



The Ports for ALL

中遠海運港口有限公司
COSCO SHIPPING Ports Limited



Sustainability Report 2019
**Enhancing Quality
for Sustainable
Development**







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CHAPTER 1

ABOUT THIS REPORT

COSCO SHIPPING Ports and its subsidiaries (the “Subsidiaries”) as well as its joint ventures and associates (the “Non-controlling Terminals”) are committed to integrating sustainability into our long-term business strategy, and actively optimising our management approach and performance related to key environmental, social and governance topics. This report is designed to provide a timely, accurate and comprehensive account with an annual update on our sustainability work to various stakeholders and sectors of our society. While continuing to expand our terminal business globally, we are also active in responding to the United Nations Sustainable Development Goals (the “SDGs”), fulfilling our corporate social responsibility as well as establishing and maintaining strong relationships with our diverse stakeholder base built on mutual trust and support.

FEEDBACK

Please feel free to share your comments and suggestions on this report or our sustainability performance with us. Contact details are as follows:

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REPORTING STANDARD

This report, prepared in accordance with the “Core” option of the Global Reporting Initiative (the “GRI”) standards, complies with all the “comply or explain” provisions under the Environmental, Social and Governance Reporting Guide (the “ESG Reporting Guide”) set out in Appendix 27 to the Rules Governing the Listing of Securities of The Stock Exchange of Hong Kong Limited (the “SEHK”), with reporting in line with all recommended disclosures from the ESG Reporting Guide.



REPORTING SCOPE

This report describes the environmental, social and governance performance and progress of the Group for the period from 1 January to 31 December 2019, and provides historical data for comparison where applicable. For the year ended 31 December 2019, the Group had a total of 16 Subsidiaries and 31 Non-controlling Terminals. The 13 Subsidiaries and 12 Non-controlling Terminals covered by this report are the major profit contributors of the Group¹, with their throughput accounting for approximately 60.5% of the Group's total throughput in 2019.

INDEPENDENT VERIFICATION

This report has been verified by Hong Kong Quality Assurance Agency ("HKQAA"), an independent third party, to ensure the accuracy and reliability of information. The verification statement is set out on page 124.

ENDORSEMENT AND APPROVAL

This report was endorsed and approved by the board of directors of COSCO SHIPPING Ports in March 2020.

ACCESS TO THIS REPORT

This report is published as an electronic PDF and can be downloaded from the website of COSCO SHIPPING Ports: <https://ports.coscoshipping.com/en/Sustainability/ReportsonSustainability/>.



Note:

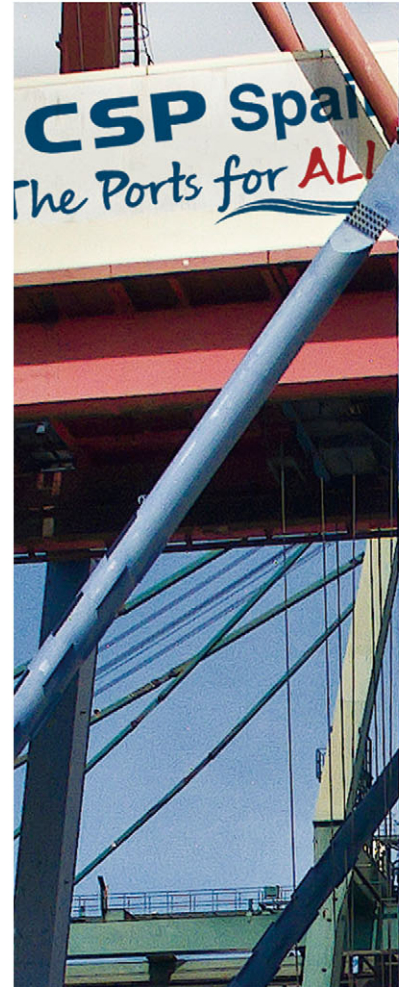
- 1 As compared with previous reporting years, slight adjustment has been made to the list of terminals covered in this report. For the list of terminals covered in the reports and our shareholdings in respective terminals, please refer to page 10 of our 2017 Sustainability Report, page 14 of our 2018 Sustainability Report and page 14 of this report.

CHAPTER 2

CHAIRMAN'S MESSAGE

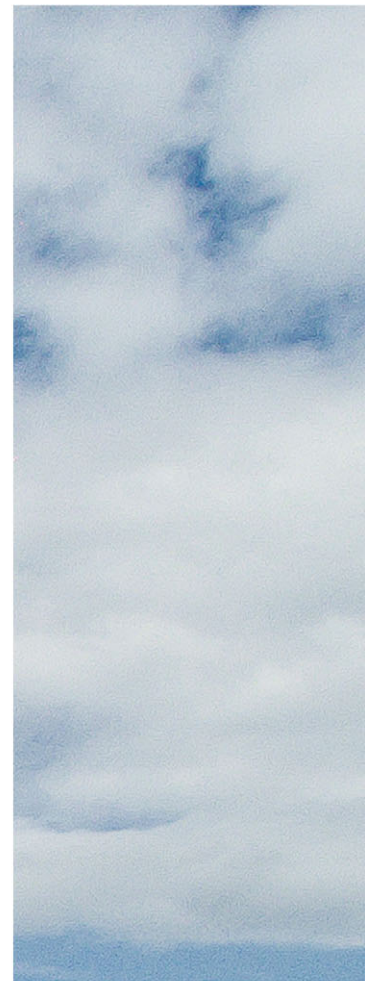


FENG Boming
Chairman



As a leading global ports operator, expanding business network and providing quality services are indeed the top priorities of COSCO SHIPPING Ports. Nonetheless, we value the sustainability of our business and strive to promote business innovation and long-term development with an aim to creating lasting value and shared benefits for our stakeholders. Looking ahead, we will further facilitate and enhance initiatives in respect of sustainable development, and endeavour to set ourselves as a role model in the ports and shipping industry.

I am pleased to present the Sustainability Report 2019 of COSCO SHIPPING Ports to provide an update regarding our performance in sustainable development. As usual, we have proactively enhanced our efforts in strengthening governance and corporate social responsibility by integrating the concepts of economic, environmental and social sustainability into daily management and operation to continuously optimise our business roadmap with an aim to creating value for our investors, customers, business partners along the industry chain, employees and communities as a whole.



To generate lasting value, it is of vital importance that our business could be sustained. In order to be well-positioned to establish a sound and sustainable business model, we have proactively strengthened cooperation along the industry chain and driven innovation so as to keep abreast of market trends and to cater to the needs of our customers in a comprehensive manner. In 2019, we coordinated some terminals to participate in the second China International Import Expo, demonstrating their respective strategic advantages and encouraging exchange and cooperation with the representatives

of the industry chain around the globe in order to jointly establish a shipping ecosphere with mutual benefits. Meanwhile, we motivated strategic cooperation between our terminals and communication technology companies to pursue joint research and development in the areas covering the implementation of 5G technology and cloud computing at ports. We strive to improve our operational efficiency to enhance our competitiveness, reinforcing our leading position in the market.

CHAPTER 2
CHAIRMAN'S MESSAGE

Amid macro challenges, we recognise the importance of maintaining a high standard of corporate governance and honouring our commitments to uphold environmental and social governance while pursuing business expansion, and advocating the establishment of world-class ports with mutual benefits as our objective, in order to maintain our leading position in the industry. Therefore, "The Ports for ALL" not only is our core value to drive business development, but also our commitment to fulfil corporate responsibilities. As a global ports operator, climate change is closely related to our terminal business. We have embarked on exploring the issues of climate change and strive to reduce carbon emissions and raise energy efficiency, minimising possible impacts on the environment arising from our operations. We are evaluating the financial and other risks or opportunities related to climate change in order to enhance COSCO SHIPPING Ports' capability

to address risks in a more comprehensive manner, achieving sustainable business development in the environmental aspect.

The safety of our employees and smooth terminal operations are of utmost importance to the Group. During the year, we proactively conducted safety-related trainings and strengthened safety management regulations to optimise risk management system, ensuring our emergency response in a timely and proper manner and minimising the impact on our business and employees. Amid the novel coronavirus outbreak in early 2020, we proactively safeguard the safety and health of our employees and prevent the risk of transmission by mobilising our employees to take responsive measures, including dynamic reporting mechanism regarding disease prevention, work from home arrangement and regular disinfection



at workplace. In addition, while ensuring routine operations of our terminals, we have developed a “green lane” for facilitating the efficiency of incoming and outgoing vessels and delivery to ensure that protective equipment and emergency supplies could arrive at relevant regions at the earliest. We endeavour to work together with our upstream and downstream partners in disease prevention and control.

COSCO SHIPPING Ports is delighted that its efforts in driving sustainable development are widely recognised by the market. During the year, we received several awards, including but not limited to “ESG Report of the Year Awards – Middle Market Capitalization”, “Best in ESG Awards – Middle Market Capitalization” and “Best in Reporting Awards – Middle Market Capitalization” by BDO Limited; “Titanium Award in Environmental, Social and Governance” by The Asset magazine; and “Most Innovative Port Operator Hong Kong 2019” and “Best

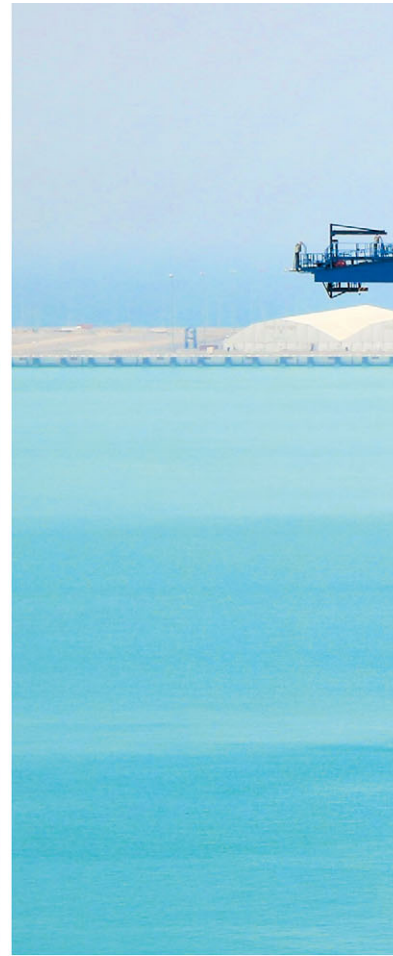
Investor Relations Company Hong Kong 2019” by Finance Derivative. Looking ahead, we will maintain our efforts and continue to enhance information disclosure, as well as participate in more international sustainability ratings to gain stakeholder and market recognitions.

In view of lingering uncertainties in the global economy, it is anticipated that we will encounter different challenges when executing our business strategies in the future. However, we are determined to work together with all stakeholders to generate lasting and shared value and to contribute to the prosperity of the ports and shipping industry.

FENG Boming
Chairman

CHAPTER 3

MANAGING DIRECTOR'S MESSAGE

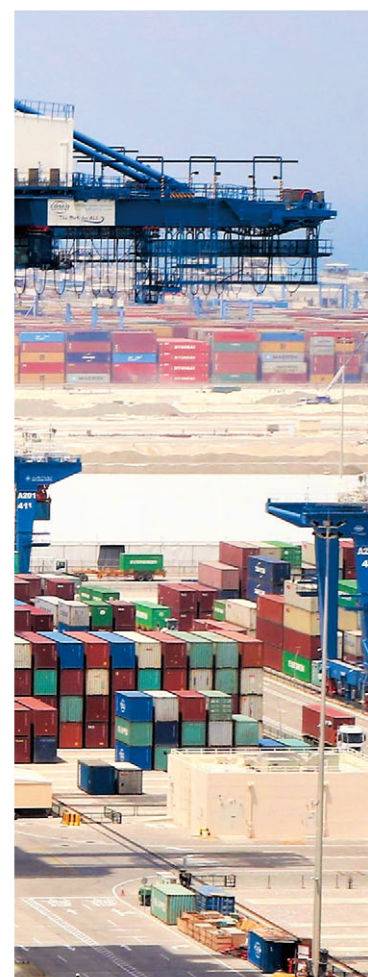
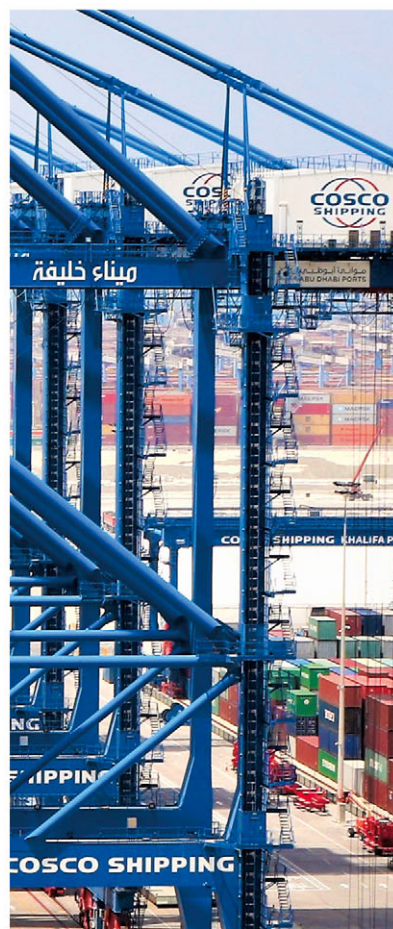
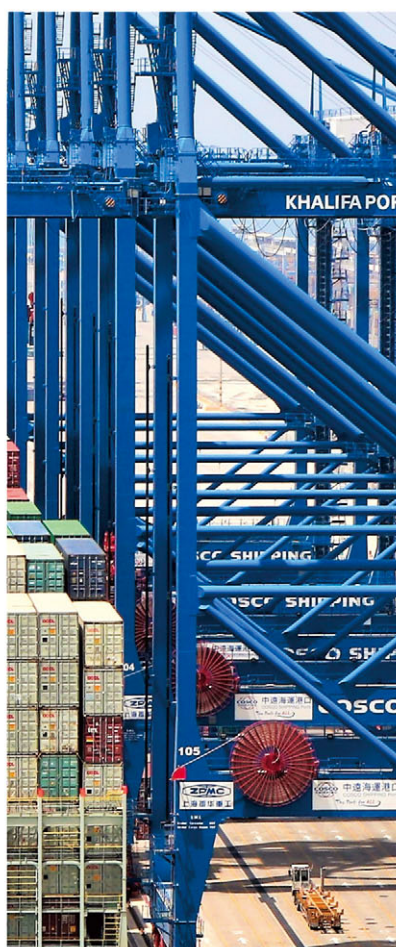
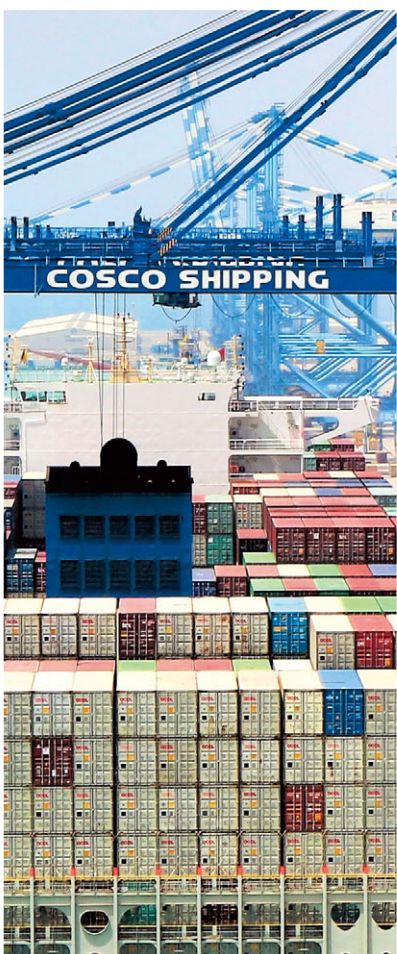


ZHANG Dayu
Managing Director



Sustainable development has become an important reference indicator for investors and customers to measure the success and reliability of an enterprise. In order to maintain its competitive advantages, COSCO SHIPPING Ports has continued to uphold the principles of sustainable development, namely caring for our people, customers first, green development, win-win cooperation and investing in communities. In the course of business development, we strive to maintain a high level of corporate governance and shoulder the responsibilities of environmental and social governance, with an aim to becoming "The Ports for ALL" by creating value for stakeholders.

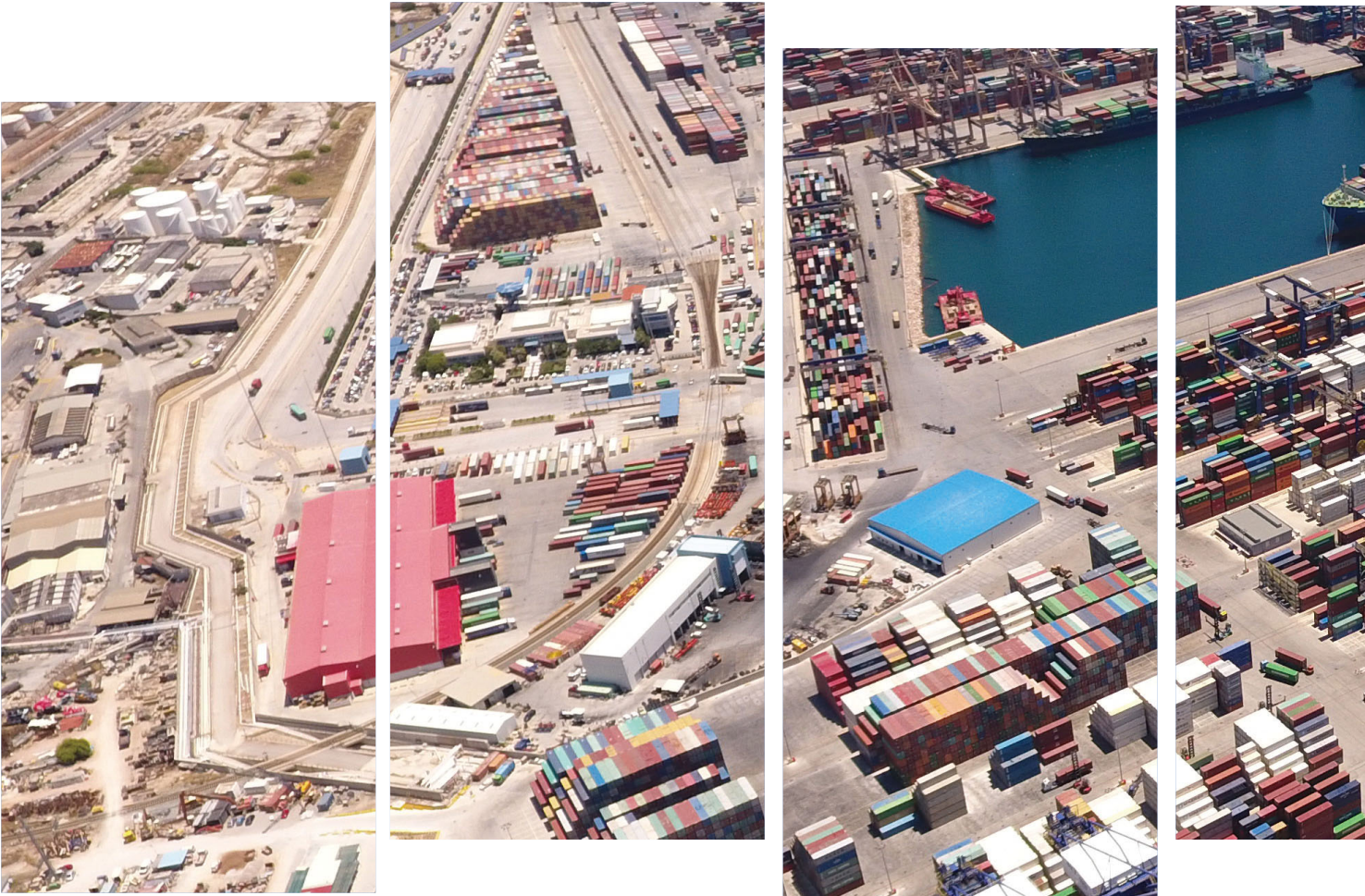
2019 was an important year for COSCO SHIPPING Ports. Despite the uncertainties in the macro-economic environment, we proactively developed our business by optimising our global terminal network and enhancing synergies. A team of quality and efficient staff is the cornerstone to the success of the Group's business. During the year, we fully supported our employees to receive trainings in relation to business operations, operating systems and overseas duties to enhance their professionalism in performing their duties as well as maintaining their physical and mental well-being. In addition, we also proactively created employment opportunities for female staff at the terminals to promote gender equality at workplace.



In terms of terminal projects, the acquisition of CSP Chancay Terminal project was officially completed in May 2019, which further expanded our business profile to South America. We will proactively dedicate the Group's resources and advantages to introduce shipping companies and the logistics industry chain to Port of Chancay, so that it can grow into a key gateway port in Latin America, and the most important logistics centre along the Pacific Coast. CSP Abu Dhabi Terminal has been contributing to our throughput upon its commencement of official operations in the fourth quarter and is expected to become an important container gateway port and hub of ports in the Middle East in the future. We

will continue to identify quality investment projects in order to better serve shipping companies and shipping alliances with a more comprehensive terminal network, and become the most competitive ports operator in the world.

We acknowledge that sustainable development is indeed a great responsibility. While we facilitate project implementation, more efficient systems and innovative technologies must be applied to improve the operational efficiency and service quality of our terminals, and to ensure their long-term development. We deployed the Navis N4 system at CSP Zeebrugge Terminal and Lianyungang New Oriental Terminal

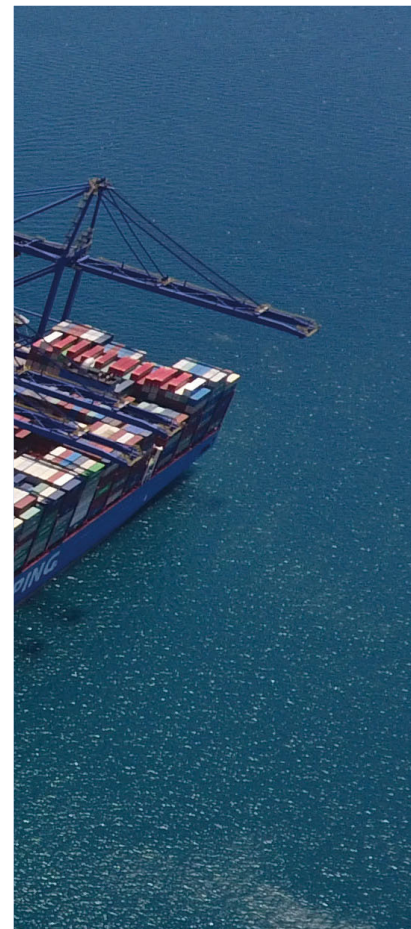
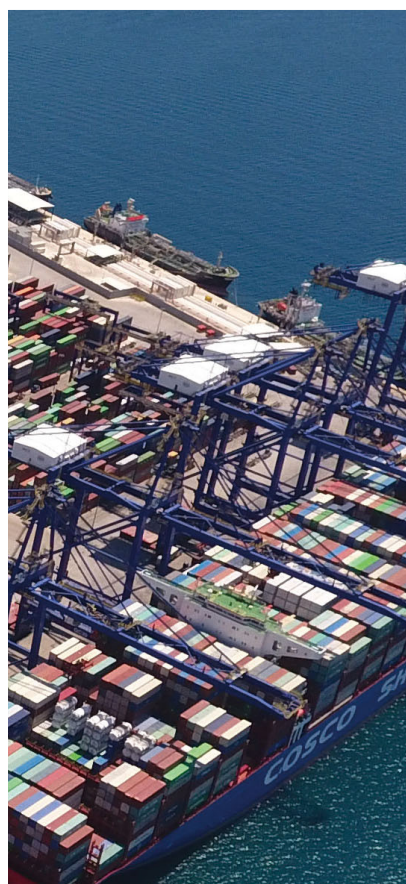
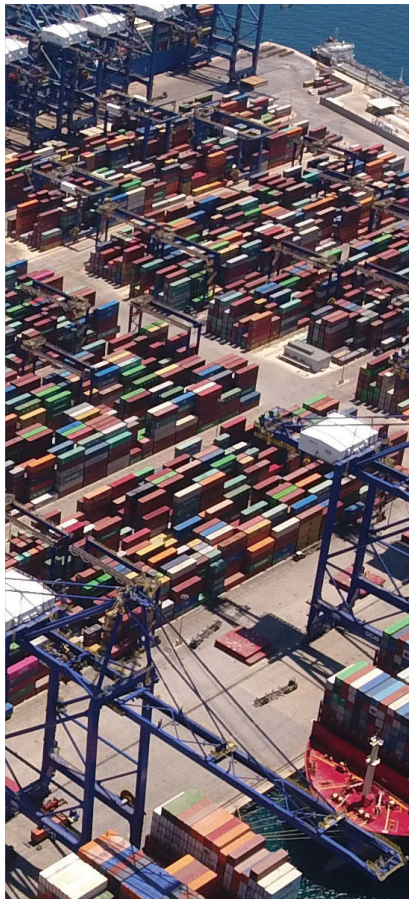
CHAPTER 3
MANAGING DIRECTOR'S MESSAGE

in July and December 2019, respectively, and plan to gradually cover all of our subsidiaries in the next three to four years to reduce costs in the long run, and further enhance the operational efficiency of the terminals.

Amid the challenges from global energy crisis and climate change, green ports are the development trend of the ports and shipping industry. We are committed to building a clean and low-carbon energy consumption system at ports to promote green development. During the year, we continued to facilitate green development at our terminals, including optimising environmental governance-

related policies, increasing the coverage of shore power systems, promoting "diesel-to-electric" conversion of rubber tyre gantry cranes, enhancing conservation of resources, and conducting drills against typhoons in order to minimise the impact of our daily operations on the environment and increase energy efficiency.

In the course of continuing business expansion, we have been actively fulfilling our corporate civic responsibilities by giving back to society, and realising mutual development of the Group and the society. We encourage the staff of the headquarters and terminals to actively care for the society through sponsorships,



donations and volunteer services, and contribute to poverty alleviation, environmental protection and education in the local communities. In 2019, COSCO SHIPPING Ports was awarded the "Caring Company" logo by the Hong Kong Council of Social Service as a recognition of our commitment to corporate social responsibility. We will continue to take concrete actions, diversify collaborations and work together to build a better future.

Looking forward to 2020, COSCO SHIPPING Ports will continue to drive sustainable development in the areas of employees, customers, industry chain partners and communities, so as to create positive and sustainable value for investors and stakeholders, and build a sustainable future.

