

# 2019 Sinopec Corp.

Communication on Progress  
for Sustainable Development



# Report Information

The 2019 Communication on Progress for Sustainable Development (hereinafter referred to "COP") is the 14th sustainability report of China Petroleum & Chemical Corporation (hereinafter referred to as "Sinopec Corp.", "the Company" or "We"). The COP introduces our efforts in promoting economic growth, social development and environmental protection, and highlights on how we responded to stakeholder expectations and concerns in 2019.

## Report Perimeters

This COP covers our business activities from 1 January to 31 December, 2019, while content under "Topic 5: Concerted Efforts to Fight Against the COVID-19 Outbreak" is from 2020. The information herein comes from internal data, materials from our subsidiaries, and relevant public information. Unless otherwise specified, all monetary figures shown in this COP are expressed in RMB (yuan).

Unless otherwise specified, the data in this COP covers the data of Sinopec Corp. and its wholly-owned and controlled subsidiaries.

The Company's Board of Directors approved this COP on March 27, 2020. The COP is available in Chinese and English. If there is any conflict or inconsistency, the Chinese version shall prevail. The COP can be downloaded at the website: <http://www.sinopec.com/listco/en>

## 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 issued by Listed Companies* of Shanghai Stock Exchange (SSE), and the *Environmental, Social and Governance Reporting Guide* issued by Hong Kong Stock Exchange (HKEx) and with reference to the *GRI Sustainability Reporting Standards (GRI Standards)* issued by the GRI Global Sustainability Standards Board (GSSB). Some of the information is also prepared with reference to the recommendations of the *Task Force on Climate-related Financial Disclosures (TCFD)*.

## 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 27, 2020 and the Company undertakes no obligation to update these forward-looking statements unless required by an appropriate regulatory authority.

# CONTENTS

Letter from the Chairman	02			<b>【Featured Stories】</b>	<b>14</b>
About Us	04			Topic 1: Green Enterprise Campaign	14
				Topic 2: Technological Innovation and Intelligent Construction	20
				Topic 3: Supply of Green Energy and Chemical Products	24
				Topic 4: Targeted Poverty Alleviation	26
				Topic 5: Concerted Efforts to Fight Against the COVID-19 Outbreak	28
Sustainability Governance	12				
Low-Carbon Development	30	Environmental Protection	42	Safety Management	52
Climate Change	32	Environmental Management	44	Production Safety	54
Energy Transition	37	Air Emissions	46	Contractor Safety	56
		Solid Waste	47	Logistics Safety	56
		Water Resources	48	Information Safety	57
		Land Resources	50	Security	57
		Oil Spills	50		
		Biodiversity Conservation	51		
Compliance Operation	58	Respecting Human Rights	62	Contributing to Society	68
Transparent Compliance Management	60	Employee Protection	64	Value Chain Management	70
Anti-corruption System	61	Occupational Health	65	With Customers	71
Enhancing Anti-corruption Awareness	61	Career Development	66	Promoting Industry Development	74
		Caring for Employees	67	Community Engagement	75
				Philanthropy	76
				<b>【Performance Report】</b>	<b>77</b>
				Economic Performance	77
				Environmental Performance	78
				Social Performance	80
				<b>【Index】</b>	<b>82</b>
				<b>【Feedback】</b>	<b>90</b>

## Letter from Chairman



Dear Friends,

On behalf of the Board of Sinopec Corp., I would like to extend our heartfelt thanks for your continued attention and support.

Over the past year, we have seen world-wide efforts aiming at realizing the 17 goals, such as no poverty, climate action, and affordable and clean energy, that put forward by the United Nations 2030 Agenda, and striving to achieve the sustainable development of mankind. Adhering to the development concepts of innovation, coordination, greenness, openness, and sharing, China is committed to building a prosperous, strong, democratic, civilised, harmonious and beautiful socialist modernised country by the middle of this century, and actively implementing the 2030 Agenda for Sustainable Development and contributing to realizing the Sustainable Development Goals. As a participant, a contributor, a facilitator and a beneficiary of global economic and social development, as well as a LEAD member within the United Nations Global Compact, Sinopec Corp. implements the new development concepts, adheres to high-quality development, and is firmly committed to low-carbon, green, safe, responsible and sustainable development, and has made progresses in all aspects in 2019.

**As for the business development**, we pressed ahead with high efficiency exploration and profit-oriented development and achieved tangible results in increasing reserves, maintaining oil production, increasing gas output and reducing cost. As the result, the percentage of natural gas in total oil and gas production increased continuously which helped enhance the capacity of the Company in clean energy supply. We provide gasoline and diesel products that meet the National VI emis-

sions standard, and actively respond to the International Maritime Organisation (IMO) 2020 requirements to increase the production capacity of low sulphur maritime fuel oil. We accelerated the development in the fields of high-performance carbon fibre and high-end synthetic materials to upgrade to petrochemical products that are environmental-friendly and low-carbon. We accelerated the development of comprehensive service and intelligent operations of our service stations to provide consumers with convenient full-service. We also actively expanded international cooperation, accelerated the development of e-commerce platforms, and continued to foster new business.

**As for the green and low-carbon development**, we proactively responded to climate change, rapidly grew our natural gas business, continued to produce bio-jet fuel and bio-diesel, constructed new charging stations, promoted photovoltaic power generation and the utilisation of hydrogen, joint the International hydrogen Council and cooperated with hydrogen company, striving to provide clean energy for society; continued to implement the Energy Efficiency Improvement Plan and the Green Enterprise Campaign, continuously reducing the comprehensive energy consumption per RMB10,000 of output; strengthened our greenhouse gas emission management and accelerated the research on carbon capture and storage technology. We improved the protection of atmosphere, water and soil, further lowering the discharge of major pollutants and the volume fresh water withdrawal for industrial use, and making sure 100% of our hazardous wastes were disposed properly. We attached great importance to biodiversity conservation, and made assessment of ecological hazards to reduce the impact on the ecological environment.

We joined the Alliance to End Plastic Waste (AEPW) and worked together with partners to actively cope with plastic pollution and support the development of a circular economy of plastics.

**As for safety development**, adhering to the principle that "development should not come at the cost of safety", we strengthened safety management, conducted regular safety risk assessments to identify and eliminate safety hazards, improved emergency management, and ensured stable production and operation throughout the year. We enhanced safety training and capacity building for our contractors, and worked together with our carriers to explore the supply models for hazardous chemical materials to ensure logistics safety throughout the process. We improved security management to ensure the safety of employees. We also strengthened information security management, and established a network security risk management platform to ensure the security of our information facilities and data.

**As for technological innovation**, we implemented the innovation-driven development strategy, formulated mid- and long-term plans and actions, promoted the establishing of joint innovation platforms, organised research on key technologies, and achieved new breakthroughs in a number of key research and development projects. In 2019, we received one second prize of National Technology Invention Award and six second prizes of National Science and Technology Progress Award, and a total of 4,076 patent applications were granted. We accelerated the intelligent upgrade of the industrial chain through building intelligent oil and gas fields, intelligent factories, and intelligent service stations for promoting the digitalised, network-based and intelligent

upgrade of our operations. We also participated in industry development, leveraging our expertise and advantages to promote industry innovation and development in terms of scientific research, industry standard formulation, and industry-wide sharing and communication.

**As for contribution to the society**, adhering to the people-oriented concept, we strengthened the talent troop construction and supported the career development of employees, improved the assessment and management of employees' physical and mental health, and advocated for decent work. We continued our support for the targeted poverty alleviation efforts and carried out a variety of poverty alleviation projects that customised to local conditions, such as poverty alleviation through industrial development, through education, and through providing better healthcare, etc., with three poverty-stricken counties be lifted out of poverty. We also continued the Sinopec Lifeline Express Programme and the Warm Stations Programme to help people in need, which were highly recognised in society. During the COVID-19 epidemic in early 2020, we worked together with our stakeholders to fulfil our corporate citizen responsibilities during this dire time. We took prompt actions to donate funds and supplies, leverage our capabilities to produce medical supplies and set up production lines with partners to produce face masks, one of the most urgently needed supplies. We also took advantage of our network of service stations and EasyJoy convenience stores, to ensure stable supply of fuel and gas, and provide a safe and convenient way for people to purchase daily necessities without physical contact.







Looking ahead to 2020, we will continue optimising the system and capacity for

corporate governance, actively promote structural adjustment, transformation and upgrading, consolidate the foundation for industrial development, and strive to build a clean, efficient, low-carbon, and circular green enterprise, and provide more clean energy and products to drive social development and satisfy people's needs. We will make green development as our core competence, aiming at achieving sustainable and healthy development, contributing to countries where we operate as well as our shareholders, customers, employees and value chain partners. We cherish your suggestions for the sustainable development of the Company, and look forward to working together with you to build a sustainable world-class energy and chemical company, and help provide a better life and better future for everyone.

Zhang Yuzhuo  
Chairman  
March 27, 2020

# About Us

## Company Profile

 <p><b>Exploration and Production</b></p> <p>Sinopec Corp.'s main oil and gas assets are located in China, and we also participate in four joint projects overseas, including Taihu in Russia, Block 18 in Angola, CIR in Kazakhstan, and Mansarovar in Colombia respectively.</p> <p>As of the end of 2019, our proven oil and natural gas reserves totalled 1,741 million barrels and 7,225 billion cubic feet respectively.</p>	 <p><b>Refining</b></p> <p>Sinopec Corp.'s primary facilities are located in China, and we invest a refining joint venture project in Yanbu, Saudi Arabia.</p> <p>In 2019, we processed 248.52 million tonnes of crude oil.</p>	 <p><b>Marketing and Distribution</b></p> <p>Sinopec Corp. has a comprehensive refined oil products distribution network consisting of 30,702 service stations, and the total issuance of fuel cards reached 168 million.</p> <p>In 2019, the non-fuel business realized increase both in the sales volume and the profit.</p>
 <p><b>Chemicals</b></p> <p>Sinopec Corp.'s main petrochemical products include synthetic resin, synthetic fibre and synthetic rubber. We invest a joint venture project in Russia.</p> <p>We produced 12.49 million tonnes of ethylene in 2019.</p>	 <p><b>International Trade</b></p> <p>Sinopec Corp. engages in the international trade of crude oil, refined oil products, chemical products, and technologies.</p> <p>We are the largest trader of crude oil in China, and we imported 202 million tonnes of crude oil in 2019. We own 21 wharfs of more than 200,000 DWT, with a total capacity of 350 million tonnes.</p>	 <p><b>Technology R&amp;D</b></p> <p>Sinopec Corp. has the capacity and technology to build refining facilities at the ten-million tonnage scale, and ethylene facilities at the million tonnage scale.</p> <p>We have four State Key Laboratories, six National Engineering Research Centres, four National Energy R&amp;D (Experiment) Centres, and six State-Certified Enterprise Technology Centres.</p>

## Core Values

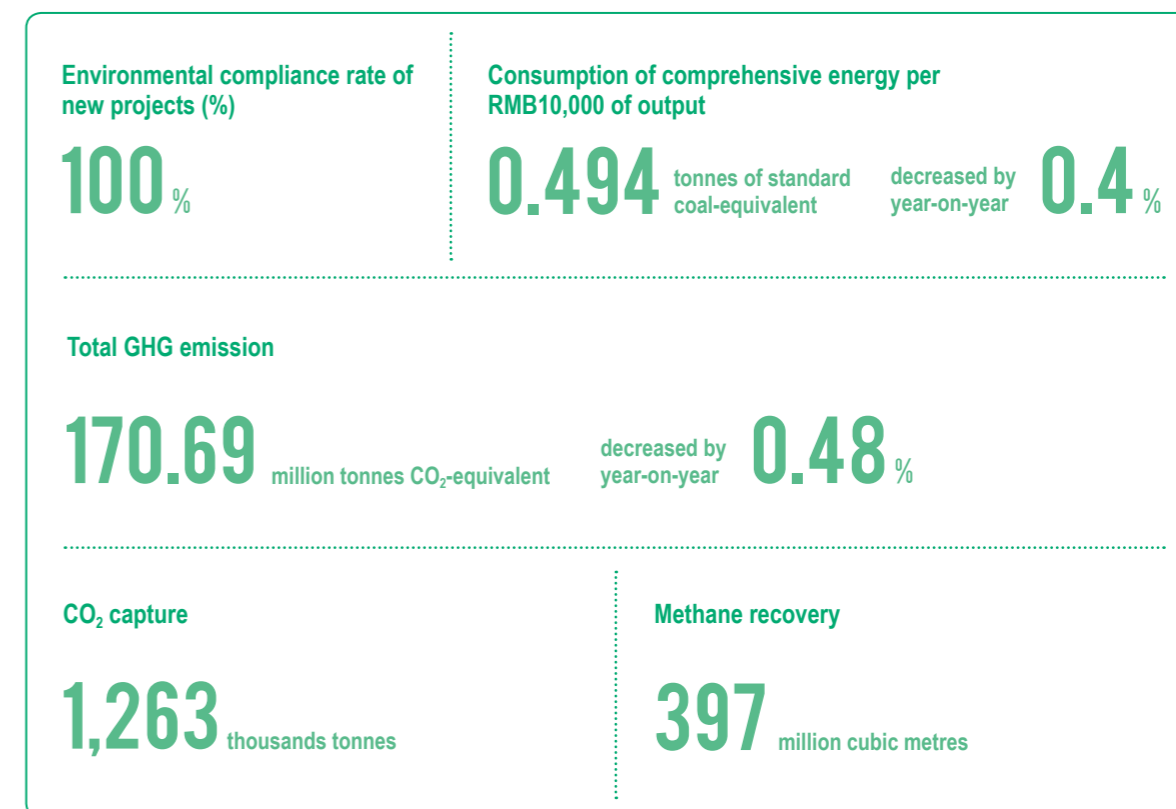
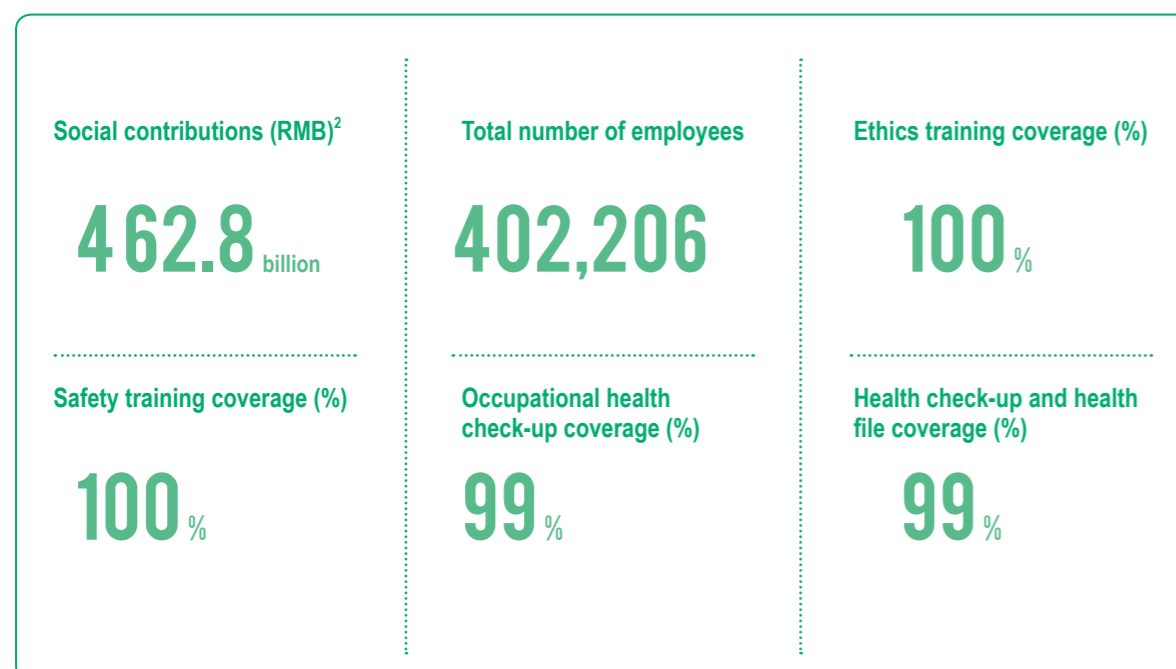
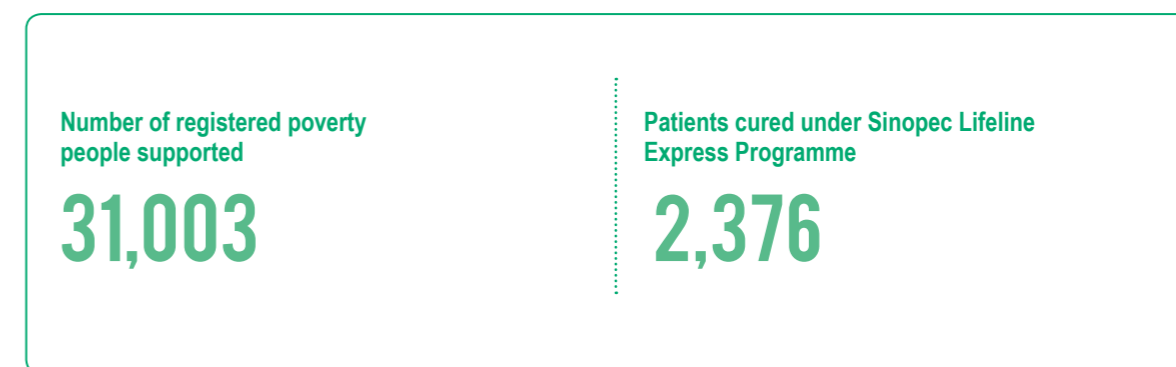
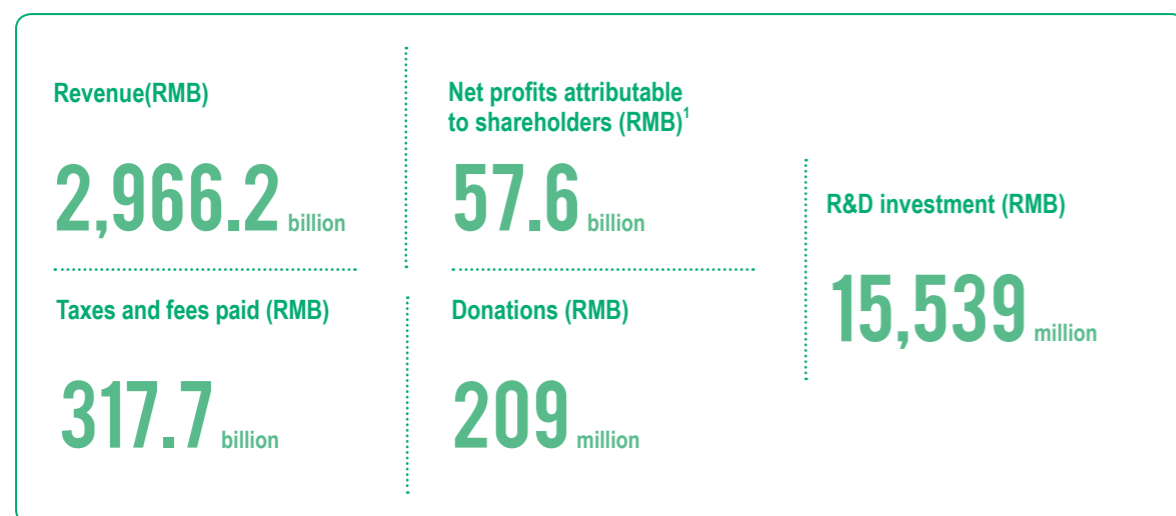


**Sinopec Corp. fulfils its responsibilities as a global corporate citizen by conducting business that serves society:**

<p>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 the people's ever-growing needs for a better life;</p>	<p>We operate honestly and pay taxes in accordance with the laws to contribute to national revenue and boost social development and prosperity;</p>	<p>We strive to realise sustainable returns for our shareholders and implement a stable and continuous dividend pay-out policy;</p>
<p>We focus on leading and cooperating with our partners along industrial chain, aiming to enhance sustainability and achieve win-win results together with them;</p>	<p>We protect employee rights, provide an encouraging working environment and career development channels, that strive to promote decent work; and</p>	<p>We actively engage with local communities, participate in local economic development projects, ensure operation safety, protect the environment, support the disadvantaged groups and people in need, and share the benefit of our corporate development with society.</p>



## Performance in 2019



Note:

1. In accordance with the accounting standards for business enterprises of the Peoples' Republic of China (CASs).

2. The definition of social contribution is calculated in accordance with the SSE's *Guidelines on Listed Companies' Environmental Information Disclosure*.

