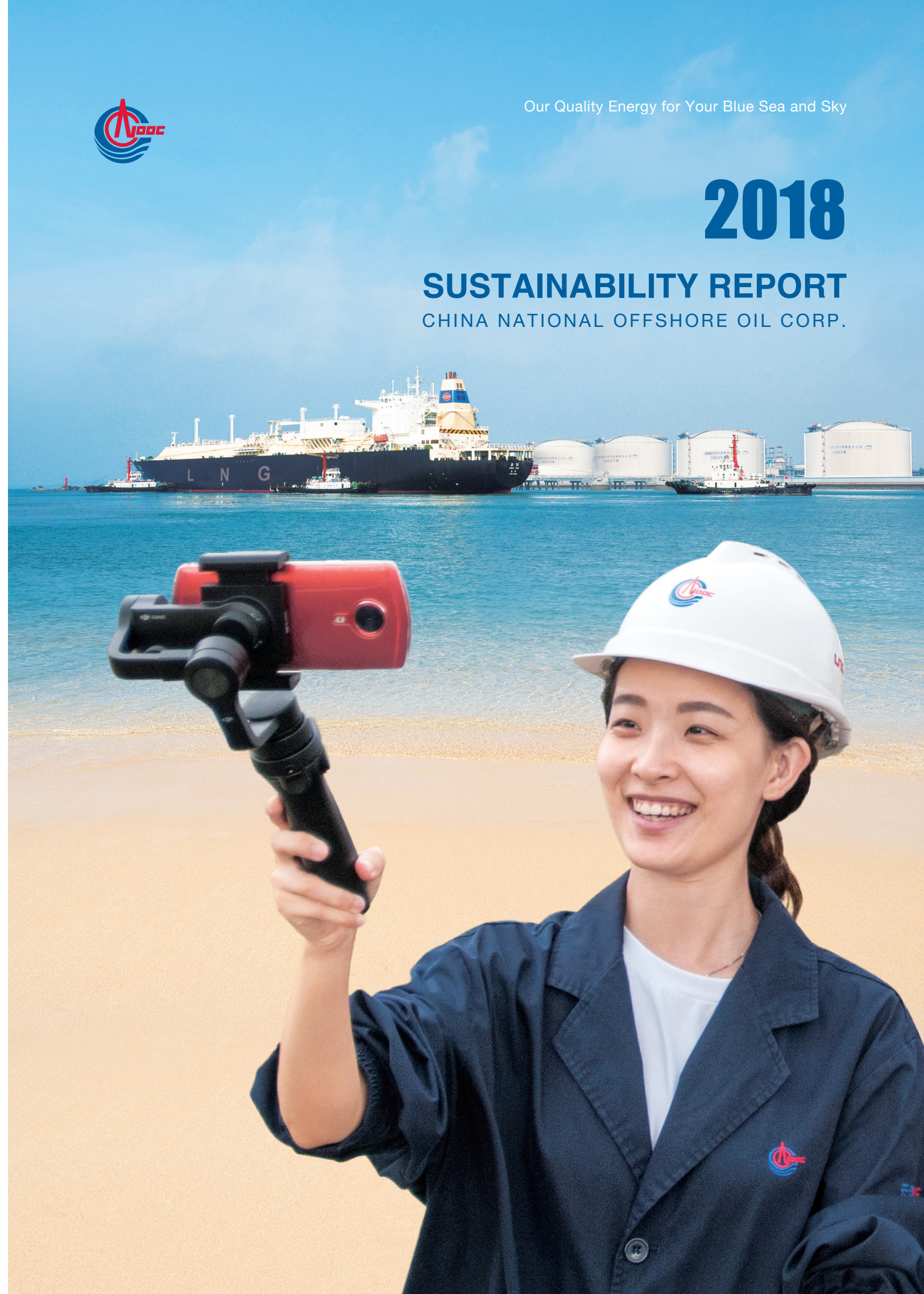




Our Quality Energy for Your Blue Sea and Sky

# 2018

## SUSTAINABILITY REPORT CHINA NATIONAL OFFSHORE OIL CORP.



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中国企业社会责任报告  
评级专家委员会  
China Expert Committee on CSR Report Rating

# Report Introduction

Following its launch in 2005, this is the fourteenth consecutive issue of annual sustainability report of China National Offshore Oil Corporation. It is an accurate reflection of our fulfilment of economic, environmental and social responsibilities undertaken in 2018. Some pertinent information about the report is as follows:

**Reporting Entity:** China National Offshore Oil Corporation

**Alternative Reference:** China National Offshore Oil Corporation is herein also referred to as “CNOOC”, “the Company”, “we”, “our” or “us”.

**Reporting Period:** January 1 to December 31, 2018. In order to ensure the continuity and comparability of the information disclosed, the applicable period for certain information may be extended forward or backward accordingly.

**Reporting Cycle:** The timescale of this report is a calendar year.

**Reporting Principles:** To meet the needs of the stakeholders and general public by disclosing key information of the Company in a true, objective, timely and comprehensive manner.

**Data:** All 2018 data disclosed herein is annual statistics. In case of discrepancies with the data in the annual report, the latter shall prevail. Unless otherwise specified, all amounts are expressed in Renminbi (RMB).

**Reporting Scope:** Unless otherwise specified, all information disclosed in the report is from official documents, statistical reports and reports of fulfilment of responsibilities by CNOOC and our subsidiaries. The information has been reviewed by our management, supervision department and various subsidiaries.

Moreover, information about CNOOC's management framework, management process for sustainable development and our subsidiaries is available on the Company's website at [www.cnooc.com.cn](http://www.cnooc.com.cn) as sustainability and annual reports over the years.

**Improvements:** In order to reflect the fulfillment of CNOOC's responsibilities in a more objective, comprehensive and intensive manner, the compilation of this report is based on site investigation on the responsibility fulfillment of CNOOC's affiliates and the selection of real cases. Opinions and suggestions from the stakeholders are also incorporated to give an active response to their concerns. The report is presented with the themes of “Our Green Energy for Your Blue Sea and Sky” and three issues of “Promoting Economic Growth, Enhancing Environmental Protection, and Driving Social Progress” to demonstrate CNOOC's sustainable development. In addition to the independent release of “CSR Report Overseas”, eight special issues about social responsibility are highlighted in the report: “CNOOC and SDGs”, “Implementing Regional Development Strategy”, “Developing Advanced Equipment”, “Building Smart Oilfield”, “Digitalized LNG Receiving Terminals”, “Three-year Action Plan for Bohai Oilfield Environmental Protection Upgrading”, “Poverty Alleviation through Consumption”, and “Forty Years of Reform and Opening-up of the Offshore Special Zone”.

**References:** This report is prepared on the basis of the SDGs and *Ten Principles of the United Nations Global Compact, the Guidelines to the Central Government-owned Enterprises on Fulfillment of*

*Corporate Social Responsibilities and the Guidelines to the State-owned Enterprises on Better Fulfillment of Corporate Social Responsibilities* issued by State-owned Assets Supervision and Administration Commission of the State Council of People's Republic of China with reference to the *Sustainability Reporting Guidelines* of the Global Reporting Initiative (GRI), the *Sustainability Reporting Guidelines of Oil and Natural Gas Industry (2nd Edition, 2015)* jointly issued by the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API), the *Guidelines on China's Corporate Social Responsibility Reporting (CASS-CSR 3.0)* by the Corporate Social Responsibility Research Center of the Economics Department of Chinese Academy of Sciences and the *ISO 26000 Social Responsibility Guide (2010)* by the International Standards Organization.

**Language:** This report is published in both Chinese and English. In case of discrepancies, the Chinese version shall prevail.

**Accessibility:** This report is available in print and electronic formats. The digital version can be downloaded from the Company's website at [www.cnooc.com.cn](http://www.cnooc.com.cn). To obtain a print version of the report, please email [report@cnooc.com.cn](mailto:report@cnooc.com.cn). See also CNOOC WeChat Public Account for the H5 version of this report.



WeChat Account of CNOOC

## Promoting Economic Growth [P13-34]



Ensuring Energy Supply	14
Emphasizing Sci-Tech Innovation	23
Intensifying Safe Operation	30
Improving Quality Management	34

## Enhancing Environmental Protection [P35-44]



Green Operation	36
Tackling Climate Change	37
Energy Conservation and Emission Reduction	40
Water Resource Management	42
Biodiversity Conservation	44

## Driving Social Progress [P45-56]



Caring for Employees	46
Devoting to Public Interests	52
Providing Voluntary Services	53
Integrating into the Community	55

## CSR Report Overseas [P57-69]



Creating Socioeconomic Value	60
Strengthening Safety and Compliance Management	62
Protecting a Balanced Ecosystem	64
Building Platform for Employee Development	66
Promoting Enterprise-community Common Development	68

## Summary

Chairman's Letter	P02
President's Letter	P04
About Us	P06
Corporate Governance and Operation	P07
Stakeholders	P08
Key Performance Indicators	P12

## Annex

Outlook on 2019	P70
Third-party Assessment	P72
Index of Reporting Indicators	P74
Glossary of Terms	P76
Feedback Form	Third cover

## Special Topics

CNOOC and SDGs	P10
Implementing National Development Strategy	P20
Developing Advanced Equipment	P25
Building Smart Oilfield	P26
Digitalized LNG Receiving Terminal	P28
Three-year Action Plan for Bohai Oilfield Environmental Protection Upgrading	P38
Poverty Alleviation through Consumption	P50
Forty Years of Reform and Opening-up of the Offshore Special Zone	P58



### THE LOGO OF CNOOC

The corporate logo of China National Offshore Oil Corporation (CNOOC) encompasses the basic design elements comprising the letters that make up the Company's initials CNOOC, enclosed by the blue curves and ripples that represent China's seawaters. The design in red, formed by the capital letters CNOOC, depicts an offshore drilling rig silhouetted against the rising sun, symbolizing prosperity in the offshore oil industry of China.



### ABOUT THE COVER

Live broadcast at LNG receiving terminal by a female anchor of CNOOC Visionary Lane Live

## Chairman's Letter



Dear all,

The year 2018 marks the 40th anniversary of China's reform and opening-up, along with that CNOOC was born and prospers. We will actively fulfill our corporate responsibilities, strive to enhance comprehensive value of economics, environment and society, and write a new chapter with reform and innovation on the development of offshore oil industry in the new era.

#### Innovation-driven, persevering in serving the country with energy

We implement innovation-driven and market-leading strategies, vigorously develop clean energy and strive to increase reserves and production. In order to meet the growing demand for high-quality energy and ensure national energy security, we will intensify efforts in the exploration and development of oil and gas, accelerate the construction of system for natural gas production, supply, reserve and sales, and promote the coordinated development among upstream, midstream and downstream of the oil and gas industry.

Technological innovation being used as a driving force, we implemented the reform of science and technology system, and constantly overcome key technologies for oil and gas exploration and development. We strengthened prospective fundamental researches, and continuously explored new marine energy sources. In addition, we accelerated the Company's digital transition and promoted the application of achievements of "Three New and Three Modernizations" (new technologies, new materials, new processes; simplification, standardization and localization), in order to continuously ensure the supply of clean, safe, efficient and adequate energy.

CNOOC adheres to the HSE core values of "Safety First, Environment Foremost, People-oriented and Equipment Intact", and vigorously carries out quality improvement actions, in order to further standardize HSE management and constantly progress to the international first-class management level.

#### Green low-carbon, assisting in maintaining ecological harmony

We optimized the global layout of natural gas industrial units and constructed a main natural gas "artery" along the southeastern coast of China. We

focused on exploring a green low-carbon development path, kept the concept of green environmental protection throughout the entire life cycle of oilfield production, strived to build a green supply chain and actively implemented the "Three-Year Action Plan for Bohai Oilfield Environmental Protection Upgrading".

We took various measures to tackle climate change and control greenhouse gas emissions. We actively advocated environmental protection, and attached great importance to biodiversity conservation, resource restoration and environmental improvement around the operation area, striving to create a better ecological environment.

#### Rejuvenating enterprise by talents, sharing development fruits

We promoted the strategy of "Rejuvenating Enterprise by Talents", and created a clean, healthy and inclusive corporate culture and an institutional mechanism of equal opportunities and fair rules. We created a strong atmosphere of respecting and attached great importance to professional talents and a positive, energetic environment for talents so as to effectively improve employees' sense of gain, happiness and security.

On the platform of CNOOC Welfare Foundation, CNOOC generously provided nearly RMB 110 million for targeted poverty alleviation, marine protection, and social cooperation projects over the year. We take proper policies for precisely alleviating poverty in accordance with local conditions, to guide new consumption poverty alleviation mode, and Hezuo, a targeted city in Gansu Province, therefore casted off poverty ahead of planning.

Being committed to sharing the development benefits with entire society, we continuously promoted warm-hearted projects and cultural construction for communities, and created harmonious and reinforcing community environments, to improve people's lives and build beautiful home together.

CNOOC Sustainability Report 2017 was awarded the highest five-star rating by the Chinese Academy of Social Sciences, the title of "Responsibility for Ten Years, Top Ten State-owned Enterprises" in the "China Corporate Social Responsibility Research Report" and the "Leadership Enterprise

Awards of Excellent CSR Report 2018", etc.

#### Extending international cooperation, joint development for bright future

Upholding the internationalization strategy, we created a balanced and generalized development model with the new concept and vision of "Openness and Win-win".

In accordance with common values and cultural concepts in different countries, we promoted mutually beneficial cooperation in the oil and gas industry to more advanced level, bearing together the risks and sharing the achievements. Actively responding to the "Belt and Road" Initiative and following the guiding ideology of "Collaboration, Value-increasing and Sharing", we improved the overseas business management system and promoted the coordinated development of overseas businesses.

We optimized the overseas employment system and promoted the localization of employees. By establishing career development channels, we promoted the development of both enterprise and local employees; making regulation construction as our top priority, we continued to build the supervision system for compliance operation. In overseas operation areas, we were committed to progress together with local communities and created more opportunities for sustainable development. We increasingly applied new technologies for energy conservation and emission reduction, and took various means to protect local biodiversity and maintain ecosystem balance.

In 2019, opportunities and challenges are intertwined. CNOOC adheres to its eternal belief of developing the blue territory and safeguarding the national energy security. At the starting point of new journey, we will remain committed to constantly innovating and striving hard, with the courage of "Eradicate the Old and Foster the New", with the determination of hard work and with the eagerness to pursue dreams, to write the brilliance of the new era!

Chairman Yang Hua  
March 18, 2019

## President's Letter



Dear all,

In 2018, in the face of profound changes in the macroeconomic and industrial environment both at home and abroad, CNOOC reformed initiatively, tackled difficulties, remained pragmatic and enterprising, and continued to promote effective balance and coordinated development in-between economic development, environmental protection and social progress.

### Reforming and innovating, ensuring energy supply

CNOOC achieved stable and positive development while making further progress in 2018. In details, the annual output of crude oil and natural gas reached 74.06 million tons and 27.7 billion m<sup>3</sup> respectively. Imported LNG reached 26.42 million tons. Natural gas-fired power output was 21.6 billion kWh. 41.32 million tons of crude oil was processed and trading volume of oil products amounted to 100 million tons.

A number of key technologies got breakthroughs, more than 10 major scientific and technological achievements, such as the series of metamorphic rock reservoir evaluation techniques, have been made. The "Construction and Application of Hydrodynamic Testing Capability in 4,000 meters Depth Underwater Engineering Equipment" won the Second Prize of "National Science and Technology Progress Award", and the "Application Technology and in-situ Detection Device of Ice-resistant and Skid-resistant Functional Asphalt Pavement in Cold Regions" won the Second Prize of the "National Technological Invention Award". A total of 779 patents were granted in China and 15 scientific and technological achievements have been transformed into 10 technical standards.

2018 was CNOOC's Year of Responsibility for Safety Production. CNOOC strictly enforced the safety production responsibility system, optimized the QHSE audit mode, and fully implemented the operation permit management system. No major safety production accidents have occurred throughout the year.

### Protecting green environment, safeguarding clear water and blue sky

CNOOC strengthened green environmental protection management and promoted green low-carbon development to protect the clear water and blue sky.

To achieve a harmonious symbiosis between oilfield and nature, we implemented a Three-Year Action Plan for Bohai Oilfield Environmental Protection Upgrading; we accelerated the construction of the system of natural gas production, supply, storage and marketing with natural gas sales exceeding 50 billion m<sup>3</sup>; we promoted the upgrading of global supply chain management to create a green supply chain; we constructed low-carbon management system and information platform and actively participated in the researches on carbon emission standard in relevant industries; all 10 carbon trading pilot enterprises performed their contracts. In this year we invested RMB 370 million in energy conservation and emission reduction and implemented 114 technological transformation projects, savings energy of 253,000 tons of standard coal and water resources of 1.66 million tons.

We carried forward environmental risk pre-evaluation and identification of nearby environmentally sensitive targets, so as to protect the ecological diversity around the operation area and achieve harmony between economic projects and ecological environment. China BlueChemical was granted the National "Green Factory" Title.

### Upholding people-oriented philosophy, fulfilling social responsibility

With a commitment to the philosophy of "People-oriented, Caring for Employees", CNOOC established "Four-in-One" talent training system, created a fair and open environment for career development, actively promoted the construction of "Three Major Projects" concerning high-quality managers, professional talents and outstanding young talents, and strived to help employees achieve balance between work and life. In 2018, CNOOC ranked No. 6 on the Forbes' List of World's Best Employers, the only Chinese company on the top 10 list.

CNOOC invested RMB 60.89 million in poverty alleviation and aids to Tibetan areas. In combination with our professional advantages, we actively explored new modes of poverty alleviation through developing competitive industries, and built the online and offline consumption platforms to promote sales of products from targeted poverty alleviation counties and cities. Hezuo city of Gansu Province took the lead in poverty alleviation.

CNOOC actively advocated and organized

employees to carry out "Blue Force" voluntary activities. Bohai oilfield organized employees to carry out the "Coastal Environmental Protection Public Welfare Action" voluntary services. CNOOC EnerTech created the Little R Alliance as its public welfare brand to carry out various forms of popularization of marine science. CNOOC Sustainability Report 2017 was awarded the highest five-star rating.

### Fulfilling overseas responsibility, deeply integrating into the world

CNOOC has gradually improved its overseas business management system, actively implemented the Company's overseas safety and environmental protection management detailed rules, and achieved centralized and unified management for overseas upstream assets and a full coverage of overseas audit supervision, effectively promoting the coordinated development of other overseas businesses and the local economy. In 2018, 32.05 million tons of crude oil and 11.7 billion m<sup>3</sup> of natural gas were produced overseas.

As a member of the UN Global Compact, CNOOC strictly abides by the laws and regulations of the UN and the host countries where its business is located. We faithfully respect human rights, pursue equality and actively build harmonious and stable labor relations. By adopting effective measures such as creating employment opportunities and donations to education, we jointly build communities with local residents.

Dear friends, I sincerely thank you for your support and trust in CNOOC. In 2019, we will not forget our original intentions and continue to move forward and strive for "Our Green Energy for Your Blue Sea and Sky".

President Wang Dongjin  
March 18, 2019

## Company Overview

China National Offshore Oil Corporation, the largest offshore oil and gas producer in China, is a state-owned mega company operating under the control of the State-owned Assets Supervision and Administration Commission of the State Council of the People's Republic of China (SASAC). Headquartered in Beijing, CNOOC was founded in 1982. After 36 years of reform and development, it became an international energy company with prominent core business, a complete industrial chain and business spreading across 40 countries and regions. The five main business segments of the Company are oil & gas exploration and development, professional technical services, refining sales and fertilizers, natural gas and power generation and financial services. In 2018, it was ranked the 87th in Fortune Global 500 and the 32nd in Petroleum Intelligence Weekly (PIW)'s World's Top 50 Oil Companies. At the end of 2018, Moody's and Standard & Poor's rated the Company with credit ratings of A1 and A+ respectively. Both outlooks are stable.

Sustainable Development Ability Enhances Significantly

Fortune Global 500

87<sup>th</sup>

PIW Top 50

32<sup>nd</sup>

## Strategy of Sustainable Development

As one of the specific implementers of the national energy strategy and marine strategy, CNOOC shoulders the crucial mission of ensuring national energy security, developing marine resources and protecting marine ecology. The Company regards economy, environment and society as the most solid cornerstone for energy development and value contribution. CNOOC adheres to its corporate vision "Energy for All", upholding the philosophy of "People-oriented, Responsibilities, Win-win Benefits, Credibility and Innovation" and the ethos of "Safe and Efficient Operations, Green and Low-carbon Growth, People-oriented, Courage to Innovate, Charitable Giving, Openness and Transparency". The Company has systematically built a CSR model on the lines of "Economic Growth, Environmental Protection and Social Progress" and applied the concept of sustainable development to daily operation in dimensions of organization, institution and management process, with the support of the three level CSR management structure including the leading group, departments and subordinates. Moreover, the Company promptly evaluates, adjusts and improves the effectiveness and results of its sustainability strategy through benchmarking and making comparisons with global business leaders and historical data.

As a participant of the *United Nations Global Compact*, CNOOC has always been adhering to the *Ten Principles*. By focusing on safer, more environmental-friendly and more efficient operation and management, CNOOC always strives for a balance among economic growth, environmental protection and social progress, and devotes to "Our Green Energy for Your Blue Sea and Sky".

### Vision

Energy for All

### Philosophy

People-oriented, Responsibilities, Win-win Benefits, Credibility and Innovation



## Compliance Operation

CNOOC pays great attention to the construction of risk prevention and control system. In 2018, CNOOC further improved its organizational system by setting up an Internal Control, Compliance and Risk Management Committee at the corporate level, which is responsible for the construction and implementation of the corporate risk control system and the overall deployment of compliance management, so as to integrate risk management into corporate governance and help implement the corporate strategy. CNOOC explores a two-level risk management reporting mechanism, including the group level and its subordinate unit level, improves the procedures of major risk investigation and information tracking and reporting, strengthens the risk management and control of major decision-making process according to the principle of hierarchy and classification, and continuously improves the operating mechanism of decision-making, implementation, supervision and coordination. The Company strives for high-quality development by risk-orientation and compliance, by strengthening supervision on key areas, key links and major projects to reveal risks and hidden dangers, intensifying audit rectification and continuously optimizing the internal control system.

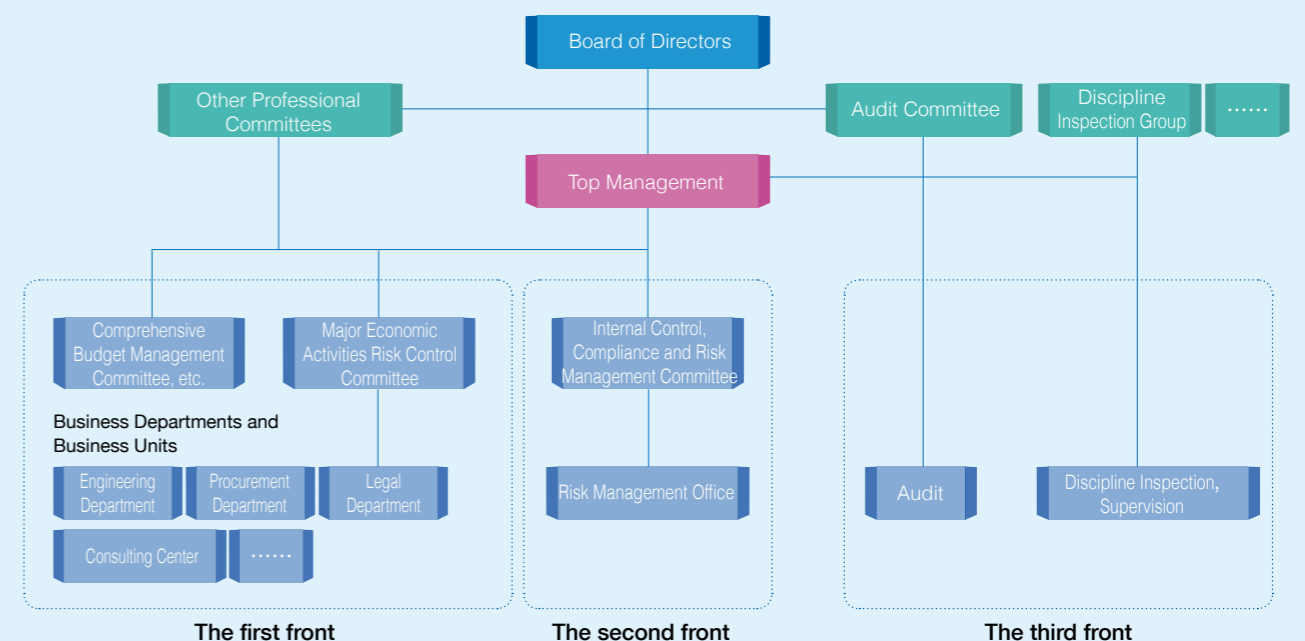
## Internal Audit

CNOOC adheres to the principle of "Checking problems, Controlling risks, Improving Efficiency and Promoting Development", focuses on the implementation of the Party's and national major guidelines and policies, attaches importance to the prominent problems and risks in the Company's development, and constantly reinforces the concept of effective supervision, in order to contribute value to build an international first-class energy company with Chinese characteristics. In 2018, the Company completed 558 internal audit projects. Based on promoting compliance operation and improving management ability, the Company created a total of RMB 389 million of direct economic benefit by all kinds of internal audit projects.