ZHANG Dayu
Managing Director

CHAPTER 4

ABOUT COSCO SHIPPING PORTS

Corporate Overview

COSCO SHIPPING Ports is one of the world's leading ports operators, with a portfolio covering the five major port regions in Mainland China, Southeast Asia, Middle East, Europe, South America and the Mediterranean. As of 31 December 2019, COSCO SHIPPING Ports operated and managed 290 berths at 36 ports worldwide, of which 197 were for containers, with a total designed annual handling capacity of approximately 113 million TEUs.

With "The Ports for ALL" as its mission, the Company is committed to building a global terminal network with controlling stake that offers linkage effect on costs, services and synergies, creating a win-win platform that delivers maximum value across the shipping industry chain, connecting global routes and becoming truly "the ports for all people".

COSCO SHIPPING Ports' intermediate holding company is COSCO SHIPPING Holdings Co., Ltd. (stock code: 1919) whose ultimate holding company, China COSCO SHIPPING Corporation Limited, is the largest integrated shipping enterprise in the world.



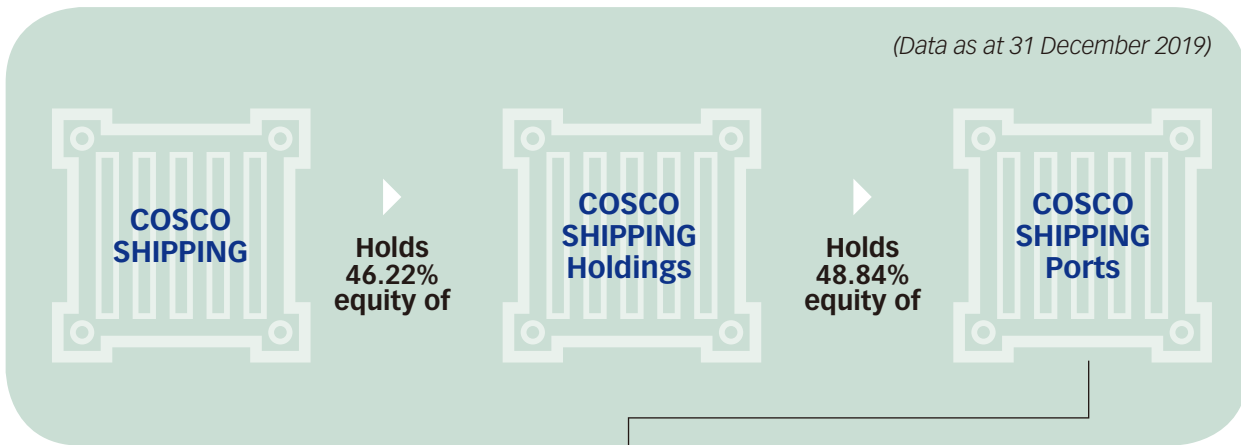


中遠海運港口
COSCO SHIPPING PORTS
The Ports For ALL

ZPMC
中遠重工

CHAPTER 4
ABOUT COSCO SHIPPING PORTS

(Data as at 31 December 2019)

25 TERMINALS WITHIN THE SCOPE OF THIS REPORT²

Subsidiaries		Non-controlling Terminals	
China	Shareholdings (%)	China	Shareholdings (%)
1. Quan Zhou Pacific Terminal	82.35	1. Asia Container Terminal	60.00
2. Jinjiang Pacific Terminal	80.00	2. COSCO-HIT Terminal	50.00
3. Xiamen Ocean Gate Terminal	70.00	3. Yingkou New Century Terminal	40.00
4. CSP Wuhan Terminal	70.00	4. Yingkou Container Terminal	50.00
5. Lianyungang New Oriental Terminal	55.00	5. Shanghai Pudong Terminal	30.00
6. Jinzhou New Age Terminal	51.00	6. Shanghai Mingdong Terminal	20.00
7. Nantong Tonghai Terminal	51.00	7. Ningbo Yuan Dong Terminal	20.00
8. Guangzhou South China Oceangate Terminal	39.00	8. Dalian Container Terminal	19.00
		9. Yantian Terminals ⁴	13.36-14.59
		10. Guangzhou Nansha Stevedoring Terminal	40.00
Overseas		Overseas	
9. Piraeus Terminal (Greece)	100.00	11. COSCO-PSA Terminal (Singapore)	49.00
10. CSP Zeebrugge Terminal (Belgium)	85.00	12. Kumport Terminal (Turkey)	26.00
11. CSP Abu Dhabi Terminal (United Arab Emirates)	90.00		
12. CSP Valencia Terminal (Spain) ³	51.00		
13. CSP Bilbao Terminal (Spain) ³	39.78		

Notes:

- The full names of the terminals are set out on pages 126-127.
- CSP Valencia Terminal and CSP Bilbao Terminal are collectively called CSP Spain Group.
- Including Yantian Terminal Phases I, II and III.



CORPORATE VISION

COSCO SHIPPING Ports completed its reorganisation in 2016 and established five-year development goals and three major strategies:

● Globalisation

Building a global terminal network with controlling stake that offers linkage effects on costs, services and synergies

● Synergy

Leveraging the synergies with COSCO SHIPPING and the OCEAN Alliance to strengthen its service capability to serve shipping alliances

Establishing close partnerships and maintaining good relationships with port groups, terminal operators and international liner companies to maximise synergies and value

● Control

Integrating our existing terminals portfolio and increasing the value of these investments through building controlling stakes; increasing our influence in entire ports through equity investments in port groups; and adopting a unified management and operating system to integrate terminal operations

During the reporting year, the Group continued to speed up the terminal extension business. In April 2019, the Group signed an investment agreement with Guangzhou Nansha Economic and Technological Development Zone Commercial Bureau to invest in the supply chain base project of COSCO SHIPPING Ports in Nansha District, Guangzhou, with a view to build up a port supply chain platform, develop mid to high-end warehousing and related business, and extend to upstream and downstream industries. In May 2019, the acquisition of CSP Chancay Terminal project was officially completed, enabling the Port of Chancay to become the first greenfield project in South America in which the Group has controlling stakes as it works to develop the port into an important gateway to the continent.



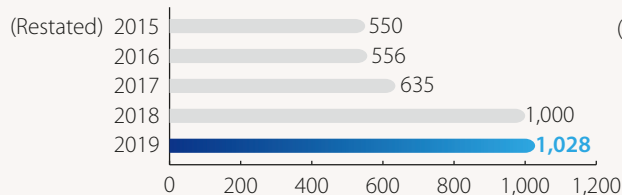
The Group operated and managed 290 berths at 36 ports worldwide, of which 197 were for containers, with a total designed annual handling capacity of approximately 113 million TEUs.

- Domestic and overseas terminal network: 16 Subsidiaries and 31 Non-controlling Terminals

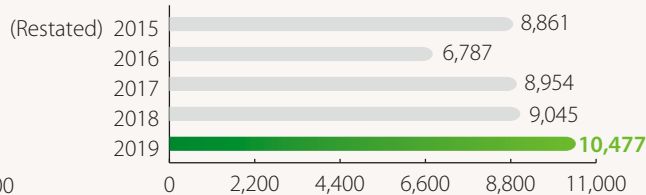
The Group is committed to optimising the execution of its strategy and actively implementing its five-year strategic goals to achieve a 50% rise in total assets, a 60% increase in equity throughput and an 100% increase in net profit from continuing operations by 2021. Although the changing global macro and financial environment provided major economic concerns in 2019, the Group still benefited from its synergy with major shipping alliances and its parent company which increased the berthing at the Group's container terminals. Coupled with low-interest rates, this brought certain support to the Group's business, with total throughput up during the year.

2019 PERFORMANCE HIGHLIGHTS

Revenue (US\$ million)



Total Assets (US\$ million)



GLOBAL TERMINAL NETWORK





CHAPTER 4
ABOUT COSCO SHIPPING PORTS



TOTAL THROUGHPUT

123,784,335 TEU

GLOBAL TERMINAL NETWORK

- 16 subsidiaries and 31 joint ventures and associates
- We operated and managed 290 berths, of which 197 were for containers, with a total designed annual handling capacity of approximately 113 million TEU.

**OVERSEAS
TOTAL THROUGHPUT**

27,994,483 TEU

	Throughput (TEU)		Throughput (TEU)
Piraeus Terminal	5,158,626	Euromax Terminal	2,792,987
CSP Zeebrugge Terminal	483,601	Kumport Terminal	1,281,850
CSP Spain Group	3,585,276	Suez Canal Terminal	3,161,084
CSP Abu Dhabi Terminal	386,258	Antwerp Terminal	2,109,308
COSCO-PSA Terminal	5,011,091	Seattle Terminal	204,068
Vado Reefer Terminal	54,430	Busan Terminal	3,765,904

CHAPTER 4
ABOUT COSCO SHIPPING PORTS

GREATER CHINA

(MAINLAND CHINA, HONG KONG AND TAIWAN)

TERMINAL NETWORK

Bohai Rim	
40,659,612 TEU	
	Throughput (TEU)
QPI	21,010,000
Dalian Container Terminal	8,525,291
Dalian Dagang Terminal	22,006
Tianjin Euroasia Terminal	2,860,127
Tianjin Five Continents Terminal	1,906,220
Tianjin Container Terminal	2,568,105
Yingkou Terminals	2,380,569
Jinzhou New Age Terminal	770,037
Qinhuangdao New Harbour Terminal	617,257

Yangtze River Delta	
20,238,468 TEU	
	Throughput (TEU)
Shanghai Pudong Terminal	2,550,390
Shanghai Mingdong Terminal	6,160,365
Ningbo Yuan Dong Terminal	3,010,164
Lianyungang New Oriental Terminal	2,819,448
Zhangjiagang Terminal	657,849
Yangzhou Yuanyang Terminal	500,599
Nanjing Longtan Terminal	3,000,506
Taicang Terminal	403,307
Nantong Tonghai Terminal	1,135,840

Southeast Coast and Others	
5,783,821 TEU	
	Throughput (TEU)
Xiamen Ocean Gate Terminal	2,061,341
Quan Zhou Pacific Terminal	1,588,589
Jinjiang Pacific Terminal	498,846
Kao Ming Terminal	1,635,045

Pearl River Delta	
27,469,330 TEU	
	Throughput (TEU)
Yantian Terminals	13,069,120
Guangzhou Terminals	11,333,019
Hong Kong Terminals	3,067,191

Southwest Coast	
1,638,621 TEU	
	Throughput (TEU)
Qinzhou International Terminal	1,638,621

GREATER CHINA TOTAL THROUGHPUT

95,789,852 TEU



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ABOUT COSCO SHIPPING PORTS

OUR APPROACH TO SUSTAINABILITY

COSCO SHIPPING Ports regards sustainable development as the cornerstone of corporate development. We are committed to being “The Ports for ALL” as per our corporate philosophy and will continue to expand our global business presence. As we work towards our five-year business development goals, we work hard to integrate sustainability elements into every aspect of our daily operations. We also fulfil our commitment as an environmentally and socially responsible company through our business decision-making in the local communities where we operate, and strive to create long-term value for our shareholders, customers, employees, supply chain partners as well as communities.

The United Nations SDGs encourage institutions to take active actions on health and well-being, environmental protection and social development. COSCO SHIPPING Ports fully supports sustainability issues in the international community. Since 2018, the Group has started to align its major initiatives with the United Nations SDGs, and has identified the following five goals as the most influential, integrating them into the Group’s five key areas of sustainable development.

SDGs of Our Concern

	Ensure inclusive and equitable quality education and lifelong learning opportunities for all
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
	Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
	Take urgent action to combat climate change and its impacts
	Strengthen the means of implementation and revitalize the global partnership for sustainable development



CHAPTER 4
ABOUT COSCO SHIPPING PORTS



AWARDS AND HONOURS

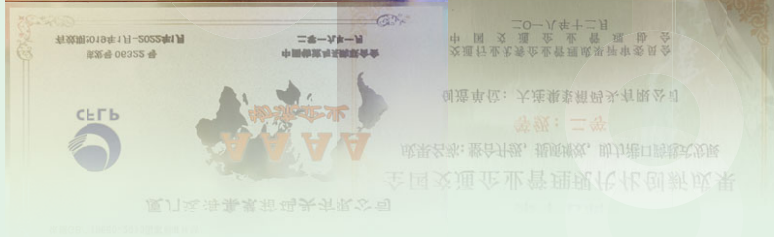
COSCO SHIPPING Ports

- Awarded “Titanium Award in Environmental, Social and Governance” by *The Asset* magazine
- Awarded “Corporate Website Gold Prize” by Galaxy Awards
- Awarded “2019 InnoESG Prize” by InnoESG
- Awarded “Best Mid-Cap ESG Report Commendation”, “Excellence in Environmental Disclosure Commendation”, “Excellence in Social Disclosure Commendation” and “Innovative Frontrunner Award Commendation” under the Mid-Cap category by *Alaya Consulting*
- Awarded “Most Innovative Port Operator Hong Kong 2019” and “Best Investor Relations Company Hong Kong 2019” by Finance Derivative
- Awarded “Annual Report – Silver Prize”, “Annual Report Photography – Bronze Prize” and “Annual Report Interior Design – Bronze Prize” under shipping category in 2019 ARC Awards
- Awarded “Best Port Operator 2019” by *Business Tabloid Magazine*
- Awarded “Winner – Compliance Team” and ranked as one of the “Highly recommended – Aviation, Shipping & Logistics Teams” by *Chinese Business Law Journal*
- Awarded “Compliance Legal Team of the Year 2019” by In-House Community, a community of in-house legal and compliance professionals
- Awarded “Best Investor Relations Company” for eighth consecutive year and was first awarded “Asia’s Best CEO (Investor Relations)” by *Corporate Governance Asia* magazine
- Awarded “Outstanding China Enterprise Award” by *Capital* magazine for eighth consecutive year
- Awarded “Most Innovative Port Operator” by *International Finance* for the second consecutive year
- Awarded “Best Port Operator” under shipping sector by *International Business* magazine for the second consecutive year and “Best Investor Relations Company (Shipping Sector)” for the first time
- Awarded “Best Container Operator of the Year” and “Best Investor Relations Ports Company” under transportation sector for the second consecutive year by *Global Business Outlook*
- Awarded “Best in ESG Awards – Middle Market Capitalization”, “Best in Reporting Awards – Middle Market Capitalization” and “ESG Report of the Year Awards – Middle Market Capitalization” by BDO ESG Awards 2019
- Awarded the “Shipping History of the Great Nation” during Global Trade and International Logistic Summit 2019

Terminals

- **The dispatch team of CSP Abu Dhabi Terminal** was awarded the title of “Ocean Character” for 2019 (2019年「海洋人物獎」) by the Ministry of Natural Resources
- **Piraeus Terminal** was awarded True Leader from Greece’s ICAP for the third consecutive year
- **Jinzhou New Age Terminal:**
 - Awarded the title of “Model Staff Family” for 2019 (2019年度「模範職工小家」) by Liaoning Federation of Trade Union
 - Awarded the title of “National Exemplary Youth Unit” (全國青年文明號) by the Central Committee of the Communist Youth League of China
- **Nantong Tonghai Terminal** was awarded the honour of “Pioneer Workers” (工人先鋒號) by the Trade Union of Haimen Development Zone (海門市開發區工會)
- **Guangzhou Nansha Stevedoring Terminal:**
 - Awarded “Top 10 Container Terminals for Integrated Services” of China Freight Industry Golden Wheel Award (中國貨運業金輪獎綜合服務 – 十佳集裝箱碼頭) by China Shipping Gazette together with China Communications and Transportation Association
 - Awarded “Guangzhou Harmonious Labour Relationship Enterprise AA Level” (廣州市勞動關係和諧企業AA級) by Guangzhou Municipal Human Resources and Social Security Bureau, Guangzhou Federation of Trade Unions, Entrepreneurs Association (企業家協會) and Guangzhou Federation of Industry and Commerce
- **Xiamen Ocean Gate Terminal:**
 - Awarded the title of “AAAA Logistics Enterprise” (AAAA物流企業) by China Federation of Logistics and Purchasing

CHAPTER 4
ABOUT COSCO SHIPPING PORTS



- Awarded the title of “AA Enterprise in terms of Corporate Credit of Ports and Shipping Enterprises in Xiamen” (廈門港航企業信用考評AA級企業) by Xiamen Port Authority
 - Its Staff Union was awarded the title of “Five-Star Home of Staff” (五星職工之家) for the Year of 2018 by Xiamen City
 - Awarded the title of “Domestic Container Terminal with Throughput of More Than 2 million TEU in China” (中國港口集裝箱吞吐量超200萬標箱集裝箱碼頭) by China Ports & Harbours Association
 - Its automated terminal operations centre was awarded the title of “Advanced Central Enterprise” (中央企業先進集體) jointly by the Ministry of Human Resources and Social Security and the State-owned Assets Supervision and Administration Commission of the State Council
 - The “Heroine Team” (巾幗班組) of its automated operations was awarded the title of “Civilised Female Employment in the Province of Fujian” (福建省巾幗文明崗) by Fujian Federation of Women (福建省婦女聯合會)
 - Awarded the title of “Company Adopting Advanced Technology in Xiamen 2019” (2019年廈門市技術先進型服務企業) by Xiamen Science and Technology Institution, Xiamen Municipal Bureau of Finance, Xiamen Tax Service, Xiamen Municipal Bureau of Commerce and Xiamen Municipal Development and Reform Commission
 - Awarded the title of “Advanced Unit in Anti-terrorism and Anti-illegal Migration 2019” (2019年度反恐反偷渡先進單位) by the Frontier Inspection Station of Haicang District in Xiamen
 - Its “Home of Seafarers” (海員之家) was awarded a plaque by the Office of Tripartite Mechanism of Maritime Labour in China (全國海上勞動關係三方協調機制辦公室)
 - Awarded the title of Outstanding Unit in terms of Container Ports for Exports in the Province of Xiamen (福建省口岸『百強十優』外貿集裝箱碼頭泊位優勝單位) by the Department of Commerce of Fujian and the Port Office of Fujian
- **COSCO-HIT Terminal and Asia Container Terminal:**
 - Awarded “Good MPF Employer” by Mandatory Provident Fund Schemes Authority
 - Awarded “Caring Company” logo by The Hong Kong Council of Social Service
- **Dalian Container Terminal:**
 - Awarded “Innovative Port Terminal” and “Top 10 Container Terminals for Integrated Services” (綜合服務十佳集裝箱碼頭), and was the only enterprise awarded the “Best Container Terminal for Collection and Distribution Services” (最佳集疏運服務集裝箱碼頭) in the 16th China Freight Industry Golden Wheel Award (中國貨運業金輪獎) by *China Shipping Gazette*
 - Awarded “Most Inspiring Case Study in China” by the Ministry of Commerce and the “Best Achievement in Management and Innovation in China” in the 12th China Conference on Management Science by the Chinese Academy of Management Science, respectively, as recommended by Dalian Area of Liaoning Pilot Free Trade Zone in light of its very first equity consolidation project among the container terminal companies in China and its value in driving industry transformation, innovation and development
 - **Kumport Terminal** was awarded the “2019 Green Port” certificate by the Ministry of Transport, Maritime and Communications of Turkey
 - **Shanghai Pudong Terminal:**
 - Awarded “2018 Shanghai Exemplary Unit for Safety” (2018年度上海市平安示範單位) by the Political and Legal Affairs Committee of the CPC Shanghai Municipal Committee
 - Awarded “2017–2018 Shanghai Civilized Unit” (2017–2018年度上海市文明單位) by Shanghai Municipal People’s Government
 - Awarded “2018 Outstanding Economic Contribution Award in Pudong New Area” (2018年度浦東新區經濟突出貢獻獎) by the People’s Government of Pudong New Area of Shanghai Municipality
 - Awarded the title of “Domestic Container Terminal with Throughput of More Than 2.6 million TEU in China” (中國港口集裝箱吞吐量超260萬標箱集裝箱碼頭), “Domestic Container Terminal with Throughput of More Than 2,000 TEU per Meter Shoreline in China” (中國港口每米岸線吞吐量超2,000標箱集裝箱碼頭), and “Top 10 Container Terminals with the Least Power and Fuel Consumption per TEU in China” (中國港口每標箱消耗電力和燃油最低前10名集裝箱碼頭) by China Ports & Harbours Association

CHAPTER 4
ABOUT COSCO SHIPPING PORTS

MEMBERSHIPS AND CHARTERS

Institution Name*	Position
International Investors Association (YASED)	Corporate capacity
Istanbul Marmara Ege Akdeniz Karadeniz (IMEAK) Chamber of Shipping	Corporate capacity
Istanbul Minerals and Metals Exporters Association (IMMIB)	Corporate capacity
Transport, Logistics and Supply Chain Services in Turkey (UTIKAD)	Corporate capacity
Turkish Marine Environment Protection Association (TURMEPA)	Corporate capacity
Turkish Quality Association (KalDer)	Corporate capacity
UNIPORT, ACBE	Member
Work Safety Association of Shanghai Pudong New Area (上海市浦東新區安全生產協會)	Member
Shanghai Institute of Navigation	Director
Containerization Magazine of Shanghai Maritime University	Director
Shanghai Pudong Modern Logistics Industry Association (上海浦東現代物流行業協會)	Member
Shanghai Port Association (上海港口協會)	Member
Shanghai Fireworks Transportation Association for Foreign Trade	Member
China Association of Port-of-Entry	Director
China Institute of Navigation	Director
Seamen of China Magazine	Member
China Shipping Gazette	Director
China Ports & Harbours Association – Containers	Vice Chairman
China Ports & Harbours Association	Vice Chairman
Council of Maritime China (《中國遠洋海運》理事會)	Director
COSCO SHIPPING Charity Foundation	Director
National Technical Committee on Port of Standardization Administration of China	Committee member
Istanbul Chamber of Commerce	Corporate capacity
Quanzhou Container Association	Vice Chairman
The Chamber of Hong Kong Listed Companies	Member
Business Environment Council	Board of Director
Special Equipment Association (特種設備協會)	Director
Lianyungang Port Holding Group Association for Science and Technology	Director
Standardization Administration of China	Committee member
xmrc.com.cn	Member
Xiamen Logistics Association	Vice Chairman
Xiamen Container Transportation Association	Vice President
Xiamen Ports Association	Vice President
Council of Containerization Magazine	Vice President
Professional Committee for Safety of Container Association Branch (集裝箱協分會安全專業委員會)	Member
Guangzhou Nansha District Enterprise Federation (廣州市南沙區企業聯合會)	Director

* Listed in order of stroke-count of each organisation's Chinese name.





CORPORATE GOVERNANCE

As a leading ports operator in the world, well-established corporate governance is the cornerstone for us to build business integrity, enhance investor confidence and manage risks properly. COSCO SHIPPING Ports strives to maintain high corporate governance and ethical standards to ensure accountability, transparency, professionalism and well-governed management, and actively embraces corporate social responsibility to safeguard the interests of stakeholders and society at large.

Structure

The board of directors of our Company (the "Board") shoulders the overall management responsibility, leads and supervises the group affairs collectively, and ensures sustainable long-term business development through pragmatic business strategies as well as proper allocation of resources. The Board comprises 4 executive directors, 2 non-executive directors and 4 independent non-executive directors. Each member of the Board strictly complies with all applicable laws and regulations with integrity and endeavours to act in the best interests of the Group and stakeholders.

The Board has set up seven committees, including the Executive Committee, the Audit Committee, the Remuneration Committee, the Nomination Committee, the Corporate Governance Committee, the Investment and Strategic Planning Committee and the Risk Management Committee. Each committee specifies in writing its terms of reference and its relevant powers and responsibilities to assist the Board in performing duties and strengthening effective management.

According to the *Board Diversity Policy*, when appointing directors, we fully consider various objective conditions of the candidates, including but not limited to gender, age, skills, cultural background, knowledge and professional experience, adequately taking into account the structure, size and diversity of the Board, to ensure that directors can complement each other and monitor the operations of the Group in a comprehensive manner.

For details of corporate governance and composition of the Board, please refer to the section headed "Board of Directors" set out in the "Corporate Governance Report" in the *2019 Annual Report* of COSCO SHIPPING Ports.

CHAPTER 4
ABOUT COSCO SHIPPING PORTS

Risk Management

To achieve sustainable business development goals, we must actively understand, analyse and respond to potential risks in each business segment. The Board shoulders the responsibility of risk management and authorises the Risk Management Committee to monitor and review the risk management system of the Group. Our risk management structure is based on the “three lines of defence” and is integrated into business activities. Our system is established with reference to nationally and internationally recognised guidelines⁵, and covers five areas, namely company strategy, market, finance, law and operations, to strengthen the prevention of various risks.

For details of our risk management principles, major risks and mitigation measures of relevant risks, please refer to the section headed “Risk Management and Internal Control” set out in the “Corporate Governance Report” in the *2019 Annual Report*.

Anti-corruption

COSCO SHIPPING Ports operates in accordance with the principle of high integrity and business ethics standards and has a “zero-tolerance” policy to prevent corruption and bribery in any form. To ensure that our staff maintains a high level of integrity and code of conduct, the Company has prepared an *Employee Handbook* which clarifies the principles and requirements of anti-corruption. During the year, we organised training seminars on integrity and honesty. The Independent Commission Against Corruption of Hong Kong was invited to provide training for the staff of our Hong Kong headquarters and Hong Kong Terminals, introducing anti-corruption regulations, issues on conflict of interest and anti-corruption methods that employees of listed companies should pay attention to, so as to enhance corporate integrity management and strengthen self-discipline consciousness of staff.

Furthermore, the Group has *Staff Whistleblowing Policy* applicable to the headquarters and its Subsidiaries, which standardises the acceptance and handling of reports on corruption or unethical activities and the investigation process, and specifies the investigation authority and relevant powers. If any suspected violation of business ethics is found, employees may report confidentially to prevent any fraudulent or illegal acts that harm the interests of the Group.