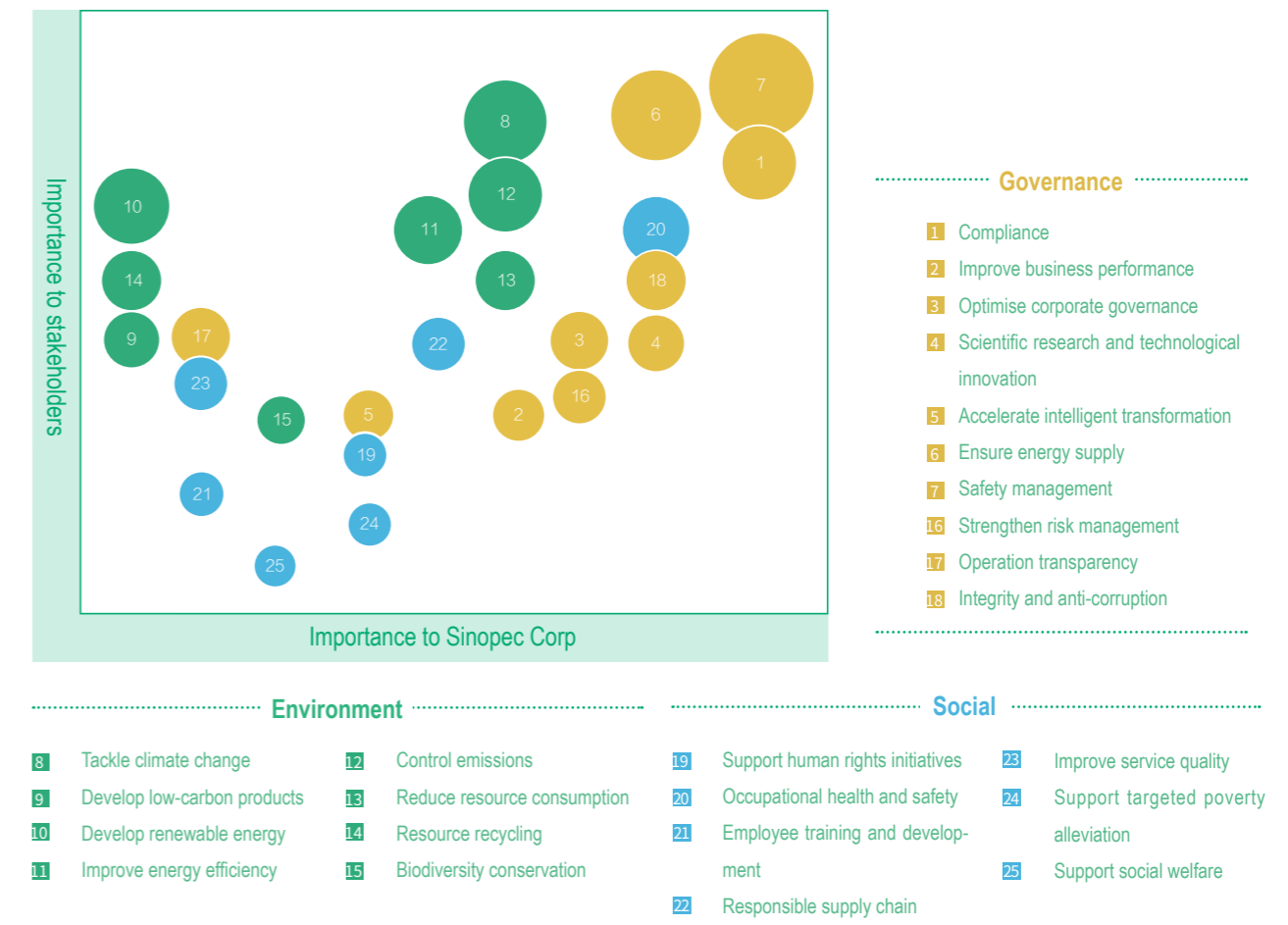
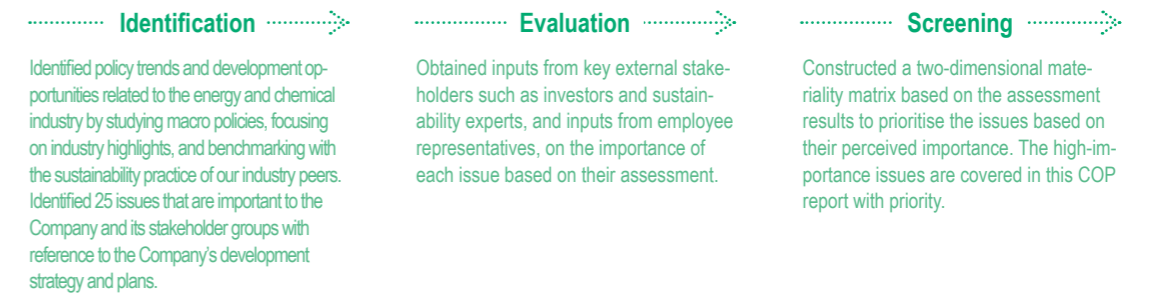
## Recognitions and Awards



## Stakeholder Engagement

### Materiality Analysis

In 2019, the Company continued to identify, evaluate and screen sustainable development issues and material issues that are important to both the Company and its stakeholder groups are disclosed in the COP report with priority.



## Stakeholder Engagement

The trust and support of our stakeholders are of fundamental importance to the sustainable development of Sinopec Corp. The Company has established an open communication mechanism with its stakeholders and continuously optimises it. The Company strives to grow together with its stakeholders to jointly promote the high-quality sustainable development to achieve economic growth, environmental friendliness and social harmony.

Stakeholders	Key Communication Topics	Communication Channels
 Government and Regulators	Operation compliance Safety management Guarantee energy supply Improve business performance Respond to climate change Support targeted poverty alleviation Scientific research and technological innovation Integrity and anti-corruption	Daily communication and reporting Discussion and seminar Project approval Government supervision and regulation
 Shareholders	Improve business performance Ensure shareholders' return Transformation, upgrading and development Strengthen risk control Optimise corporate governance Tackle climate change Integrity and anti-corruption	Information disclosure required by law Performance release and meeting Teleconference and online interaction Investor hotline Investor research
 Customers	Improve quality of service Scientific research and technological innovation Improve energy efficiency Expand low carbon products	Daily service communication Customer visits Questionnaire survey Website, WeChat and other online media
 Employees	Safety management Respect human rights Workplace health and safety Employee career development	Employees' representative meeting Annual commendation Regular trainings Corporate cultural activities Website, WeChat and other online media
 Communities	Strengthen risk control Safety management Respect human rights Support targeted poverty alleviation Support social welfare	Corporate philanthropy On-site research Community communication activity Media communication
 Environment	Respond to climate change Improve energy efficiency Carbon emission management Reduce leakage and escape Resource recycling Land resource management Biodiversity conservation	Project environmental and social risk assessment Environmental performance monitoring and disclosure Respond to external investigations

## Sinopec Corp.'s Actions to Implement the SDGs



Supporting targeted poverty alleviation by providing RMB190 million in direct financial support, and purchasing RMB57 million and selling RMB283 million worth of agricultural products from poverty-stricken areas. As of the end of 2019, three of our designated poverty alleviation counties, Yuexi and Yingshang of Anhui and Bange of Tibet had been lifted out of poverty.



Prohibiting child labour and forced labour, and discrimination due to gender, region, religion, nationality, etc.; promoting workplace diversity, and guaranteeing equal opportunities for employees.



Developing planting, breeding and other industries in rural areas based on local conditions, and improving infrastructure in rural areas to enhance agricultural productivity.



Improving transportation and other infrastructure in designated poverty alleviation areas; improving emergency response capacity and disasters preparedness; building new energy vehicle charging facilities and hydrogen refuelling stations.



Protecting the occupational, physical and mental health of employees; improving the accessibility to medical resources with programmes such as the Sinopec Lifeline Express, remote medical care, doctor training, and support for local hospitals.



Strengthening HSE management and ensure workplace safety, occupational health and environmental compliance. No occurrence of major safety accident or environmental emergency in 2019.



Providing skills training for employees and communities members where we operate; investing RMB 23.48 million to upgrade educational facilities, provide education aid, and improve the education conditions in poverty-stricken areas.



Setting GHG emission targets, and strengthening GHGs management such as methane; implementing Energy Efficiency Improvement Plan and achieved a 0.4% y-o-y reduction of the comprehensive energy consumption per RMB10,000 of output; Transforming towards natural gas and other new energies, and developing alternative energies.



Upholding gender equality, establishing the Female Employees Committee, respecting rights female employees, and forbidding gender discrimination in recruiting and promotion; protecting the pregnancy and maternity rights and caring for the physical and mental health of female employees.



Joined the Alliance to End Plastic Waste (AEPW) to protect the marine environment and marine life; strictly preventing oil spill accidents at sea; increasing wastewater recycling, and upgrading wastewater treatment facilities to meet compliance criteria.



Setting annual water consumption targets, and lowering the annual industrial fresh water withdrawal by 1.1% year-on-year; strengthening waste water recycling and utilisation and ensuring waste water discharged meet standards; and implementing drinking water safety programme in Dongxiang, Gansu.



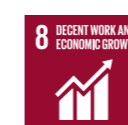
Conducting environmental impact assessment and adopting targeted ecological protection and restoration measures for new and existing projects; adopting engineering technology with less ecological impact.



Continuing to increase the percentage of natural gas, low sulphur marine fuel oil (LSFO) and new energy businesses. Natural gas accounted 41% of oil and gas production in 2019. Increased LSFO production capacity in ten coastal subsidiaries, generated 6.92 million KWHs of photovoltaic power, produced 3 million tonnes of hydrogen, and built 12 battery charge & change stations.



Improving compliance management and ensuring business integrity; strengthening anti-corruption; and promoting suppliers and contractors to strengthen safety management and environmental protection.



Supporting local economic development through investing, paying taxes, creating jobs and increasing domestic procurement; providing stable job opportunities and income, and good working environment; and helping employees of distressed subsidiaries with new job opportunities.



Supporting UN Global Compact and other global initiatives; actively participating in international organisations and trade associations, and promoting research collaboration; developing e-commerce platforms such as EPEC and Sinopec Chememall to achieve win-win development of the industrial chain.

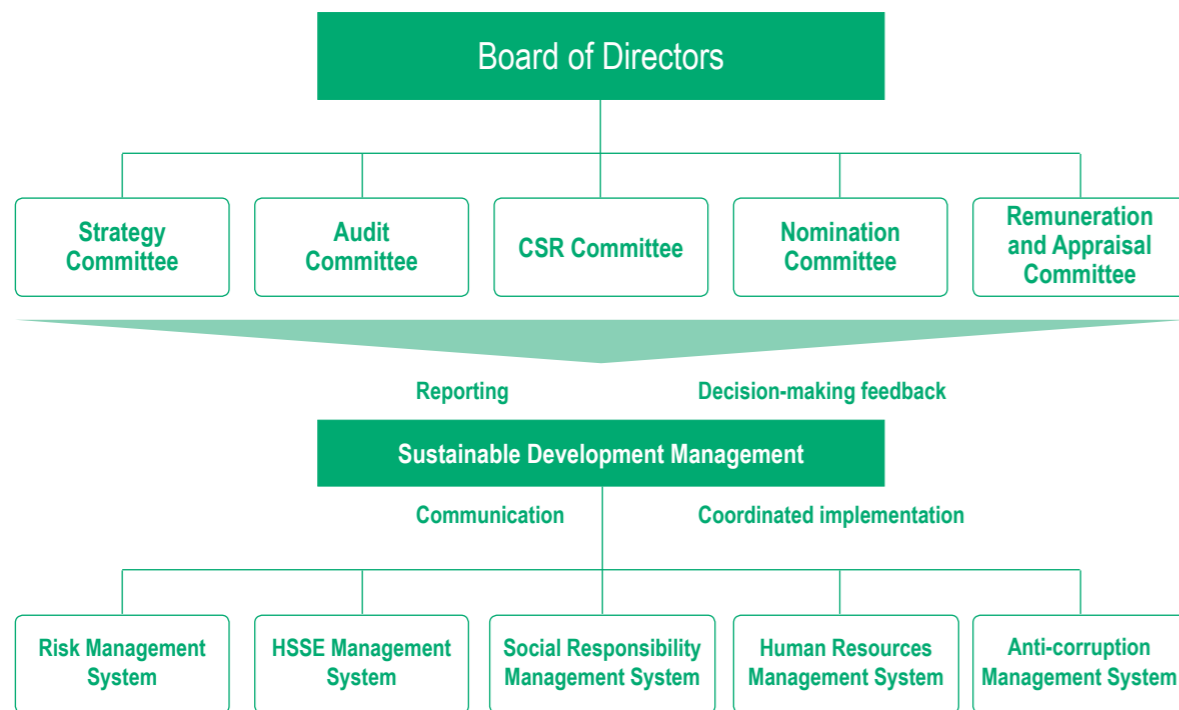


Strengthening R&D, product innovation and structural adjustment, providing green, high-quality energy and chemical products, promoting clean technologies and facilities, and providing industry solutions.

## Sustainability Governance

### Board of Directors and the CSR Committee

The Board of Directors is responsible for sustainable development management of the Company. We have established the Social Responsibility Management Committee under the Board of Directors to be in charge of approving social responsibility management strategies, plans and annual social responsibility work plans, and report to the Board of Directors for promoting sustainable development of the Company. The current committee is composed of Chairman of the Board, Mr. Zhang Yuzhuo, and the independent non-executive directors, Mr. Tang Min and Mr. Fan Gang.



### Risk Management System

We have paid great attention to risks in the process of sustainable development. The Audit Committee, set up under the Board of Directors, is responsible for reviewing risk management and providing advices to the Board. Moreover, the Comprehensive Risk Management Working Group and relevant departments are established in charge of managing and mitigating risks related to production safety, environmental protection, climate change, finance, legal affairs, anti-corruption and overseas security. The Comprehensive Risk Management Working Group convenes meetings regularly to organise the identification and assessment of major and significant risks, determine control measures and formulate solutions.

In accordance with industry characteristics and our geographic layout, we have set up a risk list with risks from five categories, namely strategy, finance, market, operation and legislation. Safety risks, environmental risks, climate-related risks and corresponding management measures and results are detailed in relevant sections of the COP report.

### HSSE Management System



The Company released the standards of Safety, Environment and Health Management System in 2001, and its subsidiaries formulated their respective management regulations based on it as well as industry characteristics. In 2018, the Company integrated security into the management system and formulated the Sinopec Corp. HSSE (health, safety, security and environment) management system, and subsequently revised relevant management systems regarding safety responsibility, safety behaviour, safety training, risk management and hazards control, operations, and occupational health, etc.

The Company has established the HSSE Management Committee and relevant HSSE management bodies at the headquarters and the subsidiaries respectively, and included production safety and energy conservation and environmental protection into the performance appraisal indicators for the management team of the Company, whose annual performance bonus would be reduced by 3%, up to 20% of the total, for each point deducted from the indicators. The Company also sets up GHGs emission reduction targets, and includes energy efficiency appraisal and carbon emission appraisal into its project evaluation process.

Based on the HSSE management system, we have established an emergency management system covering production safety, environmental protection, information security and other aspects, and promoted the establishment of emergency command centres in oil field, refining and marketing subsidiaries. Meanwhile, our subsidiaries have established a joint emergency defence mechanism with local authorities, consisting of 13 joint emergency defence zones geographically, which consolidates local resources and carries out joint drills to ensure the coordinated efforts in case of major emergency accidents.

### Human Resources Management System

The Company continues to improve its human resources management system and policies and has formed an integrated management system covering talent development, labour compensation, training development and other management modules.

### Anti-corruption Management System

The Company continues to optimise its integrity and compliance management system. With an integrity culture of “keeping promises and operating in compliance”, we focus on anti-corruption and have formulated a number of anti-corruption management systems and policies. We strive to build an enterprise with zero corruption through strictly implementing the punishment and prevention mechanisms for corruption and raising anti-corruption awareness. We have set up the Supervisory Committee, with Chairman of the Board in charge, which is responsible for formulating anti-corruption guidelines and key measures. The Disciplinary Inspection and Supervision Department is responsible for the daily supervision and management of anti-corruption, and reports to the Supervisory Committee regularly.



# Implementing the Green Enterprise Campaign

## Topic 1

Lucid waters and lush mountains are invaluable assets. As China actively promote ecological protection, green economy has become an important support for building a modern economy system and achieving high-quality economic growth. As one of the largest integrated energy and chemical enterprises in China, Sinopec Corp. has been implementing the low-carbon green development strategy. In 2013, the Company launched a three-year "Clear Water and Blue Sky" Environmental Protection Campaign. In 2018, the Company launched the Green Enterprise Campaign, aiming at building a clean, efficient, low-carbon and recycling green enterprise.

### Green Enterprise Campaign



### Establishing Green Enterprises

In 2019, the Company further implemented the Green Enterprise Campaign, and continued to promote the establishing of green enterprises at its subsidiaries according to the Sinopec Green Enterprise Evaluation Guideline. In 2019, ten subsidiaries awarded as Green Enterprise last year were reviewed, and another 27 were newly awarded as Green Enterprise, together accounting for over 40% of the Green Enterprise Campaign target. The Company plans to turn 50% of its subsidiaries into Green Enterprise by 2020, and 100% by 2023.



#### Expanding the scope

While promoting the establishment of green enterprises at oil fields, refining and chemical, and marketing subsidiaries, we launched the campaign in scientific research segment and organized engineering subsidiaries to strengthen its weak links in green development. The Green Enterprise Campaign has been extended to grassroots units with 11 green pilot projects.

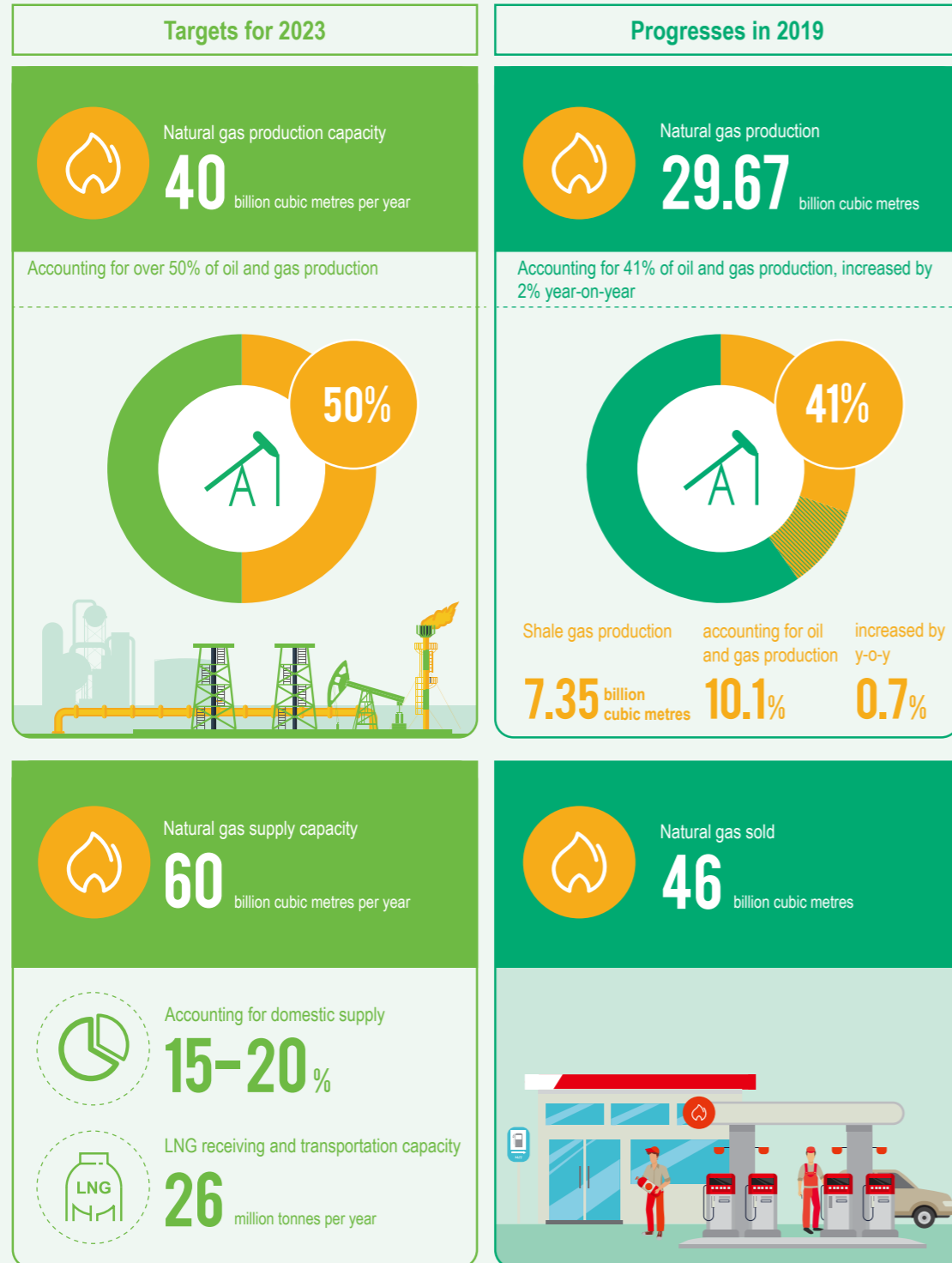


#### Enriching the Content

Green life, green office and related indicators have been included into the green enterprise evaluation system. We have launched eight initiatives, including "garbage classification, water saving, electricity saving, paper saving, consumables saving, plate-clearing campaign, green travel and recycling".