## Anti-corruption

CNOOC keeps tough stance on corruption, maintains high-pressure situation of punishing corruption and resolutely corrects all kinds of violations of laws and the Company's regulations with an iron hand. The Company attaches importance to minor cases and promptly reminded employees of the tendency problems, besides enhancing anti-corruption awareness on a daily basis and carrying out training for preventing crises before they emerge. Focusing on key areas and key works, CNOOC conducts special projects and builds corporate constitutions to make continuous efforts to address both symptoms and the root cause. The Company gives full play to patrol inspection and accredited agencies, thereby building a full coverage supervision network to ensure that power is effectively supervised and restricted.

Three fronts of defense for risk management in CNOOC



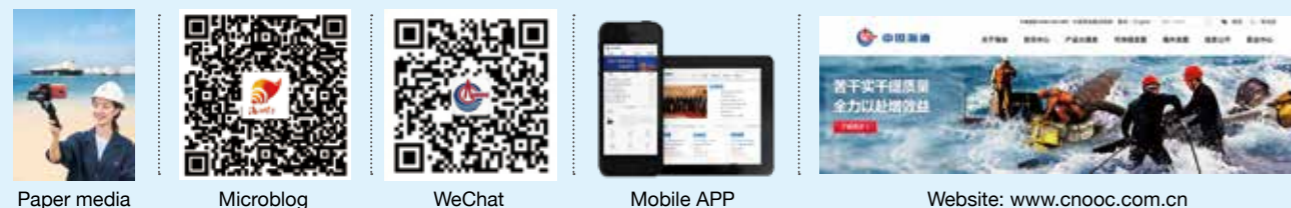
# Stakeholders

CNOOC has built a service and communication system for stakeholders, including governments, labor union, shareholders, customers, industry partners, suppliers and contractors, financial institutions, media, communities

and non-governmental organizations, etc. We pay close attention to their concerns in the formulation and implementation of our strategies, policies and plans. We also take various measures of information disclosure to

echo their concerns. A series of key performance indicators are used to ensure our actions and communication with stakeholders effective. We believe that trust and support of stakeholders are impetus for our further development.

## Information Disclosure



## Stakeholders' Voice

“CNOOC has donated to Baoting Middle School to build four teaching buildings and dormitory buildings, which greatly improved the conditions of teaching facilities. In recent years, the overall performance of our school in the college entrance examination has been rising. In 2018, our entrance rate of the first-batch university reached 33%. Many students were admitted to the famous universities such as Tsinghua University and Beihang University.”

—Zhou Xiaohua, Principal of Baoting Middle School, Hainan

“Over the past 16 years, CNOOC has performed outstandingly in safety management, production operation, budget control and economic value creation. The Company also did well in the recent project handover. Even in the final phase of the project, it has maintained a good safety record and high production. We hope CNOOC will continue to invest and expand its business in Indonesia.”

— Amin, Government official of Indonesia

“I am very happy and honored to work in CNOOC. Chinese technicians are very conscientious and responsible. Their modest and friendly attitude towards us makes me feel warm and at ease. In our Missan Oilfield, I have learned a lot of knowledge, and improved my professional capability greatly.”

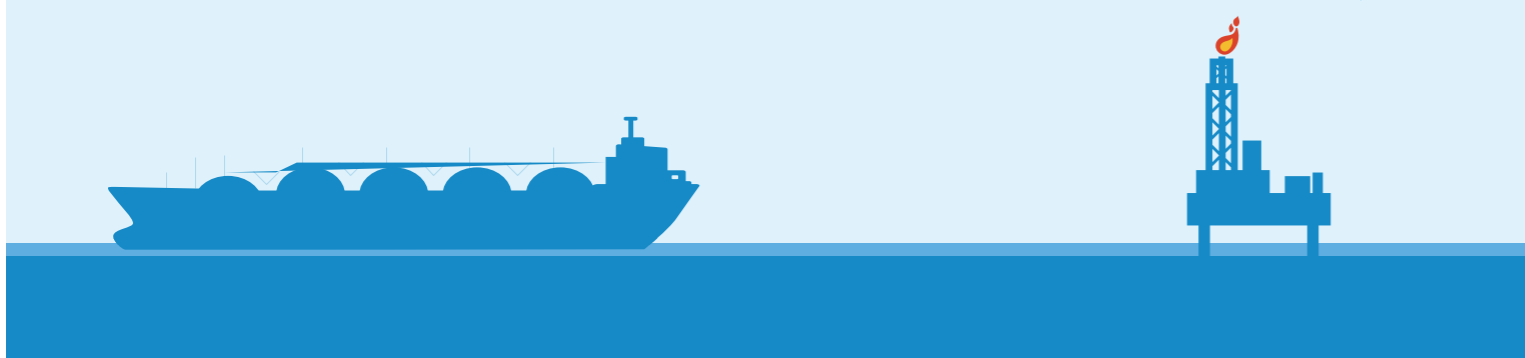
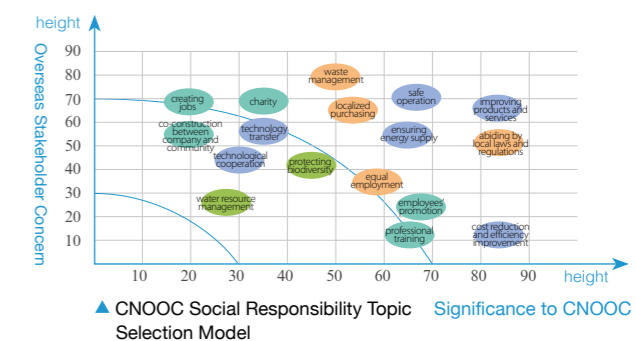
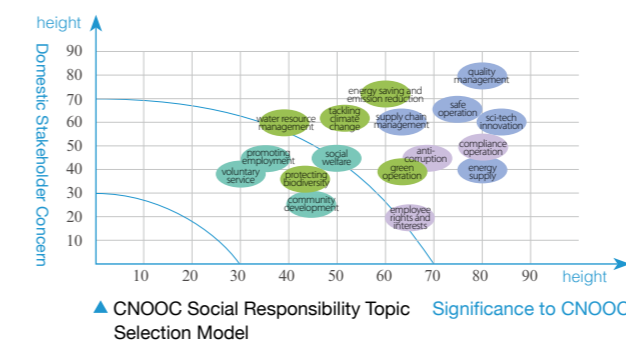
—Mohammed, Drilling Superintendent of Missan Oilfield

## Communication with Stakeholders

In 2018, CNOOC kept on the theme of “Our Green Energy for Your Blue Sea and Sky” and undertook sustainable development through three dimensions of “Promoting Economic Growth, Enhancing Environmental Protection and Driving Social Progress”. The Company organized various forms of exchange activities for stakeholders, widely collected opinions and suggestions of stakeholders and responded to their concerns through various channels. Some concerns were presented as main topics in this report.



## Topic identification



# CNOOC and SDGs

As a member of the UN Global Compact, CNOOC adheres to the *Ten Principles* in human rights, labor standards, environment and anti-corruption and takes effective measures referring to the 17 sustainable development goals (SDGs) in Transforming Our World: The 2030 Agenda for Sustainable Development, proposed by the UN. In 2018, CNOOC made every effort to fulfil social responsibilities according to the characteristics of its business in order to achieve the 2030 SDGs.



Four domains of the UN Global Compact



CNOOC Sustainable Development Model



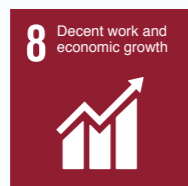
**7 Affordable and clean energy**

369 sales of LNG (100 million m<sup>3</sup>)

848 sales of gasoline (10,000 tons)

1,176 sales of diesel (10,000 tons)

323 sales of aviation kerosene (10,000 tons)



**8 Decent work and economic growth**

12,183 total assets (RMB 100 million)

7,162 turnover (RMB 100 million)

93,601 staff (people)

100 rate of conclusion of employment contract (%)

100 rate of social insurance coverage (%)



**9 Industry, innovation and infrastructure**

34.48 R&D investment (RMB 100 million)

8,337 science and technology employees (people)

779 Granted patents (awards)

289 invention patents (awards)



**12 Responsible consumption and production**

7,406 crude oil output (10,000 tons)

277.3 natural gas output (100 million m<sup>3</sup>)

4,132 processed crude oil (10,000 tons)



**17 Partnerships for the goals**

36.1 ratio of overseas assets (%)

3,205 crude oil overseas output (10,000 tons)

117 natural gas overseas output (100 million m<sup>3</sup>)

78.57 localization rate of overseas employees (%)



100 quality and QHSE management system certification rate of supplier and contractor (%)



**6 Clean water and sanitation**

10,103.5 fresh water consumption for the whole year (10,000 tons)

166.1 water saving (10,000 tons)



**13 Climate action**

25.3 energy saving (10,000 tons of standard coal)

11 ratio of sulfur dioxide emission reduction (%)

11 ratio of nitrogen oxides emission reduction (%)



**14 Life below water**

6 biodiversity conservation research projects (items)

882 investment in marine environmental and ecological protection (RMB10,000)



**1 No poverty**

6,089 investment of poverty alleviation in Tibet (RMB10,000)

217 assistances to employees in difficulty (households)

4 fixed-point poverty alleviation (provinces)

531 disabled employees (people)

2.86 ratio of ethnic minority employees (%)

1,147 tax and fees (RMB100 million)



**2 Zero hunger**

99.45 ratio of physical examination for occupational health (%)

131 volunteer teams

27 pre-evaluation of occupational hazards (cases)

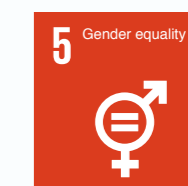


**4 Quality education**

5.5 annual training courses (10,000 courses)

88.9 annual trainees (10,000 people)

640.9 annual training hours (10,000 hours)



**5 Gender equality**

19.19 ratio of female employees

0 employment of child labor



1,183 petrol stations

158 gas stations



## Key Performance Indicators

	Item	2016	2017	2018	2018 National Data	Source of National Data
Economic Growth	Crude Oil Output / Domestic Output (10,000 tons)	7,697/4,555	7,551/4,278	7,406/4,201	18,911	NBS
	Natural Gas Output / Domestic Output (100 million m <sup>3</sup> )	245/129	259/143	277/160	1,610	NBS
	LNG Imports (10,000 tons)	1,652	2,046	2,642		
	Processed Crude Oil (10,000 tons)	3,229	3,592	4,132		
	Crude Oil Trading Volume (10,000 tons)	7,941	8,637	9,764		
	Fuel Oil Output (10,000 tons)	435	372	460		
	Ethylene Output (10,000 tons)	107	108	158	1,841	NBS
	Methanol Output (10,000 tons)	151	153	152		
	Fertilizer Output (10,000 tons)	370	384	402	5,460	NBS
	Natural Gas-Fired Power Output (100 million kWh)	215	213	216		
	Direct Contractor Casualties (people)	2	5	3		
	Employee Casualties (people)	5	0	1		
	Recordable Injury Events (cases)	65	47	56		
	R&D Investments (RMB100 million)	21	27	34		
	Science and Technology Employees (people)	9,097	8,529	8,337		
	Granted Patents (awards)	834	840	779		
Environmental Protection	Energy Conservation and Emission Reduction Investments (RMB100 million)	4.1	3.5	3.7		
	Comprehensive Energy Consumption per RMB10,000 Turnover (tons of standard coal equivalent)	0.3519	0.3805	0.3548		
	Energy Savings (10,000 tons of standard coal equivalent)	23.0	33.5	25.3		
	Sulfur Dioxide Gas Emission (tons)	5,796	4,710	4,174		
	Chemical Oxygen Demand (tons)	1,075	1,074	919		
	Nitrogen Oxides Emission (tons)	10,654	10,268	9,117		
Social Progress	Ammonia Nitrogen Emission (tons)	109	66	61		
	<sup>1</sup> Headcount (10,000 people)	10.6	9.8	9.4		
	Rate of Conclusion of Employment Contracts	100%	100%	100%		
	Rate of Social Insurance Coverage	100%	100%	100%		
	Percentage of Employees Joined the Labor Union	100%	100%	100%		
	Percentage of Female Employees	21	20	19		
	Degree of Employee Satisfaction (10-point system)	7.62	8.15	8.72		
	Incidence of Occupational Disease (cases)	3	4	3		
	Rate of Physical Examination for Occupational Health	99.9%	99.7%	99.5%		
	Average Training Duration per Employee (hours)	86.0	74.0	74.34		
	Employee Turnover Rate	2.6%	2.0%	2%		
	Charitable Donation (RMB10,000)	13,608	9,304	10,983		
	Tax and Fees (RMB100 million)	741	959	1,147		
	Number of Foreign Employees (people)	4,864	4,767	4,671		
Localization Rate of Overseas Employees	71%	80%	79%			

Note: <sup>1</sup>Headcount includes the number of foreign employees.

## Promoting Economic Growth





## Ensuring Energy Supply

CNOOC continues to provide more diversified, greener and more environmental-friendly quality energy, strengthen the conventional oil and gas exploration and development, promote the development of unconventional gas, increase the supply of LNG and make a great contribution to ensuring energy supply and control of air pollution.

In 2018, CNOOC produced 74.06 million tons of crude oil and 27.7 billion m<sup>3</sup> of natural gas, imported 26.42 million tons of LNG and generated 21.6 billion kWh of natural gas-fired power.

### Oil and Gas Exploration

Being guided by its exploration planning and the philosophy of looking for large and medium-scale oil- and gasfields, CNOOC keeps value-driven exploration and has optimized its exploration investment portfolio. Major breakthroughs have been made in oil and gas exploration both at home and abroad.

In 2018, CNOOC continued to keep the domestic exploration and newly discovered reserve at a high level, with 12 commercial discoveries and 11 potential commercial discoveries, and made successful evaluation of 5 large and medium-scale oil and gas bearing structures including “Bozhong 19-6” “Bozhong 29-6” “Bozhong 13-1S” “Lufeng 12-3” and “Ledong 10-1”. The Company also achieved 5 overseas commercial discoveries and successfully evaluated 1 oil and gas bearing structure.

#### The largest condensate gasfield in Eastern China approved by the Ministry of Natural Resources of China

The reserve of large-scale condensate gasfield “Bozhong 19-6” structure was proven by the Oil and Gas Reserves Audit Office of the Ministry of Natural Resources of China on December 27, 2018.

“Bozhong 19-6” structure is evaluated to be the largest condensate gasfield in Eastern China. Its development will provide clean energy for Beijing-Tianjin-Hebei region.

#### China's first self-operated 100-billion-m<sup>3</sup> deepwater gasfield started development

The project kick-off meeting for the development of “Lingshui 17-2” gasfield in the Western South China Sea was held on June 19, 2018, which marks China's first self-operated 100-billion-m<sup>3</sup>-scale deepwater gasfield has formally entered the stage of development. This event also shows that China has mastered the design, construction and installation technologies

of semi-submersible production platform, which are well adapted to the deep and complex waters of the South China Sea and will strongly promote the development of oil and gas resources in the South China Sea. The achievement is of great significance to the construction of the gasfield cluster in the South China Sea and the protection of China's energy security.

#### A major breakthrough in HTHP exploration in “Ledong 10-1” gasfield

On June 1, 2018, the drilling operation of “Ledong 10-1” UHTHP well in the western South China Sea was completed safely with high quality. A major breakthrough has been achieved in UHTUP exploration

in “Ledong 10-1” block, as the drill for the first time encountered a high resistivity gas reservoir over 100 meters thick and the proved reserves of single well set a new record.



Drilling in the western South China Sea

## Oil and Gas Production

CNOOC adheres to the innovation-driven strategy and sets low cost as lifeline. In order to ensure national energy security, the Company takes effective measures to increase production according to local conditions and maintain high production time efficiency and high utilization efficiency of oil wells.

In 2018, the domestic output of crude oil and natural gas was 42.01 million tons and 16 billion m<sup>3</sup> respectively.

#### Bohai oilfield maintained production over 30 million m<sup>3</sup> for 9 years consecutively

In 2018, driven by demand, Bohai oilfield adjusted the production plan in time. The Company put 54 development wells into production and produced 514,000 m<sup>3</sup> of crude oil in the year, exceeding the production plan; put 142 adjustment wells into production, with the number reaching a new historical high in Bohai oilfield, and got

a result better than pre-drilling production allocation, with the output volume of 29 units exceeding the allocation plan. The water cut was controlled to rise less than 3% and the average natural decline rate was controlled within 15%. A new record of production over 30 million m<sup>3</sup> for 9 years consecutively has been made.



Bohai oilfield construction site

#### Nanhai East oilfield maintained production over 15 million m<sup>3</sup> for 4 years consecutively

In 2018, facing the disadvantageous factors such as frequent and strong typhoons, dock repair of two tankers and shutdown of multiple oilfields for overhaul, Nanhai East oilfield achieved comprehensive safe production and operation by further intensifying exploration and development, promoting lean management and building

smart oilfields, and the production of the year exceeded 7.34% of the plan. This is the 23rd consecutive year since 1996 that Nanhai East oilfield has achieved oil and gas production of more than 10 million m<sup>3</sup> and the 4th consecutive year since 2015 that its oil and gas production has exceeded 15 million m<sup>3</sup>.

#### The largest self-operated offshore gasfield in China gained vitality again

In 2018, the adjustment well A10H in “Dongfang 1-1” gasfield, China's largest self-operated offshore gasfield, kept production at high level. Since being put into operation, the well has accumulatively produced 44 million m<sup>3</sup> of natural gas, ensuring steady gas supply for Hainan.

Since its first operation in 2006, “Dongfang 1-1” gasfield has accumulatively produced more

than 33 billion m<sup>3</sup> of natural gas. However, with the prolongation of development life, the production of the gasfield decreases and it is urgent to increase production by exploiting potentials. Through a new round of basic research on geological reservoirs and fine management, Nanhai West oilfield has vitalized the old gasfield and activated nearly 5 billion m<sup>3</sup> of gas reserves in the block.

## Refining and Chemical Production

CNOOC adheres to the development path of “Low Cost, Differentiation, Science and technology leading” and is committed to building an oil refining industry with international leading level by keeping close to the goals and requirements of high quality development. In order to enhance core competitiveness, the Company actively adapts to market changes and strengthen the linkage between production and marketing to achieve low inventory operation by resource optimization, structural adjustment, cost control and market development.

In 2018, CNOOC processed 41.32 million tons of crude oil, produced 14.55 million tons of refined oil products, 1.58 million tons of ethylene, 2.89 million tons of sodium carbonate, 6.27 million tons of bitumen and 1.77 million tons of lubricants, with the total profit reaching RMB 10.1 billion and the operating profit exceeding RMB 10 billion for three consecutive years.

### The ethylene plant for CNOOC Huizhou Refinery Phase 2 Project started up

At 5:20 on April 24, 2018, the ethylene cracking unit, the core unit of 1.2 Mt/a ethylene plant for CNOOC Huizhou Refinery Phase 2 Project produced for the first time qualified ethylene and propylene, which marks the successful start-up of the ethylene plant.

Three key units of 1.2 Mt/a ethylene plant for

CNOOC Huizhou Refinery Phase 2 Project were independently developed, designed and manufactured by Chinese enterprise. It is the first application of domestic similar equipment in world-class ethylene plant and has set a new milestone for “made by China” of major technical equipment.

### The MoU on Cooperation of Phase 3 Project of Huizhou Refinery signed

On the morning of October 16, 2018, witnessed by Premier Li Keqiang of the State Council and Dutch Prime Minister Lute, CNOOC and Shell signed a Memorandum of Understanding (MoU) on Cooperation for Huizhou Petrochemical Phase 3 Project in The Hague. Yang Hua, chairman of CNOOC, and Ben van Beurden, CEO of Shell, signed

the agreement on behalf of their respective groups. The two parties will cooperate in the construction of production facilities and integrate their assets in the Daya Bay, aiming at fully exerting the advantages and benefits of industrial clusters and creating a large-scale integrated refining base with global first-class competitiveness in the Daya Bay.

### Daxie Petrochemical Light Hydrocarbon Aromatization Project started up

On March 6, 2018, the pile foundation for Daxie Petrochemical Light Hydrocarbon Aromatization Unit officially started up. The project, with a total investment of RMB 500 million, is planned to build a set of light hydrocarbon aromatization unit with a capacity of 500,000 t/a. The unit is scheduled to be completed and put into operation by the end of September 2019, as all the pre-approval

procedures and the leveling and road works was completed in 2017. In this project, liquefied gas, C<sub>5</sub>, C<sub>6</sub>, raffinate oil and light naphtha will be used as main raw materials, with a series of reactions such as selective cracking, isomerization, cyclization and dehydrogenation of light hydrocarbon molecules C<sub>4</sub>-C<sub>7</sub> through molecular sieve catalysts in order to work out high value-added products.



Panorama of CNOOC Huizhou Petrochemicals

## Service Network

CNOOC always takes customer satisfaction as an important indicator to measure service quality. The Company continuously innovates business modes and marketing channels by changing the marketing concept from “passive marketing, market-driven” to “planning ahead, infrastructure-driven” and from “small market business” to “big market business”. In order to enable customers to enjoy more convenient products and services, the Company fully integrates internal and external resources, actively expands service network and improves its quality. CNOOC attaches great importance to customer information protection and continuously enhances service capabilities for better customer satisfaction. CNOOC strives for 100% resolution rate of customer complaints and common development with customers on the basis of mutual benefit.

### Petroleum Products Supply

CNOOC continues to develop marketing network for petroleum products and optimize the network structure. Focusing on improving the quality of network construction, the Company has developed a large number of high-quality service station projects. In 2018, the Company newly opened 217 petrol stations.

### CNOOC Oil & Petrochemicals supplied diesel directly to Fujian railway system for the first time

On November 14, 2018, CNOOC Oil & Petrochemicals began to directly supply diesel for locomotive depot in Fujian railway system by means of small-scale distribution. Railway transportation has an extremely important

role in ensuring the core area status of Fujian Province as the core area of the 21st Century Maritime Silk Road. The annual consumption of diesel for locomotives exceeds 20,000 tons.

### The first independently constructed long-distance petroleum product pipeline has transported more than 4 million tons of products per year

At 11:20 on December 3, 2018, Dongguan Sales Logistics of CNOOC Sales has transported accumulatively 4 million tons of petroleum products since the beginning of the year by Huizhou-Dongguan long-distance pipeline, exceeding the annual design capacity for the first time and reaching a record high. Huizhou-Dongguan long-distance pipeline is the first above-ground long-distance petroleum

product pipeline independently constructed by CNOOC. It starts at the Daya Bay in Huizhou and ends at Lisha station in Dongguan. The pipeline is 162.3 kilometers long with design transportation capacity of 4 million tons per year. The pipeline is operated by advanced SCADA automation system and provides strong guarantee for the sales of CNOOC's refined oil products in South China.

### CNOOC Oil & Petrochemicals entered the International Market

In June 2018, CNOOC Oil & Petrochemicals exported 360 tons of methyl ethyl ketone products to Singapore. The company thereby entered the high-end coatings market in Southeast Asia and obtained access to the high-end coatings markets in Europe and the United States.

In October 2018, CNOOC Oil & Petrochemicals exported Rubber Plasticizer N4010 to Japan. Relying on the stable supply of raw materials and good performance of products, the company's rubber plasticizer products received unanimous praise from downstream customers.

### CNOOC Zhongjie Petrochemical builds “Green Energy Supply Base in Xiongan New Area”

On June 6, 2018, CNOOC Zhongjie Petrochemical sent its high-quality polypropylene products to Xiongan New Area, with the cumulative product supply reaching 1,577 tons, by which the company took a firm step in building a green energy supply base in Xiongan New Area. CNOOC Zhongjie Petrochemical takes building a new Zhongjie in the new era as a new starting point and makes itself a bridgehead for building a green energy supply base in Xiongan New Area and contributing to the

coordinated development of Beijing-Tianjin-Hebei region.



CNOOC's petrol station in service

### Natural Gas Supply

CNOOC earnestly implements the national policy of building a production, supply, storage and marketing system for natural gas development. The Company has made full efforts to increase production and supply of natural gas by acquiring more resources, speeding up infrastructure construction, strengthening pipeline interconnection, exploring multimodal transport of LNG tank and other measures, in order to contribute to guaranteeing the supply and protecting the environment.

During the heating season of 2017-2018, CNOOC took many measures to effectively cope with the explosive demand growth. Through interconnection of pipelines and natural gas among swap, CNOOC increased the gas supply by about 1.1 billion m<sup>3</sup>, accounting for 50% of the national increment supply, which effectively alleviated the shortage of gas supply in the whole country.

