



**2022**

**CNOOC Limited Environmental,  
Social and Governance Report**

# About the Report

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<b>Reporting Entity</b>	CNOOC Limited ("the Company" or "we").
<b>Reporting Period</b>	From 1 January 2022 to 31 December 2022. The report may include information beyond the reporting period in order to keep the information consistent.
<b>Scope of the Report</b>	CNOOC Limited and its subsidiaries. Please refer to the CNOOC Limited 2022 Annual Report disclosed in conjunction with this report for details on the scope of reporting entities.
<b>Contents of the Report</b>	Vision and commitment of the Company's Corporate Social Responsibility ("CSR"), common performance and key achievements in its ESG practices. There are no significant adjustments to the disclosure scope of this report compared with the Company's previous ones, and a consistent methodology of disclosure is applied.
<b>Explanation of Information</b>	The information in the report is derived from CNOOC Limited's internal statistical statements, company documents and reports, stakeholder surveys and interviews. The Company's emissions and energy consumption indicators are collected and calculated in accordance with national regulations or international standards.
<b>Reporting Languages</b>	Chinese and English (should there be any discrepancies, please refer to the Chinese version.)
<b>Reference Standards</b>	This report is prepared according to the Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited (HKEX), Guidance on Self-Regulation of Listed Companies on the Shanghai Stock Exchange No. 1 -- Standardized Operation, the 10 Principles of UN Global Compact and the GRI Sustainability Reporting Standards issued by the Global Reporting Initiative (GRI), with reference to the Recommendations of the Task Force on Climate-related Financial Disclosures Final Report and Sustainability Reporting Guidance for the Oil and Gas Industry by IPIECA.
<b>Report Verification</b>	An independent limited assurance engagement on substantial ESG performance indicators of 2022 as disclosure under this report was conducted by Ernst & Young Certified Public Accountants LLP.

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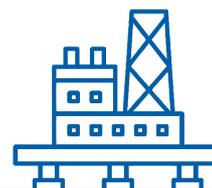
An electronic version of this report is available on the Company's website at [www.cnoccltd.com](http://www.cnoccltd.com) and hard copies are available upon request.

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# Board Statement

The Board of the Company is committed to improving ESG management and pursuing harmonious development of the Company, environment and the society, while continues to enhance business development and financial performance.

## Supervision over ESG matters:

The Board is the principal and decision-making body for ESG matters, who has incorporated ESG affairs into the corporate governance structure, gets fully involved in ESG governance and ESG information disclosure, and is fully liable for ESG strategies and reporting. The Board regularly receives special debriefs on health, safety and environmental protection performance each year, approves corporate governance reports and reports on internal control, risk management and compliance management, assesses and determines the Company's ESG-related risks, and ensures that the Company has an appropriate and effective ESG risk management and internal control system. The Board established the Strategy and Sustainability Committee in August 2022 to develop the Company's long-term strategy, major business plans and investment decisions, and sustainable development issues and make recommendations to the Board.

## ESG management policies and strategies:

We integrate ESG governance requirements into our daily management system. Through regularly reviewing ESG management internally and analyzing the evaluation of our ESG performance by external ESG rating agencies, we prioritize and manage ESG issues according to the importance, with due consideration of macro policies and the communication with stakeholders. The Company reports to the Board regularly on the above issues, to clarify our ESG management policies and strategies, and to improve our ESG performance.

## Review on ESG targets:

The Board continuously strengthens its supervision and participation in ESG governance. The Board will hear the annual special debrief on health, safety and environmental protection issues made by the management of the Company, set annual targets on the effectiveness of health and safety system, environmental pollution, safety management, green and low-carbon development strategy, and evaluate the completion of the objectives of the previous year. We hired Ernst & Young Certified Public Accountants LLP to independently assure the ESG performance indicators selected by the Company, to ensure the reliability of ESG performance indicators.

The above-mentioned ESG related matters are also disclosed in detail in this report, which has been reviewed and approved by the Board.

The Board of CNOOC Limited



# About Us

CNOOC Limited, incorporated in the Hong Kong Special Administrative Region in August 1999, was listed on the Stock Exchange of Hong Kong Limited (code: 00883) on 28 February 2001. The Company was included as a constituent stock of the Hang Seng Index in July 2001. The Company was listed on the Shanghai Stock Exchange (code: 600938) on April 21st, 2022.

The Company is the largest producer of offshore crude oil and natural gas in China, as well as one of the largest independent oil and gas exploration and production companies in the world. The Company mainly engages in exploration, development, production and sale of crude oil and natural gas.

At present, the Company's core operation areas include Bohai, the Western South China Sea, the Eastern South China Sea and the East China Sea in offshore China. The Company has assets in Asia, Africa, North America, South America, Oceania and Europe.



# Highlights of CNOOC Limited

## Our Scale

## Our Performance

## Our Contribution

Net production

**623.8** Million BOE

2021 573 Million BOE

Capital expenditure

**102.5** RMB Billion

2021 RMB 88.7 Billion

Annual amount of carbon dioxide reduction

**596.6** Thousand Tons

2021 409 Thousand Tons

Annual amount of water saved

**74.5** Thousand Tons

2021 49 Thousand Tons

Number of jobs created around the world

**>21** Thousand

2021 >19 Thousand

Amount of tax paid

**123.4** RMB Billion

2021 RMB 48.3 Billion

Net proved reserves

**6.24** Billion BOE

2021 5.73 Billion BOE

Oil and gas sales revenue

**353** RMB Billion

2021 RMB 222.1 Billion

Reserve life

**10** Years

2021 10 Years

Net profit

**141.7** RMB Billion

2021 RMB 70.3 Billion

Number of energy-saving renovation projects and funds invested

**>50** Items **360** RMB Million

2021 >40 Items RMB 280 Million

Annual green electricity purchase

**186** Million kwh

Annual amount of energy saved

**275.7** Thousand Tons of Standard Coal Equivalent

2021 161.5 Thousand Tons of Standard Coal Equivalent

Total recordable occupational injury incidents rate of employees

**0.02**

2021 0.21

Public welfare projects covering countries and regions

**15**

Amount invested in foreign donations and public welfare projects

**96.02** RMB Million

2021 RMB 95.81 Million

Public welfare projects

**>100**

Number of maritime rescues during the year

**55** Times

2021 49 Times

# Chairman's Statement



Dear friends,

On behalf of the Board of the Company, I would like to sincerely thank you for your continued attention and support to CNOOC Limited.

2022 was a year of complicated and volatile circumstances globally, while at the same time, a year for CNOOC Limited to rise to the challenges and forge ahead. We experienced energy crisis, food crisis, and climate changes. Amid the profound changes in the external environment, CNOOC Limited tackled the challenges, seized the opportunities and achieved a series of record highs. This year, the Company strove to increase reserves and production, with new highs registered in net proved reserves and net production. This year, the Company obtained fruitful results in scientific and technological innovation, with core technological breakthroughs achieved. This year, the Company pushed forward its green transition, with a clearer path charted for its clean, low-carbon, and green development.

#### **Ensuring compliance through management enhancement.**

In 2022, CNOOC Limited was successfully listed on the main board of the Shanghai Stock Exchange. Henceforward, we will continue to improve corporate governance in accordance with the listing rules in both Hong Kong and Shanghai. The Company has established the Strategy and Sustainability Committee to further reinforce ESG management. We have always regarded compliance operation as the cornerstone to underpin the healthy growth of the Company, and constantly optimized our risk management system. We have always stuck to high

standards of business ethics, implemented special actions to enhance management, thereby securing stable and sound operation of the Company.

#### **Empowering main business sector through technological innovation.**

CNOOC Limited has always utilized technological innovation as a powerful driving force to propel the high-quality development of the Company. We tackled the key R&D challenges and achieved plentiful scientific and technological innovations, which had impelled our digitalization and intelligentization. China's first shallow-water subsea production system, independently developed by the Company, was successfully put into operation. It could vigorously release the oil and gas resources in shallow waters like the Bohai Sea. The tallest deepwater jacket platform in Asia, Haiji-1, started production, which demonstrates that the Company has mastered the new mode of developing deepwater oil and gas resources with ultra-large jacket platforms. We constructed intelligent oilfields of integrated exploration and development, and developed the most advanced intelligent offshore platform in China. We have seen the number of unmanned platforms growing, to effectively improve uptime and control costs.

#### **Achieving low-carbon development through green energy transition.**

CNOOC Limited has pursued the strategy of green and low-carbon transformation. We strove to produce in a cleaner way by optimizing our energy consumption structure. We constructed and commissioned China's largest onshore power project for offshore oilfields -- Bozhong-Kenli oilfields onshore power project. We steadily developed new energy



business by participating in various offshore wind power and photovoltaic projects. Based on our advantages in offshore sequestration capacity, we accelerated the construction of CCS/CCUS projects and cooperated with our partners to advance the research of industrial CCS hub. Notable progress has been achieved.

**Caring for employees and fulfilling social responsibilities.**

CNOOC Limited treats employees as the most valuable resource and asset and pursues mutual development of its business and employees. We protect the physical and mental health of our employees, safeguard the rights and interests of them, and share the fruits of development with all the staff. We optimize the talent development system, and provide a clear career path to enable every employee to become the backbone of the Company. As a responsible corporate citizen, the Company actively fulfills our social responsibilities. We always promote the mutual development of human beings and the society, and the harmonious coexistence between mankind and mother nature. The Company has been increasing its public welfare investment in various aspects such as rural revitalization, environmental protection, education support, and charitable activities. In 2022, we donated nearly RMB100 million.

CNOOC Limited highly values the communication with investors and stakeholders. We actively respond to stakeholders' concerns, and discuss with them about the issues that may benefit the Company's future development. In 2022, CNOOC Limited has left impressive footprints along its path of development. Based on the outstanding ESG performance, the Company has

earned numerous ESG awards this year, including the "Asia's Best CSR" by Corporate Governance Asia, the "Gold Award" under The Asset ESG Corporate Awards by The Assets, and the "Sustainable Development Benefit Award" under the Evergreen Awards by Caijing Magazine. These honors demonstrated the high recognition from all sectors of the society regarding CNOOC Limited's practices in sustainable development and corporate social responsibility.

Despite the remote pathway and numerous obstacles, the ultimate goals will be achieved with perseverance. In 2023, we will continue to strengthen scientific and technological innovation, green development, and enhancement of quality and efficiency, to promote the long-term sustainable development of the Company. Adhering to the concepts of "harmonious development of economy, environment and society" and "win-win partnership with stakeholders", we will actively respond to the Ten Principles of the UN Global Compact as well as the guidelines and requirements of the Shanghai Stock Exchange and Hong Kong Stock Exchange. We will improve our ESG management capabilities, undertake corporate social responsibility and forge ahead with confidence and fortitude on our path to becoming a world-class enterprise.

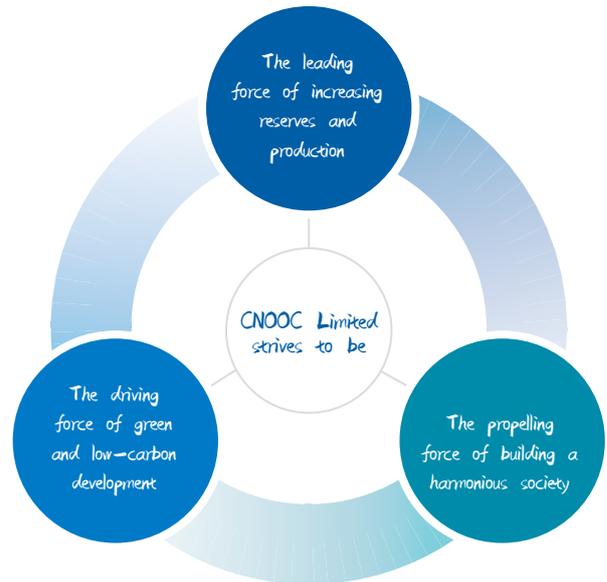
Wang Dongjin  
Chairman of CNOOC Limited  
March 2023

# Vision and Commitments

We are committed to developing natural resources in a safe, efficient, and environmentally-friendly manner, supplying the society with clean, reliable and stable energy and meeting the reasonable energy demand of the people, which comprises our commitment to a sustainable development. The economy, environment, and society are the three cornerstones for the Company to develop energy resource and create value. As our business and economic contributions grow steadily, we will press ahead on the road of environmental protection and social progress. Continued efforts will be made to integrate economic, environmental and social factors to drive the sustainable development of the Company.

The Company believes that sustainable development should not only rely on the knowledge, beliefs and ideas of the management or individual employees. We must integrate sustainability requirements into our corporate management systems to make it part of our corporate culture.

We constantly assess our performance and make improvements and adjustments to ensure that our operations and management are more environmentally-friendly, efficient and safer, and achieves balance in the development of the economy, environment and society.



## Improve communication with stakeholders

The Company has established an open, transparent and multi-channel stakeholder communication mechanism, which has been continuously improved during the development of the Company. We take the initiative to communicate with stakeholders on a number of social responsibility issues to understand the impact of the Company's operations on the local communities and the needs of disadvantaged groups. Based on the above understanding, the Company develops tailored environmental, social and governance management systems as well as plans of community investment and livelihood improvement to make contributions to people's well-being.

### The Company interacts with the local community in the following ways:

- Work closely with relevant government departments and sign memorandums of understanding
- Regular exchanges on environmental protection and social responsibility issues with important local enterprises
- Coordinate the matching of charities for disadvantaged groups
- Conduct field research in the area where the project is located
- Build local social media channels
- Hold communication meetings with community leaders or community associations



# Materiality Analysis

The Company, in accordance with the requirements of the Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited (HKEx), has understood the opinions of stakeholders on our environmental, social and governance (ESG) issues, identified issues that stakeholders are potentially concerned with and determined their importance, as important references to the extent and scope of issue disclosure, to ensure more accurate and comprehensive disclosure of ESG information and respond to stakeholders' concerns by means of questionnaire surveys, business review and discussion, ESG performance benchmarking and internal workshops.

## Collection of relevant issues

The identification of substantive issues was conducted by an independent third-party consultant of the Company. The evaluation collected 20 issues related to economy, environment, labor and human rights. These key issues were derived from a wide range of data, including the Environmental, Social and Governance Reporting Guide of the HKEx, GRI Index, TCFD Disclosure, opinions of relevant parties, policies and management strategies of the Company, industry benchmarking, ESG rating system analysis, internal publications and media coverage.

## Implement of questionnaire survey

The independent consultant of the Company conducted a questionnaire survey on ten major stakeholder groups respectively, including the Board/Management of the Company, leaders of the headquarters departments/subsidiaries/overseas institutions, employees, shareholders, government and regulatory authorities, partners and contractors, communities and the public, non-governmental organizations and public welfare organizations, clients, and media, and invited stakeholders to evaluate the importance of these issues. A total of 526 valid questionnaires were recovered. Based on the survey results, the Company conducted analysis to identify and assess the importance of issues.

## Determination of the order of issue

On the basis of the above analysis results, we collected data and made an analysis according to two dimensions, namely the importance of these issues to stakeholders and to the sustainable development of CNOOC Limited, and presented these issues in a matrix. This Materiality Matrix will serve as an important reference for future strategy development, goal setting and continuous information disclosure.

## Analysis of influence on operations

We solicited opinions from the senior management and evaluated the importance of these issues to CNOOC Limited, from the perspective of the Company.

The materiality analysis results of CNOOC Limited's ESG issues in 2022 are as follows:

- ◆ Environmental Issues
- Labor and Community Issues
- ▲ Operation and Development Issues
- Value Chain Issues



**Topic**

**1**

# ***Technological Innovation, Empowering High-quality and Rapid Development***

CNOOC Limited has made continuous efforts to tackle key technological challenges. We have leapfrogged from importing or integrating technologies to independent innovation, and held a series of key technologies with independent intellectual property rights. The company has been upgrading its industrial chain with these technologies and striving to become the leading force of increasing hydrocarbon reserves and production in China.



## Driving the Production Growth in Bohai with Technological Progress

Bohai oilfield is the cradle of China's offshore oil industry. It is also the largest, most fertile and profitable oilfield developed by CNOOC Limited. Over the past 50 years of operation, Bohai oilfield has become the largest crude oil production base in China, playing an important role in safeguarding energy supply and promoting economic and social development.

From 2021 to 2025, the Company will be dedicated to building Bohai oilfield into an example of energy production base featuring integrated exploration and development, standardized engineering and construction, intelligent oil and gas production and outstanding management. Thereby, the Company can achieve major exploration discoveries, robust growth of crude oil and natural gas production, and reach its targets of increasing reserves and production.

### China's First Independently-developed Shallow-water Subsea Production System Put into Operation

In November 2022, China's first independently-developed shallow water subsea production system was successfully put into use at Jinzhou 31-1 gas field in the Bohai sea. It is a ground-breaking progress in shallow water subsea equipment development, which has created a new model for the development of shallow water resources off China's coast. CNOOC successfully solved the technical problems of shallow water subsea system and replaced the fixed jacket platforms with subsea production system composed of subsea wellhead, Christmas tree and control system. The new production system will effectively reduce the operating area and the impact on shipping and fisheries. The application of subsea production system is an innovation of China's shallow water hydrocarbon development model, which can help to recover hundreds million tons of the challenging reserves of the Bohai oilfield. The application of the system will bring the peak daily output of natural gas in Jinzhou 31-1 gas field to about 410,000 cubic meters, which is equivalent to the natural gas usage of 400,000 households in one year. The system provides important technical support to the reform of production and operation mode of shallow-water oilfields and the stable supply of energy.



### World's First Ultra-Heavy Offshore Oilfield Brought to Commercial Production

The Luda 5-2 North Oilfield contains unconventional heavy oil, with very high viscosity and very low mobility, which makes it extremely difficult and expensive to maintain its output. To tap these resources, CNOOC Limited has overcome world-class challenges in thermal recovery and achieved breakthroughs in high temperature integrated injection-production technology and downhole temperature control. With these breakthroughs, the Company has formed its offshore heavy-oil recovery technical system, including wellhead lift control, downhole high-temperature resistant instruments, integrated pipes and steam injection processes.

In April 2022, Luda 5-2 North Oilfield phase I was put into operation as expected. The project is anticipated to reach peak production of 400 thousand tons crude oil per annum in 2024.



## A Step Forward for Intelligent Oil and Gas Fields

CNOOC continued to promote digital transformation and upgrading, and continuously invested in the research and development of intelligent deep-water hydrocarbon development equipment and technology, so that it could tap the full potential of oil and gas fields and maximize the value of its oil and gas assets. The construction of offshore intelligent oil and gas fields in China has embarked on a fast track.

### Intelligent Oilfield

The Company promotes the deep integration of big data, artificial intelligence and deep-water resource development equipment and technology, and establishes oilfields of "real-time supervision, comprehensive synergies, proactive management, and overall optimization".



#### The smart oilfield system in the Eastern South China Sea was initially completed

As an iconic project that marks the digital transformation and the construction of intelligent oil and gas fields of CNOOC Limited, in December 2022, the first phase of Enping 15-1 Oilfields was officially put into production. It is the first oilfield in China to adopt intelligent solutions at the design stage, and has promoted the initial construction of an intelligent oil and gas field system in the eastern South China Sea oilfields, featuring integrated onshore and offshore operation, intelligent operation, digitized production and scientific decision-making.

**China's first fully-offshore unmanned production process with typhoon mode was adopted in Enping 15-1 Oilfields**

- Enping 15-1 Oilfields project enables remote control over the oilfield production on shore and safety shutdown, subsea pipeline replacement and production resumption under extreme conditions. This process will guarantee the safe and smooth operation of oilfields during typhoons.
- Enping Oilfield achieved nearly 300 hours of stable operation in extreme weather, reducing production losses by more than



200 thousands barrels.

**China's most advanced intelligent offshore unmanned platform, Enping 10-2**

- Enping 10-2 platform of Enping 15-1 Oilfields was designed and built according to unmanned operation standards from the beginning of the project. It features remote logging, well killing and production recovery. The "one-click replacement" setting enables remote monitoring of offshore facilities and safety shutdown operations, which can ensure normal oil and gas production during typhoons;
- The oilfields have large reserves, multiple wellheads, high gas content and long subsea pipelines. The remote recovery and production design can realize intelligent functions such as remote parallel operation of emergency generators, remote opening and closing of electrical switches and remote resumption of production;
- This platform is equipped with a video monitoring system, which allows operators to get a 24-hour real-time visual monitoring of equipment;
- This platform is intelligently empowered in 10 aspects including but not limited to oil production management, electrical monitoring, smart security, process automation & optimization, as well as communication links and production control centers.

### Qinhuangdao 32-6 Smart Oilfield helps Bohai Sea to increase production and efficiency

China's first intelligent offshore oilfield, Qinhuangdao 32-6 Smart Oilfield Phase I project, has achieved fruitful results since the end of 2021 when it started operation. We have seen improved performance in safety management, reservoir analysis, cost reduction, and oil production. With the intelligent management system, the oilfield has realized remarkable improvement in risk identification ability and safety consciousness. At the same time, after the commissioning of the smart oilfields, the importance of data as the fifth factor of production becomes more obvious, significantly improving the quality and efficiency of analysis.

Qinhuangdao 32-6 Smart Oilfield Phase II project has started construction in 2022 and is expected to be completed and put into operation in 2023. After operation, it can achieve the organic integration of digitalized and intelligent new technologies with offshore oil and gas development and production, and build an intelligent oilfield management system with three main functions: maximization of economic value of the reservoir, optimization of equipment life cycle cost, and safe, healthy and environmental-friendly production process. Compared to the phase I project, phase II project has realized improvement in five capabilities, namely, IT basic service, overall perception, overall collaboration, scientific decision-making, and active optimization. These functions will help to achieve the goals of production safety, cost reduction and efficiency enhancement in the whole oilfield.

## Intelligent Gas Field

CNOOC strives to increase the proportion of nature gas production. Challenges such as maintaining normal production during typhoons and integrated coordination of onshore and offshore actions have been addressed while three major intelligent production supporting systems, i.e. "intelligent inspection, gas distribution and control" were established. China's first offshore intelligent gas fields have been completed, demonstrating that offshore natural gas production has entered an intelligent and digital era.

### Intelligent Upgrading of the Dongfang 13-2 Gas Fields

In 2022, Dongfang Operation Company achieved:

- 5 unmanned wellhead platforms;
- 4 less-manned central platforms;
- Application of Dongfang terminal production control center and 5G+ industrial Internet, which has enhanced the capabilities of the site to realize comprehensive perception, real-time monitoring, fault diagnosis, intelligent deployment, and efficient coordination;
- The optimal coordination of offshore personnel. The number of offshore duty personnel has been reduced by 20%, and the operational cost is estimated to reduce by approximately RMB 20 million a year.

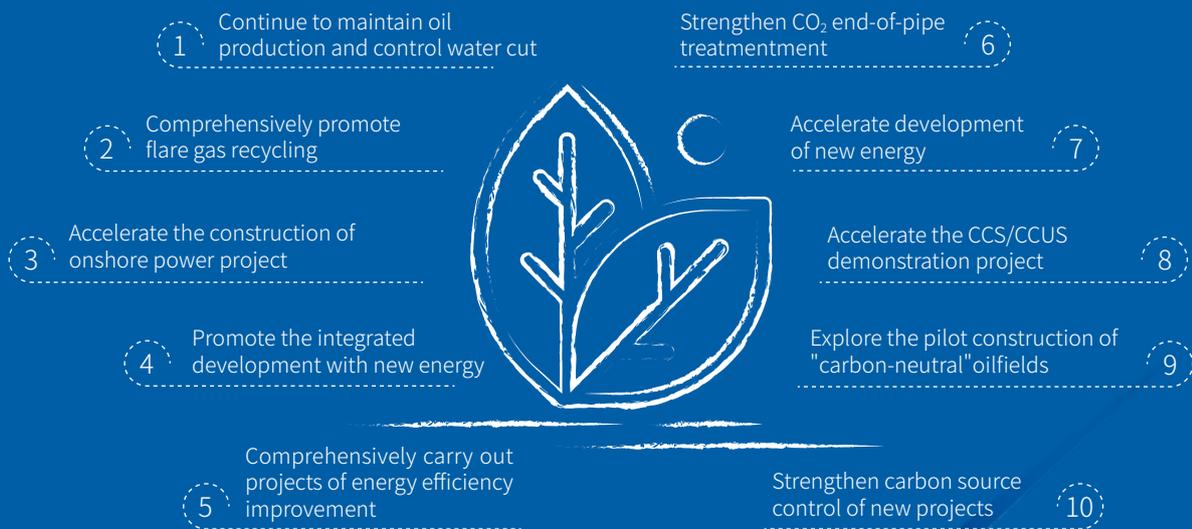


# Topic 2

## Green Mission, Embarking on a New Journey of Low-carbon Transition

CNOOC Limited has been pursuing a green and low-carbon transition by firmly strengthening the development of its new energy sector, accelerating the switch to direct green power supply from ashore, promoting energy saving and carbon reduction in the whole process of oil and gas fields development, and actively adopting new technologies and new modes.