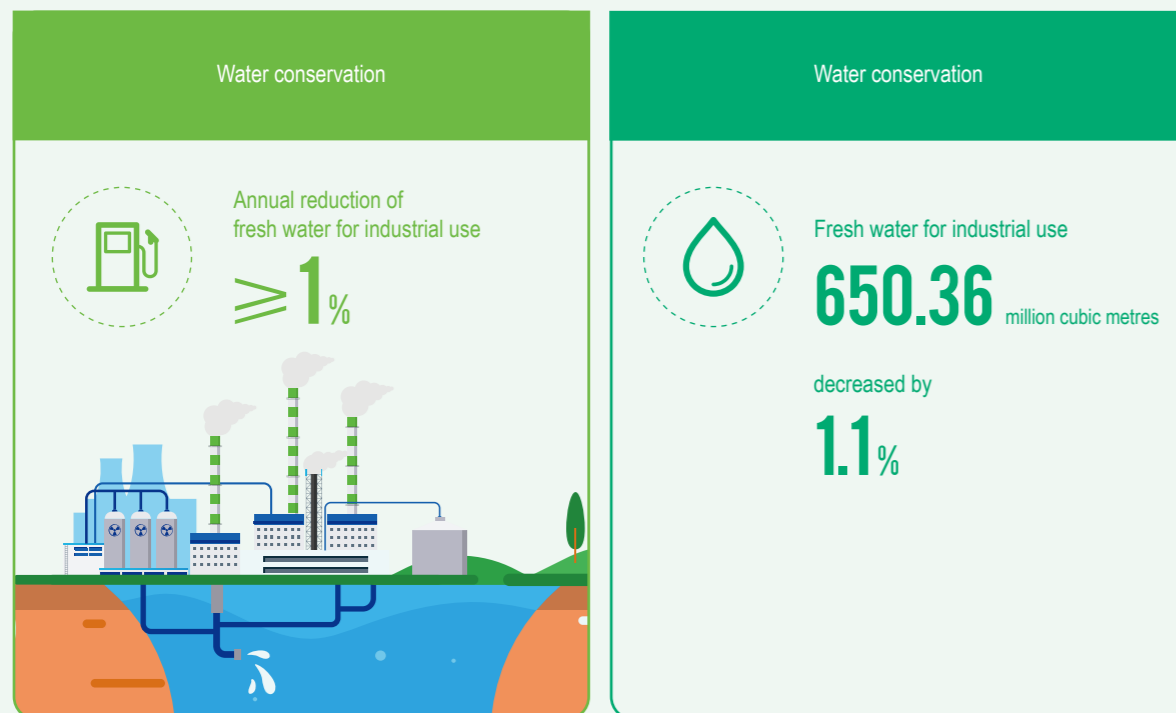
## Supplying Green Energy



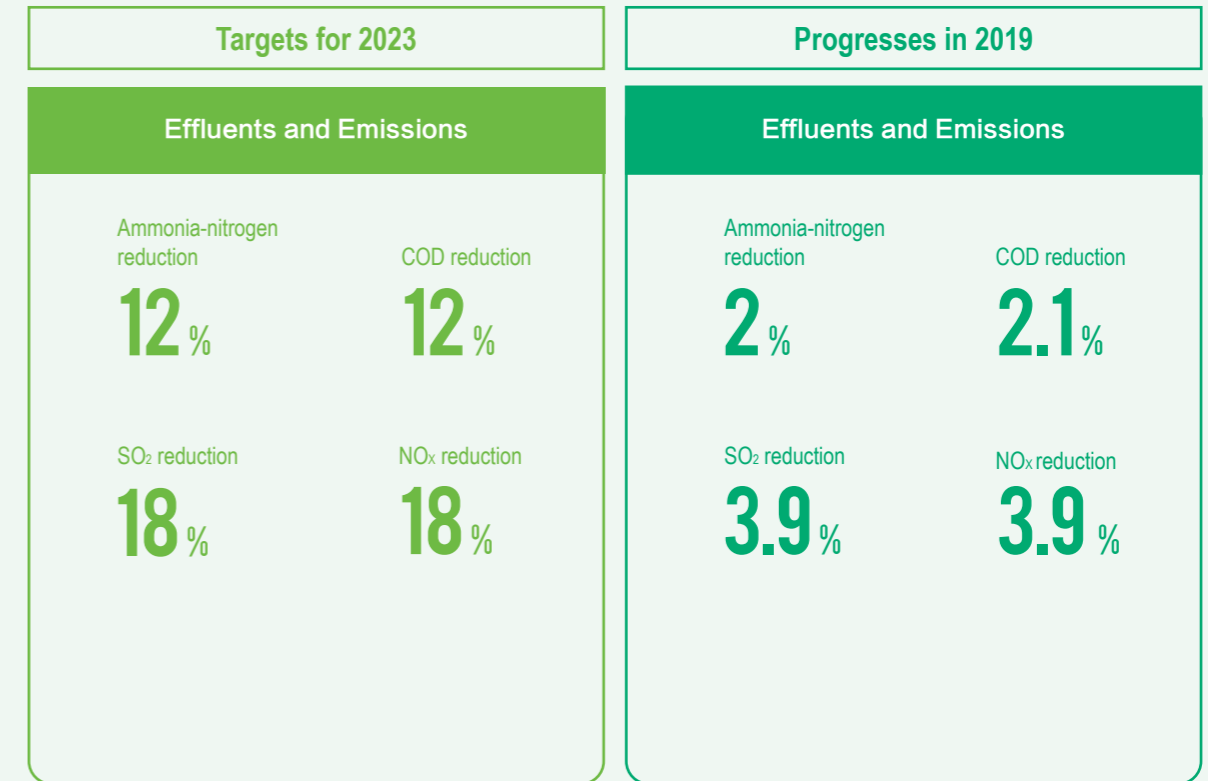
Note: The targets for 2023 was calculated with 2017 as the baseline year.



## Energy Saving and Emission Reduction



Note: The targets for 2023 was calculated with 2017 as the baseline year.



Note: The targets for 2023 was calculated with 2017 as the baseline year.

### Joining the Alliance to End Plastic Waste (AEPW) to end plastic pollution

In July 2019, the Company became the first mainland Chinese company to join the AEPW and served as a member of its board of directors. Founded in January 2019, AEPW is a non-profit initiative made up of various international energy and chemical enterprises. The mission of the AEPW is to end plastic waste in environment and prevent deteriorating marine pollution through jointly efforts by chemical and plastics producers, consumer goods retailers and companies in waste management value chain.

The Company had signed the relevant memorandums and commitment letters, participated in network conferences and working group meetings, and prepared action plans. The Company plans to invest USD25 million to reduce plastic waste over the next five years, playing an active role in promoting the development of the plastic circular economy.

## Technological Innovation and Intelligent Development

### Topic 2

With the emergence of a new round of global technological and industrial revolution, the energy and chemical industry has entered a critical period of transformation and development. Technological innovation and intelligent development not only contribute to improve the efficiency of production and operation and cultivate innovative business, but also drive the high-quality development of the industry. Implements its innovation-driven development strategy, Sinopec Corp. accelerated the pace of R&D and the commercialization of technology, developed intelligent business unit, such as intelligent factories and intelligent oil and gas fields, promoted intelligent upgrading, and improved the fine management of the whole industrial chain.

### Technological Innovation System

In 2019, the Company promoted the reform of its overall technology system and mechanism, further motivated innovation initiative of researchers, organised focused researches on key areas and disruptive technologies, and promoted the application and dissemination of technological achievements.

#### Top-level design for technological innovation

- Compiled the Medium- and Long-term Plan for Science and Technology (2019-2045) and the Action Plan for Science and Technology (2019-2023), specifying the key disruptive technologies to focus its R&D efforts and the targets and plans for core technological breakthroughs.
- Increased investment and support for basic research, and improved the performance appraisal system for technological innovation.

#### Innovation platforms

- Owns four State Key Laboratories, six National Engineering Research Centres, four National Energy R&D (Experiment) Centres, and six State-Certified Enterprise Technology Centres.
- Jointed the National Natural Science Foundation of China and the Enterprise Innovation and Development Joint Fund, and completed the application and approval of the first batch of integration projects.
- Owns the Houston R&D Centre, the Sinopec-UOP Joint R&D Centre and the Middle East R&D Centre, and improved the research conditions at key laboratories and other R&D platforms.
- Established the China Auto Lightweight Non-metal Materials Innovation Centre and the Chemical Process Strengthening Technology Joint R&D Centre, aiming at developing leading and supporting technologies by focusing on the "basic and advanced" development strategy of Sinopec Corp. and adopting the joint research model of "Industry-University-Research-Application".

#### Technology incubators

- Explored new mechanisms and models for technological innovation, accelerated the cultivation of 12 projects in new fields, and established start-up incubators to promote the transfer and application of technological achievements.
- Hosted innovation competitions and supported collaborative innovation.

In 2019, the Company invested RMB15,539 million in technological research and development, and a number of its technological achievements were widely recognised within the industry. The Key Technology for the Efficient and Clean Production of Diesel Project contributed to upgrading diesel quality, winning the second prize of National Technology Invention Award and the Refining Exhaust Ultra-Low Sulphur Emission and Utilisation Project advanced the progress of treatment technology for sulphur-containing emissions winning the second prize of National Technology Progress Award. We had also achieved a number of technological breakthroughs, including polymer materials for medical supplies, large crude oil storage safety management, and VOCs emission reduction technology, and applied them in production.

#### Developing Sulphur Treatment Technology for Refining Exhaust

Sulphur-containing refining exhaust is a major pollutant. The traditional treatment method had poisoning hazards from the catalyst used and could not ensure consistent result to meet the emission standards. The Company developed the complete technology for reduce and utilise the sulphur in refining exhaust, using new catalysts and device to significantly reduce SO<sub>2</sub> emissions and collect and utilise the sulphur. As of the end of 2019, more than 300 devices using this technology had been deployed, saving equipment investment by RMB2,062 million and reducing operating costs by RMB280 million each year.

Indicators	2017	2018	2019
Number of National Technology Invention Awards won	2	1	1
Number of National Prize for Progress in Science and Technology won	3	3	6
Number of patent applications filed in the year	5,876	6,074	6,160
Number of patent applications granted in the year	3,640	4,434	4,076
Cumulative number of patents granted globally	25,931	30,365	34,441



## Intelligent Construction

The Company has closely followed the development trend of cutting-edge technology in the industry, and accelerated the pace of digital and intelligent transformation. In 2019, the Company launched a number of projects such as ERP system development, intelligent manufacturing pilot demonstration, and integrated e-commerce platform. Meanwhile, it focused on intelligent manufacturing, fostered the construction of intelligent oil and gas fields, intelligent plants, intelligent service stations and intelligent research institutes, to make its production and operation digital, network-based and intelligent.

In 2019, the Company developed a cyber-physical system (CPS) based manufacturing system and solution, which was recognised as a 2019 Pilot Demonstration Project of Integrated Development of Manufacturing and the Internet by the Ministry of Industry and Information Technology.

### Intelligent factory



Researched on the ProMACE Internet platform for petroleum and petrochemical industries, upgraded and promoted the pilot projects of intelligent factories, and realised a number of key applications such as integrated optimisation, operation alarm, and equipment health management. Sinopec Zhenhai realised the no-blind spot and 24-hour real-time inspection of online analysers, which reduced the number of alarms at key devices by more than 50%.

### Intelligent oil and gas fields



Carried out pilot projects of intelligent oil and gas field demonstration zones in Sinopec Northwest Oil Field Company and Sinopec Puguang Gas Field, adopted the "Data-Platform-Application" architecture to deploy the exploration and development database, ProMACE platform and business service components, and launched seven types of applications, such as dynamic management of oil and gas reserves, single well management, and pipeline management, etc.

### Intelligent pipelines



Promoted the application of intelligent pipeline management system in 51 subsidiaries, managing nearly 40,000 kilometres of oil and gas pipelines. The system enables the digital, visualised and intelligent management of oil and gas pipelines, so as to significantly reduce the risk factors and improve the emergency response capability of pipelines, and ensure safe, stable and efficient operation.

### Intelligent service stations



Formulated and issued the Work Plan for Construction of Intelligent Service Stations and Guiding Opinions on Construction of Intelligent Service Stations for Marketing Enterprises, which has clarified the standards and plans for building intelligent service stations that meet the needs of consumers with customised solutions.



Pilot intelligent oil field at Sinopec Northwest Oil Field



Shengli Oilfield uses drones to inspect key locations

## Supplying Green Energy and Chemical Products

### Topic 3

Facing the increasing constraints on resources and environment, the energy and chemical industries are increasing investment in green chemistry and technology to accelerate the path to green development. Sinopec Corp. has made great efforts to enhance core competitiveness by developing clean, green and high-quality energy and chemical products, reducing emissions and contributing to establishing and optimising a green and low-carbon circular economic system.

### Green and High-quality Energy

In recent years, the Chinese government is setting increasingly higher fuel emission standards for vehicles and vessels. The Company took this opportunity to upgrade the quality of oil products and complete the upgrade of refined oil quality to meet the National VI emission standards ahead of schedule, and introduced a number of clean and high-quality products with better fuel economy and lower emissions to society.



#### "X Power" 98# gasoline

Optimised the existing 98# gasoline product, which could significantly reduce the amount of sulphur, manganese and lead in emissions and remove and inhibit more than 90% of carbon deposition in the engine, reducing hydrocarbon emissions by 3.1% and carbon monoxide emissions by 1.35%. As of the end of 2019, the product had been pilot launched in ten provinces.



#### B5 vehicle diesel (National VI emission standards)

Established a blending and marketing network for biodiesel, blending biodiesel made from kitchen grease in the catering industry with vehicle diesel. The B5 biodiesel was sold to the municipal transit system of Shanghai. As of the end of 2019, we had sold 352,000 tonnes of B5 vehicle diesel (National VI emission standards) cumulatively.



#### Low-sulphur maritime fuel oil (LSFO)

The Company attaches great importance to upgrading the quality of bunker fuel as the new International Maritime Organization (IMO) Low Sulphur Regulation will be effective from 1 January 2020. The Company so far has laid out productivity construction in 10 coastal enterprises. The LSFO capacity of the Company is predicated to reach 10 million tonnes by the end of 2020.

### Green and High-performance Chemical Products

The Company has paid close attention to industrial transformation and consumption upgrading, adjusted product structure based on market demand, and expanded the production of functional and high value-added chemical products. Meanwhile, it has been upgrading chemical business with more environmental-friendly, low-carbon and high-end products by strengthening the layout in high-performance carbon fibre and composite materials etc.

#### Synthetic resins

- Launched ten new products with various safety and environmental characteristics in 2019, with an annual output of 40,000 tonnes.
- Special materials for auto parts: Focused on the production of low-volatility, low-odour products to improve the comfort and safety for drivers and passengers, with an annual output of 50,000 tonnes.
- Household and pharmaceutical products: Introduced high-performance thermoforming polypropylene material suitable for fast food packaging and refrigerated packaging, allowing food to be kept longer; and launched low-odour polyethylene material suitable for beverage packaging, extending the shelf life of food products and reducing the loss of nutrients.
- Medical fibre products and daily necessities: Developed plasticiser-free specialty polypropylene fibre products that widely used in personal care and infant care products, as well as surgical gowns, etc. Developed antibacterial fibre products used in medical supplies. In 2019, the output of such products reached 100,000 tonnes.

#### Synthetic fibres

- Realised the industrial production of high-tech synthetic fibres widely used in textiles, ropes and engineering materials because of its super strength, high temperature resistance, light weight, non-conductive, and aging resistance

#### Synthetic rubber

- Completed the industrial trial production of the new polystyrene butadiene rubber, and the trial-produced tyres meet the EU label A/B standard, with better fuel economy, lower rolling friction and better riding comfort.
- Developed a new generation of thermoplastic elastomer SIS, which can meet the demand of the express delivery industry. With an annual sales of more than 3,700 tonnes, it could replace the imported products.
- Developed the ES specialty elastomer product that is light, comfortable and wear-resistant, which can be used to make high-end foam soles and non-pneumatic tyres to improve the safety of bicycles. And the material can be recycled and reused.

#### Lubricants

- Developed a variety of environmentally-friendly lubricants and tail gas treatment fluids in the fields of railways, ships, etc., and developed diesel engine oil products that meet the National VI emission standards.
- Independently developed food-grade lubricants that used to only available through imports.

## Focus on Targeted Poverty Alleviation

### Topic 4

China is engaged in an unprecedented battle against poverty, striving to achieve comprehensive poverty alleviation by 2020. The development of enterprises should feed the society, and the common prosperity of the society will create a harmonious and favourable environment for the growth of enterprises, and provide continuous momentum for their development. Since its participation in poverty alleviation in 1988, Sinopec Corp. has adhered to the targeted policy, innovated long-term support mechanisms, and carried out various programmes in light of local conditions to promote poverty alleviation through infrastructure construction, industrial development, product marketing, education support, providing better healthcare, and promoting employment, so as to lift people in poverty-stricken areas out of poverty to achieve sustainable development.

In 2019, the Company continued to support poverty alleviation in eight counties across the country; its subsidiaries implemented poverty alleviation efforts in 750 villages. The Company mobilised 1,994 full-time and part-time poverty alleviation volunteers, and invested RMB190 million to support poverty alleviation, over-fulfilling its annual poverty alleviation targets.

#### Poverty alleviation achievements in 2019



Fig growing poverty alleviation project in Yingshang County, Anhui Province

#### Poverty alleviation through industrial development

In 2019, the Company has implemented 274 poverty alleviation projects focusing on industrial development.

- Relying on the local mulberry planting and silkworm raising in Yuexi County, Anhui Province, the Company has developed the circular economy of mulberry branch fungus and biomass pellet fuel by using waste mulberry branches as raw materials, lifting more than 500 households out of poverty.
- Built irrigation facilities for the 1,500-mu (equivalent to 247 acres) red kiwi fruit base in Luxi County, Hunan Province.
- Cooperated with agricultural research institutes in Gansu Province to promote the cultivation of quinoa of more than 4,000 mu (equivalent to 659 acres) and create "Dongxiang Quinoa" poverty alleviation brand, increasing the per household income of 537 low-income households by RMB5,200 in the whole year.

#### Poverty alleviation through product marketing

The Company has encouraged its employees and partners to involve in poverty alleviation through consumption, purchasing agricultural products of RMB57 million from poverty-stricken areas and helping sell agricultural products of RMB283 million.

- Introduced products from poverty-stricken areas through channels such as EasyJoy convenience stores with dedicated shelves.
- Organised a trade fair for products from poverty-stricken areas that participated by 103 enterprises from poverty-stricken counties, which sold a total of RMB2.971 million worth of products.

#### Poverty alleviation through education support

The Company has contributed to local education to improve the capability of the poverty-stricken areas.

- Continued to implement the Sinopec Student Grant programme, supporting 1,955 students from low-income families.
- Organised more than 200 poor students to participate in Sinopec's Summer/Winter Camp, Aerospace Experience Camp, Winter Olympics Experience Camp and other activities.
- Improved school facilities, invested RMB20 million to build the Sinopec Middle School in the relocation areas of Dongxiang County, Gansu Province; built new dormitory buildings in Zeku County, Qinghai Province and Bange County, Tibet; invested more than RMB2 million in Luxi County, Hunan Province, to build school facilities for the Sinopec Middle School.
- Improved school facilities of special education schools to create better living and rehabilitation conditions for children with special needs.
- Participated in the public welfare curriculum project for primary and secondary schools, introducing online education resources to poverty-stricken areas to support capacity building of rural teachers and help the students to see a greater world.
- Donated 699 "Charity Parcels" for primary school students in Luxi County, Hunan Province, and materials worth more than RMB30,000 for the 20 orphans in Sinopec Middle School in cooperation with charitable organisations and other companies.

#### Poverty alleviation through providing better healthcare

The Company has contributed to local healthcare to improve the well-being of the poverty-stricken areas.

- Sinopec Lifeline Express Programme has provided free cataract surgery to 2,376 patients from low-income households.
- Promoted mobile health in Gansu, Xinjiang and other regions in cooperation with partners. In 2019, the Company conducted 534 mobile health consultations and trained more than 5,000 local medical workers.
- Dispatched medical teams from the headquarters to provide free medical services in poverty-stricken counties, donated drugs and medical devices and instruments, and conducted physical examinations for villagers.
- Purchased 143 mobile disinfection machines for village clinics in Yopurga County, Xinjiang, and donated urgently needed medical equipment to hospitals in Bange County, Tibet.

#### Poverty alleviation through promoting employment

The Company focused on creating employment opportunities and carried out various "job placement" projects for poverty alleviation.

- Created more than 200 jobs for Dongxiang County in Gansu Province, Yingshang County in Anhui Province and Zeku County in Qinghai Province.
- Developed a detailed training plan to help the newly hired employees from low-income households improve their skills and learn about career development, helping them obtain stable and long-term employment.

# Concerted Efforts to Fight Against the COVID-19 Outbreak

## Topic 5

At the beginning of the Spring Festival in 2020, an outbreak of the COVID-19 started in Wuhan, Hubei Province, and quickly spread countrywide. The lives and health of the people were threatened, while medical and epidemic prevention supplies were in short supply. Sinopec Corp. promptly set up a leading group to coordinate epidemic prevention and control. Besides taking appropriate epidemic prevention and control measures, the Company leveraged its resources to ensure the production and supply of epidemic prevention and control supplies, donated funds and supplies, to help people overcome the difficulties.

### Timely donation and assistance

Donated RMB 50 million to the Hubei Red Cross Society for epidemic prevention and control.

A total of RMB 47 million was donated by CPC members in Sinopec Corp. and its subsidiaries to support epidemic prevention and control.



Donated and delivered two batches of medical supplies to Wuhan: delivered 200 tonnes of disinfectant to Wuhan Hospital on January 24; delivered 8,000 bottles of alcohol disinfectant and 6,780 boxes of antibacterial wipes to Wuhan on February 22.



Recruited doctors and nurses internally as medical volunteers to support Wuhan, and allocated and delivered protective masks to Wuhan.

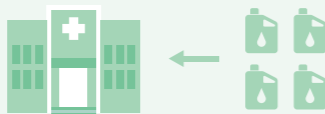


### Support for the construction of Huoshenshan Hospital and Leishenshan Hospital

Provided fuel and supplies for the construction team from the service stations nearby.