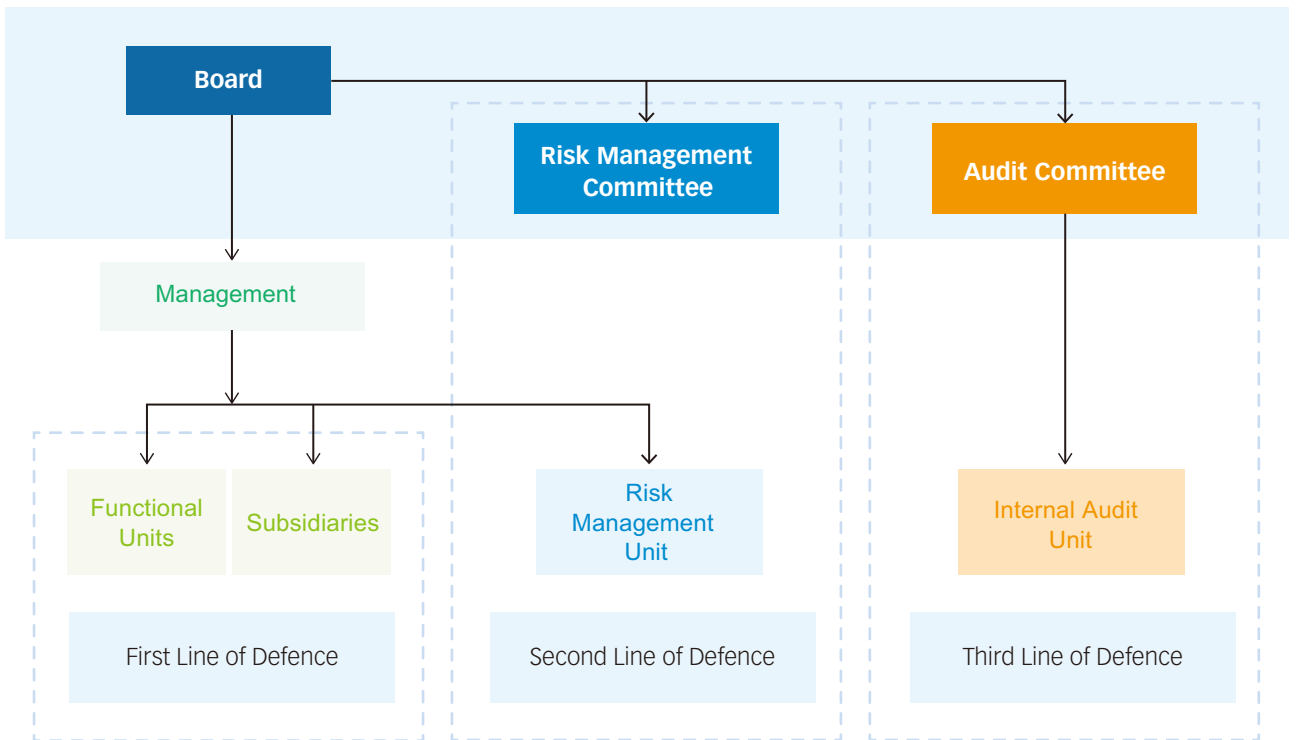
The Group’s headquarters and its Subsidiaries require all interested suppliers to sign the *Supplier’s Undertaking Against Commercial Bribery* at the tendering stage. This helps ensure that all business partners understand and comply with the Group’s business ethics requirements, thus striving to maintain an open and competitive environment for fair cooperation.

Note:

- 5 Including the COSO framework issued by the Committee of Sponsoring Organisations of the Treadway Commission of the US (the COSO Committee of the US), the *State-owned Enterprises Comprehensive Risk Management Guidance* issued by the State-owned Assets Supervision and Administration Commission of the State Council, *Basic Rules on Internal Control* and supporting guidelines issued by five ministries including the Ministry of Finance of the PRC, and the guidance on internal control and risk management issued by the Hong Kong Institute of Certified Public Accountants.



Risk Management Structure



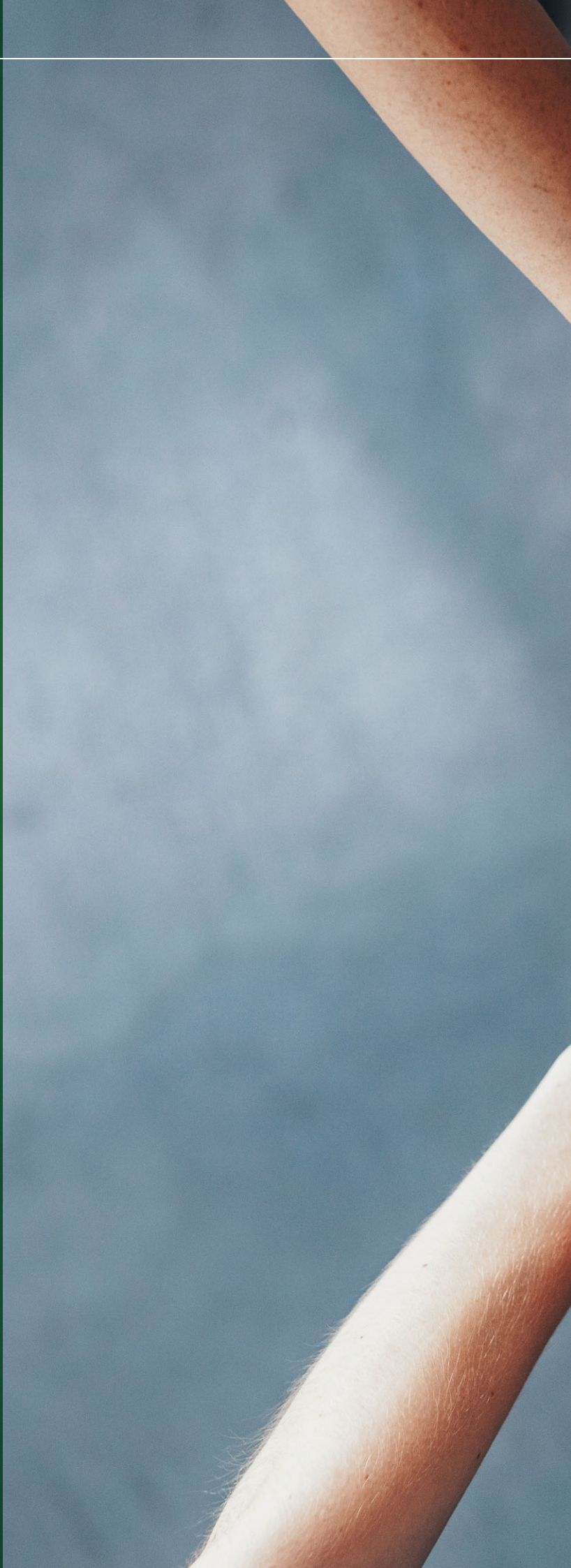
Risk Management Procedures



CHAPTER 5

STAKEHOLDER ENGAGEMENT AND MATERIALITY ASSESSMENT

The Group actively communicates with stakeholders through diverse channels and platforms to seek their valuable feedback on our sustainable development strategies, goals and daily operations, and to provide sound backing for existing and future changes and developments in management measures.





CHAPTER 5 STAKEHOLDER ENGAGEMENT AND MATERIALITY ASSESSMENT



KEY STAKEHOLDERS AND REGULAR ENGAGEMENT

The table below outlines our regular engagement with key stakeholders in daily operations:


Stakeholder groups	Objectives	Channels
 Customers	Proactively share industry prospects and development strategies, establish long-term customer relationships with mutual trust and listen to customers' feedback for continuous improvement	Customer satisfaction surveys, service hotlines, instant messaging software, meetings, business visits, promotion activities and forums
 Employees	Value employees' opinions to review our people-oriented employee policy, as well as attract and retain talents to support the Group's long-term development	Company website, internal newsletters "The Ports News", the Company's WeChat official account, briefings, meetings, labour unions, corporate promotional brochures and community activities
 Shareholders and investors	Maintain close communication with shareholders and investors and understand their concerns to improve their understanding of the financial and non-financial performance, results and future development direction of the Group	Meetings, roadshows, investor conferences, company website, corporate communications (including but not limited to financial reports, sustainability reports, circulars and press releases) and general meetings
 Suppliers	Ensure that the suppliers understand and grasp the Group's policies and requirements to improve service quality and assist the Group in performing its social responsibility	Tender meetings, contract and agreement negotiations, regular assessments, business exchanges and seminars
 Governments and regulators	Comply with the requirements of governments and regulators and actively understand their policies and priorities in respect of sustainable development to fulfil corporate social responsibility	Subject-specific reports, information submission and forums
 Community and environmental representatives	Establish good relationships with the community and environmental representatives, maintain sound reputation, and master and respond to different environmental and social risks	Company website, the Company's WeChat official account, corporate promotional brochures, briefings and meetings

OUR RESPONSES TO STAKEHOLDERS

COSCO SHIPPING Ports conducts regular communication with stakeholders to understand their views on the Group’s sustainability performance during the year and expectations. In 2019, we commissioned a professional consultant to engage stakeholders (including the Group’s headquarter staff, customers, suppliers, shareholders and investors) for their views on 22 material topics via audio conference. The purpose of this is to understand the main concerns of stakeholders, as well as their views and expectations on the Group’s performance concerning sustainability, and assess the importance of each topic. The table below summarises stakeholder feedback and our responses:

Issues on sustainability	Issues raised by stakeholders and expectations	The Group’s responses
 <p>Economic Performance</p>	<ul style="list-style-type: none"> • Integrate digitalisation and automation technologies into the operation and planning of terminals, improve operation efficiency and maintain competitiveness • Apply multimodal transportation of shipping and rail transportation to provide diversified logistic solutions for customers • Promote the development of ports and shipping networks through a globalisation strategy 	<p>The Group is committed to becoming the world’s leading ports operator. The Group seizes investment opportunities worldwide through advanced technologies to create advantages for the ports and shipping network. During the year, the Group welcomed and embraced the era of smart ports. Xiamen Ocean Gate Terminal has applied technologies such as 5G, Internet of Things and cloud computing to provide a more efficient and modernised service.</p> <p>Moreover, the Group expanded the scale of multimodal transportation demonstration projects during the year by facilitating structural adjustments, energy saving and emissions reduction, and improvement in transportation performance in Jinjiang Pacific Terminal, Quan Zhou Pacific Terminal and CSP Wuhan Terminal.</p> <p>The Group continues to hold customer promotional events to introduce the development strategy and planning of overseas terminals to existing and potential customers.</p> <p style="text-align: right;">For more details, please refer to Chapter 7 – Customers First and Chapter 8 – Green Development.</p>
 <p>Corporate Governance</p>	<ul style="list-style-type: none"> • Enhance corporate transparency and strengthen the confidence of shareholders and investors • Optimise the management of overseas terminals and maintain good relationship with local governments and employees 	<p>The Group continues to disclose its governance structure, management approach and sustainability-related information and maintains high-level and transparent corporate governance to allow stakeholders to fully understand the Group’s operation management direction.</p> <p>The Group highly values the strategic development of overseas terminals, actively promotes exchanges between overseas and domestic terminals, and complies with the requirements of local governments and regulators in respect of environmental protection and labour protection, actively performing its corporate social responsibility.</p> <p style="text-align: right;">For more details, please refer to Chapter 4 – About COSCO SHIPPING Ports and the section headed “Corporate Governance Report” set out in the 2019 Annual Report of COSCO SHIPPING Ports.</p>

CHAPTER 5
STAKEHOLDER ENGAGEMENT AND MATERIALITY ASSESSMENT

Issues on sustainability	Issues raised by stakeholders and expectations	The Group's responses
 <p>Employees</p>	<ul style="list-style-type: none"> • Create a healthy and safe working environment to prevent accidents • Provide management training and career opportunities for young employees to attract and retain talents 	<p>Safety management is the basis of terminal operations. The Group has developed a comprehensive safety management approach, put in place relevant measures for domestic and overseas terminals to ensure the safety of all terminal workers, and cares for the physical and mental health of employees. During the year, CSP Valencia Terminal of CSP Spain Group was awarded with the "Empresa Saludable" certificate.</p> <p>In respect of talent development, the Group provides professional knowledge and technical training for newly-recruited and young employees. During the year, Guangzhou South China Oceangate Terminal and Guangzhou Nansha Stevedoring Terminal revised the <i>Administrative Measures for Professional and Technical Talents</i> to foster the nurturing of professional talents and relevant incentive mechanism.</p> <p>For more details, please refer to Chapter 6 – Caring for our People.</p>
 <p>Environment</p>	<ul style="list-style-type: none"> • Actively manage and monitor the carbon emissions and environmental pollution at terminals, and explore more green ports solutions • Study the operational risks of terminals arising from climate change to prevent incidents caused by extreme weather 	<p>The Group has integrated the idea of green development into operational practices and continues to facilitate the development of green technology, and requires its terminals to report environmental performance data to the headquarters. Automation technology significantly improves terminals' operation as efficiency and reduced energy consumption and carbon emission. "Diesel-to-electric" conversion and shore power systems at terminals can reduce sulphur emission and marine pollution (For example, the shore power system of Xiamen Ocean Gate Terminal has achieved complete coverage during the year; while Jinzhou New Age Terminal has completed the construction of "diesel-to-electric" cranes).</p> <p>In addition, during the year, the Group has identified a series of risks and opportunities related to climate change, and improved emergency response capabilities against typhoons by upgrading infrastructure and optimising operating procedures and the level of crisis management.</p> <p>For more details, please refer to Chapter 8 – Green Development.</p>

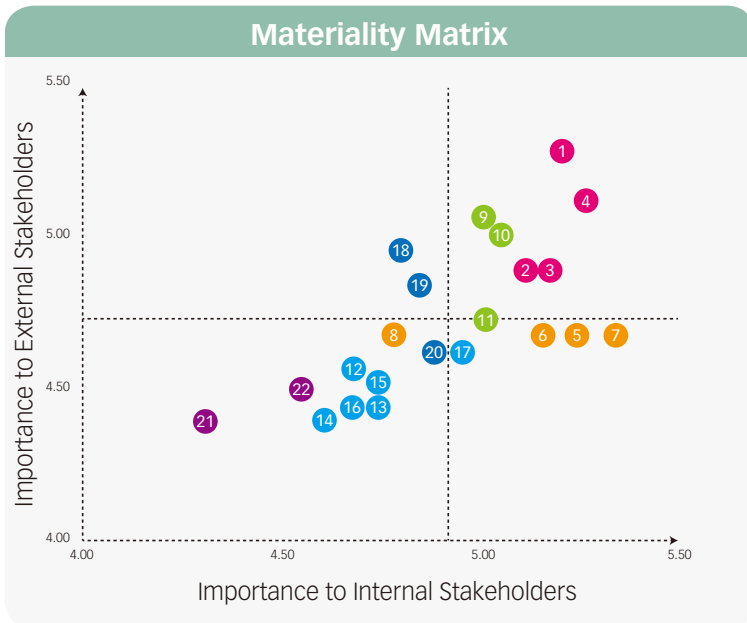
Issues on sustainability	Issues raised by stakeholders and expectations	The Group's responses
 <p>Supply Chain Management</p>	<ul style="list-style-type: none"> • Explore strategic cooperation between upstream and downstream players in the shipping industry and establish new projects with mutual benefits 	<p>The Group values industry chain cooperation and actively promotes all parties to establish a “global shipping ecosphere”. To construct smart ports, COSCO SHIPPING Ports signed strategic cooperation agreement on 5G technology with communication technology companies to jointly study the application of basic communication, 5G smart application and cloud computing in terminal operations. During the year, CSP Spain Group, CSP Abu Dhabi Terminal and CSP Zeebrugge Terminal all participated in the Second China International Import Expo (“CIIE”), and exchanged views with industry chain representatives around the globe to promote port and shipping cooperation, terminal and terminal cooperation and capital cooperation.</p> <p>For more details, please refer to Chapter 9 – Win-win Cooperation.</p>
 <p>Community</p>	<ul style="list-style-type: none"> • Invest in local communities to promote employment and regional development 	<p>As a responsible corporate citizen, the Group establishes good relationships with communities where it operates and supports local communities through donations and volunteer activities. Apart from donations made by COSCO SHIPPING Ports to COSCO SHIPPING Charity Foundation, Guangzhou South China Oceangate Terminal, Piraeus Terminal, Dalian Container Terminal and Yingkou Terminals also donated to local organisations, respectively.</p> <p>In addition, the Group also brings sustainable value to the communities through creating local job opportunities and establishing facilities. For example, CSP Spain Group participated in an employment forum held by the local port authority to assist students in understanding the management and operations of the port industry.</p> <p>For more details, please refer to Chapter 10 – Investing in Communities.</p>

CHAPTER 5 STAKEHOLDER ENGAGEMENT AND MATERIALITY ASSESSMENT

Materiality Assessment

In 2018, we identified a total of 22 of the most important issues on sustainability through conducting a materiality assessment, and developed the following materiality matrix after analysis.

In 2019, we communicated with different groups of stakeholders, reviewed the trend of macro sustainable development related to industry and operational areas to identify the issues on sustainability which are required to be specifically disclosed in this report. After a new round of materiality assessment, we reviewed the 22 material topics reported in the *2018 Sustainability Report* and confirmed that they are still applicable. For the scope and boundary of the material topics, please refer to Chapter 11 – Appendices – Boundary Mapping of Material Topics.



Material Topics

- 1 Compliance
- 2 High standards of corporate governance
- 3 Risk management
- 4 Anti-corruption
- 5 Building a team of excellence
- 6 Emphasis on talent training and development
- 7 Maintaining a healthy and safe workplace
- 8 Fostering a diversified and inclusive culture
- 9 Optimising terminal operations
- 10 Improving customer services
- 11 Deepening globalisation strategy

Material Topics

- 12 Energy management and GHG emissions
- 13 Waste management
- 14 Climate Change
- 15 Water resources and water quality management
- 16 Air quality
- 17 Improving staff's environmental awareness
- 18 Responsible procurement
- 19 Strengthening strategic cooperation
- 20 Enhancing safety in outsourcing businesses
- 21 Caring for local communities
- 22 Responsible overseas investment





CHAPTER 6

CARING FOR OUR PEOPLE

A diversified team of professionals is the cornerstone to the success of COSCO SHIPPING Ports, which allows us to efficiently implement the global strategic layout, enhance our competitiveness and strengthen our leading position in the market. In order to enable our employees to stay mentally and physically sound at work, we actively build up a quality working environment that is inclusive, equal and safe, and support the balance between work and life. We also continuously invest resources in trainings and development opportunities with an aim to growing together with our employees.

Key Issues in Sustainability



Building a Team of Excellence



Emphasis on Talent Training and Development



Maintaining a Healthy and Safe Workplace



Fostering a Diversified and Inclusive Culture





SWL UNDER SPREADER 65T
SWL UNDER CARGO BEAM 100T

NOORD ZEE

ZPMC



CHAPTER 6
CARING FOR OUR PEOPLE**PERFORMANCE HIGHLIGHTS IN 2019**

The Group had a total of 10,432 employees, consisting of 321 employees from the headquarters, 3,921 employees from our Subsidiaries, and 6,190 employees from our Non-controlling Terminals⁶.

Total Workforce by Gender

Male 9,158

87.8%

Female 1,274

12.2%**Total Workforce by Employee Category****170**

Managerial Position

**658**

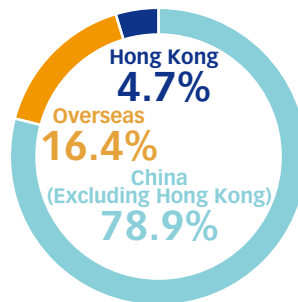
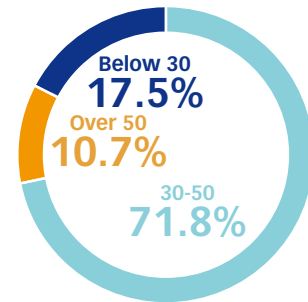
Supervisory Position

**9,604**

General Position



The total number of hours of trainings received by employees amounted to **14,476** hours.

Total Workforce by Geographical Location**Total Workforce by Age Group**

Note:

- 6 For more detailed employee statistics, please refer to Chapter 11 – Appendices – Key Performance Indicators in this report.







MANAGEMENT APPROACH

Employees with integrity, professionalism, rigour and self-discipline are the basis for driving the success of the Group. We strictly comply with the laws and regulations in relation to employment, diversity and occupational health and safety in the places where we operate⁷, and formulate internal policies and regulations related to human resources which are mandatory for the headquarters and our terminals. We care about our employees' rights and interests. We do not tolerate discrimination and prohibit child or forced labour, so as to demonstrate our commitment in respecting human rights. During the year, the Group has not been convicted for violating laws and regulations in relation to discrimination, child labour, forced labour and other related matters which would have any potential material impacts.

In order to maintain a high level of ethical character and professional conduct and ensure the Group operates with the best practices, we have the *Human Resources Management Guidelines* and *Employee Handbook* in place to provide guidelines for staff behaviour. Our terminal companies are also required to optimise their own human resources management based on their respective operations and objectives in accordance with the Group's management approach.

Strategies and Targets

The Group adheres to its people-oriented principles and is committed to establishing and nurturing a conscientious, professional, efficient and innovative team. We focus on:

- 
Attracting talents
 - Adhere to the recruitment principles of fair selection and recruitment, and attract talents from diverse channels
- 
Staff benefits
 - Proactively safeguard staff interests and provide competitive remuneration packages
- 
Diversity and inclusiveness
 - Promote equality, diversity and respect for human rights, and foster an inclusive corporate culture
- 
Open communication
 - Encourage internal communication and increase staff engagement to facilitate a harmonious labour relations
- 
Talent training
 - Provide diversified trainings to assist employees in skill enhancement, encourage self-enhancement, and set up systematic progression pathways
- 
Occupational safety and health
 - Continuously optimise the safety management mechanism and establish a safe and healthy culture based on the principle of "safety first, precaution-oriented"

Note:

⁷ Including the *Labour Law of the People's Republic of China* and the labour legislation of Hong Kong.

CHAPTER 6 CARING FOR OUR PEOPLE

ATTRACTING TALENTS

A well-established system of talent selection and equal opportunities are the key to recruiting talents. We adhere to the recruitment principles of fair selection and recruitment, comprehensive assessment, and selection of quality calibre which are purely based on the competence indicators such as personal abilities, experience, qualifications, expertise, vision and performance in order to attract quality talents. We provide competitive remuneration packages and incentives which are linked to the performance of employees, so as to enhance staff motivation in achieving the Group's business objectives.

To maintain the competitive edge of COSCO SHIPPING Ports as the leading global ports operator, the Group reviews its recruitment strategies based on the business performance, socioeconomic conditions and industry development from time to time, and attract outstanding talents via various channels, for example:

- Job fairs
- Media platforms such as advertisements and the Internet
- Recruitment agencies
- Recruitment of fresh graduates from major universities and institutions
- Internal selection

In 2019, we continued to recruit under the management trainee programme to cultivate young and outstanding talents for the Group. All management trainees underwent intensive training and served rotary internships to different departments and terminals to gain professional knowledge in different fields, acquire practical work experience, and develop an in-depth understanding about the Group's business and operations.

STAFF BENEFITS

We value the welfare of our staff and provide competitive remuneration and benefits, including paid leaves, statutory social insurance, medical insurance and study subsidy, etc. For employees working in the Mainland China, considering that they live separately from their families for a long time, we specifically grant leaves for family visit so that they can reunite with their spouses or parents every year.

To ensure that staff remuneration is linked to their respective performance, the Group implements a comprehensive appraisal system to assess our headquarters' staff and terminal designees based on multiple performance and competence indicators. We also arrange for our senior management and department heads to conduct two-way performance review with our staff, and jointly discuss potential improvement and future development direction. The open appraisal system is the important basis for human resources planning and implementation such as year-end bonus, pay adjustment, position review and training and development. The Group also reviews its internal remuneration level and benefits from time to time with reference to other factors including market wages with an aim to retaining outstanding staff.

In addition, to build a competitive and outstanding team that facilitates business development, we have a comprehensive promotion and position review system in place to promote outstanding staff based on their appraisal results; or change their positions based on our business needs or their respective abilities.

In 2019, the turnover rate of the Group's headquarters decreased to 3.7% from 6.3% in 2018.

DIVERSITY AND INCLUSIVENESS

The Group advocates the value of equality, diversity and inclusiveness, providing equal opportunity to all job seekers and existing employees. It will by no means be affected by their age, gender, race, religion, nationality or other factors. The Group has zero tolerance to discrimination of any forms and unfair treatment, and expects all employees to appreciate, care for and respect each other.

A New Era for Women in the Ports Industry

Due to the relatively high requirement for manual labour in traditional terminal operations, work teams might generally be dominated by male. However, we have been actively taking various measures to encourage female employment to demonstrate team diversity. Amid the rapid development of the Group’s terminal business and technology, automatic system has facilitated job transformation. A number of terminals under the Group are establishing female teams in order to realise gender equality in the workplace.

- We endeavour to encourage more female employees to take up leading positions. Not only will it generate innovative thinking for the Group, but it also enables them to tap into their potential and fully exercise their strengths. In April 2019, **CSP Abu Dhabi Terminal**, the first overseas greenfield project in which COSCO SHIPPING Ports has controlling stake, was successfully put into trial operations., thanks to the female leader with extensive experience who held the important position of chief director of the engineering construction project, leading the team to study and research domestic and overseas terminal cases as well as organising experts in the industry for conferences to study each segment of an automated terminal. The Group proactively supports female role models to be set up and we anticipate more female employees will be given the chance to give their best at work.
- **Xiamen Ocean Gate Terminal** has adopted an automatic system which transforms some operations into remote control, creating more job opportunities for women. We cultivate female operations teams in an innovative way so as to expand their employment channel in the terminal industry.
- **Lianyungang New Oriental Terminal’s** operations department has commenced to set up “Heroine Team” at the gate, comprising female employees to carry out various inspection and information verification for the entry and exit of containers, ensuring that those works are well-handled at the first checkpoint of the terminal production line.



CHAPTER 6 CARING FOR OUR PEOPLE

OPEN COMMUNICATION

Smooth and effective internal communication helps enhance productivity and optimise work process. We attach great importance to team spirit and strive to maintain an open, two-way and highly transparent communication.

The management of the Group holds meetings with different departments on a regular basis, sharing the latest strategic approaches and important information about our business plans to allow our colleagues serving different functions to understand the Group's overall development progress and future business roadmap. The Group has established a number of communication channels and interactive platforms, including the Intranet and our official WeChat account, allowing our staff to keep abreast of the latest news about the Group and each terminal, with an aim to strengthening internal communication and enhancing staff engagement.

Our staff may air their feedback through a free speech mechanism or labor union whenever they encounter any doubts or difficulties at work, and their opinions and suggestions would be received by the management or heads of relevant departments. We have also established a mechanism for handling grievances, which clearly sets out the procedures to handle complaints, making sure that any potential misconduct would be strictly followed up, thus we would be able to maintain a high level of professional performance through regulating the Group's overall professional conduct and lawful practice.

Awarding Employees and Sharing Results

Quanzhou Pacific Terminal held the third Workers' Congress to provide an opportunity for the management and staff to review the achievements for the previous year, at which the staff with excellent performance or those who had set as good role models were awarded. While striving to expand business, it shared its business results with the staff by increasing wages, social insurance and public housing fund in stages, to recognise their commitment and contribution.



TALENT TRAINING

COSCO SHIPPING Ports actively invests resources in training talents of different levels and functions to support our continuous business development and cope with future challenges. Focusing on the macro blueprint of the global terminal layout, we provide comprehensive operations, management and technical trainings involving different topics of professional knowledge, in order to improve relevant skillsets of our staff and cultivate strategic mindset to keep pace with the steps of our business expansion, which include:

- introduction to containers and container vessels
- main functions of terminal operations and related division of labour
- brief introduction to key operation procedures of container terminals
- simulation training: formulating yard plans
- common machineries at container terminals and their specifications
- comparison between automatic container terminal and traditional container terminal
- key performance indicators of container terminals and their significance

During the year, the Group's headquarters organised or participated in 38 internal trainings and 70 external trainings, accumulating a total of 14,476 training hours and the total number of participants reached 370.