During the heating season of 2018-2019, CNOOC optimized the overall allocation of resources ahead of schedule. According to plan, 24.6 billion m<sup>3</sup> of natural gas would be supplied, an increase of 20% over the same period last year, of which 3 billion m<sup>3</sup> would be supplied through interconnection, an increase of 173% over the same period last year.

#### A major breakthrough achieved in natural gas exploration in the Bohai Sea

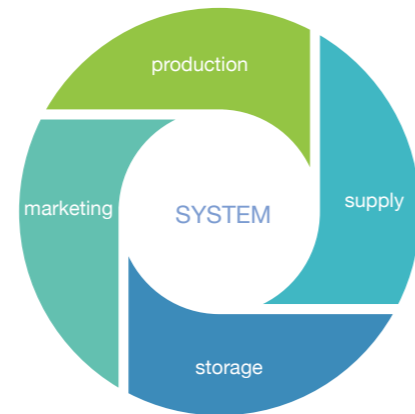
A major breakthrough has been achieved in natural gas exploration in the Bohai Sea — “Bozhong 19-6” condensate gasfield in Bohai oilfield has more than 100 billion m<sup>3</sup> of proven geological reserves of natural gas and more than 100 million m<sup>3</sup> of proven geological reserves of condensate oil. The discovery of “Bozhong 19-6” gasfield has opened up a new prospect for gas exploration in oil-rich basins and helped the Company discover new oil and gas accumulation areas.

#### Natural gas output of Nanhai East oilfield exceeded 5 billion m<sup>3</sup> per year



#### CNOOC Gas & Power Group completed pre-sale for ensuring gas supply in winter

On April 18, 2018, CNOOC Gas & Power Group, in conjunction with Shanghai Petroleum and Natural Gas Exchange, launched its first cargo pre-sale for winter gas supply, with a total of 21 transactions and 90,000 tons of LNG purchased by 11 customers. In this pre-sale activity, CNOOC Gas & Power Group made full use of the advantages of portfolio, actively helped customers find right resources and right prices and lock resources in advance. The success of pre-sale activity contributed to stabilize the market price in the winter season and promoted the sustainable and healthy development of the gas industry.



#### Hainan Bonded LNG Tank of CNOOC Gas & Power Group was checked and accepted



#### CNOOC Gas & Power Group received and unloaded the first ship of Yamal LNG

As a measure to implement the important direction made by Xi Jinping, General Secretary of the Communist Party of China Central Committee, about jointly developing and utilizing the Arctic channel, the first ship of Yamal LNG, purchased by CNOOC Gas & Power Group from Novatek, arrived at Fujian LNG terminal on November 11, 2018, and completed unloading. It was the first ship of LNG to supply the Asia-Pacific market through the Arctic channel in the winter of 2018.



#### Tianjin interconnection section of CNOOC Mengxi Pipeline put into operation

Tianjin Interconnection Section of CNOOC Mengxi Pipeline Phase 1 Project was put into operation on November 15, 2018. During the heating season of 2018-2019, it could supply over 8 million m<sup>3</sup> of natural gas per day to Beijing-Tianjin-Hebei region. Once the Phase 1 Project finishes, CNOOC can directly supply to Xiongan New Area and Beijing to effectively alleviate the shortage of gas supply in North China.

#### Tianjin LNG tried all efforts to ensure natural gas supply in the heating season

Tianjin LNG has improved its natural gas supply capacity through infrastructure construction. By leasing a floating storage gasifier (FSRU), the gasification capacity of the terminal will be increased by 14 million cubic meters per day, and the total gasification capacity will reach 24 million cubic meters per day; by adding 11 loading pries, the loading capacity of the tank car will be increased to 600 tank cars per day, and the liquid supply capacity will reach 18 million cubic meters per day (converted into gaseous state); by building the first LNG tank with fully independent technology and design, the 160,000 cubic meters large LNG tank designed and constructed has increased the natural gas storage capacity by nearly 80%. CNOOC Gas & Power Group leased 2 LNG vessels and let them wait at sea for further instructions, filling with LNG.

#### LNG tank container ship for land-and-sea, south-to-north coordinated transport

On November 4, 2018, an LNG tank container ship of CNOOC Gas & Power Group, carrying 130 LNG tank containers, set sail from Yangpu Port, Hainan Province. It is the first beneficial attempt in China to transport the surplus of storage capacity in Hainan LNG Terminal to the northern region on a large scale by LNG tank container. It is of great significance to meet the needs of clean heating in winter and ensure gas supply in the northern region.



#### Innovated business mode by LNG terminal's "window" exchange

On September 20 and October 17, 2018, CNOOC Gas & Power Group in conjunction with Shanghai Petroleum and Natural Gas Exchange, innovatively completed two LNG terminals' "window" auction activities. The new mode of transaction is an important measure for CNOOC to implement the national policy of opening up infrastructures and building a comprehensive system covering production, supply, storage and marketing.

#### Key project of pipeline interconnection and "south-to-north" transport finished ahead of schedule

During the heating season of 2018-2019, CNOOC planned to transport a supplementary 30 million m<sup>3</sup> of gas per day from Guangdong to the northern region. With CNOOC's active promotion, three key pipeline interconnection projects in Guangdong have been put into operation on schedule, which laid a solid foundation for gas supply.



#### CNOOC Gas & Power Group launched DES, a new distribution mode of LNG tank cars

Relying on CNOOC E-commerce platform and CNOOC Operation Management Center, CNOOC Gas & Power Group has launched DES, a "one-key" trading mode. While selling LNG, the company also provides distribution services and meet the diversified needs of customers.

# Implementing National Development Strategy

## Hainan Pilot Free Trade Zone

“... build the whole island into a Pilot Free Trade Zone and promote the establishment of a free trade port with Chinese characteristics, give full play to our own advantages, boldly explore and innovate, and develop Hainan into a vivid example of socialism with Chinese characteristics for a new era and make the island province an example for the nation.”

—Excerpt of Xi Jinping’s speech at a gathering celebrating the 30th anniversary of the founding of Hainan Province and the Hainan Special Economic Zone

### Hainan LNG Terminal

- Design annual receiving capacity: 3 million tons
- Two LNG tanks with a capacity of 160,000 m<sup>3</sup> each

### Hainan Yangpu Power Plant

- The largest gas-fired power plant in Hainan
- Total loading capacity: 2×220 MW
- Design annual power generation: 1.8 billion kWh



### Petrol Station and Gas Station

- 119 Joint venture petrol stations
- 9 gas stations

### Trade and Logistics

- Bonded LNG Tank
- Storage
- Transport

### Lingshui 17-2 Gasfield Development Project of Hainan Branch

- Annual output of natural gas in stable production period: 3.2 billion m<sup>3</sup>

### Basuo Port

### Hainan Pipeline

- Long-distance gas pipeline: 569 km (including Hainan LNG pipeline)
- Urban gas pipeline network: 252 km

### Fudao Fertilizer

- Design annual output of chemical fertilizer: 1.32 million tons
- Design annual output of methanol: 1.4 million tons

## Yangtze River Economic Belt

“... intensify efforts to promote the development of the Yangtze River economic belt ... more importantly, promote cooperation in green industries and promote the flow of talent, capital and technology from downstream areas to upstream and middle stream areas.”

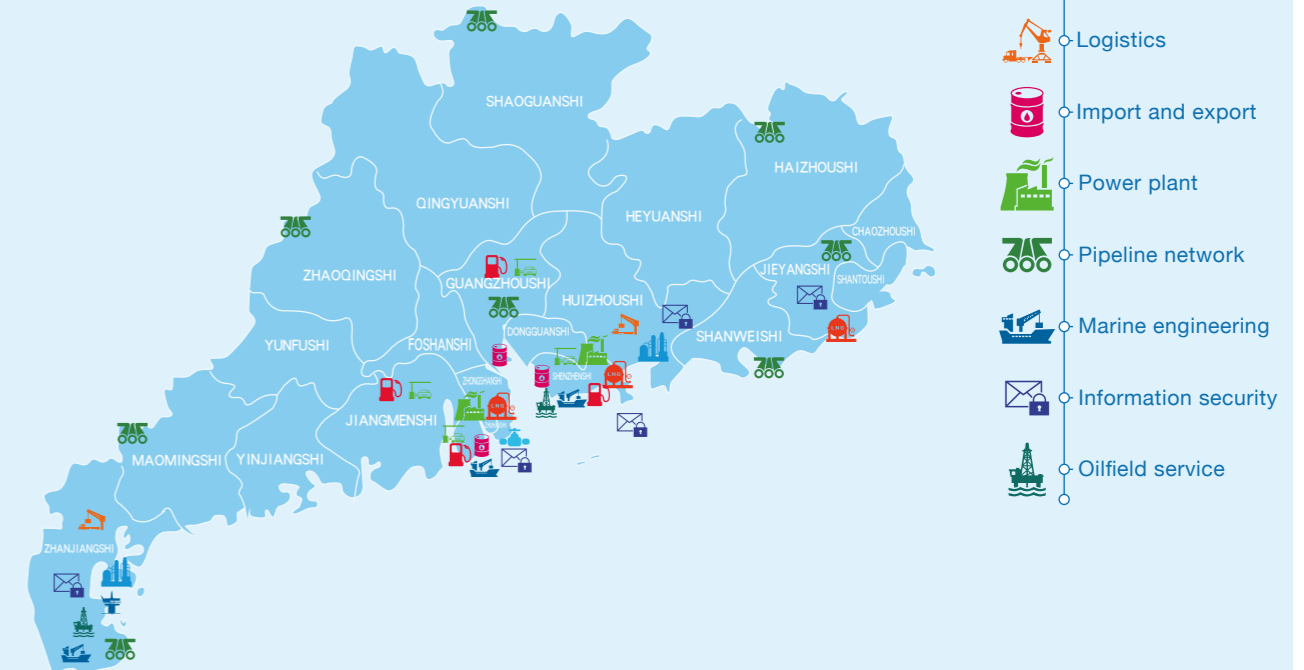
—Excerpt of Xi Jinping’s speech at a symposium on promoting the development of the Yangtze River economic belt



## Guangdong Province

“Independent innovation is the only way toward scaling world heights in science and technology. Enterprises should have the aspirations and guts to accelerate enhancing the capability of independent innovation, strive to achieve the independent control of core technologies and hold firmly the initiative of innovative development in our own hands.”

—Excerpt of Xi Jinping’s speech during an inspection tour in Guangdong



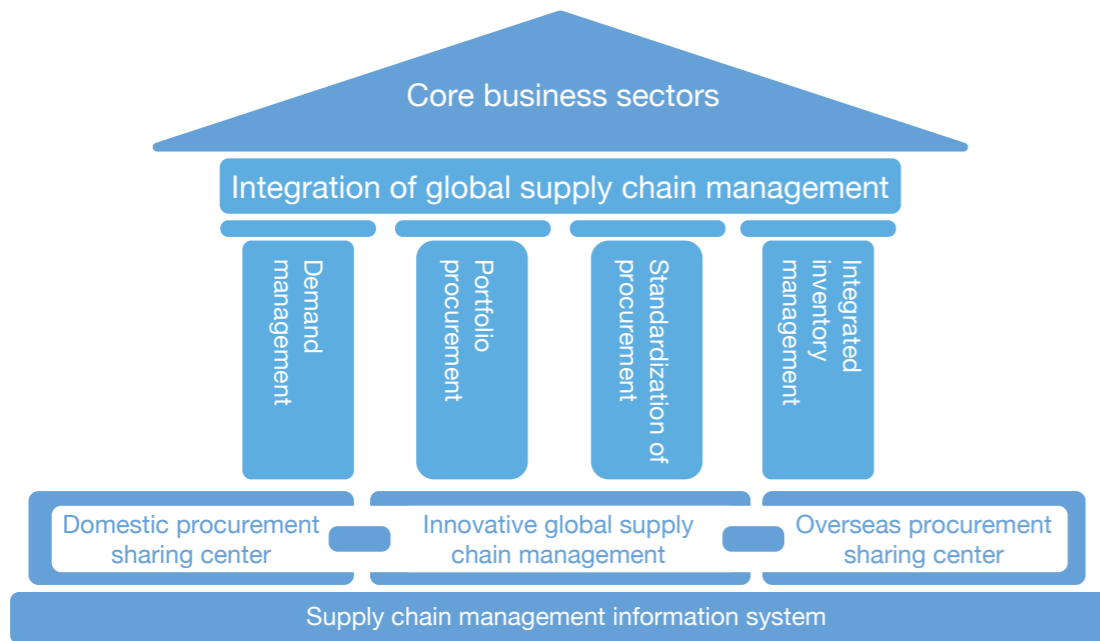
## Supply Chain Management

CNOOC strengthens green supply chain management and promotes institutional reform in procurement by establishing sharing procurement centers for all business sectors, transiting functional procurement to portfolio procurement and improving the portfolio procurement standards system and the integrated supply chain management system. The Company maintains the omnibearing and whole flow management on suppliers and contractors conforming to QHSE requirements and promotes the upgrading of global supply chain management.

CNOOC enhances the digital transition of supply chain management by improving the integrated supply chain management system with procurement platform as the core and the connection in-between various modules such as ERP, contract, finance and production. The system integrates the streams of business, information and capital from supply to demand and constantly strengthens core competitiveness by giving full play to data value. CNOOC adopts local business management mode and sets up specific function modules on line by considering national policies and regional characteristics in operation areas, in

order to build an ecological management information system.

The implementation of global supply chain management will refresh “blood and nerves” of the offshore oil industry chain and maximize the advantages of scale economy by enhancing connection between and sharing of internal and external value chains, in order to realize real-time response to procurement demand, effectively reduce the “bullwhip effect” and directly cut operating costs, thereby making procurement the core competitiveness of CNOOC for high-quality development.



### Optimization of material supply chain management system in Bohai oilfield

Relying on ERP platform and RLM, Bohai oilfield integrated various technical means to construct an integrated procurement-logistics management platform, which facilitated the application of many business management innovations in CNOOC, improved the transparency of material supply information and performance. In recent three years, the oilfield has reduced inventory by about RMB 1.1 billion.

### Nanhai East oilfield improved supply chain management

Nanhai East oilfield procurement sharing center has introduced an e-commerce platform for material requisition, complete the initial management of universal material supply chain, and develop intellectualization through digital management. As consequence, the inventory utilization and the accuracy of demand plan were both improved and lead procurement and excess inventory were effectively reduced.

### CNOOC enhanced management and audit on diving contractors

In 2018, CNOOC carried out special audits on nine diving contractors, two of which failed to be approved, by gradually increasing the proportion of simulated field operation and promoting the implementation of ADCI standards.

## Emphasizing Sci-Tech Innovation

Majoring in oil and gas business, CNOOC actively implements the innovation-driven strategy, deepens the reform of sci-tech institutions and mechanisms and constantly improves the sci-tech innovation system. To meet

the major and important demand of the state and the Company, researchers focus on research on a series of core technologies such as efficient development of offshore heavy oil, oil and gas E&P in deepwaters, low-permeability

tight gas E&P, and constantly explores new types of marine energies, in order to provide clean energies for economic, social and environmental sustainable development.

### Gold Awards for three sci-tech achievements of CNOOC

During July 3 to 4, 2018, CNOOC won three Golden Awards for Commercialization of Petrochemical Science and Technology Achievements for *Key Technology and Application of spudcan penetration and extraction of Jack-up Drilling Platform, Drilling logging while drilling (LWD) system and Wellleader rotary steering drilling system, Discovery of 100-million-ton oilfield through innovation of key technologies of ultra-heavy oil exploration in the Liaodong Bay*, respectively.

### A number of achievements awarded First Prize of Ministry Level Science and Technology Progress

Three achievements, including *Pre-stack seismic inversion and hydrocarbon identification driven by petrophysics, Key technology and industrial application of complex marine strata and deepwater drilling fluid, Integrated technologies and application of coking inhibiting in heavy oil FCC settler*, won First Prize of Ministry Level Science

and Technology Progress Award in 2018. *Development and application of experimental technology for marine riser vortex-induced vibration* won Special Prize of Marine Engineering Science and Technology Award of China Marine Engineering Consultants' Association.

### CNOOC EnerTech awarded API19V Technical Certification

On August 28, 2018, CNOOC EnerTech was awarded seven API (American Petroleum Institute) certifications and became one of the companies with the most awarded in the industry worldwide, which was for the first time awarded to Chinese company.

### COSL developed HTHP oil based drilling fluids system successfully

An oil based HTHP drilling fluids system named HTO-DRILL was developed successfully by COSL and core products of HTO-DRILL have been industrialized. HTO-DRILL can solve the problem of narrow safe density window during drilling operations. Also severe fluids loss can be avoided with the system and HTO-DRILL can meet the

extremely harsh requirements of drilling operations. The system has been successfully used in both domestic and overseas HTHP block with remarkable economic and social benefits. The technology was identified as internationally advanced by Tianjin Science and Technology Evaluation Center.

### Creation of China's First Marine Engineering Digital Technology Center

On December 4, 2018, China's first Marine Engineering Digital Technology Center was established in Tianjin, which will provide simulation program rehearsal and simulated training for key personnel in domestic and foreign marine engineering.

### "HQI-Navi" integrated navigation system launched operation

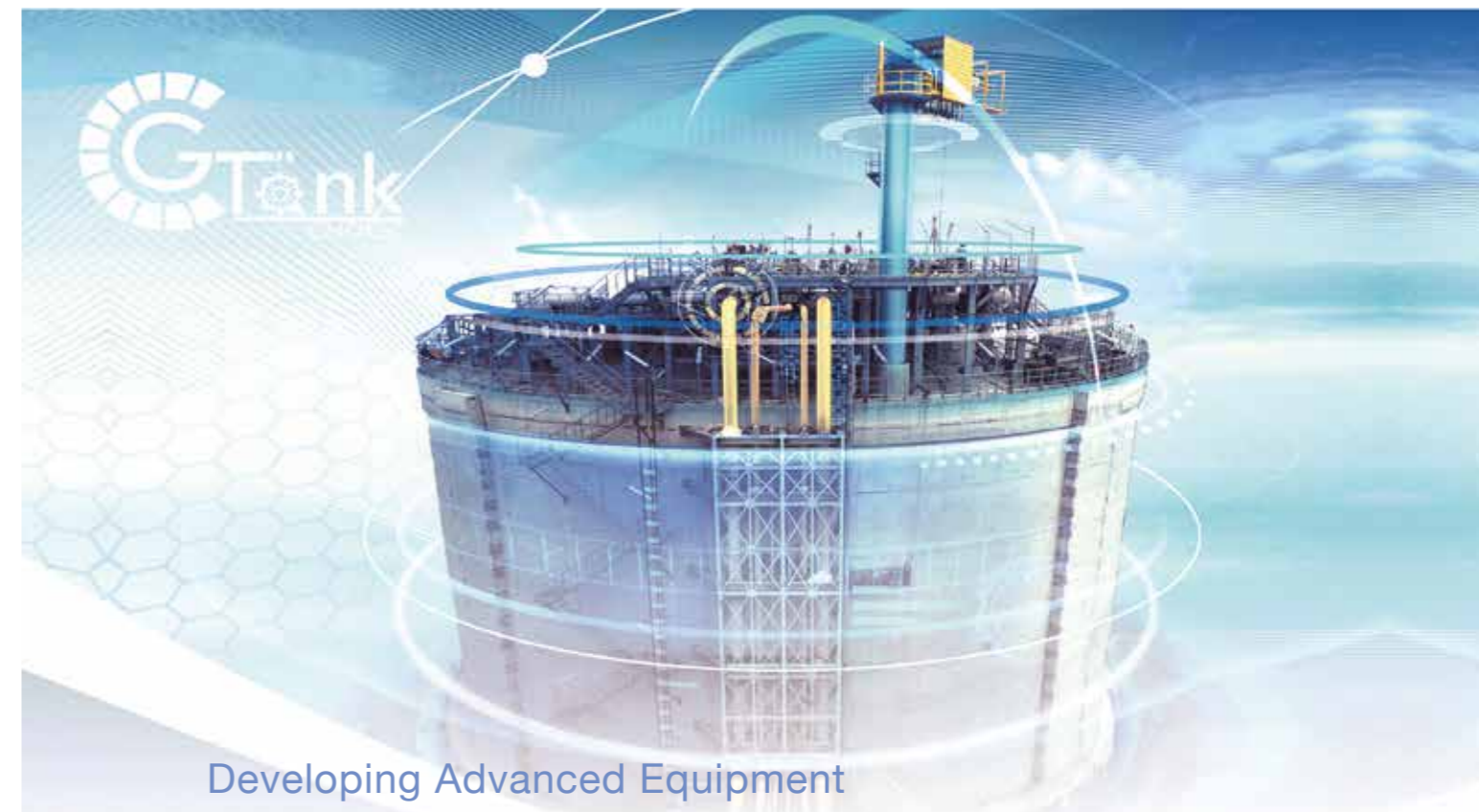
On November 20, 2018, the independently developed "HQI-Navi" integrated navigation system by COSL completed its first formal large-scale production project. The operational efficiency reaching the level of imported systems of the same kind.

### Successful development of UHTHP coring tool

On September 4, 2018, the coring operation for 12.5 in hole-section of "Ledong 10-1-4" UHTHP well in the South China Sea was completed. The coring recovery rate reached 100%. This achievement filled in the blank.

Technical Innovation

Achievement	Result
Diagenetic analysis technology of Paleogene glutenite reservoir and evaluation techniques series of metamorphic "rock-crust-fracture" reservoir	Providing guidance in discovering "Bozhong 19-6" gasfield with 100 billion m <sup>3</sup> of reserve.
"Early strike-slip fracture+late overpressure activation+channel sand body enrichment" accumulation mode, "no bright spot" reservoir prediction technology	Helping make breakthrough in the exploration of natural gas in Ledong 10 in the field of high temperature -high pressure exploration, with a total of 84.029 billion m <sup>3</sup> of proven reserve.
Theoretical understanding of oil and gas accumulation in deepwaters segmentally controlled by in the northern continental margin of the South China Sea	Being applied to deepwater oil and gas exploration in the northern South China Sea, helped achieve 88.4 meters thick gas layer and 20 billion m <sup>3</sup> of geological reserves of natural gas reservoir by the first drill in the target of "Yongle 8-1", opening up a new field of oil and gas exploration in the eastern deepwater area of southeastern Qiong basin.
Key technologies for potential exploitation of "Two Highs" oilfields in the Bohai Sea	Being applied to 269 wells in three target oilfields such as "Suizhong 36-1", the production capacity increasing by 2,086 m <sup>3</sup> per day, and the crude oil output increasing by 598,000 tons.
Directional drilling technology for extremely thick and high pressure salt-gypsum stratum	Achieving directional drilling for the first time in the Middle East (deviation of 50 degrees from the vertical) as a world-class technological breakthrough and innovating meaningfully the development mode of Asmari Formation in Missan oilfield with few wells and high production.
Key development technologies for HTHP gas reservoirs in Dongfang gasfield cluster	Providing guidance for pre-drilling optimization of ODP in "Dongfang 13-2" gasfield, with the producing reserves increasing by 9.5 billion m <sup>3</sup> and the cumulative gas production increasing by 12.1 billion m <sup>3</sup> .
Fine reservoir characterization technology constrained by sedimentary	Being applied in "Kenli 10-1" oilfield, with the producing reserves increasing by 5.76 million m <sup>3</sup> , 11 new development wells have been drilled and production capacity increased by 322 m <sup>3</sup> per day.
Intelligent with-cable measurement and adjustment technology	Being applied to 22 wells in 8 oilfields such as "Bozhong 28-2", achieving effective allocation to 65 layers with 94% of allocation time saving and zero allocation cost.
Secondary fracturing stimulation technology	Being applied to the system optimization of 80 low-efficiency wells in the demonstration area, with an increase of 110% of the average single well production and an increase of 30,000 m <sup>3</sup> of the daily gas production.
FLAT-PRO deepwater constant current to synthetic based drilling fluid system	Being applied to "LW22-1-1" well in ultra-deepwater, with the operation depth reaching 2,619 meters, the new record of depth of underwater drilling in China.
Underwater engineering safe operation simulation test equipment and key technologies	Being applied to "Wenchang 9-2 / 9-3 / 10-3" and other projects, achieving the reduction of offshore operation risk by previewing floating simulation program, and effectively guiding production and operation with the use of underwater production and operation simulation system.
Free spanning treatment and inhibition engineering technologies for submarine pipeline	Being proved effective in offshore engineering as a solution to free spanning treatment of submarine pipeline caused by seabed irregularity and erosion.
Software for Large LNG Tank Design	Achieving the complete digitalization of core calculation and system design of the whole process, which further improved the accuracy and efficiency of storage tank design; being applied to 6 projects such as Zhejiang LNG Phase 2, with RMB 4 million of the design cost cutting and more than 10% of design time saving for single storage tank.
Hydroformylation of butene mixture for higher alcohols production technology	Having developed a high performance bisphosphite ligand for hydroformylation catalyst and completed the industrial side-line test in cooperation with Shenhua Baotou Coal Chemical, which proved the performance of the catalyst to reach the level of imported products and thus reduce cost significantly.
Second generation reformed deolefinization refining agent	Being applied in Zhejiang Petrochemical and Zhejiang Hengyi Petrochemicals (Brunei) Project, with a contract value of RMB 92 million, annual sales of more than RMB 150 million and a cumulative output value of RMB 500 million.
Reticular anionic water purifying agent	Reticular anionic water purifying agent was applied in Xijiang oilfield and Missan oilfield (Iraq) etc, for treatment oil extraction wastewater. It's efficiency is outstanding, and it can reduce emissions by 50% and lower the dosage of agent by more than 30%.
Recovery and utilization of waste heat from internal-combustion engine exhaust gas on offshore facilities	Being applied to 2 FPSOs "HAI YANG SHI YOU 111" and "HAI YANG SHI YOU 115", make outstanding contributions in energy saving, emission reduction and marine environment improvement, which was awarded by Shenzhen government RMB 7.11 million.
Medicinal/electronic solvent membrane process enhanced purification technology and complete sets of technology	Having established more than 10 sets of demonstration units for solvent recovery projects, with a total contract value of RMB 25 million.
Submarine pipeline material failure analysis application technology	Having made more than 40 failure analyses, created an output value of more than RMB 18 million and reduced the losses caused by failure accidents.
Infrasound leakage monitoring technology of Pipeline	This technology having been applied to "Dongfang 13-2" condensate oil pipeline, achieved a breakthrough in systematic pipeline leakage monitoring and enriched the series of pipeline leakage monitoring technologies.
Engineering technology of oily solid waste disposal	More than 7,000 m <sup>3</sup> of oily sludge was treated and the centrifugal sludge was about 2,600 m <sup>3</sup> . The total bulk-reducing rate was over 50%.