In 2022, CNOOC Limited drafted and published the Action Plan for Energy Conservation and Carbon Reduction, specifying ten energy conservation and carbon reduction initiatives.



## Developing Green Industries

From 2021 to 2025, the Company will steadily promote energy transition by expanding its offshore wind power business, selecting onshore wind and photovoltaic power project opportunities, thereby gradually increasing the proportion of new and renewable energy businesses. In 2022, Jiangsu Zhugensha Offshore Wind Farm, CNOOC Limited's first full-capacity grid-connected offshore wind power project, won the "China Power Quality Engineering Award," the highest honor in the power construction industry.

### Promoting Offshore Wind Power

#### Plan and Goal

- Obtain 5-10 GW of offshore wind power resources by 2025, and install 1.5 GW.
- Obtain an understanding of deep-sea floating wind power technology in three years and master it by 2030 to support large-scale offshore wind development power at grid parity.

#### China's First Demonstration Project of Deep-sea Floating Wind Power

- CNOOC Guanlan, China's first domestic development and demonstration platform of deep-sea floating wind powers, is designed with a water depth of 120 meters and a distance of 136 kilometers offshore;
- The project is estimated to have an annual power generation capacity of 22 million kWh when it goes into operation and is expected to cut carbon dioxide by 22,000 tons per year.



#### Hainan CZ7 Offshore Wind Power Demonstration Project

- This demonstration project is located in the western territorial waters of Dongfang City, Hainan Province, with a total resource of 1.5 GW;
- After being put into operation, the project can supply about 5 billion kWh of clean electricity to the grid annually and reduce standard coal consumption by about 1.47 million tons and carbon dioxide emissions by about 2.51 million tons.



## Developing Onshore Wind and Photovoltaics Power

To improve its capabilities in onshore photovoltaic project design, construction, operation, maintenance, and equipment management, the Company actively participates in the construction of a demonstration base of integrated wind and solar power generation and storage and a large-scale base of wind and photovoltaic power generation, to explore new modes of integrated development.

### Plan and Goal

- Obtain 5 GW of onshore wind and photovoltaic power resources by 2025, with 0.5-1 GW in operation.

#### CNOOC Limited's First Oil and New Energy Integration Project - Weizhou Terminal Distributed Photovoltaic Demonstration Project

- This project has a total installed capacity of 4 MW, with a cumulative on-grid power supply of about 4.16 million kWh as of the end of 2022;
- This project is expected to save 1.72 million cubic meters of natural gas per year compared with natural gas-fired power generation of the same scale and to provide 5.17 million kWh of green electricity to the Weizhou Oilfields and residents of Weizhou Island each year over the 25-year operating period;
- Compared with coal-fired power generation units, 1,600 tons of standard coal will be saved, and carbon dioxide and soot emissions will be reduced by approximately 4,100 tons and 2,500 tons each year.



#### CNOOC Limited's First Onshore Centralized Photovoltaic Power Project - 40 MW "Husbandry and Photovoltaic Complementary Project" in South Gansu

- This project is the largest and highest altitude onshore centralized photovoltaic power project of CNOOC Limited. Relying on local resources, the project explores an integration mode of "new energy + rural featured industry + N" and is expected to connect to the grid in 2023;
- Compared with coal-fired power projects, this project can save 22,400 tons of standard coal annually.



## Adhering to Green Development

CNOOC Limited promotes energy conservation and carbon reduction in the whole process of oil and gas field development by enhancing the efficiency of resource and energy use, construction of onshore power supply projects, increasing clean energy supply, and building green factories and green oilfields.

### Expanding Onshore Power Application

The Company plans to establish an integrated onshore and offshore power supply network within three years so that the onshore power supply can cover the entire Bohai Sea area. At present, the designed capacity of the power network reaches 980 MW. Once put into operation, the network will transform the traditional platform power generation mode and start the era of direct clean power supply to offshore oilfields, laying a solid foundation for the green and low-carbon development of China's offshore oil and gas fields.

Area	Designed capability (MW)	Time of commissioning
Qinhuangdao - Caofeidian District	200	September 2021
Bozhong - Kenli	520	December 2022
Suizhong - Jinzhou	260	Scheduled at the end of 2023

#### Bozhong-Kenli Oilfields Onshore Power Project

- The project will supply **39** offshore production platforms
- In electricity consumption peak years, compared to platform-loaded generation units, it is expected to save **1.5** billion cubic meters of fuel gas each year
- Reduce nitrogen oxide by **14.7** thousand tons each year
- Reduce carbon dioxide by **1** million tons each year



## Strengthening Energy Conservation and Carbon Reduction

The Company strives to save energy and reduce emissions through multiple measures, such as oilfield power network construction, waste heat utilization, and upgrading of significant energy consumption equipments, which will help to control the sources of greenhouse gas emissions. Meanwhile, the Company installs photovoltaics at terminal sites, factory buildings, and roofs of office buildings to optimize the structure of energy usage.

### Multiple Measures Taken by Ultra-deepwater Gas Field Shenhai-1 to Reduce Emission

Since the operation of "Shenhai-1" in June 2021, various energy-saving measures have been taken to reduce carbon emissions significantly.

- Waste heat recovery equipment is installed for the three gas turbines at the "Shenhai-1" energy station, which is estimated to save 27.83 million cubic meters of natural gas each year, equivalent to over 37 thousand tons of standard coal, and approximately 60 thousand tons of carbon emission reduction.
- The flash vapor<sup>1</sup> compression system can recover the flash vapor from three production separators at "Shenhai-1". About 180 thousand cubic meters of flash vapor can be retrieved daily, equivalent to approximately 83.8 thousand tons of standard coal and about 128 thousand tons of carbon emission reduction yearly.



### The First Domestic Small Gas Turbine in Qinhuangdao 32-6 Generates Electricity with Associated Gas

In December 2022, Qinhuangdao 32-6, China's first intelligent offshore oilfield, began to use the first small domestic gas turbine to generate electricity. The turbine uses the associated gas produced from offshore oilfields, entirely using the natural gas that cannot be exported due to a limitation of treatment facilities. It can recover approximately 6.732 million cubic meters of vented gas and reduce carbon emissions by 12,600 tons annually.



<sup>1</sup> Flash vapor: Gas produced by flash of condensate during low pressure flash evaporation in production separator. Flash vapor compressor is used to collect flash vapor into the fuel gas system for use to avoid flash vapor blowout.

## Making Breakthroughs in Green Technologies

In line with the global energy industry's low-carbon development trend, the Company researches cutting-edge technologies, including CCUS and the construction capability of new energy projects. We strive to overcome engineering and technological difficulties, to blaze new trails for the Company and even the entire industry to achieve the goal of carbon peaking and carbon neutrality.

### Exploring CCS/CCUS Technologies<sup>2</sup>

As part of the "14th Five-Year Plan" issued by CNOOC Group, CNOOC Limited has been carrying out CCUS primary science and technology project and critical demonstration project. Research and demonstration projects on carbon dioxide resource matching sinks, capture, transport, storage, monitoring, and chemical utilization have been implemented.

#### Enping 15-1 Offshore CCS Demonstration Project

It is China's first offshore CCS demonstration project with over one million tons of storage capacity. The maximum carbon dioxide reinjection volume is about 280,000 tons per year. The offshore installation has been completed in 2022. The project is expected to be commissioned in 2023.

#### CCS/CCUS Hub Demonstration Project in Daya Bay

The joint research on China's first offshore industrial CCS/CCUS hub with a storage capacity of up to ten million tons has started. It will pave the way for technological breakthroughs and a full-chain offshore CCS/CCUS hub and demonstration project.

### Advancing Key Energy Research

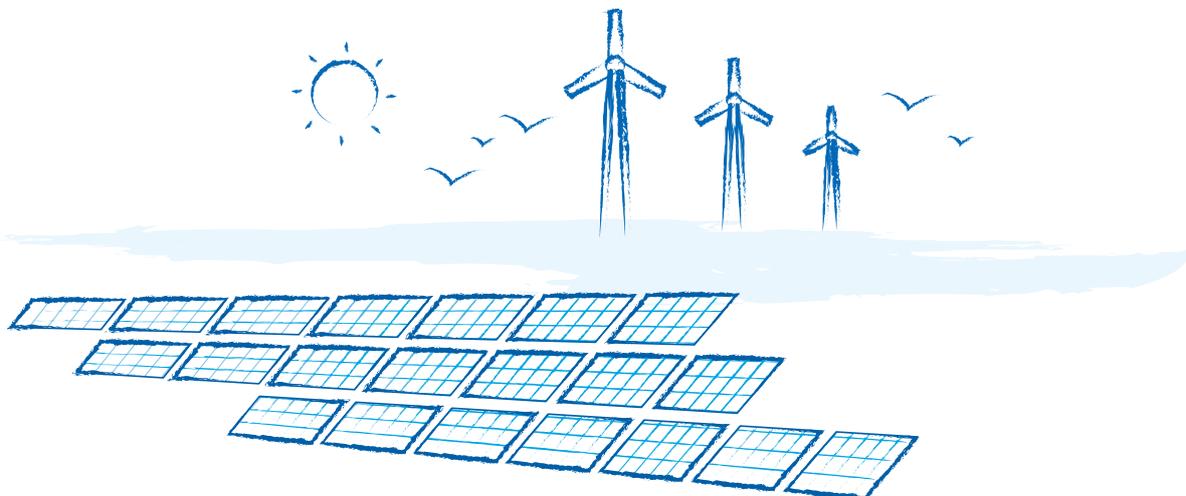
In 2022, the Company completed the top-level design of new energy technologies research projects covering offshore wind power, photovoltaic, and hydrogen.

#### Offshore Wind Power

- **Shallow water:** a new type of large-diameter monopiles and a new type of fixed foundation will be applied in the distributed wind power demonstration project in Penglai.
- **Deep water:** key technologies for deep-sea wind power, such as new floating foundations, mooring systems (mooring lines, tensioner, anchoring systems), active pressure load regulating system, and integrated coupling design of wind turbines and foundations, will be applied in the floating wind power demonstration project in eastern Guangdong.

#### Photovoltaics (PV)

The research will be conducted on Building Integrated PV (BIPV) and distributed PV.



<sup>2</sup> CCS: Carbon capture and storage; CCUS: Carbon Capture, Utilization and Storage.

# Corporate Governance

## Corporate Governance

CNOOC Limited strictly abides by the national laws and regulations and regulatory provisions in the countries where we conduct business as well as by our own corporate governance policies. We operate honestly and legally, value risk management and internal control and strengthen the construction of the compliance system. We emphasize ESG management and the Board's engagement in the entire process of ESG information disclosure. For the construction of the compliance system, audit and supervision, we have a whistle blower protection system and have implemented policies on compliance review, audit and supervision, and anti-corruption among suppliers, third-party agents, and intermediaries, to ensure compliant and effective corporate governance.



## Risk analysis

### Anti-corruption, anti-fraud, anti-money laundering and corporate governance risks

Stringent supervision regarding anti-corruption, anti-fraud, anti-money laundering and corporate governance is implemented in the Company's operating countries and regions. If we, or our directors, executives and employees, fail to comply the relevant laws and regulations, we may be sued or punished with consequential damage to our reputation and image, restricted from obtaining new resources and/or access to capital markets, and even subject to civil or criminal liabilities.

### Measures

Taking the Compliance Management Policies as the principles, applying the Code of Ethics and Compliance Manual for Entities and Employees, we continue to improve and issue comprehensive compliance management procedures or rules, compliance guidelines and operation manuals for critical areas. We have established strict internal prevention and management system, strengthened compliance training and awareness regarding the critical areas to ensure all directors, executives and employees properly fulfill their responsibilities.

## Governance Standards

The Company has always upheld and attained high standard of business ethics. The operation transparency and corporate governance policies have been recognized by shareholders as well as the public. We believe that maintaining high-standard corporate governance is essential to the stable and effective operation, and serves the long-term interests of the Company and shareholders.

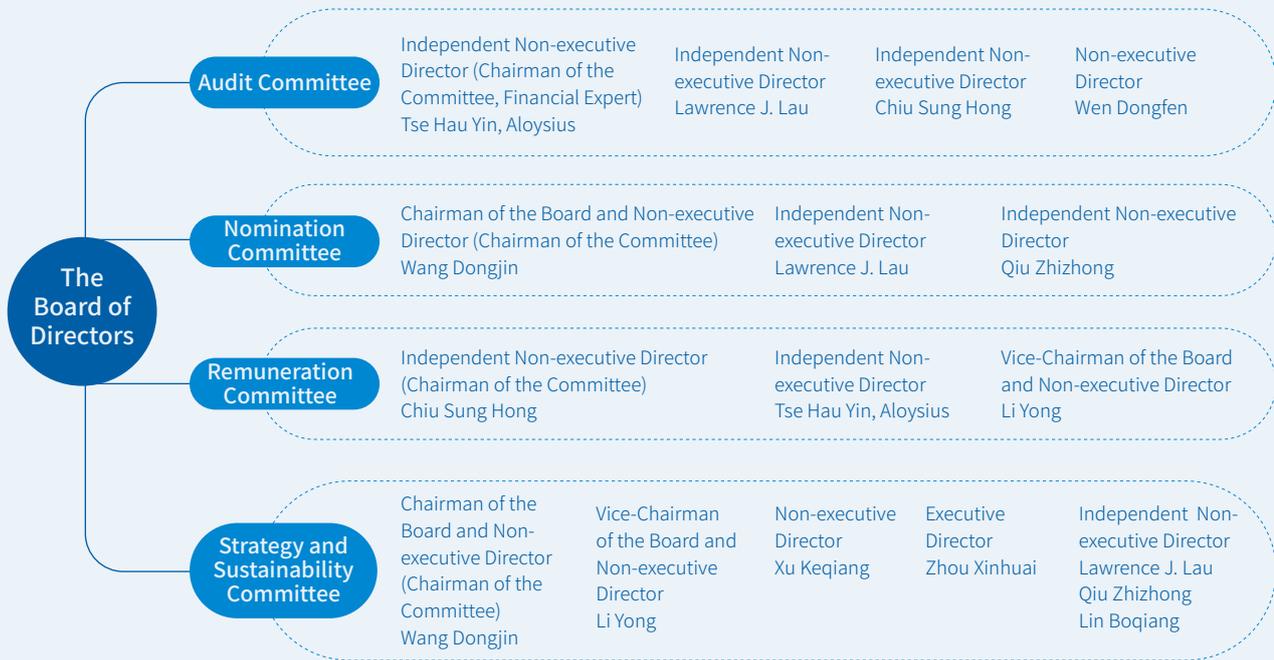
The Company has executed corporate governance policies strictly and complied with the relevant codes on corporate governance including the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the "Listing Rules of the HKEx") and the Rules Governing the Listing of Stock on the Shanghai Stock Exchange (the "Listing Rules of the SSE"). Furthermore, we have ensured that all decisions have been made on the principles of reliability and fairness to protect the interests of all shareholders.

In 2022, the Company held two general meetings of

shareholders. The convention and conduction of the meetings are in accordance with the regulatory rules and legal procedures of the listing place, and the voting procedures and results are legal and valid.

As of December 31st, 2022, the Board of the Company consisted of eleven members, including two Executive Directors, four Non-executive Directors and five Independent Non-executive Directors. The responsibilities of the Board include reviewing and approving long-term strategic plans and annual operating plans, and monitoring the execution of these plans; reviewing and approving significant financial and business transactions and other major corporate actions; reviewing and approving financial statements and reports, and overseeing the establishment and maintenance of controls, processes and procedures to ensure accuracy, integrity and clarity in financial and other disclosures; and being fully responsible for the Company's strategy and reporting, evaluating and determining the Company's ESG-related risks, and ensuring appropriate and

## The Board Structure of CNOOC Limited

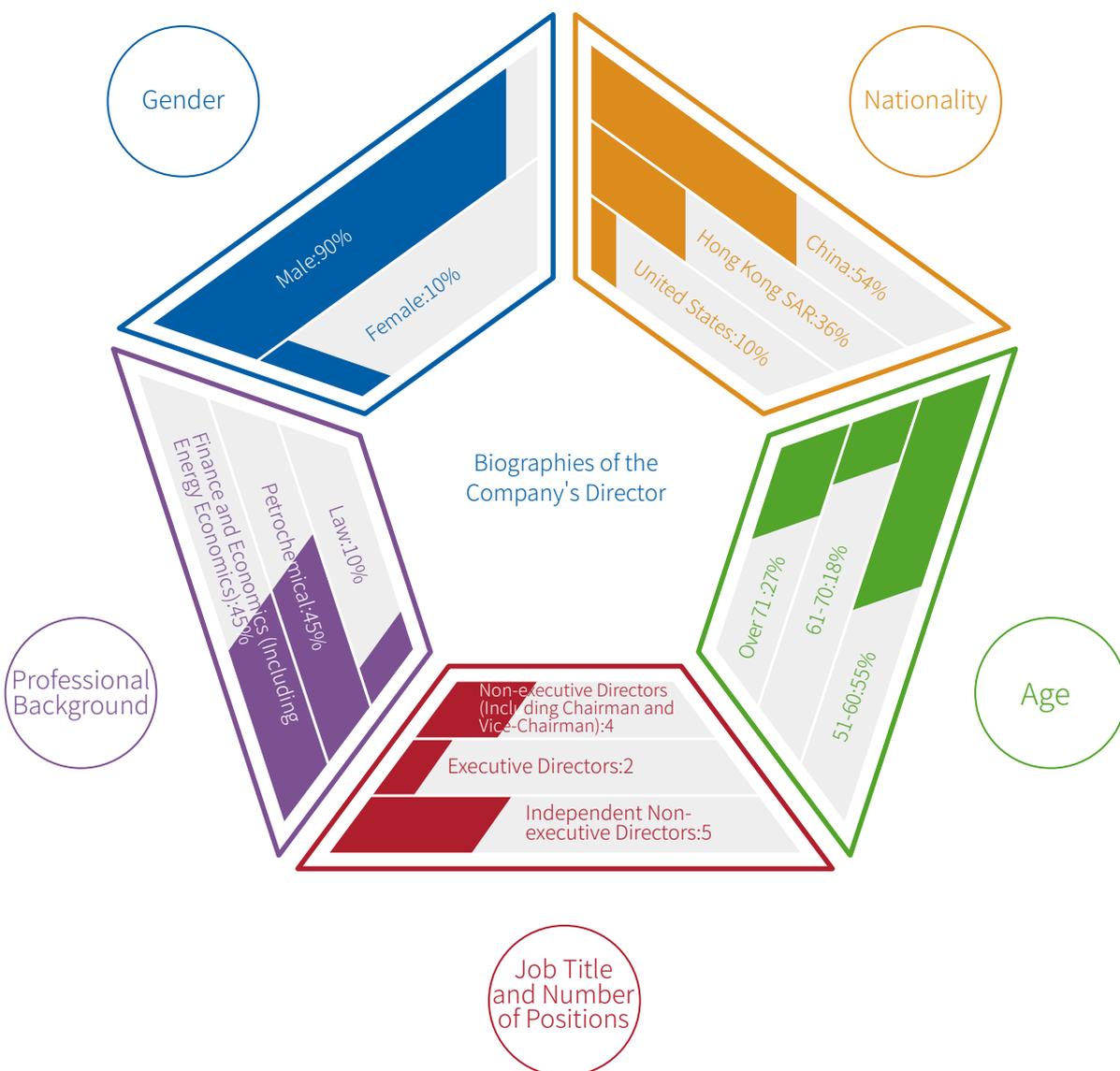


effective ESG risk management and internal control systems are in place; employing or dismissing senior management personnel of the Company, and determining the performance appraisal results of senior management personnel, etc. The Company holds Board meetings at least four times a year. ESG-related issues are included in the agenda of the Board meeting. Four committees have been established under the Board, namely the Audit Committee, Nomination Committee, Remuneration Committee and Strategy and Sustainability Committee. Majority of these four committees' members are Non-executive Directors and Independent Non-executive Directors with a high degree of independence. When potential conflict of interests related to Board matters arises, the Independent Non-executive Directors will take the lead to reflect the opinion of the minority shareholders.

In 2022, there were changes in the directors and the senior management of CNOOC Limited. Since April 28th, Mr. Xu Keqiang has no longer served as the Executive Director and CEO of the Company but transferred to the Non-executive Director position; Mr. Zhou Xinhui has been appointed as the Executive Director and CEO of the Company; Ms. Wen Dongfen has been appointed as the member of the Audit Committee. Since August 25th, the Company has established the Strategy and Sustainability Committee and appointed Mr. Wang Dongjin as

the Chairman, and Mr. Li Yong, Mr. Xu Keqiang, Mr. Zhou Xinhui, Mr. Lawrence J. Lau and Mr. Qiu Zhizhong as the Committee members. Since September 30th, Mr. Lin Boqiang has been appointed as the Independent Non-executive Director and the member of the Strategy and Sustainability Committee of the Company.





The Board has adopted a diversity policy, considering a diversified Board as the key to achieve strategic goals and sustainable growth. The Board has deliberated the policy and took into account the objectives set out in the policy in reviewing Board composition. In particular, in selecting the Non-executive Director candidates, the Board not only considers the expertise, experience and industry-specific background of the candidates but also takes into account their gender, cultural background and diversified vision. In selecting Executive Directors candidates, the Board considers their expertise and background in the oil and gas industry, leadership and management skills, and experience and length of service in the industry.

The Company believes the active involvement of Non-executive Directors and Independent Non-executive Directors makes

the management and decision-making of the Board and the Committees more objective and independent. By the end of the reporting period, the Company has received annual confirmations from all of our Independent Non-executive Directors acknowledging full compliance with the relevant requirements in respect of their independence pursuant to Rule 3.13 of the Listing Rules of the HKEx. The Company believes that all Independent Non-executive Directors are independent.

The Company provides all the newly-appointed Directors of the Board with comprehensive, formal and tailored instructions on appointment and trainings in order to enable them to keep abreast of the latest developments of the Company's business and operation, laws and regulations and other regulatory requirements, as well as the Company's business and their responsibilities under governance policies, so that the directors

are capable of discharging their responsibilities. In 2022, we provided all the directors with the training on corporate governance and responsibilities of directors and senior executives based on compliance rules of A-share listing, and compliance training on anti-corruption and anti-bribery. Some directors also participated in the training on regulatory updates and directors' responsibilities. In addition, the Company kept the directors updated on a regular basis regarding the continuing obligations of listed issuers and on the Company's business and operation through monthly statement.

The Company has established open and transparent communication channels for minority shareholders. We have set up a dedicated section on the "Investor Relations" page of our website to inform our shareholders of important events in an open and transparent manner; meanwhile, we have been inviting them to participate in the Annual General Meeting, Extraordinary General Meeting and Performance Announcement, and delivering timely responses to address their concerns via email or conference call, so that they can better understand and recognize the development philosophy and operational details of the Company.

The Company regularly organizes Performance Announcement, Annual Strategic Outlooks, Press Conferences, road shows and other activities in various forms and channels through online and offline activities as well as the combination of the two. We communicate with the market in a timely and transparent manner, sharing the Company's development strategy, business

strategy, financial performance and future prospects. The management actively and conscientiously address the market focus and won unanimous praise. In 2022, institutional investors, individual investors, analysts and journalists' participating in the regular release exceeded 1,600 times.

