

Index	The Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange	Sinopec Information Update for 2017
A1 Emissions	General Disclosure	P29、 P32
Key Performance Indicators	A1.1	P57
	A1.2	P57
	A1.3	P57
	A1.4	P57
	A1.5	P29-34
	A1.6	P33
A2 Use of Resources	General Disclosure	P29、 P30、 P34
Key Performance Indicators	A2.1	P56
	A2.2	P57
	A2.3	P29、 P30
	A2.4	P34
	A2.5	P57
A3 Environment and Natural Resources	General Disclosure	P29、 P32、 P34、 P35
Key Performance Indicators	A3.1	P29-35
B1 Employment	General Disclosure	P40、 P41
Key Performance Indicators	B1.1	Refer to the Annual Report of 2017
	B1.2	-
B2 Health and Safety	General Disclosure	P27
Key Performance Indicators	B2.1	P55
	B2.2	-
	B2.3	P27、 P28
B3 Development and Training	General Disclosure	P40、 P41
Key Performance Indicators	B3.1	P41
	B3.2	P41
B4 Labour Standards	General Disclosure	P40
Key Performance Indicators	B4.1	-
	B4.2	-

Index	The Environmental, Social and Governance Reporting Guide of Hong Kong Stock Exchange	Sinopec Information Update for 2017
B5 Supply Chain Management	General Disclosure	P46
Key Performance Indicators	B5.1 B5.2	Refer to the Annual Report of 2017 P46、 P47
B6 Product Responsibility	General Disclosure	P45、 P46
Key Performance Indicators	B6.1 B6.2 B6.3 B6.4 B6.5	- P45 P13、 P21 P45 P46
B7 Anti-corruption	General Disclosure	P22
Key Performance Indicators	B7.1 B7.2	- P22、 P23

UNGC 10 Principles Checklist

Scope	UNGC's 10 Principles	Sinopec Information Update for 2017
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights; and make sure that they are not complicit in human rights abuses.	P03,P09,P40-41 P40-41
Labour	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced and compulsory Labour; the effective abolition of child Labour; and the elimination of discrimination in respect of employment and occupation.	P40 P40 P40 P40-41,P51
Environment	Businesses should support a precautionary approach to environmental challenges undertake initiatives to promote greater environmental responsibility; and encourage the development and diffusion of environmentally friendly technologies.	P29-31 P32-35,P52 P31
Anti-Corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	P22-23

UNGC Advanced Level Criteria Checklist

Scope	Criteria for UNGC Advanced Level	Sinopec Information Update for 2017
Strategy, Governance and Engagement	Criterion 1: Key aspects of the company's advanced level sustainability strategy in line with Global Compact principles	P02-03,P06
	Criterion 2: Effective decision-making processes and systems of governance for corporate sustainability	P09,P13,P19,P27-28,p40-41,P51
	Criterion 3: Engagement with all important stakeholders	P09,P22,P32-35,p39-47,P51-53
UN Goals and Issues	Criterion 4: Actions taken in support of broader UN goals and issue	P09,P10,P16,P24,P36,P48
Human Rights Implementation	Criterion 5: Robust commitments, strategies or policies in the area of human rights	P02-03,P40-41,P51
	Criterion 6: Effective management systems to integrate the human rights principle	P02-03,P40-41,P51
	Criterion 7: Effective monitoring and evaluation mechanisms of human rights integration	P40-41
	Criterion 8: Key outcomes of the human rights integration	P40-41,P51-52,P56
Labour Principles Implementation	Criterion 9: Robust commitments, strategies or policies in the area of Labour	P06,P40-P41
	Criterion 10: Effective management systems to integrate the Labour principle	P40-41
	Criterion 11: Effective monitoring and evaluation mechanisms of the Labour principle integration	P40-41,P51
	Criterion 12: Key outcomes of the Labour principle integration	P40-41,P51-52,P56
Environmental Stewardship Implementation	Criterion 13: Robust commitments, strategies or policies in the area of environmental stewardship	P06,P29-35
	Criterion 14: Effective management systems to integrate the environmental principle	P29-32
	Criterion 15: Effective monitoring and evaluation mechanisms for environmental stewardship	P29-32
	Criterion 16: Key outcomes of the environmental principle integration	P39-35,P52,P57
Anti-Corruption Implementation	Criterion 17: Robust commitments, strategies or policies in the area of anti-corruption	P06,P22
	Criterion 18: Effective management systems to integrate the anti-corruption principle	P22
	Criterion 19: Effective monitoring and evaluation mechanisms for the integration of anti-corruption	P22
	Criterion 20: Key outcomes of the anti-corruption principle integration	P22-23,P56
Value Chain Implementation	Criterion 21: Implementation of the Global Compact principles in the value chain	P46-47
Transparency and Verification	Criterion 22: The COP provides information on the company's profile and context of operation	Report Information
	Criterion 23: The COP incorporates high standards of transparency and disclosure	P59
	Criterion 24: The COP is independently verified by a credible third-party	-