Facilitating development by talent cultivation

Leadership Training

In order to strengthen the competitive edge of our Group, we need more team leaders who are well-equipped with strategic thinking and management capability. In November 2019, the middle and senior management at our headquarters attended a one-week leadership training camp covering subjects such as influence without authority, business sand table simulation and management of emotional stress, to enhance their comprehensive management capabilities.

Professional Knowledge and Skills Training

In order to facilitate the development of smart green ports and our global network, a series of training courses on professional knowledge and skills were held in our headquarters, which helped our staff keep abreast of the latest development trends of the industry and allowed us to maintain the greatest competitive edge in the market.

- **Online Training on Data Report Platform System**

In order to promote the digital development of terminal business, we hosted trainings in Hong Kong and Shanghai in August 2019. During which, the system development team was invited to explain its functions and conduct demonstrations in order to assist relevant staff to master the functions of template collection and data transfer, facilitating data analysis and business decision-making. We also took this opportunity to listen to the participants' opinions, which will be consolidated with user satisfaction level and the actual workflow, with an aim to optimising the phase two development of the system.



- **Training on Navis N4 System**

COSCO SHIPPING Ports has started rolling out Navis N4 system at the **CSP Zeebrugge Terminal** and **Lianyungang New Oriental Terminal** in July and December 2019, respectively. In order to strengthen our subsequent development and future adjustment, trial and maintenance skills, we hosted an extended development training regarding Navis N4 system in March. During which, the coding operations mechanism and practical application were introduced by the experienced Navis training instructors and project implementation consultants. Our in-house research and development capabilities in areas such as business application and customised setting have been enhanced through lectures, demonstrations and practical development, actively cultivating system maintenance-related talents.



CHAPTER 6 CARING FOR OUR PEOPLE

During the year, the headquarters of the Group provided trainings in relation to international sanctions, anti-unfair competition, environmental protection, anti-commercial bribery, inside information and connected transactions to **CSP Chancay Terminal** in Peru and **CSP Abu Dhabi Terminal** and depot. Meanwhile, our terminal companies also provide their staff with comprehensive development and training in accordance with the requirements of the Group and based on their own operation and business needs. During the year, **Guangzhou South China Oceangate Terminal** and **Guangzhou Nansha Stevedoring Terminal** revised the *Administrative Measures for Professional and Technical Talents* to optimise the cultivation of professionals and incentive systems, encouraging the staff to participate in the assessment of professional and technical qualifications or skilled talent grading, and creating a favourable environment and sentiment for the growth of professional and technical personnel. In 2019, our terminals conducted different types of training courses in accordance with the Group's policies, including:

- **CSP Zeebrugge Terminal** and **CSP Spain Group**: legal training
- **Nantong Tonghai Terminal** and **Lianyungang New Oriental Terminal**: capability enhancement courses for middle management
- **Quan Zhou Pacific Terminal**: trainings on English language as well as the prevention of risks against contract execution and completion
- **Guangzhou South China Oceangate Terminal** and **Guangzhou Nansha Stevedoring Terminal**: job duty certificates, quality training on International Organization for Standardization (ISO)

Training on Adaptation of Overseas Assignment

CSP Abu Dhabi Terminal, our first port in the Middle East, commenced trial operation in April 2019. The Group has assigned management and technical personnel to station at the terminal since March 2018, and appointed Ocean Bridge International Ports Management Company Limited to develop an operation maintenance project. Therefore, the Group sent a short-term dispatched team with Qingdao Port to provide short-term support in relation to the commencement of business and subsequent operation of the terminal. In order to assist the designees to quickly adapt to a cross-cultural and multilingual working environment, we provided a 12-day tailor-made training course, covering mainly professional English and business etiquette suitable for local culture, and provided psychological counseling regarding to the overseas assignment. In addition, the designees were particularly reminded to familiarise themselves with local cultures and laws in advance, to pay attention to legal compliance of overseas work, and to draw attention to their own safety while ensuring work safety. The training course also allowed the designees to get familiar with each other, which helped them learn from and support each other while working overseas.



OCCUPATIONAL SAFETY AND HEALTH

Safety management is the most important part in the usual course of business of COSCO SHIPPING Ports. We are committed to enhancing management and strictly managing and controlling the stable operation of equipment to safeguard all the staff working at our terminals. To prevent major safety issues from developing, the Group has developed comprehensive safety management regulations, and implemented safety and risk management-related measures⁸. In 2019, there were a total of 60 work-related injuries concerning our formal employees with a total of 1,957 days of absence of work.

Note:

8 For details relating to our safety performance, please refer to Chapter 11 - Appendices - Key Performance Indicators in this report.

As globalisation develops, the Group has established a comprehensive safety management approach⁹:

Enhancing codification and optimising accountability structure



The Group strictly complies with the laws and regulations¹⁰ of China and the places where it operates, and formulates relevant internal policies and administrative measures in relation to work safety based on its own business operation. In 2019, we revised the *Regulations on Safety Management Responsibility*, setting out that the Group takes the primary and macro-supervision responsibility for the work safety of its headquarters and all Subsidiaries, respectively, and stipulating the respective safety management duties of our management, our work safety committee, our headquarters, our Subsidiaries and our designees in Non-controlling Terminals. Additionally, the Group requires all departments to sign a *Work Safety Responsibility Statement* at the beginning of each year, and incorporates the latest safety goals and requirements into the appraisal of each department. By conducting evaluation on a regular basis and strengthening execution, the implementation of such work safety system can be monitored more effectively.

Setting role model and realising regulatory standards



In order to set a role model in terms of work safety in the port industry, the Group takes the *Standards for Work Safety of Bulk Cargo (Container) Terminal Enterprises in Ports* issued by the Ministry of Transport of the PRC as the basis, and takes Zhangjiagang Terminal, the earliest unit achieving the national Class-1 standard, as the benchmark, leading other terminals to achieve work safety with the experience of establishing a systemic, informative and visualized terminal. At present, out of the 10 terminals in which the Group holds controlling stakes in the PRC, six of them are Class-1 enterprises in terms of work safety, one is Class-2 enterprise, and one is Class-3 enterprise.

Proactively reducing risks through double preventive mechanism



As the safety risks of the terminal companies may vary due to their actual operations, the Group uses the *Four-color Map of Safety Risks* to assist the terminals in identifying safety risks, assessing risk levels and establishing safety risk database according to different operation processes, so as to establish hierarchical management and identify potential safety hazards, and eventually realise a double preventive mechanism.

The Group's safety inspection team regularly monitors the comprehensive safety supervision at the domestic Subsidiaries, and issues the *Notification on Rectification of Potential Safety Hazards* to instruct our terminal companies to give recommendations for rectification. Guided by the Group's *Safety Inspection Plan*, our terminal companies establish a special inspection and mutual inspection mechanism concerning potential safety hazards. The safety responsible personnel at the terminals shall establish a regular inspection mechanism (covering quarterly, monthly and daily safety inspections) focusing on the four aspects including key units, key areas, key positions and key equipment, and form a safety supervisory team to assist in supervision as a third party. If any issue is identified during an inspection, the responsible personnel will conduct an in-depth analysis to rectify the potential safety hazard and re-inspect to eliminate potential safety hazards and root causes of accidents in an attempt to prevent accidents.

Note:

9 For our safety approach and measures relating to outsourcing management, please refer to Chapter 9 - Win-win Cooperation.

10 Including the *Production Safety Law of the People's Republic of China* and the *Occupational Safety and Health Management Regulations of China COSCO SHIPPING*.

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Standardising handling procedures to prevent future accidents



If accident occurs, the Group and its terminals will strictly investigate the causes for discussion and analysis. Upon identifying the causes, the responsible personnel will take measures and actions, such as reviewing manpower arrangement, rearranging equipment, and developing preventive measures, so as to prevent future accidents.

Raising safety awareness through education and trainings



The Group is committed to raising staff awareness of safety, enabling them to fully understand their work safety responsibilities, and strengthening their ability in risk prevention and identification. The Group has continued to organise annual seminar to provide safety education and exchange management experience. During which, experts were invited to interpret national laws and regulations concerning work safety and relevant industry standards, conduct case study and exchange their management experience with our staff. In addition, our terminal companies organise safety drills, simulate accidents and practice contingency plans on a regular basis to enhance the staff's ability in handling emergencies. The Group has also established a shared internal safety platform, on which 10 domestic terminals in which the Group has controlling stakes are divided into 5 groups for the purpose of encouraging mutual visit and exchange, inspection and training, and strengthening information communication among terminals to fully enhance the performance of the Group's safety supervision teams with an aim to jointly building a higher safety level.

CSP Valencia Terminal – the First Port Enterprise in Spain awarded the “Empresa Saludable” Certificate

CSP Valencia Terminal under CSP Spain Group not only strictly complies with international conventions as well as the laws and regulations of the European Union and Spain, but has also adopted measures that exceed statutory requirements and those of the Group, and has formulated rigorous and systematic safety standards. In May 2019, it was awarded the “Empresa Saludable” certificate by the Spanish Association for Standardization and Certification (AENOR) to recognise its efforts in proactively promoting occupational health:

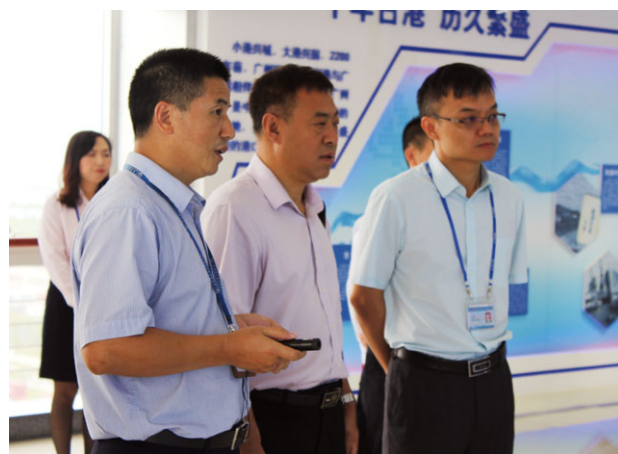
1. Improvement in workplace environment – by carrying out risk assessment on various workplaces, and implementing various measures with the emphasis on improving workplace environment.
2. Health protection for staff – by providing annual health check for staff with additional checkup items based on different job functions; providing occupational health information on a monthly basis and holding healthcare seminars on a regular basis to raise staff awareness of occupational health.
3. Caring for mental health – by conducting staff psychological assessment on a regular basis to understand their respective potential socio-psychological risks and provide counselling accordingly.
4. Participation in charitable and community activities – by having the management lead and encourage the staff to actively participate in local community and charitable activities, not only fulfilling corporate social responsibility, but also facilitating exchanges among staff and connecting to local communities.
5. Better understanding and support from family members – by inviting family members of the staff to participate in corporate activities in different occasions (such as the “World Oceans Day” on 8 June) to enhance their understanding and support towards the work of the staff.



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Exchange Session on Safety Education and Safety Management Experience

The Group hosted an exchange session on safety education and safety management experience in August 2019, which provided the participants with an opportunity to visit Guangzhou Nansha Stevedoring Terminal to understand the development background and current operations of the Port of Nansha. At the seminar, representatives from a number of terminals of the Group exchanged their respective safety management status, and shared their experience on safety management and project safety mechanism, including identification and rectification of potential safety hazards, safety management of construction projects in terms of typhoon resistance, establishment of double prevention mechanism regarding terminal safety, and safety management of general assembly of quay cranes, etc. Subsequently, the domestic Subsidiaries signed the *Agreement on the Joint Establishment of Work Safety* and listened to the management's advices and approach regarding safety management in order to build safe ports together.



Team Building

Work-life balance is one of the keys to promoting the physical and mental health of our staff. During the year, the headquarters and terminal companies of the Group actively organised different types of recreational activities to foster our staff's sense of belonging.



The headquarters of COSCO SHIPPING Ports, Lianyungang New Oriental Terminal, Xiamen Ocean Gate Terminal, Quanzhou Pacific Terminal, Jinjiang Pacific Terminal, Nantong Tonghai Terminal and Guangzhou Terminals formed a total of 11 teams to participate in the second "COSCO SHIPPING Ports Cup" basketball game, allowing some staff to showcase their talent and others to cheer for them, which showed our team spirit. Colleagues who were unable to join in person could watch the live webcast to enjoy the competition.

Xiamen Ocean Gate Terminal hosted an open day for the family members of the staff and organised summer playgroups to strengthen family relationships.



Lianyungang New Oriental Terminal conducted 3 two-day outreach trainings in an outdoor outreach learning centre, allowing its staff to improve problem solving skills outside workplace and experience the importance of teamwork.

Piraeus Terminal held PCT Christmas Party for kids so that its staff could celebrate Christmas with their families.

CSP Wuhan Terminal organised an activity on Chinese tea ceremony and lunch for all female employees, diversifying its staff activities.

Guangzhou South China Oceangate Terminal and **Guangzhou Nansha Stevedoring Terminal** held innovative group activities by organising its staff to participate in different kinds of competitions covering the operation of gantry crane, reach stackers and stackers, and electrical services to build up team spirit.

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In the era of new technology, it is a pre-requisite for terminal operations to constantly innovate, upgrade traditional technology, optimise operation model and improve service quality to satisfy the evolving customer needs. COSCO SHIPPING Ports proactively takes the opportunity brought by new technology, and is transforming our current business and operation models, expanding cross-area businesses. We strive to become the industry leader to facilitate the development of global ports and shipping industry, and build a deeply rooted and influential brand.

Key Issues in Sustainability



Optimising
terminal
operations



Improving
customer
services



Deepening
globalisation
strategy





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PERFORMANCE HIGHLIGHTS IN 2019



Strategic co-operation agreements were entered into to offer competitive and modernised service to build “smart ports”.



Operating system was optimised to further enhance customers’ experience.



Customer promotional events were organised to give existing and potential customers an insight into the strategic effectiveness of our terminals.



Interactive communication among terminals was enhanced to facilitate the development of global ports and shipping industry.

BUSINESS PERFORMANCE

Throughput of the Group for the year ended 31 December 2019 was set out below:

	2017 (TEU)	2018 (TEU)	2019 (TEU)	2019 YoY Change (%)
Bohai Rim	28,244,975	38,328,815	40,659,612	+6.1
QPI ¹¹	12,270,000	19,320,000	21,010,000	+8.7
Dalian Container Terminal ¹²	6,758,147	9,512,744	8,525,291	-10.4
Dalian Dagang Terminal	24,582	22,047	22,006	-0.2
Tianjin Euroasia Terminal ¹³	2,469,753	2,717,331	2,860,127	+5.3
Tianjin Five Continents Terminal ¹³	2,580,943	2,708,817	1,906,220	-29.6
Tianjin Port Container Terminal ¹³	–	–	2,568,105	N/A
Yingkou Terminals ¹⁴	3,011,107	2,752,429	2,380,569	-13.5
Jinzhou New Age Terminal	571,113	710,746	770,037	+8.3
Qinhuangdao New Harbour Terminal	559,330	584,701	617,257	+5.6

Notes:

- 11 Throughput of QPI was included since 1 May 2017.
- 12 The merger of Dalian Container Terminal, Dalian Port Container Terminal Co., Ltd. (“DPCT”) and Dalian International Container Terminal Co., Ltd. (“DICT”) was completed in October 2017. The figure of Dalian Container Terminal for the year 2017 included throughput of DPCT and DICT; while the figure for the year 2018 was throughput of Dalian Container Terminal after the merger.
- 13 On 30 June 2019, a merger agreement was entered into, under which Tianjin Container Terminal as the surviving entity will absorb and merge with Tianjin Five Continents Terminal and Tianjin Orient Container Terminals Co., Ltd. (“TOCT”). The throughput of Tianjin Five Continents Terminal and TOCT was included in the throughput of Tianjin Container Terminal since 1 September 2019.
- 14 Yingkou Container Terminal and Yingkou New Century Terminal began their operations under same management since May 2017. Therefore, throughput of Yingkou Terminals was the total throughput of Yingkou Container Terminals and Yingkou New Century Container Terminal.

	2017 (TEU)	2018 (TEU)	2019 (TEU)	2019 YoY Change (%)
Yangtze River Delta	19,630,693	19,808,646	20,238,468	+2.2
Shanghai Pudong Terminal	2,650,396	2,602,151	2,550,390	-2.0
Shanghai Mingdong Terminal	6,500,062	6,252,083	6,160,365	-1.5
Ningbo Yuan Dong Terminal	2,980,839	3,060,010	3,010,164	-1.6
Lianyungang New Oriental Terminal	2,872,563	2,876,355	2,819,448	-2.0
Zhangjiagang Terminal	735,918	761,849	657,849	-13.7
Yangzhou Yuanyang Terminal	489,108	500,340	500,599	+0.1
Nanjing Longtan Terminal	2,881,008	2,930,391	3,000,506	+2.4
Taicang Terminal	520,799	561,212	403,307	-28.1
Nantong Tonghai Terminal ¹⁵	-	264,255	1,135,840	+329.8
Southeast Coast and others	5,079,660	5,699,718	5,783,821	+1.5
Xiamen Ocean Gate Terminal	1,501,001	1,968,613	2,061,341	+4.7
Quan Zhou Pacific Terminal	1,384,479	1,559,899	1,588,589	+1.8
Jinjiang Pacific Terminal	495,993	425,533	498,846	+17.2
Kao Ming Terminal	1,698,187	1,745,673	1,635,045	-6.3
Pearl River Delta	27,049,188	27,388,896	27,469,330	+0.3
Yantian Terminals	12,703,733	13,159,705	13,069,120	-0.7
Guangzhou Terminals ¹⁶	10,856,560	10,969,992	11,333,019	+3.3
Hong Kong Terminals ¹⁷	3,488,895	3,259,199	3,067,191	-5.9
Southwest Coast	1,357,005	1,371,051	1,638,621	+19.5
Qinzhou International Terminal	1,357,005	1,371,051	1,638,621	+19.5
Overseas	18,840,664	24,768,234	27,994,483	+13.0
Piraeus Terminal	3,691,815	4,409,205	5,158,626	+17.0
CSP Zeebrugge Terminal	316,448	392,484	483,601	+23.2
CSP Spain Group ¹⁸	554,028	3,622,200	3,585,276	-1.0
CSP Abu Dhabi Terminal ¹⁹	-	-	386,258	N/A
COSCO-PSA Terminal	2,044,536	3,198,874	5,011,091	+56.7
Vado Reefer Terminal ²⁰	39,455	66,565	54,430	-18.2
Euromax Terminal	2,693,337	3,054,115	2,792,987	-8.6
Kumport Terminal	1,063,335	1,258,294	1,281,850	+1.9
Suez Canal Terminal	2,528,647	2,609,978	3,161,084	+21.1
Antwerp Terminal	2,166,096	2,230,418	2,109,308	-5.4
Seattle Terminal	188,455	167,824	204,068	+21.6
Busan Terminal	3,554,512	3,758,277	3,765,904	+0.2
Total	100,202,185	117,365,360	123,784,335	+5.5

Notes:

- 15 Throughput of Nantong Tonghai Terminal was included since 1 August 2018.
- 16 The integration of operation of Guangzhou Nansha Stevedoring Terminal and Guangzhou South China Oceangate Terminal was commenced in August 2017. Therefore, throughput of Guangzhou Terminals was the total throughput of Guangzhou Nansha Stevedoring Terminal and Guangzhou South China Oceangate Terminal.
- 17 The co-management and operation of COSCO-HIT Terminal, Asia Container Terminal and Hongkong International Terminals Limited was commenced on 1 January 2017. Therefore, throughput of Hong Kong Terminals was the total throughput of COSCO-HIT Terminal and Asia Container Terminal.
- 18 Throughput of CSP Spain Group was included since 1 November 2017.
- 19 Throughput of CSP Abu Dhabi Terminal was included since 1 April 2019.
- 20 Throughput of Vado Reefer Terminal was included since 1 April 2017.

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MANAGEMENT APPROACH

Providing quality and professional services to satisfy customers' needs is one of the most important core concepts of the Group. To ensure compliance of our service and safety, COSCO SHIPPING Ports effectively protects our customers' interests and strives to understand the demand dynamics of the market. In addition, we constantly enhance the service quality in order to meet or even exceed customers' expectations. The Group requests its terminals to implement standardised processes for its core operations, including gate management, yard operations and port front operations, etc. Through a performance evaluation system, we are also able to implement a comprehensive and highly-effective management system on key criteria such as the level of workload, effectiveness and capacity of operations, and resource utilisation.

Strategies and Targets

In view of evolving customer needs, the Group adopts innovative models to deepen the globalisation strategy of COSCO SHIPPING Ports and build a deep-rooted brand through the optimisation of terminal operations and the enhancement of customer service:



The future of smart ports

- Facilitate the transformation towards smart ports and improve efficiency and productivity through digitalised system and production process improvement projects



Improving service systems

- Apply innovative information technology and use digital measures to optimise operations, and facilitate innovation of service model to enhance customer experience



Strengthening external communication

- Facilitate in-depth communication with customers and fully satisfy their needs



Information security

- Ensure a sound information security management system, and safeguard the safety and privacy of customer information



Boost the Development of the Port and Shipping Industry

- Facilitate the development of a global network in which the Group has controlling stakes; enhance synergies; and optimise efficiency and management

THE FUTURE OF SMART PORTS

The Group supports technology innovation by integrating new technology within the terminal operations and business systems, and continuously optimises terminal services. During the year, the Group progressed further towards achieving our goal of smart ports by constructing highly competitive terminals using digitalized system of 5G Internet. Meanwhile, the Group encouraged its terminals to conduct independent research and development, implemented production process improvement projects, and continuously improved efficiency and productivity. As our operations continue to expand, the Group has been modifying terminals with great demand to accommodate more ultra large container vessels, satisfying the increasingly frequent schedules and maintaining quality service.

The New Era of Smart Ports

During the year, the Group strived to promote the development of smart ports by transferring advanced technology to the terminals. In the process of expanding our global terminal network, the Group actively adopted the “smart ports” strategy by partnering with Navis, a global service provider of advanced container terminal operating systems, to create digitalized, intelligent terminals with data visualisation, thus facilitating upstream and downstream information sharing among terminals. In July 2019, Navis N4 system was used at **CSP Zeebrugge Terminal** for the very first time, and was further extended to **Lianyungang New Oriental Terminal** in December. We expect that all of our Subsidiaries will gradually adopt the Navis N4 system, which would effectively optimise the operations and efficiency of the terminals to serve customers with better resources.



We acknowledge the fact that automated terminals are the new trend for the development of the global container terminal industry. In the future, smart ports will connect all players along the logistics chain to promote synergy among groups such as regulators, ship-owners, traders and agents by constructing port information platforms with smart terminals and phones as carriers. During the year, **Xiamen Ocean Gate Terminal** continued to explore new application of information technology including self-driving vehicles, remote-controlled devices, intelligent tallying and Internet+ in terminal operations. Through the integration of technologies like 5G, Internet of Things and cloud computing, the preparation of 5G network construction and self-driving technology, the assembly of “unmanned truck fleets”, the terminal is committed to improving the operational capacity within the port area and to provide an effective and modern service. On 20 September 2019, the “Smart Port, 5G Everything” seminar was organised by Xiamen Ocean Gate Terminal and the technical team from China Mobile to introduce the smart terminal project to customers, and to jointly discuss the development of the ports and shipping industry in the 5G era.



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As the pioneer of smart terminals in China, COSCO SHIPPING Ports actively shares successful experiences to other terminals, providing important benchmarks for setting standardised regulations in the industry. In 2019, **Quan Zhou Pacific Container Terminal** strived to promote the flow of goods and information and realise intelligent port operations through technologies such as multi-channel and high-definition transmission, edge computing and high-precision positioning, fully utilising the advantages of high-speed 5G Internet.

IMPROVING SERVICE SYSTEMS

In addition to facilitating the construction of smart ports, the Group also continuously optimises the existing service system and uses network platforms to help enhance the value of terminals and optimise service quality to satisfy the needs of customers.

Quan Zhou Pacific Terminal has optimised and upgraded the fee collection system, simplifying the operation process, and benefitting customers. Meanwhile, customers can place orders for certain operations in real time within the system, requiring no personnel to be present, saving waiting time, reducing customer cost and significantly enhancing efficiency.

Guangzhou South China Oceangate Terminal and **Guangzhou Nansha Stevedoring Terminal** actively promoted the single platform system for barge cabins, which shortened the waiting times for barges. Since its launch in May 2019, the average waiting time for barges is 3.13 hours, representing a decrease of 28% compared with the same period last year, while the booking ratio has reached 98.56%, proving that it is well received by customers.



Dalian Container Terminal created a one-stop service model for customers by setting up a web payment review centre. The in-person document submission process was transferred online, allowing customers to complete the document examination on the web payment review centre more efficiently. A new customer service mechanism was established, in which a service agent is assigned to each shipping company to enhance communication, address customers' concerns in a timely manner, and provide personalised services according to respective customers' requirements. The web payment review centre features a convenient operating process and quality service, and has been well-received by lots of customers since launch.



STRENGTHENING EXTERNAL COMMUNICATION

COSCO SHIPPING Ports upholds the principle of customers first, through understanding customers' needs and constantly improving the quality of service to increase customers' satisfaction. Through regular questionnaires, meetings, business visits, promotional events, seminars and other different channels, the Subsidiaries under the Group can understand the opinions and recommendations from customers on our service quality. The Group is currently increasing the number of regional marketing representatives to strengthen our relationship with customers via a one-to-one marketing system, allowing our regional headquarters to have more opportunities to communicate and interact with customers and to provide targeted personalised improvement programmes and build a long-term business relationship.

Furthermore, the terminals under the Group have set up a customer service hotline and the marketing personnel of our headquarters visits the headquarters of major shipping companies on a regular basis so as to maintain close relationships with our existing and potential customers on different levels and respond to customer enquiries and feedback in a timely manner. If a complaint is received, the Group will handle it appropriately in accordance with internal guidelines to precisely understand our customers' demands, make improvements based on the specific situation, and continue to optimise service quality. During the reporting year, the Group was not subjected to any fine or non-financial penalty for violating the laws and regulations in respect of products and services. Meanwhile, the terminals under the Group have actively explored innovative services to improve our customers' experience.

Customer Promotional Events

To keep customers abreast of the latest business developments of the Group, we conducted two customer promotional events jointly with COSCO SHIPPING Lines in Shanghai and Shenzhen on 26 and 29 July 2019, respectively, attracting more than 400 representatives including clients from the ports and shipping industry and major media representatives from the Greater China region for in-depth communication.