After the listing on A-share market, the Company has actively benchmarked against the regulatory guidelines and excellent practices and has been continuously improving the market communication methods. The 2022 interim performance announcement was evolved into the first performance presentation meeting targeting the entire capital market. Relying on digital technologies, the Company has built a communication platform of "Live Streaming + Interaction via Hotline + Interaction via Messages on Web Platforms", achieving positive interaction results with the capital market in real time. In response to the great enthusiasm of investors, the Company has immediately activated the communication channel at the Shanghai Stock Exchange interactive platform (<http://sns.sseinfo.com/>) to regularly answer investors' questions raised on the platform, and assigned dedicated personnel to answer the hotline calls and reply to external emails. With our proven and robust management mechanism, an efficient internal review process is set up for timely feedback to small and medium investors, thus achieving efficient and orderly communication.



## Governance Awards & Honours Granted to the Company in 2022

**September**

"Best ESG Award" in 2022 at the Jinqilin Overseas Investment Forum and the Selection of the Best Hong Kong - and US - Listed Companies

**November**

PR Newswire's "Corporate Communication Awards 2022" – "ESG Communication Award"

"Asian Excellence Awards" - "Asia's Best CSR Award" "Best Investor Relations Company" and "Best Environmental Responsibility" by Asian Corporate Governance Magazine

CAILIANPRESS.COM's Great ESG Awards 2022 - Environmental-friendly Pioneer Award

CAIJING MAGAZINE's Evergreen Awards 2022 – "Sustainability Benefits Award"

**December**

Ta Kung Wen Wei Media Group's "China Securities Golden Bauhinia Awards" in 2022 - "Best Listed Company for Investor Relations Management"

China Excellence IR's sixth "Best Capital Market Communication Award", "Best ESG Award" and "Best Information Disclosure Award"

Zhitong Caijing's seventh "Golden Hong Kong Stocks Awards" for Listed Companies – "Best Energy & Resources Company"

Sina Finance's 2022 China ESG "Golden Responsibility Awards" - Best Responsibility Performance Award

The Asset's "Great ESG Enterprise Award -- Gold Award" in 2022

# ESG Management

The Board takes overall responsibility for the Company's ESG strategies and reporting and is the top decision-making body for ESG matters. Its responsibilities include evaluating and identifying ESG risks, ensuring the establishment of appropriate and effective ESG risk management and internal control systems, and overseeing and managing ESG goals and work progress. In August 2022, the Board established the Strategy and Sustainability Committee, which is responsible for conducting research on the Company's sustainability issues and making recommendations to the Board on relevant policies and strategies. The Committee receives a special report about the Company's management on safety and environmental protection at least once a year, and conducts annual reviews of the Company's ESG report, the results of stakeholder communication and analysis of material issues to ensure the Board's participation in the whole process of ESG governance and ESG disclosure. The Board receives reports on the Company's management of risk control and compliance at least twice a year, and annually approves the corporate governance report, the Company's internal control, risk and compliance management work reports.

The Company has established an ESG Audit Committee. The head of which is undertaken by the CEO, and its members are executives of the Company. The Committee is responsible for evaluating and auditing the Company's ESG reports and submitting them to the Board and the Strategy and Sustainability Committee.

In addition, CNOOC Limited has also established the ESG Audit Committee working group. The members of the working group include heads of the Board's Office, QHSE Department, Human Resources Department, and other related departments. Following the instructions of the ESG Audit Committee, the working group is responsible for preparing ESG reports, regularly reporting progress to the Committee, and handling other tasks assigned by the Committee.

The Company has incorporated indicators such as carbon reduction or new energy output into the assessment mechanism of senior managers. For example, energy conservation and carbon reduction targets have been set for CEO and safety directors; for the CEO and senior managers responsible for development and production, we have set targets of natural gas production.

We embed ESG in our daily risk management. Under the condition of ensuring the consistency of objectives, classifications and criteria used or referred to, changes based on internal and external environments are identified and the risks are assessed. The possibility and consequences of every type of risks are evaluated in terms of their impact on the environment, personnel, our reputation and finance, and the implementation of countermeasures is tracked and regularly reviewed to ensure that risks at all levels are adequately monitored and handled.



# Risk Management, Internal Control and Compliance



The Board ensures that the Company establishes and maintains appropriate and effective risk management and internal control systems, strengthens the construction of compliance system on this basis, and reviews the effectiveness of risk control compliance system construction. The Board receives a report on risk management, internal control systems and compliance management from executives twice a year. All major risks are reported to the Board and the Board also evaluates the risks and their response plan.

With respect to risk management, the Company's Risk Management, Internal Control and Compliance Management Committee (RMICC Committee) is authorized by the Board to organize and carry out the Company's overall risk management and internal control. Its responsibilities include developing risk management and internal control systems, standardizing institutional framework, authorization, responsibilities, processes and methods for the systems, continuously monitoring the systems, and regularly reporting the compliance management of the systems to the Audit Committee and the Board. The Company has adopted the ISO 31000:2018 Risk Management Guidelines, and has established a risk management system of integrated design, implementation, monitoring, review and continuous improvement, with reference to the Guidelines for Comprehensive Risk Management of Central Companies by the State-owned Assets Supervision and Administration Commission (SASAC) and the risk management framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Furthermore, the RMICC Committee lays down the overall targets and strategies for the risk management according to the Company's strategy. The Committee identifies, analyzes and assesses the Company's overall risks, and reviews and approves major risks countermeasures. Committee is also responsible for reviewing the response plans to major risks, as well as following up and periodically reviewing the implementation of such response plans and the handling of major compliance events, so as to ensure that sufficient attention, monitoring and responses will be afforded to all key risks and compliance events of the Company.

In regard to internal control, the internal control system and mechanism concerning financial, operation and compliance monitoring established by the Company are in line with the Basic Standard for Enterprise Internal Control and the supporting guidelines jointly formulated by the Ministry of Finance, the China Securities Regulatory Commission, the National Audit Office, the China Banking Regulatory Commission and the China Insurance Regulatory Commission, as well as the internal control framework formulated by the COSO Committee, and carries out

continuous review and evaluation of the Company's internal control to ensure safety, compliance and timely, accurate and complete reporting information. We clarified and refined the compliance responsibilities of the Board, Management, and executive level, and strengthened the construction and effective operation of the compliance management system, based on the existing risk and internal control framework. In the Compliance Manual for Entities and Employees and the Basic Policies for Compliance Management, compliance conduct clarify principles and rules for compliance management of all employees, senior managers and directors, basic are clarified. The basic principles and regulations of compliance management, compliance consultation, complaints, investigation and violation handling are stated, and the prohibited behaviors of the Company is specified to standardize the behavior of the Company and employees. All staff are maintained to sign the Letter of Commitment on Compliance to enhance their awareness of integrated and compliance.

We have integrated ESG into our routine risk management, that is, at least six areas of ESG risks including climate changes, emissions and wastes, renewable energy sources, human capitals, privacy and data security, and controversial development have been integrated into major risk sources for regular assessment and continuous follow-up. In addition, we conducted specific assessment for COVID-19 pandemic risk, kept follow-up monitoring and responding timely as well.

## Audit and Supervision

CNOOC Limited has established a risk control oriented, internal control supported, and internal audit guaranteed supervision and management system, with internal audit led by the Board and supervised and guided by the Audit Committee of the Board. Pursuant to the Audit Law of the People's Republic of China, the China's Internal Auditing Standards and other laws and regulations, we have formulated and published the CNOOC Internal Audit Management System, the CNOOC Annual Audit Plan Management Measures, the CNOOC Measures for the Management of Audit Projects, the CNOOC Implementing Rules for Internal Control Audit and other policies, which apply to our headquarters and to domestic and overseas branches and subsidiaries, to ensure the integrity and consistency of audit policies. In 2022, in accordance with the latest external

regulatory requirements and the Company's internal control needs, the CNOOC Internal Audit Management System and the CNOOC Annual Audit Plan Management Measures were revised in a timely manner.

Following the principle of "Strengthening Internal Control, Preventing Risks and Promoting Compliance", we have enhanced full-coverage audit supervision of key areas, important processes and major projects; built up the ability to perceive major risks; promoted risk control, efficiency and compliance operation; and ensured the sustainable development of the Company. We have also focused on audit rectification and have established a strict accountability mechanism to ensure the audit findings are well rectified.

Our headquarter is responsible for overseas audit. We have strengthened our audit supervision of overseas assets to improve our international operation and management ability based on the overseas risk control requirements.

## Business Ethics

We strictly uphold the business ethics of honesty, trustworthiness and fair competition, and have established rigorous internal prevention and management systems to regulate our behavior and ensure that employees perform their duties properly.

CNOOC Limited strictly abides the policies and regulations on combating corruption, upholding integrity and business ethics, including the Supervision Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, the Anti-Unfair Competition Law of the People's Republic of China and the Prevention of Bribery Ordinance, and we have established rigorous internal punishment mechanisms and management systems. We have integrated compliance complaint channels, disclosed the complaint website <https://www.cnoocd.com/complaint> on our website, specified the assignment of responsibilities, management processes and requirements of compliance complaints based on the Compliance Complaints Management Procedure, and further improved the financial control complaints, violation information complaints, acceptance mechanism, smoothing the domestic and foreign violation complaints channels and timely conducting violation investigation. In 2022, the personal embezzlement and bribery case against two employees of the affiliated company was concluded.

CNOOC Limited has formulated the Code of Ethics for Directors and Senior Executives (the "Code of Ethics") to provide guidance and requirements to the directors and senior executives, defining requirements on regulatory rules, insider trading, improper market

conduct, conflicts of interest, corporate opportunities, protection and proper use of corporate assets, and reporting requirements. The Company's directors and senior executives are required to be familiar with and abide by the Code of Ethics. Every year, the Code of Ethics is reviewed and amended by the Board, and disclosed on the Company's website.

CNOOC Limited upholds high ethical standards for employees. We have issued the Compliance Manual for Entities and Employees, the Procedures for Handling Rule Violation, the Regulations on Conflicts of Interest, and have established an effective mechanism for punishing and preventing fraud. Senior executives and departmental general managers of the Company should be responsible for the construction of clean government in their areas of management. In addition, department heads are required to sign a letter of responsibility for combating corruption and upholding integrity every year, and we deliver warning education and publicity on integrity at important moments such as employee orientation, promotion and major holidays.

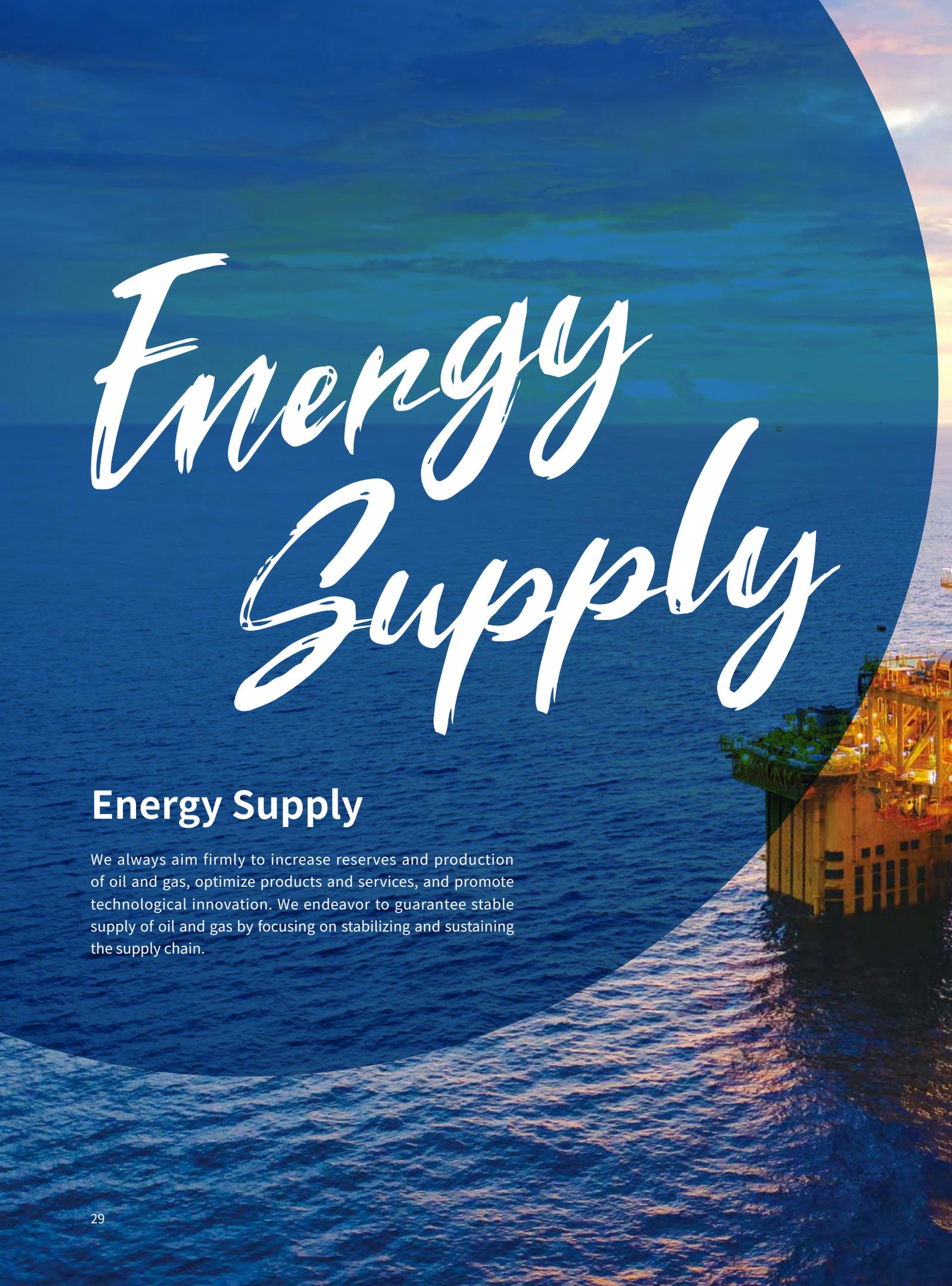
The Compliance Manual for Entities and Employees defines compliance requirements for employee rights, safety, health and environmental protection, avoiding conflicts of interest and insider trading, anti-corruption and money laundering, asset use and protection, information security and personal privacy protection, financial reporting, tax and public disclosure, antitrust, trade compliance, as well as fair trade and competition.

The Procedures for Handling Rule Violation makes detailed provisions for behaviors such as corruption, bribery and violation of integrity practices, and clearly outlines punishments for corruption, embezzlement and bribery.

The Regulations on Conflicts of Interest defines activities that may lead to conflicts of interest, and provides measures to protect whistle blowers' lawful rights and interests.

In 2022, we organized 11 compliance trainings, covering trade sanctions, export control, anti-monopoly, national security review of foreign investment, prevention of insider trading, anti-commercial bribery, anti-corruption, overseas employment, ESG and human rights.





# Energy Supply

## Energy Supply

We always aim firmly to increase reserves and production of oil and gas, optimize products and services, and promote technological innovation. We endeavor to guarantee stable supply of oil and gas by focusing on stabilizing and sustaining the supply chain.



## Risk analysis

### Market risk

The complex international environment has blocked the economic globalization, breeding more external factors to affect the oil market and impacting energy supply and prices. We are facing competition for access to oil and gas resources, alternative energy resources, customers, capital financing, technology and equipment, talents and business opportunities. Meanwhile, as the regulation on environmental protection in the field of energy are increasingly strict, the green and low-carbon transformation may intensify the demand for alternative energy resources, thereby resulting in intense competition in the energy supply market, and exerting adverse impact on the Company's operation and performance.

### Measures

The Company insists on enhancing oil and gas reserves and production, and increasing the proportion of natural gas in the production mix; actively promoting the green and low-carbon transformation; and improving the exploration success ratio, reducing development costs, and enhancing the asset quality and operation efficiency.

### Technology risk

Technology and innovation are essential for the Company to enhance its competitiveness under the competitive environment and exploration and development challenges. We strive to realize our strategies based on technology and innovation to enhance our competitiveness and operation competence. Insufficiency in core technology could negatively impact our reserves, production and cost control.

### Measures

Adhering to innovation on science and technologies, management and business models, promoting the transformation from the rate, scale and factor-driven model to an innovation-driven model, and striving to evolve into an innovative energy company.

### Cybersecurity and IT Infrastructure Damage risk

Malicious attacks on our cyber network, and negligence in our cybersecurity or IT systems, could damage or disable our IT infrastructure, interrupt our services, and lead to loss or improper use of data or sensitive information, personnel injury, environmental harm, asset damage, legal or regulatory violation and potential legal liability. These will lead to a reputational or substantial financial cost.

### Measures

Developing cybersecurity management systems and mechanisms, building critical data backup system, maintaining cyber security inspection, detection and risk prevention work to consolidate cyber security responsibilities at all levels and raise awareness of cybersecurity among employees.

### High Supplier concentration risk

Major suppliers of the Company accounted for a relatively high proportion of purchases. When major suppliers could not continue their services due to accidental factors and we could not obtain suitable alternatives, our businesses could be disrupted, thereby our performance could be adversely affected.

### Measures

Establishing a regular mutual visit mechanism with senior management of suppliers to maintain good cooperative relations with major suppliers. In view of the possible risk of accidental factors, further strengthening global market research and actively developing new supplier resources to ensure the sufficiency of supply and promote competition.

# Product and Service

As a pioneer in China's offshore oil and gas industry, we have been committed to ensuring stable supply of energy. Meanwhile, we actively seek innovation and changes by promoting digital transformation and intelligence development to continuously improve supply competence and service quality.

## Product Supply

In 2022, the Company seized the opportunity and followed the trend, actively promoted the three major projects of increasing reserves and production, scientific and technological innovation, and green development, firmly implemented the action of improving quality and efficiency. The business performance has reached the best level in history.

We insist on putting exploration in the first place, continue to increase exploration investment, pursue sizable discovery and profitable reserves, obtaining a total of 18 new discoveries and evaluating 28 oil and gas bearing structures successfully throughout the year. In Chinese waters, we have obtained 3 large and medium-sized new discoveries such as Bozhong 26-6, Bozhong 19-2 and Baodao 21-1. In overseas, Guyana Stabroek Block made 10 more new discoveries, and the cumulative recoverable resources of the block reached approximately 11 billion barrels of oil equivalent. As of the end of 2022, the Company had net proven reserves of approximately 6.24 billion barrels of oil equivalent.

We insist on taking oil and gas production as the focus of work, anchor the annual production target, continue to strengthen production management, and efficiently organize project operations. In 2022, the net oil and gas production has reached 623.8 million barrels of oil equivalent, an increase of 8.9%, exceeding the annual oil and gas production target and hitting

a new record high. Nine new projects were successfully put into operation, which strongly supported the production growth. We have strengthened the fine management of old oilfields, effectively controlled the natural decline rate in producing fields and maintained a high onstream rate. In order to strongly support its sustainable development, the Company has steadily and efficiently promoted the construction of new production capacity, with more than 40 projects under construction throughout the year. Thanks to scientific production and operation management, the Company continues to consolidate its cost competitive advantage.

In the future, the Company will continue to search for large and medium-sized oil and gas fields, increase risk exploration, and consolidate the reserve foundation for its sustainable development. We will continue to utilize our own advantages, actively promote the construction of key projects, steadily implement the green and low-carbon transformation strategy, and supply inexhaustible energy for social and economic development.

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Net oil and gas production **623.8** million BOE

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Net proved reserves **6.24** billion BOE

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### The first ultra deep-water gas field operated by the Company in China reached peak production

As of October 2022, CNOOC Limited's "Shenhai-1" ultra-deep-water gas field, as the first ultra-deep-water gas field operated by CNOOC Limited in China, has been in continuous and safe operation for more than 500 days. The gas field has produced more than 3 billion cubic meters of natural gas, exported more than 308,300 cubic meters of crude oil, and produced a daily natural gas of more than 10 million cubic meters.





## Product Quality

We uphold the principle of "people, safety, integrity, foundation, innovation, quality first". Following these principles, we carry out quality improvement actions, identify quality risks comprehensively, refine quality management systems, cultivate a culture of quality, and continuously improve the quality of products.

Strictly adhering to laws and regulations such as the Regulations of the People's Republic of China for Product Quality Management, we have formulated the Policy for QHSE Management, the Measures for Quality Management and other internal management policies in accordance with domestic and international quality control standards and contractual quality requirements. We set up a full-time post of quality, safety and environmental protection as required. We invite third-party professionals to conduct independent sampling and undertake self-sampling and joint quality tests with customers to test the quality of our products and publish objective and truthful reports based on the results. In addition, we have strengthened supervision of customer transport of products to ensure that ships and vehicles for this purpose meet our standards, and ensure the safety and quality of the project of exporting products. In 2022, we conducted tests for crude oil, natural gas and by-products throughout the Company. The quality of our products remains stable and meets the national standards, without any major quality disputes.

In 2022, the Company did not receive any client complaints regarding the quality of our crude oil, natural gas and by-products. Should any quality complaints arise, we will communicate with the clients in accordance with international standards, and national standards for the quality of crude oil, natural gas and by-products, to handle the complaints properly.

## Cybersecurity

Abiding by the Cybersecurity Law of the People's Republic of China, Data Security Law of the People's Republic of China, Personal Information Protection Law of the People's Republic of China and other laws and regulations, we have drafted the Cybersecurity Management Measures, Rules for Cybersecurity Incident Management and Rules for Staff Cybersecurity, which have further strengthened and improved policies and systems and laid a solid foundation for our work. We have structured a cybersecurity framework featured by "one center, three lines of defense", established a cybersecurity management structure, defined cybersecurity goals and management principles, and achieved full-scope, dynamic, real-time monitoring of our information assets. Besides, we have improved our ability to guard against and defuse major cybersecurity risks in a pragmatic approach via special inspections and rectification and vulnerability tests to identify and rectify risks to continually enhance cybersecurity protection.

We regularly broadcast cybersecurity promotional videos, released briefings, distributed the Cybersecurity Awareness Manual to employees, and conducted training, and offensive and defensive penetration drills to continuously improve our employees' awareness and skills of cybersecurity prevention, and enhance the Company's ability in response to cyber-attacks.



# Technological Innovation

To achieve sci-tech self-reliance and self-strengthening at higher levels, we upheld the new development philosophy. In specific, we further promoted the innovation-driven development strategy, gave full play to our role as an innovation entity, strived to build strategic scientific and technological strength, and accelerated our pace towards the deep sea. In addition, we continued to advance the reform of scientific and technological system. In 2022, CNOOC made positive progress in scientific and technological innovation.



## In terms of reformation, innovation, and developing standard

- The Company has deepened the reform of scientific and technological systems and mechanisms, comprehensively promoted the "rewarding competition" mechanism featuring project leader accountability, and orderly promoted the "horse racing" mechanism to fully stimulate the enthusiasm and creativity of scientific researchers.
- The Company has set up academician workstations of Bohai Oilfield and South China Sea Oil and Gas Energy to further improve the scientific research platform and provide talent support and institutional guarantee for scientific and technological development.
- The international standard ISO 3421 for the Depth and Installation Design of Riser in Oil and Gas Industry has been officially released, which will remarkably enhance China's influence in the field of riser technology.

## In terms of technological innovation and R&D application

China's first deepwater subsea production system was and applied in the Ledong block of Dongfang 1-1 gas field, breaking the international technology monopoly and marking a new level of core technology and equipment for the development of deepwater oil and gas resources in China.

The world's first large-scale development of offshore super heavy oil reserves was put into production. Some achievements of the thermal recovery technology system of super heavy oil horizontal well steam huff and puff in Bohai oilfield have reached the international advanced level. The successful application of this model will facilitate the development of over 100 million tons of super heavy oil in Bohai Bay Basin.

Qinhuangdao 32-6 Oilfield, the first offshore intelligent oilfield in China, has created a new "intelligent, safe and efficient" offshore oil and gas operation mode. The production and operation of the oilfield was empowered by digital technology, greatly improving production efficiency and reducing operating costs.