GRI Guide on Sustainable Report (G4) Checklist

Chapter of the COP		GRI index check
Report Information Letter to Our Stakeholders		G4-18、G4-23、G4-28、G4-29、G4-30、G4-31 G4-1、G4-2
About Us	Sinopec Corp. Overview Core Values of Sinopec Corp. Performance in 2017 2017 Honours Stakeholder Engagement and Material Issues	G4-8、 G4-1、G4-43、G4-56 G4-9、G4-10、G4-EC1 G4-19、G4-24、G4-25、G4-26、G4-27、G4-37、 G4-49、G4-50
Innovation-Driven: Implementing New Concept of Development	Technological Innovation Contributes to Supply-Side Structural Reforms Boosting Integration of Industrialisation and Informatisation to Upgrade the Traditional Manufacturing Industry	G4-EC8 G4-EC8
Deepening Reform: Being an Enterprise with Scientific and Normative Govern- ance in the New Era	Revitalising the Real Economy through Supply-side Structural Reforms Transformation Created New Momentum for Development Risk Management Advancing the Law-based Operation Deepening Anti-Corruption	G4-EC8 G4-EC8 G4-2 G4-2 G4-57、G4-58、G4-SO4
Promoting Green Development: Progressing in Safety, Ecological and Environmental Protection	Advancing Work Safety and Public Security steadily Proactively Addressing Climate Change Enhancing Environmental Protection Protecting Biological Diversity Soil Remediation	G4-LA5、G4-LA6 G4-EC2、G4-EN3、G4-EN15、G4-EN20、G4-EN31 G4-EN7、G4-EN9、G4-EN10、G4-EN21、G4-EN27 G4-EN11、G4-EN12 G4-EN13
Shared Development: Serving the People for a Better Life	Targeted Poverty Alleviation Work Statistics 2017 Our Principles for Human Rights Sharing Development with Employees Serving Society Strengthening Public Communication Promoting Win-win Cooperation in the Value Chain	G4-EC3、G4-EC7 G4-HR3 G4-LA2、G4-LA9 G4-SO2、G4-EC7 G4-SO2 G4-12、G4-EC9、G4-LA15、G4-EN33、G4-PR5
Openness and Win-Win Cooperation: Contributing to Community of a Shared Future	Overseas Development Offers New Development Opportunities Implementing Localised Operation Conducting Public Welfare to Benefit Local Balanced Development	G4-2 G4-27、G4-EC7 G4-SO1、G4-EC7
Outlook		G4-2
Key Performance		G4-EC1、G4-EN3、G4-EN5
Index		G4-32
Feedback		G4-31

Feedback

Respected Readers,

Thank you for reading this Report. Your opinions and suggestions are important to us and can help us improve the preparation of future reports. Please help us by completing the following Feedback Form and sending it to the following address:

Secretariat of the Board
China Petroleum & Chemical Corporation
No.22 Chaoyangmen North Street, Chaoyang District, Beijing 100728, PRC

Your Information

Name:

Employer:

Title:

Contact Tel:

Fax:

E-mail:

Content	Very good	Good	Fair	Poor	Very poor
This Report completely and accurately describes the significant impact of Sinopec Corp. on the economy, society and environment.	<input type="checkbox"/>				
This Report responds to and discloses information about the concerns of stakeholders.	<input type="checkbox"/>				
The information, indicators and data disclosed by this Report are clear, accurate and complete.	<input type="checkbox"/>				
This Report's logic line, content, text and wording, and layout are well designed.	<input type="checkbox"/>				

Open-ended questions

1. What do you find most satisfying in this Report?

2. What other information do you think should be included in this Report?

3. What suggestions do you have for our preparation of the sustainable development progress report in the future?



责任引领未来



No. 22 Chaoyangmen North Street
Chaoyang District Beijing 100728 PRC
Tel: 86-10-59960028
Fax: 86-10-59960386
Website: www.sinopec.com