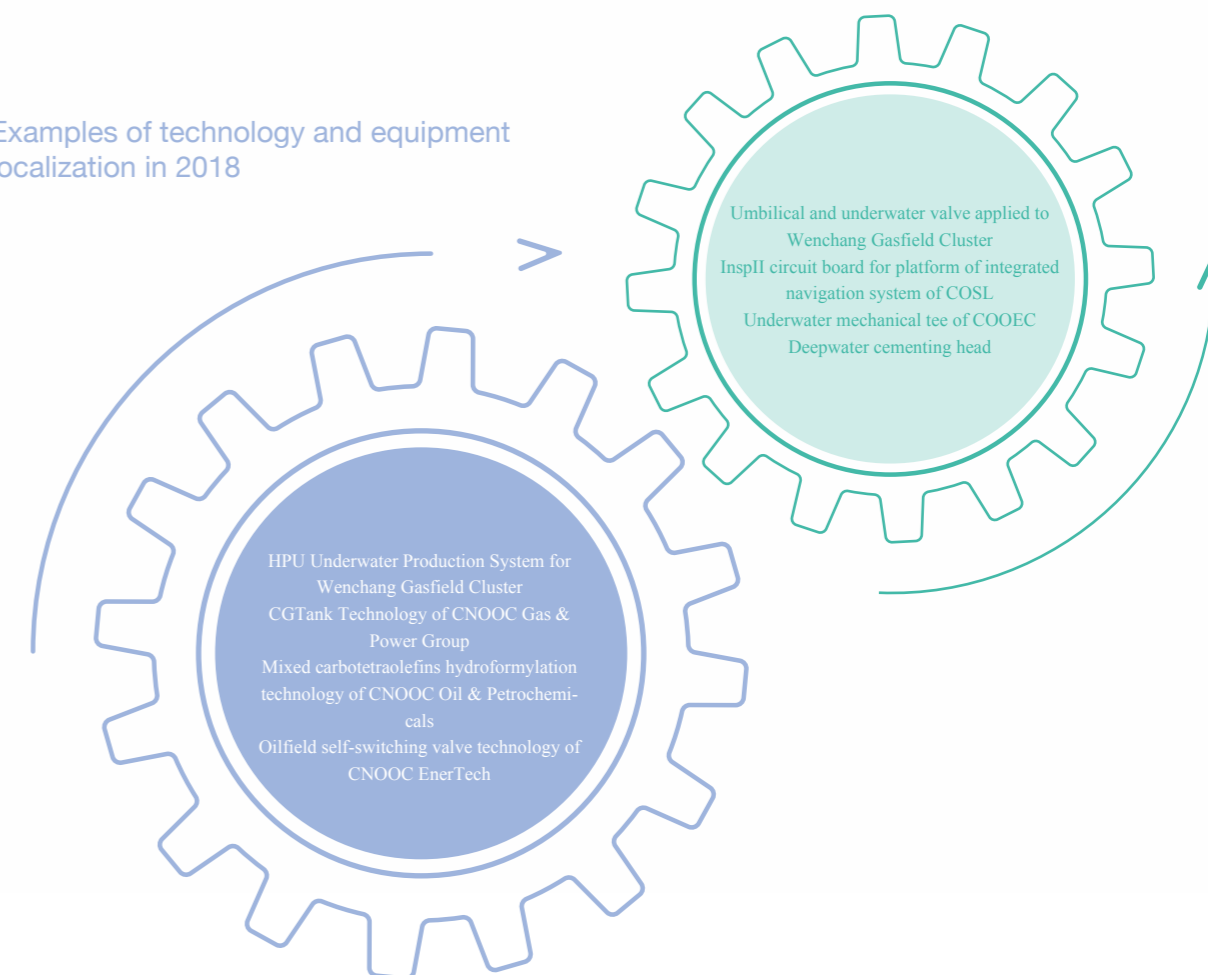
Developing Advanced Equipment

CNOOC has persevered in implementing the innovation-driven strategy and successfully explored an efficient technology development path from technology import to import with integrated innovation, and further to independent innovation by planning, which helps achieve the "Two 95%"

conversion, i.e. from importing equipment with 95% of the Company's start-up funds to localizing 95% of equipment. CNOOC has worked hard for nearly 40 years to independently develop advanced equipment and establish a complete technology system for China's offshore oil industry.

The localization of China's offshore oil technology and equipment has greatly promoted the vigorous development of offshore oil related manufacturing and led the national offshore oil industry into a new era.

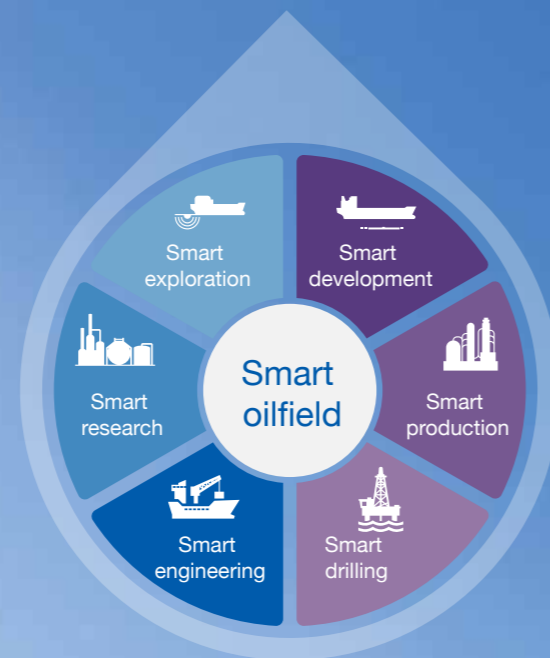
Examples of technology and equipment localization in 2018



## Building Smart Oilfield

CNOOC adheres to the principle of “Overall Planning, Point-to-area, Step-by-step Implementation”, contrasts with outside advanced practice on the basis of its actual situation, implements pilot projects, explores the deep integration between informatization and industrialization, and establishes a real-time, integrated and collaborative operation mode covering production, safety, environmental protection and other business processes, in order to build smart offshore oil and gas fields.

Setting offshore oil and gas development and production process as main lines, on the basis of automated data acquisition & control and upgrading of offshore communication, CNOOC smart oilfield has built up an Internet of Things for energy with comprehensive perception, and achieved the integration and continuous optimization of oil reservoir management, oil recovery technology, surface engineering, production and operation. Through real-time optimization by remote experts, big data forecasting and analysis and dynamic scheduling for production, a production and operation system of automatic control, intelligent forecasting and decision-making optimization has been built up to achieve the land-sea inter-professional integration and collaboration, in order to promote the transformation of production mode and digital transition of the Company, and achieve high-quality development.



## Pioneering Innovation

CNOOC actively promotes the development of clean and low-carbon energy supply structure. It conducts technical investigation and research in the fields of offshore wind power, ocean thermal energy, marine nuclear energy and other new types of marine energy. The Company follows up the research on hydrogen energy technologies and effectively promotes the industrialization of efficient energy utilization technologies including energy storage and distributed energy.

### CNOOC joined the Fund for Enterprise Innovation and Development

On December 16, 2018, CNOOC signed up to join the Joint Fund for Enterprise Innovation and Development of National Natural Science Foundation of China. This further improves the basic and prospective research system of the Company, makes overall use of external research forces, supports original technological innovation and carries out subversive innovation by cross-industry cooperation.

### CNOOC established Natural Gas Hydrate Technological Innovation Alliance

In order to develop the National Key Laboratory of Natural Gas Hydrate and implement the strategic decision of national scientific and technological innovation, for the first time, CNOOC has achieved cross-industry and cross-discipline cooperation by bringing together domestic preponderant research forces. Through preparation and active promotion, CNOOC has organized

a total of 17 research units, including 3 subordinate units of CNOOC, 4 institutions of Chinese Academy of Sciences, 8 universities such as China Petroleum University (Beijing), 1 unit of State Oceanic Administration and 1 enterprise outside CNOOC, to establish Natural Gas Hydrate Technological Innovation Alliance with CNOOC and execute the agreement.

### A comprehensive research on offshore wind power technology is in full swing

CNOOC carried out the feasibility study on supplying power to offshore oil platforms with offshore wind farms, completed the technical investigation on offshore wind power, put forward the proposal to develop offshore wind power for CNOOC.

### Substantive progress in research on temperature-difference energy

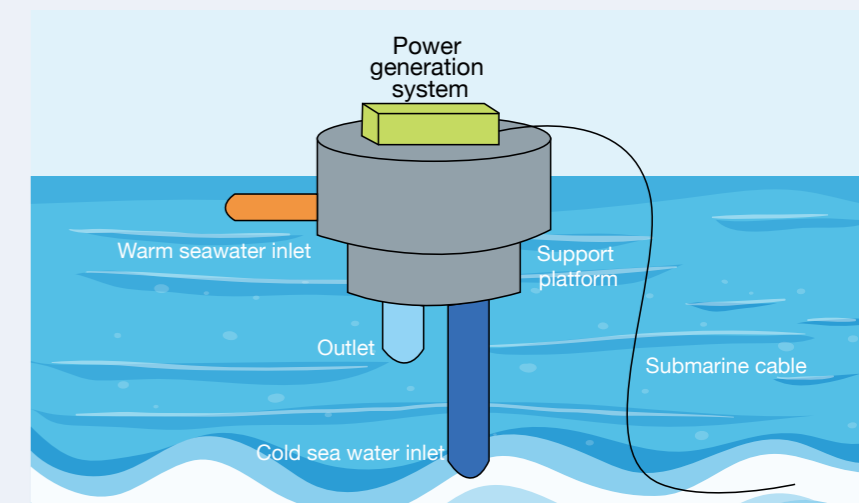
CNOOC has completed the China's first conceptual scheme for construction of offshore 10 MW ocean thermal energy power station, which provides technological and decision-making support for the state to promote the industrialization of ocean thermal energy.

### Following up the research on hydrogen energy technologies

CNOOC follows up the development status of hydrogen energy technology system, looks for opportunities of differentiated industrial development opportunities and investigates the construction progress of hydrogen refueling stations, the industrial application technology and industrial layout of hydrogen energy.

### Steady advancement of marine nuclear energy application technology

CNOOC completed the emergency study on power supply safety under nuclear power failure, defined the basic process of emergency power supply for nuclear power terminal under fault condition and the basic process of safety emergency power supply under fault condition in power grid.



Ocean thermal energy exploitation and utilization



## Digitalized LNG Receiving Terminal

CNOOC Gas & Power Group advances the construction of LNG Receiving Terminal on the Desktop to implement digitalized management on the overall lifecycle oriented and visualized process for the construction and operation of LNG receiving terminal, which is supported by the CGDSim technology to realize the four-dimensional dynamic simulation of the whole station, with the key technologies of LNG receiving, LNG gasification and LNG storage as the core, and information and digital platforms with regard to digital design, design management platform, integrity management and others as means.

### Digitalized design platform – three-dimensional design interface



#### Digitalized design platform

The platform design application scenarios with collaboration of multi-professions in order to improve overall digital design and delivery abilities.

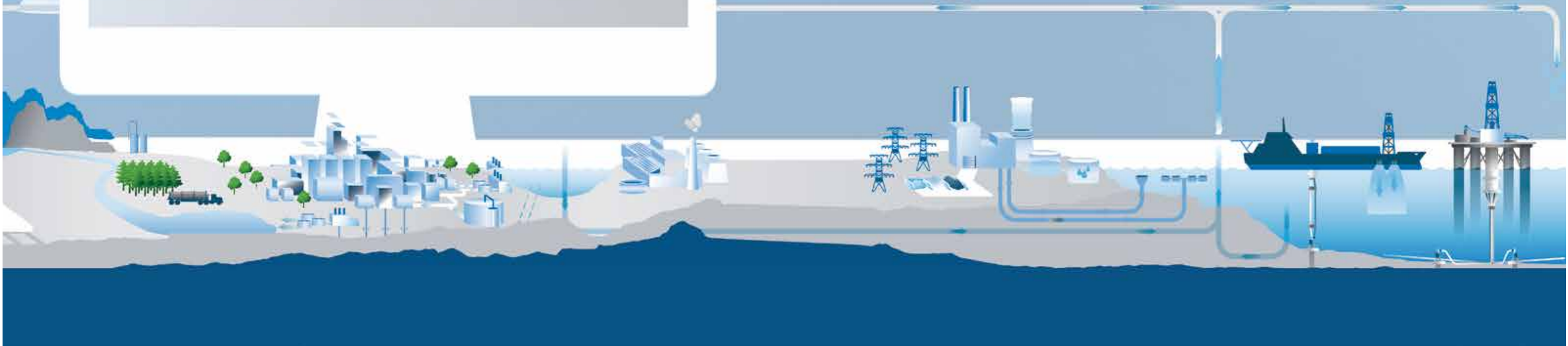
The three-dimensional design effect has been achieved through sorting out dozens of drawing templates, customizing hundreds of design attributes, and dozens of legends and symbols.

#### Design management platform

With the functions of design schedule management, proofreading control, document version control and design resource allocation, the lean management of design projects, design quality improvement and multi-project synchronization management for receiving station design are achieved.

#### Integrity management platform

The platform has five functions such as data acquisition, three-dimensional modeling, on-line monitoring, risk management and intelligent operation & maintenance. It uses digital means to reproduce and restore the whole life cycle of receiving station construction, providing the most reliable basis for equipment asset management and operation & maintenance management.





## Intensifying Safe Operation

Adhering to the core values of HSE, "Safety First, Environment Foremost, People-oriented and Equipment Intact", the Company implements the overall responsibility system for safe production and reinforces basic safety management in order for the high-quality development.

In 2018, based on its own business risk characteristics and actual management needs, and the good practices of the world oil and gas industry, CNOOC systematically standardized the HSE management system framework. The Company carried out pilot projects in

eight subordinate units and analyzed the differences between the function of framework and management requirements, thereby formulating action plans for continuous improvement and enhancing safety management.

## Safety Culture

In 2018, CNOOC paid more attention to fostering the characteristic safety culture of "People-oriented, Implementation and Intervention", and established a long-term mechanism to enhance all-personnel safety awareness. The Company issued Document No. 1 of Opinions on Implementing the Construction of Safety Culture of CNOOC to clarify the objectives and principles, emphasize accountability and guide the development of safety culture.



### Held Well Control Week events

From October 15 to October 21, 2018, CNOOC held a series of events in the name of Well Control Week, with the main theme of implementing the responsibility of safety development and improving the ability of preventing and controlling the major risk of blowout. Through operation, emergency drilling, technology exchange, culture campaign and equipment show of well control, the Company has enhanced the ability of well control safety management.

### Activities for the Year of all-personnel Responsibility for Safe Production

It was the "Year of all Personnel Responsibility Implementation for Safe Production" of CNOOC Safety Management in 2018. CNOOC actively promoted the construction and implementation of the all personnel responsibility system for safe production based on post risk, organized a seminar to promote the implementation of

safety responsibility system throughout the Company, included the implementation of safe production responsibility system in the key content of audit and inspection and put it on the list of themes of the Safe Production Month, promoted the establishment of a four-in-one safe production responsibility system based on post characteristics.

### Held Safe Production Month events

During the Safe Production Month in 2018, the directors of CNOOC conducted on-site special inspection and gave safety instructions to nearly 20 frontline units by focusing on strengthening the construction of safety leadership, and guided employees to raise their awareness of safety and environmental

protection and to enhance their security skills through organizing safety culture training and promoting seminars as well as various safety publicity and education activities. All the events promoted high-quality and sustainable development of the Company.

## Production Safety

In 2018, CNOOC advanced the construction of characteristic safety culture, constantly consolidated the foundation of on-site safety management such as operation permit and work safety analysis, promoted the construction of double prevention mechanism of classified risk control and hidden danger investigation and management, continuously increased the efforts of environmental protection and emission

reduction, and continuously enhanced emergency response capacity. The year-round production safety situation was generally stable with no major production safety accident.

In 2018, CNOOC implemented supervision and inspection on 67 C-grade facilities and 70 D-grade facilities; completed inspection on all the risk-grading facilities, examined 38 application materials for safe production licenses and examined 20 application

materials for safety standardization; newly established a CNOOC Safe Production Examination Center and 4 test sites, arranged 147 examinations for 5,136 examinees throughout the year; for 16 affiliated units; conducted 24 special safety enhancement audits in 16 subordinate units; carried out spot check on the quality of purchased pipeline and 7 professional tests on 169 pipelines which were randomly sampled from 3 construction projects.

### Dapeng LNG: 12 Years of safe commercial operation

On September 28, 2018, Dapeng LNG celebrated the 12th anniversary of safe commercial operation, which renewed the safety operation record of China's LNG industry. Up to September 28, 2018, the company had safely unloaded 62.83 million tons of LNG from 929 ships, setting a safety record of 24.98 million non-destructive safe working hours, achieved 2,145 safe working days and 5.12 million kilometers of safe driving. The excellent safety performance has provided clean energies in a stable, safe and reliable manner for the Pearl River Delta region in Guangdong and Hong Kong.

### Fudao Company set a world record for fault-free operation

On June 20, 2018, the ammonia converter unit of Fudao Company, subordinate of China BlueChemical, set a world record for 22-year fault-free continuous operation of super large ammonia converter. By the end of 2018, the

plant had accumulatively produced 7.18 million tons of ammonia and nearly 12.1 million tons of large granular urea, owing to which the converter unit takes the leading position in large chemical fertilizer plants.

### COSL won national maritime safety honors

On November 13, 2018, China Maritime Safety Administration awarded the honorary certificates of "Safe and Credible Ship" and "Safe and Credible Captain" to five ships such as Binhai 286 and two captains such as Zhang Jiahui, from Tanggu Operating Company of COSL Shipping Services Division. Safe

and Credible Ships can benefit a 24-month exemption of safety inspection. For the Safe and Credible Ship which is continuously employed by the Safe and Credible Captain, the exemption period can be extended to 36 months and the ship is granted priority in handling entry and exit formalities.

### "Blue Whale" of COOEC set a safety record

Since May 2009, "Blue Whale" has not suffered any safety accidents for nine consecutive years, with 3,351 days of safe operation and more than 7.5 million safe working hours, which hit a new record high for single engineering vessel in China. Since it was put into operation, the vessel has broken the sea-lift record many times, with a total tonnage of more than 1.2 million tons, equivalent to the total weight of the steel structure of 30 Bird's Nest stadiums. The vessel has also set a record of domestic offshore engineering hoisting, such as installation of a 10,000-ton jacket in 14 days and installation of a 6,200-ton module platform by a single crane.



## Emergency Management

Based on hazard identification and risk analysis, CNOOC continuously improved the emergency management mechanism, gradually advanced the major accident scenarios construction, integrated the ICS system into the existing emergency plans, carried out anti-terrorism investigation on risk and hidden dangers in the Company and put into practice the Rules for Terrorism Prevention in Offshore Oil and Gas Production Facilities.

Headquarters Security Training in 2018:  
Number of trainees

**1,009**

BOSS & HUET Card: Pass rate

**100%**

### CNOOC launched pilot work of Unmanned Aerial Vehicle Defense System

According to the national overall strategic deployment and CNOOC's requirement for safe production, the Company launched pilot work of Unmanned Aerial Vehicle (UAV) defense system in 2018. A spherical no-fly

zone for UAVs with a radius of 500 meters in all-weather and all-time period was constructed to be an effective barrier for UAVs in the invading area by simulating GPS.



### CNOOC launched the first series of comprehensive drills for emergency rescue of offshore well control

On October 16, 2018, CNOOC successfully held a series of activities such as well control emergency comprehensive drill, well control technology exchange and well control technology and equipment exhibition with the theme of "Implementing the responsibility of safe development, preventing and controlling the major risks of blowout". During the activities, the Company for the first time

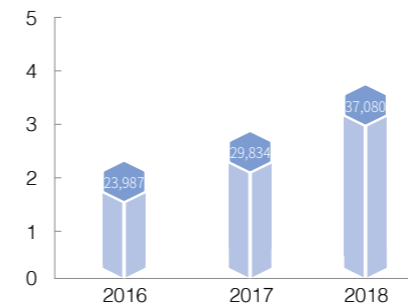
conducted comprehensive drill for offshore well control emergency rescue, simulated the whole process of emergency response and disposal of blowout during drilling of well A10 on "Huangyan 2-2" platform, and carried out a field test on the three-level well control emergency disposal technology and offshore emergency response process.

### CNOOC fought "Mangosteen" the Strongest Typhoon in the Year

Before the coming of "Mangosteen" the No. 22 Typhoon in 2018, CNOOC had deployed the overall emergency response plan in accordance with the relevant requirements of the Ministry of Emergency Management and the Typhoon Prevention Emergency Plan of the Company. CNOOC maintained 24-hour contact with the Central Meteorological Observatory to obtain typhoon information

on every hour, maintained close contact with emergency departments of its subordinate units, regularly issued early warning and urged the implementation of typhoon prevention. After September 7, all subordinate units completed various preparations for typhoon prevention, with the evacuation of 5,365 persons and facilities by 230 helicopters and 39 ships from offshore platforms.

Number of emergency drills for three consecutive years



### COSL participated in the comprehensive drill of marine pollution prevention and control in Zhanjiang

More than 200 people from 18 units including Zhanjiang Operating Company of COSL Shipbuilding Services Division participated in the comprehensive drill of marine pollution prevention and control in Zhanjiang City, with a total of 12 ships and 2 helicopters. The drill simulated the fire and explosion of the oil tanker "Nachuan" on the way to port due to the aging of engine room lines. The smoke was diffuse and the firefighting system on

board was difficult to play function, hence the ship and its personnel were in a very dangerous state. The oil reservoir of the starboard hull was damaged and about 400 tons of oil leaked into the sea, endangering the coastline near the port and the nature reserve. An emergency plan was launched to guide joint forces to exercise rescue drill and prevent marine pollution incidents.

### Anti-terrorism drills in Nanhai West oilfield

Nanhai West oilfield directly manages 1 wharf and 3 land terminals involved in anti-terrorism work. In 2018, in order to improve anti-terrorism prevention, ensure production and personnel safety, the oilfield actively built up anti-terrorism prevention

system and adopted various measures such as personnel training, simulated exercises and installing more anti-terrorism facilities to comprehensively enhance the anti-terrorism capabilities of the wharf and land terminals.



### Nanhai West oilfield did comprehensive emergency rescue exercise for fire accidents in large ships and storage tanks

On July 14, 2018, 28 government agencies and adjacent enterprises, such as Safe Production Supervision and Administration Bureau and Transportation Bureau of Chengmai County, and Huaneng Haikou

Power Plant, jointly organized the Hainan comprehensive emergency rescue drill 2018 for ships and storage tanks at dangerous goods wharf, exercising at CNOOC's wharf at Macun Village. The purpose was to test

the emergency response ability of local enterprises jointly with relevant government agencies in order to create a good security environment for the construction of Hainan Pilot Free Trade Area and Free Trade Port.