At the presentations, Mr. Zhang Wei, the then Chairman and Managing Director of COSCO SHIPPING Ports, introduced the Group's development concept of "The Ports for ALL" to the audience, through which we strive to become "the industry player offering common interests and shared values to the greatest extent" and "the best connector" in the ports and shipping industry to create the maximum value for customers.

With the theme of "Connecting the World with Global Terminal Network and Shipping Lanes" (港通八方 集运全球), the presentations focused on promoting **CSP Zeebrugge Terminal** and **CSP Abu Dhabi Terminal**, and elaborated on container shipping lanes and Day 3 products based around those terminals. To make our existing and potential customers understand more about the strategic value of the Group's overseas terminals, the Group's business experts were specially invited to answer respective questions.

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Regarding the Day 3 products of the OCEAN Alliance, the Sales and Marketing Department of our headquarters has been proactively engaged in marketing during the course of product development, including recommending ports at the meetings of the OCEAN Alliance and visiting major shipping companies within the alliance, which ultimately boosted the business of the terminals under the Group. In particular, CSP Abu Dhabi Terminal has become the port of call for two new Middle East shipping lanes (i.e. MEA5 and MEA3); and CSP Zeebrugge Terminal has also welcomed one new shipping lane, creating synergy with the existing Eastern shipping lanes and optimising the shipping network of the terminal.

INFORMATION SECURITY

The Group regards customer information security and privacy as the top priority, and strictly complies with relevant laws and regulations. The terminals under the Group strictly follow the *Confidentiality Administrative Measures* and sets up confidentiality committees to ensure that the information security management system is sound, safeguarding the fair use of customer information within the scope of business.

The staff in the Group's headquarters must sign the *COSCO SHIPPING Ports Employees Non-disclosure Agreement* upon joining the Group. In the event of information leakage as a result of error at work or if anyone is found violating confidentiality provisions, remedial measures will immediately be taken, and a report will be submitted to the Confidentiality Management Committee to minimise the risk.

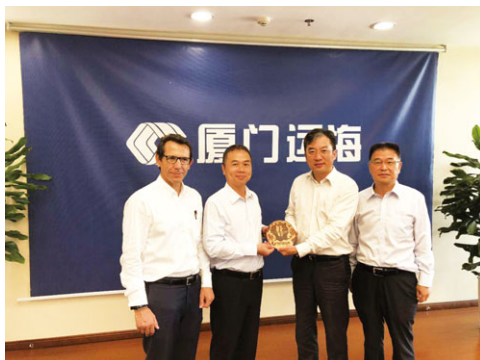
To further enhance employees' awareness on cyber security and strengthen system maintenance, the Group's headquarters conducted a practical drill on cyber security to detect potential hazards and to improve the level of network security. During the year, the Group was not involved in any case of customer information leakage.

BOOST THE DEVELOPMENT OF THE PORTS AND SHIPPING INDUSTRY

COSCO SHIPPING Ports aims at becoming the world's leading ports operator and actively optimises its global terminal portfolio while seizing investment opportunities worldwide. As for new acquisition, **CSP Abu Dhabi Terminal** started trial operations in April 2019 and is the Group's first overseas greenfield project. It is also one of the few semi-automated terminals with advanced technology in the Middle East. At present, among the six groups of routes of COSCO SHIPPING from the Far East to the Middle East, routes that connect to **CSP Abu Dhabi Terminal** cover countries in the Middle East such as Kuwait, Iraq and Oman. With its comprehensive feeder-line network, market-leading delivery times, it provides customers with convenient transportation solutions.

Interactive Communication among Terminals

In early 2019, **CSP Spain Group**'s management led staff members from CSP Valencia Terminal and CSP Bilbao Terminal to visit the fully automated container terminals at Xiamen Ocean Gate Terminal, Qingdao Port and Shanghai Port. They exchanged their views on the theme of "smart ports" in terms of information technology, equipment and operation details. CSP Spain Group entered into a software cooperation agreement with Navis in November 2018 to study possible improvements to be made after the replacement of the terminal operating system and to be well-prepared by integrating the experience gained from the terminal operations in China with the actual circumstances in Spain.



Trade and Culture Exchanges

The development of overseas terminals not only brings opportunities for the Group as a whole, but also promotes the economic and trade development between China and the region. At the seminar on China-Turkey economic and cultural cooperation held on 25 September 2019, **Kumport Terminal** was awarded the outstanding contribution award of China-Turkey economic and cultural exchange by Mr. Cui Wei, Chinese Consulate-General in Istanbul, which affirmed the positive influence and efforts of the Group in promoting Sino-foreign economic and trade cooperation.



CHAPTER 8

GREEN DEVELOPMENT

Climate change has led to risks including warming, acidification and deoxygenation of oceans and rising sea levels, constituting operational risks to the ports and shipping industry. As a leading global ports operator in the world, COSCO SHIPPING Ports aims at becoming a pioneer in the industry, materialising a “rapid and profound” transition to a low carbon future together with business partners from each node on the value chain, and accelerating the development of “green ports” to establish a sustainable low carbon future.

Key Issues in Sustainability



Energy management and GHG emissions



Waste management



Climate change



Water resources and water quality management



Air quality



Improving staff's environmental awareness





CHAPTER 8
GREEN DEVELOPMENTPERFORMANCE HIGHLIGHTS IN 2019²¹

The assessment of climate-related risks has been commenced to identify the risks and opportunities related to climate change in the ports industry.

Energy consumption
intensity

0.075 GJ per TEU

representing a decrease of
10.7% when compared with

0.084 GJ per TEU
in 2017

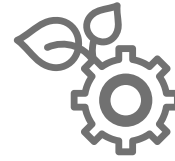
GHG
emissions (Tons)²²

Direct GHG Emissions
(Scope 1)

221,031

Indirect GHG Emissions
(Scope 2)

409,555

GHG
emission intensity

9.02 kg of Co_{2e} per TEU

representing a decrease of
11.4% when compared to

10.18 kg of Co_{2e} per TEU
in 2017

MANAGEMENT APPROACH

COSCO SHIPPING Ports strictly complies with all relevant environmental laws and regulations in the areas where we operate²³, and continuously implements an effective management approach and comprehensively manages our environmental performance. The Group requires its terminals to establish their respective environmental policies and management systems pursuant to local laws and regulations and their respective operations, and a designated department shall be responsible for its implementation. With regards to monitoring, the Group regularly identifies and investigates the sources of environmental pollution of the companies in which it has controlling stakes and their risks to ecosystems in accordance with the *Management Guidelines of China COSCO SHIPPING Corporation Limited on Energy Saving and Emission Reduction* issued by our ultimate holding company, and requires the terminals to file relevant reports such as summary report on the investigation of environmental pollution-related risks or information related to energy saving and emission reduction. The Group encourages its terminals to adopt measures more stringent than relevant laws and regulations where possible, including continuously optimising administrative measures, making use of data to evaluate key performance indicators, regularly evaluating environmental risks, and striving for international certifications and awards from environmental management advocacies, with an aim to strengthening our environmental management.

Notes:

- 21 Excludes headquarters of the Group, COSCO-PSA Terminal and CSP Wuhan Terminal.
- 22 Sources of direct GHG emissions (Scope 1) include the use of diesel, gasoline, liquefied petroleum gas, liquefied natural gas (LNG) and natural gas; sources of indirect GHG emissions (Scope 2) are electricity and heating purchased by the Group. For details about the environmental performance of the Group, please refer to Chapter 11 – Appendices – Key Performance Indicators in this report.
- 23 Including but not limited to the *Environmental Protection Law of the People's Republic of China*, the *Marine Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, the *Law of the People's Republic of China on Prevention and Control of Water Pollution*, the *Law of the People's Republic of China on Prevention and Control of Atmospheric Pollution*, the *Energy Conservation Law of the People's Republic of China*, *Interim Measures for the Supervision and Administration of Energy Conservation and Emission Reduction at Central Enterprises*, etc.

Kumport Terminal was awarded the Green Port Certificate, ISO 14064 Greenhouse Gas Accounting and Verification Certification, ISO 14046 Water Footprint Management Systems Certification, etc.



Strategies and Targets

Regarding "green ports" as a core value, the Group integrates eco-development concepts into its actual operations and alleviates the potential impact of its operations on the environment based on four major principles to continuously promote the innovation of green technology and to improve the competitiveness and influence of the low carbon field.

Green Ports

Response to Climate Change

- Identify climate-related risks and opportunities
- Improve our terminals' ability to cope with climate change

Energy Saving and Emission Reduction

- Introduce technologies to save energy and reduce emissions and to increase energy efficiency
- Broaden the use of clean energy
- Reduce overall energy consumption, carbon emissions and air pollution

Proper Management of Resources

- Optimise water resources and sewage management
- Enhance waste management

Cooperation with Stakeholders

- Enhance staff's environmental awareness
- Cooperate with business partners in the value chain

CHAPTER 8 GREEN DEVELOPMENT

RESPONSE TO CLIMATE CHANGE

While terminals are of utmost importance to the local, regional and even global economy, they are situated in regions which are prone to the influence of climate change. COSCO SHIPPING Ports has been aware of the worsening consequences of global warming, which affects our operations and the environment in which we operate. We proactively take a wide variety of measures to increase the transparency of climate change management. To minimise the Group's impact on climate and respond to stakeholders' concerns, we focus on the following two directions:



Optimising management

Identifying climate-related risks and opportunities



Alleviating the impact

Reducing greenhouse gas (GHG) emissions (Please refer to the section headed **Energy Saving and Emissions Reduction** in this chapter)



Risks and Opportunities in relation to Climate Change

During the year, we have identified a wide range of risks and opportunities in relation to climate change in the ports industry with reference to the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). Risks related to climate change have been categorised into two major groups: risks related to substantial influence and risks related to the transition towards a low carbon economy.

Types of risks	Scope	Potential risks
Substantial (physical) risks	Acute risks (such as extreme weather): typhoons, storms, droughts, floods, etc.	<ul style="list-style-type: none"> • Damage ports and relevant facilities, vessels and goods, resulting in loss of assets • Extreme weather forces vessels to divert from their shipping lanes, causing delays • Affect the capacity of waterways thus requiring more dredging works • A decrease in goods due to crop failure, eventually affecting terminal throughput
	Chronic risks: rising sea levels, continuous high temperatures, etc.	<ul style="list-style-type: none"> • Rising sea levels changes wave and tidal patterns, which affects the schedules of shipping companies • Terminals need to be equipped with more refrigeration facilities due to rising temperatures to meet the demand from customers; staff may not be able to work outdoors for long hours during hot season, hampering our efficiency
Transition risks	Policies and legal risks	<ul style="list-style-type: none"> • Policies issued by the International Maritime Organization (IMO) • China's Emission Trading System (ETS) has enforced a carbon pricing mechanism • Litigation claims in relation to climate-related risks
	Technology risks	<ul style="list-style-type: none"> • Increase in investments in renewable energy, and energy conservation and emissions reduction technology
	Market risks	<ul style="list-style-type: none"> • Increasing demand for low carbon services and green ports from customers
	Reputation risks	<ul style="list-style-type: none"> • Customers would prefer to collaborate with companies with better performance in sustainable development

CHAPTER 8 GREEN DEVELOPMENT

While climate change has incurred risks, it has brought inestimable business opportunities. During the year, the Group has evaluated and analysed relevant opportunities.

Types of opportunities	Scope	Potential opportunities
Resources efficiency	<ul style="list-style-type: none"> • Adopt more efficient means of transportation • Implement a more efficient process of manufacturing and distribution • Apply recycling technology • Structures and facilities with higher efficiency are built • Reduce water consumption 	<ul style="list-style-type: none"> • Supply LNG to vessels • The carbon dioxide emissions (tons/km) of shipping is lower than other means of transportation (air, road, rail, etc.). A growing number of customers are changing their means of transportation according to their own low carbon strategies and have chosen shipping
Energy	<ul style="list-style-type: none"> • Sources of low-emission energy • Boost from supportive policies • Rise of new technology • Participate in carbon trading market • Energy safety 	<ul style="list-style-type: none"> • National/local subsidy policies (such as green ports, onshore power supply systems, etc.) • The shipment volume of green products increases (for example, windmill equipment or electric cars)
Products and services	<ul style="list-style-type: none"> • Develop and/or expand low emission goods and services • Solutions to climate adaption and insurance risks • Research and development and innovation • Diversification of business activities • Change in consumers' preferences 	<ul style="list-style-type: none"> • Global warming accelerates ice loss and shortens sea ice season in the Arctic, opening up opportunities for logistics and transportation businesses (including shipping lanes and ports) in regions of open water
Market	<ul style="list-style-type: none"> • Entry to new markets • Motivation from authorities • Demands and initiatives from communities 	
Adaptability	<ul style="list-style-type: none"> • Participate in renewable energy projects and adopt energy-saving measures • Alternatives/diversification of energy 	

The Group will continue to study the impact of climate change on ports and explore relevant preventive measures, which will be further disclosed in our sustainability reports in the future.

During the year, our terminals continued to upgrade their infrastructure, optimise their operations and crisis management, and adopt measures to cater to the needs of local policies and operations, in an attempt to raise their adaptability to address the impact of climate change, as well as transform the transition risks into opportunities and thus increasing our competitiveness.

Typhoon Measures

During the year, **Quan Zhou Pacific Terminal, Lianyungang New Oriental Terminal, Nantong Tonghai Terminal, Guangzhou Nansha Stevedoring Terminal, Dalian Container Terminal** and **Shanghai Pudong Terminal** all experienced severe typhoons. Nonetheless, thanks to sufficient preparation which effectively minimised the risks, all terminals ensured that their operations remained orderly and at the same time guaranteed the safety of their staff whilst realising their service commitments.

Drills on Typhoon Response

Our terminals conduct drills on a regular basis to examine the typhoon preparation readiness of terminal equipment and facilities, and enhance staff’s coping awareness, in order to strengthen their emergency response capabilities.



Before typhoons:

- Workers in the terminals complete the loading and unloading works promptly, gradually suspend vessels operations, reinforce and secure on-site equipment, and move the containers and overhead cranes to the back area;
- Engineering department assists in the reinforcement of large machines and facilities, inspects the conditions of cranes and trunk cranes, as well as confirms that doors of switchboard, electrical rooms and engine rooms are properly closed; and
- The department of safety control organises examinations on special items, focusing on the examination of leak-proof drainage measures and operation of rainwater pumping in key areas such as dangerous goods, refrigerated containers area, substation, petrol storage tanks, etc.

During typhoons:

- Keep track of the typhoon

CHAPTER 8 GREEN DEVELOPMENT

When the typhoon signal is withdrawn:

- Prioritise the unbinding works, release the anchor chains on quay cranes and yard cranes, tidy up the zone for windbreaks, and resume collection and dispatching processes;
- Facilitate communication with shipping companies, pilot stations and control centres, adjust schedule planning, and duly prepare for the resumption of operations after typhoons;
- The department of safety control identifies and investigates potential safety threats after typhoons; and
- The operations department ensures smooth collection and dispatching by means of flexible internal placements of machines in each area, squeezing the on-site handover time and meal breaks, etc.



Carbon Trading

In accordance with the *Interim Measures on Carbon Emissions Management of Shanghai Municipality*, **Shanghai Pudong Terminal** and **Shanghai Mingdong Terminal** were included in the carbon trading scheme of Shanghai in 2018 with an aggregated quota of 62,382 tons. Apart from continuous improvement in energy saving and emissions reduction, both terminals were required to start monitoring, reporting and settling their respective carbon emission in 2019.

Innovative Goods

As the demand for windmill equipment and upgraded products all over the world grows, China has become a main force in the operation and maintenance of such equipment and a major exporter worldwide. The Group anticipates that climate change will lead to more innovative goods. Ancillaries of terminals must promptly respond to these needs to embrace more opportunities brought by the green economy. Innovative goods include windmill equipment contained on the vessel which berthed at Dalian Container Terminal in April 2019. In view of its specific features, the operation department made sufficient preparation to ensure the safety of the goods during transit.

ENERGY SAVING AND EMISSIONS REDUCTION

The Group’s strategies to alleviate climate change combine efficient operation processes with extensive business improvements. We endeavour to utilise our resources more effectively, and to invest in emission reduction technology and implement innovative solutions. During the year, we established *Guidelines on Energy Saving and Emission Reduction*, stating that our headquarters and the Subsidiaries in the PRC are required to formulate their own management regulations to reduce GHG emissions as a result of ports operations, and are required to collect data on energy savings and emission reduction from the Subsidiaries and relevant reports on a monthly basis. In addition, we set up a Leading Group for Energy Saving and Emission Reduction and an Energy Saving and Emission Reduction Management Office to monitor and review relevant policies, and establish relevant appraisal and award mechanism in order to ensure that relevant targets can be achieved.

The Group actively invests in resources for energy saving and emission reduction. During the year, 8 of our Subsidiaries in China budgeted RMB24,912,700 for improvements in relevant areas, covering training, promotions, technology innovation, equipment renewal and upgrade. New and upgraded equipment included electrification upgrades, improving port infrastructure such as establishing shore power systems, and expanding the use of clean energy. We strongly believe that an investment in the short run not only saves costs for the Group, but also reduces the use of fossil fuels and fosters green development in the industry, and thus be beneficial both economically and for the environment. **Xiamen Ocean Gate Terminal**, as an example, as an “automated port with intellectual property in China”, is able to save over 25% of energy when compared with traditional ports.

Our terminals have been actively facilitating energy saving and emission reduction through the following five initiatives:

Establishing shore power systems	Shifting towards LED lighting	Introducing cleaner and more efficient machinery and vehicles
<p>Shore power systems allow vessels to switch off their engines once at berth and operate with shore power supply to reduce the use of heavy oil, enhancing environmental protection. Advantages of using shore power include a significant decrease in carbon emissions and pollutants such as sulphides and nitrogen oxide. At the same time, it can create a more pleasant working environment in our terminals.</p>	<p>High-pressure sodium lamps are gradually replaced by adopting durable and energy-efficient LED lighting to reduce energy consumption. During the year, Quan Zhou Pacific Terminal upgraded its LED lighting and saved approximately RMB730,000 a year in electricity costs.</p>	<p>The use of fossil fuels has been reduced to decrease the amount of pollutants from exhaust gas, and benefit our operation efficiency.</p>



CHAPTER 8 GREEN DEVELOPMENT

Electrification of infrastructure

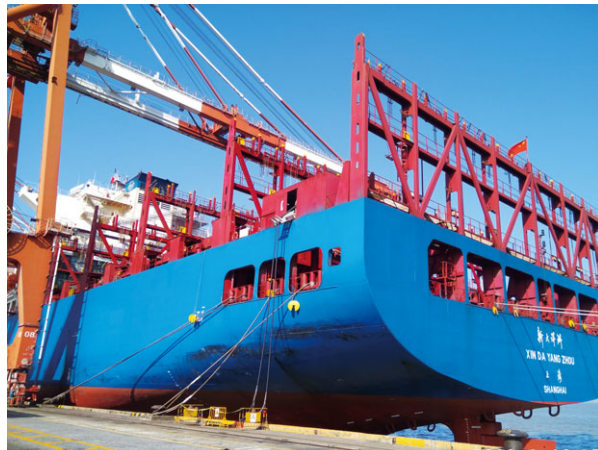
For rubber-tyred gantry (RTG) cranes, traditional diesel generators have been replaced with electric motors or hybrid power systems. This replacement has effectively reduced overall diesel consumption, and cut down GHG emissions as well as noise generated at operations. Transitioning from diesel RTG cranes to electric rubber-tyred gantry (eRTG) cranes also improves operational and cost efficiency, hence enhancing the economic and social benefits. The equipment covered includes gantry cranes, yard cranes, quay cranes and truck cranes, etc.

Continuous optimisation of yard systems

The most common source of air pollutant emissions at terminals is from heavy machinery. Thus, by streamlining operational procedures, improving the quality of monitoring and mitigation measures, not only is efficiency can be increased, but air quality at ports and surrounding areas is also improved.

Shore Power Systems

Shore power systems have either been put into use or are being constructed at our terminals, including **Xiamen Ocean Gate Terminal**, **Jinjiang Pacific Terminal**, **Quan Zhou Pacific Terminal**, **Nantong Tonghai Terminal**, **Guangzhou South China Oceangate Terminal**, etc. The shore power system at Xiamen Ocean Gate Terminal has achieved full coverage by year end 2019. Moreover, Guangzhou Terminals and two large vessels, namely “Xin Fei Zhou” and “Xin Da Yang Zhou” successfully achieved grid connection during the year, with power being supplied by shore power systems instead of power generators on vessels, which symbolises the terminal’s strong and stable power transmission capacity.



Electrification of Infrastructure

“Diesel-to-electric” Gantry Cranes

In 2019, the Group continued to facilitate the electrification of RTG cranes among our Subsidiaries in China. **Quan Zhou Pacific Terminal** and **Guangzhou Nansha Stevedoring Terminal** have all gantry cranes (94 in total) electrified, reducing 113,790 tons of carbon emission per year. In addition, **Lianyungang New Oriental Terminal** completed the replacement of diesel engines with stick battery packs for 18 gantry cranes, saving 274 tons of diesel and reducing 1,038 tons of carbon emissions per year.

The Coverage of eRTG Cranes among the Group’s Subsidiaries in China by the End of 2019*:



“Diesel-to-electric” Yard Cranes

Having studied the advantages and disadvantages of using “diesel-to-electric” yard cranes at terminals in China as well as applying fuel and electricity in the locations where we operate, the first “diesel-to-electric” yard crane at **Jinzhou New Age Terminal** was officially completed during the year. This upgrade, apart from taking into consideration the cold winters in the northern ports, includes an innovative smart insulation method in the design, as well as the first application of a “high-capacity battery and low-power diesel engine unit”. This not only passes the carbon emission inspections by the provincial department of transportation, but also significantly reduces energy consumption. It is expected that there will be a saving of diesel of over 50%.

Clean Energy

According to *IMO 2020*, since 1 January 2020, ships outside “emission control areas” can only use fuel that contains no more than 0.5% sulphur to improve air quality and to protect the environment and health. To this end, we are well-prepared to improve the air quality at terminals by different means, including increasing the use of electric and LNG vehicles and increasing the usage of green energy (such as solar power). In June 2019, the first phase of **Nantong Tonghai Terminal** was officially completed, featuring an all-electric working vehicle fleet for on-site transportation, as well as an emphasis on environmental protection and energy-saving technologies. In addition, **Shanghai Mingdong Terminal**, **Shanghai Pudong Terminal** and **Yantian Terminals** are all using LNG-powered mobile machinery and vehicles, **Dalian Container Terminal** has replaced fuel vehicles by electric vehicles for on-site operations, while **CSP Spain Group** and **Shanghai Pudong Terminal** are actively promoting the application of green energy, which will in turn help the completion of photovoltaics projects at terminals.



CHAPTER 8 GREEN DEVELOPMENT

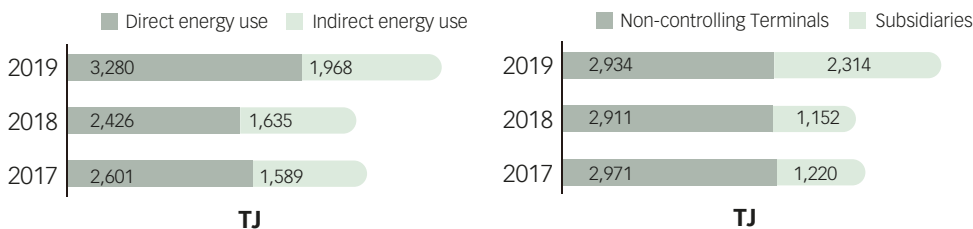
Summary of Performance in Energy Consumption and GHG Emission

Our overall energy consumption, GHG emission and their intensities for 2019 were slightly higher than the previous year, mainly attributable to the adjustment to the reporting boundary for the year by including a total of 13 Subsidiaries. Among which, three overseas terminals, namely CSP Abu Dhabi Terminal and CSP Spain Group, have been added.

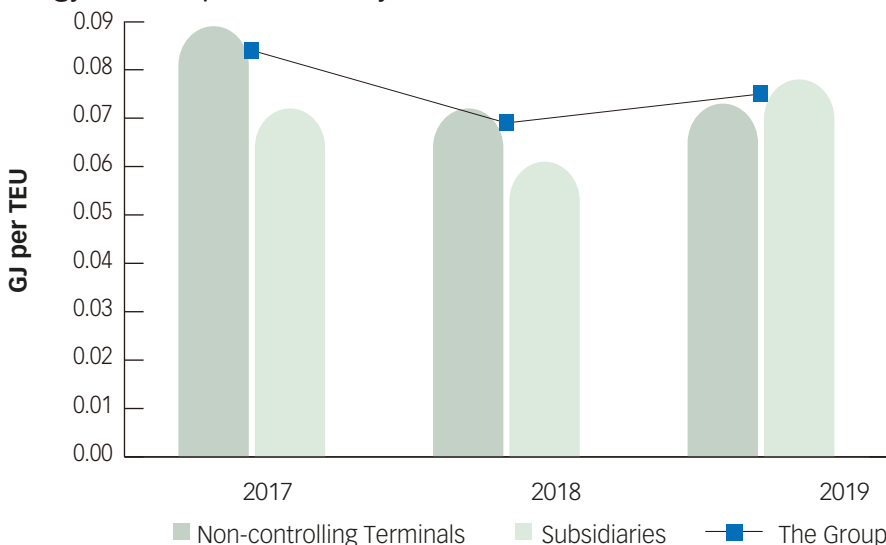
CSP Abu Dhabi Terminal was actively engaged in preparations prior to its trial operations in April 2019. During the course of preparation, its energy consumption was higher than other existing terminals. In addition, it has been actively increasing its throughput since April, resulting in higher energy consumption intensity and GHG emission intensity as compared to other terminals. The terminal, however, has officially commenced operations in the fourth quarter of 2019, allowing the Group to formulate the most appropriate plan with the highest energy efficiency based on its situation. It is believed that new terminals have a bigger room for improvement than existing terminals.

On the other hand, the relatively bigger scale of **CSP Spain Group** results in an increase in the overall reporting boundary to a certain extent. In addition, since the energy saving and emission reduction regulations around the world and their pace of development vary, the energy saving and emission reduction measures of each terminal may be different. Nevertheless, the energy consumption intensity and GHG emission intensity of the Group decreased by 10.7% and 11.4%, respectively. COSCO SHIPPING Ports will continue to monitor the performance of our terminals, in particular the terminals which commenced operations recently, and implement various measures to facilitate energy saving and emission reduction to achieve our long-term goal of becoming "green ports".