China's first domestic shallow water Christmas tree has been successfully developed and applied, which has achieved a historic breakthrough in the subsea development in shallow waters, overcame the challenge in Bohai oil and gas field development, and was great significance for improving China's energy self-sufficiency rate.

China's first deep-sea floating wind power localization development and demonstration project has officially started construction. The key technologies adopted were independently developed by CNOOC Limited, which will promote the development of deep-sea floating wind power technologies in China.

The Company has made full use of digital technologies such as big data and robotics to build a production command center and remote control center that integrates land and sea. Among them, Enping Oilfield Cluster realizes unmanned and remote control of production during typhoon, which effectively guaranteed production operation and personnel and property safety.

In the future, CNOOC Limited will continue to develop and use scientific and technological innovation to drive the growth of its main business sectors, key tasks include

Vigorously tackle key science and technology projects;

Expand and improve the application of new scenarios for digital transformation, and accelerate the promotion of digital transformation and intelligent development;

Continue to deepen reform of science and technology systems and mechanisms to stimulate innovation.

## Notable Achievements in International Scientific Research and Technological Innovation

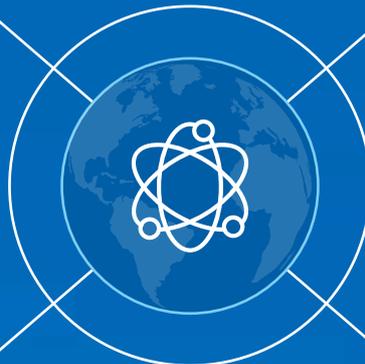
In cooperation with local governments, organizations and enterprises, CNOOC Limited makes full use of global resources to develop high-potential projects. We have also made major breakthroughs in innovation of key technologies with several notable achievements in oil and gas exploration and development.

The Stabroek Block project in Guyana has formed the deep-water exploration and evaluation technology and methodological system, and established a deep-water oil and gas reservoir reserve evaluation method to overcome the problem of reserve evaluation

The Missan Oilfield project in Iraq successfully tackled the key technologies for the efficient development of oil reserves in the Middle East carbonates, UK North Sea oilfields successfully overcame potential tapping challenges through optimized water injection and adjustment wells.

Drilling safety and efficiency enhancement technologies were successfully applied to pre-salt exploration in the Gulf of Mexico

Through the development of the three deep-water production bases in Nigeria, UK and Guyana, we have mastered the key technologies of developing deep-water turbidite sandstone oilfields





## Innovation Incentives and Intellectual Property Rights

We continue to implement targeted incentives towards major science and technology projects to stimulate the passion of scientific research personnel. The award evaluation and review mechanism has been continuously improved based on the Rules for the Selection of Science and Technology Awards. Under such a positive system, we have paid more attention to the grassroots personnel at the frontline of scientific research work and increased opportunities for them to get incentives, so as to help create a favorable environment for science and technology innovation.

We act in strict compliance with laws and regulations such as the Patent Law of the People's Republic of China and Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements to maintain and protect our intellectual property rights. We refined the management of intellectual property rights by enhanced systems, clear requirements and more training. Besides, we developed targeted management improvement strategies based on the investigation and assessment of the creation, application, protection and management of intellectual property rights, laying a foundation for advancing the improvement of lifecycle management of intellectual property rights. In 2022, the Company won a total of 15 technology awards at provincial and ministerial levels or above.

## Important Awards

Development and Application of Ultra-deepwater Semi-submersible Oil Production Storage and Offloading Platform "Shenhai-1" won the special prize of Hainan Province Science and Technology Progress Award;

Innovation theories and technologies for Neogene exploration discovery of 1.5 billion tons of high-quality reserves in Bohai Bay Basin won the special prize of Tianjin Science and Technology Progress Award.

# Supply Chain Management

In 2022, in accordance with laws and regulations such as the Law of the People's Republic of China on Tenders and Bids, CNOOC Limited revised and released the Supply Chain Management Policy and related management measures and implementation rules, further standardizing the management of purchasing and supply chain, warehousing logistics, import and export, purchase contracts fulfillment, digitalization, performance and compliance, to strengthen overseas purchase management, mitigate overall supply chain management risk and avoid suppliers' ESG risks. In addition, we formulated the Development Scheme for Supplier Resource Database of CNOOC Limited and the Guiding Opinions on the Green Development of Purchasing and Supply Chain, optimizing the supplier resource management mechanism and green development, deepening cooperation with key suppliers, gradually building high-level and high-quality supplier resource database, and accumulating quality supplier resources in key areas such as exploration and development, project construction, new energy and operation safety to promote the construction of green supply chain and improve the supplier quality.

In 2022, considering the needs of business development and current situation, the Company has reinforced the management of suppliers:



## Full-process Management of Suppliers

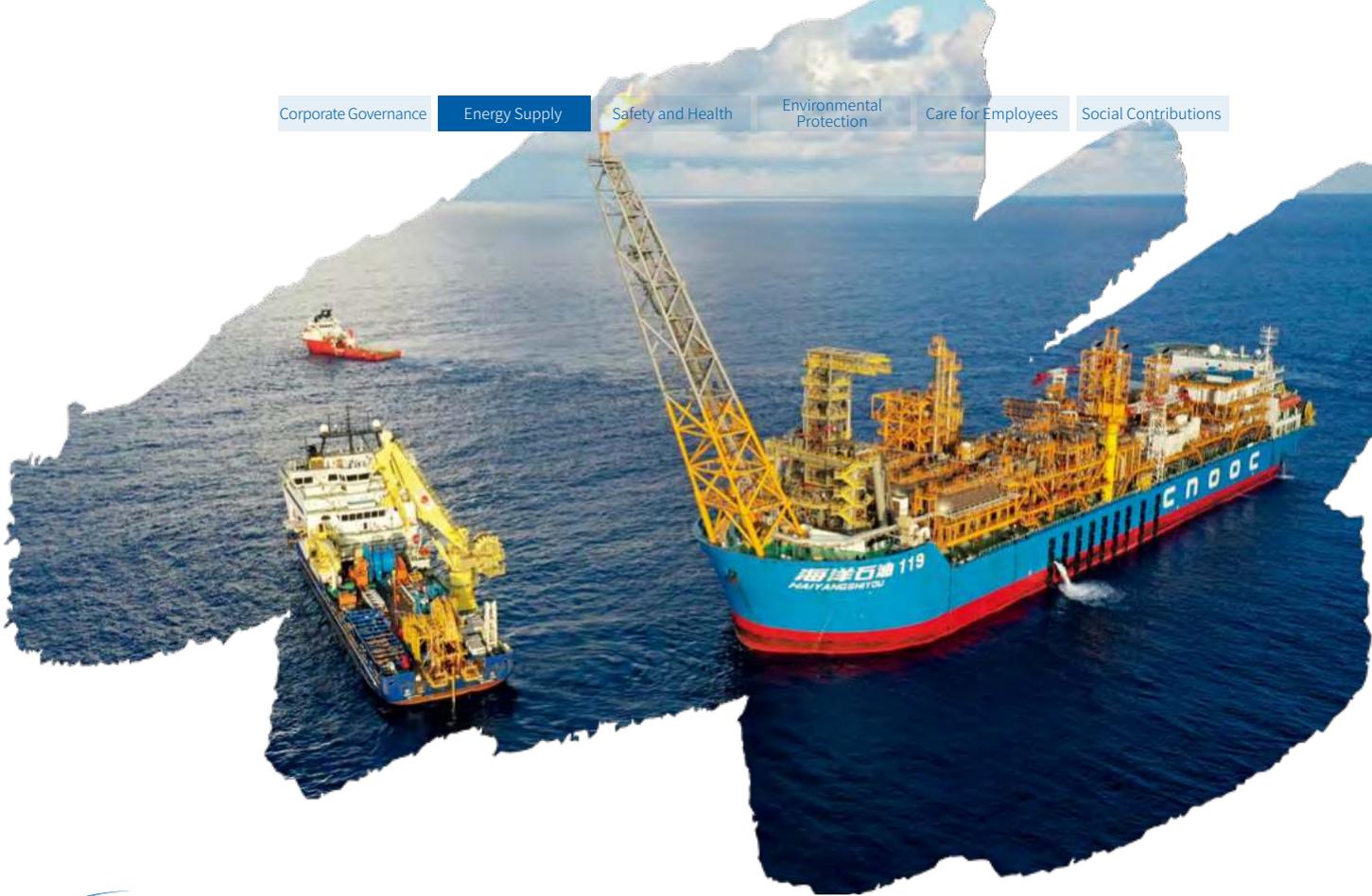
CNOOC Limited continued to manage all processes, ranging from supplier registration, list management, admission, classification and grading, qualification appraisal, performance evaluation and withdrawal, and conduct annual performance evaluations of listed suppliers, including but not limited to product quality and the implementation of safety production. The annual performance evaluation covers 100% of the suppliers on a dynamic basis, and suppliers who fail the annual performance evaluation were removed from the supplier list. By the end of December 2022, the Company had more than 3,600 suppliers in the database, including more than 340 overseas suppliers.

To achieve CNOOC Group's goal of "carbon peak and carbon neutrality", CNOOC Limited deliberately formulated the Guiding Opinions on the Green Development of Purchasing and Supply Chain, to promote green purchase, green logistics and intensified warehousing, strengthening resource sharing, reuse and recycling with the theme of green development running throughout the whole process of purchasing and supply chain. We will fully exemplify the role as a main actor in the market to reduce and eliminate carbon emission through marketization, guide downstream and upstream partners to actively participate in it, and deepen the cooperation on "decarbonization" with strategic suppliers and facilitate suppliers with green and low-carbon development. We intend to initially build a green development system of purchasing and supply chain by 2025 and secure positive achievements by 2028.

CNOOC Limited provided proper favorable policies to suppliers of green, eco-friendly and energy-saving products. We also invited qualified inspection agencies to assist suppliers to compile energy-saving reports on fixed asset investment projects, and analyzed the energy-saving measures, the utilization of energy and efficiency level as well as the impact brought by energy consumption, so as to urge suppliers to improve their energy-saving capacities.



## Suppliers' Green Purchase



## Integrity Requirements on Suppliers

Adhering to the concept of compliant operations and cooperation for mutual benefits, CNOOC Limited released the Notice to Suppliers, which emphasized the requirements of integrity, self-discipline and behavior surveillance. In this way, we encourage suppliers to conduct compliant and honest business, safeguard their legitimate rights and interests, and regulate purchase management, so as to promote mutual trust and win-win cooperation. The contracts between CNOOC Limited and suppliers required them to jointly abide by relevant regulations on integrity and professional ethics, with the Memorandum on Integrity being attached. The Company adhered to the Regulations on Prohibiting Employees from Utilizing CNOOC Resources for Profit, which regulated the behaviors of employees and their relatives in holding shares, running businesses and holding senior posts. Any violations shall be seriously dealt with once identified.



CNOOC Limited made ongoing improvements to the supplier risk control system by bringing six types of risks under unified management, i.e., violations of laws and regulations, abnormal operation, unqualified evaluation, non-compliant relationships, investigation and punishment by government, and prohibition of business strife. Besides, various methods, standards and processes were developed for addressing supplier risks. We devoted more efforts to identifying supplier environment and social risks, and invited third-parties to sort out and inspect suppliers' latest operation, interrelationships and credit risks, so as to expel those with abnormal operation and high credit risks.

## Supplier Risk Management

# Safety and Health

## Safety and Health

Adhering to the core health, safety and environment (HSE) values of "Safety First, Environment Paramount, People-oriented and Equipment Intact", CNOOC Limited has implemented the main responsibility of enterprises for production safety and constructed a HSE management system. To build up a favorable safety culture within the Company, we have carried on trainings and publicity on safety and health in an active manner, which comprehensively promotes a new pattern of safety management throughout the Company.



浙江分公司健康安全环保方针  
安全第一，环保至上；  
预防为主，综合防治；  
遵守法规，健全制度；  
关爱员工，促进健康；  
社区共建，和谐社  
会管理，持续



## Risk analysis

### Health, Safety and Security Risks

Due to the diversity of our operations in different geographical regions as well as the complexity of our technologies, we face various potential health, safety and security risks in every aspect of our daily operations. We operate some businesses in the environmentally sensitive or politically unstable areas, and also have some offshore operations far from land. The Company's operations expose itself and the communities in which it operates to some risks, including potential major safety accidents, and other consequences caused by natural disasters, social unrest, health problems in operation personnel, security lapses, and some unforeseen external damage. Major HSE accidents, if happen, may cause injuries or deaths, business disruptions. These may also significantly affect our reputation, bidding right, and even lead us to lose the operating right in some areas. In the meantime, the regulatory regimes for HSE issues in different countries are likely to become more stringent over time, so we may be liable for enormous expenses (e.g., fines, penalties, clean-up fees and third-party claims) for violating HSE-related laws and regulations in the future.

### Measures

The Company, we have continuously consolidated our foundations of quality, health, safety management and environmental protection, adhering to make safety production the first priority and make the prevention and resolution of major accidents hazards and hazards a top priority. We continuously strengthen safety trainings for employees as we highly value the safety education publicity and safety culture construction at the frontline level and in the working sites, and we will persistently practice excellent work in response. We promote the development of the emergency management system, strengthen basic work of resource reserves and emergency response, promote standardized research and building of relevant systems on emergency preparedness, improve capability building for oil spill emergency response, and enhance natural disaster preparedness and response, so as to continue to improve our capability for emergency response.

## Production Safety

CNOOC Limited strictly abides by the Production Safety Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Oil and Gas Pipelines, the Regulations on the Safety Production of Offshore Oil, the Rules for the Administration of Offshore Oil Safety, the Safety Rules for Offshore Fixed Platforms and other relevant laws, regulations and industry standards. By reference to the standards issued by the International Association of Oil & Gas Producers (IOGP) and other organizations, we have established the CNOOC Limited's characteristic HSE management system (hereinafter the "CHSEMS" framework). This includes 10 major core elements such as leadership and responsibilities, along with 70 specific requirements. All these set clear parameters for safety management.





**HSE** management system is divided into 3 levels of management structure

- 1** basic system
- 20** administrative measures
- 35** management regulations of internal control system

We have hierarchical management - headquarters, subsidiaries and business units. The HSE management system is divided into three levels of management structure, consisting of an internal control system of 1 basic system, 20 administrative measures and 35 management regulations. All subsidiary companies and business units are required to have their own QHSE management systems and to undertake superior audits and special audits.

The Safe Production Committee of CNOOC Limited is the highest authority for QHSE management, with our CEO serving as the head. The committee establishes the management position of safety head, including setting annual goals of safety management, investigating and dealing with major accidents, taking measures to rectify major hazards and monitoring their implementation, as well as reviewing relevant rewards and evaluation regarding safe production. Our QHSE Department is mainly responsible for the overall supervision and management of quality, occupational health, production safety and environmental protection.

CNOOC Limited developed and released a number of systems, including Quality, Health, Safety and Environment Management

Measures for Contractors, the Interim Measures for Cumulative Scoring of Safety and Environment Accidents of Contractors, and the Rules for Contractor Health, Safety and Environmental Protection Management for all subordinate units and third-party partners, and implemented the Notice on Further Strengthening Contractors' Safety Management. According to these regulations, contractors' HSE responsibilities are clarified in the contract to conduct strict management through the whole process ranging from selection and recruitment to cooperation. In addition, cumulative scoring system has been adopted for contractor safety and environmental protection accidents, and corresponding measures have been taken for contractors with HSE issues.

In 2022, we launched special projects to address major accidents hazards over the whole chain of natural gas and petrochemical products. Specifically, we established a dynamic assessment mechanism and clarified the requirements for safety risk assessment in the Special Rectification and Improvement Action Plan for Production Safety of CNOOC Limited to implement safety supervision in an effective manner and achieve various safety goals.

In this year, we continued to enhance our HSE management by developing a series of objectives, systems and mechanisms:

We set a goal of "resolutely eliminating major accidents and comprehensively preventing all hazards in a bid for 'zero fatality'".

#### Objective

#### Policy

To specify the safety responsibilities of business departments, we formulated and released the Regulations on Safety Management for Business Departments, and increased the weight of HSE in the performance evaluation of business departments for the first time.

#### Mechanism

We implemented the Three-year Action Plan to solve production safety problems, and made deployment to rectify key problems identified in the year. Our objectives were to implement the safe operation responsibility system among all employees in thoughts and actions, strengthen safety leadership, and lay a solid foundation for management.

We adjusted the organizing mode of regular supervision and inspection of production safety to engage all the business departments to take the leading role in the inspection, allowing them to better fulfill their responsibility of supervision over production safety of subsidiary companies.

We established a dynamic assessment mechanism and clarified the requirements for safety risk assessment.

We put more efforts in safety training and education for personnel at different posts.

In 2022, the Company maintained stable and safe operation. The OSHA (Occupational Safety and Health Administration) record of the Company for the full year is as follows:

	Scope	Total Hours Worked (million labor hours)	Total Recordable Occupational Injury Incidents	Total Recordable Occupational Injury Incidents Rate	Lost Time Injury	Lost Time Injury Rate	Work-related Fatalities Number	Work-related Fatalities Rate	Lost Days Due to Work Injury
2022	Employees	42	1	0.02	1	0.02	0	0	11
	Employees and direct contractors	176	19	0.11	9	0.05	2	0.011	923
2021	Employees	38	8	0.21	3	0.08	0	0	108
	Employees and direct contractors	161	29	0.18	18	0.11	5 <sup>1</sup>	0.031	2,510
2020	Employees	62	1	0.02	0	0.00	0	0	*
	Employees and direct contractors	158	25	0.16	16	0.10	1	0.006	*

<sup>1</sup> The Company's two missing persons due to work in 2021 were sentenced to death in the final civil judgement in 2022, so the occupational safety record data in 2021 was updated and adjusted.

## Safety Check

CNOOC Limited attaches great importance to safety check. We conduct full-coverage inspection over all secondary units to promote production safety.

### Specific measures in 2022:



## Safety, Emergency Response and Training

CNOOC Limited earnestly implements the responsibility of safe production. Centring on the "Seven-year Action Plan" of CNOOC Group, Three-year Action Plan for Safe production, and special work on improving marine emergency capacity, we take safe production, preventing and resolving major accidents hazards as the top priority, and continuously promote the construction of emergency management system. With "Prevention, Preparation, Response and Recovery" as the main line, CNOOC Limited systematically improves the Company's emergency management system and emergency response capability.

In 2022, there was no company-level emergency response incidents, secondary injury events due to natural disasters, nor helicopter safety events occurred in the Company.



## Optimizing Emergency Response Mechanisms and Improving Employees' Capability

- Strengthening internal coordination and optimizing regional joint prevention and control mechanisms. Further improving the mechanisms of risk prevention and control, forecasting and early warning, overall coordination and resource sharing, and ensuring the full coverage of basic management work such as emergency plans, emergency preparedness and emergency resources;
- Strengthening daily training and drills for full-time emergency rescue teams. Each full-time emergency rescue team member carrying out 150 class hours of equipment practical operation training every year, and organizing post training through practical operation training, practical drills, skill competitions and various other activities to improve the emergency response capabilities of all members;
- Strengthening the capability of part-time emergency rescue teams. In 2022, through centralized training, self-directed training, and practical exercises, the offshore platforms focused on strengthening the special emergency response capabilities of offshore oil spills, well control and firefighting. More than 10,000 person-time have been trained to continuously strengthen the general emergency skills and special rescue skills of part-time emergency rescue teams.

In 2022, the Company actively carried out safety emergency drills. A total of **22** emergency drills were conducted at all subsidiaries.

Subordinate units conducted **5,127** drills.

**163,817** participants.

**100%** coverage of specialized and part-time emergency rescue teams.

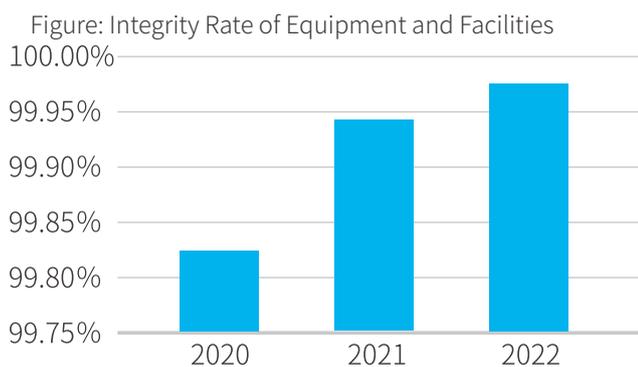


## Equipment and Facility Integrity Management

To make sure the safe and compliant operation of equipment and facilities, CNOOC Limited has built an Equipment and Facilities Integrity Management System, conducted the feasibility study and integrity review in the initial design stage of development projects, to identify hazards and assess risks of key facilities.

During the year, we organized assessment on the main structure of aging platforms for safety purpose. 44 platforms assessed met the requirements for continued use, while the maintenance of seven higher-risk pipelines was completed.

The integrity rate of the Company's equipment and facilities is maintained at a high level and we are able to control the risks in our equipment and facilities.



Note: Integrity rate of equipment and facilities =  $(1 - \frac{\text{the output amount affected by equipment and facility failure/planned output amount}}{\text{the output amount}}) \times 100\%$

In 2022, the Company comprehensively promoted the construction of the early warning system for communication and navigation, striving to "identify and expel vessels with potential risk in an active manner". Shenzhen, Zhanjiang and Hainan branches completed the construction of the early warning system for communication and navigation, and Tianjin branch realized a stable operation of the system. With the system, we identified third-party damage risk for 278 times and proactively expelled vessels for 161 times on a cumulative basis during the year.

## Safety Management for Well Control

To optimize well control management system, the Company revised the Administrative Measures for Well Control and the Administrative Rules for Well Control Training, and formulated the Administrative Rules for Well Control Assessment, the Administrative Rules for Well Control Events and the Administrative Requirements for Well Control Emergency Center, specifying assessment indicators and further developing a systematic, standardized, simplified and feasible standards and regulations system. In 2022, guided by the Company's "Three-stage well control system" policy, the Company has taken a series of measures to improve the standardization and institutionalization of daily work process and carry out the safety management for well control in an orderly manner.

**Adhering to active well control concept.** During the year, the Company held the "well control day" and "seven ones"<sup>3</sup> campaigns to emphasize well control and production safety.

**Improving basic capabilities of frontline personnel.** We have organized the "empowerment training" for frontline personnel at key posts such as directors and team leaders, and revised and improved the course "basic work, basic construction and basic skills for well control" of drilling and completion operations on Haixue online learning platform.

**Strengthening hazards management for well control.** We have launched special projects to address potential hazards, involved in offshore oil E&P, and well drilling and work overs.

**Accelerating well control equipment management.** We have established an inspection and maintenance center for well control with "profession-specific, classified and graded" well control maintenance workshops and highly-skilled maintenance and repair teams to ensure the reliability and compliance of equipment and facilities.

**Improving emergency capability.** We have conducted comprehensive well response control emergency drills to improve the professional competence of emergency rescue team.

<sup>3</sup> "Seven ones" campaign refers to one keynote speech on well control safety, one signature campaign for publicity on well control safety, one comprehensive drill on well blowout control, one discussion on well control safety, one lecture on well control safety, one inspection of well control safety and one campaign for signing letter of responsibility in well control safety.

## Overseas Public Safety Management

According to the change in the overseas safety environment, the Company established a three-level management system for overseas public safety, improved the management structure and system, and formulated and released the Report of Oversea Safety Risk (2022). The Company has gradually improved the global risk early warning, prevention, and control system by establishing a “four-in-one”<sup>4</sup> medical platform-based medical resource system and a joint prevention and protection mechanism for overseas public safety to safeguard overseas employees’ health and safety in an all-around manner. The mental health management of all employees has been significantly improved.

In 2022, the Company has leveraged the business growth with HSE management, balancing the epidemic prevention-control as well as production and operation, implemented the workplace safety responsibility, accomplished the three-year HSE management improvement action plan, conducted various HSE campaigns such as Regular and Routine HSE management improvement and the hazard management rectification and improvement. The Company has used digital technologies to patrol the sites, and various significant risks were effectively addressed and prevented.