## Improving Quality Management

CNOOC adheres to the directives of “People-oriented, Safety First, Honest and Law-abiding, Reinforcing Foundation, Innovation-driven and Winning with Quality”, implements the national strategy of “Building a powerful country by high quality development”, carries out the quality improvement actions in an all-round way, identifies quality risks comprehensively, improves the quality management

system, cultivates the quality culture and continuously improves product, engineering and service quality.

In 2018, CNOOC conducted a series of audits on the quality management system in key production units, covering the upper, middle and lower business sectors. The Company carried out special quality examinations on key vehicle products, including 21 petrol stations, 1 oil depot

and 1 transport fleet, implemented special audits on key process such as the system of laboratory regulation, equipment management, measuring instruments, sample management and quantity traceability. In addition, the Company also carried out various quality activities and informationization construction to continuously improve quality management.



### Quality Activities in CNOOC

During the Quality Month, about 65,245 employees participated in the activities and there were totally 2,376 units involved in the launching ceremony. As consequence, 2,162 special inspections were carried out, 5,292 quality hidden dangers were found and 4,242 quality problems were solved.

With 46,452 participants in the Total Quality Management Knowledge Competition of Central Enterprises held by SASAC, CNOOC was awarded as “Best Organizer”.

The total number of QC teams registered reached 1,949, 2 of which were National Excellent QC Teams. They contributed to 503 outstanding QC achievements of the industry.

### CNOOC Gas & Power Group took the lead in drafting national standards

The national standard *SY/T 7434-2018 Method for verifying the capacity of LNG receiving terminal* drafted under the direction of CNOOC Gas & Power Group was officially issued through the 12th Announcement of the National Energy Administration. The release of this standard will further standardize the method for verifying the maximum capacity of LNG receiving terminal, which filled gaps in the domestic field and made a breakthrough in the formulation of LNG industry standard.

### CNOOC Oil & Petrochemicals won the award of “Best Supplier of China’s Domestic Asphalt 2017”

On March 22, 2018, CNOOC was awarded as the “Best Supplier of China’s Domestic Asphalt 2017” for the outstanding performance of “CNOOC 36-1” asphalt used

in the runway of the Capital Airport, Jingxin Expressway in Inner Mongolia Desert, G349 Line Zetang to Gongga Airport Section in Tibet Snowy Plateau, and etc.

### COSL won the first prize of “Standard Innovation Contribution Award”

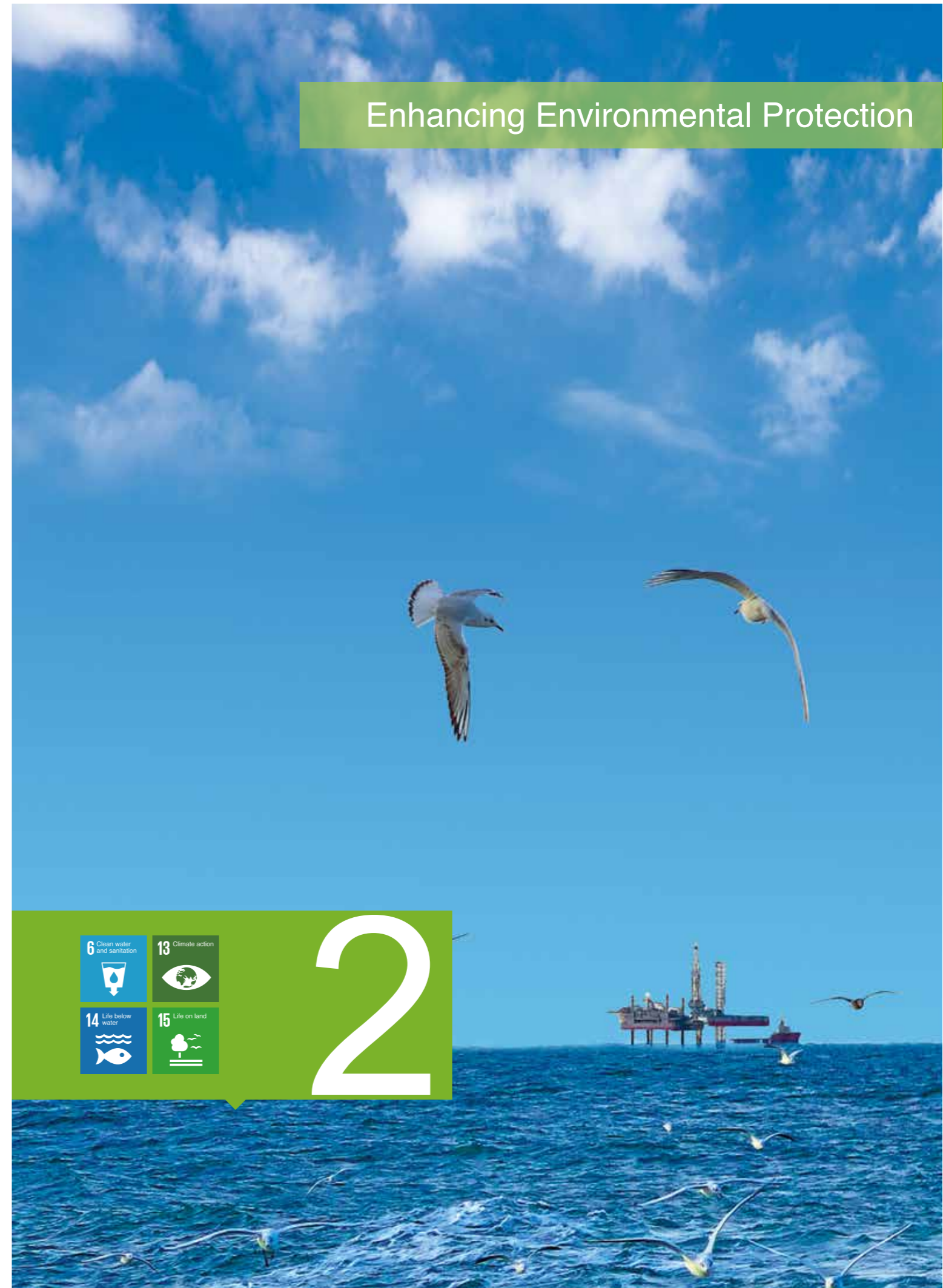
Both national standard (GB/T 30217.2-2016 *Petroleum and Natural Gas Industries Drilling and Production Equipment Part 2: Analysis Methods, Operation and Integrity of Deepwater Drilling Riser*) and Industry Standard (SY/T 7391-2017 *Underwater*

*Emergency Sealing Device for Petroleum and Natural Gas Drilling and Production Equipment*) edited by the guidance of COSL won the first prize of “Standard Innovation Contribution Award”.

## Enhancing Environmental Protection



# 2



## Green Operation

As a member of the Global Compact and a major promoter of the “Energy Revolution”, CNOOC not only actively undertakes the mission of serving the country with energy supply, but also takes practical actions to build a green oil fields, and runs the concept of green development throughout the entire life cycle of oilfield production.

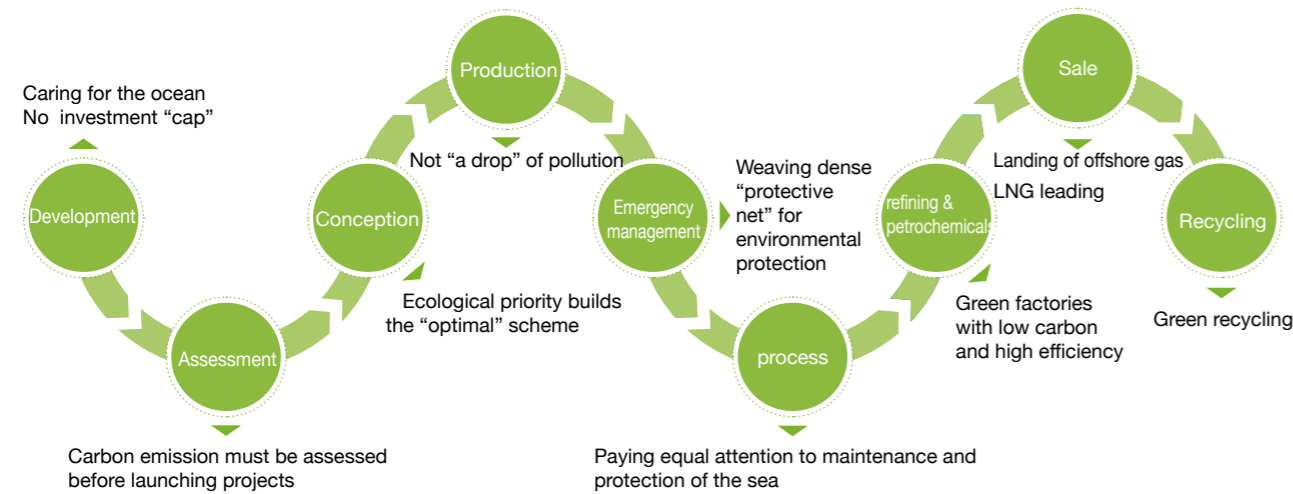
CNOOC extended the green supply chain, with green production and recycling in the

whole process.

In 2018, CNOOC launched the construction of green factory in an all-round way, CNOOC Zhanjiang Branch, CNOOC Oil & Petrochemicals Huizhou Petrochemical, Putian Power Plant of CNOOC Gas & Power Group and Qingdao Base of COOEC were selected to carry out the pilot projects of green oilfields,

green refineries, green power plants and green manufacturing, respectively.

Nanshan Terminal of Zhanjiang Branch of CNOOC won the title of “Green Factory” in the petroleum and petrochemical industry, and China BlueChemical, CNOOC Kingboard and CNOOC and Shell Petrochemicals were awarded as “Energy Efficiency Leader” benchmark enterprises.



Green Development Concept – Green Industry Chain

### Pilot for green factory construction

“Jinzhou 9-3” oilfield of CNOOC Tianjin Branch, Dongfang Operating Company of Zhanjiang Branch and Enping oilfield of Shenzhen Branch were selected to be pilot units. The units managed to build up a green and low-carbon management system with the

integration of online monitoring, statistics, calculation, analysis, optimization and management, hence achieved a linked control, deep integration and intelligent optimization of process, energy consumption and carbon emissions.

### Green Refinery: green level enterprise

In 2018, Huizhou Petrochemical of CNOOC Oil & Petrochemicals was awarded as the Environmentally Credible Enterprises of Guangdong Province.

The company has reduced the pollutant content of oil products from the source by adopting hydrogenation process, taking sulfur, liquid

ammonia and other pollutants into precarious resources, and met in advance the requirements of Emission Standards for Pollutants in Petroleum Refining Industry. A high-efficient reduction of volatile organic compounds (VOCs) emission has been achieved with the LDAR technology firstly applied.



## Tackling Climate Change

As a responsible energy company, CNOOC responds to the Paris Agreement and actively responds to climate change, focusing on building a clean, low-carbon, safe and efficient energy system, continuously building a comprehensive low-carbon management system.

In 2018, CNOOC actively participated in the construction of China's carbon market, put forward a low-carbon management regulation, formulated a low-carbon management system, and built up a low-carbon management information platform. The Company carried out a carbon inventory on 35 subordinate enterprises

with emission-control, completed a study on the management scheme of CNOOC carbon assets, and actively participated in the study of the national carbon emission benchmark standards of relevant industries. The ten subordinate enterprises included in the pilot carbon trading were all in compliance with the regulations.

### CNOOC actively explored new energies

CNOOC has made lots of active researches in different regions, such as offshore wind power in the East China Sea; geothermal energy replacing oil-fired boilers for heating in the Bohai region; cold energy resources of Fujian LNG Company for the construction of “snow town” in cooperation with local government; effective recovery and utilization of hydrogen, dry gas, ammonia and other by-product resources through integration projects and combination with the salinization industry, to expand and extend the circular economy chain.



### CNOOC Gas & Power Group advanced low-carbon transformation for cost reduction

In 2018, CNOOC Gas & Power Group achieved remarkable results in energy conservation by operation optimization, lean management on technical renovation

and ideas promotion. The comprehensive energy consumption of the unit output value decreased by 9.6% year-on-year, saving energy 48,000 tons of standard coal. The subordinate

enterprises with emission-control complied with contracts and schedule, and reduced operating costs of more than RMB 800,000 through carbon trading and carbon swap.

### Nanghai West oilfield carried out research on carbon sink

Nanghai West oilfield carried out research on marine carbon sink by establishing marine carbon sink observatory in the western South China Sea and discovered a marine Rosebacterium, which performed great

effects in sulfur removal, carbon fixation and production of polyhydroxyalkanoates (PHA). PHA is a bio-green macromolecule material with biocompatibility, optical

activity, thermoplasticity and complete biodegradability. It has therefore high industrial value with wide use in industrial and medical areas.

# Three-year Action Plan for Bohai Oilfield Environmental Protection Upgrading

Implementing the thought of ecological civilization, CNOOC actively practices green development to protect the blue sea and sky.

From 2018 to the end of 2020, we will make every effort to implement the Three-Year Action Plan for environmental protection upgrading in Bohai Oilfield, earnestly fulfill the responsibilities and obligations, strengthen the ability of environmental monitoring and emergency disposal, and make great contributions to the comprehensive management of Bohai Sea.



## Energy Conservation and Emission Reduction

In 2018, CNOOC achieved energy conservation of 253,000 tons of standard coal, with an integrated energy consumption of 0.3548 tons of standard coal per RMB 10,000 turnover. The Company invested RMB 370 million and implemented 114 technical renovation projects on energy conservation and emission reduction. Entrusted by the Ministry of Industry and Information Technology, the Company led the formulation of industrial standards in the *Synthetic Ammonia*

*Green Factory Assessment Guide*. Besides the upgrading and optimization of energy and low-carbon management systems, the Company organized the formulation of 5 corporate standards for energy conservation such as the *Guide on Constructing Online Monitoring System for Energy Consumption* and participated in drafting two national mandatory standards. 34 key-energy-consuming subordinate units included in the Hundred-Thousand and Ten-

Thousand project have all accomplished the corresponding indicators. Fudao Company of China BlueChemical was awarded by SASAC as the “Best Energy Efficiency Benchmarking Unit” in the petroleum and petrochemical industry for its sub-business synthetic ammonia. Two project of COOEC and CNOOC Oil & Petrochemicals each were appraised by the Ministry of Industry and Information Technology as Green Manufacturing Systems Integration Projects.

### Whole Process Environmental Protection Management

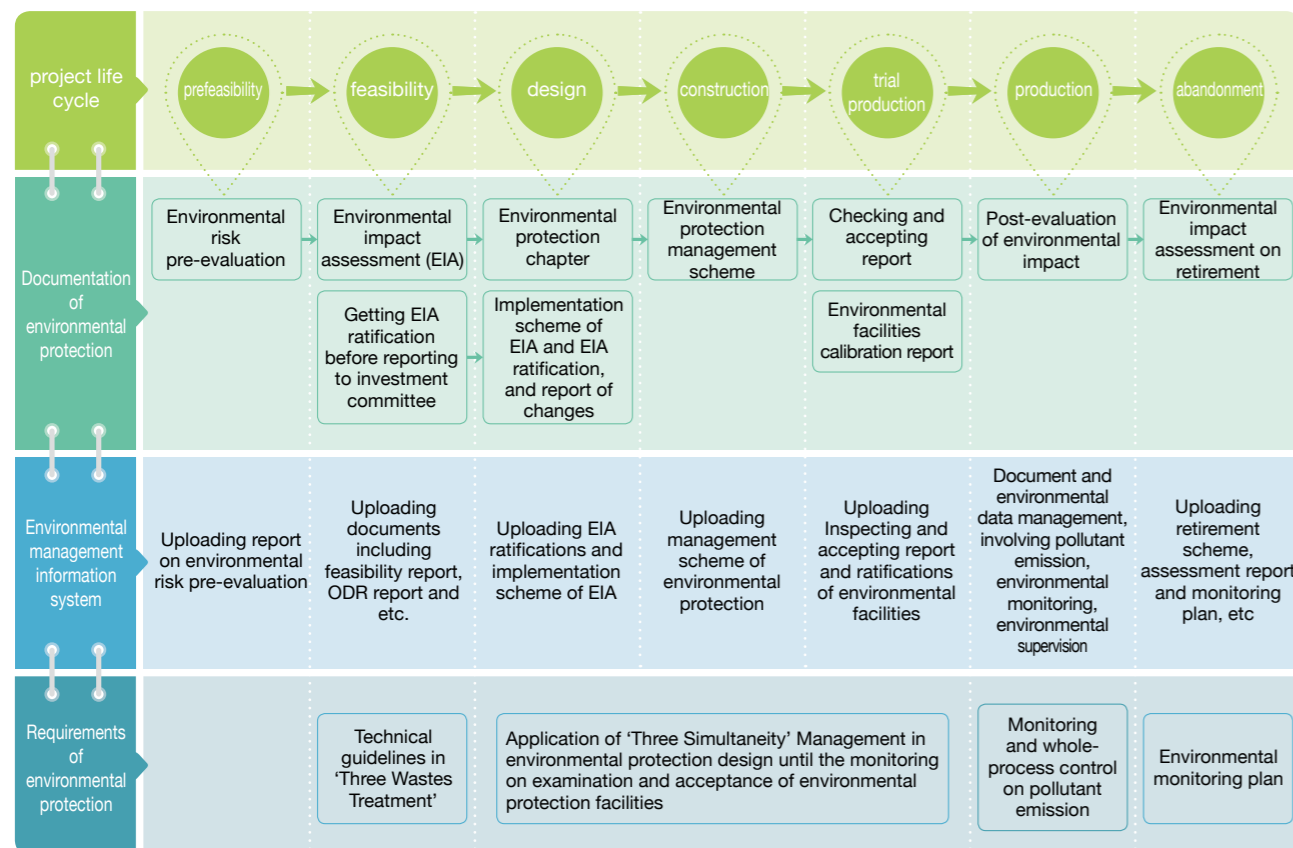
The Company promotes the whole process environmental protection management by focusing on strict

EIA management, pollutant emission standards attainment and total quantity control management as well as the overall emission reduction management.

In 2018, the Company’s sulfur dioxide (SO<sub>2</sub>) emissions were 4,174 tons, nitrogen

oxides (NO<sub>x</sub>) emissions were 9,117 tons and ammonia nitrogen emissions were 61 tons, decreased by 11%, 11% and 8%, respectively, over the same period last year. The chemical oxygen demand (COD) was 919 tons.

Diagram of the Whole Process Management of Environmental Protection in CNOOC



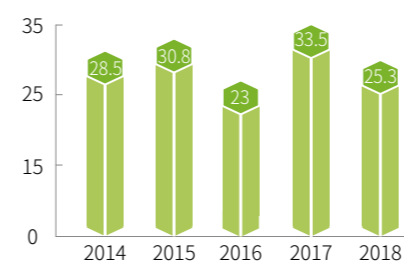
## Pollution Control and Emission Reduction

In 2018, the subordinate enterprises of CNOOC in key areas such as Beijing-Tianjin-Hebei region, Yangtze River economic belt, Pearl River Delta and Hainan Free Trade Zone (Port), strictly met pollutant emission limits, and actively carried out the upgrading of environmental protection facilities, the comprehensive improvement of volatile organic compounds (VOCs) and the renovation of environmental protection equipment on offshore platforms. A total of 45 projects were launched and RMB 350 million was accumulatively invested to ensure pollutant emission to meet standards.

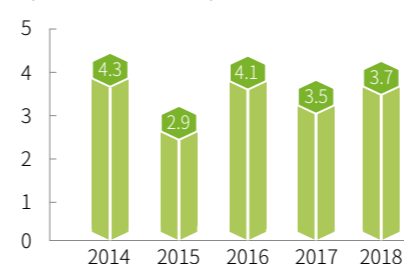
### Hazardous Waste Management

The Company pays great attention to the whole process management of Hazardous Waste Generating Units, further strengthens on-site audit in entrusting processing units and continuously enhances the standardized management of solid waste.

Energy saving (10,000 tons of standard coal)



Energy saving and emission reduction investment (RMB 100 million)



### Tianye Company devotes to interregional energy supply

Tianye Company of China BlueChemical strengthens cooperation with adjacent company PetroChina Hohhot Petrochemical and shares benefits through mutual supply of steam. The connection of regional steam

pipeline between Dongfang Terminal of Zhanjiang Branch and Hainan Base of China BlueChemical reduces waste of natural gas and increases benefits of natural gas to methanol production.

### Bohai oilfield introduced associated gas recovery technology

In 2018, Bohai oilfield introduced a new technology to recycle associated natural gas and supply to offshore turbine generators and boilers. The technology has been successfully applied to the “Bozhong 34-2/4” CEPA

platform and FPSO “HAI YANG SHI YOU 112”. It is expected to recycle 4.9 million m<sup>3</sup> of natural gas and reduce 11,900 tons of CO<sub>2</sub> each year.

### COOEC builds green ships from the origin

On June 15, 2018, “HAI YANG SHI YOU 295”, China’s first pipeline trenching engineering ship, independently designed and constructed by COOEC, was put into operation. It innovatively adopted the energy conservation and low-carbon conception in overall layout,

process flow, technical scheme, equipment and auxiliary production.

“HAI YANG SHI YOU 295” is expected to save 837 tons of standard coal and 4,240 tons of fresh water every year.

### Shenzhen Power Company promoted gas turbine upgrading for emission reduction

Shenzhen Power Company of CNOOC Gas & Power Group invested RMB 63.6 million to implement DLN1.0+ ultra-low emission upgrading for two 9E gas turbines. Nitrogen

oxide (NO<sub>x</sub>) emission after upgrading is about 11 mg/m<sup>3</sup>, 41% lower than before upgrading, meaning 60 tons of emission reduction each year.

### Renovation for recycling water energy conservation of Fudao Fertilizer Project Phase 1 completed

On November 26, 2018, the renovation for energy conservation by overall optimization of recycling water of Fudao Fertilizer Project Phase 1 completed site construction, with 6 cooling tower fans and 7 sets of circulating

pumps and motors renovated. According to statistics, the renovation can save power by 55,000 kWh per day or 18 million kWh per year, up to 48.7%, and save RMB 13 million of power cost.

### “Suizhong 36-1” platform give rebirth to waste oil by “dialysis”

The central platform of “Suizhong 36-1” oilfield adopted vibration-type membrane separation process for online purification of thermal oil system. After filtration and

purification, all performance indicators of thermal oil met the standards. The process also provides a new idea for recycling used oil products.

## Water Resource Management

With emphasis on utilization efficiency of water resources, CNOOC strengthens the protection of water resources, implements water-saving activities and promotes the recycling of water resources in order to save freshwater resources and enhance sustainable recycling

of water resources. The Company continues to intensify technological innovation, strengthen water use process management, take comprehensive measures to reuse wastewater and reclaimed water, desalinate seawater and promote optimization and technical

renovation of recycling water system, and comprehensively strengthen water resources management.

In 2018, the Company's annual fresh water consumption was 101.035 million tons, saving 1.661 million tons of water resources.

### "Penglai 19-3" oilfield achieved seawater desalination

In 2018, the RUP platform of "Penglai 19-3" oilfield completed the renovation of two gas turbines. After adopting a flue gas and hot water

heat exchanger, the platform uses the absorbed turbine flue gas to distill seawater and can produce 18,000 tons of freshwater every year.



### CNOOC Zhoushan Petrochemical was awarded as Zhejiang Water Conservation Type Enterprise

On April 28, 2018, CNOOC Zhoushan Petrochemical was awarded as Water Conservation Type Enterprise by the Economic and Information Technology Commission, Provincial Housing and Construction Department, Provincial Water Resources Department and Provincial Water Conservation

Office of Zhejiang province.

In recent years, through implementing water conservation planning and target responsibility system, the company has actively promoted enterprise-scale water balance test and water-saving technology transformation.



### Water resources

Annual consumption of freshwater

**101.035** million tons

Saved amount of water consumption

**1.661** million tons

### Shenzhen LNG adopted new technology to reuse reclaimed water

Shenzhen LNG of CNOOC Gas & Power Group adopted new technology to reuse reclaimed water and has effectively saved water resources. At present, the sewage treated by water reuse system is all used for planting, toilet flush and road flushing.

### Fudao corporate campus sewage recycling project completed

On August 30, 2018, Fudao Company of China BlueChemical completed the construction of a new 30,000 m<sup>3</sup> wastewater storage tank, five sewage collection

pools, more than 8,000 meters of sewage pipelines and 17 sets of sewage pumps with accessorial electrical instruments. After technical transformation, all sewage

produced in the campus is recycled and transported to the sewage treatment plant and sewage diversion and compliance discharge with effective treatment.



### Tianye Company conducted water balance tests

In August 2018, Tianye Company of China BlueChemical invited professional institutions to carry out water balance tests, in

order to strengthen the scientific management of production water and maximize water conservation and rational use.