Donated 16,500 litres of diesel and 1,000 drums of construction machinery lubricants.



Provided free refuel for ambulances and free quick meals for the crew onboard.



### Ensuring supplies of emergency medical supplies

- As the largest supplier of medical and healthcare materials in China, Sinopec Corp. organised its subsidiaries to adjust their production schedule to focus on producing materials for medical supplies, such as synthetic resin and organic chemicals, and promised to keep their prices unchanged.
- Leveraging its capacity in production of materials, the Company set up 16 production lines to produce materials for mask, and worked together with its partners to set up mask production lines with a 2 million daily capacity.
- Sourced medical supplies such as mask, protective suit, disinfectant, detergent and thermometers globally through the EPEC e-commerce platform.

### Ensuring energy supplies

- Kept 176 service stations in Wuhan and over 1,800 service stations in Hubei Province remain open for business.
- Ensured the stable supply of natural gas in Hubei Province.

### Ensuring supply of daily necessities

- Promised no price increase at EasyJoy convenience stores during the epidemic.
- EasyJoy convenience stores in Wuhan provided living supplies such as staple goods, grocer, and other protective materials like sanitisers which was urgently needed by local residents.
- Launched the touch-free service at nearly 6,000 EasyJoy convenient stores in 126 cities to address people's need to shop for groceries during the epidemic.

To ensure the supply of energy and materials for society and maintain stable production and operation during the epidemic, some of our employees ended their holidays to return to work. In order to ensure the health and safety of employees, the Company launched the emergency plan, implemented strict prevention and control measures, and distributed protective equipment such as masks and disinfectants to employees, and ensured timely and regular disinfection of workplaces. To reduce unnecessary contact, the Company launched video conferencing and other communication tools; to protect employees' physical and mental health, the Company provided psychological intervention for employees.



Sinopec Corp. fully produces meltblown materials



# 01 Low-Carbon Development

Driven by climate change and technological transformation, the global energy structure is accelerating the pace of transformation to a low-carbon, clean and diversified economy. Sinopec Corp. actively implements the green and low-carbon development strategy, promotes energy transformation, and tackles climate change by developing clean energy, improving energy efficiency, and developing green emerging industries.



## Climate Change



Climate change is a serious challenge facing mankind in the 21st century. It is a major global issue that has a profound impact on economic and social development and ecological environment of all countries. The Company has proactively identified the risks and opportunities related to climate change, developed the low-carbon development strategy, strengthened the management of carbon assets, and promoted energy efficiency and greenhouse gas emissions reduction.

### Background and risk analysis

#### Policy and legal risks

More rigorous international, national and regional laws and regulations to limit greenhouse gas emissions may suppress the demand for fossil fuels and future profit growth. Meanwhile, China is promoting a national carbon emission trading markets, and most enterprises of the Company are expected to be included for emission control, which may impact production and operation. Some exports may also be subject to carbon tax.

#### Market and technology risks

In the transition to a low-carbon and energy-saving economy, technological innovations will increase the Company's R&D costs and investment expenditures. Meanwhile, social attention to climate change and sustainable consumption may encourage consumers to buy low-carbon products, thus reducing demand for traditional petrochemical products.

#### Reputation risks

Stakeholders pay more attention to the Company's ESG (environmental, social and corporate governance) performance. So, if the Company fails to make expected progress in addressing climate change or energy transformation, its image and value may be negatively affected.

#### Operations and disaster risks

Extreme weather conditions such as hurricanes and floods caused by climate change may bring in direct damage in production and operation activities. Security risks and supply chain disruptions caused by climate change may also bring indirect negative impacts.

For Sinopec Corp., climate change means more than risks and challenges. The Company will seize the opportunities related to climate change and expand its business and product lines in the fields of clean energy (such as natural gas and hydrogen), renewable energy (such as biofuels, solar power and wind power), new materials (such as eco-friendly staple fibres and nanofiltration/reverse osmosis membranes), and new energy vehicle facilities (such as charging stations and hydrogen stations).

### Low-carbon management system

#### Emission reduction targets (displayed in charts)

The Company has set carbon emission reduction targets in the Green Enterprise Campaign by 2023, which include:

Reduce CO<sub>2</sub> emission by  
**12.6** million tonnes

Capture CO<sub>2</sub> per year  
**500** thousand tonnes

Store CO<sub>2</sub> per year  
**300** thousand tonnes

Capture and use methane per year  
**200** million cubic metres

#### Policy documents

*Management Measures on Carbon Emissions of Sinopec Corp.*

*Management Measures on Carbon Emission Trading of Sinopec Corp. (Trial)*

*Management Measures on the Disclosure of Carbon Emission Information of Sinopec Corp. (Trial)*

*Detailed Rules for the Implementation of Energy and Environmental Performance Assessment of Sinopec Corp.*

#### Actions and measures

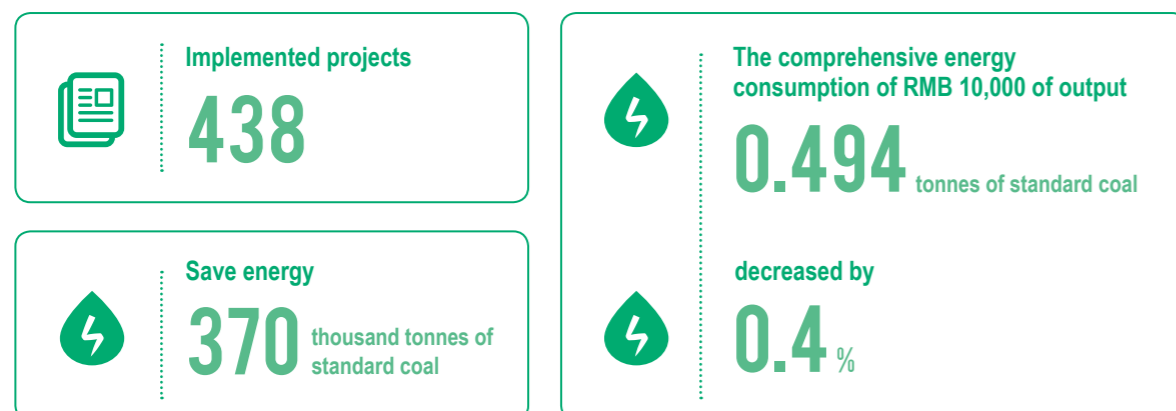
- Requiring our subsidiaries to sign the Pledge of Energy Efficiency & Environmental Protection to set emission reduction targets, and the performance of the subsidiaries and their management personnel will be assessed annually.
- Conducting system-wide carbon inventory audit: Greenhouse gas audit is conducted in accordance with the ISO14064 standard, covering more than 100 oil field joint stations, more than 2,000 refining units and more than 30,000 sales station warehouses of subsidiaries. All the data are subject to internal verification.
- Conducting carbon footprint research: Prepared the "Carbon Footprint Accounting and Evaluation Method for Petrochemical Products" for aviation coal, asphalt, lubricating oil and other products, and incorporated carbon footprint evaluation and improvement into the Green Enterprise standards.
- Optimising the carbon asset management information system, improving the efficiency of enterprise data filing, and developing information solutions for carbon emission management.



Chongqing Nanchuan Shale Gas Exploration and Development Zone in Spring time

## Our action— Improving energy efficiency

The Company further implemented the "Energy Efficiency Improvement Plan" to reduce resources consumption and control greenhouse gas emissions. In 2019, 438 projects were implemented to save energy by 370 thousand tonnes of standard coal per year. The comprehensive energy consumption of RMB 10,000 of output was 0.494 tonnes of standard coal, decreased by 0.4% year-on-year.



**Implemented six major energy-saving projects**

Conducted six key energy-saving projects, including energy efficiency improvement through integration of injection, production and transportation, energy system optimisation, comprehensive utilisation of low-temperature heat, energy efficiency improvement in coal-fired power plants, energy conservation monitoring and diagnosis, and energy conservation and consumption reduction in water circulation systems.

**Adjusted the structure of self-use energy**

Implemented electrical transformation. Sinopec Northwest Oilfield and other enterprises promoted the work of replacing oil with electricity. Sinopec Yangzi Petrochemical introduced steam and hydrogen from surrounding enterprises and industrial parks for energy supply.

Actively promoting clean energy such as solar energy and geothermal energy. Among them, Sinopec Zhenhai's fishery-solar hybrid photovoltaics project has an annual power output of 210 million KWHs, saving 59,800 tonnes/year of standard coal. Solar photovoltaics is realised in 140 service stations, generating 2.12 million KWHs/year.

**Established the energy management system for refinery enterprises**

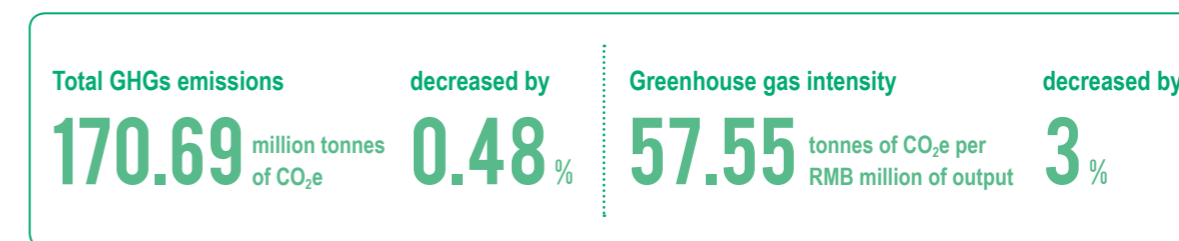
Completed the construction of the energy management system (Phase II) project and putting the energy management information system into operation in nine refinery enterprises.

Applied energy management systems with the thermoelectric production of 18 refinery enterprises optimised online through dynamic optimisation models.

Indicator	2017	2018	2019
Comprehensive energy consumption of RMB10,000 of output (tonnes of standard coal)	0.496	0.496	0.494

## Our action— Greenhouse gas reduction management

In 2019, the Company continued to conduct greenhouse gas auditing, strengthen special investigation, monitoring and emission source sorting on methane; promoted methane recovery and utilisation, reduced flare burning, and conducted carbon capture and storage; participated in the construction of carbon emissions trading market, and offset some of carbon footprint by purchasing carbon quotas.



### Methane recovery and emission

**Target** Recover 200 million cubic metres of methane per year during 2018-2023.

- Conducted a special study on methane venting and escape, sorting out the main methane emission sources in oil and gas production, and developed monitoring techniques, methods and work plans.
- Launched a special initiative to recycle methane and the annual recovery of methane reached about 397 million cubic metres, among which 200 million cubic metres were from oil fields, equivalent to a reduction of greenhouse gas emissions by approximately 3 million tonnes of carbon dioxide equivalent.
- Completed the research project on "Voluntary Emission Reduction Methodology Development and Project Forecast and Implementation Techniques", developed four methane recovery methods, and created prediction methods and implementing specifications for waste-heat utilisation and methane recovery voluntary emission reduction projects.
- Worked with other domestic oil and gas companies on methane emission control research, including data accounting, target setting, emission reduction technology and measure formulation.

### Emission reduction and recovery of flare gas

Flare system is an important safety guarantee to the production process, but it also causes energy waste and environmental pollution. The Company actively adopted modern production technology to reduce and recycle flare gas.

- In the oil and gas exploration segment, technologies and measures, such as the flare gas throttle mouth, prior gas test for production, remote scattered wells and casing gas recovery, were fully promoted with a total of 124 million cubic metres of flare gas recovered throughout the year.
- In the refining segment, continuously strengthening flare system management: balanced the fuel gas pipeline network to prevent fuel gas from venting to the flare system; ensured smooth operation of oil refining units and reduce flare emissions under abnormalities from the source; checked the operation of the flare system in production units, reduced the flare gas emission and recycled the gasometer.
- In the chemicals segment, the goal of eliminating conventional flares was basically achieved. Flare gas in existing facilities was basically recycled. Newly-built units were constructed according to the scheme of maximum recovery of flare gas. Flare is only used as an incineration unit that cannot recover exhaust gas and as a safety guarantee system in case of emergency.

### Carbon capture and storage

**Target** Capture 500,000 tonnes of CO<sub>2</sub> and store 300,000 tonnes of CO<sub>2</sub> each year during 2018-2023.

- In 2019, CO<sub>2</sub> capture and recycling continued in oil fields and refinery enterprises. Among them, refinery enterprises captured 1.26

million tonnes of CO<sub>2</sub> and accumulated 3.71 million tonnes of CO<sub>2</sub>. Oil field enterprises injected 230,000 tonnes of CO<sub>2</sub> for oil displacement, with a cumulative total of 3.67 million tonnes injected underground for oil displacement.

### Carbon trading

The Company participated in the domestic carbon emission trading market pilot project. By the end of 2019, a total of 14 subsidiaries had been included in the pilot project and fulfilled the carbon quota compliance tasks according to the requirements.

- Encouraged carbon trading pilot project-involved enterprises to formulate reasonable compliance schemes and trading plans. In 2019, the Company's carbon trading volume reached 2.02 million tonnes and the turnover reached RMB49.57 million, accounting for 3% of the national market.
- In the self-owned power plant enterprises, national carbon emission right registration, account application for the trading system and quota trial calculation were conducted to prepare for carbon trading.
- Cooperated with Beijing Environmental Exchange and Shanghai Environmental Energy Exchange to promote the development of China's carbon market.

### Greening carbon sinks

The Company urged its subsidiaries to improve their greening system, and to take environmental protection actions such as afforestation so as to neutralise greenhouse gas emitted in the form of carbon sinks.

- The greening rate of administrative offices, research institutes and other courtyards should be no less than 20%, that of petrochemical plants be no less than 12% and of other industrial plants (stations) be no less than 20%.
- Continued afforestation and the voluntary tree planting campaign, growing an equivalent of 1.46 million trees throughout the year<sup>1</sup>.

Note: 1. The data is calculated based on data in the National Afforestation Committee's document, Management Measures on the Form of Voluntary Tree Planting for All Citizens (Trial).

<b>The annual recovery of methane reached</b> <b>397</b> million cubic metres	<b>The oil and gas exploration segment promoted flare gas recovery</b> <b>124</b> million cubic metres	<b>The greening rate of administrative offices, research institutes and other courtyards</b> <b>≥20%</b>
<b>Oil field enterprises cumulative injected CO<sub>2</sub> for oil displacement</b> <b>3.67</b> million cubic metres	<b>Refinery enterprises accumulately captured CO<sub>2</sub></b> <b>3.71</b> million cubic metres	<b>The greening rate of petrochemical plants</b> <b>≥12%</b>
<b>Carbon trading volume reached</b> <b>2.02</b> million tonnes	<b>Proportion of carbon trading turnover in the national market</b> <b>3%</b>	<b>The greening rate of other industrial plants (stations)</b> <b>≥20%</b>

Indicator	2017	2018	2019
Total greenhouse gas emissions (million tonnes of CO <sub>2</sub> e)	162.66	171.52	170.69
Direct emissions (million tonnes of CO <sub>2</sub> e)	123.05	128.57	125.68
Indirect emissions (million tonnes of CO <sub>2</sub> e)	39.61	42.95	45.01
Greenhouse gas emission intensity (tonnes of CO <sub>2</sub> e / RMB million) <sup>2</sup>	68.92	59.32	57.55

Note: 2. Greenhouse gas emission intensity = Greenhouse gas emission / revenue (in RMB million)

## Energy Transition



Under the pressure of climate change and the increasing energy demand, the global energy landscape as well as supply-demand relationship are undergoing far-reaching changes. China is driving ahead reforms in energy production and energy consumption to build an energy system featuring cleanliness, low carbon emission, safety and high efficiency. To seize opportunities soared in the crucial period of energy transformation, by sticking to the development approach of ensuring steady oil supply, Sinopec Corp. seeks to stabilise crude oil development, explore more natural gas resources, reduce costs, and develop renewable energy resources, to optimise its energy portfolio.

### Social Demand and Strategy Analysis

Global Energy Trends	Energy Development in China	Energy Transformation Strategy of Sinopec Corp.
<p>According to the <i>World Energy Outlook 2019</i> released by the International Energy Agency (IEA), under established policy scenarios:</p> <p>..... After 2025 .....</p> <p>global oil demand growth will slow down significantly before levelling off after 2030;</p> <p>..... Before 2040 .....</p> <p>Global energy demand will grow at an annual rate of 1% by 2040, down from 2.3% in 2018;</p> <p>..... By 2040 .....</p> <p>wind and solar photovoltaics will take up more than half of the world's new electricity capacity.</p>	<p>According to the <i>2020 China Energy and Chemical Industry Development Report</i> of Economics &amp; Development Research Institute of Sinopec Corp., China's total primary energy consumption in 2019 is estimated about 4.78 billion tonnes, up by 3.1 percent year-on-year. Among them:</p> <ul style="list-style-type: none"> <li>Natural gas and non-fossil energy become the main drivers of the increase in consumption, accounting for a rising share of 22.9%, up by 0.8% year-on-year;</li> <li>Natural gas consumption is about 302.5 BCM, up by 9.0% year-on-year;</li> <li>Non-fossil energy consumption is about 700 million tonnes of standard coal, up 5.0% year-on-year;</li> <li>The growth rate of coal consumption has stabilised, with the share of consumption falling further to 57.9%; oil consumption is about 650 million tonnes, up by 5.1% year-on-year;</li> <li>Energy consumption intensity would further reduce, with energy consumption per unit of GDP reaching 0.62 tons of standard coal per 10,000 yuan, down by 2.8% year-on-year.</li> </ul>	<p>Sinopec Corp. has included natural gas development and low-carbon transformation in the Company's strategic planning and action plan, and focuses on continuously raising the percentage of natural gas and new energy.</p> <p>..... Natural gas transformation .....</p> <p>By grasping strategic opportunities, improving infrastructure, effectively expanding the operation scale and prolonging the value chain of natural gas, the natural gas business will be cultivated into a strategic, sustainable and valuable part for the Company's transformative growth.</p> <p>..... Low-carbon transformation .....</p> <p>Develop new energy by the asset-light approach and cultivate new energy supply systems, such as solar energy and wind energy that are highly compatible with traditional oil and gas exploration and development business, so as to effectively increase the proportion of non-fossil energy business. Carry out carbon asset management and implement the CO<sub>2</sub> capture and storage project in stages to comprehensively strengthen the Company's capacity of green and low-carbon development.</p>

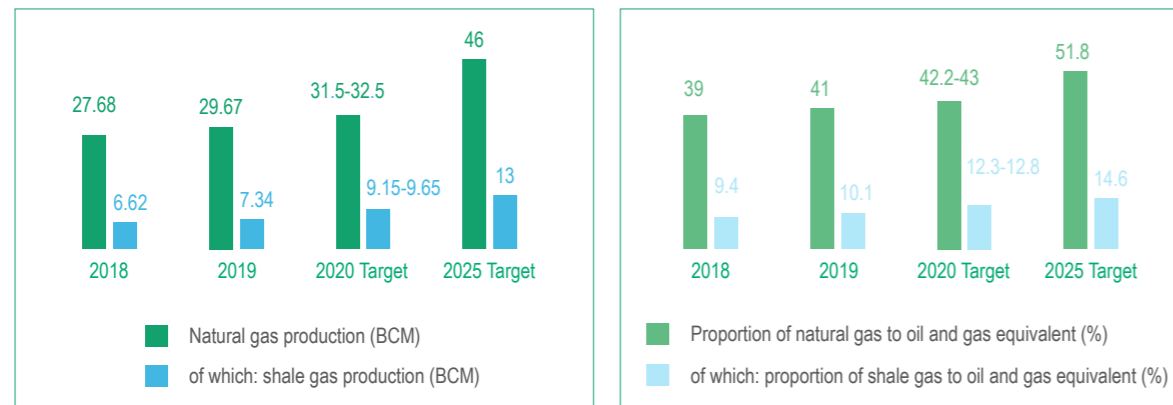


Solar energy and wind energy are used in Zhongyuan Oilfield

## Natural Gas

For the overall benefits of gas-related industries, Sinopec Corp. has been ramping up efforts in conventional gas and shale gas exploration, optimizing the mechanism on imported LNG procurement, and building a production, supply, storage and marketing system with optimal resource allocation, strong gas supply and great anti-risk ability, so as to ensure the quality and sustainability of its gas business. The Company is striving to forge the gas business into a pillar in the upstream segment by 2035.

### Development Targets of Natural Gas



### Natural Gas Development Outcomes in 2019

Exploration	Sale	Supply
29.7 BCM of gas produced	46 BCM of gas sold.	Operating about 10,000 kilometres of gas pipelines, 3 receiving stations and 3 underground gas storage facilities.

Sinopec Corp. pays equal attention to conventional gas and unconventional gas. Whilst enhancing the recovery ratio of conventional gas, the Company has regarded shale gas as an important part in gas development, and made efforts to properly explore and utilise the resources.

Conventional gas	Implemented intensive gas field management, conducted elaborate prospecting of gas reserves, extended the stable production cycle of gas fields, and enhanced gas recovery ratio.
Unconventional gas	Stepped up shale gas exploration; conducted important research on unconventional resources including shale gas and coal-bed methane focusing on efficiency and scale. In 2019, the Company produced 7.343 BCM of shale gas and sold 7.06 BCM of it.

## New Energy

Embracing the "green revolution" and "electric revolution", Sinopec Corp. seeks breakthrough of energy transformation and business transformation with new energy. In 2019, the Company focused on the development of renewable energy such as solar energy and hydrogen, and facilitated the establishment of supporting facilities such as charging and changing stations, in response to the policy of developing new energy vehicles.