In 2022, the Company achieved the highest record of **26** million workhours overseas without major accidents.



### Guard the "minefield" safety line

In May 2022, the HSE Department of the CNOOC Iraq adopted the training method of combining "theory and practice" to simulate the actual situation of the minefield in full-size and full-scene; a third-party demining agency was invited to demonstrate the on-site demining so that employees could have a better experience of the minefield and the demining process.



<sup>4</sup> "Four-in-one" refers to the establishment of an overseas medical security system of "monitoring, early warning, prevention and control, and treatment".

# Occupational Health

The Company strictly abides by the Law of the People's Republic of China on Prevention and Control of Occupational Diseases and relevant laws and regulations in the countries and regions in which it operates overseas. We have implemented systematic management for occupational health, promoted safety management for offshore catering, deepened the use of occupational health management information system, and implemented graded control of occupational hazards. All these have helped us to monitor our employees' health, periodically test of occupational-disease-inductive factors and achieve an occupational health examination rate of 100%.

In 2022, the Company continued to strengthen prevention and control of diseases at source and operation sites and implemented inspection at 274 workplaces, with a 100% inspection rate.

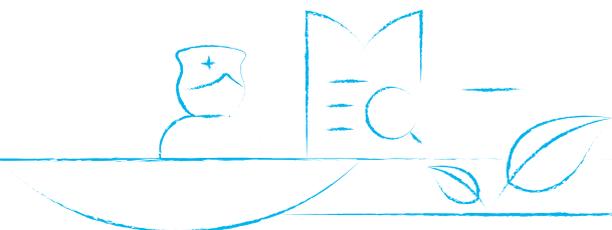
The Company proactively conducts pre-assessments on occupational health risks, and designs and inspects occupational disease protection facilities. During the year, we pre-evaluated 36 occupational hazards in construction projects, designed 17 occupational disease protection facilities, and accepted the completion of 26 occupational disease protection facilities.

The Company attaches importance to employees' mental health. Five tasks have been set up in this regard, including conducting mental health assessment, opening consulting hotline, strengthening mental health education, offering mental health service for key groups, and treating PTSD caused by emergencies. A 7\*24-hour mental health consultation network covering the whole Company has been established to provide mental health services for offshore employees, and strengthen the monitoring of mental health of our staff at sea.

Accepted the completion of **26** occupational disease protection facilities

Occupational health examination rate of **100%**

**7\*24**-hour mental health consultation network covering the whole Company



# Environmental Protection

## Environmental Protection

The Company consistently upholds the philosophy of protecting the environment by conserving resources and striving for green development, and regards environmental protection as the basis of sustainable development. We abide by relevant laws and regulations in China and beyond and strictly follow carbon emission reduction policies. Moreover, we also implement a Green Development Action Plan to continuously strengthen the whole process management of environmental protection and develop clean energy, thereby fulfilling corporate environmental responsibilities in multiple ways.

Note: All data in this chapter does not include CNOOC International; all data in this chapter, except for emissions management data, includes China United Coalbed Methane Corporation Limited (CUCBM).



## Risk analysis

### Environmental risks

Sewage and solid waste generated by our offshore operating platforms and exploration and production activities, and exhaust gas, sewage, solid waste and noise generated by land-based terminal production activities, if not properly handled, may occur substandard discharge or non-compliant disposal processes, and damage our reputation and operations, which will increase our costs and even expose us to lawsuits and sanctions. At the same time, offshore operation, if resulting in oil spill due to the

issues arising from drilling and completion, subsea pipelines and equipment and facility serviceability, production safety, etc., may cause direct harm to environment-sensitive targets such as marine ecological environment, nature reserves and breeding areas, which will produce environment restoration and compensation costs, damage our reputation, and even expose us to lawsuits and sanctions.

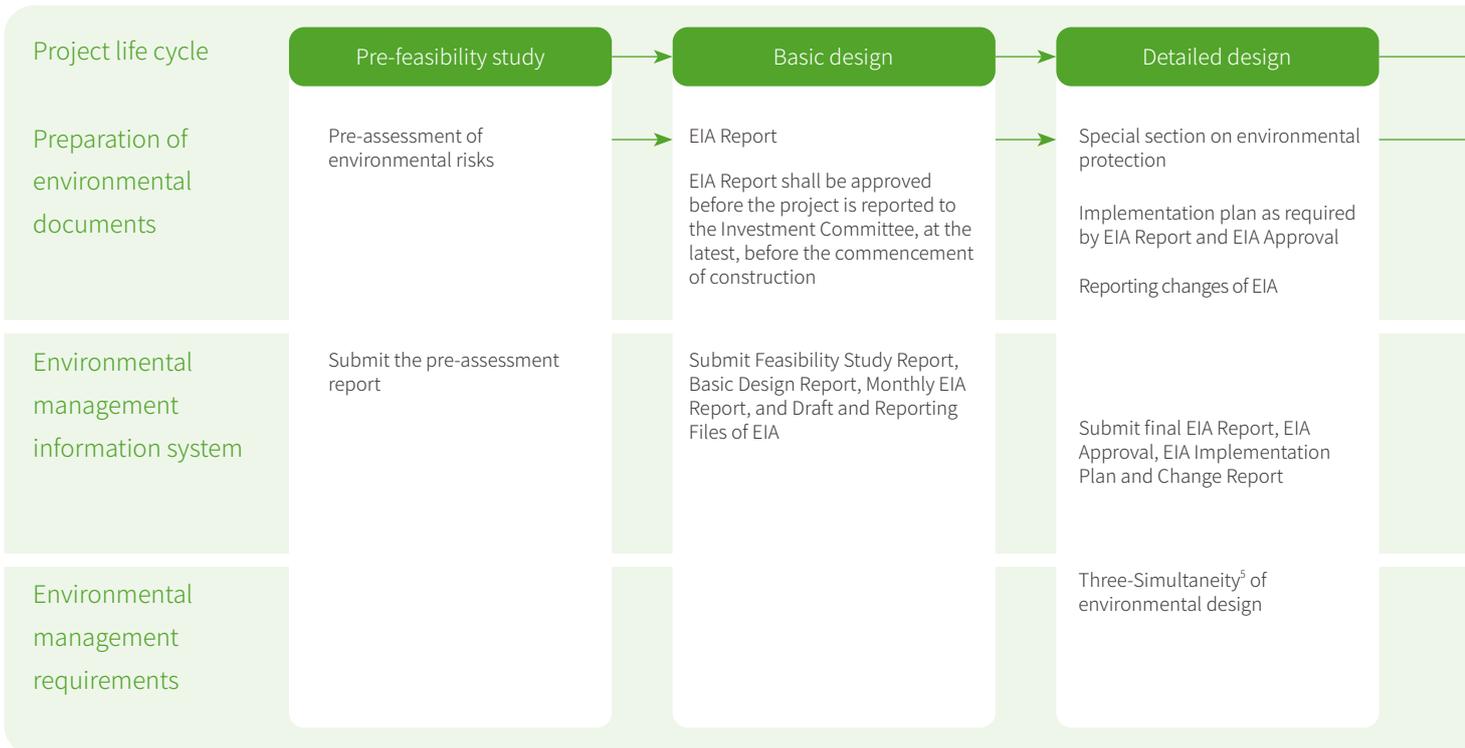
### Climate change risks

The goal of carbon peaking and carbon neutrality (Dual Carbon) will significantly accelerate the progress of energy transformation and pose a challenge to the oil and gas industry. The Company expects that the CO<sub>2</sub> emissions will increase along with the Company increased output. In the absence of mature and reliable CO<sub>2</sub> reduction technology, the CO<sub>2</sub> emission from the combustion of fossil fuels in oil and gas fields will continue to rise, so the Company might be subject to the supervision of relevant institutions and organizations in the future. Failing to find economic and publicly acceptable solutions to reduce carbon emissions from existing and newly-added projects, we

may bear additional costs, and our reputation may be adversely affected.

At present, some countries, for global low carbon clean energy transition, have begun to transform by setting emission reduction standards, strictly implementing renewable energy proportion plan, levying high carbon tax, and issuing strict regulatory laws and regulations. Green and low-carbon transformation may intensify competition in the energy supply market, increasing operating costs for the Company.

## CNOOC Limited's whole-process management for environmental protection flow chart



<sup>5</sup> Three-Simultaneity: environmental protection facilities must be designed, constructed and put into use simultaneously with the main project - Environmental Protection Law of the People's Republic of China.

**Measures**

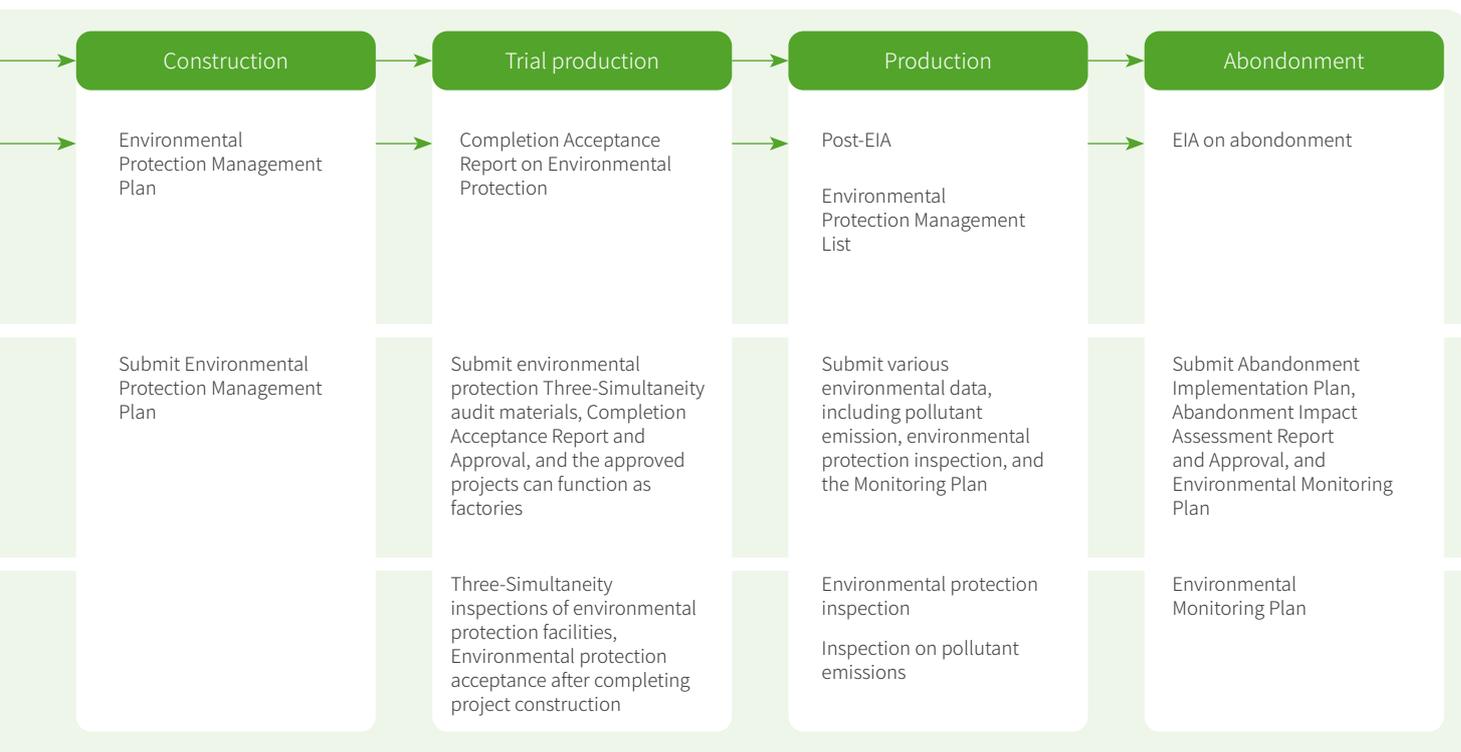
The effective eco-environmental management in the whole life cycle of construction projects, strict supervision of pollution prevention, strengthened, oil spill risk control and emergency preparedness, training and drills with responsible business units enable us to effectively prevent all kinds of environmental risks.

**Measures**

CNOOC Limited supports the climate goals set in the Paris Agreement and fully understands the impact of climate change on the Company. We are working to meet this challenge by identifying and analyzing the risks and opportunities brought about by climate change and responding appropriately. At the same time, the Company accelerates green low-carbon development while insisting on enhancing reserve and production of oil and gas and attaches equal attention to development and environmental protection. We improve our green development capability by establishing top-level design on energy conservation and carbon reduction in a scientific way, developing roadmap towards green development for next five years and improving three supporting measures such as upholding the principle of being technology-driven, developing new systems and mechanisms and intensifying organization support.

We hold fast to paying equal attention to environmental protection and resource development and early intervention. In the pre-research stage of the project, we optimized the sites and processes, thus reasonably avoiding environmental sensitive areas thereafter. Also, we set up internal controls including pre-assessment of environmental impact, the implementation plan of EIA (Environment Impact Assessment) Report, EIA Approval, and the EIA Change Report; in the course of construction and operation, we took active measures to avoid environmentally sensitive periods, reduce pollutant emissions, strengthen the prevention and control of oil spills, and set up ecological compensation funds to minimize the damage to the marine ecological environment and fishery resources, in an attempt to explore offshore oil and gas while not damaging environment.

In 2022, based on the policies on environmental protection in China, CNOOC Limited made a comprehensive revision to its ecological environment management system, focusing on the internal control systems that include environment management of offshore oil and gas field construction projects, ecological protection, pollution prevention, environmental incident reporting, and capacity-building of environmental personnel.



# Response to Climate Change

Adhering to the principle that lucid waters and lush mountains are invaluable assets, we have actively responded to climate change challenges by implementing the strategic goals and requirements of carbon peaking and carbon neutrality in the countries where the assets are located. We have formulated and released the Energy Conservation and Carbon Reduction Action Plan and fully implemented our green and low-carbon development strategy through clean energy development, energy-saving and emission reduction projects and efficient energy utilization, being fully committed to becoming a resource-saving green company.

## Risk Sources

### Policies and Regulations

- Government departments develop various policies and laws to address climate change
- Implementation of follow-up policies leads to uncertainty in cost expenditure
- The Chinese government sets a goal to have CO<sub>2</sub> emissions peak before 2030 and to achieve carbon neutrality before 2060

## Description of Risks

### Technologies

- High-efficiency heating and heat exchange equipment, advanced oil and gas treatment process and techniques, and other new energy-efficient technologies are upgraded at a faster pace
- Assessing the technical characteristics and adaptability of new techniques and processes while eliminating outdated techniques and equipment may lead to higher costs for the Company
- Overall operational efficiency of offshore power generation facilities is relatively low
- Tightening controls on emissions such as methane and flare gas during oil and gas development

## Measures

- Actively participating in the research and offering feedback on national policies and regulations
- Participating in the preparation of the national standard, Requirements of the Greenhouse Gas Emission Accounting and Reporting for Oil and Gas Enterprises
- Participating in the preparation of the Industrial Standard Guidelines for the Evaluation of Green Factory in Petroleum and Natural Gas Industry
- Thoroughly implementing the green and low-carbon strategy, drawing up action plans, incorporating into our mid and long-term development plans, and actively carrying out work related to low-carbon development

- Restructuring regional power grids and managing reactive power compensation in offshore oil and gas fields
- Recovering oilfield associated gas
- Renovating key energy-consuming equipment (e.g., compressors and large-displacement transfer pumps) for energy efficiency
- Inspecting and eliminating inefficient equipment according to China's equipment obsolescence catalog
- Transforming onshore power based on the conditions of oil and gas fields
- Taking control of methane emission, sorting out the emission sources and total emission, and studying the measures to reduce methane emissions
- Promoting the management of flare gas emission reduction, organizing the inspection of the flare gas emission sources and the load of the production enterprises, and studying measures to reduce and control flare gas emissions

## Risk Assessment

CNOOC Limited supports the climate goals set in the Paris Agreement and fully understands the impact of climate change on the Company. We are working to meet this challenge by identifying and analyzing the risks and opportunities brought about by climate change and formulating appropriate measures in response.

### Risk Sources

#### Market

- Consumer preference for low-carbon products is increasing
- Structural optimization in the energy industry is promoting the strong development of natural gas and renewable electricity
- The development of CNG<sup>6</sup> and LNG<sup>7</sup> for vehicles and electric vehicles has affected the market capacity of fuel products for traditional fuel transportation, which then influences market demand for crude oil
- Construction of the carbon trading market is accelerating, and policies regarding emissions are being tightened

#### Reputation

- The Company predicted that the increased production capacity would increase greenhouse gas emissions
- Energy companies' responsiveness to climate change and the control of greenhouse gas emissions is a key regulatory issue in various countries and is also a focal point for domestic and foreign investors

#### Physical

- The increase in extreme weather phenomena caused by climate change, such as typhoons and hurricanes, may cause damage to the Company's offshore operations

### Description of Risks

### Measures

- Assessing offshore natural gas resources and developing deep-water natural gas
- Optimizing the layout of the offshore natural gas pipeline network
- Accelerating the exploration of unconventional gas to accelerate production
- Developing the onshore wind and PV power project, and offshore wind power business
- Vigorously implementing carbon reduction measures, lowering quota insufficiency, and ensuring compliance

- Continuing to implement the Energy Conservation and Carbon Reduction Action Plan to achieve low-carbon development throughout the whole industry chain
- Actively disclosing the Company's low-carbon development information

- Continuously improving the emergency management system and enhancing the emergency response ability

<sup>6</sup> CNG refers to compressed natural gas. <sup>7</sup> LNG refers to liquefied natural gas.

## Energy Conservation

The Company is committed to the principle of clean production, using harmless raw materials, waste recycling, and using low-carbon energy. We support these principles by continuously promoting the construction of a green manufacturing system.

Strictly abiding by the Energy Conservation Law of the People's Republic of China, the Metrology Law of the People's Republic of China and the Statistics Law of the People's Republic of China and other related laws and regulations, the Company has formulated internal policies such as management measures on conserving energy to improve the standard system further. Specifically, we formulated the Guidelines for the Energy Conservation and Acceptance of Fixed Asset Investment Projects and the Management Standards for Greenhouse Gas Emission Statistics of Offshore Oil and Gas Fields, and revised the Requirements for Equipping and Managing Energy Measuring Instruments in Offshore Oil and Gas Fields. In 2022, the Company strengthened the construction of energy conservation management organization by setting up special energy conservation managers in subsidiaries and energy-saving and low-carbon management personnel in operation companies, and establishing a three-level energy conservation management system consisting of the Headquarters, branches, and operation companies. Also, we integrated our risk management and control system into the management requirements in areas such as planning and plan management, project energy-saving assessment and review management, audit monitoring, supervision

management, appraisal management, and technical training on energy-saving management.

The Company continues to strengthen energy-saving management with an annual energy consumption plan, monthly statistical analysis of energy consumption, and quarterly meetings on energy-saving and low-carbon situation analysis. In doing so, we review and foresee the fulfillment of the annual target and analyze the indicator change dynamically; moreover, we regularly carry out energy auditing with energy-saving assessment and post-assessment on new projects and monitor the energy efficiency of key equipment periodically, thus promoting energy efficiency.

In 2022, the Company vigorously conducted strict energy-saving and carbon emission assessments on new projects to control energy consumption at the source. We continued to promote the construction of on shore power projects for offshore oil and gas fields, the recycling of associated gas, and the application of technologies such as oilfield power networking, residue heat utilization, and renovation of key energy-consuming equipment. The Company implemented over 50 energy-saving transformation projects this year, invested RMB360 million and reduced energy consumption by 275,700 tons of standard coal equivalent and greenhouse gas emissions by 596,600 tons of carbon dioxide.

### "HYSY 119" FPSO Main Generator Light Running

"HYSY 119" FPSO vessel timely adjusted the number of main turbine generators in service by the change of electric load and restored to light running. Throughout 2022, we increased the load rate of the main generator of offshore facilities in the oilfield of Lihua Oilfield Operational Area to above 70%, saving equipment maintenance and replacement costs of over RMB13 million per year and reducing emissions by more than 2,700 tons of carbon dioxide.

### Energy Management Mechanism and Direction of Overseas Companies

#### U.K.

Audit the energy consumption of each offshore platform to identify the main energy consumption source, analyze energy-saving opportunities and further assess the unsolved problems.

#### Uganda

Strictly implement environmental protection measures in drilling and engineering work with stricter ESIA<sup>8</sup> in place, continuously practice green and sustainable development philosophy, and promote environmental pollution prevention.

#### North America

Actively report emission and emission intensity to the government, and update the energy transformation roadmaps once a year.

<sup>8</sup> ESIA: Environmental and Social Impact Assessment.

## Awards

Newly added: In 2022, Liaodong operation company of Tianjin Branch, Shenzhen Branch, and Zhanjiang Wenchang operation company were recognized as the "Green Factory" in the industry by China Petroleum and Chemical Industry Federation;

Total: As of the end of 2022, three units were recognized as nationwide green factories, and 11 units were recognized as green factories in the industry;

In March 2022, the largest oil and gas exploration and development support center in China - CNOOC Limited Intelligent Warehousing Support Center No. 3 Intelligent Warehouse, was completed and put into operation and awarded the first certificate of "Green Warehousing Service Certification" in China.

## Main Energy Consumption of the Company

Indicator	Unit	2020	2021	2022
Crude oil	Thousand tons	387.0	343.2	259.3
Natural Gas	Billion cubic meters	2.228	2.469	2.582
Diesel	Thousand tons	58.0	57.1	51.5
Electricity	Million kWh	283	636	1,285
Comprehensive energy consumption per ton of oil and gas production	Tons of standard coal equivalent/ton	0.0550	0.0592	0.0571

## Energy Conservation Results

Indicator	Unit	2020	2021	2022
Targets	Tons of standard coal equivalent	141,550	150,890	149,800
Actual results	Tons of standard coal equivalent	148,788	161,493	275,710



### Energy Saving Target

In 2023, it is expected to save **234,300** tons of standard coal by implementing onshore power replacement, offshore oil and gas production platform power networking, permanent magnet pump use and flare gas recycling.



## Water Resource Management

Adhering to laws and regulations such as the Water Law of the People's Republic of China and internal policies such as the Rules for Water Conservation Management, we have performed comprehensive water resources management by increasing efforts in technological transformation and strengthening the comprehensive treatment and reuse of wastewater.

The Company defined the energy-saving tasks and water-saving indicators of its subordinate units, organized and implemented multiple management and technical measures on water conservation such as promoting seawater desalination, reuse of production water and recycling of rainwater and condensate water; optimizing the production process and carrying out water conservation projects to reduce the amount of new water used per unit of product; and strengthening the publicity of water saving and raising employees' awareness of water resource crisis and water saving concept. In 2022, the Company achieved 74,500 tons of water saving, exceeding the planned annual target of 25,000 tons.

### Shenhai-1 Project Independently Carries out Freshwater Pipeline Network Transformation

CNOOC Limited has renovated the freshwater pipeline network and linked it with the desalination device so that the freshwater tanks are used for domestic water to reduce the amount of freshwater intake. The desalination device continues to supply production water. The above modifications save an average of 2,000 cubic meters of fresh water annually in the Shenhai-1 gas field.



### Water Conservation Target

In 2023, **34,000** tons of water is expected to be saved through source management, seawater desalination with residue heat, condensate water, rainwater collection and optimized ship operation.

## Water Resources Consumption of the Company

Indicator	Unit	2020	2021	2022
Total freshwater consumption	Million tons	2.120	2.127	<b>1.986</b>
Freshwater consumption per ton of oil and gas production	Cubic meters/ton	0.0333	0.0330	<b>0.0284</b>
Water saving	Thousand tons	89	49	<b>74.5</b>



## Low-carbon Management

With the consideration of the carbon emission targets of China and policies such as the Measures for the Administration of Carbon Emissions Trading (for Trial Implementation), we are working on and improving our low-carbon management systems. We have defined the work load for carbon management, corresponding data collection methods and laid out rules for carbon assets management. In 2022, the Company set up a Green Power and Carbon Trading Division in the New Energy Department, responsible for the overall management of green power and carbon trading. We also set up a carbon-negative office responsible for CCS/CCUS work. At the same time, we established a new energy branch, which set up multiple regional companies in Guangdong and Fujian to promote the development of new energy businesses and facilitate the overall carbon emission reduction of the Company.