### Shandong Haihua recovers reverse osmosis concentrated water

On February 6, 2018, the "Experimental Research and Industrial Application of Reverse Osmosis Concentrated Water Recovery Technology" project, jointly undertaken by Thermal Power Branch of Shandong Haihua, subordinate of CNOOC Oil & Petrochemicals, and Tianjin Chemical Research and Design Institute of CNOOC, achieved a technological breakthrough after more than two years' research, which marks that CNOOC has reached the leading level in the domestic industry in terms of reverse osmosis concentrated water recovery pretreatment, membrane pollution control, long-term stable operation of membranes, and etc. It is expected to increase the total recovery rate of reverse osmosis water system in Thermal Power Branch from 75% to 88.75%, saving 1.8 million m<sup>3</sup> of raw water per year.

### Weizhou Terminal comprehensively uses rainwater and surface water

According to the characteristics of heavy rainfall in Weizhou Terminal area and existing facilities, Nanhai West oilfield formulated and implemented a comprehensive utilization and renovation project for rainwater and surface water.

After the project completes, 8,950 m<sup>3</sup> of water can be stored as supplementary water for the recycling system and fire pond in the area. It is expected to save 55,700 m<sup>3</sup> of water throughout the year.

## Biodiversity Conservation

As a proactive advocate and practitioner for marine ecological environment protection, CNOOC always attaches great importance to the protection of biodiversity in the area surrounding the operation zone.

The Company adheres to the principle of ecological protection in all stages of project life cycle, carries out environmental risk

pre-assessment to identify sensitive targets in the vicinity, and mitigates environmental risks as early as possible, so as to achieve the harmonious balance between economic projects and ecological environment.

Taking CNOOC Welfare Foundation as a platform, CNOOC actively participates

in environmental initiatives, research and conservation projects dedicated to ecological diversity, resource restoration and environmental improvement. Featured projects such as spotted seal protection, enhancement and releasing, have been launched to improve ecological conditions for building a "Beautiful China".

### Shenzhen LNG "makes way" for egrets

Through concentration of plant layout to save space of 3 hectares, Shenzhen LNG "makes way" for the surrounding ecological environment so that rare species such as egrets can safely breed and grow.



### Spotted seals visited "Suizhong 36-1" oilfield

In the cold winter, staffs on the "CEPO" platform of "Suizhong 36-1" oilfield in the Liaodong Bay of Bohai Sea encountered spotted seals.



### Nanhai East oilfield carried out enhancement and release activities

Nanhai East oilfield released more than 3 million pomfret, black pomfret and yellowfin pomfret and 31 million spotted prawns in the Dapeng Bay of Shenzhen.



### Meeting Dolphins on the "Panyu 30-1" platform

The lovely dolphin family chased and played around the "Panyu 30-1" platform.



### A red turtle cruised in the area of Weizhou oilfield

A Red Sea turtle, about 0.5 meters in length, cruised between the legs of "Weizhou 11-1A" platform and RP platform.



## Driving Social Progress



# 3



## Caring for Employees

CNOOC actively promotes the development strategy of “Rejuvenating Enterprise by Talents” and creates an institutional mechanism with equal opportunities and fair rules, through building a dense atmosphere of respecting and attaching greater importance to talents, developing a positive and diligent environment for talent development.

### Protection of Rights and Interests

CNOOC strictly abides by laws and regulations of the UN and the host countries where its business is located. We faithfully respect human rights, pursue equality and proactively advocate our partners, suppliers and contractors to make common efforts to comply with relevant regulations. We strictly carry out various employment policies without any discriminatory provisions or behaviors to establish harmonious and stable labor relations and maintain employees’ legitimate rights and interests.

### Compensation and Welfare

In order to provide employees with competitive remuneration in the industry, CNOOC improves its comprehensive remuneration management, strengthens the linkage between “bonus pool” and performance appraisal, and forms a clear, sensitive and effective mechanism of incentives. CNOOC implements multi-level and accurate incentives, especially focusing on experts, skilled personnel and front-line staff. Through exploring diversified incentive methods, the Company actively promotes equity and dividend in sci-tech units, and builds a mechanism linking employees’ income with the performance of the Company, with personal contribution.

The Company establishes a comprehensively effective security system, which provides employees, unemployment insurance and maternity insurance, as well as multi-level supplementary insurance. The participation rate of social insurance reaches 100%. In addition, the Company

has established occupational pension and housing allowance for employees.

The Company strictly enforces the relevant regulations on employees’ holidays and fully guarantees employees’ legal leave rights.

### Employment Policy

CNOOC earnestly abides by the international conventions ratified by the Chinese Government. It has established a relatively complete management system of employment. Employees of different nationalities, nations, races, genders, religious beliefs and cultural backgrounds are treated equally, and recruiting or use of child labor is firmly prohibited. Female has the same rights as male in the Company. The Company advocates a kind of respectful, open and tolerant culture.

In 2018, the total number of Company’s employees was 93,601, with 19.19% of female, 2.86% of ethnic minority in China, and the localization rate of

overseas employees reached 78.57%. In 2018, CNOOC recruited 888 graduates, with the rate of Employment Contracts Conclusion maintained at 100% and the rate of social insurances coverage 100%, too. The employee turnover rate was 2%. No violations such as child labor and forced labor have been found in any operations, in any regions throughout the year, and no complaints on human rights issues have been received.

### Democratic Management

CNOOC constantly improves the employee democratic management system and makes full use of employees’ roles in the democratic decision-making, administration and supervision. The Company effectively protects employees’ rights to be informed, to oversee, to participate and to be heard, safeguarding employees’ democratic and legitimate rights and interests. In 2018, the employee satisfaction rate scored 8.72 points (out of 10 points). Labor unions at different levels effectively protect employees’ legitimate rights and interests, and supervise the Company’s fulfillment of responsibilities and duties. The percentage of employees joined the labor union was kept at 100%.

The Company improves the enterprise democratic management system and the business affair publicity system with the basic form of workers’ congress, strengthens the function of safeguarding rights of the labor union and enhances democratic management such as enlarging channels of transmitting decisions to lower levels and reporting employees’ opinions to higher-levels so as to help employees fully express their opinions and participate in democratic decision-making, administration and supervision.

### Career Development

CNOOC provides employees with equal and open environment and clear access for career development. We have designed three career development accesses: management, technology and operation personnel, besides establishing a “Four in One” training system, so as to improve personal professional ability and work performance step by step in a planned manner.

### Career Access

CNOOC continuously improves the three accesses for technology, management and skills with emphasis on mechanism building. The Company always focuses on building talent pools and constantly implements programs of the selection and training of excellent young talents, enhances systematic management of professional qualification, promotes innovation of the selection of technical experts in subordinates. The Company has put forward the *Deepening the Reform of the Professional Title Management System (Provisional)* to improve system building, which does not highlight one’s academic background, record of service or published papers, but moral character, ability and performance and allow more excellent young talents to have opportunities to stand out.

In 2018, 725 persons obtained Senior Technical Qualifications, 80 persons were awarded as Professional Directors in the field of exploration, downhole operations, and drilling and completion (including 4 Senior Professional Directors).

### Employee Training

In 2018, the Company actively carried out 55,000 training sessions, with 889,000 person-time and 6.409 million training hours (i.e. 74.34 hours per capita).

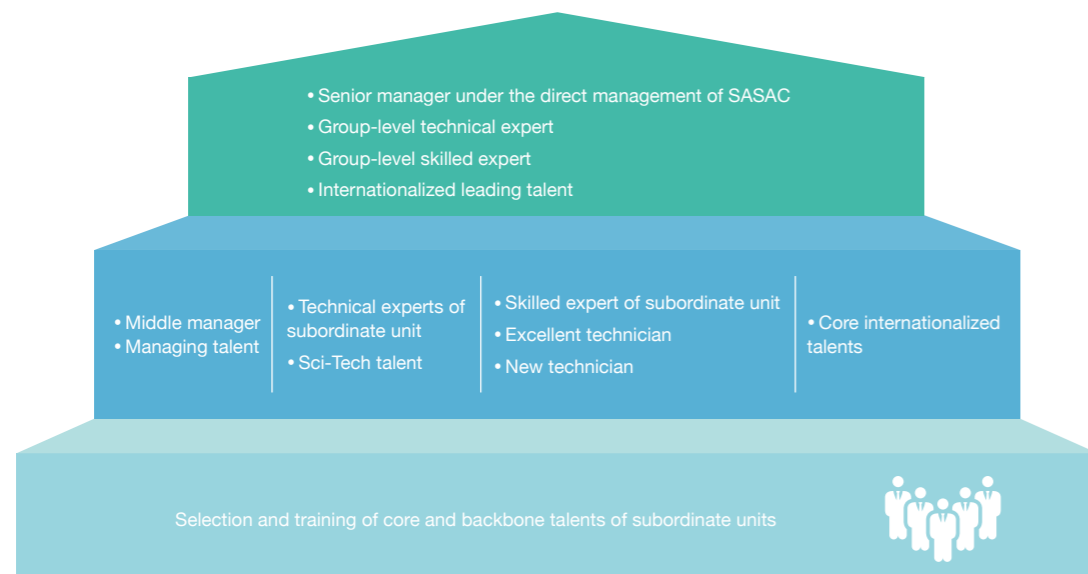
### Career Health

CNOOC constantly improves innovations and informatization of the career health management system; strengthens supervision and verification of occupational health management in workplace, focus on promoting standardized management in daily monitoring of occupational hazards and health; fully implements occupational disease hazard control by priority classification, so as to implement effective control over key workplaces, key projects, key contacts and key hazards; continuously carries out health promotion and psychological stress management services to improve employees’ physical and mental health.

In 2018, CNOOC carried out 27 pre-evaluation projects of occupational disease hazards and 33 acceptance projects of occupational disease protection facilities. A full coverage of regular surveillance of workplace occupation hazards has been achieved and the rate of occupational health examination for employees exposing occupational disease hazards reached 99.45%. A total of 67 problems in five aspects were found during the special occupational health inspections on 14 units, 120 correction proposals and suggestions were put forward.

### Caring for Employees

Employees are the essential source for sustainable development of the Company. CNOOC highly emphasizes on assisting employees in need and timely helps their families in difficulty by settling the troubles of their everyday lives. The Company constantly improves employees’ working and living conditions, carries out various caring activities, strives for ensuring that employees balance their work and life and enhance their sense of happiness.



CNOOC focuses on key groups of talents and the annual key training program with a talent echelon training mode

### Assisting Employees in Need

CNOOC attaches great importance to helping employees in need, specially formulates management measures for poverty alleviation work. Throughout the year, the Company has allocated special funds of RMB 20 million for poverty alleviation to grass-roots units. As consequence, 217 employee families and 1,313 disabled people in need got reliefs, more than 500 people with serious illness got medical assistance,

607 families got help during the activity of “Warm Support to the Families of Employees in Difficulty”, and 2,669 people got reliefs from other projects. Various forms of assistance like regular financial aid and children’s educational grants, ensure that no one employee in need lives below the poverty line, that no one child of employee in need cannot afford education and that no one employee with serious illness cannot afford medical treatment.

By making the best of new media and information technology, CNOOC has completed the construction of information system for poverty alleviation in five key subordinate enterprises: Bohai oilfield, Nanhai West oilfield, CNOOC Oil & Petrochemicals, COSL and CNOOC Gas & Power Group. The system effectively enhances the pertinence and timeliness of assistance and guides the allocation of resources to the targeted employees in difficulty.

### Nanhai East oilfield promoted stress management and mental health services for all staff

After the investigation on stress management and mental health in offshore facilities, Nanhai East oilfield established onshore psychological counselling rooms and provided psychological counselling services to employees, which realized the tracking and monitoring on employees’ psychological

pressure and revealed the change rule of pressure source and employees stress index. Therefore, the oilfield can identify the employees bearing hidden psychological risks and actively intervene those who have serious psychological risks and possibly affect production safety.



### Zhuhai LNG included employees’ physical exercises in its value-contribution management



Zhuhai LNG of CNOOC Gas & Power Group included employees’ physical exercises in its *Management Regulations of Enterprise’s Value Contribution*, encouraging employees to do exercise and public welfare activities. Via the Wechat Sports module, the company records each employee’s walking steps and donates to the Tencent public welfare platform according to the number of sports steps of all

staff. Each donation of RMB 1 is converted to 1 point of enterprise value-contribution. Each employee’s annual performance assessment is referred to the points he/she accumulates (up to 49 points per person every year). This management practice has greatly stimulated employees’ enthusiasm of exercising and has the company put the concept of ‘healthy work, happy life’ into practice.

### The third Competition of “Good Course, Good Coach”



In July 2018, CNOOC launched the third Competition of “Good Course, Good Coach”. Excellent face-to-face courses, excellent micro-courses and Top Ten Internal Lecturers stood out. Internal training and experience sharing have become popular in the Company.

### Balancing Work and Life

CNOOC advocates the philosophy of “Healthy Work, Happy Life” and cares for the employees’ life in an all-round way. The Company preserves cozy and leisure space and organizes various recreational sports activities for the employees to balance their work and life.



## Poverty Alleviation through Consumption

Adhering to the poverty alleviation principle of “Relieving Difficulties, Eradicating Poverty, Promoting Blood-making Function and Establishing a Long-term Mechanism”, and considering the characteristics of targeted poverty alleviation counties and cities, CNOOC carries out targeted poverty alleviation in the fields of industry, housing, education, medical treatment and infrastructure. After a special national assessment and inspection, Hezuo City in Gansu Province was approved to withdraw from the list of poverty-stricken counties for casting off poverty ahead of planning.

CNOOC continued to actively explore new modes of poverty alleviation through developing competitive industries in six spots, such as Nima in Tibet, Wuzhishan and Baoting in Hainan, Hezuo and Xiahe in Gansu and Zhuozi in Inner Mongolia, and built online and offline consumption platforms of products from these targeted poverty alleviation counties and cities.

The Company encourages its employees and staff canteens to purchase products from poverty-stricken cities and counties. Employees are also encouraged to travel with relatives at their own expense in the targeted poor areas.

With many measures taken, CNOOC is near to achieve its goal of poverty alleviation, but its devotion to poverty alleviation will never stop.

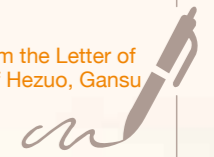


## Developing and promoting agriculture and pasture products through innovation

According to the characteristics of agriculture and pasture industries of the 6 targeted areas in 4 provinces, CNOOC helped local people promote and sell the local featured products like Zhuozi oatmeal and Anduo torn yak beef, with a series of measures including careful selection, customized production and package, besides establishing “intelligent online shopping mall” and 6 experience centers for products of poverty alleviation, and the sales amounted to more than RMB 7.43 million.

With deep affections for the people of Lingcheng, CNOOC opened their hearts to sincerely aid the people in difficulty. The Company has already invested RMB 37 million into local medical and health care, construction of agriculture and pasture villages and well-off ecological civilization villages. Their significant contributions to our city's poverty-alleviation work have won unanimous praise from all the cadres and citizens of Hezuo.

— Excerpt from the Letter of Thanks of Hezuo, Gansu



## Devoting to Public Interests

CNOOC Welfare Foundation is regarded as the unified management platform for public welfare programs of the Company.

In 2018, CNOOC continued to make targeted poverty alleviation, caring for students and performing special public

welfare charity affairs, and won the 10th "China Charity Award" awarded by the Ministry of Civil Affairs.

### Investigation in Baoting and Wuzhishan

On November 8, 2018, Yang Hua, Chairman of CNOOC and leader of Poverty Alleviation and Counterpart Assistance Working Group, came along with his delegation to Wuzhishan City and Baoting County of Hainan Province to investigate on targeted poverty alleviation work and implementation of requirements from the "first-hand" project. He made on-

site inspection on the Assistance Projects of CNOOC, brought condolences into the registered poor households, investigated the development of local industries and had in-depth discussions with local people, in order to well follow up the situation and obtain more accurate information for effectively supporting local poverty alleviation.

### Hezuo takes the lead in poverty alleviation

Approved by the Office of the Leading Group for Poverty Alleviation and Development of the State Council and the government of Gansu, Hezuo, CNOOC's counterparts, officially withdrew from the list of poverty-stricken counties and became one of the first cities in Gansu to cast off poverty.



### Investigation in Zhuozi, Inner Mongolia

On November 6, 2018, Wang Dongjin, President of CNOOC and deputy leader of Poverty Alleviation and Counterpart Assistance Working Group, came along with his delegation to Zhuozi, Inner Mongolia, to conduct investigation on targeted poverty alleviation work. He inspected the progress of local poverty alleviation and CNOOC's Assistance Projects, brought condolences into the registered poor households, visited aiding enterprises and had in-depth discussions with local people.



## Providing Voluntary Services

CNOOC constantly advocates and promotes voluntary services. In 2018, the Youth League Committee of CNOOC continued to carry out "Blue Force" youth volunteers activities, strived to extend voluntary services, vigorously motivated

the enthusiasm of employees for public welfare, and enhanced the awareness of social and civic responsibility of the youth, in order to better fulfill corporate social responsibility and sincerely feedback society. The Company further

strengthened management on volunteers and continuously integrated and optimized the forces and resources of youth volunteers teams. Currently, CNOOC has 131 "Blue Force" youth volunteers teams with 4,530 youth volunteers.

### "Blue Force" in Action

CNOOC "Blue Force" youth volunteers Action aims to carry out various types of public welfare activities, such as popularization of marine science and environmental protection, educational assistance, community services and social assistance for the elderly, disability and

weakness. During the World Ocean Day, World Environment Day and Learn from Lei Feng Day, hundreds of "Blue Force" youth volunteers teams and thousands of young volunteers went to streets and communities, actively implemented the "blue" commitment and built communicative bridge between

young employees and enterprises as well as between enterprises and society. Through continuous innovation of means and adopting project-based management, "Blue Force" stimulated young people's enthusiasm in serving more public interests.



### CNOOC Coastal Environmental Protection Action

The “Coastal Environmental Protection Public Welfare Action” has been held by Bohai Petroleum Administration for seven consecutive sessions since its launch in 2011. In 2018, volunteers from Bohai oilfield went to Tianjin, the birthplace of the Action,

to organize beach cleaning activities with the Beihai Branch of the State Oceanic Administration. They carried out marine science popularization, publicity of marine culture and marine environmental protection.

The activities not only established a good social image of CNOOC, but also promoted the public awareness of marine environmental protection, which has been widely praised by all sectors of society.



### Integrating Into the Community

CNOOC is proactively committed to serving society, establishes the regular communication mechanism with communities and listens to optimization proposals of local governments and residents. The ration of environmental

and social impact assessment for new projects is kept at 100%. The Company helps local residents solve difficulties in life, improve local ecological environment, create and maintain communal safety and harmony. CNOOC constantly advances

the “Warm Hearts” projects to effectively improve the residents’ living standard, drive the community culture construction and build their beautiful home with cooperative efforts.

#### Little R Alliance entered campus to provide marine knowledge education

Little R Alliance is a public welfare brand created by CNOOC Environmental Protection Services Company (Tianjin) in 2017, with R standing for the initial of Responder.



Little R Alliance is committed to science popularization in campus and public welfare activities.

#### CNOOC Petrochemicals Import & Export cares for the reintegrated teenagers

The Youth League Committee of CNOOC Petrochemicals Import & Export organized an activity named “Homing” for the reintegrated teenagers, in order to provide them spiritual caring and deliver positive energy.



#### Signing of Donation Agreement for CNOOC University Student Assistance Fund Phase 5 Project

On October 30, 2018, the 3rd session of CNOOC University Student Assistance Fund of China Soong Ching Ling Foundation Public Welfare Activities and the Phase 5 Project Conation Ceremony was held in Beijing. The two parties signed the donation

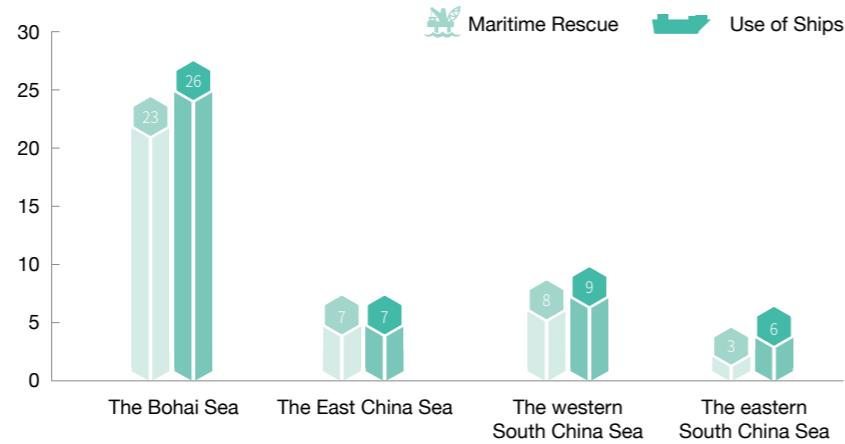
agreement for CNOOC University Student Assistance Fund Phase 5 Project, according to which CNOOC Public Welfare Foundation will use its own funds to donate to China Soong Ching Ling Foundation, in order to support poverty-stricken college students

from 37 universities across the country. Wang Jiarui, Chairman of China Soong Ching Ling Foundation, and Yang Hua, Chairman of CNOOC, attended the event and delivered speeches.



CNOOC actively participates in maritime rescue

Taking advantage of its resources, CNOOC actively participates in social maritime rescue and earnestly fulfills its corporate social responsibility with the premise of ensuring safe operation. In 2018, the Company participated in 41 maritime rescues in China's waters, dispatched 48 ships and 7 helicopters.



CNOOC awarded as the "Advanced Unit for Blood Donation"

On July 26, 2018, blood donation volunteers from CNOOC headquarters and subordinate units in Beijing came to the blood donation center for emergency blood donation. After rigorous medical examination, 26 employees donated 5,200 ml of blood for free. Since 1994, a total of 592 CNOOC's employees in Beijing have participated in voluntary blood donation, with a total blood donation of 119,000 ml. CNOOC has been awarded by Beijing Blood Donation Office as "Advanced Unit for Blood Donation" for eight consecutive years.

Shandong Haihua fought flood and provided disaster relief

On August 20, 2018, Shandong Haihua urgently allocated risk resistance materials and organized more than 60 volunteers to rush to the Port Industrial Park for flood fighting. Besides the quick response to emergency, the company and its employees donated more than RMB 1.89 million for disaster relief.



Beijing Base of China Enterprises Co., Ltd. cares for the elderly

The Beijing Base Branch of China Offshore Enterprise Co., continued to provide intimate service for retired veterans.



CNOOC Oil & Petrochemicals cares for lonely and elderly veterans

CNOOC Oil & Petrochemicals participated in poverty alleviation donation ceremonies held by the Aotou Street Office and Xiayong Street Office respectively to extend regards to lonely and elderly veterans.



Employee of Completion Center of COSL performed outstanding acts of bravery

GE Xi'ao, employee of Completion Center of COSL, fought a knife-wielding gangster with bare hands and rescued the robbed woman and infant.



2018

CSR REPORT OVERSEAS

Deeply Integrating into Global Economy • Joint Development for Bright Future



## Forty Years of Reform and Opening-up of the Offshore Special Zone

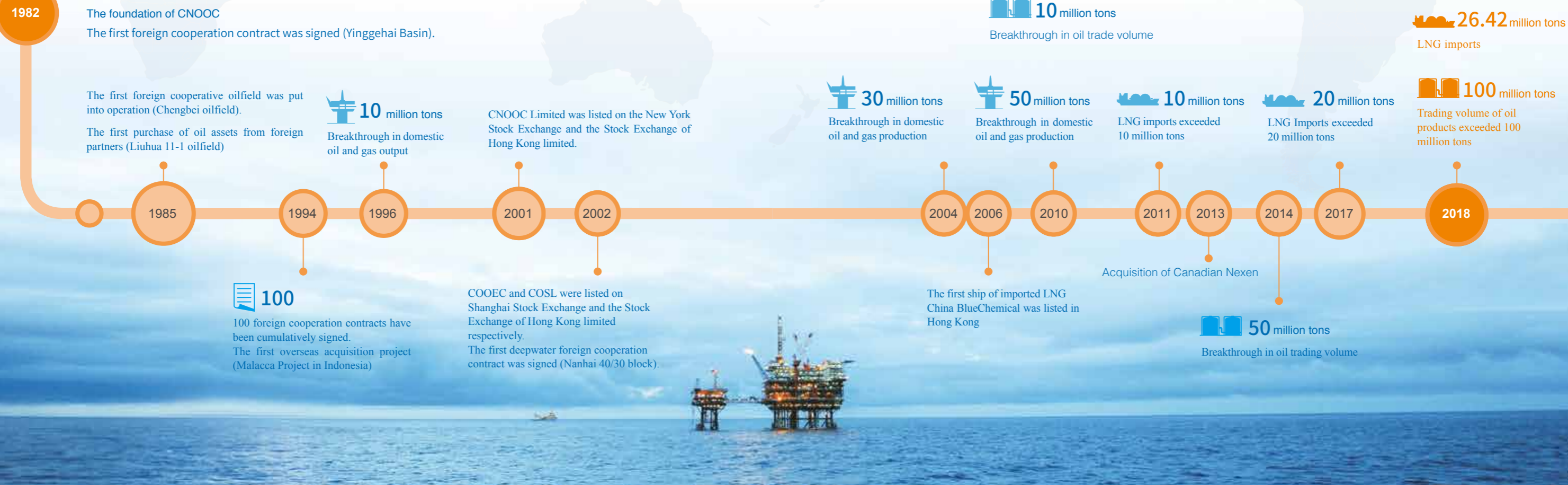
In 1978, the major decision to open the offshore oil industry was made by the Chinese government.