### Solar energy

Built distributed photovoltaic power stations in marketing subsidiaries, and constructed photovoltaic power generation projects in the Sinopec Zhenhai Refinery

In 2019, solar contributed 6.92 million KWHs of power.

### Hydrogen

Built infrastructure for hydrogen production, purification, storage and transportation, and demonstration stations for hydrogen processing. In 2019, four oil-hydrogen refuel construction stations were built in Guangdong, Zhejiang and Shanghai, realizing the comprehensive supply of fuel, hydrogen and electric energy, and mainly serving public transit vehicles and logistic vehicles that use hydrogen fuel.

Produced over 3 million tonnes of hydrogen.

### Bioenergy

Promoted the use of B5 biodiesel processed from kitchen waste grease, with an annual sale of 352,000 tonnes; supplying self-developed bio-jet fuel for commercial passenger jets, becoming the first Chinese enterprise with such technology.

### Supporting facilities for new energy vehicles

Built charging and changing stations in support of the national strategy for developing new energy vehicles; carried out R&D and production of materials related to new energy vehicles.

Built 12 battery charging and changing stations, providing over 6.2 million KWHs of power for new energy vehicles.



A customer recharging his new energy vehicle at a Sinopec Corp. service station in Shenzhen

### Expanding international cooperation to jointly develop hydrogen energy

In November 2019, Sinopec Corp. signed a memorandum of cooperation with French-based Air Liquide. Under the memorandum, Sinopec Corp. will set up a company committed to the R&D on hydrogen energy technology and infrastructure networking construction. Concerted efforts will be made to promote and apply hydrogen energy and fuel cell vehicle overall solutions in China, and build an industrial chain and community of hydrogen energy.

In the future, Sinopec Corp. will advance the development of solar PV and hydrogen energy industries. Pilot projects concerning hydrogen refuelling stations will be carried out in Guangdong, Jiangsu, Hubei, Sichuan and Chongqing, and wind power utilisation will be trailed. A diverse system that supplies solar energy, wind energy and hydrogen energy is under construction.



Pilot photovoltaic power generation project on a reservoir in Zhenhai Refinery

### Fostering a New Impetus to Growth

With Sinopec Capital, the joint venture in which Sinopec Corp. holds a stake of 49%, Sinopec Corp. will operate in a range of emerging green industries through strategic and financial investments.

#### New energy fields

Taking tentative measures to engage in all hydrogen-related industries, covering hydrogen production, storage and transportation in the upstream segment, the fuel-cell system area in the midstream segment as well as different application areas in the downstream segment. In 2019, Sinopec Capital made an investment in a hydrogen fuel cell system supplier in Shanghai.

#### New material fields

Entering the area of lubricant additives that exert a synergistic effect on the Company's business and concluded a strategic investment in 2019. While supporting the domestic additive industry, Sinopec Corp. is upgrading its product lines and further strengthening its technology and research capacity in lubricant additive area.

Sinopec Capital integrates ESG issues into investment decision-making and portfolio management. In implementing investments and international cooperation projects, Sinopec Capital has oriented itself to both the "Economic and Social Green Sustainable Development" and the "Sustainable Growth of the Company". Positive and negative screenings of investee enterprises, especially ESG factors such as corporate governance, social impact and environmental impact, are carried out to ensure good economic, environmental and social impact.



Hydrogen refuel station in Jiaxing, Zhejiang

# 02 Environmental Protection

With the increasing global attention to environmental protection, it has become a consensus among energy and chemical industries to accelerate industrial transformation and upgrading and become a clean and green enterprise. Sinopec Corp. adheres to the idea of green development, attaches great importance to environmental protection, and strictly abides by the environmental law, regulations and protocols on the prevention and control of air, water and soil pollution. The Company continuously strengthens the application of environmental management system and technological applications, reduces pollution and the impact on the environment across the industrial chain, so as to achieve harmonious coexistence and coordinated development of society and the environment.



## Environmental Management

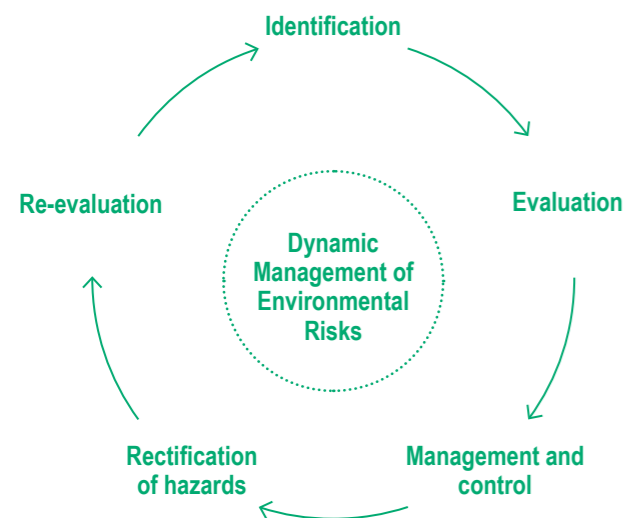


While implementing environmental laws and regulations, Sinopec Corp. also pushes forward the process to become a green enterprise. The Company continues to optimise its environmental management system and capability, screens and rectify environmental risks and hazards, and strengthens the supervision, governance and incentive for its subsidiaries to contribute to the green and sustainable development.

### Background and Risk Analysis

Production activities and operations of the Company generates waste water, exhaust gas and solid waste. The Company has established and continuously improves a dynamic management mechanism and relevant processes to deal with environmental hazards. Production subsidiaries of the Company use own facilities as well as municipal resources to effectively treat waste water, exhaust gas and waste residues to prevent and reduce pollution. It is expected that the government will formulate and implement stricter environmental laws and regulations and adopt stricter environmental standards.

Under these circumstances, the Company's environmental expenditure may increase in the short term. But in the long run, upgrading and transformation of facilities will help us reduce resources consumption, save environmental management cost, and improve the comprehensive environmental performance, all of which are conducive to the long-term growth of the Company.



### Environmental Management System

By fully implementing a green and low-carbon development strategy, the Company has formulated the Environmental Protection Management Regulations of Sinopec Corp., and established and continuously improved the section of environmental protection in the HSSE management system in compliance with ISO14001 (GB/T24001). Environmental protection work of the Company is regulated to reach the goal of "zero pollution".

#### ○ System and Guidelines

Based on the characteristics of the petrochemical industry and the current laws and regulations, the Company has formulated the HSSE Management System containing a section on environmental management, which includes environment-related management indicators and division of responsibilities, and its subsidiaries compiled and issued their own HSSE management manuals to improve their management capability.

#### ○ Implementation

Every year, indicators such as comprehensive energy consumption per RMB10,000 of output, industrial fresh water withdrawals, pollutants and total greenhouse gas emissions are passed on to functional departments and the subsidiaries with attached accountability statement. In 2019, the compliance rate of the total waste water and exhaust gas emissions by the subsidiaries were required to be at least 99.8% and 99.5% respectively, and 100% of hazardous waste is to be properly disposed.

#### ○ Evaluation

All the above-mentioned indicators are included in the green enterprise assessment system and the energy and environmental performance system. In addition, energy conservation and environmental protection indicators have been incorporated into the senior management assessment system of the subsidiaries and linked with the annual performance of employees.

### Our Action – Managing the Environmental Impact of Projects

With a whole life cycle perspective, Sinopec Corp. implements closed-loop environmental management to effectively evaluate the relevant environmental risks and potential impacts of new and existing projects, and taking measures to mitigate the impact on eco-environment and the surrounding communities.

#### ○ Environmental impact assessment

For new projects, the Company conducts environmental impact assessment according to relevant national requirements, solicits public opinions in various ways, such as announcement, newspaper and the Internet, and publishes feedback information on the website of national environmental protection authorities. In 2019, all newly-built projects of the Company were subject to environmental impact assessment according to regulatory requirements and got approved accordingly.

#### ○ Green construction

During project construction, the project owner is required to formulate an HSE (health, safety and environmental protection) management approach, and provide contractors with environmental protection training. Suppliers are encouraged to give priority to environmentally-friendly construction processes. Professional institutions and experts are hired to conduct environmental inspection upon the completion of construction, including on-site inspections of the construction site and the pollution prevention and control facilities.

#### ○ Environmental risk monitoring

For projects already in operation, the Company formulates environmental risk assessment guidelines, and its subsidiaries regularly evaluate environmental risks and prepare their environmental risk list. Meanwhile, the Company continues to strengthen its capability to tackle environmental hazards and emergencies, and take regular actions to identify and mitigate environmental hazards.

### Our Action – Prevention and Control of key Pollutants

Adhering to the government's requirements for pollution prevention and control, Sinopec Corp. formulated the Three-Year Plan for the Prevention and Control of Pollution under the Green Enterprise Action Plan, specifying 23 key tasks regarding overall targets on controlling key pollutants in the atmosphere, water and soil. In 2019, the Company effectively managed environmental risks and disposed of different pollutants in a steady way with the standards met.

#### ○ Atmosphere

Completed Phase VII of the national oil quality upgrading task, managed the total coal consumption and energy intensity, shut down and eliminated small coal-fired boilers, and continued to ensure compliance with atmospheric pollutant emission standards.

#### ○ Water

Reduced the total discharge of waste water, strove to meet the discharge standards for production sewage consistently, and carried out groundwater risk assessment and treatment.

#### ○ Soil

Carried out eco-environment surveys, built regional hazardous waste disposal centres, and promoted the rational disposal and utilisation of wastes.

Major pollutant discharging subsidiaries of the Company have obtained pollution permits in accordance with regulatory requirement, and submitted quarterly implementation reports to the national pollution permit management information platform, which are examined and supervised by the local environmental authority and made public. Meanwhile, as required by law, all discharge points are equipped with online monitoring device that transmit environmental monitoring data in real time to national and local monitoring platforms, and are subject to regular or spot inspections of the environmental authorities.



Sinopec Corp. built China's first large-scale natural gas purification plant in Yuanba Gas Field



## Emission Management



Sinopec Corp. has conducted comprehensive examination on its emission of atmospheric pollutants and rectified relevant problems. Meanwhile, the Company continued to strengthen the research and development of emission treatment technology and applications to improve its capability to control pollution and meet the atmospheric emission standards.

### Improving pollution prevention and control

Specified the emission and pollution control targets for the subsidiaries with the *Pledge of Energy Efficiency & Environmental Protection*, which are included in the annual performance assessment.

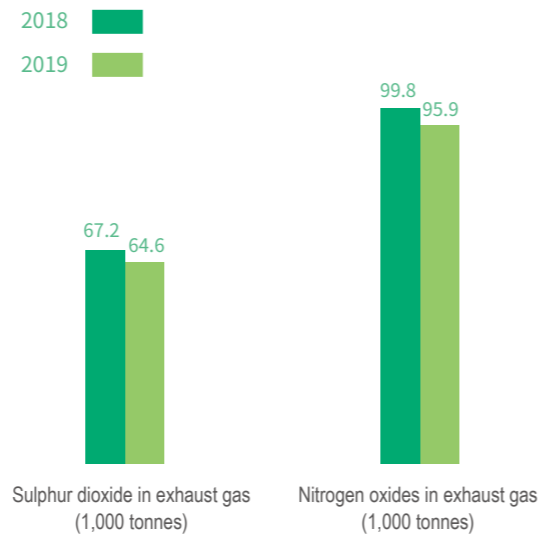
Organised environment performance audit, on-site Green Enterprise audit, enterprise environmental examinations of in key areas, etc., and provided guidance to key enterprises on meeting emission standards.

### Carrying out environmental protection campaigns

Organised the enterprises in key areas to prevent and control atmospheric pollution and guarantee good air quality in the heating season of autumn and winter.

### Implementing environmental protection management

Upgraded environmental protection facilities, conducted the ultra-low emissions upgrading of coal-fired boilers and the low-nitrogen combustion upgrading of industrial furnace, and implemented VOCs treatment projects related to oil storage areas, the loading and unloading processes, and sewage treatment plants.



#### Sinopec Yangzi Petrochemical innovates on VOC treatment technology

Aiming at treating the pollution of volatile organic pollutants (VOCs), Sinopec Yangzi Petrochemical developed the adsorption-catalytic oxidation (xCo) and the catalytic oxidation (CO) treatment technologies using precious metal catalyst. These technologies have been successfully applied to 14 industrial projects and achieved good results. In 2019, Sinopec Yangzi Petrochemical developed the innovative VOCs treatment technology for laboratories. This world-leading technology has realised customised selection of adsorbents and catalysts according to the components and concentration of VOCs, providing a new solution to treatment VOCs from chemical devices.

## Solid Waste Management



Sinopec Corp. adheres to the concept of circular economy and follows the principle of "Reduce, Reuse, and Harmless" to treat its solid waste. The Company has established a sound solid waste management system, and continues to pursue the comprehensive utilisation of solid waste. In 2019, the Company reduced the amount of solid waste by 5.1% year-on-year and increased the comprehensive utilisation rate of solid waste by 5.7% year-on-year. Hazardous waste was 100% disposed properly.

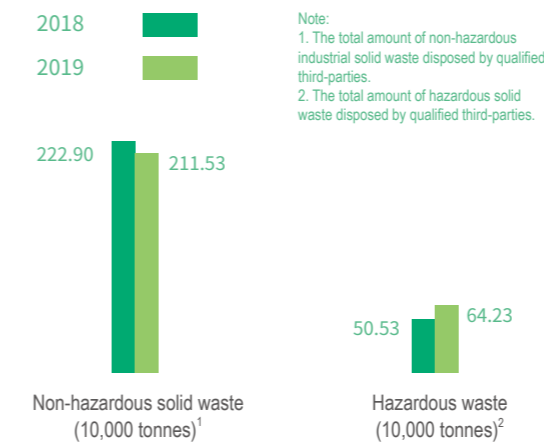
Improved systems and standards: Issued *List of Hazardous Waste of Sinopec Corp. (Trial)*, *Technical Requirements for the Management of Solid Waste in Water Supply Systems*, *Management Measures for Green Purchase of Sinopec Corp.*, and *Operation Specifications for Resin Spill Prevention of Sinopec Corp.*

Built regional hazardous waste disposal centres and waste catalyst disposal bases.

Studied the characteristics of nonconforming products in the production of synthetic resin, and participated in the revision of the *National List of Hazardous Waste*.

Promoted waste reduction from the source. In refining and chemical enterprises, green packaging for catalysts, solvents and additives were used, reducing packaging waste by approximately 36%, nearly 500,000 drums; reduced the packing need for waste lubricants, and promoted the use of environmentally friendly packaging.

Promoted the use of bags and other eco-friendly packaging of lubricants, and innovated on service models to help customers dispose of waste oil to reduce environmental risks.

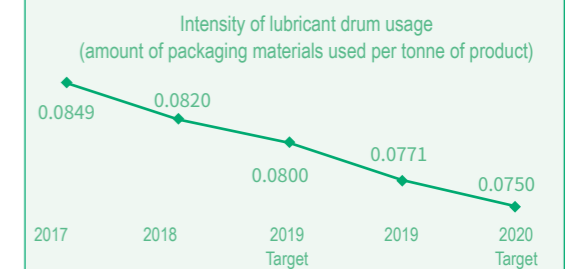


#### Joint Development of microbial disposal technology for hazardous waste

In 2019, Sinopec Shanxi Petroleum reached a strategic cooperation agreement with a university to jointly develop the microbial disposal technology for hazardous waste. Hazardous waste produced in the oil tank cleaning process treated with the microorganism technology were able to meet recycle and reuse standards. The two sides also jointly explored and researched on the microbial treatment technology of oily sludge and domestic sewage in the petroleum and petrochemical industry to provide environmental protection and production related technological services.

#### Sinopec Lubricant promotes green packaging and waste oil recycling

Sinopec Lubricant attaches great importance to reducing hazardous waste and recycling waste oil. It set up a benchmarking mechanism for hazardous waste and sales volume, and analysed the benchmarking results quarterly; increased the use to bags, which were more environmentally friendly and resulted in less oily waste for the customers to dispose of. In 2019, Sinopec Lubricant helped the refining and chemical subsidiaries of the Company reduce the use of 19,000 steel drums and realise an 85.6% replacement rate of eco-friendly packaging. Sinopec Lubricant also actively communicated with the MEE Solid Waste and Toxic Chemicals Division and signed a cooperation framework agreement on waste oil recycling and cooperated with the local environmental protection authorities to promote the cleaning of used drums and recycle of waste oil.



## Water Resource Management



### Water Consumption

Sinopec Corp. implements strict water use plan and target management, and adopts technically and economically feasible, safe and eco-friendly water-saving measures and alternative solutions to reduce water consumption in production. Meanwhile, the Company constantly improves the reuse rate of industrial water and reduces the comprehensive loss rate in water use to realise efficient and scientific utilisation of water resources.

#### Water-saving Target

Fresh water for industrial use decreases by no less than 1% each year.

#### Water-saving Achievement

<b>Fresh water for industrial used</b>	<b>lowered by</b>	<b>decreased by</b>
<b>650.36</b> million cubic meters	<b>7.1</b> million cubic meters	<b>1.1%</b>

#### Water-saving Measures

- Used alternatives to fresh water: Used rainwater, river water and municipal reclaimed water at six subsidiaries, and encouraged the comprehensive utilisation of seawater, brackish water and other unconventional water resources to reduce fresh water consumption.
- Strengthened reuse of waste water (or sewage water): Oil fields subsidiaries implemented the "sewage for clean water" project and used treated sewage water that meets discharge standards to replace clean water in water injection.
- Promoted water-saving technologies: Applied advanced technologies, processes, equipment and information technology to increase the efficiency of industrial water system, and implemented steam condensate recycling and utilisation projects at three subsidiaries.
- Prevented leakage: Carried out water balance examination and inspected water supply pipelines for leakage, upgrade old pipelines, and control water leakage.

The volume of fresh water for industrial use in different segments (Unit: million cubic metres)

	Oil fields	Oil refinery	Chemicals	Specialised companies	Total volume of fresh water for industrial use
2018	115.2	192.4	304.15	45.71	657.46
2019	112.5	181.3	317.30	39.26	650.36

### Sewage Discharge Management

In 2019, Sinopec Corp. carried out risk assessment for various water bodies in accordance with national and local discharge standards, conducted comprehensive investigation on the discharge of pollutants to control potential risks and make timely rectification, upgraded sewage treatment plants with denitrification and phosphorus removal facilities to improve the effectiveness of pre-treatment, and upgraded the online monitoring devices for sewage discharge to allow the real-time monitoring of nitrogen, phosphorus and other pollutants to ensure compliance with discharge standards.

As for ground water protection, the Company has established the Implementation Plan for Preliminary Investigation of Soil and Groundwater in the Lands Used by Sinopec Enterprises and organised the subsidiaries to conduct a survey to the groundwater in the place of operation. It is planned to have a preliminary understanding of the status of soil and groundwater in the lands used by the subsidiaries by the end of 2020, providing a reference for subsequent groundwater protection and remediation measures.

In 2019, the total amount of the Company's COD and ammonia nitrogen in discharged waste water were 19,000 tonnes and 1,960 tonnes respectively.



Sewage Treatment Plant of Sinopec Jiujiang

## Land Resource Management

Sinopec Corp. strengthens the management of land resources in accordance with the principle of intensive, efficient and green land use, requires the minimisation of the use of arable lands, restores damaged lands in a timely manner, and promotes the sustainable use of land resources.

In 2019, the Company focused on the following measures in exploration and production:

Land, except those permanently acquired for construction, would be restored and returned to farmers for reclamation strictly in accordance with relevant government regulations.

Prioritised the use of "cluster well" design. In Fuling shale gas fields, all wells used the "cluster well" design, reducing the average land acquisition area per well by 30%.

Innovated the "parent-child drilling site" layout, which utilises existing platforms efficiently to maximise well layout, reduce land use, and reduce construction cost. In 2019, more than ten existing platforms were used to expand production capacity, reusing more than 53 thousand square metres of land.

The Company actively carried out withdrawal and reclamation of idle land from industrial uses. The safety and environmental risks of idle industrial and mining land were evaluated. For those land without safety and environmental risks was screened out and categorized, of which, the land located near farmland and eligible for reclamation was returned to the local government after reclamation.



Villagers harvesting cotton in reclaimed farmland in Sinopec Northwest Oilfield

## Oil Spill Management

The Company carried out oil spillage risk analysis and evaluation, strengthened emergency drills and training, improved oil spillage emergency plans, and built a professional response team. In 2019, there was no major oil spills occurred concerning Sinopec Corp.

### Improving the reaction system

Established the Emergency Plan for Maritime Disasters and the Emergency Plan Oil Spills at Sea according to the cases of maritime accidents at home and abroad and the Guidelines for the Preparation of National Emergency Plans; our subsidiaries formulated on-site emergency plans based on regional characteristics, improving emergency rescue system.

### Enhancing the delivery of supplies

Formulated the medium- and long-term development plans for emergency equipment for ship escorting, oil spill recovery and emergency rescue. In 2019, the Company invested more than RMB20 million to upgrade emergency equipment, standardise the management of emergency equipment, and improve emergency support capabilities.

### Strengthening emergency response in real scenarios

Built an emergency response team capable of completing multiple tasks through emergency drills and regular training. In 2019, the Company undertook or participated in more than ten maritime comprehensive emergency drills, involving more than 2,000 employees.

## Biodiversity Conservation

In accordance with the relevant regulations of the *Environmental Protection Law* and the *Convention on Biodiversity*, Sinopec Corp. has dedicated a section of the *Measures for the Environmental Protection Management of Sinopec Corp.* to biodiversity conservation. In 2019, the Company formulated the *Measures for the Management of Ecological Protection of Sinopec Corp.*, requiring stricter management of projects involving ecologically-sensitive regions. In 2019, there was no major harmful incidents to biodiversity occurred concerning Sinopec Corp.