In 2022, the Company continued to strengthen the source management and control of carbon emissions from new projects by incorporating carbon emission indicators into the investment decision on new projects. We have enhanced our system of energy-saving and low-carbon supervision and monitoring. According to the Guidelines for Accounting and Reporting Greenhouse Gas Emissions of Enterprises issued by China, we have set up an information platform and a production statement system to facilitate our energy management and control and carbon emission data management, through which we can access the affiliates emissions and energy data in a comprehensive and real-time manner and develop methods for online carbon emissions monitoring and facility emission factor measurement. Energy conservation and carbon emission reduction are regularly supervised and monitored. In addition, the online carbon emission monitoring system has been under construction with the pilots launched in Enping oilfield and Dongfang operation company. We have also set up an energy management and control center integrating online energy monitoring, analysis, management, control, evaluation and visualization in the design stage for new oil and gas field development projects, enabling energy consuming units to achieve refined energy management.

### Further Promoting Carbon Assets Management

TianJin has been chosen as a pilot city of carbon management. To meet the requirements of carbon management, our Tianjin branch monitored carbon emission, gathered data and actively implemented carbon reduction projects in 2022, we had 226,000 tons of carbon quotas surplus upon the clearing and settlement of 2021 accounts.

In 2022, we took effective measures such as recycling flare gas, residue heat recovery, and improving pump efficiency to realize carbon reduction. In the future, we will keep advancing the implementation of carbon reduction projects such as shore-to-sea power supply, CCUS, energy efficiency improvement and green power replacement, to achieve the carbon reduction goal by 2025.

### Green Power Replacement

Green power replacement is key to reducing carbon emissions and realizing the goal of "Dual Carbon". In 2022, our Tianjin Branch purchased and consumed 186 million kWh of green power relying on the onshore power demonstration project of Qinhuangdao 32-6 Oilfields, equivalent to reducing 164,500 tons of CO<sub>2</sub> emission. Thereby, Bohai oilfield, China's largest crude oil production base, has been supplied of green power for the first time. In 2022, the Company established the Green Power and Carbon Trading Division, which is responsible for green electricity and carbon trading, laying the foundation for the institutionalization and systematization of the Company's green electricity purchases.

In 2023, the Company plans to replace 500 million kilowatt hours of green electricity, which is expected to reduce indirect carbon emissions by approximately 442,000 tons.

## Methane Control

The methane emission of the Company mainly comes from the equipment escape and incomplete combustion of flare gas. In this regard, the Company continues to increase air recovery and control efforts and promotes methane control by improving the pipeline network, formation reinjection, platform utilization, and other ways. At the same time, the Company optimized the process of onshore unconventional gas tests, increased natural gas recovery during the well test, and promoted the application of the new flare system.

In 2022, CUCBM Shouyang Songta Project SYE-06 Well Group was equipped with a skid-mounted CNG compressor with a daily handling capacity of 15,000 cubic meters to compress and transport scattered gas. At the end of 2022, it has reduced 2,370,000 cubic meters of methane combustion and emission.



## Plasma Instant Ignited Flare Applied Offshore for the First Time

Compared with traditional pilot flare, plasma instant-ignited flare<sup>9</sup> may save a large amount of traditional flare gas. Shenzhen Branch has successfully applied the plasma instant ignition device to Panyu 30-1 Platform and Zhuhai Terminal Pressure Relief and Discharge Flare System for the first time, reducing over 99% of high and low-pressure purge fuel gas. It delivered reliable operation and was easy to maintain, which helped to reduce the energy consumption costs. This marks our new step towards promoting the localization of key technologies.

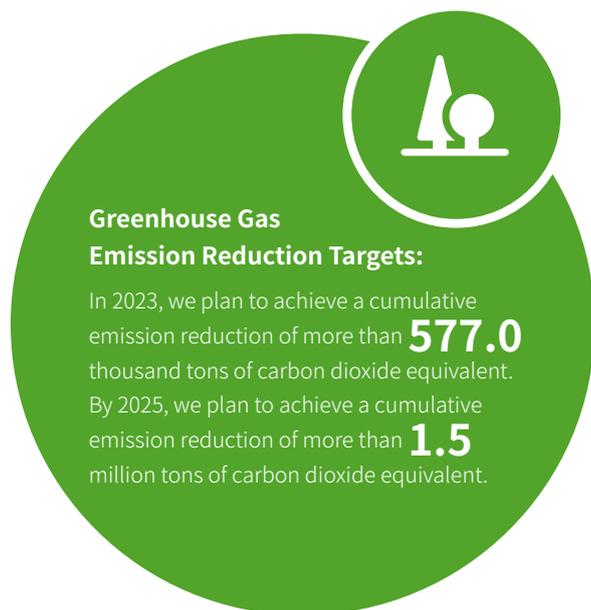


<sup>9</sup> Flare: A new type of low-carbon environmental protection torch, immediately igniting when gas is vented and remaining off when there is no gas to be released.

We have incorporated green and low-carbon development into our corporate culture. We carried out promotion activities such as energy conservation week and low-carbon day, and urged all employees to participate in green office, daily life, and traveling, and strengthened the concept of green development. We followed up on local low-carbon policies, learned good international practices, and conducted special research on climate change. We opened a WeChat official account, "Green CNOOC", to promote energy conservation and low-carbon emission technologies and raise the awareness of our employees. "Haixue" online learning platform enables us to organize special training for the system-wide personnel engaging in energy conservation and carbon emission reduction to promote the Company's low-carbon development.

### Key Performance Chart for Greenhouse Gas Emissions of CNOOC Limited

Indicators	Unit	2020	2021	2022
Total greenhouse gas emissions	Thousand tons of carbon dioxide equivalent	9,345	10,305	<b>10,879</b>
Direct greenhouse gas emissions	Thousand tons of carbon dioxide equivalent	9,123	9,774	<b>9,779</b>
Indirect greenhouse gas emissions	Thousand tons of carbon dioxide equivalent	222	531	<b>1,101</b>
Greenhouse gas emissions per ton of oil and gas production	Tons of carbon dioxide equivalent/ton	0.1470	0.1597	<b>0.1556</b>



**Greenhouse Gas Emission Reduction Targets:**

In 2023, we plan to achieve a cumulative emission reduction of more than **577.0** thousand tons of carbon dioxide equivalent.

By 2025, we plan to achieve a cumulative emission reduction of more than **1.5** million tons of carbon dioxide equivalent.

### Survey on Climate Change by CNOOC International at the Location of Operation

In 2022, CNOOC International released the Action Plan for Energy Conservation and Carbon Reduction, which clarified the direction and positioning of green development of overseas businesses. Through the introduction of artificial intelligence and digital dynamic management tools, CNOOC International tracked and analyzed the green and low-carbon laws and regulations of the local countries, clarified the current situation, discovered opportunities, and achieved the compliance performance goal.

In March, CNOOC Uganda organized and completed the climate change policy impact analysis and greenhouse gas emissions study for the Kingfisher oilfield.

CNOOC International was awarded the "Best Operation Award" by Offshore Energies U.K in December.

# Emissions Management

We abide by the Environmental Protection Law, the Marine Environmental Protection Law, other laws and regulations of the People's Republic of China, and relevant laws and regulations of the host countries. In 2022, we issued the Measures for Ecological Environmental Protection, and formulated and revised six environment management rules, including the Management Rules for Ecological Protection and Pollution Prevention and Control. Its supporting documents, such as the Solid Waste Management Guidelines and the Management Framework for the Whole Process of Soil and Groundwater Pollution Prevention and Control, which cover environmental protection management of construction projects, pollution prevention and control, risk management, capability building, informatization, special inspections, etc., further clarify our requirements on ecological, environmental protection in project construction and operation.

In 2022, to further enhance the pollutants treatment capacity of major waste-producing units, we set up a special pollutant management team to upgrade the management of volatile organic compounds (VOCs), marine sewage, and solid waste. The team will identify hidden dangers in discharging "waste gas, wastewater, and solid waste", and study advanced treatment technologies, so as to lay a solid foundation for high-standard transformation.



## Waste Water

CNOOC Limited stringently implements laws, regulations and policies released by China and the host countries, and puts more effort into marine environmental protection and control.

### Oil-containing Waste Water from Exploitation of Oil and Gas Fields

Strictly abiding by relevant standards for pollutants in offshore oil exploration and development as well as the Water Quality Standard and Practice for Analysis of Oilfield Injecting Waters in Clastic Reservoirs, we will discharge or reinject the waste water only when it has met the standards after treatment.

We discharge the up-to-standard water or transport back to land for disposal in accordance with the Discharge Standard for Water Pollutants from Ships, the International Convention for the Prevention of Pollution from Ships, 73/78 and the Regulations on the Administration of Sealing for Discharge Equipment on Ships in Coastal Waters.

### Oil-containing Waste Water from Vessels

### Domestic Sewage

We discharge the sewage after reaching standards in accordance with the Effluent Limitations for Pollutants from Offshore Petroleum Exploration and Production;

Domestic sewage from part of the oilfields in the Bohai Sea is reused/discharged, or reinjected into the stratum after treatment.

The Company strictly implements the standard requirements CNOOC Emission Concentration Limits of Pollutants from Exploration and CNOOC Biological Toxicity of Pollutants for Exploration and Development.

Oil-based drilling fluids and synthetic-based drilling fluids are not discharged into the sea. In the Bohai Sea area, non-water-based drilling fluid drilling cuttings, water-based drilling fluid and its drilling cuttings in drilling oil layers are not discharged, but are all recovered;

When it is really difficult to recover water-based drilling fluid, water-based drilling fluid cuttings and non-water-based drilling fluid cuttings in other sea areas, after approval by the competent department of the sea area, it will be discharged meeting standards, and the parts that do not meet standards will be transported back to land and handed over to qualified units for compliance disposal.

### Drilling Fluids and Cuttings



## Waste Gas

The Company conscientiously implements China and the host countries' laws, regulations, and policy documents. In 2022, CNOOC Limited issued the Work Plan for the Control of Total Volatile Organic Compounds (VOCs) and Emission Reduction in the Seventh Term of CNOOC Limited (2022-2024), which stipulated the treatment requirements of VOCs at all fronts during the seventh term, and promoted each branch and subsidiary to summarize the VOCs challenges and formulate special rectification plans.

## Solid Waste

Pursuant to the Technical Specification for the Collection, Storage and Transportation of Hazardous Waste, the Measures for Management of Joint Transfer Bills for Hazardous Waste and other norms in China, as well as the Implementation Plan for Comprehensively Strengthening Solid Waste Management and other internal requirements for the compliant disposal of hazardous waste, CNOOC Limited chooses enterprises with appropriate qualifications and capabilities to carry out the storage, transportation and disposal of hazardous waste. We have also established the offshore solid waste information platform and a special solid waste management team to further standardize the handling and disposal of drilling fluid, cutting, production waste, and informationization management.

### Promote Resource Recycling to Construct Environment-friendly Offshore Oilfield

CNOOC Limited makes constant efforts to promote the construction of environment-friendly offshore oilfields. Based on innovative design and waste reduction management in the process, we upgrade the self-circulation system of drilling platforms and apply diversified disposal methods for water-based drilling waste to reduce wellbore cuttings and promote the reuse of drilling fluid.

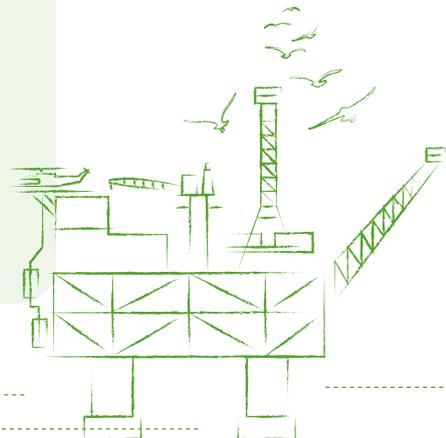
Based on innovative technologies and upgrading of the self-circulation system of drilling platforms, we realized repeated treatment of drilling fluid in grit chamber returning to circulating pool, and achieved drilling fluid recycle. The accumulated reuse of drilling fluid reached 30,100 cubic meters in Bohai in 2022;

We apply innovative design and introduce borehole slimming technology to reduce cuttings from the source while meeting the structural needs of well bodies for exploration and development. Throughout the year, the technology was adopted for 26 wells operated in the Bohai area, reducing cuttings by 1,187 cubic meters;

We have established diversified water-based drilling waste treatment technologies, including installing miniaturized equipment in-situ at drilling sites, using flocculation-pressurized filtration technology for post-sorting liquid phase reduction and filter pressing, building up the off-site treatment of EPSV<sup>10</sup>, promoting the construction of regional EPS<sup>11</sup> treatment centers, and adding the filtrate conditioning technology to enable filtrate to meet reuse standards. A total of 46 thousand tons of cuttings and 22 thousand cubic meters of the filtrate were recovered from the Bohai area, with a filtrate reuse volume of 7,472 cubic meters.

<sup>10</sup> EPSV: Environmental Protection Solution Vessel.

<sup>11</sup> EPS: Environmental Protection Service.



## Environmental Supervision and Inspection

Adhering to the principle of problem-oriented and goals-oriented, CNOOC Limited deepens regular top-down eco-environment protection and inspection and requires the Environmental Protection Department to lead specialists from multiple sectors to conduct special inspections on each branch and subsidiary. In 2022, we completed inspections on four branches and subsidiaries, which, together with what had been done in 2021, covered all subunits, helping each unit to identify and rectify potential environmental vulnerabilities and continuously improve environmental management.

Besides, we commissioned qualified monitoring units to monitor offshore pollutant discharge and determined the discharge of offshore production and domestic sewage. In 2022, we carried out environmental supervision for 10 offshore platforms, 2 land-based terminals, and 2 coalbed operation areas, where we checked the compliance of on-site discharge and facilitated the rectification and upgrading of pollutant-discharging units.

**100% of hazardous waste is entrusted to qualified third party for compliant disposal:** Hazardous waste management is mainly subject to the National Hazardous Waste List (2021) and the Standard for Pollution Control on Hazardous Waste Storage (GB 18597-2001).



**Waste gas emission from onshore terminals is discharged after being treated up to standard:** The emission of air pollutants like SO<sub>2</sub> and NO<sub>x</sub> is mainly subject to the Integrated Emission Standard of Air Pollutants (GB 16297-1996). However, if any, stricter environmental protection requirements from local authorities shall prevail.

**100% of non-hazardous waste is entrusted to licensed third party for compliant disposal.**

These targets have been fully achieved by 2022, and we will continue to hold ourselves to these targets for pollutant emissions and waste management in the future.

### Emission Chart of the Company's Main Pollutants<sup>12 13</sup>

Indicators	Unit	2020	2021	2022
Oil content in discharged water (Platform + Terminal)	Tons	3,424	3,491	<b>3,864</b>
Chemical Oxygen Demand (COD) (Platform + Terminal)	Tons	117.1	131.2	<b>171.4</b>
Sulfur dioxide (SO <sub>2</sub> ) (Terminal)	Tons	28.5	21.6	<b>12.9</b>
Nitrogen oxides (NO <sub>x</sub> ) (Terminal)	Tons	417.8	317.8	<b>179.4</b>
Non-hazardous waste (Platform + Terminal)	Tons	30,703	51,495	<b>73,411</b>
Hazardous waste (Platform + Terminal)	Tons	28,011	40,918	<b>50,979</b>

<sup>12</sup> We strictly follow the requirements of China's laws and regulations and always adhere to the principle of minimizing and recycling solid/hazardous waste, and realizing the harmless disposal of solid/hazardous waste. The solid waste/hazardous waste or the production intensity of solid waste/hazardous waste is not disclosed for the time being as no relevant description has been found in domestic industry regulatory requirements and it is not a key performance indicator for the daily management of enterprises.

<sup>13</sup> The Company's sulfur dioxide and nitrogen oxides emissions are collected and calculated based on the measured data of pollutants' concentration.

# Ecological Protection

CNOOC Limited abides by the red lines of ecological protection. Adhering to the principle of "prioritizing ecological protection" and "paying equal attention to environmental protection and resource development," we constantly improve our management and technology of ecological and environmental protection and encourage environment-friendly development to achieve harmony and mutual benefits between human beings and the oceans.

Pursuant to the requirements of the Circular of the State Council on Printing and Issuing the Program of Aquatic Living Resources Conservation in China, the Guidelines of the Ministry of Agriculture and Rural Affairs on the Artificial Propagation and Release of Aquatic Organisms during the 14th Five-Year Plan Period and the Technical Regulations for Impact Assessment of Construction Projects on Marine Living Resources, CNOOC Limited has formulated and revised the Measures for Ecological Environmental Protection, the Management Rules for Ecological Protection and Pollution Prevention and Control and other environmental management policies, and has developed effective ecological restoration programs under the guidance of relevant government departments.

Holding ecological protection as a priority in project construction and operation, we strictly follow the control requirements of the redline for ecological protection, the bottom line for environmental quality, the upper line for resource utilization, and the ecological access list. With regard to ecological conservation and restoration:

Based on the principle of early intervention, we make prudent decisions on project site selection and process route at the preliminary stage of projects to avoid environmentally sensitive targets and establish internal control processes, including pre-evaluation of environmental risks, EIA plan, and completion acceptance calibration monitoring. The ecological protection redline is strictly observed, and for major construction projects that have to infringe on the redline, efforts will be made to minimize the disturbance to the ecological environment.

During the construction and operation, we take active measures to avoid environmentally sensitive periods, reduce pollutant emissions, strengthen prevention and control of oil spills, and set up ecological compensation funds. Monitoring plans for producing water and domestic sewage discharged from projects are established to ensure the discharged pollutants meet corresponding discharge standards and reduce environmental and ecological damage.

The order of avoidance, mitigation, compensation and reconstruction is followed in the design of countermeasures to mitigate the ecological impact, and relevant financial inputs are in place according to the specific contents of the countermeasures.

For projects causing impacts on the ecological environment during construction and operation, we consult with relevant competent authorities and take appropriate measures of ecological restoration or compensation for the loss of marine biological resources caused by our projects, such as artificial propagation and release, fishery resources conservation and management and artificial reef construction, so as to realize restoration and sustainable utilization of fishery resources.

## CNOOC Foundation of Marine Environment and Ecological Protection<sup>14</sup>

CNOOC Foundation of Marine Environment and Ecological Protection ("CNOOC Foundation") is dedicated to cooperating with relevant national ministries and commissions, professional scientific research institutions and universities to carry out marine environmental protection policy research and marine biological protection, support international exchanges and cooperation in the marine sector and strive to build a biodiversity protection barrier since its establishment. CNOOC Foundation has invested RMB160 million in 147 marine environmental protection projects and formed a suite of branded projects.

In terms of fishery resource protection and artificial propagation and release, the Foundation adhered to the mission of "developing ocean, giving back to the ocean and persisting in ecological protection" and invested nearly RMB20 million in 2022 to support public welfare projects regarding marine environmental protection, including "Chinese Sturgeon Protection on 28 March," "Spotted Seal Protection Awareness Day," "Chinese White Dolphin Protection Awareness Day," "World Sea Turtle Day" and the release of sea turtles and aquatic species.



<sup>14</sup> As a major donor to the CNOOC Marine Environment and Ecological Protection Welfare Foundation, CNOOC Limited has been supporting the Foundation in marine environment and ecological protection since 2012.

# Care For Employees

## Care for Employees

Employees are our most precious resource and asset, and their growth is a major driving force for our development. We solidly promote the strategy of "promoting corporate development with high-quality talent," optimize the employee growth and development system, improve the training mechanism, and strengthen the talent team building to provide more employees with opportunities for self-growth and help them realize self-esteem. We also use our best efforts in maintaining our employees' physical and mental health and build a safe and healthy working environment, so as to protect their rights and interests from multiple dimensions and to share the benefits from the Company's growth and development with all employees.



## Risk Analysis

### Human Resource Risk

Our business will be adversely affected, and development goals will suffer from challenges if our human resources, and the quantity and quality of international talents, cannot match up with or adapt to the requirements of our business development.

### Risk Response

We constantly expand our channels for recruitment and talent acquisition, promote the cultivation program of promising young and new employees and talents, and optimize and adjust the organization system and the international talent cultivation program.

## Employment Policies

CNOOC Limited insists on employment in accordance with laws and regulations, creates an open, transparent, equal, and diversified working environment, safeguards all rights and benefits that staff is entitled to under the law, attaches importance to the democratic management of employees, continuously improves the internal employment management system and builds a harmonious labor relationship.

### Legal Employment

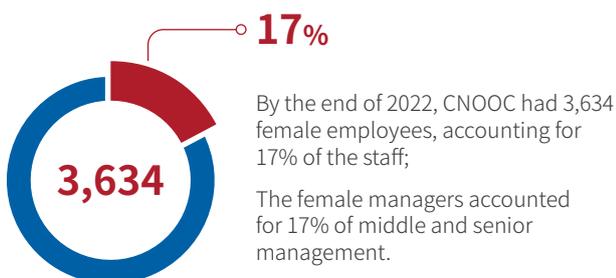
We act in strict compliance with local laws and regulations, such as the Labor Law of the People's Republic of China and the Labor Contract Law of the People's Republic of China, and international conventions ratified by the Chinese Government, such as the Discrimination (Employment and Occupation) Convention. We have established our own Employment and Labor Contract Management System and Overseas Employee Management System, respecting the legitimate rights of all employees.

We strictly comply with the Provisions on the Prohibition of Using Child Labor in China and legal requirements for the prohibition of employing child labor in the countries or regions



in which we operate, and we prohibit any employment or use of child labor. During the reporting period, no case of child labor was found. We strictly conform to labor laws, abide by stipulations on salary, hours of overtime, and statutory benefits as required by local authorities, and prohibit forced labor. During the reporting period, no case of forced labor was found. All employees of CNOOC Limited entered into employment contracts with the Company on an equal and voluntary basis.

We comply with diversity and non-discrimination principles and prohibit discriminatory recruitment clauses on "gender, nationality, marital status, religion or hepatitis B status". We insist on fair and equal treatment in our recruitment, training, promotion, and compensation, regardless of race, nationality, belief, gender, marital status, and other legally protected characteristics. The Company adheres to gender equality, actively increase the number of female employees, implements Special Rules on the Labor Protection of Female Employees, guarantees the legitimate rights of female employees, and develops training programs for female management.



Adhering to the principle of "inclusiveness and reciprocity, mutual benefit and win-win outcome", CNOOC Limited fully respects the cultural diversity of various countries and the customs of local residents, advocates mutual understanding and communication between the staff of different nationalities, from other regions and with different cultural backgrounds, in a bid to establish a dynamic working environment. CNOOC Limited has launched operations in over twenty countries and regions in six continents, including Indonesia, Nigeria, the U.S., Brazil, Australia, and the U.K. The international cooperation projects have brought plentiful job opportunities to local people.