Energy Consumption²⁴



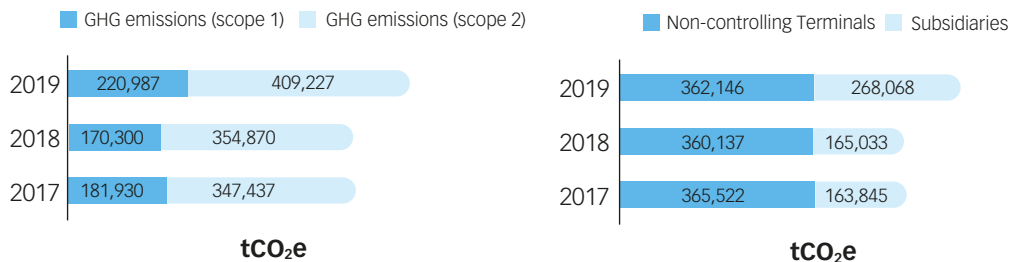
Energy Consumption Intensity²⁴



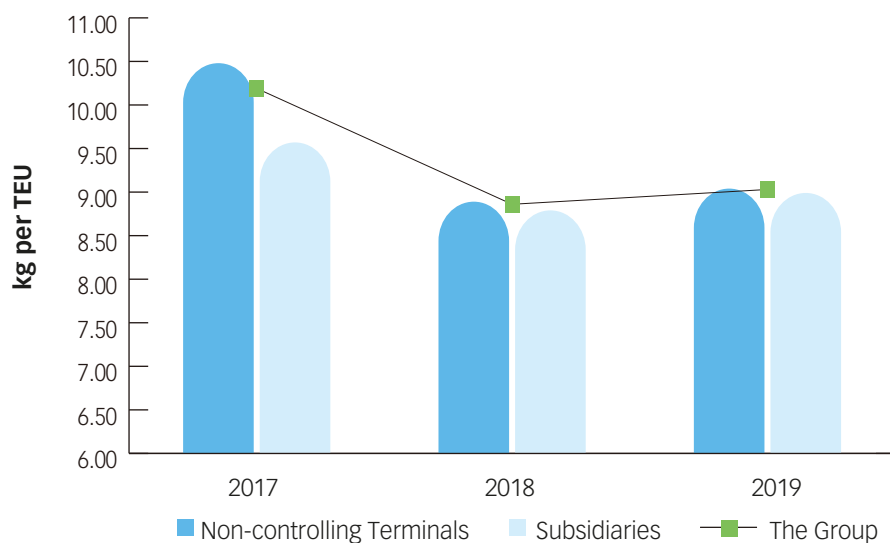
Note:

24 Excluding the energy consumption of the headquarters. For details of our environmental performance, please refer to Chapter 11 – Appendices – Key Performance Indicators in this report.

GHG Emissions²⁵



GHG Emission Intensity²⁵



Note:

25 Excluding the GHG emissions of the headquarters. For details of our environmental performance, please refer to Chapter 11 – Appendices – Key Performance Indicators in this report.

CHAPTER 8 GREEN DEVELOPMENT

PROPER MANAGEMENT OF RESOURCES

We recognise the importance of protecting natural resources and reducing the impact on the marine environment, and therefore we actively encourage our terminals to conserve resources, reduce pollutants and waste generated from the source and properly dispose of waste in a compliant manner.

Water Resources and Sewage Management

Water for production at terminals is mainly used for maintenance and repair of daily facilities, berths and yard cleaning, while water for domestic purposes is used for office buildings and canteens. Various water-saving measures are adopted at terminals, including regular inspections of water supply networks, installation of water-saving equipment and system, and the monitoring of water consumption levels. Through appropriate supervision and effective management, new technologies are used and the production procedure is improved where possible. For instance, **CSP Zeebrugge Terminal** makes the best use of water resources by collecting rainwater for recycling. In terms of sewage discharge management, our terminals strictly monitor the amount of pollutants discharged to ensure that wastewater is treated properly. The sewage discharge indicator must be compliant with, or beyond, national and local standards. The sewage disposal station at **Ningbo Yuan Dong Terminal** applies SBR activated sludge process in the disposal of domestic and oily wastewater at ports, where oil-water separators are used to pass oily sewage to companies with professional qualifications for recycling purpose. As for the remaining sewage, if its quality reaches the reclamation standard, it would be used for irrigation and site cleaning. Currently, domestic sewage stations are treating approximately 30,000 tons used water from production every year. Apart from saving over RMB200,000, it also effectively protects valuable water resources.

Kumport Terminal was awarded ISO 14046 Water Footprint Management Systems Certification

Water resource management is becoming a major trend, especially in countries with relatively high water scarcity, and Turkey is facing severe water crisis. **Kumport Terminal** gives great importance to water usage. During the year, it carried out water footprint measurement study to assess and evaluate the risks and opportunities arising from water scarcity and its implementation efficiency, and was awarded the Water Footprint Management Systems (ISO 14046) Certification. Through regular annual inspections, the terminal continuously tracks and manages the impact and opportunities of water resources to its operations.

Waste Management

We support our subsidiaries to adopt the 3R principles of environmental protection, i.e. reduce, reuse and recycle. The hazardous and non-hazardous waste generated from the terminals²⁶ during the course of operations and respective treatment measures are as follows:

Types	Proportion of the overall waste of the Group	Treatment measures
Hazardous waste		
Solid chemical waste (such as waste oil contaminated rag, waste wire rope, scrap metal, waste oil drum and waste oil sludge)	65.0%	Waste is properly collected and stored and disposed of by companies with professional qualifications or by suppliers. For waste oil, the terminals shall carry out regular maintenance of machinery and equipment to improve their performance, and reduce the generation of waste oil through "diesel-to-electric" conversion.
Liquid chemical waste (such as waste lead acid battery and waste oil)	8.1%	
Others	0.5%	
Non-hazardous waste		
Wooden pallets	2.6%	Companies with professional qualifications or material suppliers for treatment are employed.
Others (such as municipal waste from ports)	23.8%	Waste is stored in collection zones before being transferred in sealed containers to designated locations by the environmental hygiene department for daily treatment.

Note:

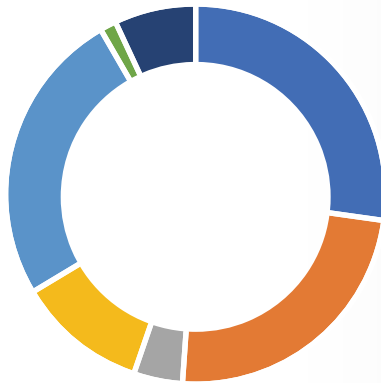
26 For details regarding the materials applied, waste generated and recycling, please refer to Chapter 11 – Appendices – Key Performance Indicators in this report.



CHAPTER 8 GREEN DEVELOPMENT

The terminals must strictly monitor the hazardous and non-hazardous waste generated during the course of operations, adopt necessary measures to classify and store, and proper treatment by recycling companies with professional qualifications. The Group's waste recycled in 2019 was as follows:

Waste Recycled by Category in 2019



Solid chemical waste	27.4%
Liquid chemical waste	23.9%
Other hazardous waste	4.1%
Wooden pallets	11.1%
Tyres	25.2%
Paper	1.4%
Others	6.9%

COOPERATION WITH STAKEHOLDERS

We strongly believe that engaging stakeholders is the key to improving our environmental performance. The Group supports its subsidiaries to organise various green activities that raise environmental awareness and to work closely with employees and other stakeholders in the implementation of the "green port" concept and achieve our sustainable development goals.

Guangzhou South China Oceangate Terminal and **Guangzhou Nansha Stevedoring Terminal** carried out environmental protection promotion on a monthly basis, organised the "World Environment Day 5 June" activity, and circulated the *China Environment News* and *Zhujiang Environment News* to raise employees' awareness on environmental protection and encourage them to develop a low-carbon and healthy lifestyle.



Lianyungang New Oriental Terminal organised an “Energy Saving Promotion Week” to remind employees to integrate various energy-saving measures into daily work.

Quan Zhou Pacific Terminal and **Nantong Tonghai Terminal** organised tree-planting activities, respectively, on 12 March, Arbor Day, and invited government representatives, terminal management and employees to make a contribution to a green port together.



Multimodal Shipping-rail Transportation Supports Environmental Protection

Statistics²⁷ show that during the first three quarters of 2019, China had over 70 demonstration projects showcasing multimodal transportation, and completed a total of 3,820,000 TEU under multimodal transportation. The logistic costs were reduced by approximately RMB11.2 billion, and carbon emissions by 3.97 million tons as compared with road transportation. Multimodal transportation is an integrated transportation solution consisting of shipping and rail transportation, and facilitates changes in capacity, saves energy and reduces emissions, and increases transportation efficiency. Subsidiaries of the Group that provide shipping-rail transportation include **Jinjiang Pacific Terminal**, **Quan Zhou Pacific Terminal** and **CSP Wuhan Terminal**.

A Fact about Reducing Emissions via Shipping

Shipping is the transportation option with the lowest gram per ton-kilometre (g/tkm) of carbon dioxide emissions, at between 10 and 15 g/tkm. This is significantly lower than the emissions of rail transport (19 to 41 g/tkm), truck/road transport (51 to 91g/tkm) and air transport (673 to 867g/tkm)²⁸. Therefore, there are an increasing number of customers who opt for shipping instead of trucks to reduce their carbon dioxide emissions. We are looking forward to working more closely with customers in the future to reduce GHG emissions together.

Notes:

27 Source: CCTV.com – Ministry of Transport: Logistics costs reduced by approximately RMB11.2 billion for the first three quarters

28 Source: OECD Observer - Sea fairer: Maritime transport and CO2 emissions

CHAPTER 9

WIN-WIN COOPERATION

As an important member of the global shipping industry chain, COSCO SHIPPING Ports continues to optimise its global terminal network and to consolidate industry chain cooperation, which facilitates a balanced business development and actively promotes all parties to jointly establish an open and innovative shared “global shipping ecosphere”. We strive to ensure the terminals of the Group uphold the principle of sustainable operation. We create synergy in cost and risk prevention and control and promote long-term sustainable growth of the industry economically, environmentally and socially.

Key Issues in Sustainability



Responsible
procurement



Strengthening
strategic
cooperation



Enhancing safety
in outsourcing
businesses



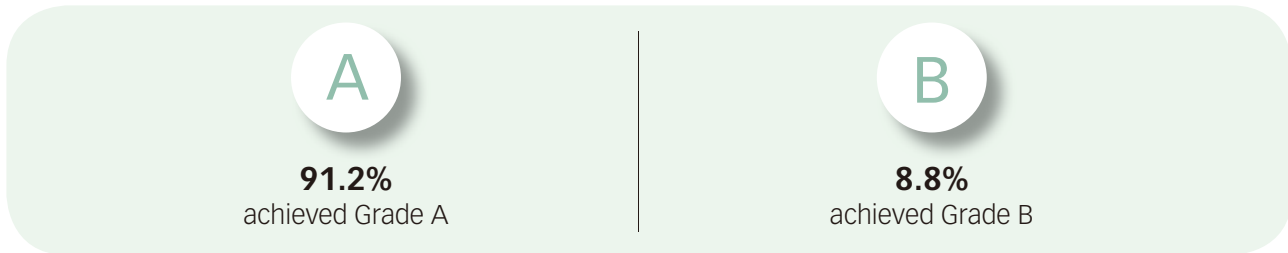


CHAPTER 9
WIN-WIN COOPERATION**PERFORMANCE HIGHLIGHTS IN 2019²⁹**

The qualified supplier database of COSCO SHIPPING Ports encompassed 4,332 suppliers, covering five major categories. Among which, 3,411 suppliers are based in Mainland China and 921 suppliers are based in Hong Kong and other countries.

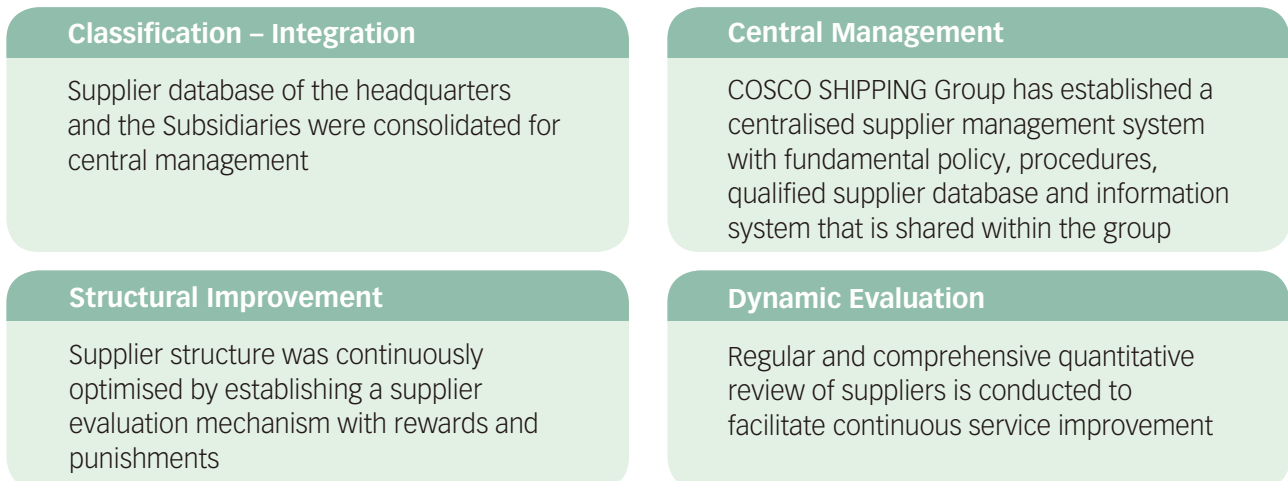
Procurement Expenditure by Type**Procurement Expenditure by Geographical Location**

The Group's headquarters assess 136 existing suppliers. The assessment result is as follows:

**MANAGEMENT APPROACH**

COSCO SHIPPING Ports adheres to principles of openness, fairness and transparency to continuously optimise our supply chain management. We stipulate comprehensive management requirements (including but not limited to the *Supplier Management Manual* and the *Procurement Manual*) for tendering, procurement, supplier selection and engagement. We also review these from time to time to ensure that we only cooperate with institutions with sound performance with respect to compliance, finance, and the quality of their products and technology in response to challenges imposed by the supply chain. Through effective supply chain management, we not only save cost and time, but also reduce operational risks.

The supply chain management processes of the Group are as follows:






Note:

²⁹ Excluding CSP Spain Group, Shanghai Mingdong Terminal, Yantian Terminals, Jinjiang Pacific Terminal and Piraeus Terminal as relevant supply chain information of these terminals are not available.

Apart from strict compliance with the internal policy of COSCO SHIPPING Ports, our Subsidiaries have also established their own supplier management manual, including **Xiamen Ocean Gate Terminal, Guangzhou South China Oceangate Terminal and Guangzhou Nansha Stevedoring Terminal, Jinjiang Pacific Terminal and CSP Wuhan Terminal**. In the tender process, **CSP Abu Dhabi Terminal** requests suppliers to sign a compliance confirmation form after bidding to ensure the suppliers comply with the labour laws of the United Arab Emirates and the Federation. The Group values supplier relationships management and endeavours to establish two-way and clear communications to build a close, stable and long-term relationship with suppliers. We actively communicate with business partners along the supply chain from time to time to explore further opportunities, and visit potential suppliers to keep abreast of market trends and the latest product and technology and to explore innovative operation model.

Strategies and Targets

In order to build a sustainable supply chain and a shipping ecosphere with mutual benefits, the Group proactively directs its efforts in three main aspects:

- 
Responsible procurement
 - Adopt a stringent procurement and tendering mechanism; evaluate new suppliers in terms of compliance, environment, social, health and safety; and review the performance of existing suppliers on a regular basis
- 
Cooperation with contractors
 - Proactively maintain close communication with contractors regarding safety issues and the identification of potential risks; enhance safety level and prevent outsourcing risks by providing safety trainings and conducting safety inspections
- 
Strengthening cooperation along the industry chain
 - Strengthen cooperation with upstream and downstream players of the shipping industry chain, and develop strategic relationships with mutual benefits

RESPONSIBLE PROCUREMENT

The Group manages supply chain based on the principles of sustainable development through the following measures:

Cautious Policies

When the headquarters and the Subsidiaries of the Group select suppliers, not only are they required to comply with relevant laws and regulations, but their corporate qualification, financial condition, business reputation, and their performance in human rights, safety, environmental protection and social contribution will also be considered. In addition, suppliers who are intended to participate in the tender exercises are required to fill in the *Supplier Self-evaluation on the Compliance with Social Regulations* for our assessment. We expect suppliers to maintain high level of corporate governance and work with us to improve our performance in terms of environment, society, and health and safety.



CHAPTER 9 WIN-WIN COOPERATION

Candidate Evaluation and Selection

The Group strictly evaluates the compliance of new suppliers. Child labour, forced labour and discrimination of any kind are strictly prohibited. Fraudulent and improper practices will not be tolerated. Suppliers' commitment and performance in relation to labour rights, wages and working hours, health and safety, environmental management and their requirements for their own supplier selection will also be evaluated.

Regular Assessment

As for the existing suppliers listed in the database, the Group also conducts annual appraisal to monitor and evaluate their performance in terms of basic qualifications, cost competitiveness, business innovation, customer services, quality control, service or product delivery, and safety and environmental protection. The suppliers will be categorised into four grades based on the appraisal. Disqualified suppliers will be removed from the database for three years to maintain a sound and reliable supply chain.

The headquarters of the Group completed an annual appraisal involving 136 suppliers (covering 21 sub-categories) who had provided services to us during the year. Based on our demand for four categories covering consultation, engineering, equipment and materials, four sets of scoring standards were formulated and used by respective departments to evaluate and grade the suppliers. In addition, suppliers of production materials and consultation services were added according to the Group's demand for these two types. Upon evaluation by the supplier evaluation team, a total of 29 outstanding suppliers were added to the supplier database.

Grade A Suppliers (with a score of 85-100)	Grade B Suppliers (with a score of 75-84)	Grade C Suppliers (with a score of 60-69)	Grade D Suppliers (with a score of 0-59)
<i>Excellent</i>	<i>Good</i>	<i>Improvement needed</i>	<i>To be removed from the qualified supplier list for three years</i>
To give priority under the same contractual conditions, and engage them to establish mutually beneficial strategic partnerships and collaboration	To form standard business partnerships	To support performance improvement and ratification in specific areas	To give a score of zero in cases of failed qualification, safety and environmental accidents or bribery

COOPERATION WITH CONTRACTORS

As a responsible enterprise and caring employer, COSCO SHIPPING Ports endeavours to ensure the safety of all workers at our terminals. During the year, the number of supervised workers accounted for 30.3% of total employees³⁰. Apart from maintaining a healthy and safe workplace³¹, we actively strengthen the management of risks and safety level associated with business outsourcing. The Group has formulated *Subcontract Regulations*, which clearly stipulates our terminals' responsibilities to prevent outsourcing risks, including formulating relevant safety management regulations and appointing designated supervisors, providing safety trainings to employees on a regular basis and conducting safety inspections, maintaining sufficient communications with contractors and subcontractors regarding safety issues and potential risks, and monitoring and assisting them in enhancing safety level.

Moreover, the Group has formulated *Safe Production Regulations*. If the working condition falls short of the basic requirements of occupational health, the terminal staff concerned has the right to refuse to work until such conditions are improved and resume to the compliance level. The terminals of the Group have particularly set up administrative measures in relation to the safety of business outsourcing, including:

- **Guangzhou South China Oceangate Terminal** and **Guangzhou Nansha Stevedoring Terminal** provide occupational health check-up for new joiners of the contractors and arrange annual occupational health check-up for each employee in order to be fully aware of the health conditions of their employees, identify potential risks in the workplace and adopt necessary preventive measures as early as possible.
- **CSP Zeebrugge Terminal** requires the contractors to discuss the relevant risks and safety measures with the terminal's project owners before starting respective projects. The contractors must provide all necessary business licenses for the project owners to issue work permits in order to ensure that the contractors have completed risk assessment and that qualified workers will be assigned.
- **COSCO-HIT Terminal's** operation department has set up a contractor management team to manage suppliers' performance in operations and product or service delivery, and their business licenses and safety certificates in relevant industries, while the safety and security department monitor suppliers' performance in health and safety to ensure compliance with relevant requirements.



Notes:

- 30 Supervised workers represent individuals who perform regular work for the Group in its premises but are not directly employed by the Group, including contractors and subcontractors working at the ports.
- 31 For details, please refer to Chapter 6 – Caring for our People in this report.

CHAPTER 9 WIN-WIN COOPERATION

Strengthening Cooperation along the Industry Chain

COSCO SHIPPING Ports proactively optimises its global terminal network, and enhances the effectiveness of each node along the industry chain by integrating and reallocating resources in order to create maximum values for our customers. We continuously strengthen the cooperation with the upstream and downstream players of the shipping industry chain to establish strategic partnerships and build a shipping ecosphere with mutual benefits.

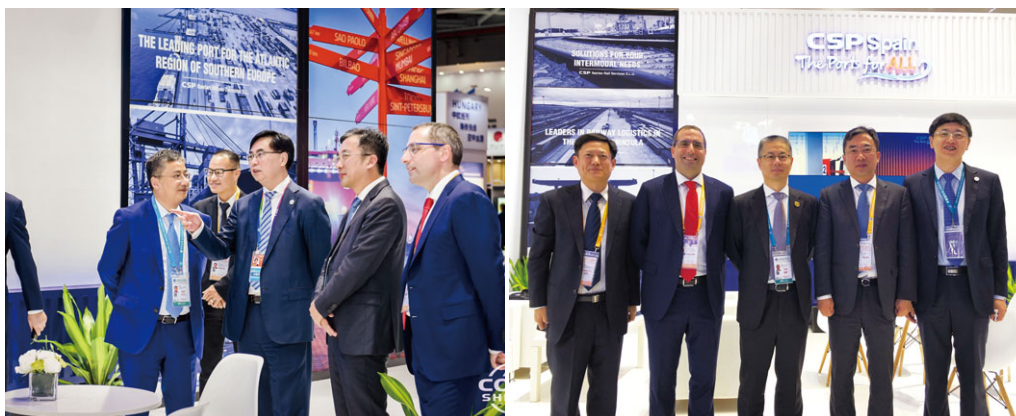
Enhancing Strategic Cooperation

In July 2019, the Group entered into a strategic cooperation agreement with CCC Third Harbor Consultants Co., Ltd. ("Third Harbor Consultants") to further enhance cooperation. Third Harbor Consultants mainly provides port engineering consultancy and design services to COSCO SHIPPING Ports, and provides quality design and services during the construction period of our Khalifa Port Project in Abu Dhabi, the United Arab Emirates.

Participation in CIIE



COSCO SHIPPING Group advocates an in-depth cooperation of each node along the industry chain by optimising business environment and facilitating the application of new technologies, with an aim to achieving mutual benefits and to developing a sustainable industry chain with high quality. COSCO SHIPPING Ports proactively supports this initiative. During the year, **CSP Spain Group**, **CSP Abu Dhabi Terminal** and **CSP Zeebrugge Terminal** joined the second CIIE to demonstrate our advantages and potentials brought by our global and diversified terminal network, and to attract potential customers. Meanwhile, we exchanged views with representatives from various industries, including shipping, logistics, ports, finance, manufacturing and technology and cargo owners around the globe to keep abreast of new technologies, identify the challenges and opportunities faced by the industries, promote port and shipping cooperation, terminal and terminal cooperation and capital cooperation in order to work towards complementary and mutual development.



Paving the Way for 5G Smart Ports

In recent years, COSCO SHIPPING Ports has been proactively developing smart ports and strives to seek supply chain and logistics solutions through technologies. Therefore, strategic cooperation with technology providers has become an integral part to supply chain management. According to our principles of win-win cooperation and mutual development, we actively commence cooperation with communication and technology companies in the areas of fundamental telecommunications, 5G smart application, cloud computation, smart ports, properties and facilities, and research, development and application of new technologies. During the year, **Xiamen Ocean Gate Terminal** and **Quan Zhou Pacific Terminal** entered into a strategic cooperation agreement with Xiaman Mobile and Quanzhou Mobile, respectively³².

On 19 July 2019, COSCO SHIPPING entered into a 5G strategic cooperation agreement with China Mobile. Under the framework of the agreement, COSCO SHIPPING Ports entered into a letter of intent with COSCO SHIPPING Technology CO., Ltd., China Mobile (Shanghai) ICT Co., Ltd. and CM Intelligent Mobility Network Co., Ltd. to jointly set up a 5G port lab.

Going forward, the Group will continue to explore cooperation with different suppliers, and address the new opportunities and challenges arising from energy and consumption management and digital innovation with an aim to driving the development of the port and shipping industries.



Note:

32 For details regarding the strategic cooperation agreement, please refer to Chapter 7 – Customers First.

CHAPTER 10

INVESTING IN COMMUNITIES

Social environment is inseparable from business operations. As a responsible corporate citizen, COSCO SHIPPING Ports leverages on its global presence and advantages on resources and technology, actively encourages its terminals to exert their influence to contribute to the communities where they operate in the aspects of education and youth development, poverty alleviation, environmental protection and talent trainings in order to create long-term value for the societies and our stakeholders..

Key Issues in Sustainability



Caring for Local
Communities



Responsible
Overseas
Investment



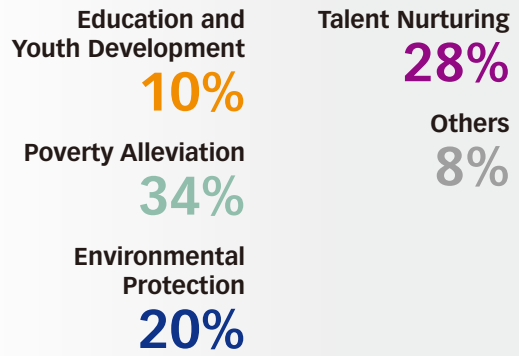


CHAPTER 10
INVESTING IN COMMUNITIES

PERFORMANCE HIGHLIGHTS IN 2019



Categories of Community Services




MANAGEMENT APPROACH


The Group is concerned about the potential impacts of its operations on local economy, environment and society in the countries where it operates, and actively fulfils its social responsibilities to foster a favourable business environment and create long-term positive influence. We encourage our terminals to strengthen interaction and communication with local communities and identify local needs. Leveraging on their own social networks, resources and talents, our terminals partner with different community organisations which share the same objectives and values, and develop constructive and positive relationships with local communities and stakeholders to promote social development. At the same time, the Group also promotes its caring culture to local communities through social contribution with an aim to creating harmonious and embrace communities.