The Company has included specific requirements on biodiversity in the feasibility study and environmental impact assessment of major investment projects. For instance, in the feasibility study of the Sinopec Corp. Guangxi Section of the Xinjiang Coal-to-Gas Pipeline Project in 2019, it is clearly proposed that ecological protection and restoration measures should be taken during the construction of the project, and specified the respective ecological protection measures for large and medium-sized rivers, source water areas, national wetland parks, etc. involved in the project.

The Company regularly screens for hidden hazards and makes sure to mitigate or eliminate the impact. In 2019, the Company screened the ecological hidden hazards in 16 provinces along its natural gas

pipelines, and took timely measures to eliminate or mitigate the potential negative impact regarding the 112 risk points identified.

The Company chooses to use technologies with less environmental impact in project construction in protected areas, such as the directional drilling and mud containment technologies used at the Ordos-Anping-Cangzhou Gas Pipeline Project, where the pipeline crosses the Majia River, and the China-Kuwait Refining and Chemical Integration Supporting Natural Gas Pipeline Project, where the pipeline goes through the mangrove reserve in Zhanjiang. Saudi Arabia Yanbu Refinery, a joint venture of Sinopec Corp., also paid close attention during construction to protect the mangrove areas near its pipeline route.

“

"All units shall practice strict production and operation management, reduce the disturbance of production and operation activities to the ecological environment, conserve biodiversity and ensure ecological security."

—Measures for the Management of Ecological Protection of Sinopec Corp.

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Sheep grazing by the well in Sinopec Northwest Oilfield

### Supporting the research on biodiversity conservation of Chongming Island

Chongming Island wetland, located in the Yangtze River Estuary, is the largest sandy wetland in the world. In 2019, Sinopec Shanghai Oil Marketing Company signed a strategic cooperation agreement with local universities to use company-owned land in west Chongming Island for field observation activities of the wetland ecosystem in the Yangtze River Estuary. The two parties jointly established an ecological monitoring & research station to provide support for the observation of water quality and wildlife in the Yangtze River Estuary and nearby areas, and the study on the impact of production and operation activities on local water environment and wildlife.

# 03 Safety Management

Sinopec Corp. takes safety as its top priority in production and operation, strictly complies with the requirements of the *Production Safety Law* and other laws and regulations, strictly implements HSSE management system, and effectively manages safety risks in key areas and key links. Meanwhile, The Company regularly carries out safety risk assessment and management, strengthens the emergency management command system, raises the safety awareness of employees and contractors to prevent all kinds of accidents in an all-round way, which provides security guarantee for the sustainable development of the Company.

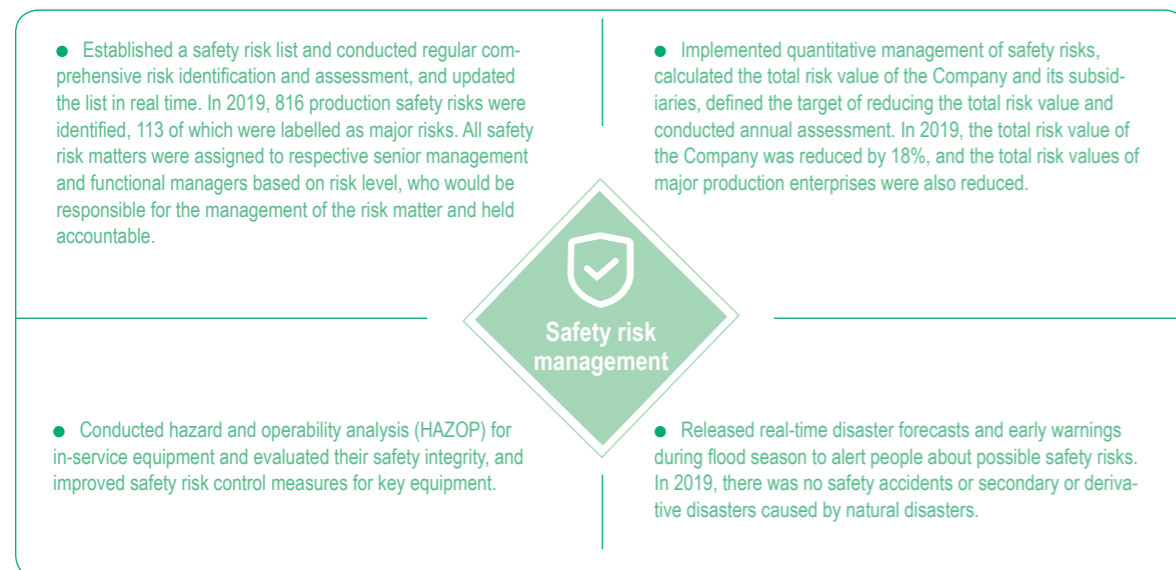


## Production Safety



### Risk Identification and Management

Sinopec Corp. has formulated rules such as *Regulations on Management of Dual Preventive Mechanisms of Production Safety Risk Hierarchical Control and Hidden Danger Screening and Management* and *Guiding Opinions on Safety Risk Assessment* to clarify the norms and detailed implementation rules for safety risk and hidden danger screening. At the same time, relying on the unified management platform for risk assessment (PHAMS), the Company tracks the risk management and control process, realizing dynamic risk management.



Safety personnel marking safety inspection check points with handheld intelligent terminal

### Safety Management Measures

<h4>Specifying safety responsibility</h4> <ul style="list-style-type: none"> <li>Formulated the <i>Senior Management Personnel Post Safety Production Responsibility System</i>, and revised and improved the responsibility system for safety production of departments (units) of the headquarters.</li> <li>Implemented the safety score management for all employees and its subsidiaries have formulated implementation rules and strengthen the safety responsibility consciousness of all employees.</li> </ul> 	<h4>Developing safety technological standards</h4> <ul style="list-style-type: none"> <li>Focused on compiling and revising standards for risk assessment technology, identification and protection of liquid ammonia and hydrogen sulphide leakage risk, selection and maintenance of arresters, and has established and improved safety technical norms.</li> </ul> 	<h4>Promoting hands-on safety training</h4> <ul style="list-style-type: none"> <li>Organised safety supervision and monitoring personnel at construction sites to participate in hands-on trainings on high-risk operation safety supervision and on-site operation monitoring, etc.</li> </ul> 
<h4>Strengthening operation safety</h4> <ul style="list-style-type: none"> <li>Clarified the "criteria for serious violations" and standardised safety management.</li> <li>Formulated the <i>Ten Measures to Strengthen Safety Management of Direct Operation</i>, and strengthened the safety control over contractors and direct operation by strengthening the owner's main responsibility, improving safety technical measures, special operation monitoring and video monitoring, etc.</li> </ul> 	<h4>Building a dedicated emergency response team</h4> <ul style="list-style-type: none"> <li>Built a voluntary emergency response team with well-defined management and motivation mechanism, and improved the team's emergency response capability through skill competition and special training.</li> <li>Established a dedicated emergency response team and a national emergency rescue team for hazardous chemicals and oil and gas pipelines, providing safety support for various maintenance operations and participating in external needs for emergency and accident rescue.</li> </ul> 	<h4>Screening and rectification of safety hazards</h4> <ul style="list-style-type: none"> <li>Completed a three-year comprehensive inspection of hazardous chemicals.</li> <li>Completed the compliance check of the updated version of <i>Fire Prevention Code of Petrochemical Enterprise Design</i>.</li> <li>Carried out system-wide and whole-process screening and rectification of hydrogen sulphide hazards.</li> <li>Carried out special screening and rectification activities on hazardous waste storage, air separation equipment, bottled gas, and fire control safety.</li> </ul> 

## Contractor Safety

In 2019, Sinopec Corp. listed contractor safety as a major risk and optimised contractor safety by improving contractor safety skills, enhancing safety awareness, strengthening business subcontracting management, so as to encourage contractors to improve safety management and prevent safety accidents.


- Implemented the contractor safety commitment mechanism and the special supplier safety system audit mechanism, and implemented the enterprise audit publicity system.
- Provided on-site training for contractors of major construction and maintenance projects, and examined and evaluated the effectiveness of the training.
- Selected high-performing enterprises in the contractor safety management system as demonstration models, and standardised the procedures and processes for contractor safety management and operation safety management.
- Continuously monitored the safety management of suppliers, ensured all major issues identified get rectified, and held repeated violating enterprises or individuals accountable.

Meanwhile, the Company has formulated *Management Measures for Scoring and Quantitative Assessment of Construction Project Contractors*, and built the contractor management information platform for whole-process assessment of contractors' behaviours in the form of event records, with safety and quality included. In 2019, 16 contractors who violated the safety management system were punished, of which seven were restricted from bidding, and nine were criticised in a circulated notice or given a warning.


Indicators	2017	2018	2019	2020 Target
Percentage of contractors qualified by the QHSE management system	100	100	100	100

## Logistics Safety

The Company's logistics safety risks mainly come from hazardous chemicals transportation and carrier traffic accidents. Sinopec Corp. has formulated a safety management system for hazardous chemicals transportation carriers to help improve their HSSE management, and carried out on-site inspections and carrier inspection to encourage carriers to improve safety management. Besides, the Company continued to explore the supply mode of hazardous chemicals and worked with carriers and partners to ensure the logistics safety across the whole process. In 2019, no serious chemical transportation accident that has to be reported occurred.



Strengthened the eligibility management of logistics service providers, established and improved the quality, safety and environmental protection management system, and signed safety agreements with logistics service providers to specify the safety accountability.



Promoted the inspection and certification of hazardous chemicals vehicles and vessels, verified their eligibility together with the eligibility of personnel, urging logistics service providers to fulfil their safety responsibility.



Set up a database of self-pick-up logistics service providers of hazardous chemicals, and conducted third-party on-site assessment of them to reduce operation risks.



Piloted the in-transit monitoring device to strengthen in-transit monitoring and management.



Strengthened transportation safety management of carriers in abnormal weather and geological disasters, enhanced communication and supervision to ensure uninterrupted production and market supply after natural disasters.

## Information Safety

As information technology has deeply penetrated into the Company's production and operation in various fields and business links, network and information risks may have a significant adverse impact on the Company. In 2019, the Company identified major risks such as cyber-attacks, computer viruses and data security. To protect its information infrastructure and data from cyber-attacks, the Company has constructed an information platform for network security risk management by establishing network security protocols, network security protection system, and the maintenance mechanism for information infrastructure and application system. In 2019, there was no incident of cyber-attacks or major network security incident occurred at the Company.

- Strengthened the construction of the network security system, perfected and formulated the *Rules for Management of Internet Application Security, Management Measures for Key Information Infrastructure*.
- Carried out screening of network security vulnerabilities and hidden hazards, and rectified high-risk problems.
- Established the network security information disclosure mechanism, regularly released the developments on network security work and various safety rectification notifications, and tracked and retested the rectification progress of potential safety.
- Built the Sinopec Safety Emergency Response Centre (SSRC) and set up a network security technical team to track the network security situation and improve the ability to handle early warnings of network security threats.
- Carried out network security evaluation and assessment for its subsidiaries, which is directly linked to the performance evaluation of the persons in charge of subsidiaries.

## Security

Sinopec Corp. carries out security management strictly in accordance with the principle that "risk assessment before operation". The Company has established an overseas public security management system focusing on risk assessment and control, risk prevention and guarantee, emergency response and disposal as well as supervision and inspection, and has selected sites for overseas institutions and provided security forces according to different risk levels and local social and natural conditions. The Company has strengthened its ability to collect and analyse security information to improve the timeliness, relevance and effectiveness of security alert. By 2019, the Company had achieved "zero death" from overseas security incidents for 12 consecutive years.

### Actions in 2019:

Revised and issued Standards for Risk Assessment of Overseas Security, and carried out 319 risk assessments.

Conducted overseas security training to help employees understand overseas security challenges and learn the basic safety skills such as CPR, covering 5,073 employees.

Evaluated the security capabilities of overseas institutions and projects, and made timely rectification of identified cases of "insufficient security".

Established health records for employees and took proper precautions against infectious diseases overseas.

Prepared the *2018 Country Risk Report* and *Country Risk Reminders* for overseas staff, providing security suggestions based on relevant country risk information.

Indicators	2017	2018	2019
Overseas security investment (RMB10,000)	668	470	534
Overseas security training participation (person-times)	5,129	3,720	5,073

# 04 Compliance

Compliance is the bottom line for an enterprise and the cornerstone of its sustainable development. To build an enterprise with integrity, Sinopec Corp. abides by government regulations on integrity and anti-corruption and the laws and regulations of the countries and regions where it operates, continuously improves the integrity and compliance management system, builds the integrity culture of “keeping promises and operating in compliance”, makes every effort to promote anti-corruption and ensure the implementation of the relevant regulations and the enforcement of the disciplinary mechanism.



## Transparency and Compliance

In 2019, the Company formulated and issued the Integrity and Compliance Management Handbook, which stipulates 80 basic codes of conduct applicable in ten key fields. Employees could access the handbook through the mobile platforms and the Sinopec Online Academy. Approximately 150,000 employees participated in the "Compliance Commitment" campaign.

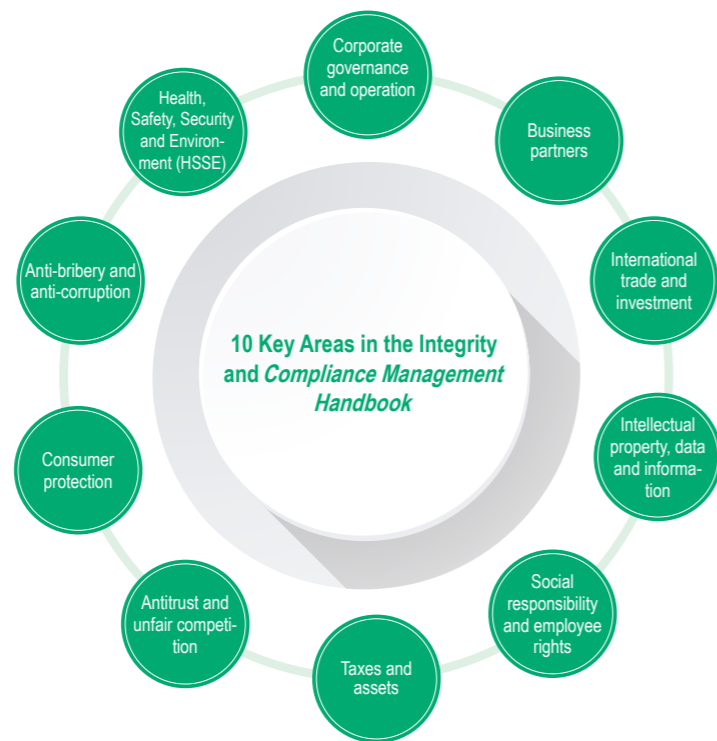
Strictly abiding by national tax policies and regulations, Sinopec Corp. insists on paying taxes legally and paid RMB317.7 billion in taxes and fees in 2019. Meanwhile, the Company abides by the laws and regulations of the country where it operates, including compliance with local tax regulations. Please refer to the China Petroleum & Chemical Corporation Report on Payments to Governments that we release every year for detailed information.

The Company discloses information required by law and voluntary information in accordance with its information disclosure system to ensure transparency. Sinopec Corp. is continuously rated Class A which is the highest reward by the Shanghai Stock Exchange for information disclosure. Regarding overseas projects, the Company

takes the initiative to communicate with stakeholders based on local conditions and cultural background, discloses the environmental and social impact assessment information of projects, which is highly recognised by local government, people and employees.

In 2019, the Company upgraded the Business Information Disclosure System to add 16 new types of data for disclosure and strengthen the interconnection between the system to data from different business systems, such as the Contract System, the Project Bidding and Tendering System, and the Procurement System, realising higher transparency of its various business operations. More than 4,629,800 pieces of information were disclosed at the Business Information Disclosure System in 2019.

The Company shall firmly abide by China's anti-corruption laws and regulations, observe the United Nations Convention against Corruption, comply with anti-corruption and anti-bribery laws applicable in the countries (regions) where the Company conducts business, comply with the integrity and anti-corruption regulations and commitments of the Company and its business partners and strengthen the development of a clean enterprise culture. The Company and its employees shall not engage in or accept commercial bribery or corruption in any territory for any reason or in any form. The Company always strictly abides by anti-corruption and anti-commercial bribery principles and regulations mentioned above when conducting overseas business and investment. More details about the Company's overseas upstream assets and refining and chemical assets are disclosed in the "Company Profile" section of this COP.



## Anti-corruption System

The Company established Supervisory Committee, which is responsible for formulating the guidelines and key measures for anti-corruption, identifying and studying compliance risks that may affect the sustainable development of the Company, holding regular meetings of the Supervisory Committee, researching and deploying key supervision tasks, and supervising and ensuring the timely improvement of issues identified. Chairman of the Board acts as the Chair of the Supervisory Committee. The Company implements a two-level Supervisory Committee system at the headquarters and subsidiaries level respectively, fully covering the supervision of the Board, senior management, and all organisations and personnel with management and operation authorities to exercise. The Company also established the Discipline Inspection and Supervision Department, which reports to the Supervisory Committee, and is responsible for the daily integrity and anti-corruption management of the Company and its subsidiaries, as well as managing the evaluation and accountability of the integrity and anti-corruption management at the subsidiaries of the Company.

### Rules and Policies

The Company has formulated a number of systems to provide system guarantee for integrity and anti-corruption management, including *Plans on Reforming Supervision Mechanism, Regulation on the Punishment of Employees who Violate Disciplines or Regulations, the Opinions on Strengthening Daily Supervision of Discipline Inspection and Supervision Institutions (Trial) and the Guidelines on Strengthening the Prevention and Control of Overseas Integrity Risk.*

The Company formulated the *Code of Conduct for Employees* to regulate employees' daily behaviours. Every year, employees at key positions are required to sign the *Business Ethics Agreement* to commit themselves to abiding by business ethics.

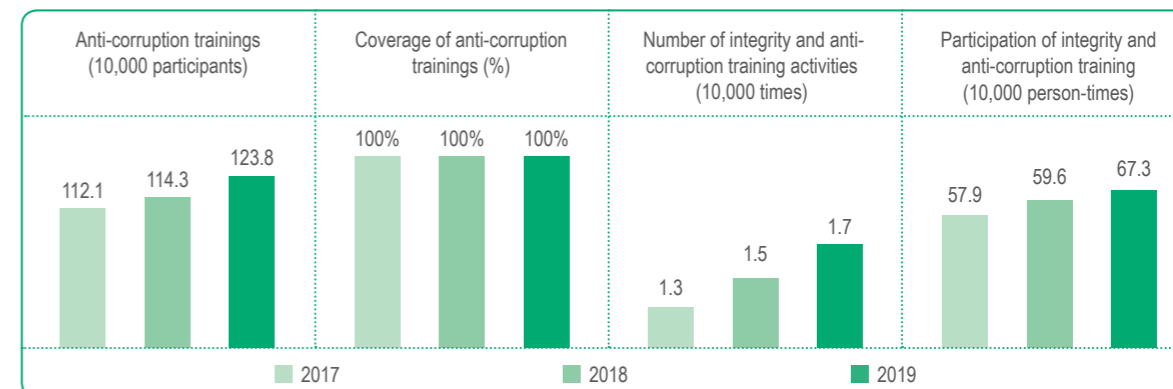
In addition, management staff and employees who are also CPC members are also required to abide by certain regulations of the Party, including the *CPC Code of Integrity and CPC Self-Discipline, CPC Regulations on Disciplinary Actions and CPC Accountability Regulations*, and are subject to subversion.

The Company established smooth complaint handling mechanism consisting of mail box, whistle-blowing hotline and email, etc. The Company formulated procedures for recording and handling the reported complaints, verifying evidence, and giving feedback to who submits the complaint. The identity of the whistle-blower will be strictly kept confidential to protect their legitimate rights.

The Company signs the *Letters of Responsibility for Business Ethics* with its contractors and suppliers, which specifies that in case of corruption, they will be disqualified and their transactions with the Company will be discontinued, and they will be banned from any business cooperation with Sinopec Corp. for the next three years. Violators with severe cases will be blacklisted by the Company. The Company strictly implements the above regulations. In 2019, a total of 14 suppliers were disciplined for violating the *Letters of Responsibility for Business Ethics*.

## Enhancing Anti-corruption Awareness

The Company organises training on anti-corruption every year, and raises anti-corruption awareness by issuing documents, holding warning education conferences and watching warning education films, with 100% of employees covered and awareness raised in anti-corruption. The Company regards senior and middle-level managers as the key objects of anti-corruption supervision and management. Violations will be dealt with according to their severity by regulations, and will be notified at semi-annual and annual work meetings to strengthen warning education and promote the construction of incorruptible culture.











# 05 Respecting Human Rights

Sinopec Corp. strictly complies with laws and regulations on human rights protection, the National Human Rights Action Plan of China and international human rights conventions, and prohibits any act of disregard or abuse of human rights. We strictly abide by China's Regulation on *Prohibiting the Use of Child Labour* and relevant laws and regulations in overseas markets and prohibit the use of child labour. We respect the employees' right of personal freedom and the right to take leave, and prohibit the use of forced labour. We respect the rights and interests of female employees and ethnic minority employees, and strictly prohibit any form of discrimination, such as due to gender, ethnicity, religion and nationality. Meanwhile, we abide by the requirements of laws and regulations such as *the Labour Law of China* and the relevant regulations in where we operate, fully protect employee rights and ensure occupational health and safety, optimise the career development channels for employees, promote the comprehensive management of occupational, physical and mental health of employees, and strive to grow together with our employees.