### Number of employees by employment type



21,452

### Number of employees by gender

Male employees **17,818** Female employees **3,634**

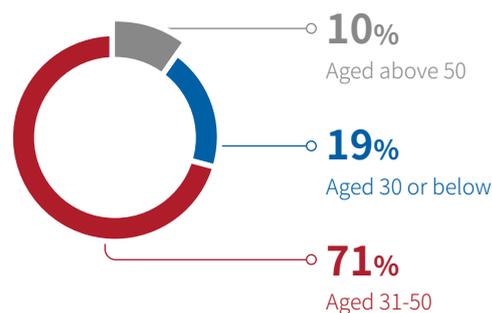
Female mid-level and senior managers **195**

The proportion of male employees **83%**

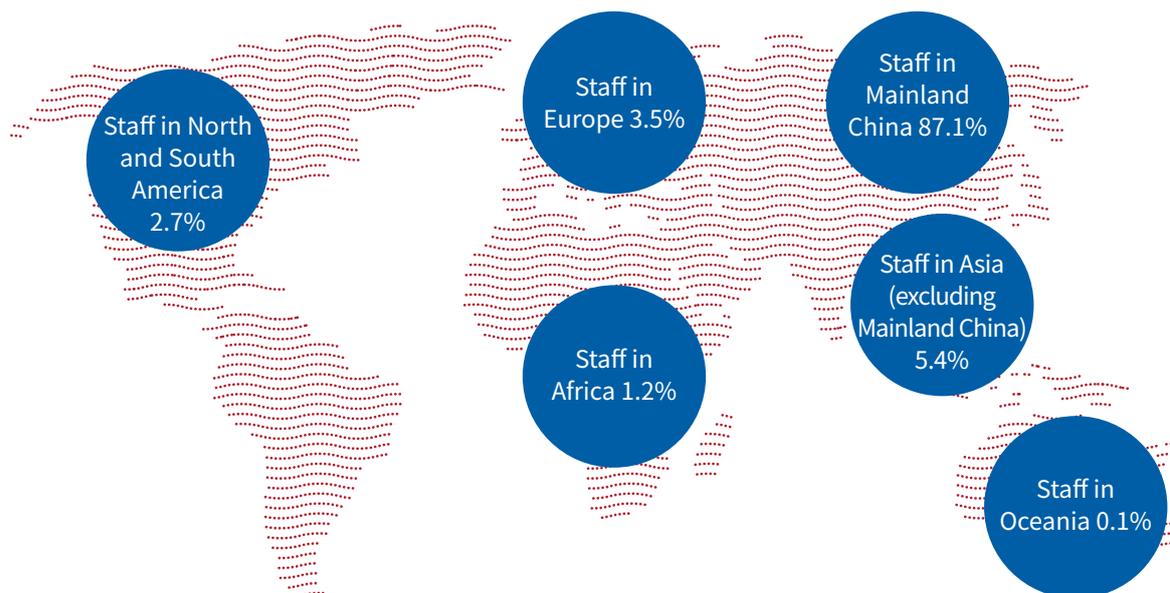
The proportion of female employees **17%**

The proportion of female managers in the mid-level and senior management **17%**

### Number of employees by age

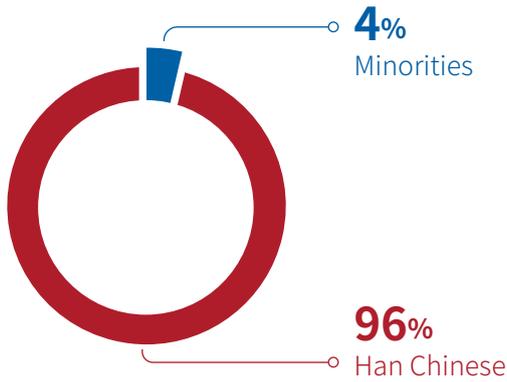


### Number of employees by region

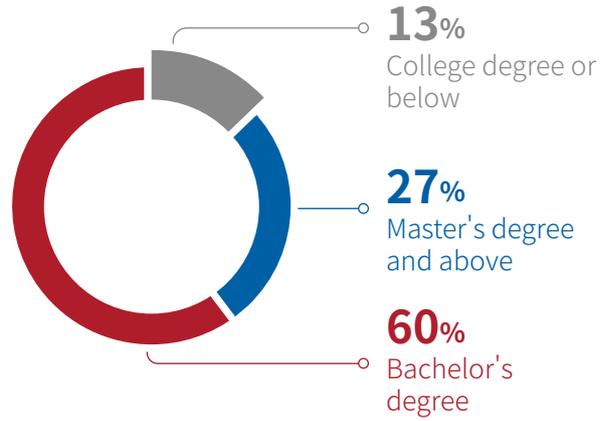


Employees in Mainland China	<b>18,692</b>	Employees in Asia (excluding Mainland China)	<b>1,160</b>	Employees in Europe	<b>757</b>
Proportion	<b>87.1%</b>	Proportion	<b>5.4%</b>	Proportion	<b>3.5%</b>
Employees in Africa	<b>264</b>	Employees in North and South America	<b>568</b>	Employees in Oceania	<b>11</b>
Proportion	<b>1.2%</b>	Proportion	<b>2.7%</b>	Proportion	<b>0.1%</b>

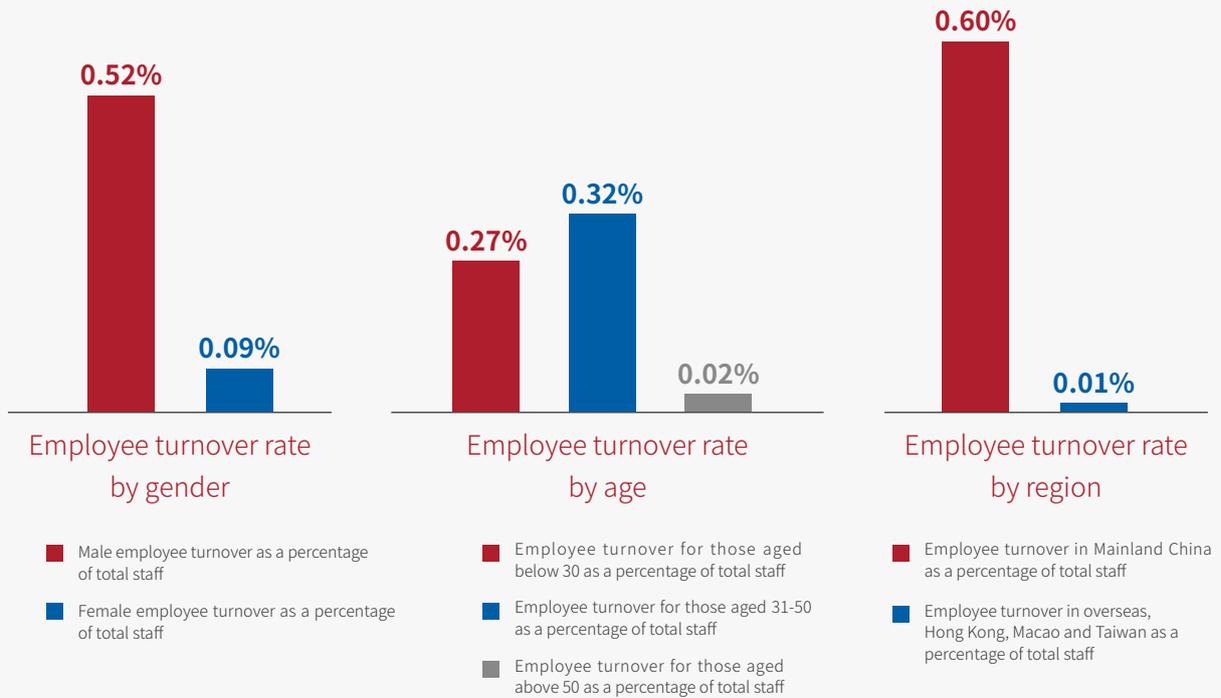
### The proportion of Chinese employees by ethnic group



### The proportion of employees by education



By the end of 2022, the employee turnover rate was 0.61% for the entire year.



## Safeguard of Rights and Interests

In compliance with the Labor Union Law of the People's Republic of China, we have established labor unions at all levels, which are responsible for supervising the Company's fulfillment of responsibilities and obligations and the implementation of all business activities that are related to employees' benefits and communicating with the management of the Company on behalf of employees. CNOOC Limited respects and supports the employees' freedoms of association, assembly, and joining a labor union organization conferred by the law while at the same time maintaining close communication with the legal department and labor unions.



We continue to improve our compensation system and optimize incentive mechanisms by relevant national policies and based on our strategic positioning and forecasts of future benefits:

Strengthen the performance-oriented approach, systematically optimize the budget management of the total payroll and the mechanism for increasing or decreasing the total payroll, and fully apply the position-based performance payroll system to implement the concept of remuneration based on "position value + competence level + performance contribution."

Reinforce the targeted incentive for key talents, promote the reward mechanism for major scientific and technological innovations, improve the market-based compensation mechanism for sales and trade positions, and increase incentives for high-caliber skills.



Improve value-oriented income distribution, value the contribution of scientific research positions, strengthen compensation incentives for frontline offshore operation positions, and promote compensation distribution to favor talents who have provided outstanding assistance and frontline key and managed to deal with frontline key and challenging situations.

Adopt a variety of medium-to-long-term incentives flexibly and proactively promote equity and dividend incentives for science and technology enterprises; distribute compensation according to the results of daily and special assessments to strengthen immediate and special incentives and enhance key employees' sense of achievement.

We have established a comprehensive and effective security system to promptly handle various types of social insurance and multi-level supplementary insurance for employees. The social insurance participation rate of our employees has reached 100%. In addition to the basic types of social insurance, including pension, medical insurance, work-related injury insurance, unemployment insurance, and maternity insurance, we also improve our supplementary insurance portfolio, including personal accident insurance, commercial supplemental health insurance, and critical illness insurance. We also set up enterprise annuity and housing subsidies and constantly improve digital and convenient health services to reinforce our efforts in safeguarding our employees. The Company provides welfare physical examination for employees. In 2022, a total of 64 items of employee physical examination are added, and targeted physical examination programs are provided for employees to provide sufficient conditions for their physical health monitoring.

CNOOC Limited comprehensively protects the legitimate rights and interests of local employees in our international firms, strictly abides by local employment regulations in each jurisdiction, and provides employees with vacation, social insurance, and other benefits in compliance with local labor laws and regulations. We establish the corresponding salary adjustment and incentive mechanisms under local conditions to encourage local employees to grow together with the Company.

# Employee Development

Following the "Promoting Corporate Development with High-Quality Talent" strategy and the concept that talents are the primary resources, CNOOC Limited implements a talent policy that can stimulate business vitality and highlight value to a greater extent. Our improved training system, optimized employee growth and development system, and unobstructed path for talent growth enable employees to become the backbone of our high-quality development.

## Talent Strategy

We earnestly implement the Talent Development Plan to achieve the goal that talents of excellence lead to high-quality development. To create an excellent employer brand and enhance our attraction to talents, we enhance our efforts in attracting promising talents via multiple channels such as campus recruitment, cooperation with schools, and social recruitment.

Focusing on strategic and industrial planning, we strengthen the cultivation of strategic and high-caliber talents. Since 2020, we have selected trainees to be mentored every three years. They are tutored and enjoy the priority in scientific research support to participate in major scientific and technological projects and core technology studies. 2025, 2035, and 2050 will be crucial for realizing this strategy of promoting corporate development with high-quality talent. We aim to increase the proportion of mid-to-high-level talents such as academic, strategic, and technical experts.

The Company proactively joins hands with universities and colleges to train talents and takes the initiative to develop strategic cooperation with China University of Petroleum (Beijing), China University of Petroleum (Eastern China), China University of Geosciences (Wuhan), and other universities. During this year, we launched the initiatives for youth talent cultivation through science and technology innovation. To promote the spirit of scientists and enhance innovative thinking and practical skills, we carried out the young technological and creative talents program in 2022, and 165 young talents were selected.

The enhanced expert training and cultivation provide academic support to the Company's high-quality development. This year, CNOOC Limited hired eight new senior technical experts, and the size of the expert team increased to 10 persons; there were two newly listed master studios, bringing the total number to 3; two academician workstations, namely Bohai Oilfield Academician Workstation and the South China Sea Oil and Gas Academician Workstation, were added; we organized and carried out the evaluation of 6 occupational skill levels of junior, intermediate and senior workers, technicians, senior technicians, and master technicians in 10 types of work, and carried out the evaluation of exceptional technicians for the first time, resulting in completing a total number of 2,497 assessments.

We conducted occupational qualification reviews and certified 153 supervisors or above for their exploration, downhole operation, drilling, and completion roles.



By the end of 2022, the Company had 5,254 highly-skilled personnel, accounting for 74% of the total number of skilled personnel in main jobs (or professional teams).

74%



## Career Development

Employees are our most precious resource and asset. We set up four sequences of Management (including sales) (M), Business (B), Technology (T), and Skilled Workers (W) to standardize channels for employees' promotion and career development and facilitate their transition among sequences.

The Company distinguishes the business characteristics, levels, and career development channels of each position improves the differentiated assessment and incentive mechanism, and establishes a comprehensive point evaluation system for promoting to achieve the fast promotion of the excellent, the slow rise of the average, and the removal of the inferior. The management sequence is strictly designed in accordance with the principle of ability for determining the positions. Managers at the mid-level or above are appointed in accordance with regulations, and the "Two Systems, One Contract" management is implemented. The business sequence is selected and promoted step by step according to positions. The technical sequence has increased incentives, implementing the evaluation and employment system management for two-level experts and the contracted employment period system for middle-to-high-level technical positions. Skill sequence positions are encouraged to be graded and promoted through vocational skill level recognition.

The Company optimizes the conversion channel between sequences, clarifies the qualification criteria for each sequence, sets up a guiding and stimulating sequence conversion policy according to the Company's development strategy and critical tasks, and encourages outstanding talents in other lines to work in primary or key business sequences of the Company. Those who meet the selection criteria of the cadre in each row may participate in the selection and competition by procedures to work in management positions.

### Highly-skilled Workers of CNOOC Limited are Selected for the "Craftsmen of the Nation" Training Program for Central State-owned Enterprises

In 2022, the State-owned Assets Supervision and Administration Commission of the State Council organized the selection of the second batch of talents for the "Craftsmen of the Nation" Training Program for central State-owned enterprises. Chen Keying, director engineer from the Zhanjiang Branch, and Li Shiyuan from the Tianjin Branch of CNOOC Limited were selected.



#### Li Shiyuan

##### The leader of technician workshop

As the leader of the technician workshop, Li Shiyuan has overcome numerous technical problems and eliminated hundreds of faults and hazards, and is therefore recognised as the "Master" of developing the blue ocean of technologies. Li Shiyuan has led the technician innovation workshop to make technological breakthroughs and trained a variety of skilled personnel.

#### Chen Keying

##### The leader of the "Master Workshop on Offshore Oil and Gas Extraction Skills"

Chen Keying has led the team to solve over 100 production problems to increase efficiency amounting to hundreds of millions of yuan during his 13-year career life in the Company.



## Employee Training

We have established a multi-level employee training system and continuously empower employees as needed. In 2022, we continued to implement our talent development and essential training plans, focusing on crucial specialties and critical roles. Responding to the impact of COVID-19, we made great efforts to advance the content creation of the "Haixue" platform and promote the application of this platform to achieve flexible online training. In addition, we organized and carried out special learning activities, professional skills training, and safety training to promote the coordination and integration of online and offline training, improve employees' professional competence and create a good learning environment.



### Training Performance Table of the Company in 2022 (Data)

**34,700**

Person-time of training for the whole year

**111**

Offline training hours per person

**178**

Online training hours per person

**259**<sup>hours</sup>

Average training per person for management personnel

**260**<sup>hours</sup>

Average training per person for business personnel

**8**

Finance courses

**63**

Training courses on well-related technical expertise

**12**

QHSE courses

**270**<sup>hours</sup>

Average training per person for technical personnel

**340**<sup>hours</sup>

Average training per person for skilled workers

Year	Total training sessions	Total person-time	Total training hours	Total training hours per person
2022	1,895	34,700	5,420,872	289
2021	2,069	35,698	3,850,251	205
2020	2,416	19,940	2,980,200	186

Percentage of Trainees by Gender (%)

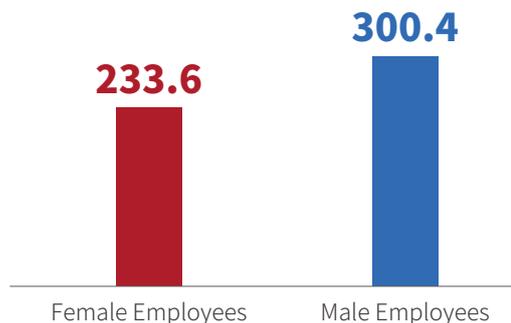


**98.9%**  
Female Employees



**99.6%**  
Male Employees

Average Training Hours by Gender



Percentage of Trainees by Role (%)



**97.9%**  
Management Personnel



**99.9%**  
Business Personnel

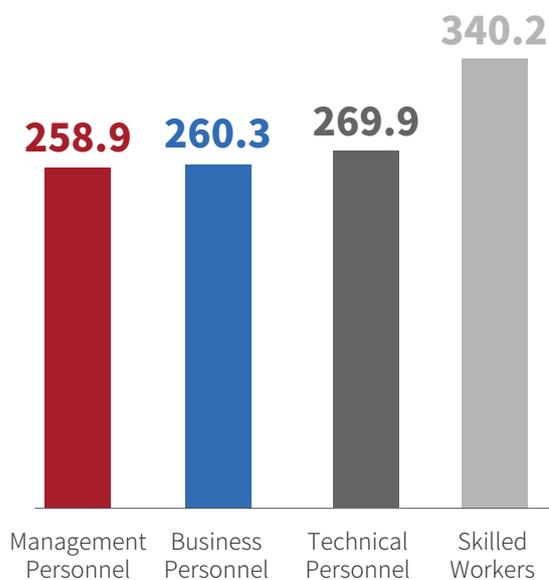


**99.5%**  
Technical Personnel



**99.7%**  
Skilled Workers

Average Training Hours by Role



Percentage of Trainees by Hierarchical Level (%)



**98.6%**  
Senior Management

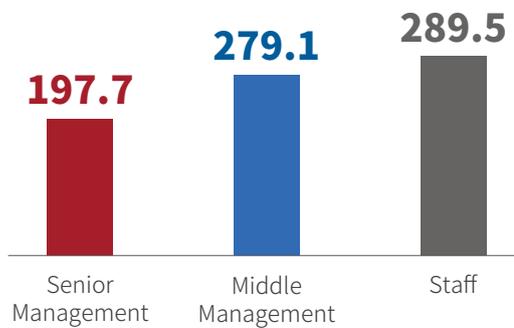


**98.6%**  
Middle Management



**99.5%**  
Staff

Average Training Hours by Hierarchical Level



## Cultivation of International Talents

We continue to reinforce the cultivation of international talents. With a focus on the priorities and difficulties in overseas business development, we have established a systematic training system and a global talent reserve mechanism featured with hierarchical linkage. In 2022, we selected and sent business backbones to participate in the international talent training course, a centralized and closed training courses in two sessions for a period of five months. The training consisted of 6 modules, including language ability, cross-cultural communication ability, strategic thinking, professional ability, leadership ability, and so on. Trainees completed the training tasks by participating in activities, such as lectures, sharing and exchange, workshops on practice cases, topical debates, and project presentations.



## Care for Employees

We strictly implement relevant national regulations on employee holidays to fully protect their rights for statutory public holidays. Apart from statutory public holidays, we provide paid annual and family visit leave, extend maternity leave and encourage staff to take vacations and rest. For migrant staff, we offer turnover housing and other living security and provide transitional housing for single employees to help them find a better balance between life and work.

In respect of care for employees, the Company has implemented the following initiatives:

Endorse the labor union's "Warm Project" to build friendly labor relations and expand "e-union" coverage so that employees can enjoy its services more efficiently;

Strengthen the construction of a "home for employees" and "staff's nest" in remote and challenging areas as well as small, scattered, and distant frontline units, and promote the construction of facilities such as staff canteens, libraries, restrooms, and entertainment rooms, and ensure that staff have access to warm help and mutual medical assistance;

Respond to China's "Healthy China" initiative, carrying out psychological counseling, crisis intervention, etc., and setting up a 24-hour psychological counseling hotline to raise employees' awareness of the benefits of health and psychological counseling;

Establish and improve the incentive and care mechanism for overseas employees and the communication and assistance mechanism for their families, and further implement relevant measures with caring for the families of overseas employees as a preliminary step;

Safeguard the rights and interests of female employees by undertaking "Women's Contribution," celebrating International "Women's Day," visiting female employees to motivate their sense of professional pride and happiness of female employees;

Offer assistance to poor staff members, understands and documents their situation, and pays regular revisits.

### Well-equipped Nursing Room

Zhanjiang Branch of CNOOC Limited has furnished its nursing room with refrigerators, microwaves, water dispensers, and other articles of everyday use. The branch has also provided comprehensive and people-oriented services to female employees of childbearing age by offering books and magazines, health publicity materials, and posters on pregnancy care, postnatal care, scientific feeding, etc., in the room.



### Chief Engineer Hou Jing was Awarded "The Bearer of Red Flag March 8"

In 2022, Hou Jing, chief engineer of the subsea pipeline structure of the Engineering Research and Design Institute of CNOOC Research Institute Co., Ltd., was awarded "The Bearer of Red Flag March 8". Her story was published in People's Daily, showing the talent and professionalism of female employees of CNOOC Limited.

Hou Jing has been engaging in the frontline of offshore operations since 2020, and is responsible for the overall coordination of 24-hour operations of fleets. After engaging in joint research, analysis, and trial production of pipes with domestic suppliers for a year, Hou Jing and her team successfully applied domestic steel catenary risers to the "Shenhai-1" platform. The team led by Hou Jing worked hard for 299 consecutive days on the frontline and completed all offshore operations 16 days in advance, achieving the miracle of saving up to RMB100 million in expenses.



In terms of medical security for employees, the Company further improved supplementary medical insurance, developed outreach programs for medical protection, and established cloud clinics to provide a green channel for medical treatment. This allowed frontline employees to get video medical consultations and consultations with famous doctors on stubborn diseases through the Internet, raising the standard of medical services and health counseling. The Company further promoted the digital online claim settlement and direct payment of drug purchases under supplementary medical insurance to facilitate employees seeking medical treatment and purchasing drugs.

In 2022, under the care and cultivation of the Company, several outstanding employee representatives emerged who dared to take responsibility and actively took the initiative. These representatives embodied the spirit of the Company to share the fruits of sustainable development with employees and society, as well as the resolution of CNOOC Limited to realize the corporate value and shoulder social responsibilities.





# Social Contributions

## Social Contributions

We appreciate corporate value contribution, pay attention to societal needs and heated issues, and use our strength to fulfill our social responsibilities conscientiously. Guided by the commitment to "Serving the Society, Creating Harmony and Benefiting the People," we have actively engaged in public welfare, launched projects to support people's lives, and provided necessary financial and resource assistance to all walks of life for social stability and sustainable development.

# CNOOC Limited 中国海洋石油有限公司



## Economic Contributions

In 2022, we focused on high-quality development and investment efficiency, strengthening competitive cost advantages, creating economic benefits, and fulfilling our responsibilities and missions. In 2022, we recorded oil and gas sales revenue of RMB 353 billion, with a net profit of RMB 141.7 billion.

In 2022, we paid RMB 123.4 billion in tax, including income tax, value-added tax, royalties, and resource tax. We created more than 21 thousand jobs worldwide, vigorously supporting local economic and social development.

In 2022, we recorded oil and gas sales revenue of RMB **353** billion

with a net profit of RMB **141.7** billion

In 2022, we paid RMB **123.4** billion in tax, including

and create more than **21** thousand jobs worldwide

## Maritime Rescue

We actively fulfill social responsibilities and fully leverage our resources for undertaking emergency rescue in accordance with the Inter-ministerial Joint Conference System for National Maritime Search and Rescue and the Inter-ministerial Joint Conference System for National Major Maritime Oil Spill Emergency Disposal. We coordinate emergency responses with maritime departments and government agencies to ensure the reasonable use of internal and external emergency resources. We actively undertake the maritime search, rescue, and significant marine oil spill emergency disposal. Each subsidiary of the Company has built an emergency response mechanism for marine search and rescue to coordinate with the emergency response actions for maritime emergencies to minimize casualties and property losses.