Strategies and Targets


Apart from making donations and carrying out social initiatives, the Group actively encourages employee participation and endeavours to exert its influence to create value for the communities. We strive to achieve our commitments and targets of caring for local communities and making responsible overseas investments in the following four areas:

- 


Education and Youth Development

 - Increase the devotion of resources in education; encourage the development of skills and interests; and encourage our next generation to explore and develop their potentials to become the future pillars of the society
- 

Poverty Alleviation

 - Maintain effective communication with social service organisations, provide assistance to the underprivileged, improve the quality of life in local communities, and optimise local resources to support the long-term development of the communities
- 

Environmental Protection

 - Apart from promoting environmental protection during the course of operations, the Group strives to improve the surroundings of the terminals, increase our efforts in environmental protection and greening, and improve the living environment in the local communities
- 

Talent Nurturing

 - Leveraging on our professional knowledge and technical experience in the industry, the Group encourages the terminals to share and promote terminal operations to the societies with an aim to nurturing potential talents

DONATIONS

COSCO SHIPPING Ports organises various fund-raising activities to demonstrate the culture of giving. The Group has been actively supporting the poverty alleviation projects of COSCO SHIPPING Group. During the year, COSCO SHIPPING Ports donated RMB8 million to COSCO SHIPPING Charity Foundation to fund charitable projects and make cash donations in order to benefit those in need in the society. Moreover, **Guangzhou South China Oceangate Terminal** donated RMB30,000 Longxue Sub-district Office of Guangzhou Nansha

CHAPTER 10 INVESTING IN COMMUNITIES

Charity, while **Piraeus Terminal** sponsored EUR20,000 to a Sino-Greek cultural exchange activity to support poverty relief and cultural exchange. Other donation projects included:

Dalian Container Terminal organised “Ignite Hope with Clothes and Books (衣縷書香·點燃希望)” activity and donated materials such as stationery and books to Temurtei Primary School and Jiangxi Huangling Primary School to support education in remote areas.



Yingkou Container Terminal and **Yingkou New Century Terminal** organised “Grant-in-aid with Love (愛心奉獻·助學圓夢)” activity in June 2019. Apart from providing grant-in-aid and financial support to students with financial hardship and family difficulties in Shanyu Village. The department-in-charge also conducted home visits to encourage the students in need.

During the year, COSCO SHIPPING Ports organised the first digital photography charity auction. Digital photos taken at different terminals were first collected for competition and rating by a panel of judges, and then sent to our Shanghai headquarters for exhibition and auction. Among which, 12 pieces were sold successfully, and the money raised was entirely donated to COSCO SHIPPING Charity Foundation.

SOCIAL INITIATIVES

Dalian Container Terminal organised an activity for children with autism on 11 November 2019. Over 40 terminal staff visited Xing Xing Zhi Huo Support Centre for Autism in Dalian to send food, books, toys and stationery as well as love, support and blessings to autistic children from various villages and towns in the cold winter.

The dispatch team of CSP Abu Dhabi Terminal participated in the “2019 World Oceans Day cum National Oceans Day” in Sanya on Hainan Island in China in June 2019 and was awarded the “2019 Ocean Character Award”. Being the “Ocean Character” of the year, the representative of the dispatch team delivered a speech in the activity and joined a seminar with past winners in response to the theme of the Oceans Day – “Treasure Marine Resources and Protect the Diversity of Marine Life”.



The volunteer teams of **COSCO-HIT Terminal** and **Asia Container Terminal** participated in the “Race For Water” organised by a charity organisation, A Drop of Life, to raise funds for water conservancy projects in remote rural areas through charity run.

Piraeus Terminal carried out maintenance works for the campus of elementary schools in Perama in Greece, and donated food on local festivals.

ENVIRONMENTAL PROTECTION AND EDUCATION

COSCO SHIPPING Ports held an activity named “No Waste Ocean” in D-Park in Tsuen Wan jointly with COSCO SHIPPING International (Hong Kong) Co., Ltd. and COSCO SHIPPING Financial Holdings Co., Limited in July 2019. Ocean tunnel, VR experience zone, colour painting of marine life and family workshop on environmental protection were set up. We also promoted the contributions of COSCO SHIPPING Group in environmental protection. In addition, the three companies organised a beach cleaning activity at Lung Kwu Tan in Tuen Mun in October. Our staff and their families supported environmental protection in action by removing the rubbish from the coastline, reflecting on the sources of the rubbish and enhancing the awareness on environmental protection.



Quan Zhou Pacific Terminal organised a voluntary preservation activity namely “Application for Heritage Preservation of the Maritime Silk Road”. A total of 27 employees participated in the preservation of the world cultural heritage of Maritime Silk Road to demonstrate our core value of “cultural integration”. The activity was highly appreciated by the local authorities.

Shanghai Pudong Terminal carried out a park cleaning activity in Gaoqiao Riverside Forest Park in March 2019. Ten volunteers removed the rubbish from the coastline to promote environmental protection.

Piraeus Terminal held an Open Day and invited students for site visit. They joined group discussions to get to know the development and operations of the ports and shipping industry, as well as experienced the growth and enchantment of an international hub port in person.



CSP Spain Group participated in an employment promotion scheme organised by the local port authority to introduce the operating procedures and management models of the terminal to the teenagers, university students and professionals in Santurtzi in order to deepen their knowledge and understanding towards the ports and shipping industry.

CHAPTER 11
APPENDICES

KEY PERFORMANCE INDICATORS

Workforce Statistics

Workforce Statistics (1)		The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
		2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Total Workforce													
Employees	No. of people	10,432	9,471	9,683	6,190	6,185	6,303	3,921	2,984	3,088	321	302	292
Supervised Employees	No. of people	4,539	3,345	3,725	1,812	2,184	2,490	2,727	1,161	1,235	0	0	0
Self-employed	No. of people	1,348	0	0	0	0	0	1,348	0	1	0	0	0
Employee Composition													
By employment type													
Full-time	No. of people	10,429	9,465	9,678	6,190	6,183	6,301	3,918	2,980	3,085	321	302	292
Part-time	No. of people	3	6	5	0	2	2	3	4	3	0	0	0
By geographical location													
Hong Kong	%	4.7	5.2	5.3	6.4	6.5	6.6	0	0	0	29.6	29.5	32.2
China (ex-Hong Kong)	%	78.9	81.6	82.0	80.0	79.8	80.0	78.6	87.2	88.0	61.4	63.2	62.3
Overseas	%	16.4	13.2	12.7	13.6	13.7	13.4	21.3	12.8	12.0	9.0	7.3	5.5
By gender													
Male	%	87.8	87.7	87.0	88.7	88.6	87.6	87.5	87.2	86.9	74.1	74.2	72.3
Female	%	12.2	12.3	13.0	11.3	11.4	12.4	12.5	12.8	13.1	25.9	25.8	27.7
By age group													
Below 30	%	17.5	19.6	22.4	17.0	18.9	20.9	19.3	22.4	26.9	7.5	7.3	7.9
30-50	%	71.8	70.7	67.6	72.6	71.4	68.4	70.7	69.6	66.2	67.6	66.9	66.4
Above 50	%	10.7	9.7	10.0	10.4	9.7	10.7	10.0	8.0	6.9	24.9	25.8	25.7
By employee category													
Managerial position	%	1.6	1.2	1.3	2.3	1.5	1.5	0.5	0.6	0.7	1.9	2.6	3.4
Supervisory position	%	6.3	7.1	7.2	7.1	7.6	7.7	1.8	2.2	3.0	45.8	45.1	39.1
General position	%	92.1	91.7	91.5	90.6	90.9	90.8	97.7	97.2	96.3	52.3	52.3	57.5
Employee Turnover													
	No. of people	499	552	548	316	390	398	171	143	141	12	19	9
	Turnover rate (%) ³³	4.8	5.8	5.7	5.1	6.3	6.3	4.4	4.8	4.6	3.7	6.3	3.1
By geographical location													
Hong Kong	No. of people	50	70	45	42	59	39	0	0	0	8	11	6
China (ex-Hong Kong)	No. of people	329	384	385	213	249	259	112	127	123	4	8	3
Overseas	No. of people	120	98	118	61	82	100	59	16	18	0	0	0
Hong Kong	%	10.2	14.3	8.8	10.6	14.8	9.4	0	0	0	8.4	12.4	6.4
China (ex-Hong Kong)	%	4.0	5.0	4.8	4.3	5.0	5.1	3.6	4.9	4.5	2.0	4.2	1.6
Overseas	%	7.0	7.8	9.6	7.3	9.7	11.8	7.0	4.2	4.8	0	0	0
By gender													
Male	No. of people	418	460	464	258	334	341	154	115	119	6	11	4
Female	No. of people	81	92	84	58	56	57	17	28	22	6	8	5
Male	%	4.6	5.5	5.5	4.7	6.1	6.2	4.5	4.4	4.4	2.5	4.9	1.9
Female	%	6.4	7.9	6.7	8.3	8.0	7.3	3.5	7.3	5.5	7.2	10.3	6.2
By age group													
Below 30	No. of people	127	158	179	77	106	123	49	51	56	1	1	0
30-50	No. of people	242	251	245	136	165	171	100	77	66	6	9	8
Above 50	No. of people	130	143	124	103	119	104	22	15	19	5	9	1
Below 30	%	6.9	8.5	8.2	7.3	9.1	9.4	6.5	7.6	6.7	4.2	4.5	0
30-50	%	3.2	3.7	3.7	3.0	3.7	4.0	3.6	3.7	3.2	2.8	4.5	4.1
Above 50	%	11.7	15.6	12.9	16.0	19.8	15.4	5.6	6.3	9.0	6.3	11.5	1.3

Note:

33 Employee turnover rate was calculated by: the total number of employees who left the organisation voluntarily or due to dismissal, retirement, or death in service divided by the total number of employees during the reporting year.

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Workforce Statistics (2)		The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
		2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
New Hires													
	No. of people	502	465	559	160	308	405	310	131	144	32	26	10
	Rate of new hires (%) ³⁴	4.8	4.9	5.8	2.6	5.0	6.4	7.9	4.4	4.7	10.0	8.6	3.4
By geographical location													
Hong Kong	No. of people	43	45	46	28	34	36	0	0	0	15	11	10
China (ex-Hong Kong)	No. of people	209	307	239	77	189	144	115	103	95	17	15	0
Overseas	No. of people	250	113	274	55	85	225	195	28	49	0	0	0
Hong Kong	%	8.8	9.2	9.0	7.1	8.5	8.7	0	0	0	15.8	12.4	10.6
China (ex-Hong Kong)	%	2.5	4.0	3.0	1.6	3.8	2.9	3.7	4.0	3.5	8.6	8	0
Overseas	%	14.7	9.0	22.2	6.5	10.0	26.6	23.3	7.4	13.2	0	0	0
By gender													
Male	No. of people	438	415	522	135	283	384	281	115	133	22	17	5
Female	No. of people	64	50	37	25	25	21	29	16	11	10	9	5
Male	%	4.8	5.0	6.2	2.5	5.2	7.0	8.2	4.4	5.0	9.2	7.6	2.4
Female	%	5.0	4.3	2.9	3.6	3.6	2.7	5.9	4.2	2.7	12.0	11.5	6.2
By age group													
Below 30	No. of people	231	345	332	100	220	235	120	112	95	11	13	2
30-50	No. of people	258	115	219	53	85	162	187	19	49	18	11	8
Above 50	No. of people	13	5	8	7	3	8	3	0	0	3	2	0
Below 30	%	12.6	18.6	15.3	9.5	18.9	17.9	15.9	16.7	11.4	45.8	59.1	8.7
30-50	%	3.4	1.7	3.3	1.2	1.7	3.8	6.7	0.9	2.4	8.3	5.4	4.1
Above 50	%	1.2	0.5	0.8	1.1	0.5	1.2	0.8	0	0	3.8	2.6	0

Note:

34 The rate of new hires was calculated by: the total number of new employees divided by the total number of employees.

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Workforce Statistics (3)		2019			
		The Group	Non-controlling Terminals	Subsidiaries	Headquarters
Collective Bargaining Agreements					
Employees from 12 terminals of the Group were covered by collective bargaining agreements. The percentage covered and information of respective terminals are as follows:					
100% of the employees were covered by collective bargaining agreements	No. of terminals	11	4	7	N/A
50% of the employees were covered by collective bargaining agreements	No. of terminals	1	0	1	N/A
Board Composition					
By gender					
Male	No. of people	11			
Female	No. of people	1			N/A
By age group					
Below 30	No. of people	0			
30-50	No. of people	5			N/A
Above 50	No. of people	7			

Workforce Statistics (4)		2019	2018	2017
		Headquarters	Headquarters	Headquarters
Staff Training				
	Total number of employees received training	370	715	435
	Total training hours ³⁵	14,476	6,268	23,480
	Average training hours	39	21	80
By gender				
Male	Total number of employees received training	274	530	314
Female	Total number of employees received training	96	185	121
Male	Average training hours	39	21	80
Female	Average training hours	39	21	80
By employee category				
Managerial position	Total number of employees received training	6	8	11
Supervisory position	Total number of employees received training	170	331	170
General position	Total number of employees received training	194	376	254
Managerial position	Average training hours	45	21	80
Supervisory position	Average training hours	39	21	80
General position	Average training hours	39	21	80

Note:

- 35 Since the internship training programmes regarding global terminal operations and management discontinued, the training hours in 2019 and 2018 are less than that of 2017. The total training hours in 2017 included the 14,800 hours involved in the second internship regarding the global terminal operations and management programme. From 2018 onwards, the calculation has not taken into account any internship training and management trainee programmes when calculating the training hours for the headquarters.

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Workforce Statistics (5)	The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Occupational Health and Safety												
Work-related injuries and work-related ill health³⁶												
Fatalities	No. of people	0	1	0	0	0	0	1	0	0	0	0
High-consequence work-related injuries ³⁷	No. of cases	1		0			1			0		
Recordable work-related injuries ³⁸	No. of cases	59		40			19			0		
Rate of fatalities ³⁹	Per 200,000 hours worked	0	N/A	0	N/A		0	N/A		0	N/A	
Rate of high-consequence work-related injuries ⁴⁰	Per 200,000 hours worked	0.01		0			0.03			0		
Rate of recordable work-related injuries ⁴¹	Per 200,000 hours worked	0.66		0.79			0.51			0		
Work-related ill health ⁴²	No. of cases	26	0	0	0	0	6	0	0	0	0	0
Lost days and absentees												
Lost days due to work-related injuries ⁴³	No. of days	1,957	1,414	1,207	911	645	779	1,046	769	428	0	0
Absentees ⁴⁴	No. of days	16,930	14,915	13,102	9,228	12,859	9,560	7,327	1,647	2,785	376	409
Lost day rate ⁴⁵	%	0.08	0.06	0.05	0.06	0.04	0.05	0.11	0.10	0.06	0	0
Absentee rate ⁴⁶	%	0.65	0.63	0.54	0.60	0.83	0.61	0.75	0.22	0.36	0.47	0.54

Notes:

- 36 Work-related injuries and work-related ill health refer to negative impacts on health arising from exposure to hazards at work. Since the classification and calculation of work-related injuries for 2019 have already been updated in accordance with "GRI 403: Occupational Health and Safety 2018", direct comparison to relevant figures for 2018 and 2017 cannot be made. For relevant figures for previous years, please refer to our *2018 Sustainability Report*.
- 37 High-consequence work-related injuries: other injuries from which the worker cannot recover (e.g., amputation of a limb), or does not or is not expected to recover fully to pre-injury health status within 6 months.
- 38 Recordable work-related injuries: significant injury or ill health diagnosed by a physician or other licensed healthcare professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.
- 39 Rate of fatalities was calculated by: the total number of fatalities times 200,000 and divided by the number of hours worked.
- 40 Rate of high-consequence work-related injuries was calculated by: the total number of high-consequence work-related injuries times 200,000 and divided by the number of hours worked.

- 41 Rate of recordable work-related injuries was calculated by: the total number of recordable work-related injuries times 200,000 and divided by the number of hours worked.
- 42 Work-related ill health: an illness due to workplace or work-related activities (e.g. high pressure or exposure to harmful chemicals for a long period of time) or work-related injury.
- 43 Lost days due to work-related injuries: time away from work due to work-related accidents or work-related ill health.
- 44 Absentees: an employee absents from work due to incapacity of any kind, not just as a result of work-related injury or work-related ill health. Permitted leave absences such as holidays, study leave, maternity leave/paternity leave, and compassionate leave are excluded.
- 45 During the reporting period, the total number of scheduled workdays for each full-time employee were estimated as 5 days times 50 weeks, i.e. a total 250 days. Lost day rate was calculated by: the total number of lost days divided by the total number of scheduled workdays times 100%.
- 46 Absentee rate was calculated by: the number of lost days divided by the total number of scheduled workdays times 100%.

Environmental Performance

Environmental Performance (1)		The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
		2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Direct Energy Consumption and GHG Emissions^{47, 48, 49}													
Diesel	Litre	74,441,466	55,577,110	59,065,133	34,968,332	38,273,485	39,056,679	39,473,134	17,303,625	20,008,454	0	0	0
Gasoline	Litre	726,817	926,344	1,294,114	601,653	774,759	1,013,777	107,200	135,004	261,777	17,964	16,581	18,560
Liquid petroleum gas (LPG)	Litre	140,564	141,702	13,405	135,492	132,586	5,288	5,072	9,116	8,117	0	0	0
Liquefied natural gas (LNG)	Litre	17,129,551	16,436,900	18,001,030	17,129,551	16,436,900	18,001,030	0	0	0	0	0	0
Natural gas	m ³	417,234	406,976	407,908	417,234	406,976	407,908	0	0	0	0	0	0
Indirect Energy Consumption													
Purchased electricity	kWh	547,035,996	454,835,929	441,835,179	324,648,170	312,636,060	308,404,540	221,973,354	141,738,636	132,937,184	414,472	461,233	493,455
Purchased heating	MJ	6,562	6,322	6,005	6,562	6,322	6,005	0	0	0	0	0	0
Energy Use⁵⁰													
Direct energy use	TJ	3,281	2,427	2,602	1,765	1,785	1,861	1,515	641	740	1	1	1
Indirect energy use	TJ	1,969	1,637	1,591	1,169	1,125	1,110	799	510	479	1	2	2
Total energy use	TJ	5,250	4,066	4,194	2,934	2,911	2,971	2,314	1,152	1,220	2	3	3
Energy consumption intensity	GJ per TEU	0.075	0.069	0.084	0.073	0.072	0.089	0.078	0.061	0.073	N/A	N/A	N/A
	GJ per m ²	0.34	0.52	0.39	N/A	N/A	N/A	N/A	N/A	N/A	0.34	0.52	0.39
GHG Emissions⁵¹													
GHG emissions (scope 1)	Tons of CO ₂ e	221,031	170,331	181,962	116,549	124,422	128,799	104,438	45,878	53,131	44	31	32
GHG emissions (scope 2)	Tons of CO ₂ e	409,555	355,234	347,826	245,597	235,715	236,723	163,630	119,155	110,714	328	364	389
Total GHG emissions	Tons of CO ₂ e	630,586	525,565	529,788	362,146	360,137	365,522	268,068	165,033	163,845	372	395	421
GHG emissions intensity	kg of CO ₂ e per TEU	9.02	8.86	10.18	9.04	8.89	10.48	8.99	8.79	9.57	N/A	N/A	N/A
	kg of CO ₂ e per m ²	59.40	63.10	67.30	N/A	N/A	N/A	N/A	N/A	N/A	59.40	63.10	67.30

Notes:

- 47 Since CSP Wuhan Terminal has not yet commenced operations, its environmental performance was not included.
- 48 The energy consumption and GHG emissions do not include COSCO-PSA Terminal. We will explore more detailed disclosure in future reports.
- 49 Since the throughput of CSP Abu Dhabi Terminal was included since April 2019, its energy consumption and GHG emissions from January to March were not included.
- 50 The energy consumption for different fuel types was calculated based on gross calorific values, density or conversion factors stated in *UK Government GHG Conversion Factors for Company Reporting (2019)*. Energy consumption of electricity was calculated based on the default factors provided by Electrical and Mechanical Services Department of Hong Kong: 1kWh = 0.0036 GJ.

- 51 GHG emissions were calculated based on the 100-year Global Warming Potentials, provided by the Intergovernmental Panel on Climate Change (IPCC) in its Fifth Assessment Report (CO₂: 1, CH₄: 28, N₂O: 265).

- (1) GHG emissions from our operations in China were calculated based on the *GHG Protocol Tool for Energy Consumption in China (Version 2.1)* issued by Greenhouse Gas Protocol;
- (2) GHG emissions from our operations in Hong Kong were calculated based on *Appendix 2: Reporting Guidance on Environmental KPIs* issued by The Stock Exchange of Hong Kong Limited;
- (3) GHG emissions from our operations overseas were calculated based on the *Emission Factors from Cross-Sector Tools* issued by Greenhouse Gas Protocol;
- (4) for those GHG emission factors from electricity generation not covered by (1) to (3) above, the calculation was based on Carbon Footprint Country Specific Electricity Grid GHG Emission Factors v1.0 (Jun 2019) and relevant information provided by local electricity suppliers (applicable to the operations in Hong Kong and overseas); and
- (5) the above statistics do not include fugitive emissions from fire-extinguishing systems and refrigeration/air-conditioning equipment.

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Environmental Performance (2)		The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
		2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Total Water Consumption ^{52, 53, 54}	m³	2,738,852	2,733,992	2,615,609	1,376,647	1,441,355	1,424,532	1,360,980	1,291,276	1,189,867	1,225	1,361	1,210
Municipal water supply	m ³	2,708,007	2,714,345	2,592,635	1,362,984	1,431,885	1,413,776	1,343,808	1,281,109	1,177,659	1,215	1,351	1,200
Groundwater	m ³	184	0	0	184	0	0	0	0	0	0	0	0
Waste water from other organisations	m ³	13,159	9,470	10,756	13,159	9,470	10,756	0	0	0	0	0	0
Other water utilities	m ³	17,502	10,177	12,218	320	0	0	17,172	10,167	12,208	10	10	10
Water consumption intensity	m³ per TEU	0.04	0.05	0.05	0.03	0.04	0.04	0.05	0.07	0.07	N/A	N/A	N/A
	m³ per m²	0.20	0.22	0.19	N/A	N/A	N/A	N/A	N/A	N/A	0.20	0.22	0.19
Materials used ^{52, 53, 54}													
Engine oil and hydraulic oil	kg	739,319	556,920	571,847	310,290	322,216	248,265	429,029	234,704	323,582	N/A	N/A	N/A
Grease	kg	101,184	69,659	42,358	38,365	38,130	17,381	62,819	31,529	24,977	N/A	N/A	N/A
Tyres ⁵⁵	kg	1,270,376	855,483	600,171	375,695	314,869	346,690	894,681	540,614	253,481	N/A	N/A	N/A
Paper ⁵⁶	kg	48,525	49,047	64,495	32,353	39,522	52,857	14,299	7,204	8,825	1,873	2,321	2,813
Waste generation ^{57, 58}													
Solid chemical waste	kg	3,639,547	2,825,198	2,758,617	1,496,016	1,489,490	1,743,230	2,143,531	1,335,708	1,015,387	N/A	N/A	N/A
Waste oil contaminated rag	kg	218,097	69,487	N/A	185,505	55,352	N/A	32,592	14,135	N/A	N/A	N/A	N/A
Waste wire rope	kg	1,705,656	1,934,657	N/A	1,095,210	1,300,839	N/A	610,446	633,818	N/A	N/A	N/A	N/A
Scrap metal	kg	1,631,764	799,413	N/A	196,399	119,203	N/A	1,435,365	680,210	N/A	N/A	N/A	N/A
Waste oil drum	kg	41,293	9,294	N/A	6,201	4,909	N/A	35,092	4,385	N/A	N/A	N/A	N/A
Waste paint bucket	kg	8,390	621	N/A	841	621	N/A	7,549	N/A	N/A	N/A	N/A	N/A
Waste oil sludge	kg	34,347	11,726	N/A	11,860	8,566	N/A	22,487	3,160	N/A	N/A	N/A	N/A
Liquid chemical waste	kg	455,738	319,297	238,782	235,341	163,902	134,941	220,277	155,395	103,841	120	N/A	N/A
Waste lead acid battery	kg	36,689	18,596	N/A	12,149	10,012	N/A	24,420	8,584	N/A	120	N/A	N/A
Waste oil	kg	419,049	300,701	N/A	223,192	153,890	N/A	195,857	146,811	N/A	N/A	N/A	N/A

Notes:

52 Since the throughput of CSP Abu Dhabi Terminal was included since April 2019, its statistics from January to March were not included.

53 Since CSP Wuhan Terminal has not yet commenced operations, its environmental performance was not included.

54 COSCO-PSA Terminal was not included. We will explore to make more detailed disclosure in future reports.

55 The Group's tyre consumption for 2018 and 2019 was measured in pieces. When calculating the total tyre consumption, for tyres weighed less than 10 kg, 10-50 kg, and 51-100 kg, the respective median weight was used for each tyre category, hence 5.5 kg, 30 kg, 75.5 kg were used respectively. For tyres weighed more than 100 kg, 150 kg was used for calculation.

56 Paper consumed beyond the reporting period was included.

57 Since waste generated in 2019 covered 18 terminals within the reporting boundary, which was more than the 14 terminals covered in 2018, the waste generation was relatively higher.

58 Waste generation of COSCO-PSA Terminal, Jinzhou New Age Terminal, CSP Wuhan Terminal and CSP Zeebrugge Terminal was not included. We will explore to make more detailed disclosure in future reports.

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Environmental Performance (3)		The Group			Non-controlling Terminals			Subsidiaries			Headquarters		
		2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Other hazardous waste ⁵⁹	kg	28,531	28,531	10,170	28,531	28,531	10,170	N/A	N/A	N/A	N/A	N/A	N/A
Wooden pallets	kg	143,600	143,600	178,600	143,600	143,600	178,600	N/A	N/A	N/A	N/A	N/A	N/A
Wastewater	m ³	989,880	827,228	510,315	694,649	689,696	197,460	295,231	189,304	312,855	N/A	N/A	N/A
Other non-hazardous waste ⁶⁰	kg	1,334,372	702,670	8,640	552,200	621,680	8,640	782,112	80,990	N/A	60	N/A	N/A
Waste recycling ^{61, 62, 63}													
Solid chemical waste	kg	530,472	475,094	N/A	87,280	162,794	N/A	443,192	312,300	N/A	N/A	N/A	N/A
Liquid chemical waste	kg	462,985	301,878	N/A	161,851	200,842	N/A	301,134	101,036	N/A	N/A	N/A	N/A
Other hazardous waste	kg	78,945	1,560	N/A	2,080	1,560	N/A	76,865	N/A	N/A	N/A	N/A	N/A
Wooden pallets	kg	214,695	247,700	N/A	193,240	247,700	N/A	21,455	N/A	N/A	N/A	N/A	N/A
Tyres ⁶⁴	kg	487,124	615,515	226,430	136,868	319,741	114,420	350,256	295,774	112,010	N/A	N/A	N/A
Paper	kg	27,222	73,246	37,646	20,758	71,973	33,520	6,074	1,100	350	390	173	3,776
IT equipment	kg	3,330	1,691	7,100	1,647	1,691	4,740	1,683	N/A	2,060	N/A	N/A	300
Other waste	kg	129,500	709,220	167,808	440	709,100	2,680	129,000	N/A	164,990	60	120	138

Notes:

59 Medical waste, sludge and other contaminated waste were included.

60 Metal, plastic, glass, food waste and other domestics waste were included.

61 Waste recycling of Shanghai Mingdong Terminal, Shanghai Pudong Terminal, Ningbo Yuan Dong Terminal, Yingkou New Century Terminal, COSCO-PSA Terminal, Jinzhou New Age Terminal, Nantong Tonghai Terminal, CSP Wuhan Terminal and CSP Abu Dhabi Terminal was not included. We will explore to make more detailed disclosure in future reports.