## Employee Protection

Sinopec Corp. adheres to principles of equal consultation, and mutual benefit and win-win results, protects the rights and interests of employees in accordance with relevant laws and regulations, and strives to build a harmonious and stable employment relationship with employees.


 <h3>Employment</h3> <p>The Company signs written labour contracts with employees in accordance with the principle of "equality, willingness and consensus" and all terms of the contract are complete and in compliance with laws. The Company has also formulated relevant management policies to ensure the labour contracts are strictly implemented.</p>	 <h3>Diversity and equal opportunity</h3> <p>The Company treats female employees equally and adheres to the principle of equal pay for equal work. The Company treats minority employees equally and is committed to creating a diverse workplace.</p>	 <h3>Protection of female employees</h3> <p>The Company has established the Female Employee Committee under the labour union, and includes specific articles in labour contract to protect the rights of female employees and their rights to maternity leave, nursing leave and regular health examination.</p>
 <h3>Salary system</h3> <p>The Company takes salary as an important incentive for employees, and has established a multi-dimensional salary system based on position, capability and performance, which consists of basic salary, performance bonus, mid-term and long-term incentive, welfare, honour recognition, and career development supports.</p>	 <h3>Social insurance</h3> <p>The Company provides employees with proper social insurance, such as pension, medical, work-related injury, maternity and unemployment insurances, in accordance with state and local regulations. We set up enterprise annuity system covers all employees. Some of the subsidiaries also provide employees with supplementary medical insurance.</p>	 <h3>Leave and vacation system</h3> <p>The Company ensures the employees' right to maintain regular working hours and take proper leave and vacation, and makes sure that employees with irregular work shifts or hired on an aggregate working hours system have appropriate work shift and rest to ensure work-life balance.</p>

As of the end of 2019

<b>Total number of employees</b>	<b>402,206</b>	<b>Percentage of female employees (%)</b>	<b>33.8%</b>
<b>Percentage of employees with labour union membership (%)</b>	<b>100%</b>	<b>Percentage of ethnic minority employees (%)</b>	<b>3.7%</b>


## Employee Health

Sinopec Corp. takes employee health as a top management priority. The Company integrates its health management resources to continuously improve the prevention and control of occupational disease and protect the health of our employees.






### Zero injury

Workplace meets all dust and hazardous material concentration standards.



In 2019, the Company carried out assessment of occupational disease hazards and occupational health and safety risks, and prevented occupational hazards from occurring from the source by providing protective equipment and gears and conducting occupational health examinations.

<h3>Strictly control occupational hazards</h3> <p>Carried out noise distribution and impact assessment of typical devices, and shared the experience of noise control among subsidiaries; implemented the inspection of centralised air conditioning units in densely populated areas to ensure air quality meet standards.</p> 	<h3>Standardise management of protective equipment</h3> <p>Equipped flame retardant and anti-static labour protection outfit to positions with high fire and explosion risks in refining and chemical subsidiaries; carried out a company-wide inspection of air respirators to ensure its proper management.</p> 	<h3>Promote physical and mental health of employees</h3> <p>Maintained employee health records, organised annual physical examination for all employees, assessed employee health status, and formulated and implemented the "specific measures for specific person" intervention approach for high health risk health; Strengthened the employee assistance programme (EAP) to promote employee psychological health and crisis prevention.</p> 
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## Career Development



Sinopec Corp. regards talents as a core capital of an enterprise, firmly sticks to the new concept of talent development and pursues talent-driven growth of the Company. We encourage our employees to improve their capabilities and support employees' career development, which in return will contribute to provide the talent pool for the Company to achieve high-quality development.

### Optimising Career Platform

#### Improving the talent development ecology

Formulated the Measures for Talent Growth Channels of Sinopec Corp., and established a talent development mechanism with "vertical mobility and horizontal connectivity". The Company also researched and promoted the development of the talent standard system, optimised the evaluation mechanism for career promotions, and carried out pilot projects of assessment of professional skill levels.

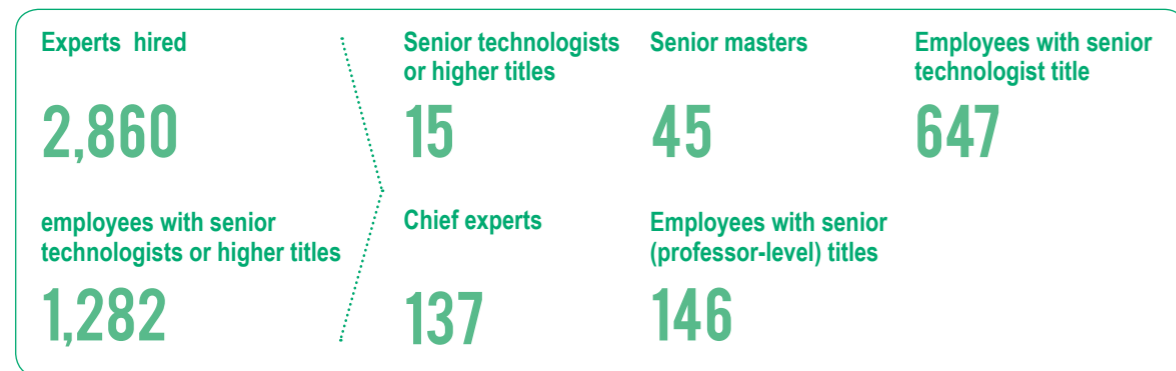
Implemented the Talent Attraction Programme to attract leading technology talents and key talents of new businesses; optimised talent allocation and assigned more talents to new projects and overseas projects.

#### Increasing the cultivation of key talents

Signed a strategic agreement with Imperial College London in the UK to jointly train 40 young technology talents, organised the first Young Science and Technology Elite Competition and the "Future of Sinopec" Youth Forum, and implemented the "Talent + Project" model to create a team of Sinopec Future Scientists.

In 2019, the Company had six employees acclaimed as academicians of Chinese Academy of Engineering, "Leading Technological Innovation Talents of the Ten Thousand Talents Plan" and the "National Candidates of the Hundred-Thousand-Ten Thousand Project". The Company also recognised 80 employees as "Sinopec Expert with Outstanding Contribution", and awarded 100 employees the "Min Enze Young Technology Talent Award". We hosted national class-II competitions and organised 15 company-wide skill competitions.

As of the end of 2019



#### Cultivating Talents with Jointly Efforts

In 2019, Sinopec Corp. cooperated with Imperial College London in the UK and jointly founded the Sinopec-Imperial College London Resource Geophysics Academy, to conduct jointly training and research in the geophysics field with GBP11 million from Sinopec Corp. and the research and teaching resources of the Imperial College London. The programme not only supports the cultivation of PhD students in the petrochemical field, but also provides training and joint research opportunities for its employees.

## Employee training

In 2019, the Company completed the compilation of the *Employee Training Plan (2019-2023)* of Sinopec Corp., establishing a systematic training system and vocational skill improvement plan. We strengthened quality training and professional technical talents training for management talents and technical talents in a systematic way. Meanwhile, we coordinated our efforts to improve the coverage and effectiveness of training by implementing key training programmes and online training.

#### Training of Key Talents

Optimised the training system for management personnel, explored the establishment of a training system for professional and technical personnel, skilled personnel, and international personnel, and carried out a number of targeted training programmes for key talents, such as management personnel training, high-level expert training, and country expert training. Provided trainings to 3,100 key talents, 765 senior professional and technical talents, and 237 skilled talents within the year.

In 2019, the Company invested over RMB850 million in vocational training, covering 78.2% of employees with a total participation of 985,600 person-times; while its annual online training participation reached 5.01 million person-times, with a total of 10.19 million hours of online learning.

#### Online Training

Promoted the application and coverage of the Sinopec Online Academy platform, promoting the digital and intelligent transformation of training with data, AI, 5G and other technologies to realise customised and targeted training.

## Caring for Employees



Sinopec Corp. strives to forge a community of shared future with its employees, and cares for employees and provides them with all-around support, aiming to further improve the cohesion and sense of belonging of its employees.

Increased employees' sense of belonging and create a harmonious and encouraging workplace by promoting the Family Culture with internal newspapers, bulletin boards, WeChat, etc.	Improved the working and living conditions for employees by optimizing workplace layout, improving logistics and living quarter conditions, and providing sports and leisure equipment;	Increased the income of grass-roots employees and make them feel rewarding by optimizing performance appraisal methodology, integrating factors such as salary composition, performance, labour intensity, and living standards, etc.;	Promoted employee growth and development by creating development platforms such as skill competitions, benchmarking and learning competition, and employee innovation studios; and	Encouraged our employees to participate in corporate decision-making, supervision, management, and innovation and efficiency improvement activities, and provide suggestions on the Company's reform and development.
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The Company continues to implement EAP programmes and provide employees with caring and psychological counselling. In 2019, we carried out pre-job training on mental health and sent out relevant alerts, promoted the EAP Classroom programme, organised themed training, and provided 10,079 psychological counselling sessions through Heart Happiness Counselling EAP platform.

We organised health assessment for employees to be posted overseas, and maintained health records of them to track their health status and provide timely assistance if needed. In 2019, the Company carried out special alerts, disease prevention training and travel alerts against Ebola, measles, malaria and other major infectious disease risks identified for overseas travels, and provided traffic safety training and alerts regarding overseas locations with high traffic accident rate. The Company has also purchased commercial insurance for all employees posted overseas, to ensure that they could get timely assistance if they have accident.



# 06 Contributing to Society

Sinopec Corp. is fully aware that to become a respected everlasting enterprise, an enterprise needs to realise mutual benefit and win-win cooperation with its partners, and coexist with society harmoniously. Adhering to the principle of “mutual benefit and win-win cooperation” and strictly abiding by laws and regulations such as the Product Quality Law of China, Sinopec Corp. strives to meet its quality target of “quality first and quantity sufficient, customer satisfaction”, sticks to responsible production and operation, and constantly improves its value contribution to suppliers, customers and the industry. Meanwhile, the Company actively fulfils its social responsibility, creates job opportunities for local communities, and support public welfare assistance actions, and strive to become a first-class corporate citizen, aiming at becoming a world-class corporate citizen.



## Value Chain Management



As of the end of 2019, Sinopec Corp. had 18,646 supplies from 66 industries in China. The Company has established a sound supplier integrity system and ensured the suppliers meet quality requirement. We also vigorously advocate the concept of responsible procurement and have integrated HSSE Management System, pollutant discharge, and tax compliance into our supplier management policies, providing important reference for supplier evaluation and on-site assessment of suppliers and encouraging them to continuously improve the quality of their products and services, as well as their environmental protection awareness and capabilities. Meanwhile, we developed an industrial ecological network focusing on e-commerce platforms such as EPEC and Sinopec Chememall, which have promoted the comprehensive service capability of the value chain, allowing upstream and downstream value chain partners to achieve better coordination and mutual benefits.

### Building a responsible supply chain

- Added eligibility requirements related to environmental protection, such as pollution discharge permits, energy management system certifications, green product and low-carbon product certifications, evaluating suppliers on environmental protection, resource conservation and sustainable development.
- Revised the supplier on-site inspection and assessment standards, and added environmental management system certification, safety management system certification, workplace safety emergency management system, labour protection measures, and discharge and waste disposal into the evaluation standards, and increased the weights of occupational health, safety and environmental management in on-site assessment.
- Organised supplier training regularly, issued higher requirements for suppliers on anti-corruption, environmental protection and safety management, and provided a total of over 4,700 person-times of supplier sales training in 2019.

### Grow together with value chain partners

- Focusing on its e-commerce platform for the petrochemical industry, Sinopec Chememall, Sinopec Corp. integrated the upstream and downstream industrial chain and the supply chain between enterprises and promoted the contract procurement mode, to ensure efficient and stable supply-demand relationship with suppliers. As of the end of 2019, the platform had 9,992 customers, and 630,000 tonnes of online spot and auction transactions and 36.4 million tonnes of contract transactions conducted over the platform within the year.
- Aiming at becoming a global comprehensive promotion, service and trade platform for industrial trade, EPEC makes possible the complete connectivity of the industrial chain, supply chain, service chain and capital chain. As of the end of 2019, EPEC had 1,521 online suppliers offering about 13,000 products, and about 12,000 buyer companies, with businesses covering 104 countries and regions.

Indicators	2017	2018	2019
Percentage of suppliers qualified by QHSE management system (%)	26.7	26.0	31.1
Number of suppliers qualified by the quality management system (ISO 9000)	9,265	9,614	9,312
Percentage of suppliers qualified by the quality management system (ISO 9000)(%)	52.9	47.3	49.9
Number of suppliers qualified by the environmental management system (ISO 14000)	5,442	6,071	6,463
Percentage of suppliers qualified by the environmental management system (ISO 14000) (%)	31.1	29.9	34.7
Number of suppliers qualified by the occupational health and safety management system (ISO 18000)	4,839	5,621	6,108
Percentage of suppliers qualified by the occupational health and safety management system (ISO 18000) (%)	27.7	27.7	32.8
Percentage of the procurement of top five equipment and materials suppliers in total procurement (%)	7.2	4.9	5.3
Percentage of the procurement of top five crude oil suppliers in total crude oil procurement (%)	48.8	46.6	49.1

## With Customers



Sinopec Corp. continuously strengthens its quality management system and improves service standards, aiming at providing customers with better products and services. Meanwhile, the Company closely follows customer needs, explores new businesses, properly handles customer complaints and protects customer privacy, and protects the fundamental rights and interests of customers.

### Quality Management

The Company have formulated the Sinopec Quality Management System in accordance with our quality standard of "quality first and quantity sufficient, customer satisfaction", and have established and implement a quality management system aligned with multiple quality standards to ensure the quality of products remain stable and reliable. In order to ensure the supply of quality oil products to consumers, we strictly manage the quality of purchased oil products, ensure reliable sourcing with standardised procurement processes, and terminate cooperation with suppliers fail to meet quality standards repeatedly.



Oil products

In 2019, the Company's oil products received over 31,000 spot inspections from external parties, and all of them met relevant quality standards. There has been no quality incident with reportable significance for five consecutive years.



Lubricants

Produced a total of 39,374 batches of lubricants during the year, and 100% of the batches passed passing internal inspections; 70 batches were sampled to receive third-party inspection and also passed with a 100% passing rate.

### Service Improvement

Sinopec Corp. is committed to creating value for customers with high-quality service, and continuously enhancing its service awareness and improving service quality. In 2019, the Company officially established the Sinopec Corp. Customer Service Centre at the headquarters, providing human customer service hotline (95388) and realising the coordinated handling of company-wide customer service requests and the communication and coordination across business units.

The Company conducts customer satisfaction surveys regularly to continuously optimise its service.

#### Customer satisfaction survey at service stations

Conducted customer satisfaction survey to collect feedback and suggestions from refuel card customers nationwide for 12 consecutive years. In 2019, the survey received 42,576 valid responses and resulted in a comprehensive score of 86.15, a steady increase from the previous year.

#### Customer satisfaction survey of Sinopec Chemical Marketing Company

Distributed 3,536 satisfaction survey questionnaires over the year, and received 3,494 responses with a 98.8% response rate. The average customer satisfaction score is 89.2, with 80.9% of customers surveyed thought our service had improved.

The Company has formulated and regularly improves the process to handle customer complaints, to ensure questions and complaints from customers are responded to and addressed timely. Once received, a typical complaint will be handled within 24 hours; a major complaint shall be investigated and solved within 48 hours, and reported to superiors right away; a complex complaint shall be solved within 72 hours; and a complaint requiring technical appraisal or certification shall be handled, and the customer shall be replied to within 48 hours after the appraisal result is received.

Indicators	2017	2018	2019
Number of fuel card holders (million)	132	146	168
Customer satisfaction for refined oil products (%)	84.09	85.08	86.15
Customer complaint settlement rate for refined oil products (%)	100	100	100
Number of EasyJoy convenience stores	25,775	27,259	27,606
Customer satisfaction for chemical products (%)	91.5	93.1	89.2
Customer complaint settlement rate for chemical products (%)	100	100	100



## Business innovation and convenient service

The Company pays close attention to meet the needs of customers, and applies Internet technology to create innovative businesses and provide customers with greater choices as well as better service experience.

### Integrated services

- Developed the e-wallet function for individual customers, giving customers a more convenient payment channel;
- Implemented the "Internet + Service Station + Convenience Store + Third Party" business model, building a nationwide online shopping mall on mobile network offering both online and offline interactive shopping experience; and
- Set up the Ejoy365HK.com cross-border e-commerce platform, providing consumers with reliable goods they want.

### Online service

- Vigorously developed automobile service projects to meet the demand for car wash service, adding 2,216 automobile service stations in 2019, with a total of 6273 service stations completed cumulatively;
- Innovated on the franchise model with established fast food brand to speed up the development of the fast food business;
- Piloted the EasyJoy Coffee at eight service stations in Jiangsu Province; and
- Launched purified water distribution business in 145 key cities.



New services of EasyJoy coffee and car washing at service station.

## Customer privacy protection

The Company attaches great importance to the protection of customer privacy. For the online business hall of fuel card, refined oil e-commerce website, WeChat marketing platform and other Internet applications, we have applied multiple measures to enhance their security, including physical security, network security, data security and application security, and hired a third-party, the Information Security Rating Centre, to carry out security evaluations and rectified the identified issues timely. We carried out special network security exercise to identify and eliminate risks and prevent the occurrence of breaching of customer information and privacy. Regarding chemical products customers, we strengthened the governance of the access to customer information of our employees, standardise the authorisation process to protect customer information from leaking.

## Promoting Industry Development



The Company actively leverages its expertise and influence and participates in promoting industry development, supporting industry innovation and development in various ways, such as scientific research, industry standard formulation, and experience sharing, etc.



### Establishing industry association

Cooperated with upstream and downstream partners in the lubricant industry chain to found the China Lubricant Industry Innovation Alliance, promoting the research on core technologies and the application of research achievements in the lubricant industry chain.



### Participating in standard setting

Participated in the standard setting work of the Hazardous and Chemical Logistics Society under China Federation of Logistics and Procurement and jointly developed the *Management Specification for Shared Synthetic Resin Pallet*.



### Supporting technological research

Collaborated with universities and research institutions in China and established six joint R&D centres in the fields of molecular chemical engineering, chemical process strengthening, automobile lightweight, fine chemicals, photoelectric materials and artificial intelligence.

## Community Engagement



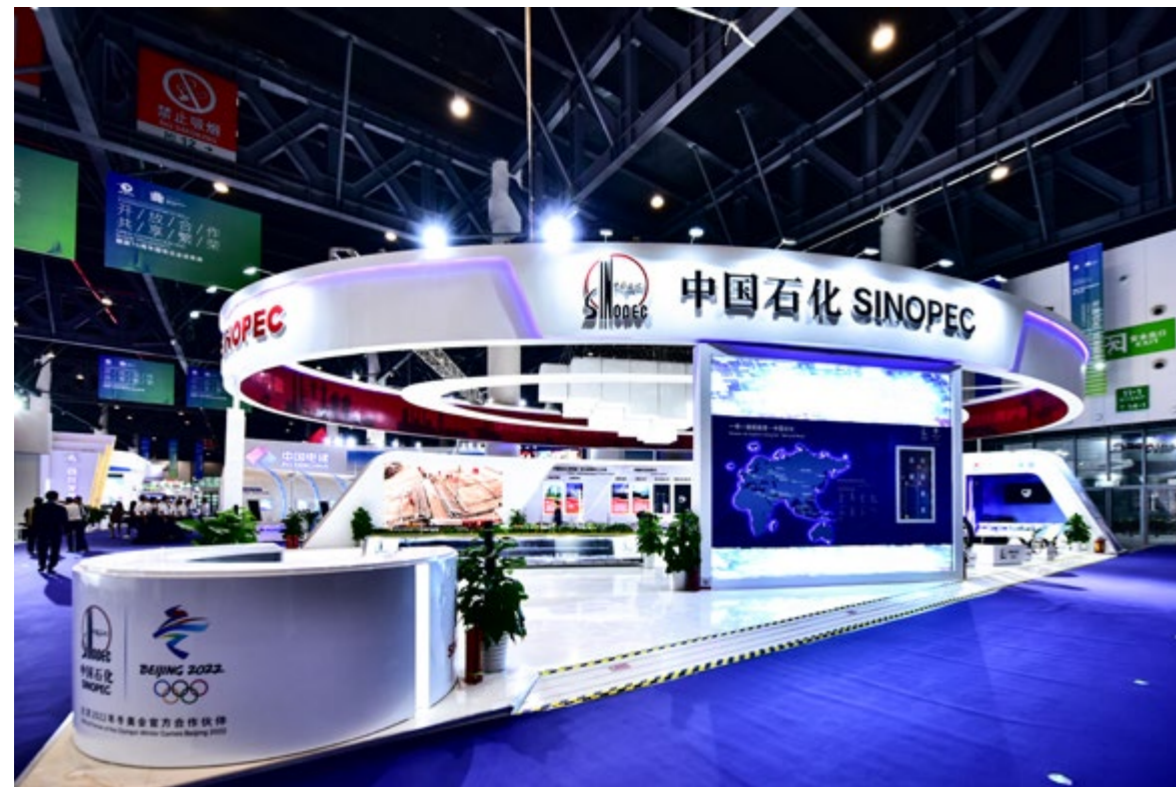
Sinopec Corp. adheres to the concept of "serving communities and making contributions to local economy", and promotes the coordinated economic, environmental and social development of where it operates with tax payment, job creation and project investment. For overseas projects, the Company only retains the necessary number of expatriates and hires as many local talents as possible based on the implementation stage of the projects.