In 1982, CNOOC was formally born as Offshore Special Zone of China's reform and opening up.

Forty years ago, CNOOC was born as a result of reform and opening up.

For forty years, CNOOC has developed as China's reform and opening up continued. CNOOC has always been faithful to the original aspiration of reform and opening up and stayed true to the road of reform and opening up.

For forty years, CNOOC has kept its mission in mind, made bold efforts to continue reform and opening up, taken the lead in building a world-class energy company with Chinese characteristics, and broken new ground for China's offshore oil industry.

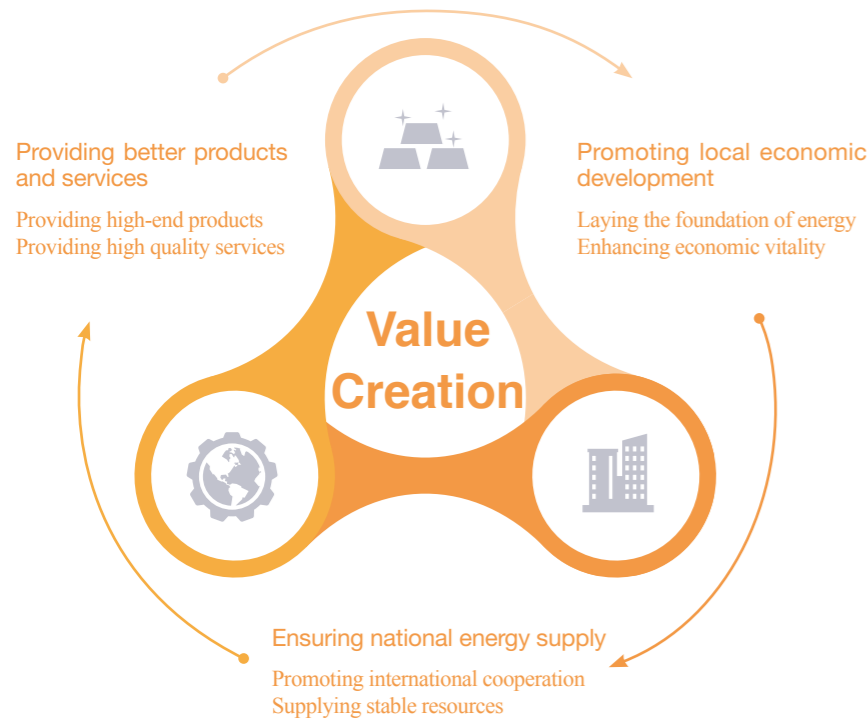


**100**  
100 foreign cooperation contracts have been cumulatively signed.  
The first overseas acquisition project (Malacca Project in Indonesia)

## Creating Socioeconomic Value

CNOOC is an important force in the implementation of the national “Going Out” strategy and the “Belt and Road” Initiative. The Company takes the responsibility of the central enterprise and creates a balanced and inclusive development model with the new ideas

and concepts of Opening up and Win-win, so as to meet the common values and cultural concepts in line with the interests of all countries, promote deeper mutually beneficial cooperation in the oil and gas industry by sharing risks and achievements.



### Significant Growth of Overseas Economy

crude oil overseas output  
**32.05 million tons**

natural gas overseas output  
**11.7 billion m<sup>3</sup>**

ratio of overseas assets  
**36.1%**

### Rankings

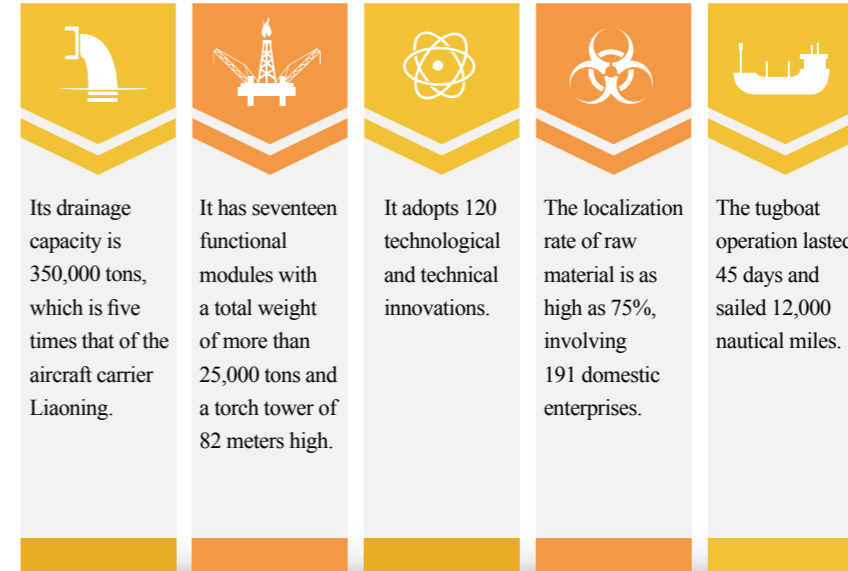
PIW's World's Top 50 Oil Companies  
**32<sup>nd</sup>**

World's Top LNG Importer  
**3<sup>rd</sup>**

### COOEC Delivered a World-Class Floating Production Storage and Offloading Device in Qingdao

On May 16, 2018, the world's largest FPSO, P67, contracted by COOEC, was delivered in Qingdao. This FPSO project has been remarked by the largest quantities of workload

and the highest technical requirements so far in China. The freight volume and distance completed by tugboats are both the largest in the world.



### CNOOC Limited has made successive discoveries in Guyana

The offshore Stabroek block of Guyana in which CNOOC participates lies in a world-class oil and gas basin whose resources are of excellent quality. Entering the area is CNOOC's important measure after the complete adjustment of its global exploration strategy during 2013 to 2014. Since 2015, the company has continuously discovered 10 oilfields in this area, which is an unprecedented success. Liza oilfield, the first discovery among them, is planned to be put into operation in early 2020, only 5 years after discovery, comparing to 7-8 years that such sized project usually takes. Such speed of development demonstrates the leading project execution capability of CNOOC and its partners. At present, CNOOC is committed to building a globalized technology team to share technologies and lay a solid foundation for the development of the oil and gas industry in Guyana.

### “HAI YANG SHI YOU 760” of COSL began its First Operation in America

On January 12, 2018, “HAI YANG SHI YOU 760” of COSL began its first multi-user deepwater two-dimensional seismic acquisition operation in South America. This task is the two-dimensional seismic acquisition project with the largest single operation area ever obtained by Chinese enterprises. It is also the first transnational exploration and development cooperation in China under the multi-user mode. Facing the

tough conditions in the operation area, the fleet formulated an effective plan to solve the problems related to 6,000-meter-deepwater and 12,000-meter-long cables, taking only 24 hours to put the ultra-long cables in place at one time, and put the gun array in place at one time. The achievements fully demonstrate the technical strength of China's offshore oil industry and are highly praised by the owners.

### CNOOC's First Overseas Operator Project has been fully completed

On September 5, 2018, CNOOC Southeast Asia Limited formally handed over the Southeast Sumatra (SES) block to the Indonesian government and the Indonesian National Petroleum Corporation (Pertamina), marking the full completion of CNOOC's first overseas operator project. The SES block is an old oilfield that has been continuously developed for over 45 years. It had entered the late ultra-high water-cut stage when CNOOC began operation. The company has made full use of the ‘three carriages’ to achieve sustainable development-safety first, tapping potential to increase production, reducing cost and improving efficiency-so that the old oilfield was rejuvenated to provide Java region oil and gas products for 16 consecutive years and even once ranked among the PSC blocks whose operation cost per barrel oil were the lowest in Indonesian offshore oilfields. The achievement set an example for oil and gas cooperation between the two countries.

### “CNOOC 36-1” asphalt has been used in the Belt and Road construction

On January 15, 2018, the first batch of “CNOOC 36-1” asphalt No 50 (grade A) was delivered to Mozambique for China's project of circular expressway construction. On March 29, the first batch of “CNOOC 36-1” hydraulic asphalt was delivered to Nigeria for the construction of Nigeria's

largest hydropower station. The brand and influence of “CNOOC 36-1” asphalt have been effectively promoted, which makes outstanding contributions to CNOOC's active participation in the infrastructure construction for the countries along the Belt and Road.



### COOEC won the 2018 Outstanding Corporate Innovator Award (OCI)

In 2018, COOEC won the 2018 Outstanding Corporate Innovator Award (OCI). Over the past five years, the company continuously strengthened open innovation, significantly improved its ability to integrate resources and maintained its vitality index at about 30%, making it the first mainland Chinese enterprise to win this honor. The OCI award was established by the American Product Development and Management Association (PDMA) to recognize successful enterprises around the world that introduced new products, new programs and new services for over five consecutive years.





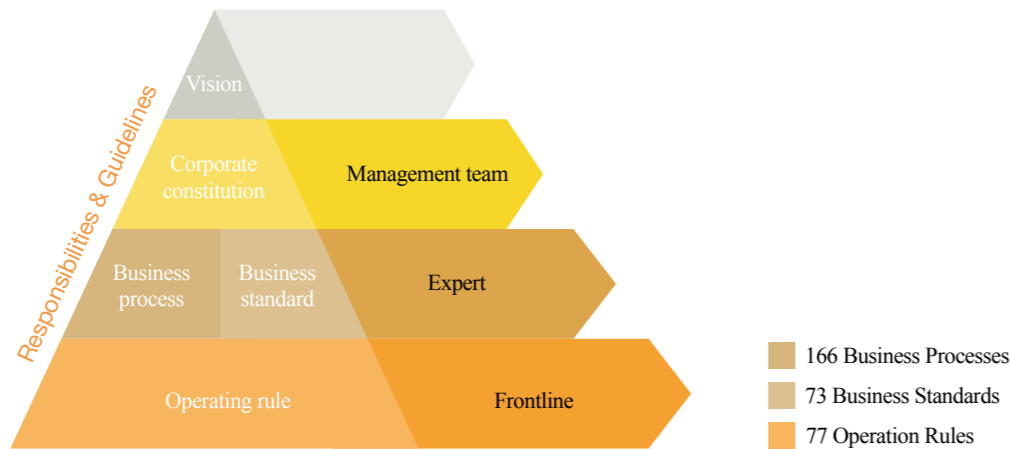
## Strengthening Safety and Compliance Management

Safety and compliance management is the very resource of CNOOC operating business in the world. CNOOC takes institutional construction as the guide. After many years of field operation, the Company has built up a set of safety and compliance supervision system which not only conforms to local laws and regulations of resource countries,

but also conforms to China's relevant regulations. A good atmosphere has been created so that 'everyone knows the system and obeys rules'. The Company has basically achieved full coverage of overseas audit supervision, effectively controlled overseas operation risks; actively implemented the *Overseas*

*Security Management Rules* and established a security management mechanism for the whole process of overseas projects; attached a great importance to emergency management and normalized emergency drills, which effectively guaranteed the stable operation of overseas projects.

### Compliance Management System of CNOOC International Limited

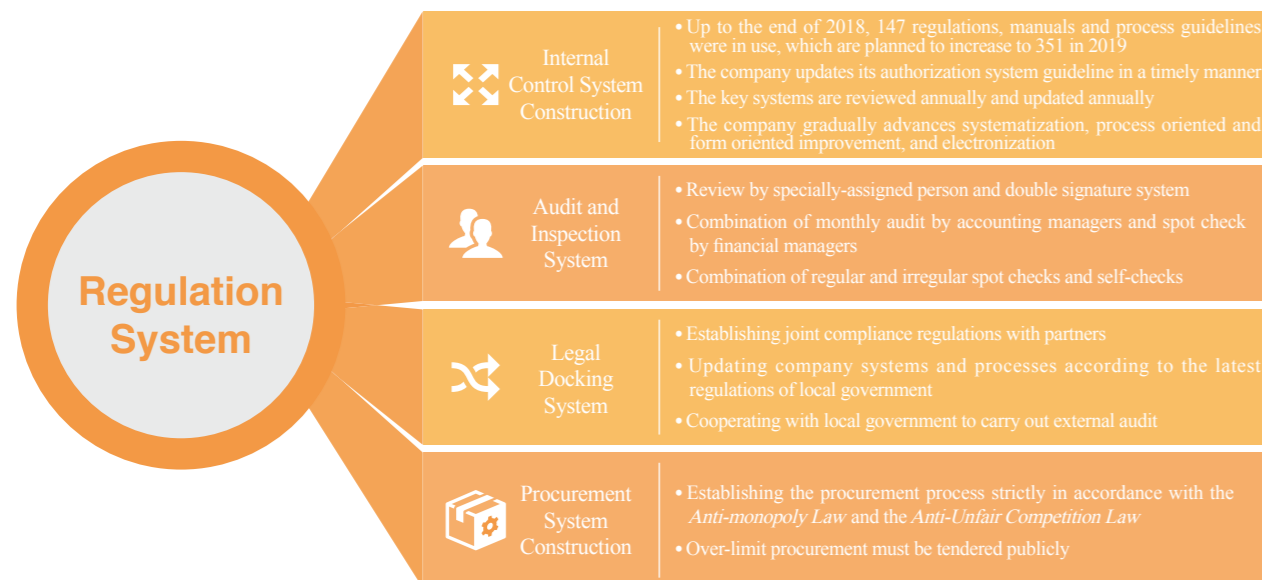


### CNOOC Uganda built up an overseas compliance regulation system

After nearly seven years of field operation, CNOOC Uganda has built up an overseas compliance regulation system, which

meets the company's overseas operation requirements with the characteristics of Uganda. Since the launch of the system, no

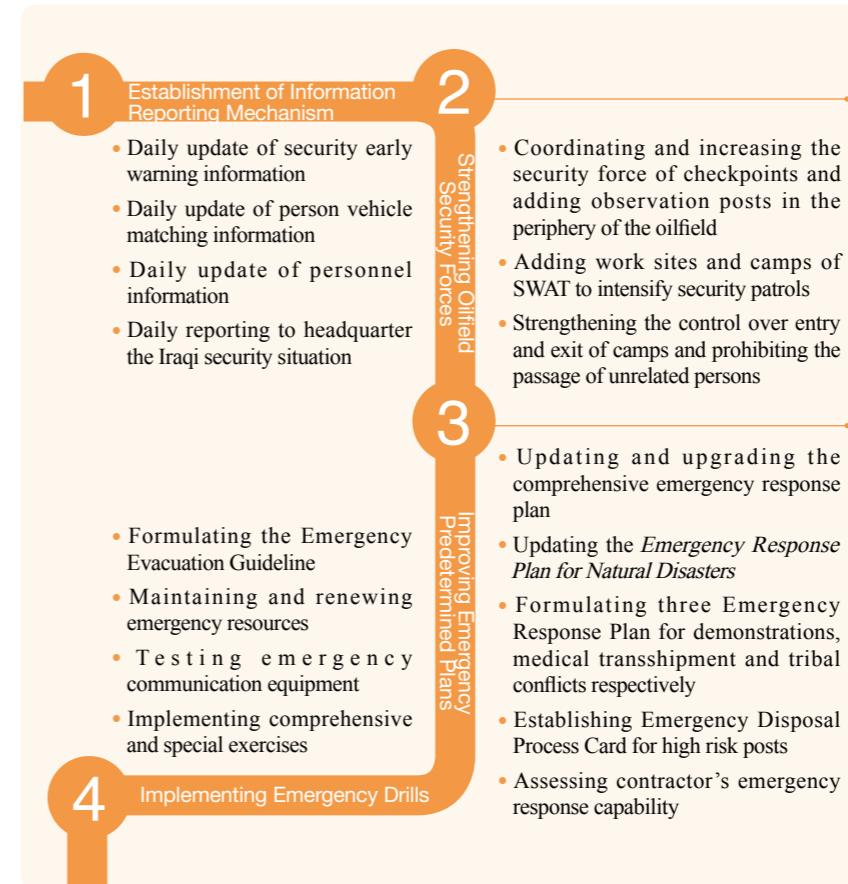
major compliance risks or problems have occurred.



### Security Emergency Response Mechanism has achieved remarkable results in CNOOC Iraq Limited

In 2018, many social unrest incidents occurred around Misan Oilfield in Iraq. The oilfield managers started emergency predetermined plans in time, issued yellow signal early

warning, took effective measures to protect the lives and properties of employees, and played an important role in ensuring stable production.



### Staff Reflections



Khalid Almalky  
Iraqi Department Manager, Production Zone (Oil Production Plant) of Misan Oilfield of CNOOC Iraq Limited

CNOOC is a large multinational group company with strong international competitiveness. It is widely recognized by the international capital market with transparent and perfect corporate institutions, open and advanced management concept and steady growth. It is a very good partner. CNOOC has integrated advanced safety culture into oilfield management, therefore, enhances the level of oilfield safety production management, improves the safety consciousness of local employees and reduces the risks in the production process.

### CNOOC Nexen actively practices EU General Data Protection Regulation

On May 28, 2018, the EU formally implemented *General Data Protection Regulation* (GDPR) which would have a significant impact on CNOOC's business in Europe and North America.

In order to meet the requirements of GDPR as quickly as possible and improve the information data security of the company in accordance with the new standards, Nexen had set up a working group one year before the regulation was promulgated. The working group made a thorough investigation on

Nexen's information & data protection and upgraded the Information & Data Protection Action Plan. After the enactment of the regulation, the working group updated the legal basis of the relevant procedures, contracts and privacy notices in a timely manner; interpreted the regulation to Nexen's employees and informed them in various forms the key provisions; and conducted online training for all staff to make them fully understand their rights and obligations.



## Protecting a Balanced Ecosystem

CNOOC attaches great importance to protecting the balance of ecosystem in overseas areas where it operates, carries out research and management on greenhouse gas emission reduction,

applies all kinds of technological means for biodiversity protection, actively organizes and participates in environmental protection activities, continuously improves the level of

environmental protection management, and disseminates the concept of "Lucid Waters and Lush Mountains are Invaluable Assets" to every corner of the world.

### CNOOC International upgrades its global HSSE system

To meet the needs of overseas business development, CNOOC has restructured its organization of business segments and carried out the management system integration.

According to the requirements of corporate QHSE management system and drawing upon good practices in the global oil industry, CNOOC International is reformulating a

set of global HSSE (health, safety, security, environment) with CNOOC's characteristics which is also fit for various overseas business.



### CNOOC Nexen advances the caribou conservation program

CNOOC Nexen has been actively engaged in caribou conservation activities in Canadian oil sands area since 2011. The company has creatively used its seismic lines and roads to effectively reduce the invasion of caribou habitats by predators and expand caribou populations in six township areas. In 2018, Nexen's Algar Caribou Habitat Project was

officially certified by the government of Alberta as one of the provincial government's restoration projects. Nexen also participated in the formulation of Caribou Recovery Pilot Project Summary Report that was officially published on the website of Canadian Oil Sands Innovation Alliance, and proposed the following work to expand the caribou habitat.



### COSL's fleet of "HAI YANG SHI YOU 720" has worked out an environmental friendly operation mode

In 2018, when it was operating in Brazil, COSL's fleet of "HAI YANG SHI YOU 720" faced tight schedule and high environmental protection requirements. The fleet has innovated the marine biological monitoring and protection method and changed the calibration method of marine animal driving equipment from on-site calibration to mirror calibration. The new method improved the speed of calibration by saving nearly four hours a day compared with the traditional

method. The fleet has also adjusted the frequency of operations by firing low energy and low frequency early warning guns during turnaround in international waters, complying with the related regulations, so as to save more space and time for operation.

During the 23 days after the project started, the fleet observed marine mammals 45 times and stopped artillery operations 9 times to avoid disturbing them.

Since August, as more and more whales came in the operation area, the fleet has made a positive and professional response to effectively protect them.

— Juliana Rodrigues Moron  
Marine mammal observer in  
Brazil

### CNOOC actively participated in the Oil Spill Emergency Response Conference held by the government of Mexico

Since the BP GoM Oil Spill in 2011, Mexico and the United States have jointly organized annual Gulf of Mexico Oil Spill Emergency Response Conference on the subject of quick response to oil spill emergency. Since

its entry into Mexico, CNOOC Mexico Company has actively participated in various oil spill emergency response conferences and forums, introducing its experiences of oil spill response management to Mexican

government authorities and peer companies, thus has enhanced management through communication and raise reputation in locality.

### Establishment of Alberta Carbon Conversion Technology Center funded by CNOOC Nexen



Opening Ceremony of Carbon Conversion Technology Center



Panorama of Carbon Conversion Technology Center

On May 25, 2018, Nexen-funded Alberta Carbon Conversion Technology Center was officially put into use for the research on carbon capture and conversion technologies. Five research teams were selected as the first institutes to utilize the center after a

competition held by Canadian Oil Sands Innovation Alliance.

At the launch ceremony, Paul Khanna, Advisor-Government Relations & Climate Change, Nexen Americas, said, "We are so

proud to bring this building to Calgary, so innovators can test their technologies on real-world emissions from natural gas-fired power plants. Knowing that these innovations could be applied to oil sands operations in the future is very encouraging."

## Building Platform for Employee Development

CNOOC complies with laws and regulations of the United Nations and the countries where it runs business. The Company strictly abides by all employment policies, opposes any form of discrimination, actively builds harmonious and stable labor relations and safeguards the legitimate rights and interests of employees. It respects the values, personalities and privacies

of employees from various cultural backgrounds and adheres to the principle of gender equality, equal pay for equal work and equal treatment for employees of different races, nationalities, beliefs, gender, age, marital status and special legal protection. The Company currently has 5,945 overseas employees, including 4,671 foreign employees, with a localization rate of 79%.

### CNOOC continues to develop international talent training

In 2018, CNOOC selected the second batch of 16 leading talents of internationalization. 11 of them participated in the Belt and Road Leading Talent Training Program organized by the National Development and Reform Commission and the other 5 were sent to

study in the University of Texas at Austin for one year. The Company also recommended 66 core talents of internationalization to participate in the 17-day training program held by the National School of Development of Peking University.



### Staff Reflections



MARTIN ADEBIYI SONARIWO  
Nationality: Nigeria  
8 years in CNOOC

I joined CNOOC Nigeria in 2010 and am now in charge of crude oil sales. CNOOC is the company which I have been working in for the longest time since I graduated from university and is my most satisfied employer. In the past eight years, I had not only the opportunity to fully apply the knowledge I have learned to practice, but also gained personal happiness from stable work and development prospects. I have got married and had two sons. I like the working environment and the corporate culture very much. Working in CNOOC is a wonderful experience for me. I feel very happy to be a member of this big family.

### CNOOC Limited was named the Forbes World's Best Employers for consecutive years

On October 11, 2018, Forbes released its annual World's Best Employers List, with 84 Chinese companies on the list. CNOOC ranked 6th, which made it the only Chinese company ranking in the top 10 of the list.



### CNOOC Uganda builds Career Ladders for Overseas Employees

Based on human resources policies of CNOOC and CNOOC International and referring to the idea of constructing 'three teams', CNOOC Uganda has developed a 7-level career ladder for its employees in 25 technical and management occupational sequences, and designed job requirements and promotion methods for each level. When the Uganda project enters the stages of on-site construction and operation, the company's occupational sequence will be further extended to on-site construction, operation and maintenance positions. Through the continuous improvement of staff career ladders, the bottleneck of the development

of technical, management and operation staff will be effectively alleviated.

In 2018, CNOOC Uganda Limited provided local employees 55 training courses, covering technical, management and professional qualification training and on-site practices. The training hours reached 44,720. The company dispatched 8 local employees to CNOOC's domestic oilfields, research institutes and manufacturers to participate in 2-4 months of on-site practices and achieved good results. The effect has been highly recognized by the Ministry of Energy and Mineral Development of Uganda.

### Introduction of Excellent Employees



Alex Tumwesigye  
Nationality: Uganda  
7 years in CNOOC

Alex Tumwesigye is contract acquisition supervisor of Department of Business and Contracts in CNOOC Uganda. In 2011, he responded to the company's job advertisement and offered himself several times before being hired. During the following seven years, he grew rapidly and achieved outstanding results. In 2018, he was elected local employee representative and was designated candidate for the Localized Replacement Plan for the Manager of Department of Business and Contracts.

### CNOOC Nexen is committed to promoting gender diversity

In April 2018, the United Kingdom enacted a law requiring companies with 250 or more employees to publish the gender pay gap. CNOOC Nexen responded positively to the relevant legal requirements with not only announcing the gender pay gap, but also conducting a survey on the gender pay gap in its British branch.