The Company has involved in **55** maritime rescues during the year

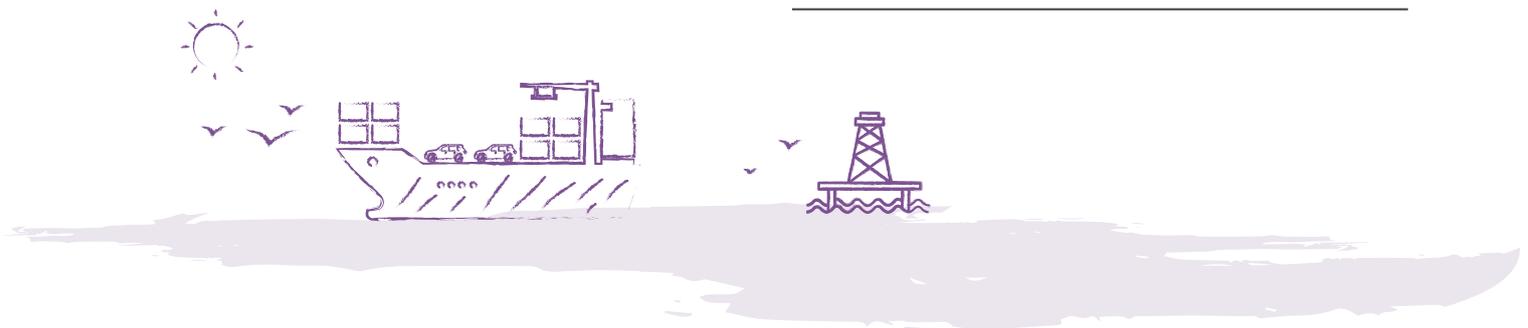
Rescuing **44** ships in distress

Rescuing **69** people in distress

Vessels were mobilized **72** times

Helicopters were mobilized **30** times

Government authorities awarded a total of **16** appreciations and commendations



	Tianjin Branch	Hainan Branch	Zhanjiang Branch	Shenzhen Branch	Shanghai Branch
Rescue missions	18	8	11	5	13
Ships mobilized	10	13	21	11	17
Helicopters mobilized	10	0	16	0	4
People rescued	6	25	11	0	27
Ships rescued	11	9	11	5	8

On 6 September 2022, the Tianjin Branch, Hainan Branch, and other companies of CNOOC Limited were granted with awards under the Notice of the General Office of the Ministry of Transport on Rewarding Social Search and Rescue Forces with Outstanding Contributions in 2021 issued by the Ministry of Transport of China.

In 2022, Hainan Branch has rated the advanced unit for maritime search and rescue in Hainan Province.

### Pilot Project for Telemedicine on Offshore Platforms

In December 2022, the telemedicine system was commissioned and used in Caofeidian Operation Branch and Qinhuangdao 32-6 Bozhong Operation Branch under the pilot project for telemedicine on offshore platforms jointly carried out by Tianjin Branch and TEDA International Cardiovascular Hospital. The telemedicine system integrates resources from multiple hospitals and comprehensively applies communication technologies to provide timely online medical consultations for remote patients. A 24-hour emergency treatment system is also established, resulting in moving the primary scene of providing emergence treatment by maritime personnel forward to the frontline platform, and in turn in safeguarding employees' life and health to a greater extent.



# Public Welfare

CNOOC Limited and its affiliated companies have been fulfilling our commitment to serving society, creating harmony, and benefiting the people by leveraging the advantages of rural revitalization, charitable donations, employee volunteers, and community development. CNOOC Limited invested RMB 96.02 million in foreign donations and public welfare projects, including RMB 92.89 million in capital and RMB 3.13 million in material converted.

CNOOC Limited has formulated the Measures for the Administration of Charity and Public Welfare Undertakings of CNOOC Limited. The Company has established the Charity and Public Welfare Committee to prepare the annual work plan for charity and public welfare and approve budgets. Subsidiaries and branches organize and implement specific charity and public welfare activities based on the annual work plan.

## Charitable Donations

We thoroughly use our resources to provide financial and resource assistance to those in need from all walks of life.

### Support the Fight Against the Epidemic

In all aspects, Hainan Branch invested considerable resources in human, financial, and material. It donated anti-epidemic materials worth RMB 2.45 million.

### Make Donation to Help Students

Tianjin Branch has organized "Warm One Heart" charity donation activities for 17 consecutive years to support female students with low-income family conditions in Linyi County, Dezhou City, with a total amount of about RMB210,000, and has successively supported 28 female students. In addition, since 2021, Tianjin Branch has endorsed 12 poverty students in Hougumo Primary School of Liangshan Prefecture through the Student Aid Foundation.

### Focus on Community Education and Strengthen Infrastructure Construction

In 2022, Tianjin Branch continued its active participation in the project "Build a Beautiful Campus Together" in Binhai New Area, and donated funds to renovate the playground lawns and synthetic running tracks of Guilin Road Primary School and Xiangyang Third Primary School, thus providing high-quality, safe and eco-friendly event facilities for the students.



## Rural Revitalization

2022 witnessed positive results in poverty elimination being further consolidated and integrated into rural revitalization. The Company adhered to the working idea of "Implementing policies according to local conditions, Providing targeted assistance, Consolidating achievements and promoting revitalization" and focused on rural development, construction, and governance, entirely propelling rural revitalization for shared prosperity. During the year, the Company supported the development of characteristic regional industries, stable education and employment, infrastructure construction, and public service promotion, carried out 26 assistance projects, donated two small and medium-sized science and technology museums, and promoted science and technology culture to benefit the people.



### Nima County: Maintain "Income Generating Ability Building" Pattern to Consolidate and Expand the Achievements in Poverty Alleviation

We have invested RMB 30 million (including RMB 10 million in 2022) to build employment and entrepreneurship service centers and cultural industry centers, which can directly benefit 250 people. We have also built animal husbandry facilities, which can enhance the production capacity of the husbandry industry; recruited unemployed medical professionals to grassroots medical institutions; carried out municipal cleaning training programs while providing jobs, vigorously promoted the employment of households out of poverty to increase income.

### Baoting County: Empower the Development of Industries with the Public Brand of Agricultural Products

CNOOC Limited increased investment in supporting Baoting County to create the public brand "Baoting Qixian," cultivate leading enterprises, and gradually promote regional public brand construction, increasing the brand value of the particular rambutan industry from RMB 410 million to RMB 653 million.

### Wuzhishan City: Build a demonstration site for rural revitalization, strengthen the economy, and improve people's livelihood

The Company supported the characteristic and advantageous industries of Xincun, Shuiman Township, Wuzhishan City; assisted education, consumption, and infrastructure construction; carried out environmental cleaning actions; supported the development of the tea industry; promoted the integration of agricultural, cultural, and tourism resources, developed and expanded the collective economy of the village, and made the per capita annual income of Xincun rank the second in the township.



# Employee Volunteers

We encourage employees to volunteer to raise awareness of environmental protection and social welfare. In 2022, we organized various volunteer activities. We continued to encourage members of "Blue Force," our youth volunteer service team, to contribute to people's livelihood and environmental protection by providing education and support to children, the elderly, and other groups.

Environmental Action



CNOOC volunteers carried out "Beach Clean-up Actions" and tree-planting activities in various places to help protect the ecological environment with their strength.

Assistance to the Elderly



Volunteers from the Company carried out fire prevention promotion activities in winter and volunteer activities of "Assistance to the Elderly" to help the left-behind elderly do the housework, clean up yards, remove the weeds, and give away daily necessities.

Sharing Knowledge



CNOOC volunteers went to communities and schools to popularise knowledge of green and low-carbon development, environmental protection, and ecological protection through knowledge quizzes and slogans to enhance the general public's and students' environmental awareness.

Caring for Children



Volunteers of the Company have long-term carried out the "Care for Children with Disabilities" actions to advocate for people from all walks of life to care for children with special needs.

Community Service



CNOOC volunteers carried out community volunteer activities, such as ID photo shooting, policy consultation, free haircuts, electrical appliance maintenance, charity sales, and environmental cleaning.

## Overseas Social Responsibility

The Company has established a long-term mechanism for building an overseas community investment system. CNOOC International, a subsidiary of the Company, established the CNOOC Corporate Community Investment Committee (CCIC). In strict compliance with the updated Community Investment Standards of CNOOC International Limited to ensure the proper operation and development of social and public welfare and charitable causes.

In 2022, CNOOC International approved USD 5.12 million for overseas community investment, covering more than 60 public welfare projects across 15 countries. The strategic focus of the community investment included community prosperity and safety, education development, support for communities of natives, and green and low-carbon development.

### Native Support

CNOOC Guyana protects the rights and interests of American Indians and takes into account community needs. It assists American Indians in education, green energy, community needs, and other areas. CNOOC North America respects the rights of natives to know and consent, informs relevant groups of the annual native consultation plan, optimizes the bidding processes to engage communities of natives, and prioritizes support to them.

CNOOC UK has supported the youth outward development training in West London and Aberdeen since 2013. Employees of CNOOC UK have participated in the training as role models to help young people develop potential and acquire survival skills, while improving their communication and problem-solving skills.



Education Development

### Volunteer Activities

In 2022, CNOOC UK launched "Volunteer Month" and organized various volunteer programs in learning, culture and sports, which were well received and appreciated by local residents. CNOOC North America established long-term partnerships with charitable donation Organizations by regularly participating in volunteer activities, which enhanced the communication between CNOOC North America and local communities.



Aid For Disaster Relief

After heavy rains, landslides, and floods hit Brazilian cities in 2022, Brazilian companies and other Chinese enterprises in Brazil donated disaster relief materials to the affected cities to help the Brazilian people and give back to the local society.

### Community Building

Since 2015, CNOOC Iraqi has set an annual budget to implement infrastructure projects in the communities where the oilfields are located to improve living, education, and medical conditions to give back to the people and strengthen its ties with the local government and communities. In 2022, the Company continuously completed infrastructure construction projects such as schools and medical care.

The 10-year Greater Guyana Investment (GGI) supports the development of local business centers, technical and vocational education and training, campus building and safety management upgrading at the University of Guyana, community health, regional capacity building, agricultural development, government economic development projects, etc. to realize sustainable local economic and social development.

## Support Sustainable Development of Communities in Uganda

Advocating the vision of "Oil for a better life" and the mission of "fulfilling corporate social responsibility and promoting poverty reduction and agricultural development programs," CNOOC Uganda has sustained the investment in comprehensive community building in Uganda. Assisted with the project for funding quality education, job creation project, people's wellbeing improvement project, and cultural exchange and integration project, which are highly praised by local government and all walks of life. Among them, the project for funding quality education has entered its tenth year since 2013. In addition, the Company has successfully funded eight university students to study in China. All the students have returned to Uganda to join the oil industry construction, realizing their "oil dream."

CNOOC Limited has implemented an international student project in Uganda and funded outstanding local university students to study at the China University of Petroleum (East China) since 2014. Lamech Mbangaye, a beneficiary of the CNOOC Performance Scholarship, returned to school with funds offered by CNOOC Limited and joined CNOOC Uganda in 2018 to work in the oil industry, which attracted more young people in Uganda to study and seek a career in the oil industry and enhanced the cultural exchange between Uganda and China.

"CNOOC Limited has made a great contribution to raising the educational level in Uganda and provided opportunities for employment, self-improvement, and livelihood improvement for many people here. I will continue contributing to China and Uganda's common prosperity with gratitude towards China and CNOOC Limited."—Said Lamech in an interview after joining CNOOC Uganda



### Project for Funding Quality Education

On October 2022, CNOOC Uganda was awarded the Corporate Social Responsibility Award by the Association of International Energy Negotiators (AIEN), which recognized its outstanding achievements in fulfilling corporate social responsibility in the environmental impact assessment, land acquisition, and return of Tilenga block during the project development.





Job Creation Project



People's Wellbeing Improvement Project

Cultural Exchange and Integration Project



CNOOC Uganda has launched vocational training programs to improve residents' survival skills and create more jobs for sustainable employment. The Company has conducted training programs for heavy truck drivers, engineering construction, and other skills training programs about the oil and gas field. The trained personnel have been put to work in developing and constructing oilfields in Uganda. At the same time, the Company launched the "Enable" program and organized community youth to participate in popular skills training such as hairdressing and sewing. It guided more residents to improve their skills and promote sustainable employment.

The Company started the resettlement housing project to construct housing units for residents who have to be relocated, effectively improving the living conditions of the residents around the project site. Moreover, CNOOC Limited's first community water supply and health improvement project in Uganda - Buhuka Water Diversion Project, was used to provide safe and clean drinking water to the Buhuka area. In addition, the cliff highway invested by the Company has been officially opened to traffic, becoming the region's first and only cliff-crossing highway so far. This highway has promoted effective communication between the local people, property, goods, and the outside world, facilitating the residents to seek medical treatment, employment, and study. It ultimately ended the history of no highways in the village and witnessed the beauty that CNOOC Limited has added to the local people's lives.

CNOOC Uganda has established long-term cooperation with the Confucius Institute of Uganda to teach local employees Chinese and traditional Chinese culture. The Company has set up a "Chinese Bookshelf" reading room and carried out "Teachers and Apprentices" activities to enhance employees' sense of belonging and identity and promote the spread of Chinese culture in Uganda. In addition, the Ugandan Company has held the CNOOC Cup Football Match for continuous years and invited more than ten teams from 7 communities in the Bunyoro region to compete, which enhanced the company-local friendship.

# Appendix

## Key Performance Data

Category	Indicator	2020	2021	2022
Energy consumption and climate change indicators	Crude oil consumption (thousand tons)	387.0	343.2	<b>259.3</b>
	Natural gas consumption (billion cubic meters)	2.228	2.469	<b>2.582</b>
	Diesel consumption (thousand tons)	58.0	57.1	<b>51.5</b>
	Electricity consumption (million kWh)	283	636	<b>1,285</b>
	Energy saving (tons of standard coal equivalent)	148,788	161,493	<b>275,710</b>
	Comprehensive energy consumption per ton of oil and gas production <sup>1</sup> (tons of standard coal equivalent/ton)	0.0550	0.0592	<b>0.0571</b>
	Direct total GHGs <sup>2</sup> (million tons of CO <sub>2</sub> equivalent)	9.123	9.774	<b>9.779</b>
	Indirect total GHGs <sup>3</sup> (million tons of CO <sub>2</sub> equivalent)	0.222	0.531	<b>1.101</b>
	Total GHGs (million tons of CO <sub>2</sub> equivalent)	9.345	10.305	<b>10.879</b>
	GHGs per ton of production <sup>4</sup> (tons of CO <sub>2</sub> equivalent/ton)	0.1470	0.1597	<b>0.1556</b>
Environmental indicators	Non-hazardous waste (tons)	30,703	51,495	<b>73,411</b>
	Hazardous waste (tons)	28,011	40,918	<b>50,979</b>
	Freshwater consumption (million tons)	2.120	2.127	<b>1.986</b>
	Freshwater consumption per ton of production (cubic meters/ton)	0.0333	0.0330	<b>0.0284</b>
	Water saving (thousand tons)	89	49	<b>74.5</b>
Social indicators	Number of employees	18,353	19,086	<b>21,452</b>
	Number of female employees	2,597	3,009	<b>3,634</b>
	Total training hours (hours)	2,980,200	3,850,251	<b>5,420,872</b>
	Occupational health examination rate (%)	100	100	<b>100</b>

<sup>1</sup> Comprehensive energy consumption is the sum of various energy consumption, which is calculated in accordance with the General Principles for Calculation of the Comprehensive Energy Consumption (GB/T2589-2020).

<sup>2</sup> Direct total GHGs represent the CO<sub>2</sub> equivalent emissions of various energy consumption (i.e., fossil fuel combustion, flare combustion, process venting and escape in various business links), which are calculated in accordance with the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from China Oil and Gas Manufacturing Enterprises (Trial) (2014 version) issued by the National Development and Reform Commission. Greenhouse gases mentioned above include methane and carbon dioxide, and the emission factors used in the calculation of carbon dioxide are the default values provided in the above guidelines. The global warming potential (GWP) value of methane compared to carbon dioxide is 21.

<sup>3</sup> Indirect total GHGs represent the CO<sub>2</sub> equivalent emissions of indirect energy consumption (mainly purchased electricity consumption, and purchased heat consumption), which are calculated in accordance with the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from China Oil and Gas Manufacturing Enterprises (Trial) (2014 version) issued by the National Development and Reform Commission. The electricity emission factors used in the calculation of CO<sub>2</sub> are derived from the Average CO<sub>2</sub> Emission Factors of Regional Power Grid in China in 2011 and 2012 released by the National Climate Center, and the thermal emission factors used are derived from the default values provided in the Guidelines for Accounting and Reporting Greenhouse Gas Emissions from China Oil and Gas Manufacturing Enterprises (Trial)(2014 version).

<sup>4</sup> Greenhouse gas emissions per unit of oil and gas production (tons of carbon dioxide equivalent/ton) = total greenhouse gas emissions/oil and gas equivalent (in tons). The oil and gas equivalent is the sum of petroleum liquid and natural gas production, where the coefficient of converting natural gas to oil equivalent is equal to 1,255 cubic meter/ton of oil and gas equivalent.

# Independent Assurance Report



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## Independent Limited Assurance Report

Ernst & Young Hua Ming (2023) No.60157570\_A03  
CNOOC Limited

### Board of Directors of CNOOC Limited:

#### Scope

We have been engaged to perform a limited assurance engagement on the information ("Key Information") in Reporting Guide Index of 2022 CNOOC Limited ("CNOOC") Environmental, Social and Governance Report ("ESG Report").

#### Criteria

In preparing the Key Information of ESG Report, CNOOC applied the Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited (HKEx), the Self-Regulatory Guidelines for Listed Companies of the Shanghai Stock Exchange No. 1 - Standardized Operation, the 10 Principles of UN Global Compact and the GRI Sustainability Reporting Standards issued by the Global Reporting Initiative (GRI).

#### Management's responsibilities

CNOOC's management is responsible for preparing the Key Information of ESG Report in accordance with the criteria above, in all material respects. This responsibility includes designing, establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, so that such key information is free from material misstatement due to fraud or error.

#### EY's responsibilities

Our responsibility is to express a conclusion on the presentation of the Key Information of the ESG Report based on the evidence we have obtained. We conducted our engagement in accordance with the *International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ('ISAE 3000'), and the terms of reference for this engagement as agreed with CNOOC on 20 December 2022. The standard requires that we plan and perform our engagement to express a conclusion on whether we are aware of any material modifications that need to be made to the Key Information in order for it to be in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error. We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

#### Our Independence and Quality Control

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

#### Description of procedures performed

Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance. Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Key Information and related information, and applying analytical and other appropriate procedures.

Our procedures included:

- 1) Interview the relevant departments involved in providing the Key Information
- 2) Implement analysis procedures
- 3) Carry out sampling inspection on the Key Information
- 4) Recalculate

#### Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that need to be made to the Key Information of ESG Report, in order for it to be in accordance with the Criteria.



# Reporting Guide Index

## ESG Reporting Guide Index

Aspects	General Disclosures and KPIs	Locations in the Report	External Verification
Mandatory Information Disclosure	Board Statement	P01	—
	Materiality	P08	—
	Quantification	Report Information	—
	Consistency	Report Information	—
	Scope of Reporting	Report Information	—
A1 Emissions	General Disclosure relating to air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P58-P64	Yes
	A1.1 The types of emissions and respective emissions data.	P58-P64	Yes
	A1.2 Direct (Scope 1) and indirect energy (Scope 2) greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P60	Yes
	A1.3 Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P64	Total hazardous waste verified
	A1.4 Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P64	Total non-hazardous waste verified
	A1.5 Description of emission target(s) set and steps taken to achieve them.	P58-P64	Yes
	A1.6 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	P63-P64	Yes
A2 Use of Resource	General Disclosure Policies on the efficient use of resources, including energy, water and other raw materials.	P55-P57	Yes
	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	P55-P56	Yes
	A2.2 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P57	Yes
	A2.3 Description of energy use efficiency initiatives and target(s) and steps taken to achieve them.	P55-P57	Yes
	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	P57	Yes
	A2.5 Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	The Company's nature of business indicates that there are no packaging materials involved	—
A3 The Environment and Natural Resources	General Disclosure Policies on minimizing the issuer's significant impacts on the environment and natural resources.	P49-P66	Yes
	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P51-P54 P65-P66	Yes
A4 Climate Change	General Disclosure Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	P53-P54	—
	A 4.1 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	P53-P54	—
B1 Employment	General Disclosure relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P69-P72 P77-P78	Yes
	B1.1 Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	P69-P71	Yes
	B1.2 Employee turnover rate by gender, age group and geographical region.	P71	Yes

Aspects	General Disclosures and KPIs	Locations in the Report	External Verification
B2 Health and Safety	General Disclosure relating to providing a safe working environment and protecting employees from occupational hazards. (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P41-P48	Yes
	B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	P44	Yes
	B2.2 Lost days due to work injury.	P44	Yes
	B2.3 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P41-P48	Yes
B3 Development and Training	General Disclosure Policies on improving knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid for the employer.	P73-P77	Yes
	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P76	Yes
	B3.2 The average training hours completed per employee by gender and employee category.	P75-P76	Yes
B4 Labor Standards	General Disclosure relating to preventing child and forced labor: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P69	Yes
	B4.1 Description of measures to review employment practices to avoid child and forced labor.	P69	Yes
	B4.2 Description of steps taken to eliminate such practices when discovered.	The Company has a low risk of child labor employment and forced labor. Therefore, there is no need to develop remedial measures in response to violations.	Yes
B5 Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.	P31,P37-P38	Yes
	B5.1 Number of suppliers by geographical region.	P37	Yes
	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	P37-P38	Yes
	B5.3 Description of practices used to identify environmental and social risks along the supply chain and how they are implemented and monitored.	P31,P37-P38	—
	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P37	—
B6 Product Responsibility	General Disclosure relating to health and safety, advertizing, labelling and privacy matters relating to products and services provided and methods of redress: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P32-P36	Yes
	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	The Company's nature of business indicates that there is no recall for safety and health reasons.	—
	B6.2 Number of products and service-related complaints received and how they are dealt with.	P33	Yes
	B6.3 Description of practices relating to observing and protecting intellectual property rights.	P36	Yes
	B6.4 Description of quality assurance process and recall procedures.	P33	Yes
	B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	P33	Yes
B7 Anti-corruption	General Disclosure relating to bribery, extortion, fraud and money laundering: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	P27-P28	Yes
	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	P28	Yes
	B7.2 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P27-P28	Yes
	B7.3 Description of anti-corruption training provided to directors and staff.	P28	Yes
B8 Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	P81-P88	Yes
	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	P81-P88	Yes
	B8.2 Resources contributed (e.g. money or time) to the focus areas.	P81-P88	Yes

## TCFD Recommended Disclosures Index

TCFD recommended disclosures	Locations in the Report / Reasons for omission
<b>Governance</b> Disclose the organization's governance around climate-related issues and opportunities	
a) Describe the Board's oversight of climate-related risks and opportunities	P01
b) Describe management's role in assessing and managing climate-related risks and opportunities	P27
<b>Strategy</b> Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy and financial planning	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	P51-P54
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning	P51-P54
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios	—
<b>Risk Management</b> Disclose how the organization identifies, assesses and manages climate-related risks	
a) Describe the organization's processes for identifying and assessing climate-related risks	P27,P51-P54
b) Describe the organization's processes for managing climate-related risks	P27,P51-P54
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management	P27
<b>Metrics and Targets</b> Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities	
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	P51-P54
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks	P54
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	P51-P54

International Petroleum Industry Environmental Conservation Association (IPIECA) Sustainability Reporting Guidance Index

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## Index to the Ten Principles of the United Nations Global Compact

Scope	The Ten Principles of the UN Global Compact	Disclosure Index
Human Rights	The Company should support and respect internationally recognized human rights	P69-P72
	The Company should pledge not to collude with human rights abuses	P69-P72
Labor Rights	The Company should support freedom of association and effective recognition of collective bargaining rights	P72
	The Company should eliminate all forms of forced and compulsory labor	P69
	The Company should eliminate the use of child labor	P69
	The Company should eliminate discrimination in employment and occupation	P69-P70
Environmental Protection	The Company should support a preventive approach to environmental challenges	P51-P52,P65-P66
	The Company should take initiatives to promote more environmentally responsible practices	P13-P18,P51-P66
	The Company should encourage the development and dissemination of environmentally friendly technologies	P13-P18,P51-P66
Implementation of Anti-corruption Principles	The Company should strive against all forms of corruption, including extortion and bribery	P21,P24



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