Implemented local hiring and procurement to create employment opportunities and promote the development of local enterprises. The Company's employee localisation rates in Colombia, Angola and at the joint venture in Russia were 98%, 59% and 31% respectively; and

Respecting the cultural heritage of local employees, and organised communication, cultural and sports activities for employees to promote cross-cultural integration.

### Saudi Arabia Yanbu Refinery: Supporting Local Economic and Social Development

Saudi Arabia Yanbu Refinery is first overseas refining and chemical joint venture project of Sinopec Corp. The Company strictly abides by local laws and regulations on labour, financial management and taxation, and safety and environmental protection, and strives to promote local employment and development. In 2019, the employee localisation rate of Yanbu Refinery reached 86%. The project has provided about 6,000 job opportunities directly and indirectly, and helped promote local talent development with employee training and internship opportunities for college students. We combine the local resources endowment and our expertise in technology and production to provide high-quality gasoline and diesel products to the local community.



Sinopec Corp. participated the 3rd Western China International Fair Import and Export Expo & Western China (Sichuan) International

## Philanthropy

Sinopec Corp. attaches great importance to caring for disadvantaged groups and promoting the standardisation and development of public welfare undertakings. The Company has launched a number of brand public welfare projects, and continuously innovates on public welfare practice based on the conditions and needs of local communities.



### Sinopec Lifeline Express Programme

Since 2004, we have been participating in the Lifeline Express Programme. During the 16 years, we have donated over RMB180 million to the programme, provided free surgery for more than 46,000 low-income cataract patients from 38 regions of 18 provinces and municipalities, and donated 21 Sinopec Cataract Treatment Centres. In 2019, we donated RMB24.46 million to support the technical upgrade and maintenance of the of the Sinopec Lifeline Express vehicles, and provided free cataract surgery to 2,376 patients.



### Warm Stations Programme

Since 2013, we have been launching the Warm Station, Going Home with Love programme at our service stations to help home bound migrant workers before the Chinese New Year, providing free refuels and various service to make the travellers feel welcome and comfortable, such as hot porridge, ginger drink, lounge and nursing room, making the way home a warm journey. In 2019, we designated 248 service stations in Guangdong, Guangxi, Jiangxi and Guizhou provinces as Warm Stations, and organised more than 5,000 youth volunteers in cooperation with the Guangdong Provincial Committee of the Youth League. In the last seven years, more than 35,000 volunteers have worked for this programme and assisted a total of over 40 million travellers accumulatively.



### Sanitation Workers' Stations Programme

We open the service stations up to sanitation workers, giving them a place sheltered from the weathers where they could take a rest and have some water. As of the end of 2019, we had set up 2,348 service stations as designated Sanitation Workers' Stations nationwide for sanitation workers



### Beach Cleaning in Hong Kong

Our subsidiaries in Hong Kong have been carrying out beach cleaning activities for eight consecutive years. Our employees and their formed a "Hong Kong Beach and Park Group", and organised volunteer beach and park cleaning activities in holidays to protect the local marine environment. As of the end of 2019, 53 cleaning activities had been organised, participated by more than 1400 employee volunteers.

Indicators	2017	2018	2019
Number of patients cured under the Lifeline Express Programme	3,126	3,012	2,376

## Key Performance

### Economic Performance

#### Operational and financial performance

Indicators	2017	2018	2019
Total assets (RMB billion)	1,595.5	1,592.3	1,755.1
Total liabilities (RMB billion)	741.4	734.6	878.2
Revenue (RMB billion)	2,360.2	2,891.2	2,966.2
Net profits attributable to shareholders of the Company (RMB billion)	51.12	63.09	57.6
Dividends declared (RMB billion)	60.54	50.85	37.53
Dividends pay-out ratio (%)	118.4	80.6	65.2
Taxes and fees paid (RMB billion)	328.3	324.6	317.7

### Energy production and supply

Indicators	2017	2018	2019
Oil and gas production (mmboe)	448.79	451.46	458.92
Crude oil production (mmbbls)	293.66	288.51	284.22
Natural gas production (bcf)	912.50	977.32	1,047.78
Refinery throughput (million tonnes)	238.50	244.01	248.52
Ethylene output (thousand tonnes)	11,610	11,512	12,493
Total sales volume of refined oil products (million tonnes) <sup>1</sup>	231.21	237.69	254.95
Total sales volume of chemical products (million tonnes)	78.50	86.60	89.50

Note: 1. In 2019, total sales volume of refined oil products changed was changed to include worldwide sales of the Company.



## Environmental Performance

### Energy

Indicators	2017	2018	2019
Consumption of comprehensive energy per RMB10,000 of production value (tonne of standard coal)	0.496	0.496	0.494
Crude oil consumption (million tonnes)	1.41	1.33	1.21
Natural gas consumption (billion cubic metres)	3.35	3.83	4.14
Consumption of purchased electricity (billion kWh)	28.86	30.57	32.26
Coal consumption (million tonnes)	15.08	15.18	14.77

### Water

Indicators	2017	2018	2019
Fresh water for industrial use (million cubic metres) <sup>1</sup>	664.56	657.46	650.36
Oil & gas exploration and production segment	-	115.2	112.5
Water intensity (cubic metre / barrel) <sup>2</sup>	-	1.99	1.88
Refining segment	-	192.4	181.3
Water intensity (cubic metre / tonne) <sup>3</sup>	-	0.79	0.73
Chemical segment	-	304.2	317.3
Water intensity (cubic metre / tonne) <sup>4</sup>	-	3.51	3.55

### Emissions, effluents and wastes

Indicators	2017	2018	2019
Sulphur dioxide (1,000 tonnes)	-	67.2	64.6
Nitrogen oxides (1,000 tonnes)	-	99.8	95.9
COD (1,000 tonnes)	-	19.4	19.0
Ammonia and nitrogen (1,000 tonnes)	-	2.0	1.96
Non-hazardous waste (1,000 tonnes) <sup>5</sup>	-	2,229.0	2,115.32
Hazardous waste (1,000 tonnes) <sup>6</sup>	-	505.3	642.3
Reduction of solid waste year-on-year (%)	-	-	5.1
Increase of the comprehensive utilisation rate of solid waste year-on-year (%)	-	-	5.7

### GHGs emissions and management

Indicators	2017	2018	2019
GHGs emission (million tonnes CO <sub>2</sub> -equivalent) <sup>7</sup>	162.66	171.52	170.69
Direct	123.05	128.57	125.68
Indirect	39.61	42.95	45.01
Oil & gas exploration and production segment	30.55	31.26	23.18
Refining and chemicals segment	129.49	137.65	144.93
Marketing segment	2.62	2.61	2.58
GHGs emission intensity (tonnes CO <sub>2</sub> -equivalent / RMB1 million) <sup>8</sup>	68.92	59.32	57.55
CO <sub>2</sub> capture (thousand tonnes)	270	1,010	1,263
Methane recovery (million cubic metres)	220	226	397

#### Note:

1. Fresh water withdrawal for industrial use refers to the amount of water utilised for the first time in the process of industrial production of the Company.
2. Water intensity in oil and gas exploration segment = Fresh water consumption/domestic oil and gas equivalent production.
3. Water intensity in oil refining segment = Fresh water consumption/ refinery throughput.
4. Water intensity in chemicals segment = Fresh water consumption/ chemical sales volume.
5. Refers to the total amount of non-hazardous waste that disposed by qualified third-parties.
6. Refers to the total amount of hazardous waste that disposed by qualified third-parties.
7. The Company conducts GHGs emission (direct and indirect) accounting and verification according to ISO14064-1:2006 standards, covering six gases including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydro fluoro carbons (HFCs), perfluorinated compounds (PFCs) and sulphur hexafluoride (SF<sub>6</sub>).
8. GHGs emissions intensity= Greenhouse gas emission / revenue (in RMB million)

Others: According to the requirements of Environmental Social and Governance Reporting Guide of HKEx, listed companies should disclose the data of water consumption intensity and total packaging material used for finished products. Regarding water consumption intensity, since Sinopec Corp. has a wide range of businesses in upstream and downstream industry chains, including oil & gas exploration, development, refining, chemicals, marketing and international trade, etc., we cannot calculate water consumption density. Regarding 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 various sizes; some of the packages can be recycled; we cannot calculate total packaging material used for finished products.

## Social Performance

### Employment

Indicators	2017	2018	2019
Total number of employees	446,130	423,543	402,206
Employee turnover rate (%)	0.50	0.8	0.8
Percentage of female employees (%)	35.9	35	33.8
Percentage of female employees in management (%)	12.76	12.67	12.38
Collective contract coverage (%)	100	100	100
Social insurance coverage (%)	100	100	100
Enterprise annuity coverage (%)	73.90	79.19	80.57
Percentage of ethnic minority employees(%)	3.8	3.8	3.7
Percentage of employees with labour union membership (%)	100	100	100

### Workplace health and safety

Indicators	2017	2018	2019
Employee occupational health examination coverage (%)	99	99	99
Health examination and health record coverage (%)	99	99	99
Number of newly diagnosed cases of occupational diseases	21	15	15
Safety training coverage (%)	100	100	100
Number of accidents reported	4	2	1
Work-related deaths	3	3	1

### Employee training

Indicators	2017	2018	2019
Investment in vocational training (RMB million)	739.56	748.08	850.21
Vocational training coverage (%)	72.4	75	78.2
Vocational training participation (person-time)	965,930	936,143	985,612
Online training participation (person-time)	—	—	5,014,143
Total amount of online training(10,000 hours)	—	—	1,019.03
Average training hours of male employees	—	—	49.48
Average training hours of female employees	—	—	49.83
Average training hours of senior management staff	—	—	40.57
Average training hours of mid-level management staff	—	—	41.62
Average training hours of grassroots employees	—	—	50.26

### Public welfare contributions

Indicators	2017	2018	2019
Number of patients cured under the Lifeline Express Programme	3,126	3,456	2,376

### Social contribution

Indicators	2017	2018	2019
Social contribution per share (RMB/share)	3.778	3.966	3.822
Social contributions (RMB billion)	457.4	480.2	462.8

## Report Content Indexes

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

Aspect	KPI	Page
<b>A.Environmental</b>		
A1 Emissions	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and nonhazardous waste.	P33, P44
	A1.1 The types of emissions and respective emissions data.	P78
	A1.2 Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P79
	A1.3 Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P78
	A1.4 Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P78
	A1.5 Description of measures to mitigate emissions and results achieved.	P18—P19, P33—P41, P46
	A1.6 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	p46—p47
A2 Use of Resources	General disclosure - Policies on the efficient use of resources, including energy, water and other raw materials.	P37
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P77
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P78
	A2.3 Description of energy use efficiency initiatives and results achieved.	P16—P17, P38—P41
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	P48, P49
	A2.5 Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	P24, P25, P79
A3 Environment and Natural Resources	General disclosure - Policies on minimizing the issuer's significant impact on the environment and natural resources.	P44—P45
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P46—P51
<b>B.Social</b>		
B1 Employment	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, antidiscrimination, and other benefits and welfare.	P62, P64
	B1.1 Total workforce by gender, employment type, age group and geographical region.	P80
	B1.2 Employee turnover rate by gender, age group and geographical region.	P80

Aspect	KPI	Page
B2 Health and Safety	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	P65
	B2.1 Number and rate of work-related fatalities.	P80
	B2.2 Lost days due to work injury.	P80
	B2.3 Description of occupational health and safety measures adopted, how they are implemented and monitored.	P54—P57, P65
B3 Development and Training	General disclosure - Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	P66, P67
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P81
	B3.2 The average training hours completed per employee by gender and employee category.	P81
B4 Labour Standards	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child or forced labour.	P62
	B4.1 Description of measures to review employment practices to avoid child and forced labor.	P62
	B4.2 Description of steps taken to eliminate such practices when discovered.	P62
B5 Supply Chain Management	General disclosure - Policies on managing environmental and social risks of the supply chain.	P70
	B5.1 Number of suppliers by geographical region.	—
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	P70
B6 Product Responsibility	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	P71—P73
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	P72
	B6.2 Number of products and service related complaints received and how they are dealt with.	P72
	B6.3 Description of practices relating to observing and protecting intellectual property rights.	P72
	B6.4 Description of quality assurance process and recall procedures.	P71
	B6.5 Description of consumer data protection and privacy policies, how they are implemented and monitored.	P73
B7 Anti-corruption	General disclosure - Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	P61
	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P61
	B7.2 Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	P61
B8 Community investment	General disclosure - Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P74, P75
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	P74—P76
	B8.2 Resources contributed (e.g. money or time) to the focus area.	P81

## UNGC 10 Principles Index

Scope	UNGC's 10 Principles	Page
Human Rights	Businesses should support and respect the protection of internationally proclaimed human rights; and	P5, P62—67
	make sure that they are not complicit in human rights abuses.	P62—64
Labour	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	P64, P67
	the elimination of all forms of forced and compulsory Labour;	P64
	the effective abolition of child Labour; and	P62
	the elimination of discrimination in respect of employment and occupation.	P64
Environment	Businesses should support a precautionary approach to environmental challenges	P32, P44
	undertake initiatives to promote greater environmental responsibility; and	P33—40, P45—51
	encourage the development and diffusion of environmentally friendly technologies.	P21, P35, P39—40, P46—49
Anti-Corruption	Businesses should work against corruption in all its forms, including extortion and bribery.	P61

## UNGC Advanced Level Criteria Index

Scope	Criteria for UNGC Advanced Level	Page
Strategy Governance and Engagement	Criterion 1: Key aspects of the Company's advanced level sustainability strategy in line with Global Compact principles	P2—3, P5
	Criterion 2: Effective decision-making processes and systems of governance for corporate sustainability	P12—14, P32, P44, P54, P60—61, P64, P70
	Criterion 3: Engagement with all important stakeholders	P70, P74
UN Goals and Issues	Criterion 4: Actions taken in support of broader UN goals and issue	P11

## UNGC Advanced Level Criteria Index

Scope	Criteria for UNGC Advanced Level	Page
Human Rights Implementation	Criterion 5: Robust commitments, strategies or policies in the area of human rights	P5, P62, P64
	Criterion 6: Effective management systems to integrate the human rights principle	P13, P64
	Criterion 7: Effective monitoring and evaluation mechanisms of human rights integration	P12—13, P64
	Criterion 8: Key outcomes of the human rights integration	P6, P64—67, P80—81
Labour Principles Implementation	Criterion 9: Robust commitments, strategies or policies in the area of Labour	P5, P62, P64
	Criterion 10: Effective management systems to integrate the Labour principle	P13, P64
	Criterion 11: Effective monitoring and evaluation mechanisms of the Labour principle integration	P13, P64
Environmental Stewardship Implementation	Criterion 12: Key outcomes of the Labour principle integration	P6, P64—67, P80—81
	Criterion 13: Robust commitments, strategies or policies in the area of environmental stewardship	P5, P14, P16—19, P33, P42
	Criterion 14: Effective management systems to integrate the environmental principle	P12—14, P32, P44
Anti-Corruption Implementation	Criterion 15: Effective monitoring and evaluation mechanisms for environmental stewardship	P13, P15, P33, P44—45
	Criterion 16: Key outcomes of the environmental principle integration	P16—19, P34, P48
	Criterion 17: Robust commitments, strategies or policies in the area of anti-corruption	P5, P61
Value Chain Implementation	Criterion 18: Effective management systems to integrate the anti-corruption principle	P13, P61
	Criterion 19: Effective monitoring and evaluation mechanisms for the integration of anti-corruption	P61
	Criterion 20: Key outcomes of the anti-corruption principle integration	P06, P61
Transparency and Verification	Criterion 21: Implementation of the Global Compact principles in the value chain	P70
	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	P60
	Criterion 24: The COP is independently verified by a credible third-party	—

## GRI Standards Index

No.	Pages in report / reason for omission
Organisation profile	
102-1	Report Information
102-2	P04
102-3	P04
102-4	P04
102-5	—
102-6	P04
102-7	P04
102-8	P64, P80
102-9	P70
102-10	P70
102-11	P80
102-12	P85
102-13	P19, P74, P85
Strategy	
102-14	P02—03
102-15	P02—03, P32, P44
Ethics and integrity	
102-16	P05
102-17	P12—13
Governance	
102-18	P12
102-19	P12
102-20	P12
102-21	P09—10
102-22	P12
102-23	P12
102-24	P12
102-25	P12

No.	Pages in report / reason for omission
Governance	
102-26	P12
102-27	P12
102-28	P12
102-29	P09
102-30	P12—13
102-31	P09
102-32	P12
102-33	P12—13
102-34	P12—13
102-35	P13, P64
102-36	—
102-37	P12—13
102-38	—
102-39	—
Stakeholder engagement	
102-40	P10
102-41	P09—10
102-42	P09—10
102-43	P09—10
102-44	P09—10
Reporting practice	
102-45	Report Information P06—07
102-46	Report Information
102-47	P09
102-48	Report Information
102-49	P09
102-50	Report Information
102-51	Report Information

No.	Pages in report / reason for omission
Reporting practice	
102-52	Report Information
102-53	P90
102-54	Report Information
102-55	P86—88
GRI 201: Economic performance	
201-1	P06, P77
201-2	P32
201-3	P64—67
201-4	—
GRI 202: Market presence	
202-1	P64
202-2	P75
GRI 203: Indirect economic impacts	
203-1	P26—27, P75—76
203-2	P26—27, P75—76
GRI 204: Procurement practices	
204-1	P75
GRI 205: Anti-corruption	
205-1	P61
205-2	P61
205-3	P61
GRI 206: Anti-competitive behaviour	
206-1	—
GRI 301: Materials	
301-1	P48
301-2	P39—41
301-3	P35, P47

No.	Pages in report / reason for omission
GRI 302: Energy	
302-1	P78
302-2	—
302-3	P78
302-4	P34
302-5	P34, P39—41
GRI 303: Water	
303-1	P48—49
303-2	P48—49
303-3	P48—49
GRI 305: Emissions	
305-1	P79
305-2	P79
305-3	P79
305-4	P36
305-5	P35—36
305-6	—
305-7	P78
GRI 306: Effluents and Waste	
306-1	—
306-2	P47, P78
306-3	—
306-4	P47
306-5	—
GRI 307: Environmental compliance	
307-1	—
GRI 308: Supplier environmental assessment	
308-1	P70
308-2	P70

No.	Pages in report / reason for omission
GRI 401: Employment	
401-1	P80
401-2	P64—67
401-3	P64
GRI 402: Labour/management relations	
402-1	—
GRI 403 : Occupational health and safety	
403-1	—
403-2	P80
403-3	P65
403-4	P54—55, P65
GRI 404: Training and education	
404-1	P81
404-2	P66—67
404-3	—
GRI 405: Diversity and equal opportunity	
405-1	P64, P80
405-2	—
GRI 406: Non-discrimination	
406-1	P62—64
GRI 407: Freedom of association and collective bargaining	
407-1	—
GRI 408: Child labour	
408-1	P62—64
GRI 409: Forced or compulsory labour	
409-1	P62—64
GRI 410: Security practices	
410-1	P55
GRI 411: Rights of indigenous peoples	
411-1	—

No.	Pages in report / reason for omission
GRI 412: Human rights assessment	
412-1	—
412-2	—
412-3	—
GRI 413: Local communities	
413-1	P75
413-2	—
GRI 414: Supplier social assessment	
414-1	P70
414-2	P70
GRI 415: Public policy	
415-1	—
GRI 416: Customer health and safety	
416-1	P56—57
416-2	—
GRI 417: Marketing and labelling	
417-1	P71
417-2	—
417-3	—
GRI 418: Customer privacy	
418-1	—
GRI 419: Socioeconomic compliance	
419-1	—

## TCFD Index

TCFD recommended disclosures	Pages
<b>Governance</b> Disclose the organisation's governance around climate-related issues and opportunities.	
a) Describe the board's oversight of climate-related risks and opportunities.	P12, P13
b) Describe the management's role in assessing and managing climate-related risks and opportunities.	P12, P13
<b>Strategy</b> Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning where such information is material.	
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term	P32
b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	P32—41
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	—
<b>Risk Management:</b> Disclose how the organisation identifies, assesses and manages climate-related risks.	
a) Describe the organisation's processes for identifying and assessing climate-related risks.	P12
b) Describe the organisation's processes for managing climate-related risks.	P12
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	P12
<b>Metrics and Targets</b> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process	P32—41
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks.	P33—36
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets	P16—19 P32—41

# Feedback

Dear 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:

Mailing address: Secretariat of the Board: China Petroleum & Chemical Corporation

No.22 Chaoyangmen North Street, Chaoyang District, Beijing 100728, PRC

## Your Information

Name : \_\_\_\_\_

Organisation : \_\_\_\_\_ Title : \_\_\_\_\_

Contact Tel : \_\_\_\_\_ Fax : \_\_\_\_\_ E-mail : \_\_\_\_\_

Content	Very good	Good	Fair	Poor	Very poor
1. This report provides a complete and accurate description of the significant economic, social and environmental impacts of Sinopec Corp.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This report responds to and discloses information about the concerns of stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The information, indicators and data disclosed in this report are clear, accurate and complete.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This report is easy to read, i.e. its structure, content, wording and layout are well designed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Opening questions

1. What do you like the most of this report?
2. What other information do you think that should be included in this report?
3. What are your suggestions that how we can better prepare our sustainable development progress report in the future?



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