The result of the survey showed that there was no significant gender pay gap in Nexen's British branch. Based on the data of 2016, females annual bonuses were on average 0.7% higher than males; the pay of males is 0.8% higher than that of females, while the company's average salary was closed to the

median of the market data; in terms of long-term incentive awards, males received 3.9% more than females.

After investigation and analysis, the company believed that the lower proportion of female employees, especially in senior management positions and technical positions, was the main reason for the gender pay gap. To alleviate the gap, the company formulated a special action plan in 2018 to strengthen women's leadership and built career ladders for female employees in order to increase the proportion of female employees in senior and technical positions.

### COOEC International Exchange Center was put into operation

On December 4, 2018, COOEC International Exchange Center was put into operation. COOEC has signed personnel training cooperation framework agreements with Tianjin University, Harbin Engineering University, China University of Petroleum (East China), China University of Petroleum (Beijing), Southwest Petroleum University and Shanghai Jiaotong University. Five well-known professors from Nankai University and Tianjin University and three high-end talents of offshore engineering were

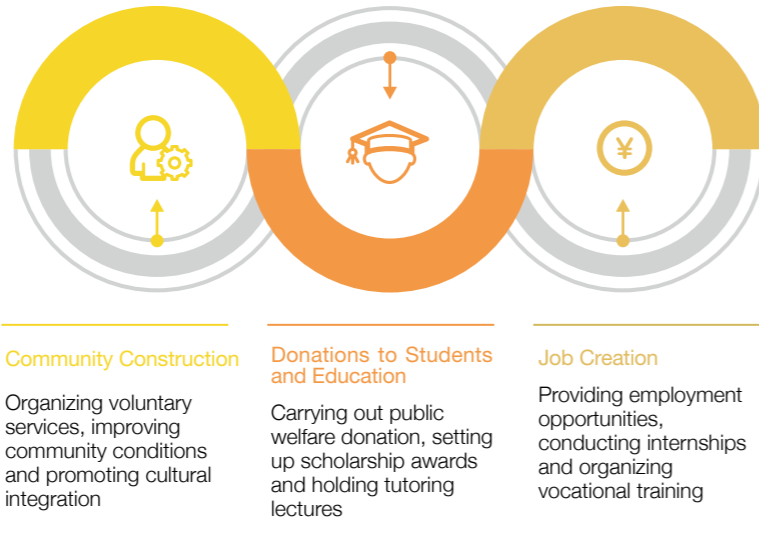
employed as special professors and lecturers of the Center.

The Center will build three platforms for corporate think tank, training of senior managers and internationalized talents, and maintenance of international relations of the COOEC respectively. The Center will continuously strengthen the construction of internal training system, make full use of external resources such as colleges and universities, realize the organic combination of self-construction and external sharing,

and build a multi-level, three-dimensional and normalized talent training mode to provide strong talent support for the high-quality development of COOEC. The Center will also actively take advantage of the sharing mechanism, make full use of the abundant teaching resources of universities and partners, and carry out high-level cooperation in research, commercialization of results and training of internationalized personnel, so as to integrate external sharing and internal sharing.

## Promoting Enterprise-community Common Development

CNOOC lives together with the local government and residents in a complementary community with a shared future. The Company has long been committed to working hand in hand with local communities, creating employment opportunities, facilitating two-way exchange and integration. It has been promoting common development by both 'blood transfusion' and 'hematopoiesis' mechanisms, donating to local students and education in order to sow the seeds of hope for the future of local communities.



### Community Construction

CNOOC Southeast Asia was commended by the Ministry of Energy and Mineral Resources of Indonesia for its disaster relief operation



On December 17, 2018, HCML, subsidiary of CNOOC Southeast Asia, was commended by

the Ministry of Energy and Mineral Resources of Indonesia for its leading role in the disaster relief operation during the earthquake and tsunami disasters in September, as well as donation to the disaster area and post-disaster reconstruction in Central Sulawesi Province, Indonesia.

At the award ceremony, the Minister of Energy and Mineral Resources of Indonesia said, "Companies such as HCML have helped our brothers and sisters in times of crisis. Here, I thank all the companies that have taken part. I express highest appreciation for your hard work and sincerity for this."



The ribbon-cutting ceremony of the co-construction project in Iraq



Extend regards in local villages

### CNOOC Iraq Builds Long-term Mechanism of Community Construction

CNOOC Iraq, in accordance with the resolution of the Iraq's Central Government, allocates a budget of US\$ 5 million annually to cooperate with the local government in implementing social contribution projects to support infrastructure construction in Missan Province.

In 2018, CNOOC Iraq signed nine contracts with local contractors through public bidding, involving 13 construction projects, with a total contract value of \$ 8.8 million. The implementation of social contribution projects has ensured and improved the local people's livelihood, promoted local employment and economic development, and improved the level of education.

### Donations to Students and Education

CNOOC Nexen raised money for the Heart Disease and Stroke Foundation

On September 28, 2018, more than 50 Nexen employees participated in the Big Bike Ride in support of Calgary Corporate Challenge in order to raise money for the Heart Disease and Stroke Foundation. Team Brian and Team Mike formed by Nexen employees were the final winners. Nexen raised \$30,000 for the foundation, half of which came from Nexen employees.

This is the fifth consecutive year that Nexen has participated in the event, raising a total of \$130,000 for the Foundation Brian Bench, VP & CIO-Information Technology and Big Bike leader, said, "It's an interesting friendship game, but more importantly, we have contributed to a great cause."



### CNOOC Southeast Asia Improves Teaching Conditions in Local Schools

There is an island with 117 households near the operation area of HCML, subsidiary company of CNOOC Southeast Asia. The Islanders used to take diesel engine generator system as power source and the power only lasted for a limited time every day. HCML was determined to help the islanders solve this long-standing problem by installing solar power equipment on the island. With these

solar facilities, the power supply on the island will never be interrupted and students can use computers at any time. HCML also built a lightning rod of 18 meters high in the school. The company hired professional teachers from Jakarta to tutored senior students in middle school and help them prepare for college entrance examination.



### Job Creation

CNOOC Uganda Opened a Welder Training Course

CNOOC Uganda Limited has always attached great importance to the training of local talents and technology transfer in Uganda. The company has vigorously implemented the win-win concept and managed to promote the development of Uganda's oil industry. In July 2018, the company launched a welder training course and selected 30 local residents to participate in a three-month practical training. The course was planned to train internationally certified welders. Uganda's First Lady attended the opening ceremony of the training course in person and thanked CNOOC for its contribution to the training of Ugandan talents and localization in recent years.

### CNOOC Nexen Increased Local Contractor Participation

In 2018, in order to promote the participation of aborigines and small and medium-sized contractors in its business, CNOOC Nexen formed a project team of internationally renowned professionals to simplify the bidding process, after listening carefully to the aborigines contractors.

The newly developed simplified process reduced the use of legal terminologies and adjusted the manner of speaking more cordial and friendly by fully took into account the cultural requirements of the aborigines. In particular, it no longer required that every material in the Request for Opinions be regarded as a legal document, while adopted User's Guide to put forward contract requirements including delivery, collection, personnel and so on. The new process enhances the user experience and fully reflects Nexen's support for the aborigines and local enterprises, which makes Nexen's unique advantages in business development and gains social recognition.

## Outlook On 2019



Promoting Economic Growth

- Optimizing the industrial layout, promoting energy transition and exploring business of new energies in a prudent and orderly manner
- Enhancing innovation awareness, strengthening prospective and fundamental research, promoting high-quality development
- Ensuring steadiness and compliance, building a comprehensive system for risk prevention and control, strengthening the construction of safety culture
- Implementing high-quality development, wholeheartedly providing quality products and services, and building world famous brands



Driving Social Progress

- Promoting the strategy of rejuvenating enterprises by talents and improving employees' sense of gain, happiness and security
- Developing targeted poverty alleviation in an orderly way, making better the public welfare foundation of the Company, and establishing brands in public welfare
- Promoting voluntary services, innovating service means and continuously enhancing the social influence of Blue Force
- Integrating into communities, sharing resources with the society and repaying the society with our development outcomes



Enhancing Environmental Protection

- Adhering to green development and constructing perfect green supply chain
- Strengthening water resource management and improving the utilization efficiency of water resources
- Actively tackling climate change and building a comprehensive low-carbon management system
- Acting as protector of marine ecological environment, attaching great importance to the protection of ecological diversity around the operation area



CSR Report Overseas

- Responding to the "Belt and Road" Initiative, ensuring safety and compliance during overseas operations and deeply integrating into the world oil and gas industry
- Attaching importance to environmental protection management in the host country, and maintaining adaptation, coordination and unification of the local ecosystem
- Building development platforms for overseas staff, and actively integrating into the local community to achieve the common development of employees, communities and the Company



## Third-Party Assessment

### Rating Report of “Sustainability Report 2018 of China National Offshore Oil Corporation”



Upon the request of China National Offshore Oil Corporation, the Chinese Expert Committee on CSR Report Rating invited experts to form a rating team to rate the “Sustainability Report 2018 of China National Offshore Oil Corporation (CNOOC)” (hereinafter referred to as “the report”).

#### 1. Rating criteria

“Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)” of the Chinese Academy of Social Sciences and “China Corporate Social Responsibility Report Rating Standards (2019)” of “Corporate Social Responsibility Report Rating Expert Committee of Chinese Enterprises”.

#### 2. Rating process

- (1)The rating team reviews and confirms the “Process Data Confirmation of Corporate Social Responsibility Report” submitted by the “Report” writing group and relevant supporting materials;
- (2)The rating team conducts evaluation on the preparation process and the content disclosed by the “Report”, and then drafts the rating report;
- (3)The Vice Chairman of the Rating Expert Committee, the leader of the rating team, and the experts of the rating team jointly sign the rating report.

#### 3. Rating results

##### Process (★★★★★)

The company sets up a sustainability development report preparation leading team, the general manager serves as the team leader, responsible for reviewing the report theme, topics for discussion and framework, the various agencies, government departments and affiliates provide and review the basic materials, the chairman of the board of directors is responsible for the report final review; the report is positioned as an important tool to improve the level of social responsibility management, disseminate corporate responsibility brand image, disclose corporate responsibility performance information, and construct a reporting system including special reports and independent reports of subsidiaries; identifies material or substantive issues in conjunction with relevant national policies, major corporate issues, industry bench-marking analysis, and stakeholder survey results; plans to hold special press conference, and will present reports in electronic format, print, Chinese and English version, H5, etc., with excellent process performance.

##### Materiality (★★★★★)

The report systematically discloses the implementation of macroeconomic policies, product and service quality management, safeguarding energy supply, occupational health management, safety production management and emergency, product transportation safety, science and technology and innovation, development of new energy, circular economy, measures to actively respond to climate change, ecological protection and restoration of production areas, and other key topics for discussion of the oil and gas exploration, mining and processing industries. The description is detailed and sufficient, with excellent substantive performance.

##### Integrity (★★★★)

The main body of the “Report” discloses 78.0% of the core indicators of the oil and natural gas exploration, mining and processing industries from the perspectives of “accelerating economic growth”, “enhancing environmental protection”, “promoting social progress” and “overseas social responsibility report” etc., with excellent integrity performance.

##### Balance (★★★★☆)

This “Report” discloses negative data information such as “number of death of direct contractors”, “number of death of employees”, “number of recordable injury incidents”, “annual number of incidence of occupational diseases” and “employee turnover rate” etc., with leading balance performance.

##### Comparability (★★★★★)

This “Report” discloses data on 37 key indicators of more than 3 consecutive years, such as “crude oil trade volume”, “R&D input”, “number of personnel of scientific and technological institutions”, “energy conservation and emission reduction input”, “employment scale” and “payment of profits and taxes” etc., and compares horizontally the “Ranking of Fortune Global Top 500 Enterprises”, “Ranking of the World’s 50 Largest Oil Companies”, “Ranking of Global LNG Importers”, and “Ranking of Forbes 2018 World’s Best Employers List” etc., with excellent comparable performance.

##### Readability (★★★★★)

The “Report” is based on the theme of “contributing green energy and building a blue sea and blue sky”. It unfolds from the aspects of economy, environment, society and overseas responsibilities, with a clear structural framework, highlighting key topics for discussion. While responding to the expectations of stakeholders, it also demonstrates a deep understanding of the company’s fulfillment of its corporate social responsibility. The cover creativity and chapter design adopt large-format live-action pictures, which not only highlights the industry characteristics, but also enhances the recognition of the report; the reports sets the “terminology explanation” section interpreting industry terminology, which has enhanced the legibility of the report, with therefore excellent readability performance.

##### Innovation (★★★★★)


The “Report” sets “China National Offshore Oil and Sustainable Development Goals (SDGs)” as its special topic at its very opening, responding to the UN Sustainable Development Goals (SDGs), systematically demonstrating the company’s responsibility performance practice and effectiveness on key issues, highlighting the company’s global vision. By setting up special features, such as “Practicing National Strategy” and “Building a Sharp Tool for the Country”, the report actively responds to the national development strategy, and highlights the responsibility of the central enterprises; “2018 Overseas Social Responsibility Report” is an independent chapter, which highlights the national “Belt and Road” initiative, with therefore outstanding innovative performance.

##### Overall Rating (★★★★★)

According to the rating team’s assessment, “Sustainable Development Report 2018 of China National Offshore Oil Corporation” is of five-star rating, and it is an excellent corporate social responsibility (CRS) report.

#### 4. Improvement suggestions

- 1.Enhance the disclosure of core indicators of the industry, and improve the integrity of the report;
- 2.Increase the disclosure of analysis of the inadequacy of corporate responsibility performance, and further improve the balance of the report.

 中国企业社会责任报告 中国专家委员会 中国专家委员会  
China National Offshore Oil Corporation Sustainability Report Won a Five-star Evaluation for the Fifth Consecutive Year

**Wei Zichuan**  
Vice President of Chinese Expert Committee on CSR Report Rating

**Cheng Duosheng**  
Leader of the Rating Team

**Zhang En**  
Expert of the Rating Team

**Ren Jiaojiao**  
Process Assessor



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## Index of Reporting Indicators

CONTENTS	CASS-CSR	GRI	IPIECA/API
<b>OVERVIEW</b>			
Inside Front Cover	P1.1/P1.2/P1.3/P1.4/P1.5/P2.2/P2.3/P4.2/G2.4/G2.5/G5.4/M1.1/M1.2/M1.3/M2.7	101/102	
Chairman's Letter	P3.1/P3.2/P4.6/P5.2/P5.3/M2.1/M2.16/G1.1/G1.2/G1.4/G3.2	101/102	
President's Letter	P3.1/P3.2/P5.2/M2.2/M2.5/M3.3/S1.1	101/102	
About Us	P4.1/P4.2/P4.3/P4.6/G1.1/G1.2/G1.4/G2.1/G2.3/G4.1/G4.2	102/103	
Corporate Governance and Operation	S1.1/S1.2/S1.3/S1.4	103/205	SE11
Stakeholders	P1.5/P2.3/G2.2/G5.1/G5.5/G5.6/M1.3	102/415	
United Nations Sustainable Development Goals	P5.1/P5.2/G1.1/G1.3/G1.4/M1.4/M1.5/M1.6/M2.2/M2.5/M2.17/M2.18/M2.19/M3.7/S1.5/S2.1/S2.11/S2.16/S2.17/S2.22/S2.29/S4.7/S4.15/E2.23/E2.26/E2.27/E2.35/E5.1	302/303/304/308/401/402/403/405/406/408/409/419	E2/E8/SE4/SE15/SE16
Key Performance Indicators	P4.5/P5.2/G4.1/M1.4/M2.2/M2.17/M2.18/M2.19/S1.5/S2.1/S2.4/S2.8/S2.9/S2.11/S2.20/S2.22/S2.24/S3.6/S4.7/S4.13/E1.5/E2.4/E2.21/E2.22/E2.26/E2.27	201/302/305/401/403/404	E2/E4/E7/E8/SE4/SE17
<b>PROMOTING ECONOMIC GROWTH</b>			
Ensuring Energy Supply	P4.2/P4.3/P4.4/G3.2/M2.1/M2.2/M2.3/M2.4/M2.9/M2.13/M3.1/M3.2/M3.3/M3.4/M3.6/M3.7/M3.9/M3.10/M3.11/S3.8/E3.3	102/103/305/308/414	E8/SE5/SE7/SE9/SE12
Emphasizing Sci-Tech Innovation	M2.3/M2.16/M2.21/E2.5	103	E3
Intensifying Safe Operation	P5.1/G1.1/G1.3/G6.4/M2.6/S3.1/S3.2/S3.3/S3.4/S3.9/S3.10/S3.11/E2.7/E2.8/E2.11	102/103/201/410/413/414	HS4/HS5/SE17
Improving Quality Management	G1.1/M2.6/M2.7/S3.10/S3.11	103/416	HS4
Special Topic: Implementing National Development Strategy	P4.4/M2.4/S1.6		
Special Topic: Developing Advanced Equipment	M3.3/M2.16		
Special Topic: Building Smart Oilfield	M2.2/M2.16/M3.3		
Special Topic: Digitalized LNG Receiving Terminal	M2.2		
<b>ENHANCING ENVIRONMENTAL PROTECTION</b>			
Green Operation	P5.1/P5.3/G1.2/E1.1/E1.2/E1.4/E2.1/E2.2/E2.23	102/103/305/413	E8/SE1/SE5
Tackling Climate Change	P5.1/E1.1/E1.3/E2.1/E2.2/E2.23/E2.27/E3.4/E4.1/E4.3	103/201/203/305	E1/E8/SE4
Energy Conservation and Emission Reduction	P5.1/S1.6/E1.1/E1.5/E2.1/E2.2/E2.4/E2.21/E2.22/E2.24/E2.26/E2.30/E2.38/E2.39	102/103/302/305/306	E2/E4/E7/E8/E9/E10
Water Resource Management	P5.1/E2.2/E2.18/E2.34/E2.35/E2.36	103/303/305/306	E6/E8/E10

Continued

CONTENTS	CASS-CSR	GRI	IPIECA/API
Biodiversity Conservation	P5.1/E5.1/E5.2/E5.3/E5.5	103/304	E5/E8/E18/SE5
Special Topic: Three-year Action Plan for Bohai Oilfield Environmental Protection Upgrading	P5.1/G1.1/E1.1/E2.1		
<b>DRIVING SOCIAL PROGRESS</b>			
Caring for Employees	P4.5/P5.1/G1.1/S1.6/S1.7/S1.8/S2.1/S2.3/S2.4/S2.5/S2.6/S2.8/S2.9/S2.11/S2.14/S2.15/S2.16/S2.18/S2.19/S2.20/S2.22/S2.23/S2.25/S2.26/S2.27/S2.29/S2.31	103/201/401/403/404/405/406/408/409/412	HS1/HS2/HS3/SE5/SE6/SE7/SE8/SE15/SE16/SE17/SE18
Devoting to Public Interests	P5.1/P5.3/S4.10/S4.11	103/203/413	SE1/SE2/SE3/SE4
Providing Voluntary Services	P5.1/S4.14/S4.15	103/303/306/413	E9/E10/SE1/SE2/SE4
Integrating into the Community	S2.30/S4.1/S4.2/S4.4/S4.5/S4.10/S4.11/S4.14	103/203/307/413/415/419	SE1/SE2/SE3/SE4/SE5
Special Topic: Poverty Alleviation through Consumption	S4.10		
<b>CSR REPORT OVERSEAS</b>			
Creating Socioeconomic Value	P5.3/M2.2/M2.5/M2.16/M3.3	201/203/204/302/417	SE1/SE2/SE4/SE6/SE11/SE12/SE13
Strengthening Safety and Compliance Management	S3.1/S3.2/S3.3/S3.11	103/410/419	SE10
Protecting a Balanced Ecosystem	E1.1/E1.3/E1.6/E2.7/E2.8/E4.1/E4.2/E5.1/E5.2/E5.3	103/304/305/413/419	E8/E9/E10
Building Platform for Employee Development	P5.3/S2.18/S4.6/S4.7	103/401/403/404/405/406/411/412/419	HS1/HS2/HS3/SE1/SE2/SE3/SE4/SE5/SE6/SE7/SE8/SE15/SE16/SE17/SE18
Promoting Enterprise-Community Common Development	S2.19/S4.12	103/201/203/404/411/413/419	SE1/SE2/SE4/SE5/SE6/SE17
Special Topic: Forty Years of Reform and Opening-up of the Offshore Special Zone	P5.2/M2.2/M2.5		
<b>OUTLOOK ON 2019</b>			
	A1		
<b>ANNEX</b>			
Third-party Assessment	A2		
Index of Reporting Indicators	A3		
Glossary of Terms			
Feedback Form	P1.5/A4		

## Glossary of Terms

### Drilling Platform

Offshore drilling platforms are marine structures used mainly for drilling exploratory wells. Such platforms, generally divided into mobile and fixed platforms, are essential for offshore oil and gas exploration and development operations and house drilling, power, communications, navigation and other equipment, as well as lifesaving and accommodation facilities.

### Heavy Oil

Heavy oil is highly viscous crude oil that contains a relatively high level of asphaltenes and resins. This usually refers to those with ground densities greater than 0.943 and underground viscosities greater than 50 centipoises.

### Oil Reservoir

This is the smallest unit for the storage of oil. Oil reservoir layer or oil layer in short refers to the porous strata for the storage of oil. Not every part of an oil layer will contain oil. Oil reservoir refers to those independent oil-containing areas within an oil layer.

### Adjustment Well

Adjustment wells refer to scattered or clustered wells drilled, in addition to existing well clusters, for improving the development of oil fields.

### Well Logging

Well logging usually refers to geophysical well loggings, in which different forms of well loggers made based on electrical, magnetic, acoustic, thermal, nuclear and other physical principles, enter wells through the use of well logging cables, to allow the ground electrical measuring instruments to record continuously along the well bore the various parameters that change with changes in depth. Underground rock formations, including oil, gas, water, and coal layers and metal deposits, can then be identified through curves representing these parameters.

### Oil Spill Response

Oil spill response is the formulation of plans and adoption of measures to control and prevent oil spills and reduce pollution damage, based on the environment and resources in the potential spill sources and waters within the designated sea areas. This sees common use in offshore oil exploration and development activities.

### LNG

Liquefied natural gas or LNG in short refers to the liquid that forms when natural gas extracted from gasfields cools to a low temperature under high pressure after undergoing the fluid and acid removal, drying and distillation processes. LNG is predominantly methane and is colourless, odourless, non-toxic and non-corrosive.

### Recordable Production Safety Events

According to the OSHA standards of the United States, recordable production safety events include medical treatment, work restrictions, lost time and deaths.

### Occupational Disease

This refers to diseases that develop as a result of exposure to occupational hazards at work.

### QHSE

The abbreviation QHSE stands for Quality, Health, Safety and Environmental. Established on the basis of the principles of compatibility of similarities and complementarity of differences, and on the basis of the ISO 9001 and ISO 14001 standards, GB/T 28000 family of standards and SY/T 6276 Petroleum and Natural Gas Industries-Health, Safety and Environmental Management System, the QHSE management framework usually refers to the framework that directs and controls the quality, health, safety and environmental aspects of an organization.

### COD

Chemical oxygen demand or COD in short refers to the amount of oxidant consumed when treating water samples using a certain amount of strong oxidants under certain conditions. The usual use of COD is to determine the extent of contamination of water bodies by reducing substances.

### CNOOC

The abbreviation CNOOC stands for China National Offshore Oil Corporation.

## Feedback Form

In order to improve the social responsibility engagement of CNOOC on an on-going basis, we would like to hear your thoughts, which will form an important basis for us to do better. We thank you very much that you could spare some time to give us your valuable feedback on the report and suggestions to the theme and issues of 2019.

### Your Information:

Name: \_\_\_\_\_ Company: \_\_\_\_\_  
Tel: \_\_\_\_\_ E-mail: \_\_\_\_\_

### Your Feedback:

- What is your overall opinion of the report?  
 Very good     Quite good     Average     Quite poor     Very poor
- What do you think of the information disclosed in the report?  
 Very abundant     Quite abundant     Fair     Quite little     Very little
- What do you think of the quality of the information disclosed in the report?  
 Very high     Quite high     Average     Quite low     Very low
- Which form of design would you like to be used more in the 2019 report?  
 Expression of management thought     Data graph     Case introduction     Special topic     Picture
- Which theme would you like to be presented in the 2019 report?  
 Our quality energy for your blue sea and sky  
 Our clean energy for lucid waters and lush mountains  
 Our clean energy for clear water and blue sky  
 Our clean energy for a beautiful life
- Which issue would you like to be added to the 2019 report?  
 Economic growth, specifically \_\_\_\_\_  
 Environmental protection, specifically \_\_\_\_\_  
 Social progress, specifically \_\_\_\_\_  
 CSR overseas, specifically \_\_\_\_\_

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