62 The solid waste, liquid chemical waste and other hazardous waste were disposed and recycled by certified third parties. Relevant details were not repeated here.

63 For examples, ink cartridges, light tubes, mercury lamps and circuit boards, etc. Since some of the waste were handled by recycling companies, we are unable to provide the weight of recycled materials of specific category. We will explore to make more detailed disclosure in future reports.

64 The Group's tyre recycled for 2018 and 2019 was measured in pieces. When calculating the total tyre recycled, for tyres weighed less than 10 kg, 10-50 kg, and 51-100 kg, the respective median weight was used for each tyre category, hence 5.5 kg, 30 kg, 75.5 kg were used respectively. For tyres weighed more than 100 kg, 150 kg was used for calculation.

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GRI Indicator and Description		References or Remarks
General Disclosures		
Organisational Profile		
102-1	Name of the organisation	<ul style="list-style-type: none"> Chapter 1 – About this Report (P.2)
102-2	Primary activities, brands, products, and services	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Overview (P.12)
102-3	Location of headquarters	The Group's headquarters is located in Hong Kong.
102-4	Location of operations	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Global Terminal Network (P.18-21)
102-5	Nature of ownership and legal form	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Overview (P.12)
102-6	Markets served	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Global Terminal Network (P.18-21)
102-7	Scale of the organisation	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Overview and Global Terminal Network (P.12,18-21) Chapter 6 – Caring for our People – Performance Highlights in 2019 (P.42)
102-8	Information on employees and other workers	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Performance Highlights in 2019 (P.42)
102-9	Description of supply chain	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Performance Highlights in 2019 and Cooperation with Contractors (P.84, 87)
102-10	Significant changes to the organisation and its supply chain during the reporting period	No significant change
102-11	Precautionary approach or principle	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Governance (P.29-31)
102-12	External rules, principles or other initiatives	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Awards and Honours (P.25-27)
102-13	Memberships of associations and advocacy organisations	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Memberships and Charters (P.28)
Strategy and Analysis		
102-14	Statement from the most senior decision-maker of the organisation	<ul style="list-style-type: none"> Chapter 2 – Chairman's Message (P.4-7)
102-16	Values, principles, standards, and norms of behavior of the organisation	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Overview, Corporate Vision and Our Approach to Sustainability (P.12, 15, 22-23)
Governance		
102-18	Governance structure of the organisation	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Governance (P.29-31)

GRI Indicator and Description		References or Remarks
General Disclosures		
Stakeholder Engagement		
102-40	List of stakeholders engaged	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment (P.34-37)
102-41	Percentage of the employees covered by collective bargaining agreements	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
102-42	Identifying and selecting stakeholders	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment (P.34-37)
102-43	Approach to stakeholder engagement	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment (P.34)
102-44	Key topics and concerns raised by stakeholders and the organisation's response	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment – Our Responses to Stakeholders (P.35-38)
Material Topics and Boundaries Identified		
102-45	Entities included in the consolidated financial statements but not covered in this report	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Global Terminal Network (P.18-21)
102-46	Process for defining report content and topic boundaries	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment – Materiality Assessment (P.38) Chapter 11 – Appendix – Boundary Mapping of Material Topics (P.123)
102-47	Material topics identified in the process of defining report content	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment – Materiality Assessment (P.38)
102-48	Results for restatements of any information provided in previous reports	Not applicable
102-49	Significant changes in the scope and topic boundaries compared with previous reporting period	<ul style="list-style-type: none"> Chapter 5 – Stakeholder Engagement and Materiality Assessment – Materiality Assessment (P.38) Chapter 11 – Appendices – Boundary Mapping of Material Topics (P.123)
Report Profile		
102-50	Reporting period	<ul style="list-style-type: none"> Chapter 1 – About this Report – Reporting Scope (P.3)
102-51	Date of most recent report	The most recent report was published in April 2019.
102-52	Reporting cycle	<ul style="list-style-type: none"> Chapter 1 – About this Report – Reporting Scope (P.3)
102-53	Contact point for feedback of the report	<ul style="list-style-type: none"> Chapter 1 – About this Report – Feedback (P.2)
102-54	Claims of reporting in accordance with the GRI Standards	<ul style="list-style-type: none"> Chapter 1 – About this Report – Reporting Standard (P.2)
102-55	GRI content index	<ul style="list-style-type: none"> Chapter 11 – Appendices – GRI Content Index (P.110-115)
102-56	External assurance sought for the report by the organisation	<ul style="list-style-type: none"> Chapter 11 – Appendices – Verification Statement (P.124)

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GRI Indicator and Description		References or Remarks
Specific Standard Disclosures		
Environment		
Materials Consumption		
103	Management approach	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach and Proper Management of Resources (P.66-67, 78-80)
301-1	Materials used by weight or volume	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
Energy Consumption		
103	Management approach	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach (P.66-67)
302-1	Energy consumption within the organisation	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
Emissions		
103	Management approach	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach (P.66-67)
305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
305-2	Indirect greenhouse gas (GHG) emissions (Scope 2)	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)

GRI Indicator and Description		References or Remarks
Specific Standard Disclosures		
Emissions		
305-5	Reduction of greenhouse gas (GHG) emissions	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77)
Effluents and Waste		
103	Management approach	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach (P.66-67)
306-2	Total weight of waste by type and disposal method	<ul style="list-style-type: none"> Chapter 8 – Green Development – Proper Management of Resources (P.78-80) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
Compliance with Laws and Regulations		
103	Management approach	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach (P.66-67)
307-1	Times of suffering from significant amount of fines or non-monetary penalties due to non-compliance of environmental laws and regulations	During the reporting year, the Group was not suffered from significant amount of fines or non-monetary penalties due to non-compliance of environmental laws and regulations.
Supplier Environmental Assessment		
103	Management approach	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Management Approach (P.84-85)
308-1	Percentage of new suppliers being screened using environmental criteria	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Performance Highlights in 2019 (P.84)
Social		
Employment Relationship		
103	Management approach	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach (P.43)
401-1	Total number and rates of new hires and employee turnover by age group, gender, and geographical location	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
Labour/Management Relationship		
103	Management approach	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach (P.43)
402-1	Whether it is specified in collective agreements regarding the minimum notice periods of operational changes specified in collective agreements	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)

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GRI Indicator and Description		References or Remarks
Specific Standard Disclosures		
Occupational Health and Safety		
403-1	Management system of occupational health and safety	
403-2	Hazard identification, risk evaluation and incident investigation	
403-3	Occupational health services	
403-4	Occupational health and safety affairs: Workers' engagement, co-operation and communication	• Chapter 6 – Caring for our People – Occupational Safety and Health (P.48-53)
403-5	Occupational health and safety trainings for workers	• Chapter 9 – Win-win Cooperation – Cooperation with Contractors (P.87)
403-6	Promotion of workers' health	
403-7	Prevention and minimising the impact on occupational health and safety directly related to business relationship	
403-8	Workers covered by the occupational health and safety management system	
403-9	Work-related injuries	• Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
403-10	Work-related health problems	• Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
Training and Education		
103	Management approach	• Chapter 6 – Caring for our People – Management Approach (P.43)
404-1	Average hours of training received annually per employee by gender and employee category	• Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
Equal Opportunities		
103	Management approach	• Chapter 6 – Caring for our People – Management Approach (P.43)
405-1	Composition of the management of the Company and breakdown of employees by indicators of diversity	• Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
Local Community		
103	Management approach	• Chapter 10 – Investing in Communities – Management Approach (P.93)
413-1	Percentage of operations with the implementation of local communities engaging in the impact assessment and presence of development programs	• Chapter 10 – Investing in Communities – Performance Highlights in 2019 (P.92)

GRI Indicator and Description		References or Remarks
Specific Standard Disclosures		
Supplier Assessment for Impact on Society		
103	Management approach	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Responsible Procurement (P.85-86)
414-1	Selecting new suppliers using social standard	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Responsible Procurement (P.85-86)
Customer Privacy		
103	Management approach	<ul style="list-style-type: none"> Chapter 7 – Customer First – Management Approach (P.58)
418-1	Complaints regarding breaches of customer privacy and losses of customer data	During the reporting year, there was no complaint regarding the loss of customer information.
Compliance with Laws and Regulations		
103	Management approach	<ul style="list-style-type: none"> Chapter 7 – Customer First – Strengthening External Communication (P.61-62)
419-1	Breaches of laws and regulations in respect of social and economic aspects	During the reporting year, the Group did not violate any laws and regulations in the social and economic aspects.

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A. Environmental		References or Remarks
Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	<ul style="list-style-type: none"> Chapter 8 – Green Development (P.64-81)
KPI A1.1	The types of emissions and respective emissions data.	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109) <p>The Group did not collect relevant air emissions data. We will explore the feasibility of disclosing this information in the future.</p>
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, and Energy Saving and Emissions Reduction (P.66, 73-77) Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
KPI A1.5	Description of measures to mitigate emissions and results achieved.	<ul style="list-style-type: none"> Chapter 8 – Green Development – Performance Highlights in 2019, Management Approach, and Energy Saving and Emissions Reduction (P.66-67, 73-77)
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives, and results achieved.	<ul style="list-style-type: none"> Chapter 8 – Green Development – Management Approach and Proper Management of Resources (P.66-67, 78-80)

A. Environmental		References or Remarks
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	<ul style="list-style-type: none"> Chapter 8 – Green Development (P.64-81)
KPI 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).	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Environmental Performance (P.104-109)
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	<ul style="list-style-type: none"> Chapter 8 – Green Development – Energy Saving and Emissions Reduction (P.73-77)
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	<ul style="list-style-type: none"> Chapter 8 – Green Development – Proper Management of Resources (P.78-80)
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	<ul style="list-style-type: none"> Chapter 8 – Green Development (P.64-81)
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	<ul style="list-style-type: none"> Chapter 8 – Green Development (P.64-81)

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B. Social		Disclosed Sections or Remarks
Aspect B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People (P.40-53)
KPI B1.1	Total workforce by gender, employment type, age group, and geographical region.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Performance Highlights in 2019 (P.42) Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
Aspect B2: Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach, and Occupational Safety and Health (P.43, 48-53)
KPI B2.1	Number and rate of work-related fatalities.	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
KPI B2.2	Lost days due to work injury.	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach, and Occupational Safety and Health (P.43, 48-53)
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach and Talent Training (P.43, 46-48)
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)
KPI B3.2	The average training hours completed per employee by gender and employee category.	<ul style="list-style-type: none"> Chapter 11 – Appendices – Key Performance Indicators – Workforce Statistics (P.96-103)

B. Social		Disclosed Sections or Remarks
Aspect B4: Labour Standard		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach (P.43)
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	<ul style="list-style-type: none"> Chapter 6 – Caring for our People – Management Approach (P.43)
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation (P.82-89)
KPI B5.1	Number of suppliers by geographical region.	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Performance Highlights in 2019 (P.84)
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	<ul style="list-style-type: none"> Chapter 9 – Win-win Cooperation – Management Approach and Responsible Procurement (P.84-86)
Aspect B6: Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	<ul style="list-style-type: none"> Chapter 7 – Customer First – Management Approach (P.58)
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	<ul style="list-style-type: none"> Chapter 7 – Customer First – Management Approach and Information Safety (P.58, 62)
Aspect B7: Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Governance (P.29-31)
KPI 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.	During the reporting year, the Group was not involved in any legal cases related to corruption.
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	<ul style="list-style-type: none"> Chapter 4 – About COSCO SHIPPING Ports – Corporate Governance (P.29-31)

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B. Social		Disclosed Sections or Remarks
Aspect 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.	<ul style="list-style-type: none"> Chapter 10 – Investing in Communities (P.90-95)
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	<ul style="list-style-type: none"> Chapter 10 – Investing in Communities (P.90-95)
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	<ul style="list-style-type: none"> Chapter 10 – Investing in Communities (P.90-95)

RELEVANT INITIATIVES ALIGNED WITH THE UNITED NATIONS SDGS

SDGs



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

The Group's Strategies and Initiatives

The Group emphasises on the education and training of our staff. The headquarters and the terminals offer learning and education opportunities to our employees and the communities based on their respective business needs and the practical situation of local communities.

Progress of relevant work is set out in:

- Chapter 6 – Caring for our People
- Chapter 10 – Investing in Communities



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

During the course of globalisation, the Group proactively seeks opportunities to invest in domestic and overseas projects, masters new technologies and merge them into our upstream and downstream businesses, as well as boosts the operational efficiencies and optimises the management of our terminals to promote economic growth in the industry.

The Group's human resources management focuses on diversity, equality and respects for principles of human rights. Our employees are provided with competitive remuneration and benefits, trainings and promotion opportunities, which form a healthy and safe workplace and ensure that all employees can develop together with the Group.

Progress of relevant work is set out in:

- Chapter 6 – Caring for Our People
- Chapter 9 – Win-win Cooperation



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

To facilitate innovation, the Group strengthens strategic cooperation with partners along the supply chain, focuses on developing digital "smart ports" to combine sustainable infrastructure and operations with high efficiency. Simultaneously, the Group promotes infrastructure for "green ports" development, aiming at achieving 'dual efficiencies' in both financial performance and environmental protection.

Progress of relevant work is set out in:

- Chapter 7 – Customers First
- Chapter 8 – Green Development

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SDGs



Take urgent action to combat climate change and its impact

The Group's Strategies and Initiatives

The Group regards "green ports" as its core, integrating concepts and the implementation of green development into our daily operations. It has introduced energy saving and emission reduction technologies and duly managed energy consumption, GHG emissions, and air pollution in order to achieve low carbon operations. To improve our terminals' capability to cope with the impact of climate change, the Group has also identified the changes and impacts that climate change may bring to our businesses and the regions in which we operate.

Progress of the relevant work is set out in:

- Chapter 8 – Green Development



Strengthen the means of implementation and revitalize the global partnership for sustainable development

The Group has established long-term strategic partnerships with the business partners along the supply chain to reinforce its leading position in the global ports and shipping supply chain. Leveraging on our strong terminal networks, we seize opportunities brought by global economic development and are committed to promoting balanced and sustainable growth in terms of the economic, environmental and social aspects of the whole supply chain through cost control, risk control and management, and synergy.

Progress of the relevant work is set out in:

- Chapter 7 – Customers First
- Chapter 9 – Win-win Cooperation
- Chapter 10 – Investing in Communities

BOUNDARY MAPPING OF MATERIAL TOPICS

For the purpose of determining the Group's key strategies more accurately, the following table outlines the major impacts of the material topics on different stakeholders of the Group:

Material Topics	Scope of impact – Impact beyond the Group's operations ⁶⁵					References
	Scope of impact – Impact within the Group's operations	Shareholders/ Investors	Suppliers	Customers	Surrounding communities and environment	
1 Compliance	✓	✓	✓	✓	✓	About COSCO SHIPPING Ports
2 High standards of corporate governance	✓	✓		✓		
3 Risk management	✓	✓	✓	✓		
4 Anti-corruption	✓	✓	✓	✓		
5 Building a team of excellence	✓	✓		✓		Caring for our People
6 Emphasis on talent training and development	✓	✓		✓	✓	
7 Maintaining a healthy and safe workplace	✓	✓		✓	✓	
8 Fostering a diversified and inclusive culture	✓	✓				
9 Optimising terminal operations	✓	✓		✓		Customers First
10 Improving quality of customer services	✓	✓		✓		
11 Deepening globalisation strategy	✓	✓				
12 Energy management and GHG emissions	✓	✓			✓	Green Development
13 Waste management	✓				✓	
14 Climate change	✓	✓		✓	✓	
15 Water resources and water quality management	✓	✓			✓	
16 Air quality	✓	✓			✓	
17 Improving staff's environmental awareness	✓	✓				
18 Responsible procurement	✓	✓	✓			Win-win Cooperation
19 Strengthening strategic cooperation	✓	✓	✓	✓		
20 Enhancing safety in outsourcing businesses	✓	✓	✓	✓		
21 Caring for local communities	✓	✓			✓	Investing in Communities
22 Responsible overseas investment	✓	✓		✓	✓	

Note:

65 The "tick" symbol indicates respective material topic and its relevance to respective stakeholder group.

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VERIFICATION STATEMENT



VERIFICATION STATEMENT

SCOPE AND OBJECTIVE

Hong Kong Quality Assurance Agency (“HKQAA”) was commissioned by COSCO SHIPPING Ports Limited (Stock Code: 1199) (“COSCO SHIPPING Ports”) to undertake an independent verification for the Sustainability Report 2019 (“the Report”). The Report stated the economic, safety, environmental and social performance of COSCO SHIPPING Ports in the period of 1st January 2019 to 31st December 2019 for its operations within Hong Kong and outside Hong Kong.

The aim of this verification is to provide a reasonable assurance on the reliability of the report contents. The Report has been prepared in accordance with the Core Option of the GRI Sustainability Reporting Standards (GRI Standards) and Appendix 27 “Environmental, Social and Governance Reporting Guide (“ESG Guide”)” of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited.

LEVEL OF ASSURANCE AND METHODOLOGY

The process applied in this verification was based on the International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance as set out in the standard for the purpose of devising the verification conclusion. The extent of this verification process undertaken covered the criteria set in the GRI Standards: Core Option and the ESG Guide.

The verification process included verifying the systems and processes implemented for collecting, collating and reporting the sustainability performance data, reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the reporting contents and verifying selected representative sample of data and information. Raw data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

INDEPENDENCE

COSCO SHIPPING Ports is responsible for the collection and presentation of the information presented. HKQAA does not involve in the collection and calculation of data or the compilation of the reporting contents where HKQAA’s verification activities were entirely independent from COSCO SHIPPING Ports. There was no relationship between HKQAA and COSCO SHIPPING Ports that would affect the independence of HKQAA for providing the verification service.

CONCLUSION

Based on the verification results and in accordance with the verification procedures undertaken, HKQAA has obtained reasonable assurance and is in the opinion that:

- The Report has been prepared in accordance with the GRI Standards: Core Option and the ESG Guide;
- The Report illustrates the sustainability performance of COSCO SHIPPING Ports, covering all material aspects, in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete.

Nothing has come to HKQAA attention that the selected sustainability performance information and data contained in the Report has not been prepared and presented fairly and honestly, in all material aspects, in accordance with the verification criteria. In conclusion, the Report reflects truthfully the sustainability commitments, policies and performance of COSCO SHIPPING Ports and the terminal companies, and discloses transparently their sustainability performance that is commensurate with their sustainability context and materiality.

Signed on behalf of Hong Kong Quality Assurance Agency

Ms. Meico Cheong
Assistant General Manager
16th March 2020

REPORT SURVEY QUESTIONNAIRE

Thank you for your interest in COSCO SHIPPING Ports' Sustainability Report 2019. Your feedback is important for our overall sustainability performance improvement and future reporting.

1. Which of the following best describes you or your relationship to COSCO SHIPPING Ports? (Please select only one)

- | | |
|--|---|
| <input type="checkbox"/> Shareholder | <input type="checkbox"/> Fund manager and investor |
| <input type="checkbox"/> Director | <input type="checkbox"/> Analyst |
| <input type="checkbox"/> Business Partner | <input type="checkbox"/> Employee |
| <input type="checkbox"/> Customer | <input type="checkbox"/> Governmental department |
| <input type="checkbox"/> Banker | <input type="checkbox"/> Trade and industry association |
| <input type="checkbox"/> Contractor and supplier | <input type="checkbox"/> Non-governmental organisation |
| <input type="checkbox"/> Media | <input type="checkbox"/> Other, please specify: |

2. How would you rate the content of COSCO SHIPPING Ports' Sustainability Report, in terms of quality and quantity of information? (5= Excellent, 1= Poor)

- 5 4 3 2 1

3. Please rate the content and quality of COSCO SHIPPING Ports' Sustainability Report according to the following criteria: (5= Excellent, 1= Poor)

- | | | | |
|---------------------------|--|---------------|--|
| Stakeholder Inclusiveness | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | Balance | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 |
| Clarity | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | Comparability | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 |
| Materiality/Relevance | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | Completeness | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 |
| Sustainability Context | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | Accuracy | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 |
| Transparency | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | Structure | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 |
| Design and layout | <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 | | |

4. Which aspect(s) of the report would you like to have more information on?

5. Please express any other opinion, comment or request with regards to COSCO SHIPPING Ports' Sustainability Report:

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Abbreviation	
Company Name	Abbreviation
China COSCO SHIPPING Corporation Limited	COSCO SHIPPING
China COSCO SHIPPING Corporation Limited and its subsidiaries	COSCO SHIPPING Group
COSCO SHIPPING Ports Limited	COSCO SHIPPING Ports or the Company
COSCO SHIPPING Ports Limited and its subsidiaries	the Group
COSCO SHIPPING Holdings Co., Ltd.	COSCO SHIPPING Holdings
COSCO SHIPPING Lines Co., Ltd.	COSCO SHIPPING Lines
Terminal Company	
Antwerp Gateway NV	Antwerp Terminal
Asia Container Terminals Limited	Asia Container Terminal
Beibu Gulf Port Co., Ltd.	Beibu Gulf Port
Busan Port Terminal Co., Ltd.	Busan Terminal
Conte-Rail, S.A.	Conte-Rail Terminal
COSCO-HIT Terminals (Hong Kong) Limited	COSCO-HIT Terminal
COSCO-PSA Terminal Private Limited	COSCO-PSA Terminal
COSCO SHIPPING Ports Chancay PERU S.A.	CSP Chancay Terminal
COSCO SHIPPING Ports (Spain) Holding, S.L. and its subsidiaries	CSP Spain Group
CSP Abu Dhabi Terminal L.L.C.	CSP Abu Dhabi Terminal
CSP Iberian Bilbao Terminal, S.L.	CSP Bilbao Terminal
CSP Iberian Rail Services, S.L.U.	CSP Rail Services Terminal
CSP Iberian Valencia Terminal, S.A.U.	CSP Valencia Terminal
CSP Iberian Zaragoza Rail Terminal, S.L.	CSP Zaragoza Rail Terminal
CSP Zeebrugge CFS NV	CSP Zeebrugge CFS
CSP Zeebrugge Terminal NV	CSP Zeebrugge Terminal
Dalian Automobile Terminal Co., Ltd.	Dalian Automobile Terminal
Dalian Dagang China Shipping Container Terminal Co., Ltd.	Dalian Dagang Terminal
Dalian Container Terminal Co., Ltd.	Dalian Container Terminal
Euromax Terminal Rotterdam B.V.	Euromax Terminal
Guangzhou South China Oceangate Container Terminal Company Limited	Guangzhou South China Oceangate Terminal
Jiangsu Yangtze Petrochemical Co., Ltd.	Jiangsu Petrochemical
Jinjiang Pacific Ports Development Co., Ltd.	Jinjiang Pacific Terminal
Jinzhou New Age Container Terminal Co., Ltd.	Jinzhou New Age Terminal
Kao Ming Container Terminal Corp.	Kao Ming Terminal
Kumport Liman Hizmetleri ve Lojistik Sanayi ve Ticaret A.Ş.	Kumport Terminal
Lianyungang New Oriental International Terminals Co., Ltd.	Lianyungang New Oriental Terminal
Nanjing Port Longtan Container Co., Ltd.	Nanjing Longtan Terminal

Abbreviation

Nantong Tonghai Port Co., Ltd.	Nantong Tonghai Terminal
Nansha Stevedoring Corporation Limited of Port of Guangzhou	Guangzhou Nansha Stevedoring Terminal
Ningbo Meishan Bonded Port New Harbour Terminal Operating Co., Ltd.	Ningbo Meishan Terminal
Ningbo Yuan Dong Terminals Limited	Ningbo Yuan Dong Terminal
Piraeus Container Terminal S.A.	Piraeus Terminal
Qingdao Port Dongjiakou Ore Terminal Co., Ltd.	Dongjiakou Ore Terminal
Qingdao Port International Co., Ltd.	QPI
Qinhuangdao Port New Harbour Container Terminal Co., Ltd.	Qinhuangdao New Harbour Terminal
Qinzhou International Container Terminal Co., Ltd.	Qinzhou International Terminal
Quan Zhou Pacific Container Terminal Co., Ltd.	Quan Zhou Pacific Terminal
Reefer Terminal S.p.A.	Vado Reefer Terminal
Shanghai Mingdong Container Terminals Limited	Shanghai Mingdong Terminal
Shanghai Pudong International Container Terminals Limited	Shanghai Pudong Terminal
SSA Terminals (Seattle), LLC	Seattle Terminal
Suez Canal Container Terminal S.A.E.	Suez Canal Terminal
Taicang International Container Terminal Co., Ltd.	Taicang Terminal
Tianjin Five Continents International Container Terminal Co., Ltd.	Tianjin Five Continents Terminal
Tianjin Port Container Terminal Co., Ltd.	Tianjin Container Terminal
Tianjin Port Euroasia International Container Terminal Co., Ltd.	Tianjin Euroasia Terminal
Wuhan CSP Terminal Co., Ltd.	CSP Wuhan Terminal
Xiamen Ocean Gate Container Terminal Co., Ltd.	Xiamen Ocean Gate Terminal
Yangzhou Yuanyang International Ports Co., Ltd.	Yangzhou Yuanyang Terminal
Yantian International Container Terminals (Phase III) Limited	Yantian Terminal Phase III
Yantian International Container Terminals Co., Ltd.	Yantian Terminal Phases I & II
Yingkou Container Terminals Company Limited	Yingkou Container Terminal
Yingkou New Century Container Terminal Co., Ltd.	Yingkou New Century Terminal
Zhangjiagang Win Hanverky Container Terminal Co., Ltd.	Zhangjiagang Terminal

Others

Twenty-foot equivalent unit	TEU
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